Washington State Department of Transportation

Northgate Pedestrian and Bicycle Bridge Project

ESA No Effect Assessment

Prepared for

Seattle Department of Transportation

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1 Introduction

1.1 Project Location and Setting

The project is located in the Northgate area of Seattle, Washington (Figures 1 and 2) and is generally bounded by College Way N on the west, 1st Avenue NE on the east, Northgate Way on the north and NE 92nd Street on the south. This area is bisected by the Interstate 5 (I-5) freeway. The eastern portion of the project lies within Seattle Department of Transportation (SDOT) and Washington Department of Transportation (WSDOT) rights-of-way. The western portion of the project lies within WSDOT right-of-way and lands owned by the North Seattle College (NSC). The project is located within the Sections 31 and 32, Township 26 North, Range 04 East. The project lies within Water Resource Inventory Area (WRIA) 8—Lake Washington/ Cedar/ Sammamish Watershed.

The project occurs within the highly developed Thornton Creek watershed. Interstate 5, an approximately 10-lane freeway in the project vicinity, bisects the project area into western and eastern geogrpahic areas. Multifamily buildings, parking lots, and the NSC occupy over 30 acres of developed area within the western project area. This area is primarily composed of pollution generating hard surfaces (PGHS). Northgate Mall, the Northgate Transit Center, and associated developments are located within the eastern project area, occupying approximately 190 acres of area, also with a significant PGHS component. In addition, the I-5 traffic lanes and expressway on-/off-ramp, within the project area consist entirely of PGHS.

Land use west of I-5 is located on the NSC campus and a portion of WSDOT right-of-way. It is largely natural area, containing native and invasive non-native trees and shrubs, as well as maintained lawns. The northern and western portions of the NSC are dominated by deciduous forest cover and include six wetlands and one watercourse. The central, eastern, and southern portions contain maintained lawn, shrubs (primarily Himalayan blackberry), and scattered trees. Several dirt roads and trails traverse the campus (Figure 3).

Land use to the east of I-5 includes a transit station, a large regional shopping center and a variety of smaller scale retail facilities, apartments, hotels, medical facilities and other largely commercial uses. Two park-and-ride lots are located at the intersection of NE 100th Street and 1st Avenue NE. The NE 103rd Street/1st Avenue NE exit ramp from I-5 is on the north end of the northern park and ride lot.

In addition to grassy areas and scattered trees and shrubs east of I-5, there are extensive Himalayan blackberry brambles throughout. There is relatively dense native tree and shrub riparian cover associated with the North and South watercourses and Wetlands A, D, and E (Figures 2 and 3). Vegetated cover is sparse where the bridge alignment will cross I-5.

Currently, Sound Transit's proposed Northgate Link Light Rail Project is under construction along First Ave NE between NE 92nd Street and NE 103rd Street.

The project includes an off-site mitigation site located along Victory Creek which is tributary to the South Branch of Thornton Creek. The mitigation site is located within SDOT right-of-way near Northgate Way and 12 Ave NE and is adjacent to Victory Creek Park (Figure 2). There is approximately 200 feet of riparian corridor on the SDOT and Parks property. The creek flows are year-round at this location, although in the summer months there is approximately 1 cubic foot per second (CFS). Fish passage barriers exist downstream of this location. The riparian corridor is a mix of mature native and non-native deciduous and coniferous vegetation.

1.1.1 Aquatic Habitats

On the west side of I-5, on the NSC campus, there are six wetlands and one watercourse. All wetlands and the watercourse are connected hydraulically to the South Branch of Thornton Creek either by pipe, surface-flow or groundwater. These water resources drain into Wetland 6. Wetland 6 discharge to a 36-inch diameter culvert pipe that extends underneath and to the east side of I-5 where it discharges into the South Watercourse (Figure 4).

On the east side of I-5, there are four wetlands, two ditches, and two watercourses. The North Watercourse and Wetland A are located north of NE 100th Street and receive stormwater and ground water from within the I-5 right-of-way. The South Watercourse is located south of NE 100th Street and receives water from Wetland 6 via the 36-inch pipe described earlier. The rest of the features on the east side of I-5 are located south of NE 100th Street and are not impacted by the project.

Table 1: Aquatic Resources West of Interstat-5—Functional Ratings and Applicable Buffer

Aquatic Resource ID	Wetland Category or Watercourse Type	Habitat Score	SMC Required Buffer
Wetland 1	Category III	4	60 feet
Wetland 2	Category III	4	60 feet
Wetland 3	Category III	3	60 feet
Wetland 4	Category III	3	60 feet
Watercourse 5	Type F	3	50 feet
Wetland 6	Category III	5	60 feet
Wetland 7	Category III	4	60 feet

The North Watercourse and South Watercourse both discharge into a 48-inch stormwater system under First Avenue NE, which then discharges into a 72-inch stormwater system flowing east under NE 100th Street (Figure 4, Appendix D). During low flows, all water from this 72-inch stormwater system is discharged to a water quality treatment feature just north of NE 100th Street, between 3rd Avenue NE and 5th Avenue NE before entering the South Branch of Thornton Creek near 5th Avenue NE. During storm events, high flows are routed directly to the South Branch of Thornton Creek.

Wetland buffers are areas that surround a wetland and reduce adverse impacts to the wetland functions and values from adjacent development. City of Seattle Environmentally Critical Area (ECA) regulations require buffers for certain size and types of wetlands (SMC 25.09). The regulations require that buffers be retained to protect wetlands, or if they must be impacted, require that buffers be restored and/or impacts mitigated. Sixty-foot buffers have been designated for Wetlands 1, 2, 3, 4, 6, and 7. Watercourse 5 has a fifty-foot limited development riparian area.

Table 2: Aquatic Resources East of Interstate-5—Functional Ratings and Applicable Buffer

Aquatic Resource ID	Wetland Category or Watercourse Type	SMC Required Buffer
Wetland A	Category III	60 feet
Wetland D	Category III	50 feet
Wetland E	Category III	50 feet
Wetland F	Category III	0 feet[1]
Wetland 1 (east side)	Type F	50 feet
Wetland 2 (east side)	Category III	50 feet
Ditch 1[2]	Not Applicable	Not Applicable
Ditch 2	Not Applicable	Not Applicable
North Watercourse	Type F	Not Applicable
South Watercourse	Type F	Not Applicable

[1] Wetland F is Category IV, less than 1,000 square feet in size, and is not adjacent to a watercourse or other wetland, therefore the City of Seattle does not require buffers on Wetland F (SMC 25.09.160.B).

