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April 26, 2022

KPG, Inc.
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Attention: Olivia Paraschiv, PE

Subject: Critical Areas Assessment
3rd Avenue NE Reconstruction
Duvall, Washington
File No. 8258-026-00

INTRODUCTION

GeoEngineers, Inc. (GeoEngineers) was subcontracted by KPG, Inc. (KPG) to provide environmental permitting support for the 3rd Avenue NE Reconstruction project in Duvall, Washington. The project proposes roadway and streetscape improvements to the 3rd Avenue NE road corridor between 143rd Place and NE Stephens Street (Figure 1, Vicinity Map). Improvements may include but are not limited to addition of sidewalks, bike lanes, turn lanes, other pedestrian crossing and traffic flow improvements, associated stormwater management, curbs and drains. The project will also include replacement of the existing undersized culvert at Coe-Clemons Creek with a fish passable culvert design.

This letter report (report) was prepared in support of the State Environmental Policy Act (SEPA) environmental permitting process to address sensitive areas that may occur within the project limits and/or adjacent parcels. Specifically, this report addresses potential Waters of the U.S. that may be regulated in accordance with the Federal Clean Water Act, Waters of the State regulated under the Washington State Hydraulic Code Rules (Chapter 220-660 Washington Administrative Code [WAC]) and Sensitive Areas regulated as part of Duvall Municipal Code (DMC) Chapter 14.42, which include wetlands, fish and wildlife habitat conservation areas (FWHCAs), frequently flooded areas and critical aquifer recharge areas. This report does not address Geologically Hazardous Areas (DMC Chapter 14.42.400) or federal Endangered Species Act (ESA); however, DMC 14.42.300, Fish and Wildlife Habitat Conservation Areas – Designation, Mapping and Classification, references species listed under the federal ESA within the City of Duvall.

METHODS

To complete this Critical Areas Assessment, GeoEngineers first reviewed publicly available maps and data, including: the U.S. Department of Interior, Fish and Wildlife Service (USFWS) List of Threatened and

Endangered Species that may Occur in Your Proposed Project Location, and/or May Be Affected by Your Proposed Project (USFWS 2021a); the USFWS National Wetland Inventory (NWI) maps (USFWS 2021b); the U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) Web Soil Survey Map (USDA-NRCS 2021); the Washington Department of Fish and Wildlife (WDFW) Priority Habitats and Species (PHS) maps of the project area (WDFW 2021); WDFW SalmonScape mapping database (WDFW 2022); Northwest Indian Fisheries Commission (NWIFC) Statewide Integrated Fish Distribution (SWIFD) data base (NWIFC 2022); Washington Department of Natural Resources (WDNR) Forest Practices Application Review System (FPARS; WDNR 2021a); the WDNR Natural Heritage Program Rare Plants database (WDNR 2021b); and City of Duvall Fish Distribution, Priority Habitats and Critical Aquifer Recharge Area (CARA) maps (City of Duvall 2006). Mapping Source and Data Printouts are included in Appendix A, Mapping Source and Data Printouts.

After completing the data review, a GeoEngineers' biologist and Professional Wetland Scientist (PWS) completed a site visit on October 27, 2021, to investigate presence or absence of wetlands, waterbodies and/or fish and wildlife habitats within the project corridor. Wetlands were assessed based on methods and protocols from the federal manuals (Environmental Laboratory 1987; USACE 2010). Waterbodies were evaluated based on presence or absence of an ordinary high water mark (OHWM), based on federal and state guidelines (Riley 2005; Anderson et al. 2016). Other wildlife habitats were evaluated based on species associations as described in federal listing documents or other summary sources.

The project will require widening of the roadway section, which may potentially require right-of-way (ROW) acquisition. Culvert replacement may require stream channel alteration up to approximately 100 feet in either direction upstream and downstream from the crossing. At the time of our site visit, right-of-entry was available within the public ROW associated with 3rd Avenue NE and the stream channel associated with Coe-Clemons Creek, which is located partially within road ROW, adjacent private parcels and a large parcel owned by the City of Duvall, which also includes a public park (Taylor Park). Other adjacent properties, some of which may be subject to ROW acquisition for the project, were visually assessed from the road ROW. Therefore, our critical areas assessment included detailed investigation within the road ROW and the Coe-Clemons Creek channel 100 feet in either direction upstream and downstream from the crossing, as well as "over-the-fence" observations of adjacent properties that could potentially be affected by the project.

FINDINGS

Wetlands

There were no wetlands identified in any of the wetland data resources we reviewed for the project vicinity and no wetlands were documented within the detailed assessment area during our reconnaissance. There is one potential wetland area on an adjacent parcel, but confirmation of wetland parameters requiring observations of soils, hydrology and other observations were not possible from the road ROW. This parcel is undeveloped with mostly native vegetation and appears to contain a concave interior, potentially indicating a low area where water could pond. Based on vegetation observed from the ROW, which included a forested overstory of red alder (*Alnus rubra*; Facultative [FAC]) with an understory dominated by vine maple (*Acer circinatum*; FAC) and sword fern (*Polystichum munitum*; Facultative upland [FACU]), it is believed this area would not be considered a wetland, but the interior of the parcel was not accessed and the presence/absence of wetland parameters could not be verified.

The parcel in question is identified on Figure 2, Project Overview. If the project proposes ROW acquisition affecting this adjacent parcel, further wetland investigation may be necessary. If wetland conditions are verified at this location, it is assumed based on the small size of the parcel that the wetland buffer would extend to the edge of the existing developed roadway, which includes an existing sidewalk at this location.

Waters of the U.S. and Waters of the State

Waters of the U.S. and Waters of the State may include wetlands (discussed in the preceding section), streams and lakes, marine waters and/or jurisdictional ditches. There are no lakes or marine waters within the review area.

Coe-Clemons Creek crosses the project corridor via an existing 36-inch corrugated metal pipe (CMP) culvert. This crossing will be replaced as part of the project. The OHWM of Coe-Clemons Creek was delineated approximately 100 feet in either direction upstream and downstream of the 3rd Avenue NE road crossing (Figure 3, Stream Detail).

Photos, clockwise from top left: Coe-Clemons Creek upstream of crossing, with 3rd Avenue road fill prism visible in background; culvert inlet on east (upstream) side of road fill; culvert outlet on west (downstream) side of road fill; Coe-Clemons Creek viewed downstream from roadway.

There is also a system of roadside stormwater ditches and swales associated with 3rd Avenue and cross-streets in the southern portion of the project (south of Kennedy Drive). These ditches are typically grass-lined swales constructed as part of the roadway drainage system and most of them lacked flow during the site reconnaissance. None of the roadside ditches are believed to be jurisdictional as a Water of the U.S.

or Water of the State because they were constructed in an upland area to convey stormwater runoff and do not drain any previously existing or extant wetland or stream areas. The ditches are not included in any mapping resources that we reviewed. However, the final determination for jurisdictional status of ditches that may be modified by the project will be made by the U.S. Army Corps of Engineers (USACE) and WDFW during permit review.

There were no roadside ditches in the north portion of the corridor, north of the Coe-Clemons Creek crossing.

Photos, clockwise from top left: typical roadside grass-lined ditch in southern portion of project; typical roadside conditions with curb on west (right) and ditch on east (left) in southern portion of project; typical roadside conditions without ditches in northern portion of project; typical roadside conditions without ditches in northern portion of project.

Fish and Wildlife Habitat Conservation Areas (FWHCAs)

According to DMC 14.42.300, FWHCAs include streams, naturally occurring ponds under 20 acres, City-designated fish and wildlife habitat corridors, Waters of the State, State natural area preserves and natural resource conservation areas, areas with which species listed under the Federal ESA have a primary association, and state priority habitats and areas associated with state priority species.

As a delineated stream, Water of the U.S. and Water of the State, Coe-Clemons Creek meets the criteria as a FWHCA under the DMC. Coe-Clemons Creek is also identified on the City of Duvall Priority Habitats and Species Map (2006).

