

Washington State Department of Transportation
Northwest Region
Attn: Harry Haslam
P.O. Box 330310
Seattle, WA 98133-9701

December 9, 2016

Biological Assessment – No Effect Determination

College Way (SR 538) @ I-5

City of Mount Vernon
Skagit County, WA

Introduction

The City of Mount Vernon Department of Public Works is proposing to improve the interchange on College Way (SR 538) at the underpass of Interstate 5 (I-5) to provide congestion relief, safety, and extension of the life of the interchange. The project will add two additional lanes on College Way, relocate existing retaining walls, and re-channelize the existing roadway to add left turn capacity. In addition, a portion of an existing stormwater main will be upsized between an existing pump station and an existing outfall to be able to handle anticipated flood flows.

Federal Nexus

Since the project has received funding from the Federal Highway Administration (FHWA) under Federal Aid Project Number STP(US)-0538(010), a federal nexus has been created by this project. Therefore, this letter addresses potential impacts to federally-listed species under Section 7(c) of the Endangered Species Act (ESA) and potential impacts to essential fish habitat (EFH) under Section 305(b)(4) of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act).

Project Setting and Existing Conditions

The proposed project is located within the City of Mount Vernon within of Section 18 of Township 34N and Range 04E (Figure 1). Land surrounding the project area is primarily zoned as General Commercial District (C-2) and is dominated by dense commercial development including gas stations, restaurants, auto shops, and storefronts. The small portion of the project area between I-5 and the Skagit River consists of North Lions Park and is zoned as Public (P).

The majority of the project site is typical of regularly maintained right-of-way (ROW) within an urbanized area. It is dominated by existing impervious surfaces including asphalt pavement, concrete sidewalks and curbs. The majority of the area outside of existing impervious surfaces that will be disturbed by the proposed project is dominated by mowed grasses and a few planter strips with ornamental trees and shrubs between the existing roadway and adjacent businesses (Photos 1 and 2).



Photo 1. Project corridor east of I-5 (facing east)



Photo 2. Project corridor and I-5 bridge (facing northeast)

The proposed stormwater main replacement will be predominantly within the maintained median between I-5 and Freeway Drive and maintained Freeway Drive ROW on the east side of Freeway Drive. There is one small area of unmaintained vegetation along the stormwater main replacement alignment that will need to be cleared to be able to tie into the existing outfall. This area is within the 200-foot Natural Shoreline environment of the Skagit River. While there are no mature trees within this small area of shoreline to be cleared, there are 2 approximately 4-inch diameter at breast height (dbh) red alders (*Alnus rubra*) and a few red osier dogwoods (*Cornus sericea*). Otherwise, the shoreline area that will need to be cleared is dominated by noxious weeds including Himalayan blackberry (*Rubus armeniacus*), butterfly bush (*Buddleja davidii*), and common tansy (*Tanacetum vulgare*) (Photo 3).

The existing outfall (Photo 3) that will be tied into by the replaced stormwater main is a combined outfall for the existing 10-inch stormwater main and Kulshan Creek which outfalls to this location via a 42-inch culvert under Freeway Drive, I-5, and several properties east of I-5 (Figure 2). While this long culvert is likely a partial barrier to fish passage, Kulshan Creek is listed as a Type-F (fish-bearing) stream, with a completely open channel between the Skagit River and this existing outfall. There is an existing concrete fish ladder at this outfall that allows for upstream migration of fish (Photo 4)