[2] Ditch 1 and Ditch 2 will not be impacted by the project, so detailed information is not provided.

1.1.2 Terrestrial Habitats

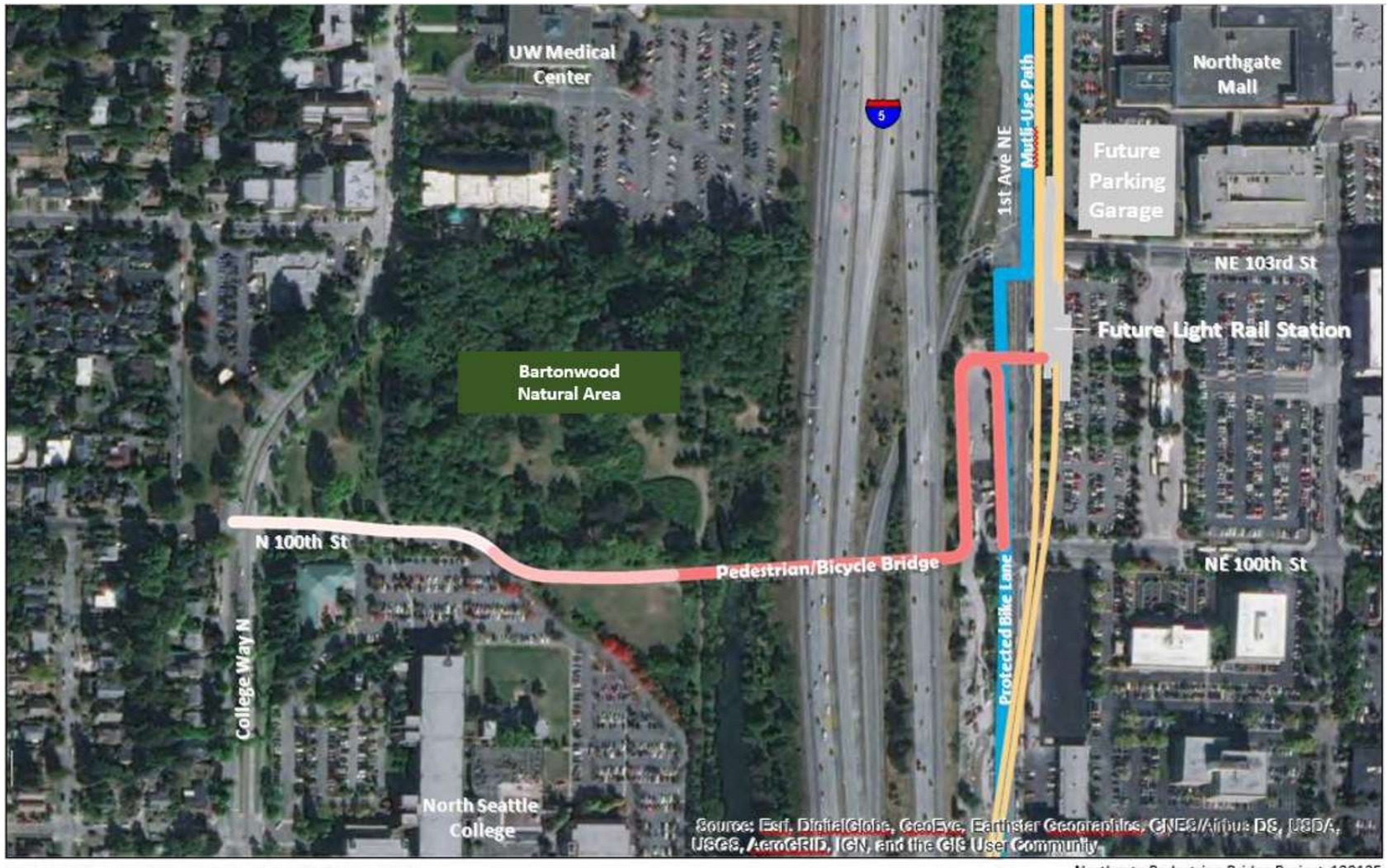
The project is located in an urban setting and spans between the NSC campus (west of I-5) and WSDOT parking lot located between I-5 and 1st Avenue NE (east of I-5). Vegetation and wildlife habitats are impacted by urban development and human activities, but the area still supports native plant species, primarily in the western and northern portion of the project area. East of I-5 is mostly impervious surface however, there is relatively dense native tree and shrub riparian cover associated with the North and South watercourses and Wetlands A, D, and E.

Information on threatened and endangered plant species and plant communities from the Washington State Department of Natural Resources (WDNR) Plant Natural Heritage Database indicated that no threatened or endangered plants are known to occur within the project vicinity (WDNR 2015). Native vegetation west of I-5 is found primarily in association with wetlands and the natural area on the NSC property. East of I-5, native vegetation is also associated with wetlands and watercourses, but occurs in small patches. The central portion of the NSC campus is dominated by Himalayan blackberry, which occupies more than 1.5 acres of land. Himalayan blackberry occupies significant areas east of I-5, both in upland areas and along wetland boundaries and the edges of the watercourses. Japanese knotweed is starting to grow along the border of the apartment buildings to the north of Wetland 3.