Coe-Clemons Creek is identified as a Type F (fish-bearing) stream. DMC 14.42.310 distinguishes between Type F – Salmon-Bearing and Type F – Fish-Bearing streams. Based on the WDFW PHS and other mapping databases, although the lower reaches of Coe-Clemons Creek may support salmon, anadromous salmon are not known to access the portion of the stream within the project area. However, resident salmonids may utilize portions of the stream within the project area and, furthermore, the stream may provide potential habitat for anadromous salmon, particularly following recent correction of the culvert barrier at State Route (SR) 203. Therefore, the creek would be considered Type F – Salmon-Bearing for the purposes of this project, requiring a 125-foot stream buffer. A number of conservation measures and performance standards are identified within DMC 14.42.310, which apply to the reach between SR 203 and 3rd Avenue NE and/or the reach upstream of 3rd Avenue NE.

TABLE 1. COE-CLEMONS CREEK

Basic Information	
Water Resources Inventory Area	7 – Snoqualmie-Skykomish
Local Jurisdiction	City of Duvall
DNR Stream Type	F[1]
DMC Stream Type	F – Fish-Bearing[2]
Buffer Width	125 feet[3]
Seasonality	Perennial
Habitat Characteristics	
Documented Fish Use	No documented fish use according to any of the public mapping resources consulted; potential for Coho Salmon (*Oncorhynchus kisutch*), Steelhead (*Oncorhynchus mykiss*), sea-run Cutthroat Trout (*Oncorhynchus clarkii*), resident trout, and Bull Trout (*Salvelinus confluentus*), particularly with barrier correction, according to WDFW (2019), although no fish were observed during the Reduced Sample Full Survey (RSFS) completed in 2010 nor during GeoEngineers' fieldwork.
Connectivity	Flows into Snoqualmie River approximately 3,000 feet to the west; two water crossings downstream are both fish passable.
Riparian/Buffer Condition	Stream flows through a vegetated ravine with intact bigleaf maple (*Acer macrophyllum*) forest with native shrub understory. Dominant species include bigleaf maple, Western redcedar (*Thuja plicata*), red alder (*Alnus rubra*), Western hemlock (*Tsuga heterophylla*), beaked hazelnut (*Corylus cornuta*), red elderberry (*Sambucus racemosa*), vine maple (*Acer circinatum*), sword fern (*Polystichum munitum*) and lady fern (*Athyria felix-femina*). Invasive plant species observed, including Himalayan blackberry (*Rubus armeniacus*), are minimal and typically limited to disturbed forest edges. Adjacent development is mostly residential.

Habitat Characteristics	
Channel Description	In the vicinity of the project, Coe-Clemons Creek provides potential habitat for resident and anadromous salmonids. Accessibility of stream habitat upstream of the 3rd Avenue culvert is currently limited due to the insufficiently sized culvert representing a 0 percent passable barrier according to WDFW (2019). Replacement of the culvert would improve access to 200 feet of upstream habitat to the next barrier at NE Kennedy Drive, which is 33 percent passable, and beyond. A prior assessment of Coe-Clemons Creek did not identify any anadromous species utilization in the two reaches immediately upstream or downstream of 3rd Avenue NE (WSDOT 2012). Upstream of the crossing, stream gradient averages approximately 3.5 percent and stream morphology is pool-riffle. Pools typically do not span the channel width but instead are limited to channel margins associated with tree roots or large woody material (LWM). Substrate consists of medium gravels with cobble and pockets of smaller gravels and fine sediments. Bank conditions are generally unmodified, except at the road prisms at the culvert under 3rd Avenue NE as well as the upstream culvert under NE Kennedy Drive, and some undercut banks are present, associated with steeper bank slopes, roots of living trees and pieces of LWM. Downstream of the crossing, stream gradient is estimated at approximately 8 percent and morphology is step-pool with occasional cascades. Bank erosion is present, including several sections with vertical banks 7 to 12 feet tall where stream flow is directed right at the bank. There are a number of hydraulic drops of both natural and artificial origin that may potentially be fish passage barriers at low flows. Pools are limited in size and scale, typically not spanning the width of the stream but instead being associated with tree roots or LWM. Limited appropriate spawning substrate for any species was observed in this reach with substrate dominated by cobbles, larger gravel and some angular rock (quarry spalls and riprap).

Notes:

1. Stream type according to WDNR (2021).
2. DMC 14.42.310.
3. DMC 14.42.310.

Based on our site observations and the data sources we reviewed, there are no naturally occurring ponds, state natural area preserves, natural resource conservation areas, state priority habitats or areas associated with state priority species within the project corridor.

The following species protected under the Federal ESA are identified by the USFWS (2021) as potentially occurring within the project vicinity; none of these species is anticipated to occur within the project corridor based on the following rationale:

- **Marbled Murrelet (*Brachyramphus marmoratus*).** This species was included in the USFWS ESA list but was not included in the project vicinity according to WDFW PHS mapping. Site reconnaissance did not reveal any suitable habitat for this species, which typically utilizes marine areas for foraging and old growth or mature forests for nesting.
- **Streaked Horned Lark (*Eremophila alpestris strigata*).** This species was included in the USFWS ESA list but was not included in the project vicinity according to WDFW PHS mapping. Site

reconnaissance did not reveal any suitable habitat for this species, which typically utilizes native prairie habitat or large grassy areas associated with airports.

- **Yellow-billed Cuckoo (*Coccyzus americanus*).** This species was included in the USFWS ESA list but was not included in the project vicinity according to WDFW PHS mapping. Site reconnaissance did not reveal any suitable habitat for this species, which typically utilizes uninterrupted shrub riparian areas, typically dominated by willows. There could be some suitable habitat for this species downstream along Cloe Clemmons Creek within the Snoqualmie River floodplain, but this species is extremely rare in Washington and forested areas at the project site are dominated by bigleaf maple (*Acer macrophyllum*) forest.
- **Oregon Spotted Frog (*Rana pretiosa*).** The project site is within the known range of this species but not within designated critical habitat for the species. Oregon spotted frogs are aquatic and require perennial springs, ponds, lakes, sluggish streams, irrigation canals or roadside ditches to carry out their life history requirements. Coe-Clemons Creek is the only perennial waterbody within the review area, and it has a relatively steep gradient without significant pools or ponding. Therefore, it is not considered a habitat that would be associated with this species.
- **Bull Trout (*Salvelinus confluentus*).** This species was included in the USFWS ESA list but was not included in the project corridor according to WDFW PHS mapping, although it is identified in lower reaches of Coe-Clemons Creek. WDFW (2019) identifies Coe-Clemons Creek as providing potential habitat for Bull Trout, but there is no documented use by this species in any of the resources we consulted.

In addition, the following species is protected under the ESA under the jurisdiction of the National Marine Fisheries Service (NMFS):

- **Steelhead (*Oncorhynchus mykiss*).** This species is not identified as occurring in Coe-Clemons Creek at all according to the WDFW PHS (WDFW 2021) and City of Duvall Fish Distribution (City of Duvall 2006) databases; however, the WDFW SalmonScape and SWIFD mapping databases (NWIFC 2022, WDFW 2022) do identify this species in lower reaches of Coe-Clemons Creek, though not as far upstream as the project site. WDFW (2019) identifies Coe-Clemons Creek as providing potential habitat for steelhead, but there is no documented use by this species in the project reach.

Frequently Flooded Areas

No part of the project corridor, including Coe-Clemons Creek, is included as a regulated special flood hazard area according to the Federal Emergency Management Agency (FEMA 2020) nor on the City of Duvall Flood Plains Map (2006). Therefore, there are no Frequently Flooded Areas regulated under DMC Chapter 14.42.500.

Critical Aquifer Recharge Areas

No part of the project corridor is included within a Critical Aquifer Recharge Area according to the City of Duvall (2006) map.

SUMMARY

A summary of our findings is included in Table 2, below.