Photo 3. Shoreline vegetation between existing outfall and Freeway Drive



Photo 4. Existing outfall with concrete fish ladder just downstream of outfall

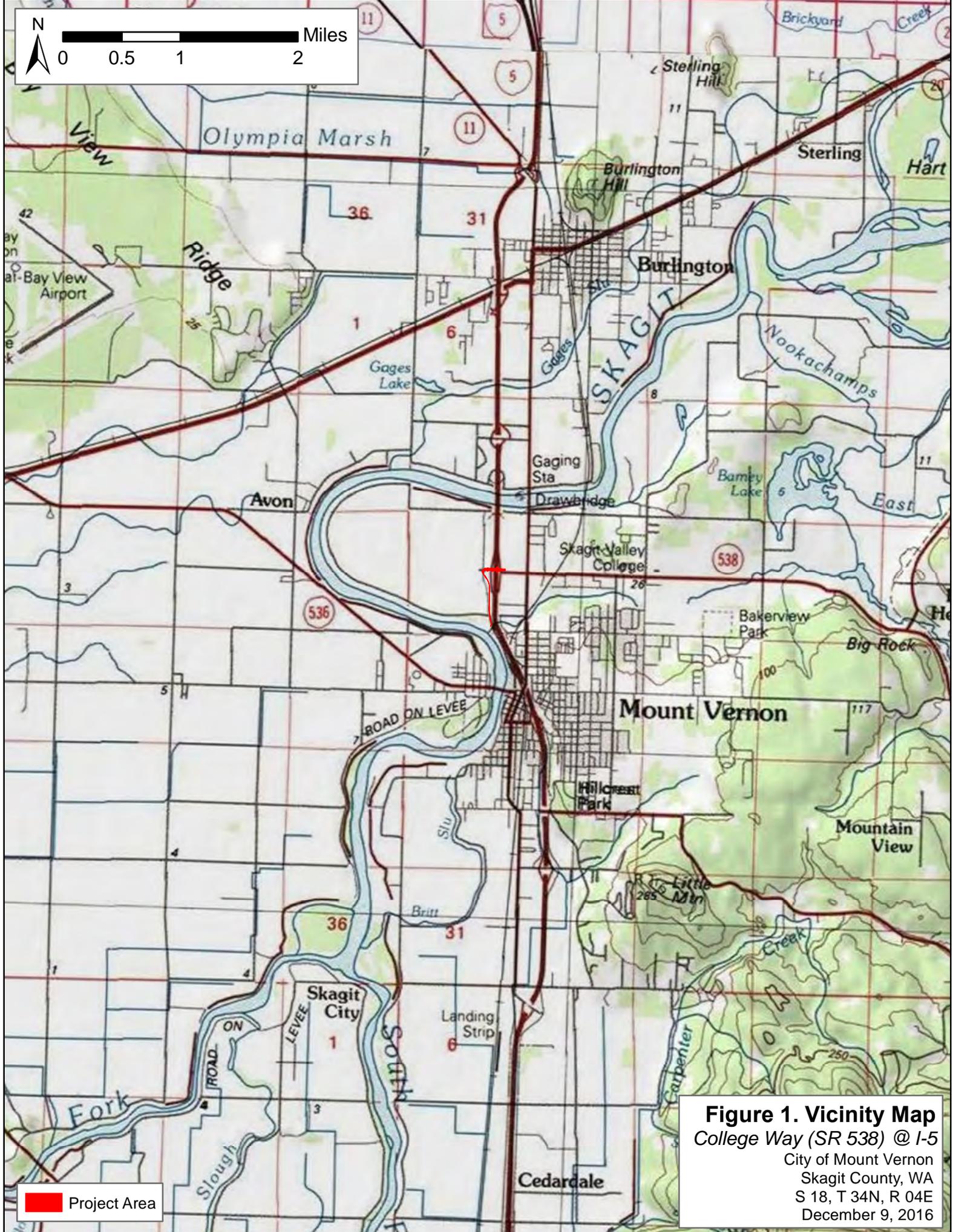
Project Description

The City of Mount Vernon Department of Public Works is proposing to widen a portion of College Way in the vicinity of the I-5 interchange in order to provide congestion relief, safety, and extension of the life of the interchange. The project will add two additional lanes on College Way by relocating the existing retaining walls for the I-5 overpass. The roadway will also be re-channelized to add left turn capacity. In addition, improvements will be made to the existing stormwater management system, including installing new catch basins and upsizing a portion of the existing stormwater main between an existing pump station and an existing outfall to be able to handle anticipated stormwater as a result of the proposed project. This existing stormwater main is already undersized and addition of new impervious surfaces as part of this project would compound the problem. There will be no work on the existing pump station as the pumps are already sized correctly to be able to handle anticipated stormwater.

The proposed project will only involve 0.21 acre of impacts outside of existing ROW for College Way, Freeway Drive, and I-5. A majority of ground disturbance for the project will be within the limits of existing maintained ROW or landscaped areas within areas proposed for ROW acquisition. The only area of unmaintained vegetation that will be impacted by the proposed project is a minimal area between Freeway Drive and an existing outfall structure where clearing will be needed for replacement of the stormwater main (Photo 3; Figure 2). While a majority of this vegetation consists of highly invasive Himalayan blackberry as well as some butterfly bush and tansy, the area that will be temporarily impacted for trenching for the stormwater main replacement will be revegetated with native species.

All work at the location of the existing stormwater outfall that will be tied into with the new stormwater main will be done in isolation from Kulshan Creek. In order to avoid potential impacts to fish in Kulshan Creek, including federally-listed Chinook salmon, steelhead, and potentially bull trout, temporary fish passage barriers will be placed during the minimal work required for connection of the new pipe to the existing outfall. These barriers will consist of sandbags or other similar devices within the limits of the existing concrete structure. While there will not be any work within or over Kulshan Creek, all work at the existing outfall will be done during the dry season when flow in Kulshan Creek is extremely low or non-existent. This will minimize the amount of dewatering that is necessary. If necessary, a screened dewatering pump will be used to pump water from the culvert to downstream of the isolated work area. This pump will be screened in accordance with NMFS guidelines.

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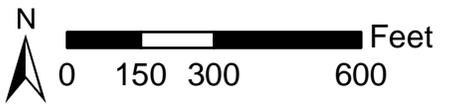


N
0 0.5 1 2 Miles

Project Area

Figure 1. Vicinity Map
College Way (SR 538) @ I-5
City of Mount Vernon
Skagit County, WA
S 18, T 34N, R 04E
December 9, 2016

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Freeway Drive

E College Way

538

Skagit River

I-5

- Project Area
- Existing Culvert to Remain
- x Existing Pump Station to Remain
- x Existing Outfall to Remain
- Existing Stormwater Main to be Replaced
- Kulshan Creek
- 100-yr Floodplain

Figure 2. Project Area
College Way (SR 538) @ I-5
 City of Mount Vernon
 Skagit County, WA
 S 18, T 34N, R 04E
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Federally Listed Species and Designated Critical Habitat

The U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS)-listed species that are potentially present within the vicinity of the proposed project are summarized in Table 1 below. The most current version of the USFWS list for the project vicinity (requested December 9, 2016) is referenced for this assessment (USFWS 2016a). NMFS resources were used to populate the listed species under their jurisdiction. Refer to Appendix B – USFWS and NMFS Species Lists. Note that USFWS jurisdictional species were addressed in this assessment only if they were on the official IPaC list.

Table 1. Listed ESA Species with Potential to be in the Project Vicinity

| Species | Federal Status | Occurrence in Action Area | Effect Determination |
|---|--|---------------------------|----------------------|
| Yellow-billed cuckoo (Western DPS) | Threatened | Absent | No Effect |
| Marbled murrelet | Threatened | Absent | No Effect |
| Streaked horned lark | Threatened | Absent | No Effect |
| Oregon spotted frog | Threatened | Absent | No Effect |
| North American wolverine | Proposed Threatened | Absent | No Effect |
| Bull trout (Coastal/Puget Sound DPS) | Threatened | Present | No Effect |
| Bull trout (C/PS DPS) Critical Habitat | | Present | No Effect |
| Dolly varden | Proposed Similarity of Appearance (Threatened) | | |
| Chinook salmon (PS ESU) | Threatened | Present | No Effect |
| Chinook salmon (PS ESU) Critical Habitat | | Present | No Effect |
| Steelhead trout (PS DPS) | Threatened | Present | No Effect |
| Steelhead trout (PS DPS) Critical Habitat | | Present | No Effect |

Note that this assessment does not evaluate potential impacts to dolly varden, which is proposed for listing based on Similarity of Appearance to a threatened taxon (bull trout). Under the Similarity of Appearance provisions of the ESA, section 4(e) authorizes a species to be treated as if it were endangered or threatened if it closely resembles a listed species and law enforcement personnel would have a substantial difficulty telling the two species apart. Although species listed under the Similarity of Appearance provisions receive some of the protections of the ESA, consultation requirements under Section 7 do not apply.

