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September 9, 2016

Jeff Lundstrom, Project Manager
Seattle Department of Transportation

**Subject: Madison Street Corridor Bus Rapid Transit (BRT) – Biological Assessment
Letter of “No Effect”**

Dear Mr. Lundstrom:

This memo provides an analysis of the potential effects to fish, wildlife, and plants that are listed as threatened or endangered, as well as designated critical habitat, under the federal Endangered Species Act (ESA) for the proposed construction and operation of new Bus Rapid Transit (BRT) facilities (Project) on Madison Street, in Seattle, Washington. The Project is located in Sections 28, 31, 32, and 33 of Township 25 North, Range 4 East, and Section 6 of Township 24 North, Range 4 East.

Introduction

Seattle Department of Transportation (SDOT) is proposing to provide new BRT corridors on Madison Street between 1st Avenue and Martin Luther King, Jr. Way East (MLK Jr. Way), Spring Street between 1st Avenue and 9th Avenue, and 1st Avenue and 9th Avenue between Madison Street and Spring Street (Figure 1).

The 2.4-mile corridor would begin and end at MLK Jr. Way E in the east. Figure 2 shows that from MLK Jr. Way E the Madison BRT Project would head west on Madison Street for 2.26 mile to 1st Avenue, head north on 1st Avenue for 290 feet, head east on Spring Street for 0.43 mile, south on 9th Avenue for 290 feet, and head east on Madison Street for 1.78 miles. The key elements to the Madison Street BRT Project include the construction and operation of:

- approximately 11 BRT station areas with 21 directional platforms;
- three curbside layover stalls located at the eastern terminus of the corridor;
- a total of 1.98 new miles of transit only lanes (TOL) and 0.82 mile of business access and transit (BAT) lanes throughout the corridor to ensure adequate transit flow;
- signal improvements, including Transit Signal Priority (TSP), to hold lights green for approaching BRT vehicles and shorten times for BRT vehicles at intersections;
- utility improvements for electrically powered busses using either electric trolleybus (ETB) technology requiring overhead contact systems (OCS) or a combination of ETB/OCS and emerging battery-powered technology allowing for substantial “off wire” operation;
- pedestrian and bicycle improvements including repair and restoration of sidewalks, protected bicycle lanes (PBSs), and additional crosswalk and bicycle crossings;
- landscape improvements throughout the corridor, including the installation of a 2,600 square-foot Pocket Plaza with sidewalk and landscaping at the intersection of Madison Street, E Pike Street and 14th Avenue;

- stormwater improvements including improving stormwater quality and detention where required per the City of Seattle's stormwater code;
- utility relocations where roadway will be widened to accommodate BRT bus lanes and stations.

Construction would be phased, with the Spring Street improvements between 3rd and 6th Avenue being made in the winter of 2016/2017 and the remaining improvements being made in 2018 and 2019. Construction would be completed in the fall of 2019.

SDOT has prepared this biological assessment on behalf of Federal Transit Administration (FTA) to address potential Project-related effects to federally listed species under the jurisdiction of the National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS). The Madison Street BRT Project will be constructed using federal funds, thereby creating a federal nexus for this Project and requiring ESA consultation. The ESA requires federal agencies to ensure that their actions do not jeopardize the continued existence of threatened or endangered species or result in any adverse modification or destruction of their designated critical habitat.

Based on a review of the distribution and life history of federally listed species with the potential to occur in the Project vicinity, an evaluation of potential environmental effects of the proposed Project, and walkthrough of the Project area (May 20, 2016) by a Project biologist, it is determined that the Madison Street BRT Project will have “no effect” on any ESA-listed species or designated critical habitat.

Listed Species Potentially Present

Both NMFS and USFWS provide listings of threatened and endangered species under their jurisdiction, potentially occurring in the Project vicinity (Attachment A). The current listings from NMFS indicate the potential presence of the Puget Sound Evolutionary Significant Unit (ESU) of Chinook salmon (*Oncorhynchus tshawytscha*) and the Puget Sound Distinct Population Segment (DPS) of steelhead (*O. mykiss*) within areas potentially affected by the Project. Additionally, the USFWS lists the Coastal/Puget Sound DPS of bull trout (*Salvelinus confluentus*) as potentially occurring within the Project vicinity (USFWS, 2016). Critical habitat has been designated for Chinook salmon and bull trout in Lake Union, where some of the stormwater from the Project Action Area is discharged, but no designated critical habitat for the Puget Sound steelhead DPS occurs in the lake.

The additional ESA-listed species included on the USFWS Information for Planning and Conservation (IPaC) database report for the Project (USFWS, 2016) were either not historically distributed within the Action Area, and/or the Action Area does not contain suitable habitat to support these species (Attachment A). For example, no mature forested areas occur within the Action Area containing habitat elements suitable for marbled murrelet (*Brachyramphus marmoratus*) or yellow-billed cuckoo (*Coccyzus americanus*). The Project Action Area also does not contain open grassland or similar habitats suitable for streak-horned lark (*Eremophila alpestris strigata*). Without suitable habitat, these species are extremely unlikely to occur in the Action Area. Therefore, it is determined that the Project will have “no effect” on these species, and they are not addressed further in this report. In addition, no designated or proposed critical habitat for these species is identified as occurring in the Project vicinity.