TABLE 2. SUMMARY OF FINDINGS

Name	Location	Type	Required Buffer
Coe-Clemons Creek	Road crossing between Park Street and NE Kennedy Drive	Type F Salmon-Bearing Stream; Water of the U.S.; Water of the State; FWHCA	125 feet
Potential Wetland	Offsite west of road south of NE 144th Place (Parcel 872430T997)	Potential Wetland	Not assessed

Based on our review of available data and site reconnaissance to observe and document critical areas within and adjacent to the project corridor, the only known Critical Area within the project corridor is Coe-Clemons Creek, which is a Type F – Salmon-Bearing Stream, requiring a 125-foot stream buffer. There is also one potential offsite wetland area on an adjacent parcel that could not be verified from the road ROW. Roadside ditches within the project extent are not believed to be jurisdictional as Waters of the U.S. or Waters of the State, but the final jurisdictional determinations will be made by regulatory agencies.

Roadway widening and replacement of the culvert at Coe-Clemons Creek will require permits and/or reviews from the USACE, WDFW, Washington State Department of Ecology (Ecology) and City of Duvall Planning Department. Federal permit requirements will also trigger other National Environmental Policy Act (NEPA) elements, potentially including ESA and National Historic Preservation Act approvals. Modification of the potentially jurisdictional ditch to accommodate changes to the roadway section may also be subject to the same permit reviews.

If ROW acquisition and/or roadway expansion impacts the adjacent parcel with a potential wetland, further wetland assessment and review may be required. If wetland parameters are verified at this location, it is not anticipated that the project would require wetland fill; however, impacts to the vegetated buffer of the potential wetland would need to be mitigated and approved by the City of Duvall in compliance with the Sensitive Areas code (DMC 14.42).

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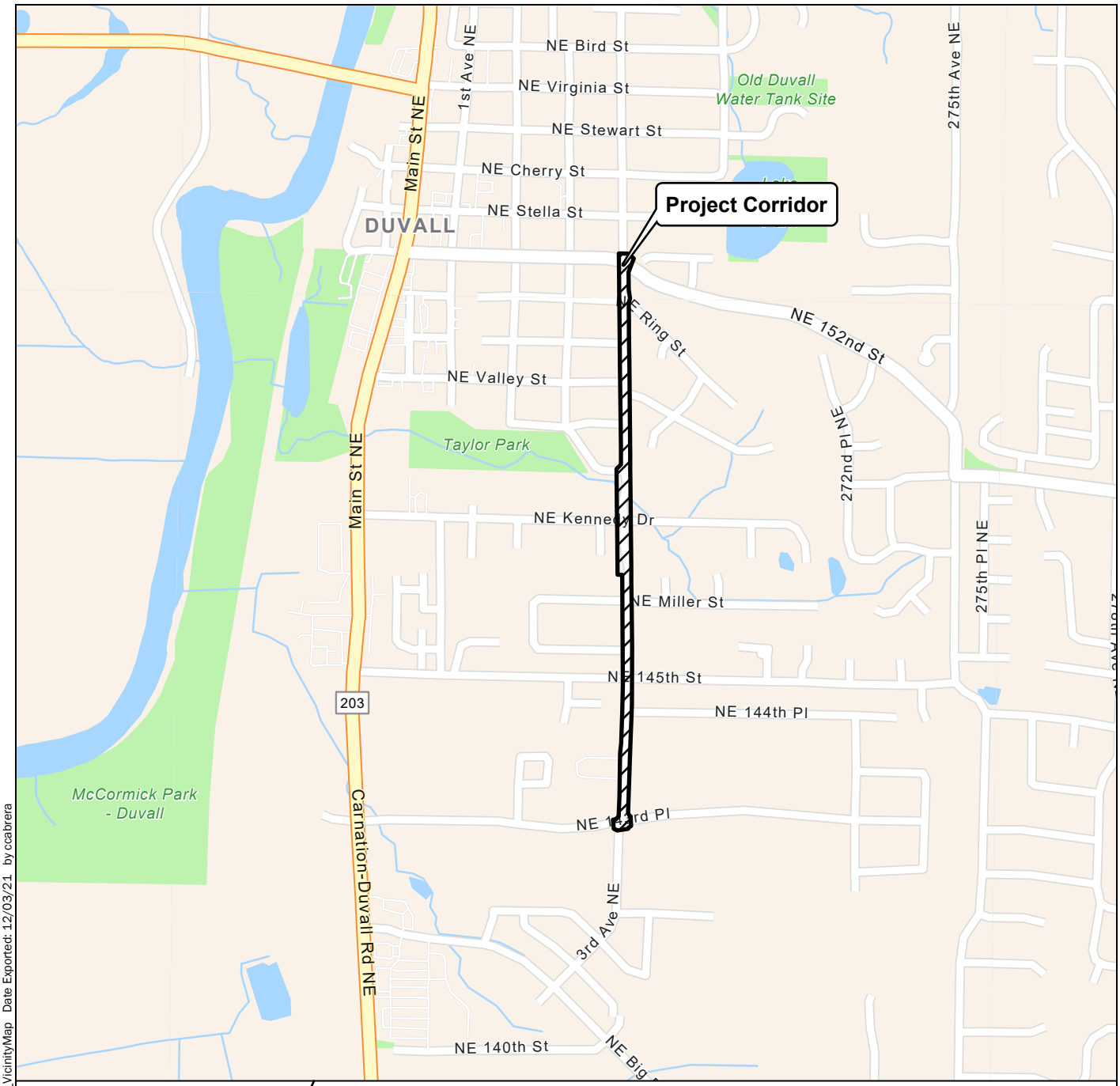
Sincerely,
GeoEngineers, Inc.

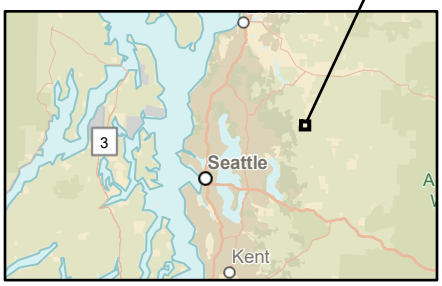
David B. Conlin, MA, PWS
Senior Biologist

John T. Monahan, MS, FP-C
Principal Fisheries Biologist

DBC:JTM:tlm

Attachments:
Figure 1. Vicinity Map
Figure 2. Project Overview
Figure 3. Stream Detail
Appendix A. Mapping Source and Data Printouts