Yellow-Billed Cuckoo – *Coccyzus americanus*

While the yellow-billed cuckoo is considered extirpated from Washington, and there have been no confirmed breeding records since the 1930's, there have been 13 documented sightings in Washington since 1990 (Teachout 2015). A majority of these sightings were east of the Cascade Mountains, with 2 sightings in the Puget Lowlands. While no recent breeding has been confirmed in Washington, the possibility cannot be completely ruled out. Suitable breeding habitat is defined as patches of mature riparian willows and cottonwoods that are greater than 50 acres (Teachout 2015). There are no such patches within the terrestrial action area, as the patch of mature cottonwoods contiguous with the action area along the north bank of the Skagit River is less than 10 acres. In addition, no critical habitat has been proposed in the State of Washington. As there are no recent documented occurrences of yellow-billed cuckoo in the vicinity of the proposed project and there is no suitable habitat or critical habitat present within the action area, the project will have no effect on the yellow-billed cuckoo and this species will not be discussed further.

Marbled Murrelet – *Brachyramphus marmoratus*

While there are documented occurrences of marbled murrelet nesting sites and designated critical habitat within Skagit County, there is no suitable nesting habitat or designated critical habitat within the project action area. There have also been no documented occurrences of marbled murrelet within the project action area. The latest USFWS guidance on marbled murrelet indicates that projects with noise from heavy construction equipment will have no effect on the species if suitable habitat is greater than 0.25 mile from the proposed activity (WSDOT 2014b). The closest suitable nesting habitat, which is defined as a minimum 5-acre conifer stand, is well over 0.25 mile from the project area. The closest critical habitat is approximately 17 miles east of the project area in the Cascade Mountains (USFWS 2016b). As such, this project will have no effect on the marbled murrelet or its designated critical habitat and this species will not be discussed further.

Streaked Horned Lark – *Eremophila alpestris strigata*

While the proposed project area is within the historic range of the streaked horned lark, it is well outside of the current range and there have been no documented occurrences in the vicinity of the project (Anderson and Pearson 2015). Streaked horned larks require generally large, open sites with generally less than 5% tree or shrub cover. While they have been documented on open sites as small as 90 acres in the Puget Sound lowlands, nearly all occupied sites consist of open areas (including water) of 150 acres (Anderson and Pearson 2015). Within potential habitat within the Puget Sound lowlands, streaked horned lark prefer patches with vegetation heights between 17 and 25 cm, no tree cover, less than 2% shrub cover, and between 12% and 20% bare ground (Pearson and Hooley 2005). Within the project action area, there are no suitable patches of open

habitat. The nearest designated critical habitat is approximately 132 miles southwest on the southern coast of the Olympic Peninsula (USFWS 2016b). Therefore, the proposed project will have no effect on the streaked horned lark or its designated critical habitat and this species will not be discussed further.

Oregon Spotted Frog – *Rana pretiosa*

While Oregon spotted frog are known to inhabit wetlands and the Skagit River Watershed is indicated by the USFWS as a potentially occupied watershed, they prefer large (typically > 9 acres) shallowly inundated wetlands (WSDOT 2015; USFWS 2016c). Potential wetland within the forested floodplain along the Skagit River, of which a portion is within the project action area, is not the type of shallowly inundated wetland that would allow the Oregon spotted frog to complete a cycle of oviposition to metamorphosis. In addition, the potential wetland within the action area is not part of a larger wetland complex that could provide suitable habitat. The closest National Wetland Inventory (NWI)-mapped wetland complex that could potentially provide suitable habitat is over 1.5 miles to the east and the area between this wetland complex and the project area is heavily developed and would likely preclude the migration of Oregon spotted frog. The closest designated critical habitat is approximately 10 miles north of the project area (USFWS 2016b). As such, the proposed project will have no effect on Oregon spotted frog or its designated critical habitat and this species will not be discussed further.

North American Wolverine – *Gulo gulo luscus*

The North American wolverine is found in alpine and subalpine habitats, well above the elevation of the project action area (WDFW 2012). No critical habitat has been proposed or designated for this species. As such, the proposed project will have no effect on this species and it will not be discussed further.

Bull Trout (Coastal / Puget Sound DPS) – *Salvelinus confluentus*

The Coastal / Puget Sound DPS of bull trout has been documented to utilize the Skagit River within the action area for migration and juvenile rearing (WDFW 2016). There is no documented presence of bull trout within Kulshan Creek; however, the Skagit River is less than 200 feet from the location of the existing outfall and there are no fish passage barriers between the river and the outfall structure. Therefore, it must be assumed that bull trout could potentially be found in the lower reach of Kulshan Creek on occasion. However, it is very unlikely that bull trout would be found within the creek as habitat conditions for bull trout are very poor. Bull trout require relatively pristine streams with cold water (generally less than 59°F), stable stream channels, and complex and diverse cover (USFWS 2010). These habitat conditions are not present within Kulshan Creek. The Skagit River within the action area has been designated as critical habitat for the Coastal / Puget Sound DPS of bull trout.

Chinook Salmon (Puget Sound ESU) - *Oncorhynchus tshawytscha*

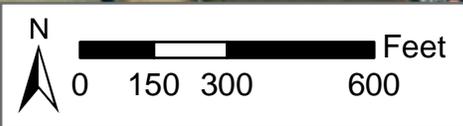
Both spring-run and fall-run Chinook salmon have been documented in the Skagit River within the action area, with documented rearing of fall-run chinook within the lower Skagit River (WDFW 2016). In addition, WDFW indicates modeled presence of fall-run Chinook within Kulshan Creek within the action area. Due to the poor habitat conditions for Chinook salmon within Kulshan Creek, it is unlikely that any would be found in the creek during the proposed stormwater main replacement. Still, the presence of Chinook salmon within Kulshan Creek during the proposed work cannot be ruled out. The Skagit River within the action area has been designated as critical habitat for the Puget Sound ESU of Chinook salmon.