The potential presence of listed species within the Action Area was further evaluated by reviewing the Washington Department of Fish and Wildlife (WDFW) Priority Habitats and

Species (PHS) data (WDFW, 2016), and the Salmonscape database (WDFW, 2016). These additional data sources did not indicate the potential for additional listed species to occur within the Action Area. The PHS data did show two peregrine falcon breeding areas approximately 200 meters from the western extent of the Project area. However, due to a resurgence of peregrine falcon numbers, this species was delisted in 1999, and thus this species is not evaluated in this biological assessment.

In addition, the Washington State Department of Natural Resources (WDNR) Natural Heritage Database (WDNR, 2015) was reviewed for the potential presence of federally-listed plant species in the Action Area. No threatened or endangered plants are known to occur within the Project vicinity.

Project Purpose and Background

The Madison BRT Project is located in a dense and rapidly developing area that includes portions of Madison Valley, the Central District, Capitol Hill, First Hill, and Downtown Seattle. These areas are among the densest residential neighborhoods in the City and are sizable employment centers due to the presence of two major medical centers and Seattle University. Providing BRT service along this 2.4-mile corridor is identified in the Seattle Transit Master Plan and listed as a near-term action in the 2016 Move Seattle Strategic Vision. This project would improve transit capacity, travel time, reliability, and connectivity in an area that is highly urbanized and has a lower rate of automobile ownership than other parts of the city.

The Madison BRT Project would connect with dozens of bus routes, the Center City Streetcar and First Hill Streetcar, and would improve access to ferry service at the Colman Dock Ferry Terminal, First Hill medical institutions and housing, Seattle University, and Link light rail. As part of the project, pedestrian and bicycle access along the corridor would also be improved and enhancements would be made to the streetscape and public realm to increase comfort, visibility, and legibility in the Madison Street corridor.

Project Location and Site Description

The proposed Project is located within the Central Puget Sound and Central Lake Washington basins. These basins are extensively developed and include a mixture of highly urbanized commercial and residential development, and are estimated to be nearly 100% covered in impervious surfaces. The Madison corridor spans several urban neighborhoods. Land use in these neighborhoods is briefly described below.

- **Downtown** – The Downtown neighborhood is located at the westernmost end of the Project corridor from 1st Avenue to the Interstate 5 (I-5) crossing. Downtown Seattle is primarily commercial, including large office towers in the city center.
- **First Hill** – Moving east to First Hill, from I-5 to Broadway Avenue, the density decreases and there is a greater mixture of mid- and low-rise buildings with mixed residential-commercial uses. On the summit of First Hill, and heading east toward Broadway, institutional uses line the south side of Madison and commercial uses line the north.
- **Capitol Hill** – The Capitol Hill neighborhood is located to the north of the corridor from Broadway Avenue to 26th Avenue. The Pike-Pine Corridor, Madison Valley, and Broadway areas are located along the Madison Street Corridor. It includes Seattle University and other mid-rise development, transitioning into low-rise and mixed commercial and residential development.

- **The Central Area** – The Central Area neighborhood is located to the south of the corridor from Broadway Avenue to 26th Avenue. It includes mid-rise development, transitioning into low-rise and mixed commercial and residential development.
- **Madison Valley** – The Madison Valley neighborhood is located between 26th Avenue to MLK Jr. Way, and east of the Project corridor to Madison Park. Low-rise and mixed commercial and residential development dominates the corridor in this neighborhood.

The proposed alignment is comprised primarily of existing impervious surfaces including buildings, roadways, sidewalks, and parking lots. Vegetation is limited to residential and commercial landscaping and street trees. The occasional green-space, empty lot, or small park also provide areas of vegetation within the corridor; however, these areas are commonly dominated by weeds and non-native species due to lack of maintenance. No wetlands or streams exist in the proposed alignment or its vicinity.

Stormwater Improvements

The project will replace existing stormwater infrastructure impacted by the Madison BRT Project. The majority of storm drainage impacts will be from proposed curbside bus stations. The Project would address the City's stormwater code, improving stormwater quality and detention where required. The project passes through five basins and each will be addressed appropriately. The project is required to provide flow control for each of the four combined sewer basins which flow to the West Point Sewer Treatment Plant outfall. This outfall is a municipal sewer facility with existing water quality treatment facilities, stormwater detention facilities, and flow control structures. The fifth basin discharges into Lake Union, which is a flow exempt waterbody. The project will evaluate stormwater BMPs including rain gardens and pervious surfaces to meet requirements of the City of Seattle 2016 Stormwater Manual.

Action Area

An Action Area is defined to be “all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action” (50 CFR §402.02). Based upon the geographic extent of anticipated Project impacts, the Action Area for the Madison Street BRT Project includes the Project footprint and the terrestrial and aquatic habitat where potential direct or indirect impacts could occur. The terrestrial portion of the Action Area is defined by the extent and range that construction noise exceeds background levels, while the aquatic portion is based on potential changes in water quality conditions. The project action area is described below:

Noise

The Project is located within an urban setting and will require the use of heavy machinery including concrete saws, jackhammers, and excavators. Using the rules for decibel addition, the combined noise level of all construction equipment operating together was calculated. The three loudest pieces of equipment have noise levels of 90, 89, and 81 A-weighted decibels (dBA) at a distance of 50 feet from the source. Combined, the equipment will generate noise at about 94 dBA at 50 feet from the source. The standard reduction for point source noise, such as that generated from construction activities, is 6 dB per doubling of distance from the source.