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Feet

Vicinity Map

3rd Ave NE Reconstruction
Duvall, Washington

GeoEngineers

Figure 1

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: ESRI

Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

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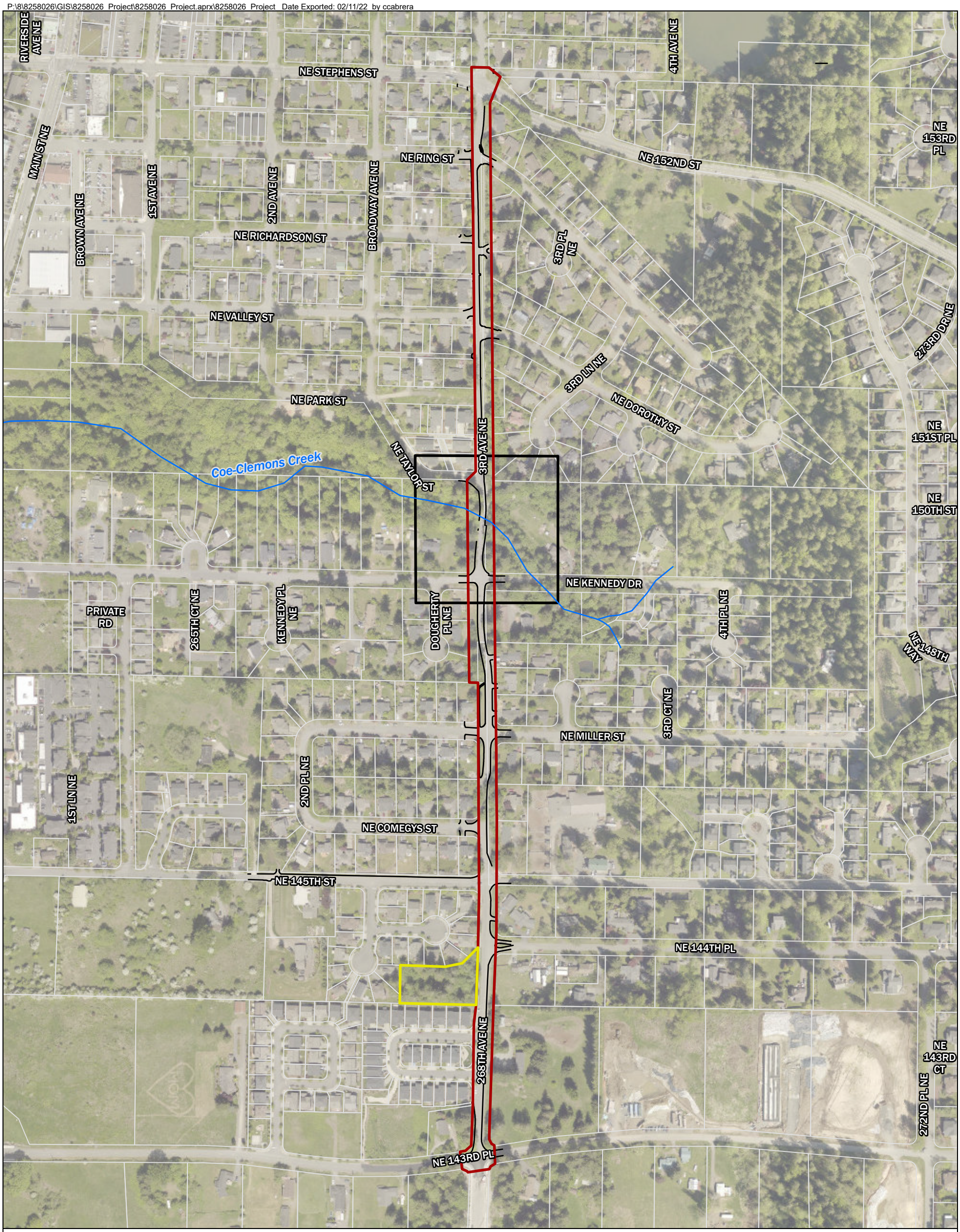

Legend

- Property Potentially Encumbered by Off-Site Wetland
- Coe-Clemons Creek Crossing (see Figure 3 Detail)
- Existing Road Right-of-Way Limits (Approx.)

N
W E
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300 0 300

Feet

Project Overview

3rd Ave NE Reconstruction
Duvall, Washington

GeoEngineers

Figure 2

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Parcel, road and 2019 imagery from King County GIS.

Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

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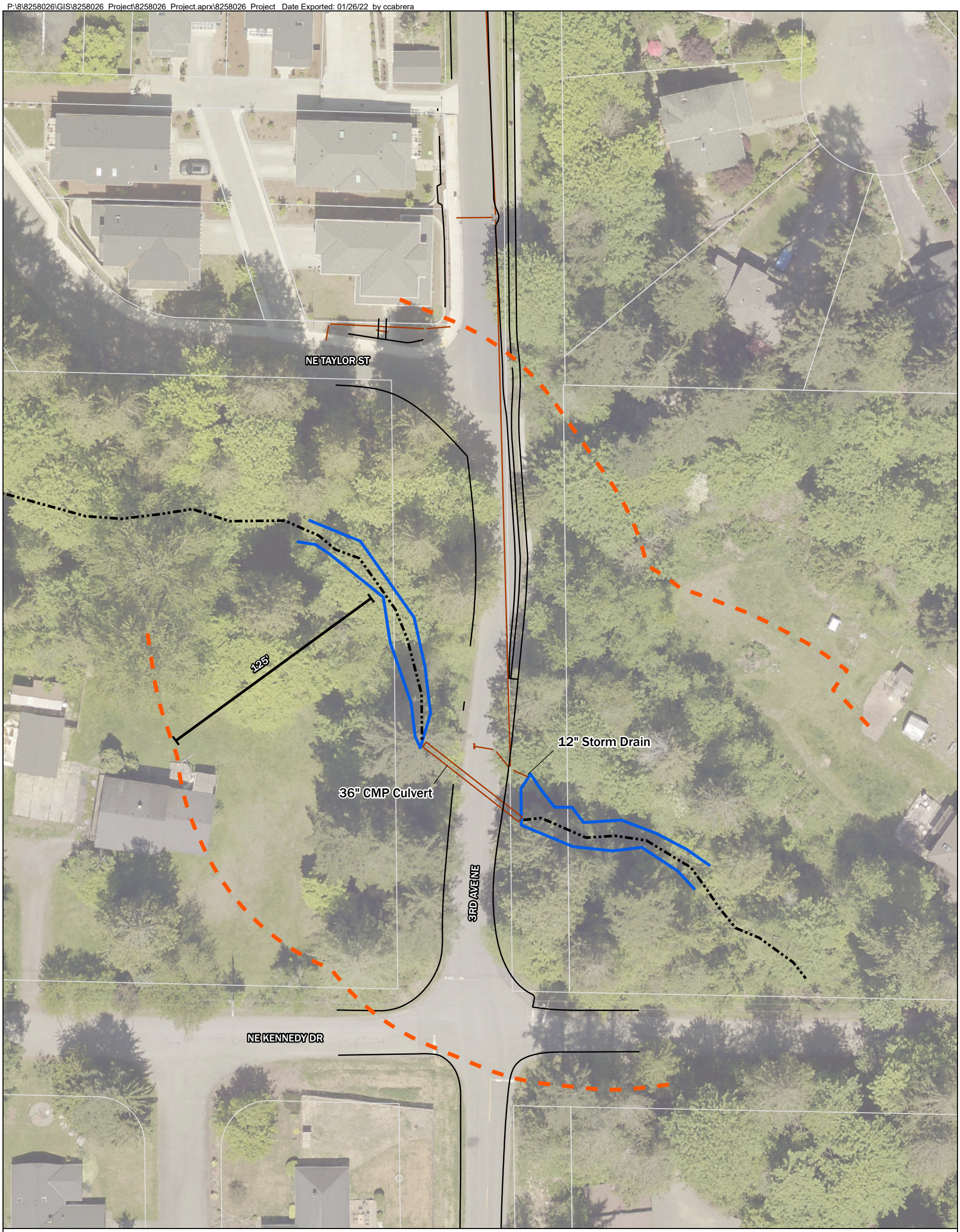


Legend

- Stream Centerline
- OHWM
- Stream Buffer (125-ft)
- Culvert and Piping
- Pavement/Asphalt

N
W E
S

50 0 50

Feet

Stream Detail

3rd Ave NE Reconstruction
Duvall, Washington

GeoEngineers

Figure 3

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: 2019 King County Imagery.

Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

APPENDIX A
Mapping Source and Data Printouts

Soil Map—Snoqualmie Pass Area, Washington (Parts of King and Pierce Counties)
(Duvall 3rd Avenue NE)

Map Scale: 1:5,130 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 200 400 800 1200

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Snoqualmie Pass Area, Washington (Parts of King and Pierce Counties)
Survey Area Data: Version 23, Aug 31, 2021