Steelhead (Puget Sound DPS) - *Oncorhynchus mykiss*

Both summer-run and winter-run steelhead have been documented in the Skagit River and Kulshan Creek within the action area, with documented rearing of winter-run steelhead within the lower Skagit River (WDFW 2016). As with the other listed salmonids, the habitat conditions for steelhead within Kulshan Creek are poor, but the potential for steelhead to be found in Kulshan Creek at the time of the proposed stormwater main replacement cannot be ruled out. Both the Skagit River and Kulshan Creek within the action area have been designated as critical habitat for the Puget Sound DPS of steelhead.

Action Area

The action area includes all areas that could potentially be affected by the proposed project and is not limited to the actual construction area (project area). Construction noise will create the farthest reaching effects of this project. Therefore the action area was determined to encompass the area within 182 feet of the project area, which is the approximate distance construction noise would attenuate to estimated ambient noise levels (Figure 3). This was estimated based on the average daily traffic on I-5, as this is the loudest noise source in the project area. The action area was calculated in accordance with WSDOT's Biological Assessment Training Manual for Transportation Projects (WSDOT 2014). Refer to Appendix A for noise calculations.



Freeway Drive

E College Way 538

Skagit River

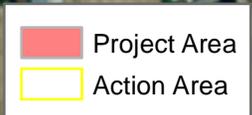


Figure 3. Action Area
College Way (SR 538) @ I-5
City of Mount Vernon
Skagit County, WA
S 18, T 34N, R 04E
December 9, 2016

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Conservation Measures

Prior to construction, appropriate erosion and sediment control BMPs, such as silt fences and straw wattles, will be installed. These BMPs will be maintained throughout the duration of construction and will be adjusted as necessary as site conditions change. A Temporary Erosion and Sediment Control (TESC) and Spill Prevention Control and Countermeasures (SPCC) Plan will be prepared by the contractor and approved by the City prior to the initiation of construction. In addition, a Stormwater Pollution Prevention Plan (SWPPP) will be prepared by the contractor in order ensure compliance with the Washington State Department of Ecology (WSDOE) Construction Stormwater General Permit. The proposed stormwater improvements will consist of a series of catch basins and conveyance pipes and have been designed based on the Washington State Department of Ecology (WSDOE) Stormwater Management Manual for Western Washington (SWMWW).

Vegetation removal will be minimized to the maximum extent practicable, with remaining vegetation demarcated with high visibility fencing. Minimal native vegetation will be removed in the vicinity of the existing outfall, as this area is primarily dominated by invasive Himalayan blackberry. All disturbed areas within the existing un-maintained area of vegetation in the vicinity of the existing outfall will be seeded with a native erosion control seed mix and will be planted with native plant species. This will ensure that there will be no net loss of riparian functions within the project area. Minimal native vegetation will be removed in this area, as the area is primarily dominated by invasive Himalayan blackberry.

In order to avoid impacts to any federally-listed fish species that could potentially utilize Kulshan Creek, all work for the replacement of the existing stormwater main will be done in isolation from Kulshan Creek. Sandbags or similar devices will be used within the footprint of the existing culvert and outfall structure to isolate the portion of the existing structure where the replacement main will tie into. If any flow is present in the existing culvert at the time of construction, a screened dewatering pump will be used to pump water from upstream of the work area to downstream. This pump would be screened in accordance with NMFS guidelines. There will be no work within Kulshan Creek outside of the limits of the existing culvert and outfall structure. In addition, work in the vicinity of the outfall will take place during the dry season when there will be minimal or no flow.

Effects Analysis

Direct impacts from this project will include increased noise and the clearing and grubbing of existing vegetation. There will be increased noise levels up to 182 feet from project activities. However, as there have been no documented occurrences and there is no suitable habitat or proposed/designated critical habitat for any federally-listed terrestrial species, the proposed project will have **no effect** on USFWS-listed terrestrial species or critical habitat under the ESA.

While bull trout, Chinook salmon, and steelhead could all potentially utilize Kulshan Creek within the action area, the proposed project will have **no effect** on bull trout, Chinook salmon, steelhead or designated critical habitat for these species for the following reasons:

- There will be no impacts to Kulshan Creek outside of the footprint of the existing culvert and outfall structure.
- The portion of the existing culvert where the new stormwater main will tie into will be isolated from any flow in the culvert using sandbags or similar devices.
- The small area of work within the footprint of the existing structure will allow for confirmation that no fish are present prior to commencement of construction.
- Tie in to the existing outfall will be done during the dry season when flow is minimal or non-existent.
- Any dewatering from upstream of the tie in location will be accomplished utilizing a pump screened in accordance with NMFS guidelines.
- Any diverted water will be returned to the creek in a manner that will avoid downstream erosion.
- Turbidity will remain within state water quality standards within Kulshan Creek due to utilization of BMPs. These BMPs will be maintained and adjusted as needed throughout construction to prevent sediment from entering Kulshan Creek.
- Refueling operations will be conducted at least 50 feet from any open water
- All equipment will be checked daily for leaks and any repairs will be made prior to commencement of work.
- The small area of unmaintained vegetation within the 200-foot Natural Shoreline of the Skagit River is dominated by Himalayan blackberry and provides minimal riparian function.
- All disturbed Skagit River shoreline will be revegetated with native plant species.

The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) includes a mandate that NMFS must identify Essential Fish Habitat (EFH) for federally-managed marine fish, and federal agencies must consult on all activities, or proposed activities, authorized, funded, or undertaken by the agency that may adversely affect EFH (PFMC 1999).