Background noise is estimated to be about 65 dBA (Cavananugh and Tocci in WSDOT, 2015) for the Project area due to its setting passing through urban residential and commercial

environments. It is likely that background noise levels are significantly higher in the area where the Project crosses I-5 or in the downtown portion of the corridor; however, the Project in general passes through primarily urban commercial and residential environments. Therefore, the Project Action Area will include a terrestrial zone of effect related to construction noise extending in all directions from the Project area for a distance of 1,400 feet (Figure 3). No in-water work will occur during the Project, eliminating any potential effects of construction noise on the aquatic environment within the Action Area.

Stormwater

As mentioned above, the Project limits are within five stormwater basins or threshold discharge areas (TDAs) including four combined sewer basins and one basin to Lake Union. The outfall for the combined sewer basins is the West Point Sewer Treatment Plant outfall. The TDA's are summarized in Table 1. The following is a description of the Project basin limits:

- **TDA 1: SODO/Waterfront Combined Sewer Basin** includes Spring Street and Madison Street from the project limits at First Avenue to Second Avenue.
- **TDA 2: Combined Sewer Basin** includes Spring Street and Madison Street from Second Avenue to Interstate 5.
- **TDA 3: Lake Union Basin** includes Madison Street from Interstate 5 to 17th Avenue.
- **TDA 4: Combined Sewer Basin** includes the area on Madison Street from 13th Avenue to 14th Avenue and East Pike Street.
- **TDA 5 (Sub-basin A): Combined Sewer Basin** includes Madison Street from the Lake Union basin limits at 17th Avenue to the project limits at Martin Luther King Junior Way East.
- **TDA 5 (Sub-basin B): Partially Separate/Combined Sewer Basin** includes portions of Madison Street that are partially separated and connect to the Washington Park detention facility. This basin is a combined sewer basin since the stormwater outfalls to the West Point Wastewater Treatment Plant.

Table 1. Summary of Project TDAs

Basin	Outfall	Area of Basin within Project Area (SF)	Existing Hard Surface Area (SF)	Disturbed Area (SF)	Replaced PGHS in Disturbed Area (SF)	New and Replaced Hard Surface (SF)	New PGHS (SF)	Percent Increase of PGHS within Basin
TDA 1	West Point Sewer Treatment Plant	40,000	39,600	11,000	9,760	11,000	0	0
TDA 2	West Point Sewer Treatment Plant	185,200	183,400	53,100	37,190	53,100	140	0.08
TDA 3	Lake Union	487,100	475,000	230,500	157,020	228,600	4,310	0.91
TDA 4	West Point Sewer Treatment Plant	56,100	54,700	27,700	17,960	25,000	60	0.11
TDA 5 (Sub-basin A)	West Point Sewer Treatment Plant	171,900	162,500	131,200	99,560	129,600	2,590	1.6
TDA 5 (Sub-basin B)	West Point Sewer Treatment Plant	180,100	173,800	122,800	89,850	121,300	0	0

Because TDAs 1, 2, 4, and 5 outfall to municipal sewer facilities with existing water quality treatment facilities, stormwater detention facilities, and flow control structures, before discharging to Puget Sound, project impacts in these areas will result in the same post-construction pollutants and flow levels that currently exist. Therefore, it is determined that

impacts from these portions of the Project will have “no effect” on listed species and are not discussed further. The remainder of this letter will focus on impacts from TDA 3, which outflows to Lake Union at Minor Avenue N, approximately 1.5 miles northwest of the Project alignment.

Because the basin is estimated to be currently about 98% hard (impervious) surface, and the Project will primarily result in just converting the use of existing impervious areas, no substantial changes in the percentage of impervious area will occur. Due to its large size and because water levels are controlled by the Hiram Chittenden (Ballard) Locks; Lake Union is considered a flow exempt waterbody by the Washington State Department of Ecology (Ecology), Washington State Department of Transportation (WSDOT) and USFWS. Therefore, the aquatic portion of the Action Area is based on potential effects of Project activities on water quality conditions, rather than on any changes to flow conditions. As a result, the aquatic portion of the Action Area includes those portions of waterways within a 150-foot-radius mixing zone of the existing stormwater outfall. This area represents the maximum distance that turbidity, sedimentation, or pollutant loading from the Project construction activities would affect area waterways, as well as the distance that indirect effects associated with stormwater discharges could occur subsequent to construction.

In summary, the components of the Action Area includes the extent of all potential direct and indirect effects of noise, soil disturbing activities, and stormwater quality (Figure 3).

However, due to the already extensively built-out environment of the Action Area, the minor increase of PGHS within the overall TDA, and the conversion of high capacity general purpose traffic lanes to lightly used BRT bus and trolley lanes, resulting in less cars, and an anticipated decrease in pollution loading, changes to water quality conditions are not anticipated at the Lake Union outfall.

Project Description

Construction Equipment and Staging/Stockpiling

Construction machinery that will be used includes typical equipment such as concrete saws, jackhammers, and excavators. Construction stockpiling and staging areas for the Project will be within paved areas adjacent to the site. No additional clearing or grading will be required for staging and stockpile areas.

Construction Sequence and Schedule

Construction would be phased, with the Spring Street improvements between 3rd and 6th Avenue being made in the winter of 2016/2017 and the remaining improvements being made in 2018 and 2019. Construction would be completed in the fall of 2019. It should be noted that this schedule is only a likely representation and that variations in work timing may occur due to delays in Project funding, permitting, or due to contractor delays or adverse weather conditions. The general sequence of construction activities is as follows (as applicable):

- Mobilize;
- Install temporary erosion and sediment control (TESC) measures and construction best management practices (BMPs);

- Install and maintain spill prevention control and countermeasures (SPCC)
- Clearing and grading;
- Install stormwater BMPs;
- Install site improvements;
- Complete paving and resurfacing;
- Complete planting and vegetation efforts;
- Remove BMPs; and
- Site cleanup and demobilize.