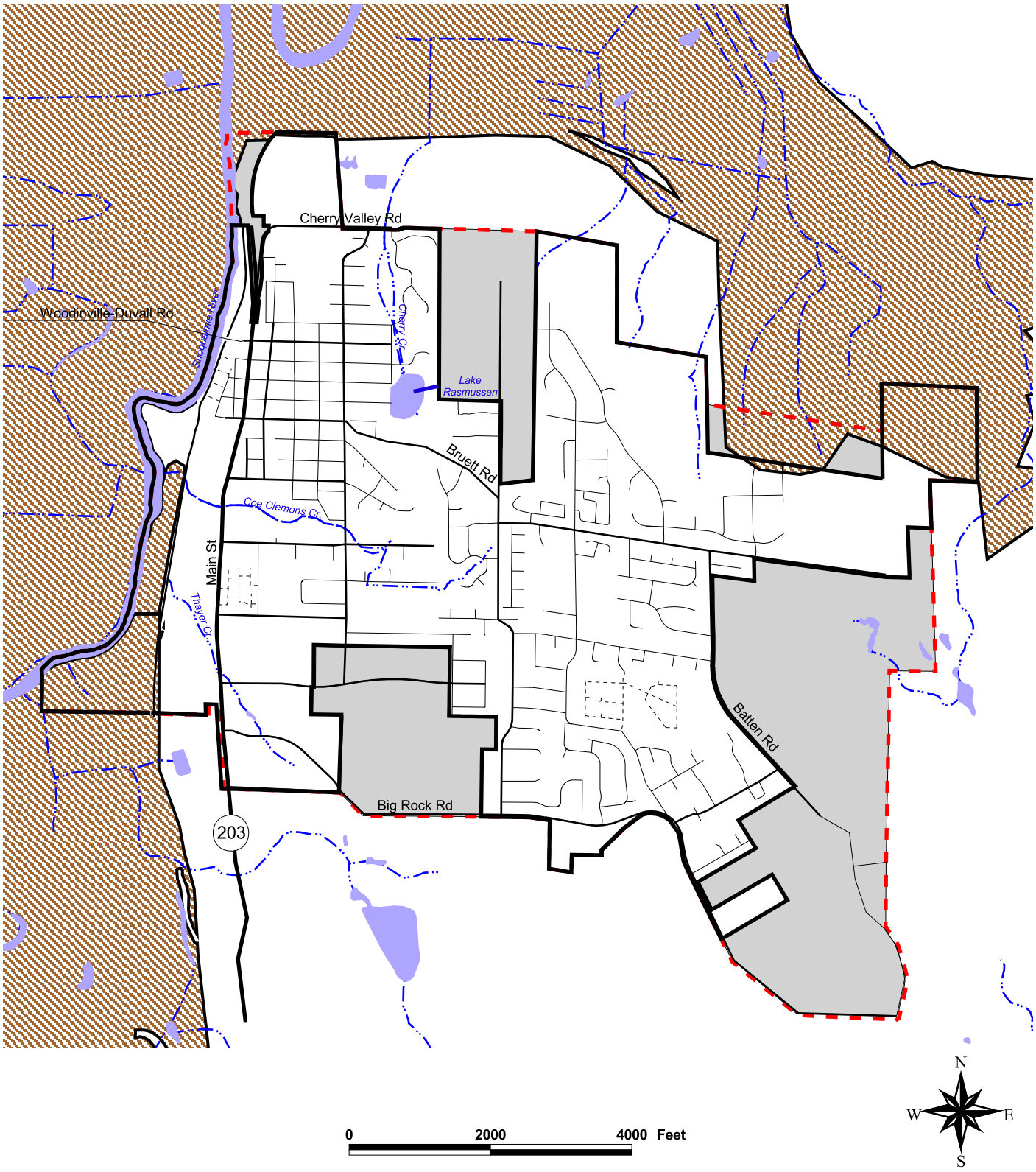
Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 22, 2019—Jul 29, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
255	Tokul gravelly medial loam, 8 to 15 percent slopes	15.0	100.0%
268	Vailton silt loam, 8 to 30 percent slopes	0.0	0.0%
Totals for Area of Interest		**15.0**	**100.0%**



LEGEND

- City Limit
- UGA Boundary
- Waterbody
- Streams

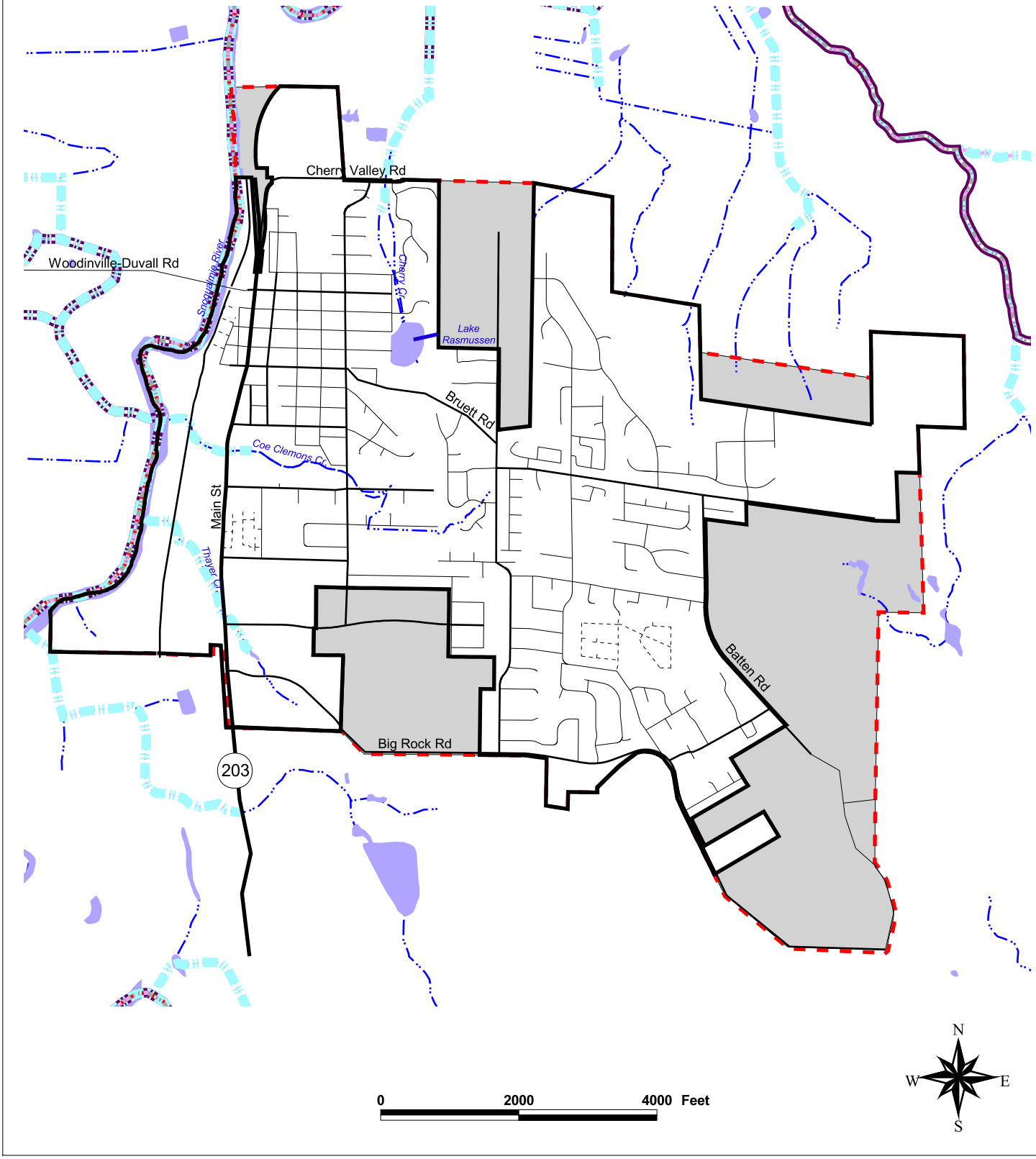
Critical Aquifer Recharge Areas

- Medium Susceptibility
- Urban Growth Area

Figure 5
Critical Aquifer Recharge Areas

City of Duvall
Small Town. Real Life.