The Pacific salmon management unit which includes Puget Sound Chinook, Coho (*Oncorhynchus kisutch*), and pink salmon (*O. gorbuscha*) is present within the action area. The

proposed project will *not adversely affect* EFH of the Pacific Coast Salmon Fishery for the following reasons:

- There will be no impacts to Kulshan Creek outside of the footprint of the existing culvert and outfall structure.
- The portion of the existing culvert where the new stormwater main will tie into will be isolated from any flow in the culvert using sandbags or similar devices.
- The small area of work within the footprint of the existing structure will allow for confirmation that no fish are present prior to commencement of construction.
- Tie in to the existing outfall will be done during the dry season when flow is minimal or non-existent.
- Any dewatering from upstream of the tie in location will be accomplished utilizing a pump screened in accordance with NMFS guidelines.
- Any diverted water will be returned to the creek in a manner that will avoid downstream erosion.
- Turbidity will remain within state water quality standards within Kulshan Creek due to utilization of BMPs. These BMPs will be maintained and adjusted as needed throughout construction to prevent sediment from entering Kulshan Creek.
- Refueling operations will be conducted at least 50 feet from any open water
- All equipment will be checked daily for leaks and any repairs will be made prior to commencement of work.
- The small area of unmaintained vegetation within the 200-foot Natural Shoreline of the Skagit River is dominated by Himalayan blackberry and provides minimal riparian function.
- All disturbed Skagit River shoreline will be revegetated with native plant species.

Conclusion

It is our understanding that this satisfies our responsibilities under Section 7(c) of the ESA and Section 305(b)(4) of the Magnuson-Stevens Fishery Conservation and Management Act at this time, and we are sending you this copy of our assessment for your files. We will continue to remain aware of any change in status of these species and will be prepared to re-evaluate potential project impacts if necessary. Should you have any questions about this assessment or require additional information, please contact Ross Widener at (425) 503-3629 or by email at rwidener@prodigy.net.

Sincerely,



Ross Widener
Widener & Associates

References

- Anderson, Hannah E. and Scott F. Pearson. 2015. Streaked Horned Lark Habitat Characteristics. Center for Natural Lands Management and Washington Department of Fish and Wildlife. April 2015.
- Pacific Fishery Management Council (PFMC). 1999. Amendment 14 to the Pacific Coast Salmon Plan. Appendix A: Description and Identification of Essential Fish Habitat, Adverse Impacts and Recommended Conservation Measures for Salmon. Available at: http://www.pcouncil.org/wp-content/uploads/AppendixA_SalmonFMP_EFH.pdf
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WSDOT. 2014b. Appendix H – Site Evaluation Requirements and Effect Determination Criteria – Marbled Murrelet. September 2014. Available at: https://www.wsdot.wa.gov/NR/rdonlyres/01671F0B-504F-42E2-9B81-577FB368B2BD/0/PBA_MAMU_Guidance.pdf

WSDOT. 2015a. Appendix A - Oregon Spotted Frog and Critical Habitat Presence Assessment. February 17, 2015. Available at: https://www.wsdot.wa.gov/NR/rdonlyres/1B647DD6-AB64-4F2F-904A-F59C9CEDEAD6/0/PBA_OSF_Guidance.pdf

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Appendix A – Noise Analysis

Noise Calculations:

The following calculations and values are based on information and guidance from the Biological Assessment Preparation Advanced Training Manual for Transportation Projects, Version 04-02-2014 – Section 7 – Construction Noise Impact Assessment; prepared by the Washington State Department of Transportation; available at: http://www.wsdot.wa.gov/NR/rdonlyres/448B609A-A84E-4670-811B-9BC68AAD3000/0/BA_ManualChapter7.pdf

Terrestrial Noise Attenuation:

For terrestrial animals, sound is measured in dBA, or A-weighted, this deemphasizes the upper and lower portions of the frequency spectrum, while emphasizing the middle portion of the spectrum (where humans have the greatest sensitivity).

Construction Noise: 94 dBA

The following is a list of equipment that may be used on this project and the maximum noise level that each can produce at 50 feet: excavator (81 dBA), dump truck (76 dBA), front end loader (79 dBA), dozer (82 dBA), grader (89 dBA), compactor (83 dBA), paver (77 dBA), roller (80 dBA), chain saw (84 dBA), concrete saw (90 dBA), jackhammer (89 dBA), and generator (81 dBA). Using the law of decibel addition for the three loudest pieces of equipment that may be operating at any one time, construction noise generated at the project location could be up to 94 dBA.

Background Noise Level: 80 dBA

College Way within the project area is a two-lane road with turn lanes and has a posted speed limit of 25 mph. The average daily traffic (ADT) was 21,000 vehicles as of 2015. Volume of vehicles per hour can be approximated as 10% of ADT. Therefore, approximately 2,100 vehicles utilize College Way per hour. Based on the table of typical noise levels for traffic volumes at a given speed (WSDOT 2014), traffic noise on College Way can be estimated at 69 dBA. I-5 is also within the limits of the project area and had an ADT of 76,000 at the College Way Interchange (approximately 7,600 vehicles per hour) as of 2015. As I-5 has a speed limit of 60 mph, traffic noise on I-5 can be estimated at 80 dBA. As I-5 is the loudest noise source within the project area, the background noise level for the project area is estimated at 80 dBA.

Terrestrial Noise Attenuation distance over land

Background noise is estimated at 80 dBA. The equation for attenuation distance is $D = D_0 * 10^{((\text{Construction Noise} - \text{background in dBA})/\alpha)}$, where D_0 = distance original sound levels were measured (commonly 50 feet) and α = is 25 for “soft” site, point source.

$$D = D_0 * 10^{((\text{Construction Noise} - \text{Ambient Noise in dBA})/\alpha)}$$

$$D = 50 * 10^{((94-80)/25)}$$

$$D = 50 * 10^{(14/25)}$$

$$D = 50 * 10^{(0.56)}$$

$$D = 50 * 3.63$$

$$D = 181.54$$

Therefore, at approximately 182 feet or 0.03 mile from construction activities, peak noise would attenuate to the background level.