Avoidance and Minimization Measures

Numerous BMPs, described below, have been incorporated into the proposed Project to avoid and minimize short-term and long-term impacts to fish and wildlife habitats in the Project vicinity. All BMPs comply with the City of Seattle Construction Stormwater Manual (City of Seattle, 2015).

Erosion and Sediment Control Measures

A TESC plan will be implemented. Elements of this plan will include:

- Implement construction phasing that minimizes the amount of earthwork that exposes the ground surface to erosion,
- Implement sediment-control BMPs such as silt fences, check dams, sediment traps, sedimentation basins, and flocculation methods,
- Use erosion control practices (seeding, mulching, soil conditioning with polymers, use of geo-synthetics, sod stabilization, erosion-control blankets, vegetative buffer strips, and preservation of trees with construction fences),
- Use construction entrances, exits, parking areas, and wheel wash stations as appropriate to reduce tracking sediment onto public roads,
- Perform routine inspections of erosion and sediment control BMPs and subsequent BMP maintenance, and
- Implement construction BMPs to control dust and limit impacts to air quality.

Clearing/Vegetation Removal

The Project will implement BMPs to minimize vegetation clearing and removal.

- Install high-visibility construction fencing to define the perimeter of the work area and protect surrounding areas from construction related impacts.

- Replace all trees removed at a minimum 1:1 ratio in accordance with City of Seattle street tree planting guidelines. Any temporarily cleared vegetation will be replanted to its pre-construction condition following construction.
- Clearly mark the limits of construction and protect vegetation remaining outside of these limits. Protect street trees as required by City code.

Stormwater Pollution/Spill Prevention

An SPCC plan will be implemented. Elements of this plan will satisfy all pertinent requirements set forth by federal, state, and local laws and regulations. These measures include:

- All construction vehicles operated within the study area will be inspected daily for fluid leaks before leaving the vehicle staging area. Any leaks detected will be repaired before resuming operation. When not in use, all vehicles will be stored in the staging areas or stored with spill containment pans or pads.
- Spill response equipment will be maintained on-site to control or contain potential fluid leakage.
- All mechanical equipment will be fueled at designated sites. Additionally, drip pans will be fitted with absorbent pads and placed under all equipment being fueled.

In addition to the SPCC source controls, BMPs will be installed during construction for specific pollution-generating activities to prevent prohibited discharges and contaminants from coming in contact with drainage water.

Staging Areas

- All staging and stockpile areas will be limited to paved or maintained right-of-way areas.

Listed Species/Critical Habitat Occurrence

Madison BRT Project Alignment

The Project alignment and associated Action Area do not contain any streams or other suitable habitat for fish.

Lake Union Outlet

Lake Union contains several listed species including bull trout, winter steelhead, and fall Chinook salmon. Lake Union has also been designated critical habitat for Chinook salmon and bull trout.

Impacts Assessment

The only waterbody within the Project Action Area is Lake Union. No other wetlands or streams are present. However, no changes to post-project stormwater pollutant loading or concentrations of pollutants of concern (TSS, total copper, dissolved copper, total zinc, and dissolved zinc) are expected to occur at the Lake Union outfall. TDA 3 will result in approximately 4,310 square feet (0.10 acre) of new PGHS, representing only about a 0.91%

increase relative to existing conditions. In addition, no changes in land uses will occur, and the Project will replace general purpose traffic lanes with lightly used BRT and BAT lanes, electric trolleys, and bike lanes. Therefore, no changes to Lake Union water quality are expected to occur.

In addition to the minor increase in PGHS and no changes in land use, only a limited number of listed species are likely to occur near the TDA2 outfall in Lake Union. There are no natal streams that support these species in Lake Union, so the lake serves as a migration route for returning adult fish, which are unlikely to occur near the outfall at the southern end of the lake. Juvenile salmonids also appear to avoid overwater structures and shoreline area of Lake Union based on both juvenile Chinook salmon acoustic tagging studies period (Celedonia et al., 2008a, b) and above water and snorkeling studies in the lake (Pentec, 2010). Fine-scale acoustic tracking between 2005 and 2007 in the Lake Washington Ship Canal and Lake Union showed little evidence of shoreline affinity. Instead, juvenile Chinook salmon smolts were observed fanning out and mixing within Portage Bay and Lake Union, typically in water greater than 33 feet deep (Celedonia et al., 2008a). Pentec (2010) noted that only 1 of 97 observations events conducted between late-April and early-July revealed the presence of juvenile Chinook salmon proximal to floating homes. Juvenile salmonids largely selected against nearshore habitats in South Lake Union and Gas Works Park. In addition, while some juvenile Chinook salmon rear in Lake Union, few juvenile steelhead or bull trout are expected to rear extensively in the lake, and unlikely to occur in the South Lake Union area.