Figure 1. Vicinity Maps

Figure 2: Offsite Area Map

Figure 3: Project Site and Proposed Bridge Alignment

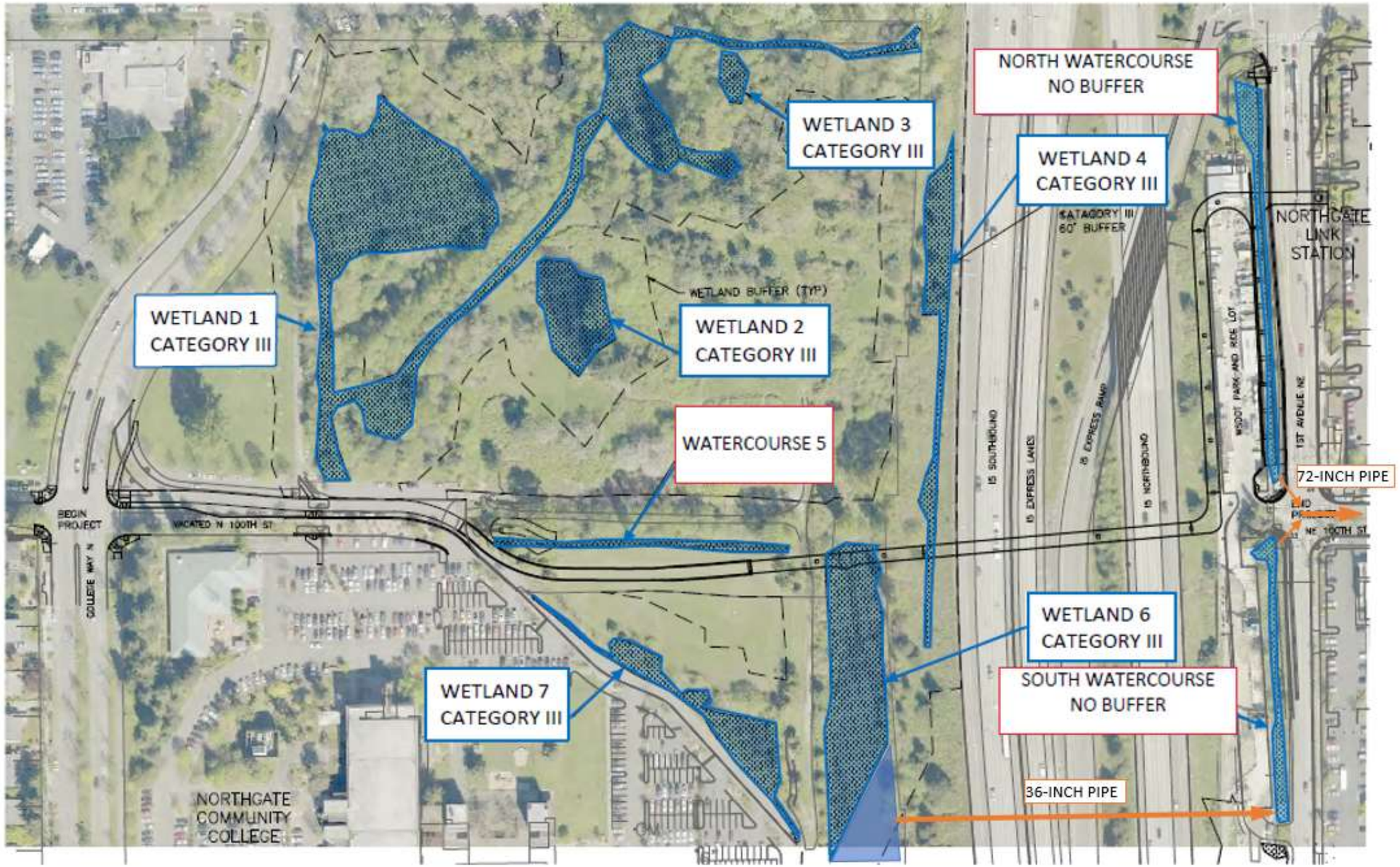


SOURCE: City of Seattle 2017; Sound Transit 2017; Esri 2016

Northgate Pedestrian Bridge Project. 130125

Bridge Structure
Earthfill Section
16' Wide Multi-Use Path
1st Avenue NE Protected Bike Lane (PBL)/Multi-Use Path

Figure 4: Wetlands and Watercourses



2 Project Description

SDOT proposes to construct the Northgate Pedestrian and Bicycle Bridge project. The project will include a bike and pedestrian bridge that will span I-5 in the vicinity of the Northgate Mall, future Link Light Rail station and NSC with the goal of providing an east-west, non-motorized corridor linking the Seattle neighborhoods of Licton Springs and Maple Leaf. The project also includes bicycle facilities on First Avenue NE between NE 92nd Street and Northgate Way.

SDOT is seeking funding from the Federal Highway Administration (FHWA), who is the agency responsible for reviewing and approving the proposal for compliance with the National Environmental Policy Act (NEPA). FHWA has delegated the review of environmental documents to WSDOT.

The key project elements include:

- A 16-foot-wide and 1,900-foot-long Pedestrian and Bicycle facility, including a 360-foot crossing of I-5.
- An east approach ramp located within the WSDOT park-and-ride on the east side of I-5, that will connect to grade level at 1st Avenue NE and NE 100th Street.
- A bridge connection over 1st Avenue NE connecting to the Northgate Link Light Rail station.
- A west approach consisting of an earthfill embankment with retaining walls that touch down on the NSC campus.
- A 16-foot-wide multi-use path on the NSC campus linking the facility with College Way N.
- The western 400 feet of the pedestrian and bicycle corridor will connect to College Way N and vacated N 100th Street via a 16-foot wide multi-use path.
- A 10-foot-wide protected bike lane along the west side of 1st Avenue NE from NE 92nd Street to NE 103rd Street.
- A multi-use path on the east side of the 1st Avenue NE from NE 103rd Street to Northgate Way.
- The project will add 25,762 square feet of new and replaced Non-pollution Generating Hard Surfaces (NPGHS) impervious surface located in six sub areas.
- No treatment for new Pollution Generating Hard Surfaces (PGHS) is proposed since less than 5,000 sf of PGHS is being constructed for each sub area.

- Mitigation for wetland, stream and buffer impacts will occur offsite in the Thornton Creek watershed at Victory Creek and will offset impacts to wetland and stream functions affected by the project.

Project construction is anticipated to begin in April 2019 and will take approximately 18 to 20 months with a targeted completion in December 2020 before the opening of the Sound Transit Northgate Link Light Rail station. The station is currently under construction, with its structural facilities anticipating completion in 2020, and the light rail service to be connected to the system and open to the public in 2021.