REFERENCES

WSDOT (Washington Department of Transportation). 2014. Biological Assessment Preparation Advanced Training Manual, Version 04-02-2014. Available at:

http://www.wsdot.wa.gov/NR/rdonlyres/448B609A-A84E-4670-811B-9BC68AAD3000/0/BA_ManualChapter7.pdf

Appendix B – USFWS and NMFS Species Lists

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United States Department of the Interior



FISH AND WILDLIFE SERVICE

Washington Fish and Wildlife Office
510 DESMOND DRIVE SE, SUITE 102
LACEY, WA 98503

PHONE: (360)753-9440 FAX: (360)753-9405

URL: www.fws.gov/wafwo/

Consultation Code: 01EWF00-2017-SLI-0237

December 09, 2016

Event Code: 01EWF00-2017-E-00202

Project Name: College Way (SR 538) @ I-5

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, and proposed species, designated and proposed critical habitat, and candidate species that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. The species list is currently compiled at the county level. Additional information is available from the Washington Department of Fish and Wildlife, Priority Habitats and Species website:

<http://wdfw.wa.gov/mapping/phs/> or at our office website:

http://www.fws.gov/wafwo/species_new.html. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether or not the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species, and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.). You may visit our website at <http://www.fws.gov/pacific/eagle/for> information on disturbance or take of the species and information on how to get a permit and what current guidelines and regulations are. Some projects affecting these species may require development of an eagle conservation plan: (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Also be aware that all marine mammals are protected under the Marine Mammal Protection Act (MMPA). The MMPA prohibits, with certain exceptions, the "take" of marine mammals in U.S. waters and by U.S. citizens on the high seas. The importation of marine mammals and marine mammal products into the U.S. is also prohibited. More information can be found on the MMPA website: <http://www.nmfs.noaa.gov/pr/laws/mmpa/>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Related website:

National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

Attachment



United States Department of Interior
Fish and Wildlife Service

Project name: College Way (SR 538) @ I-5

Official Species List

Provided by:

Washington Fish and Wildlife Office
510 DESMOND DRIVE SE, SUITE 102
LACEY, WA 98503
(360) 753-9440
<http://www.fws.gov/wafwo/>

Consultation Code: 01EWF00-2017-SLI-0237

Event Code: 01EWF00-2017-E-00202

Project Type: TRANSPORTATION

Project Name: College Way (SR 538) @ I-5

Project Description: Widening of College Way at the interchange with I-5 in the City of Mount Vernon. An undersized stormwater main will also be upsized as part of this project.

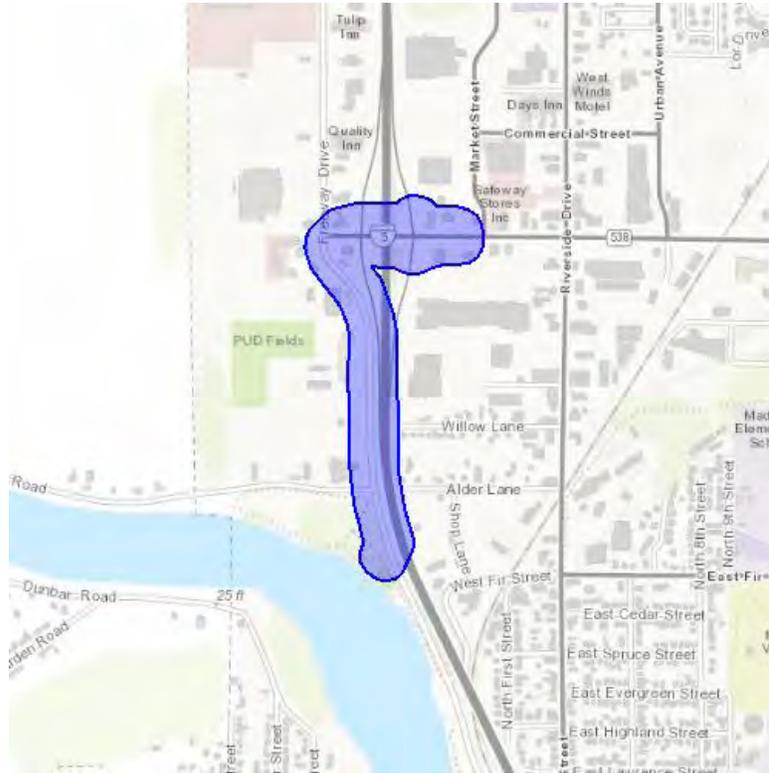
Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.



United States Department of Interior
Fish and Wildlife Service

Project name: College Way (SR 538) @ I-5

Project Location Map:



Project Coordinates: The coordinates are too numerous to display here.

Project Counties: Skagit, WA



United States Department of Interior
Fish and Wildlife Service

Project name: College Way (SR 538) @ I-5

Endangered Species Act Species List

There are a total of 7 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

| Amphibians | Status | Has Critical Habitat | Condition(s) |
|---|---------------------------|----------------------|--------------|
| Oregon Spotted frog (<i>Rana pretiosa</i>) Population: Wherever found | Threatened | Final designated | |
| Birds | | | |
| Marbled murrelet (<i>Brachyramphus marmoratus</i>) Population: U.S.A. (CA, OR, WA) | Threatened | Final designated | |
| Streaked Horned lark (<i>Eremophila alpestris strigata</i>) Population: Wherever found | Threatened | Final designated | |
| Yellow-Billed Cuckoo (<i>Coccyzus americanus</i>) Population: Western U.S. DPS | Threatened | Proposed | |
| Fishes | | | |
| Bull Trout (<i>Salvelinus confluentus</i>) Population: U.S.A., conterminous, lower 48 states | Threatened | Final designated | |
| Dolly Varden (<i>Salvelinus malma</i>) Population: Wherever found | Proposed Similarity of | | |



United States Department of Interior
Fish and Wildlife Service

Project name: College Way (SR 538) @ I-5

| | Appearance (Threatened) | | |
|--|----------------------------|--|--|
| Mammals | | | |
| North American wolverine (<i>Gulo gulo luscus</i>) Population: Wherever found | Proposed Threatened | | |