Effect Determinations

The proposed Project will have **no effect** on any listed species, based on the following rationale:

- the Project will meet all local, state, and federal water quality regulations, including the City of Seattle's National Pollutants Discharge Elimination System (NPDES) municipal stormwater permit.
- the implementation of TESC and SPCC plans during construction will substantially minimize or completely eliminate the potential for increased turbidity and sedimentation within Lake Union.
- the Project occurs in the highly developed urban area of downtown Seattle, offering no habitat to listed species,
- there will be only a minor (0.91%) increase in PGHS in the TDA, therefore no changes pollutant loading are expected, as no changes in land use will occur,
- there will be a decrease in the level of service of the Action Area roadways due to converting existing general purpose lanes to BRT, BAT, electric trolley, and bicycle uses, resulting in less potential for pollutant loading, and
- the limited potential for listed fish species to occur near the Minor Avenue N outfall.

For these same reasons, the Project will have **no effect** on Chinook salmon or bull trout critical habitat.

The Magnuson-Stevens Act mandates that NMFS must identify essential fish habitat (EFH) for federally managed fish species occurring in the Project Action Area. Federal agencies are required to consult with NMFS on all activities, or proposed activities, authorized, funded, or undertaken by the agency that may adversely affect EFH. The Pacific Fishery Management Council (PFMC) has designated EFH for the Pacific salmon fishery, federally managed ground fishes, and coastal pelagic fisheries (NOAA Fisheries 1999; PFMC 1999).

The Project Action Area includes designated EFH for Pacific salmon (Chinook and coho salmon), as these species are known to occur in Lake Union. While the Project Action Area provides potential juvenile rearing habitat for these two species, their use of the nearshore habitat in South Lake Union is expected to be limited and transient. No other EFH uses are expected to occur in the vicinity of the Lake Union Minor Avenue N outfall, and the project will not alter the quality or amount of EFH for these species.

Based on the above, we have determined that this project will have **no adverse effect** on the designated Pacific salmon EFH. The Project will also have **no adverse effect** on designated ground fish or coastal pelagic species, as EFH for these species does not occur in the Project Action Area.

Conclusion

Based on the above analyses, the proposed Project will have **no effect** on any ESA-listed species. Additionally, the Project will have **no effect** on designated critical habitat for any listed species. Similarly, the Project will have **no adverse effect** on designated EFH.

It is our understanding that this assessment satisfies FTA's responsibilities under Section 7(c) of the Endangered Species Act and the Magnuson-Stevens Act at this time. 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 reevaluate potential project impacts if necessary.

If you require additional information or clarification regarding this project, please contact name of project biologist at phone number or email.

Sincerely,

Bob Sullivan & Jessica Redman

Cc: Jeff Lundstrom, SDOT Project Manager

Sandy Gurkewitz, SDOT Environmental Planner

References

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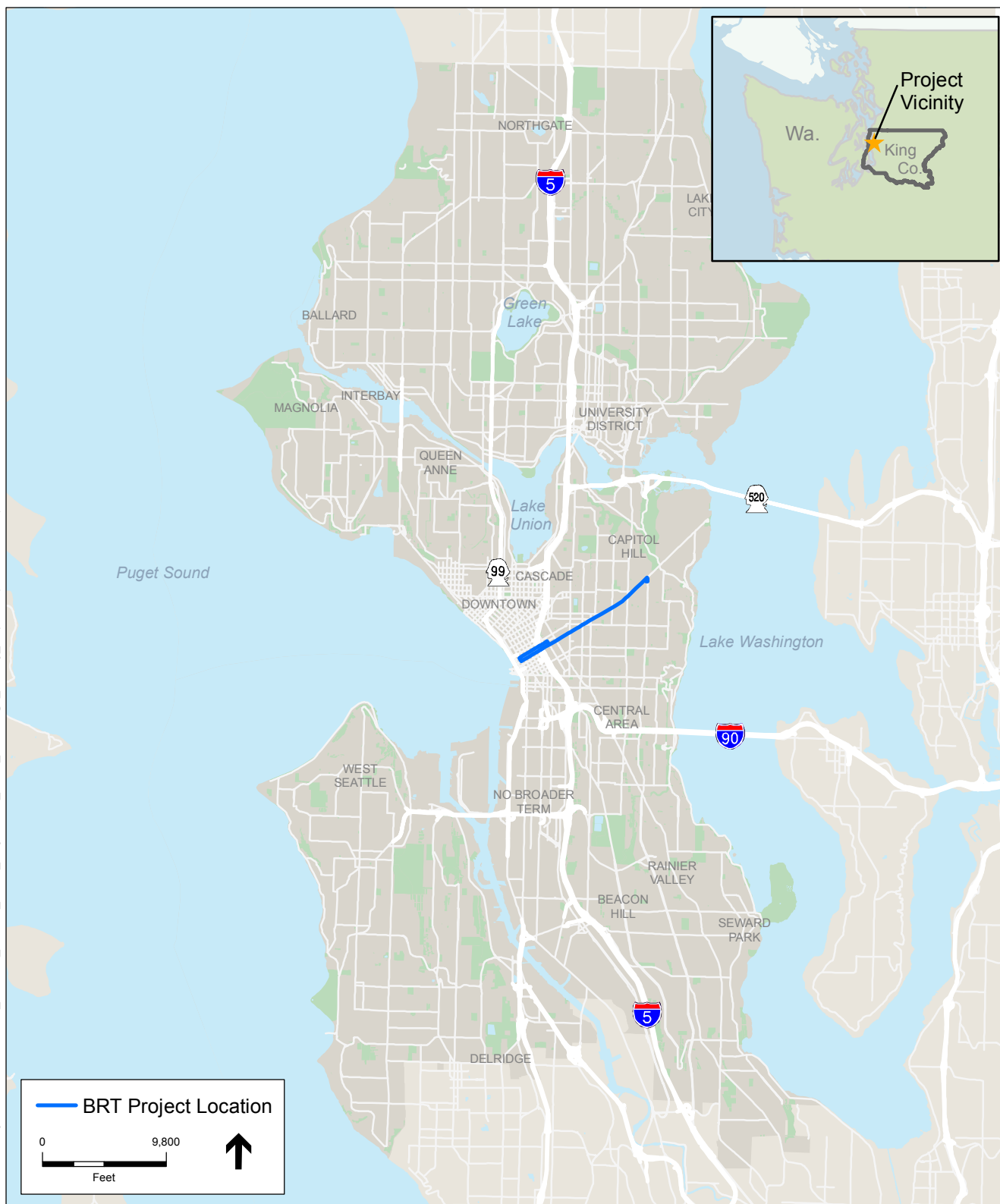
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FIGURES