2.1 Construction

2.1.1 Construction Activities

- Clearing and grading/vegetation removal
- Ground disturbing activities
- Concrete paving
- Construction of an earthfill embankment
- Construction of permanent piers
- Construction and removal of temporary construction trestle along vacated N. 100th Street on the north side of the west approach spans.
- In-water construction
- Temporary onsite staging
- Construction of stormwater facilities
- I-5 closures

2.1.2 Construction Phasing

Construction of the project will take place on both sides of I-5 and will overlap in time. On the west side of I-5, an approximate 40-foot width area at the west approach and adjacent to Watercourse 5[1] will be used for temporary construction staging. East-west vehicle access to the staging area will be from College Way N to vacated N 100th Street. North-south vehicle access will be from N 92nd Street through the NSC parking lot then along the existing maintenance road in vacated Corliss Avenue N. Temporary construction staging east of I-5 will close off and utilize the existing WSDOT park-and-ride lot. Staging areas and access roads used for construction are shown in Figure 5 and will be restored upon completion of the project.

Once staging areas are set up, the project will construct three permanent piers (piers 2-4) and three temporary bridge piers along the alignment. Meanwhile, a maximum of 12 temporary piles and a temporary work trestle (30 ft x 284 ft) will be constructed in vacated N 100th Street on the north side of the west approach spans (Figure 5). The temporary piles will be installed adjacent to the north side of wetland 6 and all piles will be installed using a hydraulic impact hammer equipped with steel pile shoes.

The temporary trestle will cross Wetland 6 (Figure 4). The temporary trestle will be used throughout construction to assemble and install the bridge span. Once assembled, portions of the bridge span will be moved from the temporary work trestle to the temporary and permanent piers in the project alignment. Two additional piers within I-5 (piers 5 and 6) will be constructed to allow placement of the main span. This work will be closely followed by foundation construction (spread footings at the west approach and drill shafts at the east approach).

Work over I-5 will consist of Pier 4 and Pier 6 formwork and construction behind the existing roadway guard rail. Pier 5 will be constructed by establishing a temporary work area and lane closure for drilled shaft construction followed by removing the existing guard rail terminal after shaft construction for the Pier 5 column and pier cap is construction.

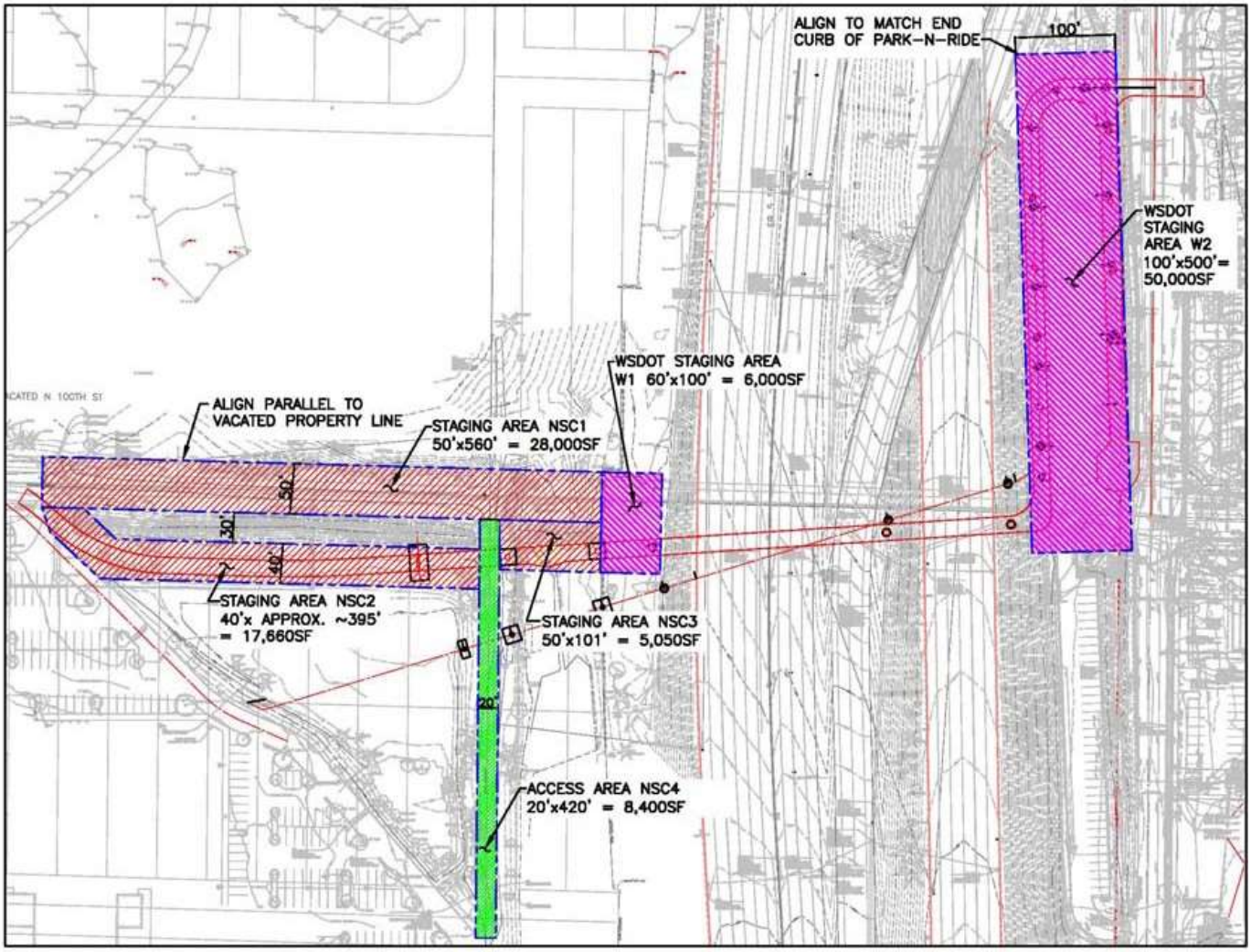
The next order of work will be construction of substructure columns and crossbeams on both sides of I-5, followed by the general column/cap detailing and reinforced cast-in-place box structures at the east horizontal curves. Work on the geotextile retaining walls and project drainage system on the west side of I-5 can begin at this point or be shifted to the end of the project per the Contractor's plan. While the fieldwork is underway, precast concrete girders, steel through-girders, and the steel trusses will be shop fabricated.