F:\PLANNING\GIS\PROJCTS\2005 CAO MAPS.APR, Data Source: King County GIS, City of Duvall



LEGEND

- City Limit
- UGA Boundary

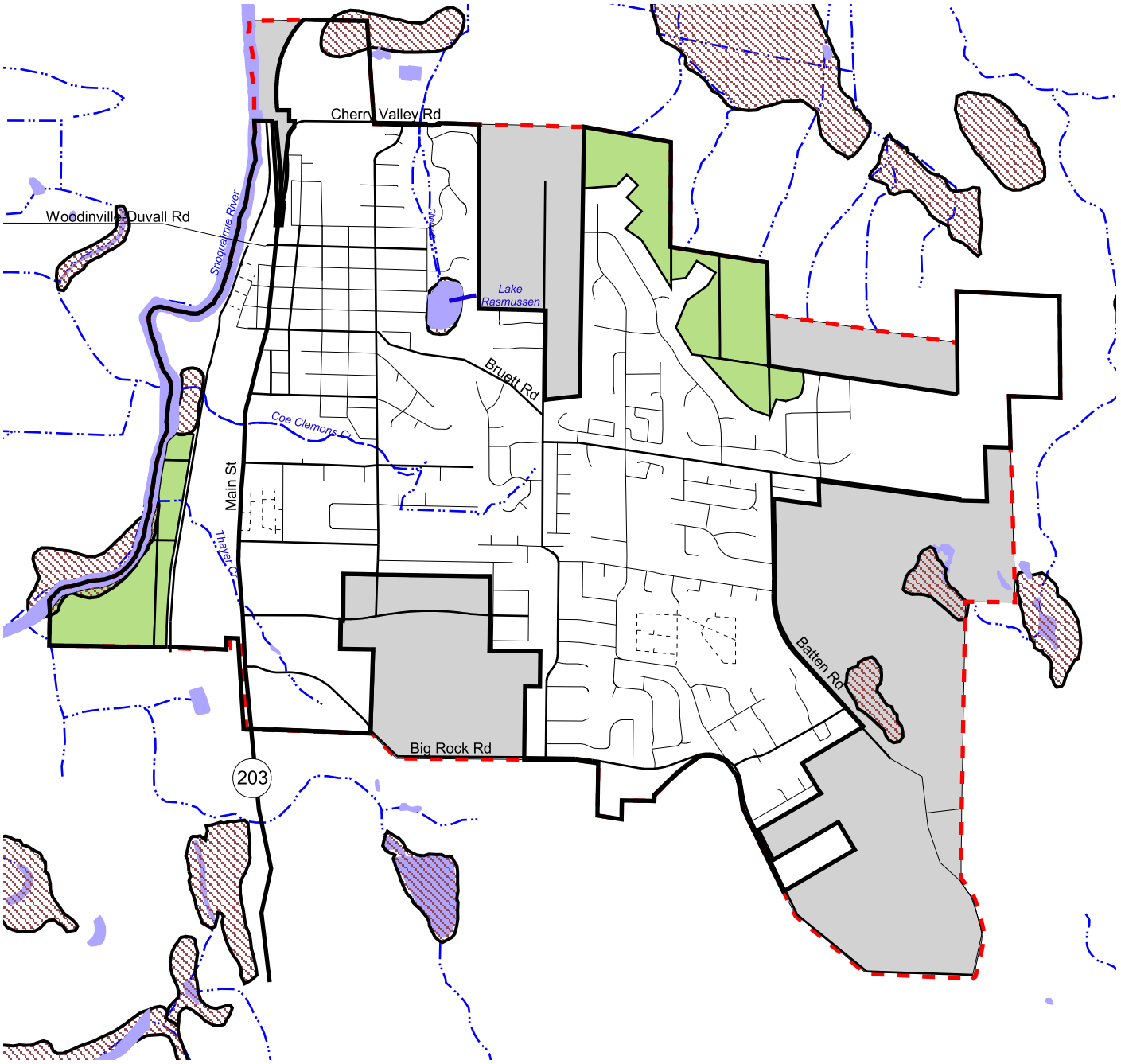
Fish Distribution

- Steelhead
- Pink
- Coho
- Chum
- Chinook
- Waterbody
- Streams
- Urban Growth Area

Figure 6
Fish Distribution

City of Duvall
Small Town. Real Life.

F:\PLANNING\GIS\PROJCTS\2005 CAO MAPS.APR, Data Source: Washington Department of Fish and Wildlife, King County GIS, City of Duvall



LEGEND

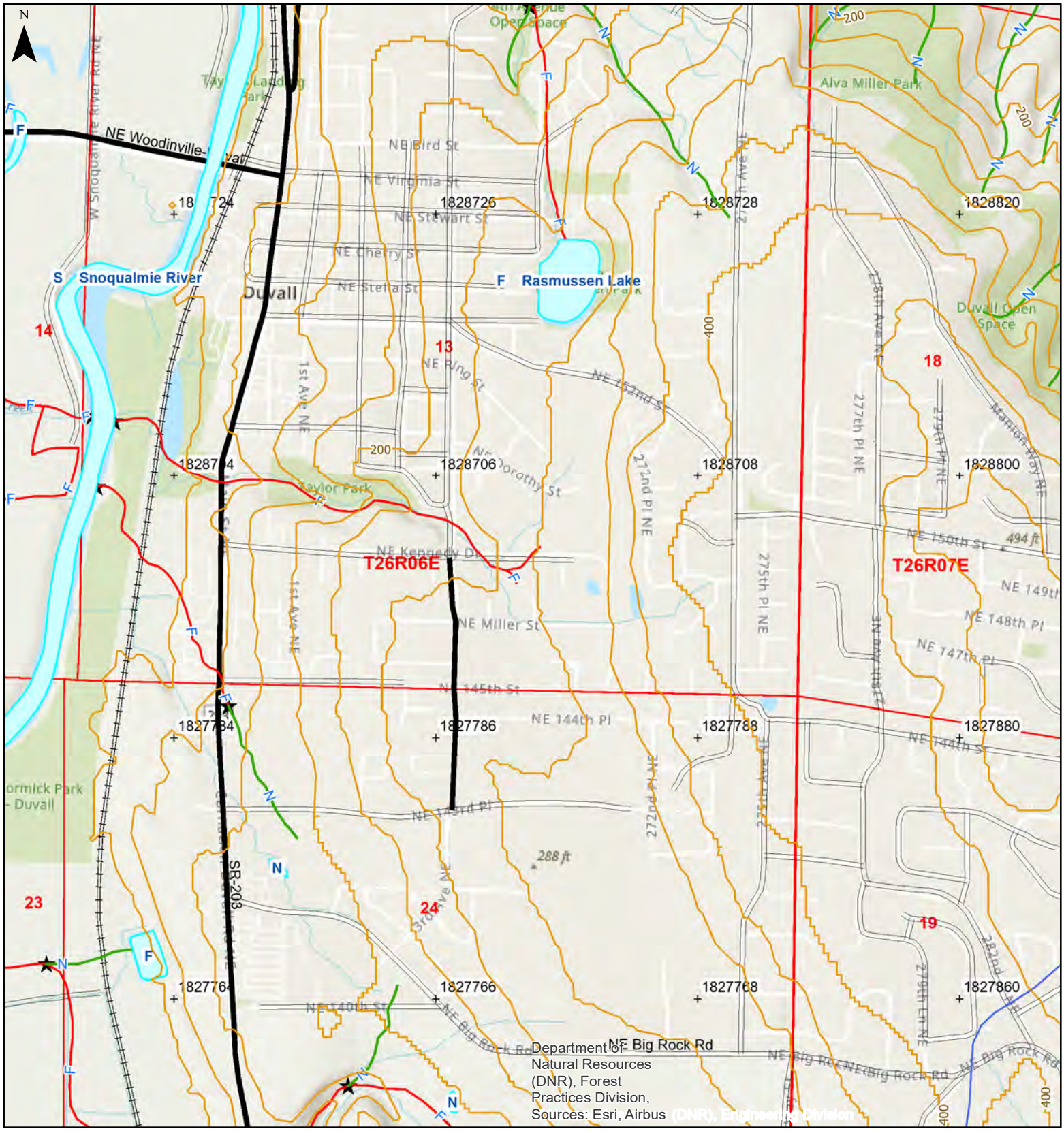
- City Limit
- UGA Boundary
- Riparian Zones
- Waterbody
- Natural Open Space
- Urban Growth Area
- Streams

Figure 2
Priority Habitats and Species

City of Duvall
Small Town. Real Life.

F:\PLANNING\GIS\PROJCTS\2005 CAO MAPS.APR, Data Source: Washington Department of Fish and Wildlife, King County GIS, City of Duvall

Forest Practices Activity Map - Application #_____



Department of Natural Resources (DNR), Forest Practices Division, Sources: Esri, Airbus (DNR), Engineering Division

Map Symbols

- Harvest Boundary
- Road Construction
- Stream
- RMZ / WMZ Buffers
- Rock Pit
- Landing
- Waste Area
- Clumped WRTS/GRTS
- Existing Structure

Additional Information

Legal Description

S19 T26.0N R07.0E, S24 T26.0N R06.0E
S18 T26.0N R07.0E, S23 T26.0N R06.0E
S14 T26.0N R06.0E, S13 T26.0N R06.0E

WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES

Extreme care was used during the compilation of this map to ensure its accuracy. However, due to changes in data and the need to rely on outside information, the Department of Natural Resources cannot accept responsibility for errors or omissions, and therefore, there are no warranties that accompany this material.