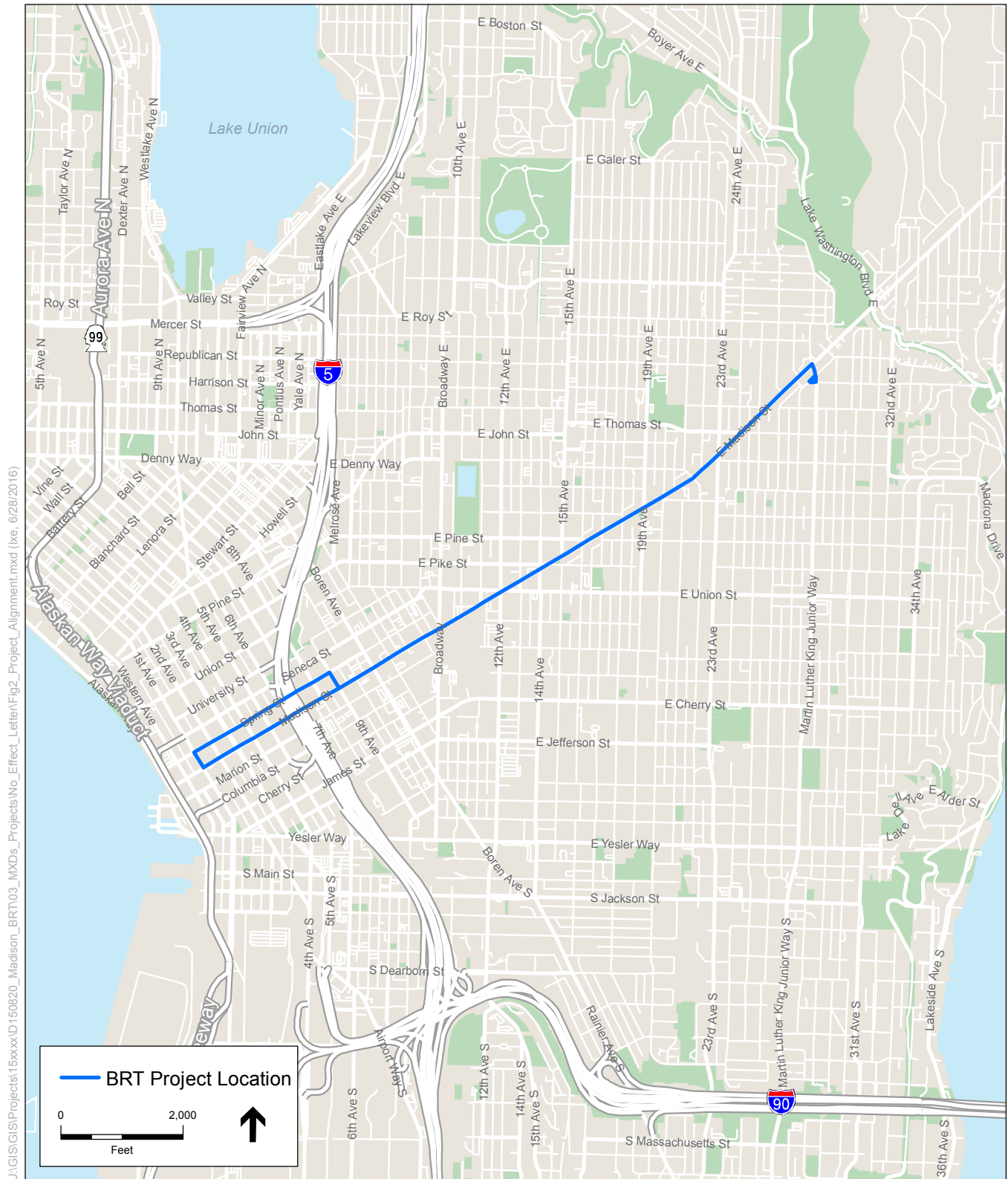
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SOURCE:
Wa. Dept. of Ecology 2016; ESA 2016; OSM 2015.