On the east side of I-5, the project will start construction of the bridge ramp, spur bridge and bike facilities. Portions of the North Watercourse will be filled to facilitate construction of the piers and protected bike lane from the intersection of 1st Avenue NE and NE 103rd Street to the east bridge approach (Figures A1-A10 in Appendix B). Fill will also be placed in the south end of the North Watercourse associated with the eastern bridge approach. Approximately 135 cubic yards of material will be placed below the ordinary high-water mark within the watercourse, permanently impacting approximately 3,162 square feet of habitat. Fill within the North Watercourse will be minimized by using a retaining wall to construct the protected bike lane, instead of a typical sloped fill prism that would have eliminated much of the North Watercourse. A new outlet pipe will be installed at the south end of the revised North Watercourse, which will convey flows to the stormwater system under 1st Avenue NE.

The precast concrete girders will be installed in the field first along the west approach to provide construction access for the main span construction, and then at the east approach. With the approach structures and added deck in place, the main span will be assembled and launched from the west staging area using the approach spans and work trestle. Temporary pier supports will be erected as necessary to allow construction and launching of the main span truss on a level surface.

Temporary closing and possible restriping of I-5 will be required for construction of Pier 5. These activities will be negotiated with WSDOT and FHWA.

Figure 5: Construction Staging Areas



2.1.3 Construction Equipment and Noise

Use of heavy construction equipment, such as graders, bulldozers, haul trucks, jack hammers, welding equipment, hydraulic drills, hydraulic impact hammer, auger rigs and cranes will occur. Construction will typically take place between 7 am and 7 pm. A Noise Variance permit from the City of Seattle will be required for evening and night-time work outside of these hours. A maximum of 12 piles will be installed on the NSC campus adjacent to the north side of wetland 6 and all piles will be installed using a hydraulic impact hammer equipped with steel pile shoes.

2.1.4 Ground Disturbance

Ground disturbance for the project will involve excavation, grading, and addition of fill material. The following summarizes the ground disturbance that will occur.

- Bridge abutments, footings and columns—Ground disturbance will occur for 17 bridge support piers and abutments. The west embankment approach to the bridge will be fill supported by retaining structures up to a height of about 20 feet. A portion of the east approach will be fill supported by retaining walls up to a height of about 11 feet.
- Staging areas—On the west side of I-5, there will be ground disturbance for excavation and grading including staging areas. On the east side of I-5, there will be ground disturbance for excavation and grading including staging areas.
- Retaining walls— A portion of the North Watercourse will be filled behind sheet piles to accommodate the protected bike lane along 1st Avenue NE.
- Wetlands and Watercourses —Watercourse 5 will be reconfigured to allow room for the west bridge approach. A portion of the North Watercourse will be filled as described above for the bridge approach abutment and the protected bike lane retaining wall. Clearing and grading will occur at Wetlands 1 and 4, and the buffers to Wetlands 1, 4, Watercourse 5, and North Watercourse. Construction will permanently impact Wetland 6 and its buffer.

2.2 Stormwater Facility and System Improvements

The project includes stormwater facility and system improvements to existing stormwater systems.

2.2.1 Existing Stormwater Systems

East of I-5, the project proposes improvements within the limits of the existing WSDOT park and-ride facility which is bounded by NE 100th Street, NE 103rd Street, I-5 right-of-way and 1st Avenue NE. The existing parcel is is a park and ride lot consisting of asphalt pavement and curbs. A small portion of the project will be located adjacent to I-5 pervious roadway embankment. Stormwater runoff from the existing parking lot and I-5 embankment sheet flows

to the east and southeast and is collected by existing catch basins located along the east side of the parking lot. The existing storm drainage system connected to these catch basins outfalls into the Seattle Public Utilities (SPU) public drain system located at the intersection of 1st Avenue Northeast and Northeast 100th Street.

The North Watercourse is an existing drainage conveyance facility that connects a portion of the I-5 storm drainage system north of the project area through the project site, where it ultimately discharges to an existing 48-inch storm drainage pipe that is connected into the SPU public storm drainage system mentioned above. The public storm drain at the intersection of 1st Avenue Northeast and Northeast 100th Street ultimately discharges into a larger 72-inch storm drain conveyance main within Northeast 100th Street which drains to the east and ultimately outfalls to Thornton Creek.

Stormwater runoff from I-5 currently sheet flows into existing catchments and an existing 36-inch conveyance pipe located under I-5 right-of-way, which connects drainage into the previously mentioned SPU public storm drainage system at 1st Avenue Northeast and Northeast 100th Street.

At the north end of the NSC campus, the existing system currently consists of a depressed open field area with grass and landscaping, and a heavily vegetated conveyance ditch (Watercourse 5) running east to west along the northern edge of the field which connects to a stormwater surge pond (Wetland 6) at the northeast corner of the NSC campus.

2.2.2 Proposed Stormwater Facilities

The source of runoff from the project will be stormwater flow from new and replaced impervious surface, largely consisting of the bridge and approaches, bicycle facilities on First Ave NE and the multimodal path connection to College Way N. The majority of the impervious surface will be from non-pollution generating surfaces. All stormwater will continue to discharge into surface waters or pipes within the project area at the same locations as current drainage patterns and will be managed to meet the 2016 City of Seattle Stormwater Code and Manual for detention and water quality (SMC 22.800-22.808). The City of Seattle Stormwater Code is equivalent to the Washington State Department of Ecology (Ecology) Western Washington Stormwater Manual

No permanent surface water withdrawals or diversions are proposed. All watercourses and wetlands will continue their existing patterns of recharge and discharge. Temporary diversion of water in watercourses containing fish may be required prior to and during fill operations.

Despite the overall increase in impervious surface area, the project will only add a minimal amount of new pollution generating hard surfaces (PGHS) in each sub-area, and the action area as a whole (Table 3). The project will increase the overall amount of new and replaced PGHS

impervious surface area in the project action area by about 6,989 square feet within six sub areas across the NSC Campus and various rights-of-way. Per the City of Seattle stormwater regulations (SMC 22.805.060D), the project will not require water quality treatment as the amount of PGHS ine each of the six project sub-areas is below the 5,000 square feet threshold of new (PGHS)

The project will also add 25,762 square feet of new and replaced non pollution generating hard surface (NPGHS) surface located in the six sub areas (Table 3). On the east side, detention is provided in the WSDOT park and ride lot to match the existing flows for the 2-year and 25-year storm event to help address the capacity constraints downstream. A 36” detention pipe will be installed to provide storage.On the west side, the project evaluated adding in detention. However, in order to ensure the project meets Wetland Protection requirements (SMC 22.805.050.C.1), no flow control is proposed.