0 0.25 Miles

Date: 10/29/2021 Time: 12:00:54 PM

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

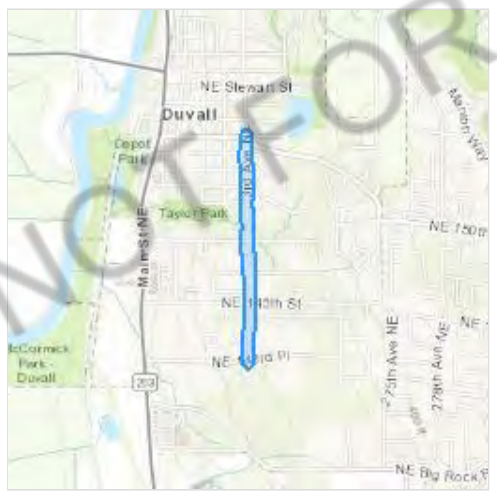
Project information

NAME

Duvall 3rd Avenue NE Reconstruction

LOCATION

King County, Washington



DESCRIPTION

Some(Streetscape improvements and culvert replacement)

Local office

Washington Fish And Wildlife Office

(360) 753-9440
(360) 753-9405

510 Desmond Drive Se, Suite 102
Lacey, WA 98503-1263

http://www.fws.gov/wafwo/

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Log in to IPaC.
2. Go to your My Projects list.
3. Click PROJECT HOME for this project.
4. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Birds

NAME	STATUS

Marbled Murrelet Brachyramphus marmoratus — Threatened

There is **final** critical habitat for this species. The location of the critical habitat is not available.
http://ecos.fws.gov/ecp/species/4467

Streaked Horned Lark Eremophila alpestris strigata — Threatened

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.
http://ecos.fws.gov/ecp/species/7268

Yellow-billed Cuckoo Coccyzus americanus — Threatened

There is **final** critical habitat for this species. The location of the critical habitat is not available.
http://ecos.fws.gov/ecp/species/3911

Amphibians

NAME	STATUS

Oregon Spotted Frog Rana pretiosa — Threatened

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.
http://ecos.fws.gov/ecp/species/6633

Fishes

NAME	STATUS

Bull Trout Salvelinus confluentus — Threatened

There is **final** critical habitat for this species. The location of the critical habitat is not available.
http://ecos.fws.gov/ecp/species/8212

Insects

NAME	STATUS

Monarch Butterfly Danaus plexippus — Candidate

Wherever found

No critical habitat has been designated for this species.
http://ecos.fws.gov/ecp/species/9743

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED,

	WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. http://ecos.fws.gov/ecp/species/1626	Breeds Jan 1 to Sep 30
Black Swift Cypseloides niger This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. http://ecos.fws.gov/ecp/species/8878	Breeds Jun 15 to Sep 10
Evening Grosbeak Coccothraustes vespertinus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 15 to Aug 10
Golden Eagle Aquila chrysaetos This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. http://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31
Lesser Yellowlegs Tringa flavipes This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. http://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Olive-sided Flycatcher Contopus cooperi This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. http://ecos.fws.gov/ecp/species/3914	Breeds May 20 to Aug 31
Rufous Hummingbird selasphorus rufus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. http://ecos.fws.gov/ecp/species/8002	Breeds Apr 15 to Jul 15

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

■ probability of presence ■ breeding season | survey effort – no data

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the NWI map to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

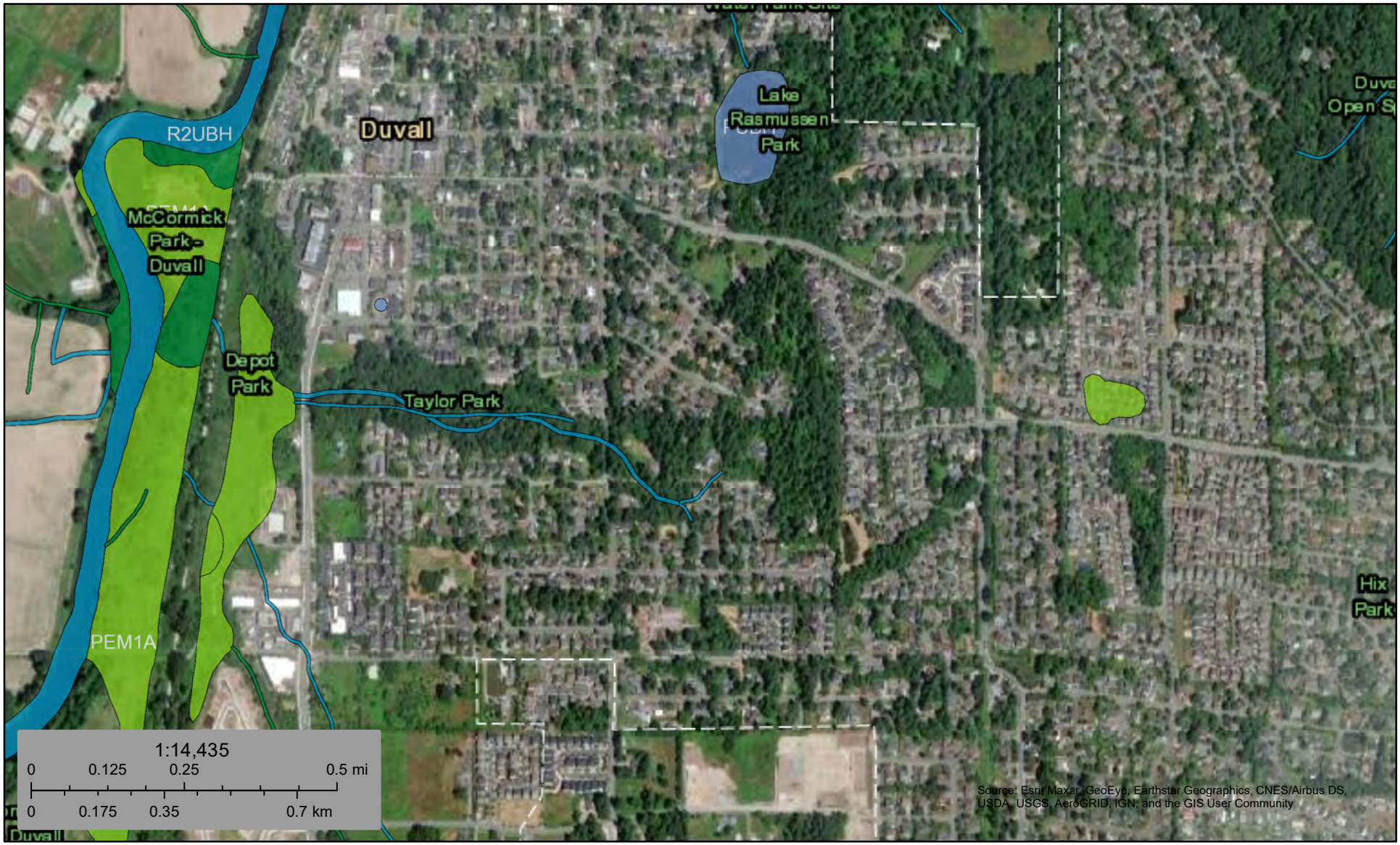
Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