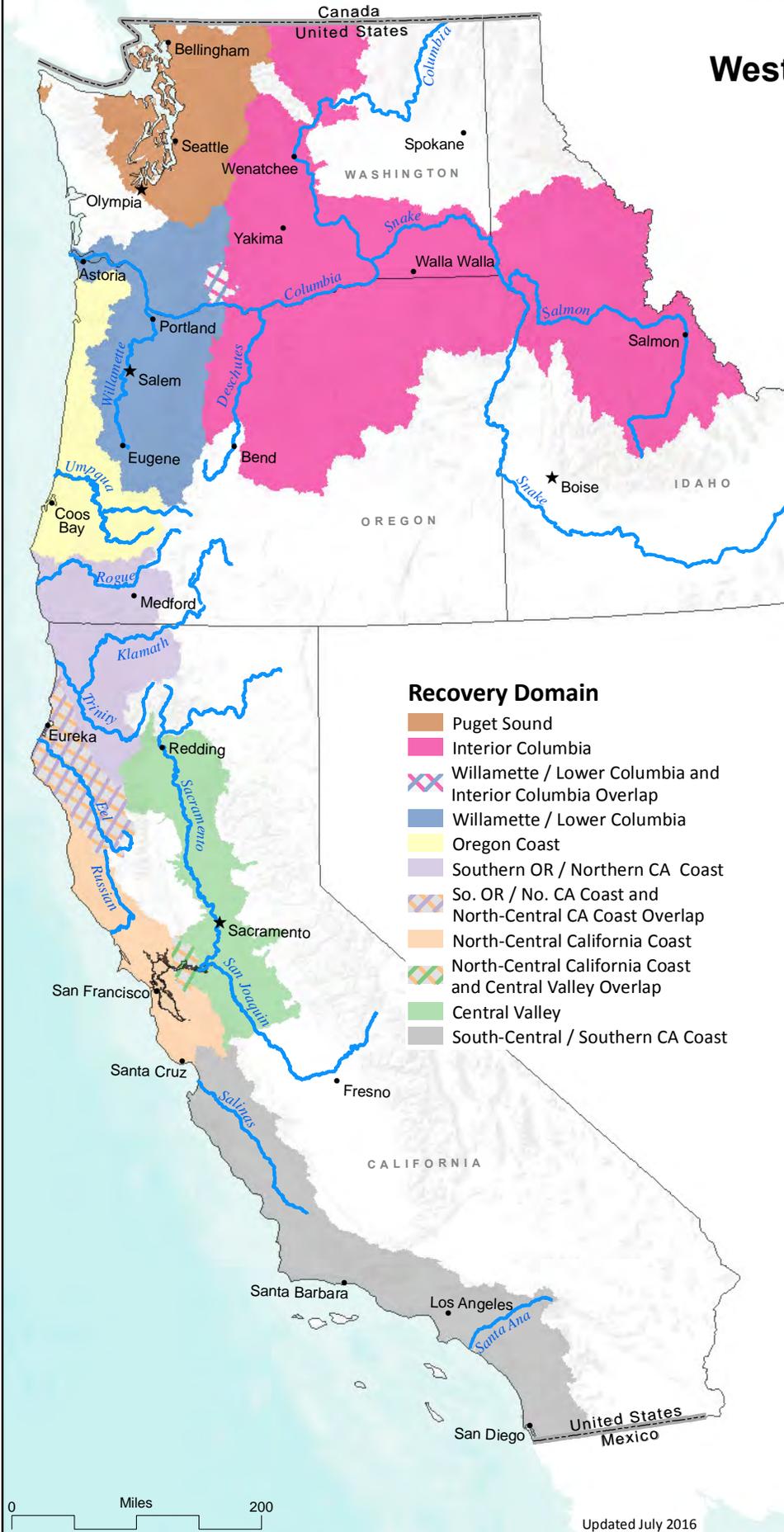
United States Department of Interior
Fish and Wildlife Service

Project name: College Way (SR 538) @ I-5

Critical habitats that lie within your project area

There are no critical habitats within your project area.

Status of ESA Listings & Critical Habitat Designations for West Coast Salmon & Steelhead



Recovery Domain

- Puget Sound
- Interior Columbia
- Willamette / Lower Columbia and Interior Columbia Overlap
- Willamette / Lower Columbia
- Oregon Coast
- Southern OR / Northern CA Coast
- So. OR / No. CA Coast and North-Central CA Coast Overlap
- North-Central California Coast
- North-Central California Coast and Central Valley Overlap
- Central Valley
- South-Central / Southern CA Coast

| Evolutionarily Significant Unit / Distinct Population Segment | ESA Status | Date of ESA Listing | Date of CH Designation |
|---|------------|---------------------|------------------------|
| Puget Sound Recovery Domain | | | |
| Hood Canal Summer-run Chum Salmon | T | 3/25/1999 | 9/2/2005 |
| Ozette Lake Sockeye Salmon | T | 3/25/1999 | 9/2/2005 |
| Puget Sound Chinook Salmon | T | 3/24/1999 | 9/2/2005 |
| Puget Sound Steelhead | T | 5/11/2007 | 2/24/2016 |

| Interior Columbia Recovery Domain | | | |
|--|---|-----------------------|------------|
| Middle Columbia River Steelhead | T | 3/25/1999 1/5/2006 | 9/2/2005 |
| Snake River Fall-run Chinook Salmon | T | 4/22/1992 | 12/28/1993 |
| Snake River Spring / Summer-run Chinook Salmon | T | 4/22/1992 | 10/25/1999 |
| Snake River Sockeye Salmon | E | 11/20/1991 | 12/28/1993 |
| Snake River Steelhead | T | 8/18/1997 1/5/2006 | 9/2/2005 |
| Upper Columbia River Spring-run Chinook Salmon | E | 3/24/1999 | 9/2/2005 |
| Upper Columbia River Steelhead | T | 8/18/1997 1/5/2006 | 9/2/2005 |