Stormwater generated by the project will be managed to meet the City of Seattle Stormwater Manual. Conveyance pipes for the bridge structure will convey runoff from the bridge deck to surface discharge locations.

Table 3: Construction of Hard Surfaces within the Six Subareas

Sub-area	Existing Pervious (sf)	Existing Hard Surface (sf)	New NPGHS (sf)	New Hard PGHS (sf)	Replaced NPGHS (sf)	Replaced PGHS (sf)	New Pervious (sf)	Replaced Pervious (sf)	Total New and Replaced PGHS (sf)	Total New and Replaced NPGHS (sf)
College Way ROW	436	2744	457	0	1518	339	898	474	339	1975
Parcel	10890	16858	10877	1340	9977	2814	4545	19627	4154	20854
WSDOT ROW West	1307	3398	1310	0	3400	0	0	579	0	4710
WSDOT ROW East	10716	10977	10706	0	9310	1513	138	7444	1513	9448
1st Ave ROW Bridge	436	1045	419	0	1040	0	0	0	0	1040
1st Ave ROW Bike Lane	4095	1525	4099	0	516	2403	0	0	2403	516
Total	27878	36547	27868	1809	25761	5180	5581	1809	**6989**	**25762**

2.3 Construction Schedule and Timing Constraints

Construction is proposed to commence in Spring 2019 and will require about 18 months to complete; opening is scheduled for Winter 2020. It is likely that portions of I-5 will be temporarily closed on one or multiple occasions to facilitate installation of bridge trusses. The number of interstate closures will be kept to a minimum, likely at night, and of limited duration.

3 Impact Avoidance and Minimization Measures

Temporary Erosion and Sediment Control (TESC) measures will be implemented per 2017 Seattle Standard Specifications for Road, Bridge, and Municipal Construction Section 1-07.15(1) Temporary Construction Stormwater Pollution Prevention and Section 8-01 Construction Stormwater Pollution Prevention including sediment-control Best Management Practices (BMPs) such as silt fences, check dams, sediment traps, sedimentation basins, and flocculation methods. The staging areas will be restored to their previously existing condition or better after construction is completed.

Numerous BMPs, described below, have been incorporated into the Project to avoid and minimize short-term and long-term impacts to fish and wildlife habitats in the project vicinity. The following avoidance and minimization measures will be followed:

3.1 Erosion and Sediment Control

- Implement construction phasing that minimizes the amount of earthwork that exposes the ground surface to erosion.
- Use erosion-control practices (seeding, mulching, soil conditioning with polymers, use of geo-synthetics, sod stabilization, erosion-control blankets, vegetative buffer strips).
- Use construction entrances, exits, parking areas, and wheel wash stations as appropriate to reduce tracking sediment onto public roads.
- Perform routine inspections of erosion-control and sediment-control BMPs and implement subsequent BMP maintenance.
- Implement construction BMPs to control dust and limit impacts to air quality [2017 Seattle Standard Specifications for Road, Bridge and Municipal Construction Section 1-07.5(3)].

3.2 Clearing/Vegetation Removal

- Install high-visibility construction fencing to define the perimeter of the work area and protect sensitive areas and trees from construction related impacts.
- Replace all trees removed at a minimum of 1:1 ratio. All temporarily cleared vegetation will be replanted with native species following construction.
- Clearly mark the limits of construction and protect vegetation remaining outside of these limits. Protect street trees as required by City code and as required by all environmental permits.
- Comply with the City's Environmentally Critical Area regulations listed under SMC 25.09.200A.2 (Riparian Watercourse) and SMC 25.09.200A.3 (Riparian Management Area).

3.3 Stormwater Pollution/Spill Prevention

- A Spill Prevention Control and Countermeasure (SPCC) plan will be implemented. Elements of this plan will satisfy all pertinent requirements set forth by federal, state, and local laws and regulations [Seattle Standard Specifications for Road, Bridge and Municipal Construction Section 2017, section 1-07.15(1)].
- All vehicles operated within the project area will be inspected daily for fluid leaks before leaving the vehicle staging area. Any leaks detected will be repaired before the vehicle resumes operation.

- Spill response equipment will be onsite, at all times during construction, to control and cleanup potential fluid leaks or spills.
- All mechanical equipment will be fueled -offsite.
- The contractor will assign a Spill Prevention and Response Lead and provide their contact information [Seattle Standard Specifications for Road, Bridge and Municipal Construction Section 1-05.13(3)(C)].

3.4 Staging Areas

- Most staging and stockpile areas will be limited to paved or gravel areas on the NSC campus, WSDOT or SDOT rights-of-way.
- Staging areas have been located to minimize the potential for impacts or contamination of wetlands and watercourses. Servicing and refueling of vehicles will occur offsite.
- Any use of wet concrete will include provisions for allowing adequate time and protection of material for curing before concrete comes into contact with water. No wet or curing concrete will be allowed to come in contact with the waters that flow to South Branch Thornton Creek [Seattle Standard Specifications for Road, Bridge and Municipal Construction Section, 2017, section 1-07.5(2)B] and (Seattle Stormwater Code 2016, Chapter 5, BMP 1.56: Concrete Handling and Disposal). Baker tanks or an Industrial Discharge permit from King County will be used to discard any turbid groundwater and all water used for concrete work will be recycled and used in other construction applications and not allowed to be discharged to the ground, following all project manual guidance and permit requirements.
- If nighttime work occurs, lighting will be directed toward active work areas only during construction, to minimize disturbance of wildlife.

4 Action Area

An action area is defined as “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 project includes the project footprint and the terrestrial and aquatic habitat where potential direct or indirect impacts could occur. The action area also includes a non-contiguous offsite mitigation area. Both the project area and offsite mitigation area are shown within Figure 6.

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.