U.S. Fish and Wildlife Service

National Wetlands Inventory

Duvall 3rd Avenue

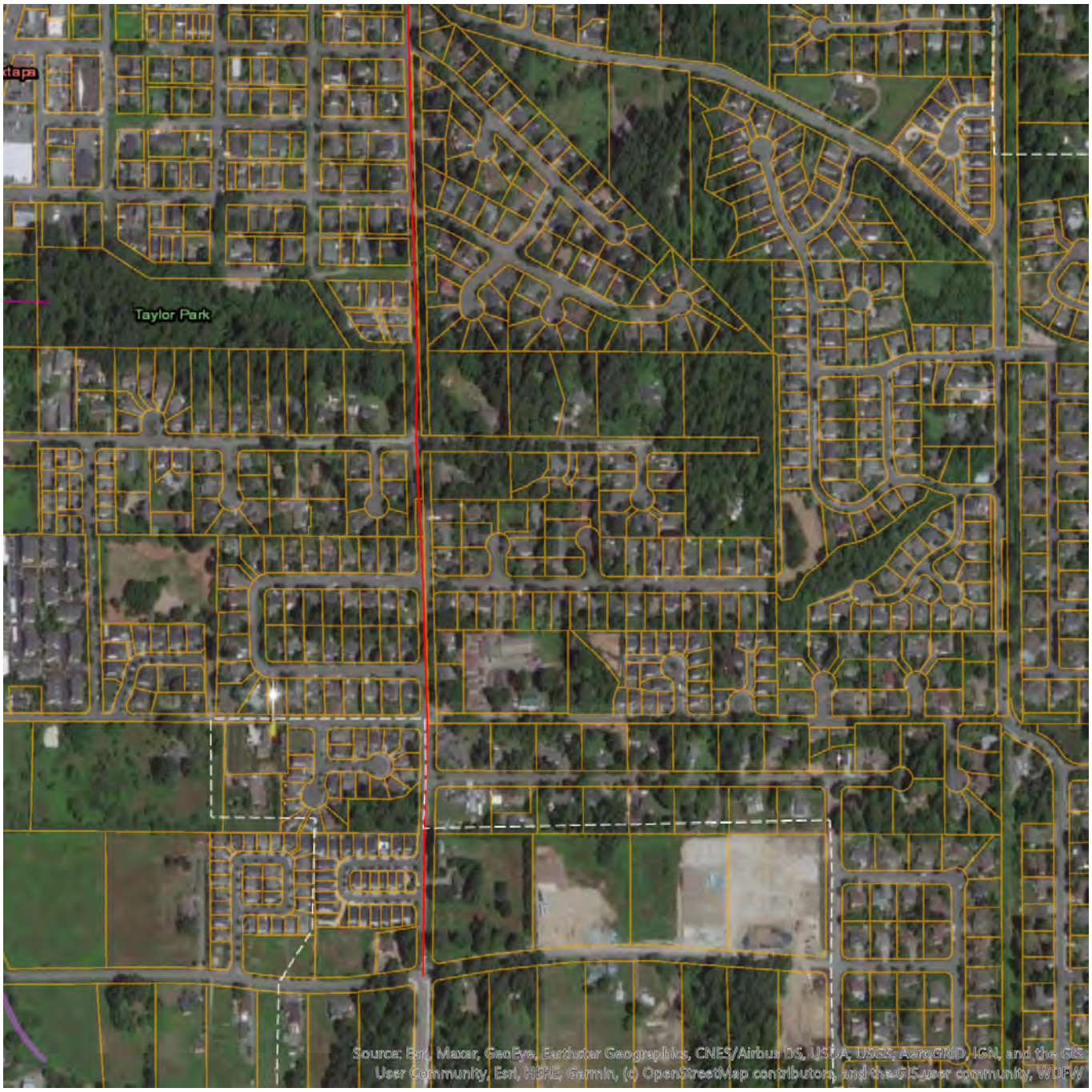


October 18, 2021

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

Priority Habitats and Species on the Web

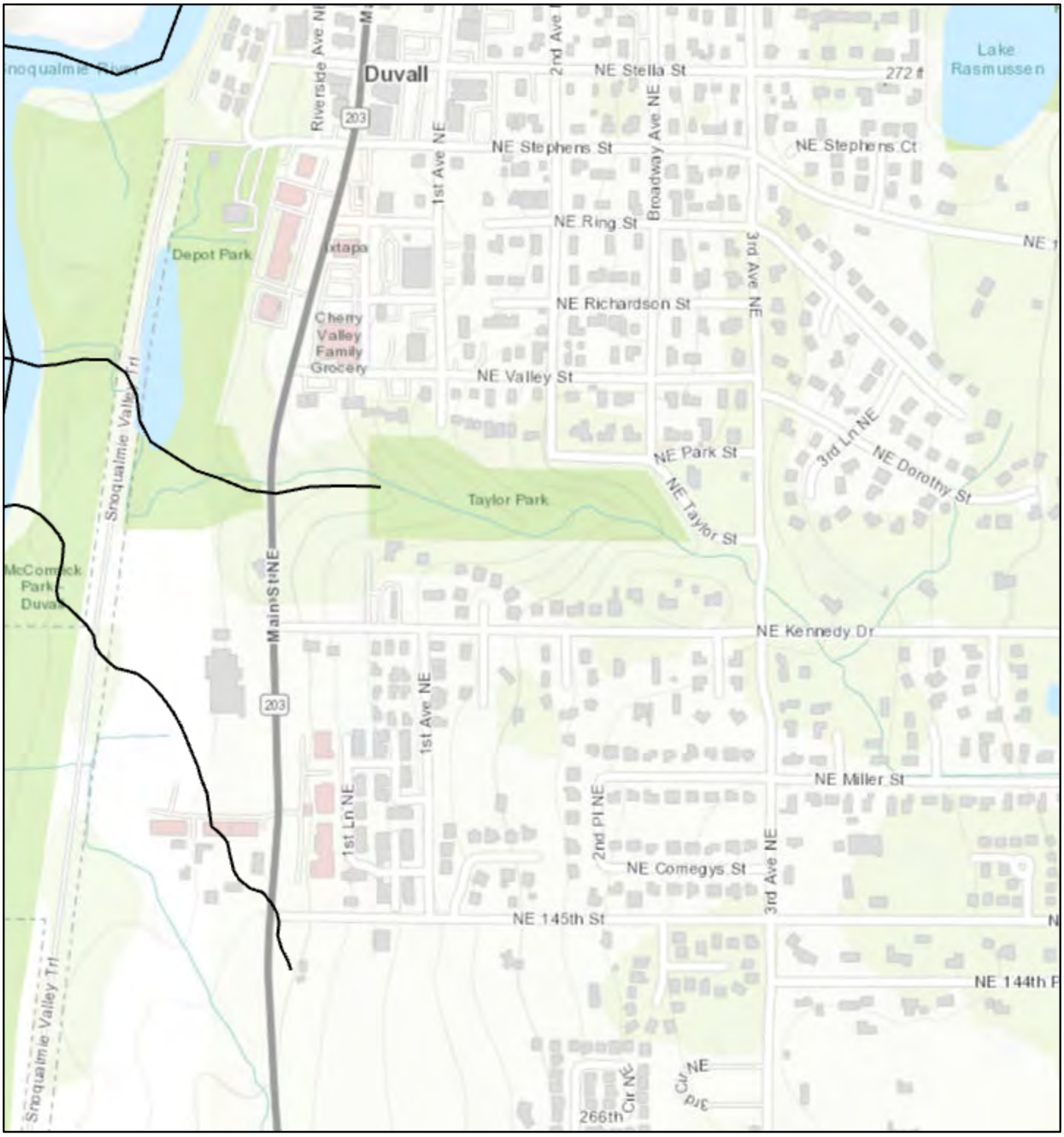


Buffer radius: 300 Feet

Report Date: 10/29/2021

The Priority Habitats and Species (PHS) datasets do not contain information for your project area. This does not mean that species and habitats do not occur in your project area. PHS data, points, lines and polygons are mapped only when occurrences of these species or habitats have been observed in the field. Unfortunately, we have not been able to comprehensively survey all sections in the state and therefore, it is important to note that priority species and habitats may occur in areas not currently known to the Department.

Coe Clemmons Creek



January 21, 2022

1:9,028

0 0.05 0.1 0.2 mi

0 0.07 0.15 0.3 km

All SalmonScape Species

WDFW, County of King, Bureau of Land Management, Esri Canada, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/NASA, EPA, USDA