| Willamette / Lower Columbia Recovery Domain | | | |
|--|---|-----------------------|-----------|
| Columbia River Chum Salmon | T | 3/25/1999 | 9/2/2005 |
| Lower Columbia River Chinook Salmon | T | 3/24/1999 | 9/2/2005 |
| Lower Columbia River Coho Salmon | T | 6/28/2005 | 2/24/2016 |
| Lower Columbia River Steelhead | T | 3/19/1998 1/5/2006 | 9/2/2005 |
| Upper Willamette River Chinook Salmon | T | 3/24/1999 | 9/2/2005 |
| Upper Willamette River Steelhead | T | 3/25/1999 1/5/2006 | 9/2/2005 |

| Oregon Coast Recovery Domain | | | |
|-------------------------------------|---|-----------|-----------|
| Oregon Coast Coho Salmon | T | 2/11/2008 | 2/11/2008 |

| Southern Oregon / Northern California Coast Recovery Domain | | | |
|--|---|----------|----------|
| Southern OR / Northern CA Coasts Coho Salmon | T | 5/6/1997 | 5/5/1999 |

| North-Central California Coast Recovery Domain | | | |
|---|---|--|----------|
| California Coastal Chinook Salmon | T | 9/16/1999 | 9/2/2005 |
| Central California Coast Coho Salmon | E | 10/31/1996 (T) 6/28/2005 (E) 4/2/2012 (RE) | 5/5/1999 |
| Central California Coast Steelhead | T | 8/18/1997 1/5/2006 | 9/2/2005 |
| Northern California Steelhead | T | 6/7/2000 1/5/2006 | 9/2/2005 |

| Central Valley Recovery Domain | | | |
|--|---|-------------------------------|-----------|
| California Central Valley Steelhead | T | 3/19/1998 1/5/2006 | 9/2/2005 |
| Central Valley Spring-run Chinook Salmon | T | 9/16/1999 | 9/2/2005 |
| Sacramento River Winter-run Chinook Salmon | E | 11/5/1990 (T) 1/4/1994 (E) | 6/16/1993 |

| South-Central / Southern California Coast Recovery Domain | | | |
|--|---|--|----------|
| South-Central California Coast Steelhead | T | 8/18/1997 1/5/2006 | 9/2/2005 |
| Southern California Steelhead | E | 8/18/1997 5/1/2002 (RE) 1/5/2006 | 9/2/2005 |

ESA = Endangered Species Act, CH = Critical Habitat, RE = Range Extension
E = Endangered, T = Threatened

Critical Habitat Rules Cited

- 2/24/2016 (81 FR 9252) Final Critical Habitat Designation for Puget Sound Steelhead and Lower Columbia River Coho Salmon
- 2/11/2008 (73 FR 7816) Final Critical Habitat Designation for Oregon Coast Coho Salmon
- 9/2/2005 (70 FR 52630) Final Critical Habitat Designation for 12 ESU's of Salmon and Steelhead in WA, OR, and ID
- 9/2/2005 (70 FR 52488) Final Critical Habitat Designation for 7 ESU's of Salmon and Steelhead in CA
- 10/25/1999 (64 FR 57399) Revised Critical Habitat Designation for Snake River Spring/Summer-run Chinook Salmon
- 5/5/1999 (64 FR 24049) Final Critical Habitat Designation for Central CA Coast and Southern OR/Northern CA Coast Coho Salmon
- 12/28/1993 (58 FR 68543) Final Critical Habitat Designation for Snake River Chinook and Sockeye Salmon
- 6/16/1993 (58 FR 33212) Final Critical Habitat Designation for Sacramento River Winter-run Chinook Salmon

ESA Listing Rules Cited

- 4/2/2012 (77 FR 19552) Final Range Extension for Endangered Central California Coast Coho Salmon
- 2/11/2008 (73 FR 7816) Final ESA Listing for Oregon Coast Coho Salmon
- 5/11/2007 (72 FR 26722) Final ESA Listing for Puget Sound Steelhead
- 1/5/2006 (71 FR 5248) Final Listing Determinations for 10 Distinct Population Segments of West Coast Steelhead
- 6/28/2005 (70 FR 37160) Final ESA Listing for 16 ESU's of West Coast Salmon
- 5/1/2002 (67 FR 21586) Range Extension for Endangered Steelhead in Southern California
- 6/7/2000 (65 FR 36074) Final ESA Listing for Northern California Steelhead
- 9/16/1999 (64 FR 50394) Final ESA Listing for Two Chinook Salmon ESUs in California
- 3/25/1999 (64 FR 14508) Final ESA Listing for Hood River Canal Summer-run and Columbia River Chum Salmon
- 3/25/1999 (64 FR 14517) Final ESA Listing for Middle Columbia River and Upper Willamette River Steelhead
- 3/25/1999 (64 FR 14528) Final ESA Listing for Ozette Lake Sockeye Salmon
- 3/24/1999 (64 FR 14308) Final ESA Listing for 4 ESU's of Chinook Salmon
- 3/19/1998 (63 FR 13347) Final ESA Listing for Lower Columbia River and Central Valley Steelhead
- 8/18/1997 (62 FR 43937) Final ESA Listing for 5 ESU's of Steelhead
- 5/6/1997 (62 FR 24588) Final ESA Listing for Southern Oregon / Northern California Coast Coho Salmon
- 10/31/1996 (61 FR 56138) Final ESA Listing for Central California Coast Coho Salmon
- 1/4/1994 (59 FR 222) Final ESA Listing for Sacramento River Winter-run Chinook Salmon
- 4/22/1992 (57 FR 14653) Final ESA Listing for Snake River Spring/summer-run and Snake River Fall Chinook Salmon
- 11/20/1991 (56 FR 58619) Final ESA Listing for Snake River Sockeye Salmon
- 11/5/1990 (55 FR 46515) Final ESA Listing for Sacramento River Winter-run Chinook Salmon

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