4.1 Terrestrial Portion of the Action Area

Urban areas have the highest background sound levels, with daytime levels approximating 60 to 65 dBA and suburban or residential areas have background levels around 45 to 50 dBA (WSDOT 2018b). Cavanaugh and Tocci (1998) identify typical urban residential background sound at around 65 dBA. A background sound level of 65 dBA was selected for the project noise evaluation.

Noise at the east edge of the I-5 right-of-way is estimated to be between 65 and 72 dBA based on similar readings for sections of I-5 in the vicinity where the highway is elevated above the surrounding area (Sound Transit, 2013). Existing noise levels east of I-5 are likely to be close to 72 dBA. Existing noise levels west of I-5 would be closer to 65 BA due to topography and the amount of vegetation on the NSC campus. Because the traffic noise is only slightly higher than background levels at the project sites, traffic noise attenuates to background levels in a shorter distance than the construction noise does. As a result, the rest of this analysis compares construction noise to the background sound level of 65 dBA.

In-air noise is evaluated here to be inclusive of all the potential impacts that could affect the terrestrial environment associated with the proposed action.

The action area was determined based on pile driving activities which tend to be louder and more disruptive than typical construction activities. Noise assessments by WSDOT have documented Maximum sound level (L max) of 108 dBA at 50 feet (15 m) for 24-inch steel piles (WSDOT 2018b). A maximum of 12 temporary piles will be installed on the NSC campus just north of Wetland 6, west of I-5. All temporary piles will be installed using a hydraulic impact hammer equipped with steel pile shoes.

Soft site conditions were assumed for the west side of I-5 based on unpacked earth and vegetative ground cover. Soft site conditions were assumed for the east side of I-5 based on a mix of vegetative ground cover, breaks in topography, and breaks in line-of-sight caused by the large buildings east of 1st Avenue NE. Assuming soft site conditions east of I-5, pile driving noise is expected to attenuate to background levels over a distance of about 3,200 feet (about 0.6 miles).

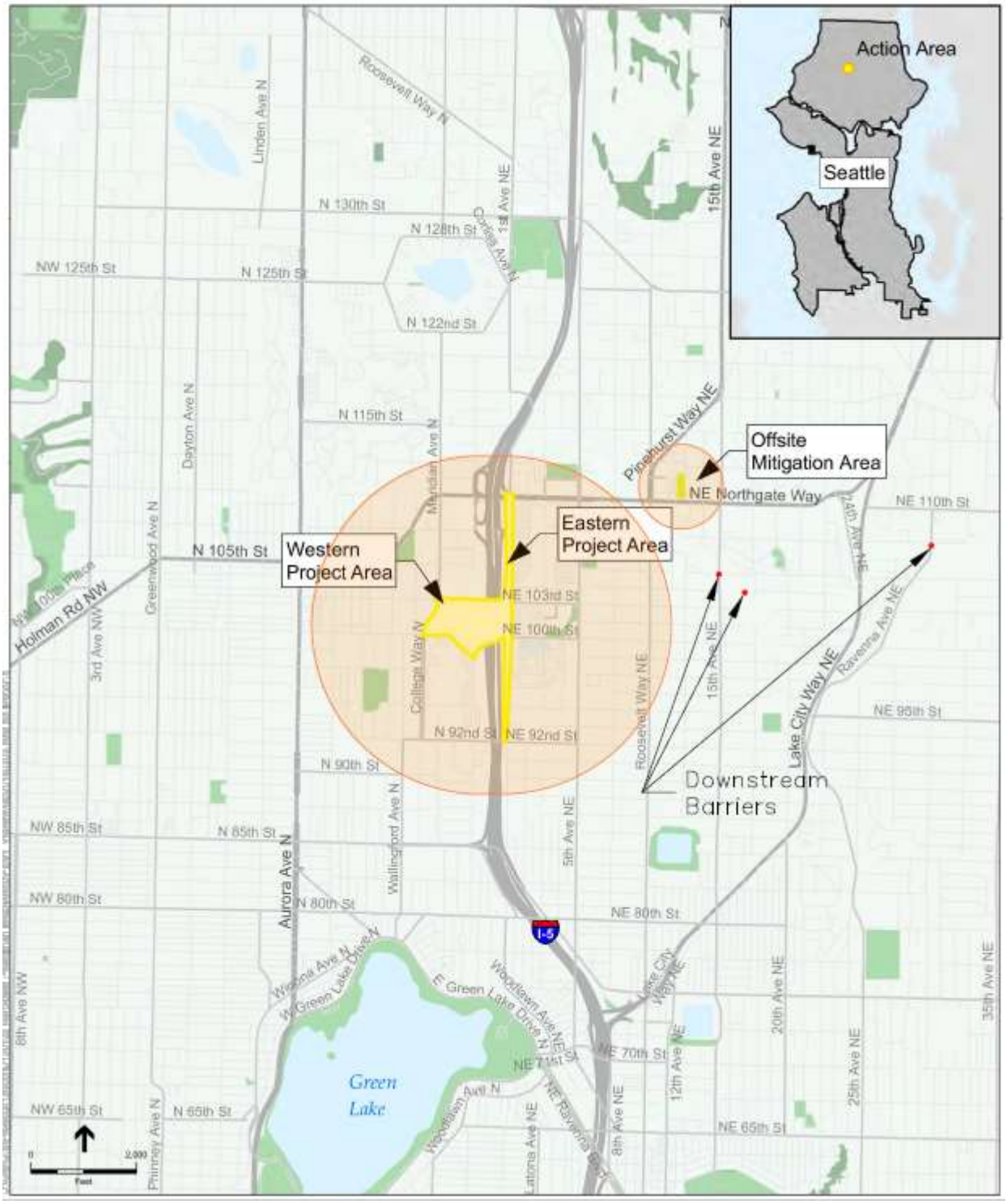
Along the Offsite Mitigation Area at Victory Creek, project construction activities would temporarily increase terrestrial noise above background levels. While none of the heavy machinery is proposed to run continuously during the project duration, the greatest noise producing activities of the project would include running heavy equipment such as excavators and dump trucks. Using the rules for decibel addition, the combined noise level was conservatively estimated using the three loudest pieces of construction equipment operating at

the same time (WSDOT 2018b). This equipment generates noise levels of 84, 81, and 79 A-weighted decibels (dBA) at a distance of 50 feet from the source. Combined, the equipment has the potential to generate noise levels of about 87 dBA at 50 feet from the source. Assuming soft site conditions and the background noise level of 65 dBA, noise is expected to attenuate to background levels over a distance of about 800 feet.