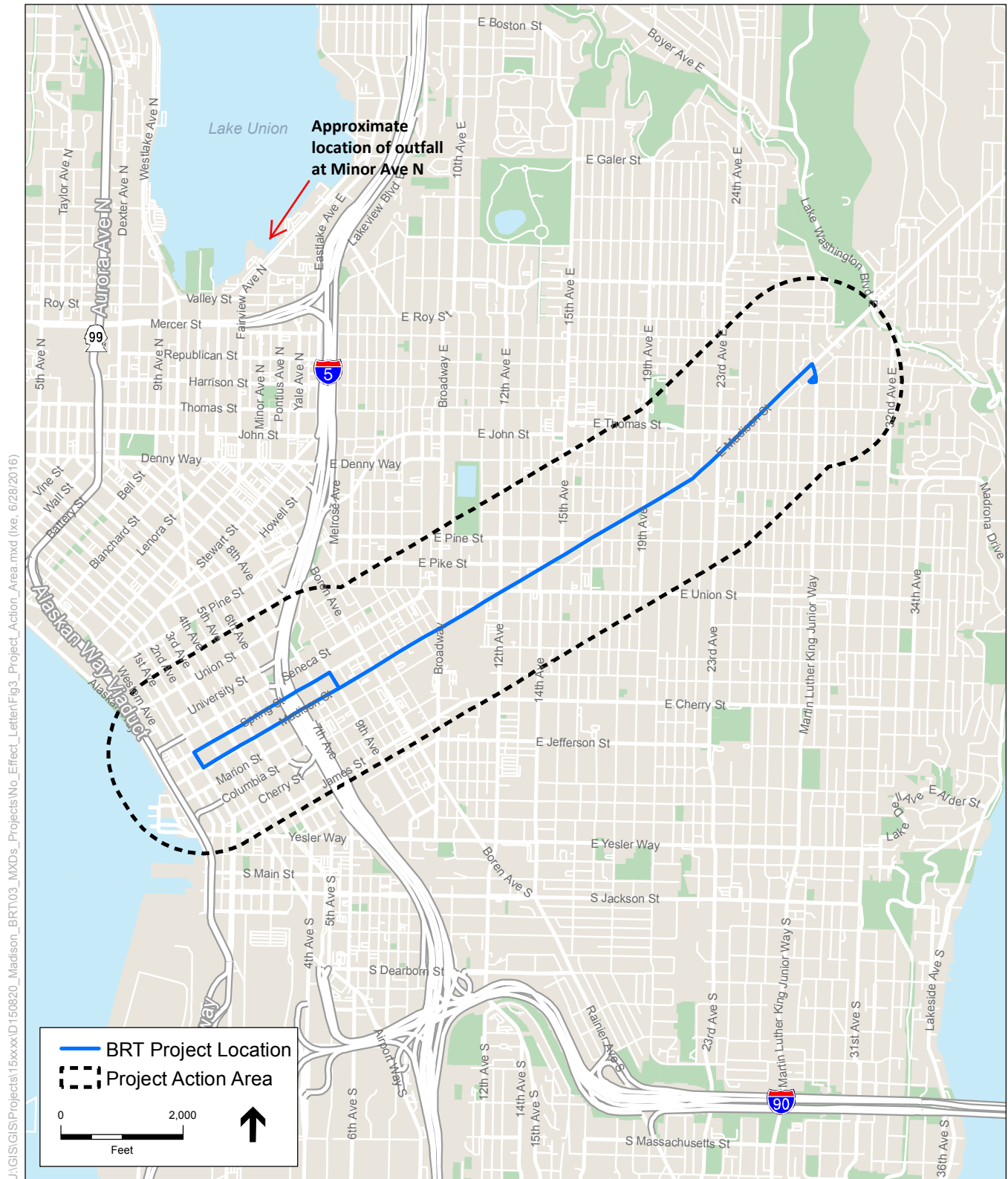
SDOT Madison BRT Design . 150820

Figure 1
Project Vicinity



SOURCE:
 Wa. Dept. of Ecology 2016; ESA 2016; OSM 2015.

SDOT Madison BRT Design . 150820
Figure 2
 Project Alignment



SOURCE:
Wa. Dept. of Ecology 2016; ESA 2016; OSM 2015.

SDOT Madison BRT Design . 150820

Figure 3
Project Action Area

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

PUGET SOUND DOMAIN

- Puget Sound Chinook (T) [FCH 9/2/05]
- Hood Canal Summer Chum (T) [FCH 9/2/05]
- Ozette Lake Sockeye (T) [FCH 9/2/05]
- Puget Sound Steelhead (T) [CH under dev.; ANPR 1/10/11]

WILLAMETTE/LOWER COLUMBIA DOMAIN

- Columbia River Chum (T) [FCH 9/2/05]
- Lower Columbia River Coho (T) [CH Under dev.; ANPR 1/10/11]
- Lower Columbia River Chinook (T) [FCH 9/2/05]
- Lower Columbia River Steelhead (T) [FCH 9/2/05]
- Upper Willamette River Chinook (T) [FCH 9/2/05]
- Upper Willamette River Steelhead (T) [FCH 9/2/05]

OREGON COAST DOMAIN

- Oregon Coast Coho (T) [FCH 2/11/08]

SOUTHERN OREGON/NORTHERN CALIFORNIA COAST DOMAIN

- Southern Oregon/Northern California Coast Coho (T) [FCH 5/5/99]

NORTH-CENTRAL CALIFORNIA COAST DOMAIN

- Central California Coast Coho (E) [FCH 5/5/99]
- California Coastal Chinook (T) [FCH 9/2/05]
- Northern California Steelhead (T) [FCH 9/2/05]
- Central California Coast Steelhead (T) [FCH 9/2/05]

SOUTH-CENTRAL/SOUTHERN CALIFORNIA COAST DOMAIN

- South-Central California Coast Steelhead (T) [FCH 9/2/05]
- Southern California Coast Steelhead (E) [FCH 9/2/05]

INTERIOR COLUMBIA DOMAIN

- Snake River Sockeye (E) [FCH 12/28/93]
- Snake River Fall Chinook (T) [FCH 12/28/93]
- Snake River Spring/Summer Chinook (T) [FCH 12/28/93; 10/25/99]
- Snake River Steelhead (T) [FCH 9/2/05]
- Upper Columbia River Spring Chinook (E) [FCH 9/2/05]
- Upper Columbia River Steelhead (T) [FCH 9/2/05]
- Middle Columbia River Steelhead (T) [FCH 9/2/05]

CENTRAL VALLEY DOMAIN

- Sacramento River Winter Chinook (E) [FCH 6/16/93]
- Central Valley Spring Chinook (T) [FCH 9/2/05]
- Central Valley Steelhead (T) [FCH 9/2/05]

CRITICAL HABITAT RULES CITED

- 6/16/93 (58 FR 33212) Final CHD for Sacramento River Winter-run Chinook
- 12/28/93 (58 FR 68543) Final CHD for Snake River Chinook and Sockeye
- 5/5/99 (64 FR 24049) Final CHD for Central CA Coast and SONCC Coho
- 10/25/99 (64FR57399) Revised CHD for Snake River Spring/Summer Chinook
- 9/2/05 (70 FR 52630) Final CHD for 12 ESUs of Salmon and Steelhead
- 2/11/08 (73 FR 7816) Final CHD for Oregon Coast Coho
- 1/10/11 (76 FR 1392) Advance Notice of Proposed Rulemaking; CHDs for Lower Columbia Coho and Puget Sound Steelhead

LEGEND

(E) Endangered

(T) Threatened

(FCH) Final Critical Habitat Designated



Domain Overlap

0 100 200 Miles

Updated 10-31-12

APPENDIX A



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: 01EWF00-2016-SLI-0985

June 27, 2016

Event Code: 01EWF00-2016-E-01062

Project Name: Madsion Street Bus Rapid Transit (BRT)

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: Madsion Street Bus Rapid Transit (BRT)

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: 01EWWF00-2016-SLI-0985

Event Code: 01EWWF00-2016-E-01062

Project Type: TRANSPORTATION

Project Name: Madsion Street Bus Rapid Transit (BRT)

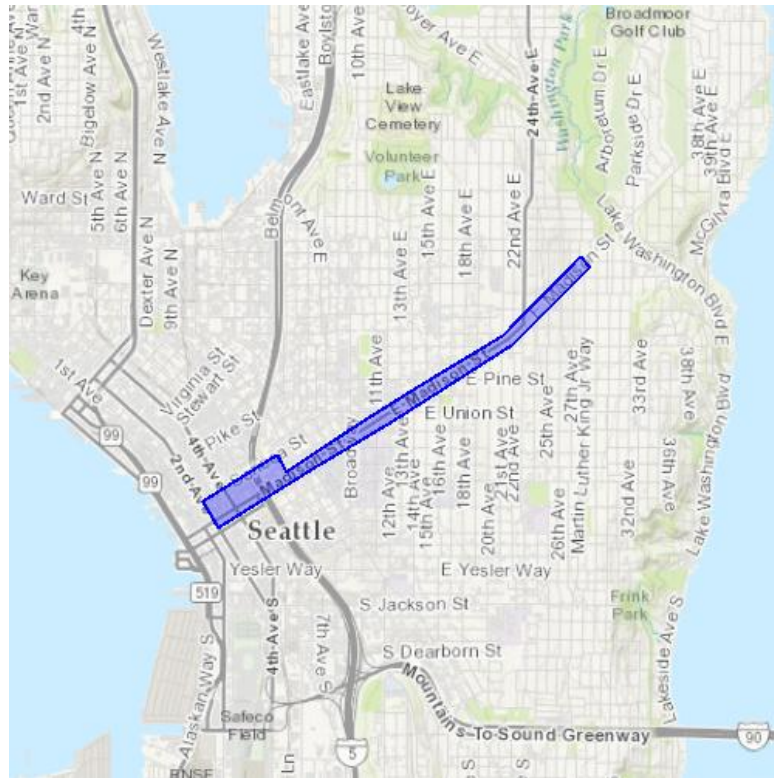
Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your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



United States Department of Interior
Fish and Wildlife Service

Project name: Madsion Street Bus Rapid Transit (BRT)

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-122.33471632003784 47.6046873630406, -122.32473850250243 47.60891175009864, -122.3167562484741 47.61213767893885, -122.30364561080933 47.61764878305931, -122.29557752609252 47.62323161906993, -122.29654312133788 47.62394027840764, -122.30465412139893 47.61840090970385, -122.31424570083618 47.61449551898437, -122.31937408447266 47.612311265880294, -122.32759237289429 47.60863688597591, -122.32860088348387 47.60983759756865, -122.33643293380739 47.60653919114696, -122.33471632003784 47.6046873630406)))

Project Counties: King, WA



United States Department of Interior
Fish and Wildlife Service

Project name: Madsion Street Bus Rapid Transit (BRT)

Endangered Species Act Species List

There are a total of 4 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.

Birds	Status	Has Critical Habitat	Condition(s)
Marbled murrelet (<i>Brachyramphus marmoratus</i>) Population: CA, OR, WA	Threatened	Final designated	
Streaked Horned lark (<i>Eremophila alpestris strigata</i>)	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	



United States Department of Interior
Fish and Wildlife Service

Project name: Madsion Street Bus Rapid Transit (BRT)

Critical habitats that lie within your project area

There are no critical habitats within your project area.