The aquatic portion of the action area was determined by using the Ecology mixing zone distances as established in the Water Quality Standards for Surface Waters of the State of Washington; Chapter 173-201A Washington Administrative Code (WAC), which indicates that for stream courses with flows less than 10 cubic feet per second, the point of compliance shall be 100 feet downstream of the activity causing the turbidity disturbance (Ecology 2018). This represents the estimated maximum distance that sedimentation from the project could affect project area streams, given the timing of in-water work and the application of appropriate BMPs.

Therefore, a conservative estimate of the combined aquatic and terrestrial portions of the project action area is an area extending 3200 feet around the project footprint eastern perimeter, and extending 3200 feet around the project footprint western perimeter. A separate off-site action area extends apporximately 800 feet around the footprint of the Off-site Mitigation Area perimeter (Figure 6).

Figure 6: Map of Action Area



5 Federally Listed Species and Habitat Information

The current listings from National Marine Fisheries Service (NMFS) indicate the potential presence of the Puget Sound Evolutionarily Significant Unit (ESU) of Chinook salmon (*Oncorhynchus tshawytscha*) and the Puget Sound Distinct Population Segment (DPS) of steelhead (*O. mykiss*) within the geographic area of the project (WDFW 2018a). Additionally, the U.S. Fish and Wildlife Service (USFWS) lists the Coastal/Puget Sound DPS of bull trout (*Salvelinus confluentus*) as potentially occurring within the project vicinity. The USFWS also lists three avian species as Threatened under the Endangered Species Act (ESA), which may occur within the geographic area of the project (USFWS 2017). These are the Threatened marbled murrelet (*Brachyramphus marmoratus*), streaked horned lark (*Eremophila alpestris strigata*), and yellow-billed cuckoo (*Coccyzus americanus*).

5.1 Listed Species and Critical Habitat Addressed

No federally listed fish, wildlife, or plant species or critical habitats have been identified or documented within the project action area.

5.2 Species and Critical Habitat Occurrence

Both NMFS and USFWS provide listings of threatened and endangered species under their jurisdiction, potentially occurring in the project vicinity (see I Pac and PHS reports Appendix C). Upon review of U.S. Fish and Wildlife Service's Information for Planning and Conservation (I Pac) database, four species listed as either Threatened or Endangered under the Endangered Species Act (ESA), may occur within the geographic area of the project (USFWS 2017). These include the Threatened marbled murrelet (*Brachyramphus marmoratus*), streaked horned lark (*Eremophila alpestris strigata*), yellow-billed cuckoo (*Coccyzus americanus*), and bull trout (*Salvelinus confluentus*). 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 the geographic area of the project (WDFW 2018a).

All of the terrestrial ESA-listed species included on the USFWS IPaC database report for the project (USFWS 2017) were either not historically distributed within the project action area, and/or the action area does not contain suitable habitat to support these species. For example, no mature forested areas occur within the action area containing habitat elements suitable for marbled murrelet, streak-horned lark or yellow-billed cuckoo. There are no documented sightings or other known presence in the 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 is identified as occurring in the action area.

ESA-Listed Salmonids

The closest documented occurrence of ESA-listed Chinook and winter steelhead is downstream of a fish passage barrier culvert located on the South Branch of Thornton Creek, which occurs approximately 1.5 miles downstream from the Western and Eastern project areas and just under 1 mile downstream from the Victory Creek Offsite Mitigation Area. This fish passage barrier culvert is shown on Figure 6 as the downstream barrier furthest from the action area.

The closest documented occurrence of bull trout is more than 3 miles away from the Eastern project areas in Lake Washington (WDFW 2015a and 2015b). There is no designated critical habitat in Thornton Creek for bull trout or steelhead.

Multiple barriers currently restrict the distribution of anadromous fish in South Branch Thornton Creek. Possible fish barriers are located at a concrete check dam series upstream of the NE 105th Street culvert and at boulder dams near the intersections of NE 104th Street and 17th Avenue NE and NE 105th Street and 15th Avenue NE. A bit further downstream, in the vicinity of 30th Avenue NE, another man-made fish barrier precludes anadromous fish passage and therefore, presence within the action area.

6 Analysis of Effects

Because the project is located in an urban setting, adjacent to I-5, and contains little native wildlife habitat, impacts to native vegetation and wildlife resulting from the project will be minimal.

6.1 Impacts Assessment

Waterbodies in the action area west of I-5 include six wetlands and one watercourse. Waterbodies in the action area east of I-5 include six wetlands, two watercourses, and two jurisdictional ditches. Based on downstream barriers and action area habitat conditions, no ESA-listed fish species occur in the action area. The closest known occurrence of any ESA-listed fish species (winter steelhead and Chinook salmon) is downstream of a fish passage barrier culvert located on the South Branch of Thornton Creek, which occurs approximately 1.5 miles downstream from the Western and Eastern project areas and just under 1 mile downstream from the Victory Creek Offsite Mitigation Area. This fish passage barrier culvert is shown on Figure 6 as the downstream barrier furthest from the action area.

Waterbodies in the action area west of I-5 include six wetlands and one watercourse. Waterbodies in the action area east of I-5 include six wetlands, two watercourses, and two jurisdictional ditches. Based on downstream barriers and action area habitat conditions, no ESA-listed fish species occur in the action area. The closest known occurrence of any ESA-listed

fish species (winter steelhead and Chinook salmon) is 0.5 miles outside the action area, downstream of a fish passage barrier culvert located on the South Branch of Thornton Creek and 0.5 mile downstream from the Victory Creek Offsite Mitigation Area. The closest documented occurrence of bull trout is more than 3 miles downstream of the project area in Lake Washington.

In addition to no ESA-listed fish species occur in the action area and no ESA-listed terrestrial wildlife species or birds occur within the action area. There is no designated critical habitat in the action area. Based on the lack of species and critical habitat presence in the action area the project will have ***no effect*** on listed fish or bird species or habitat.

6.2 Construction Impacts

6.2.1 In-water Construction Activities

The proposed project will require in-water work within wetlands, and watercourses containing resident fish.

Fish Exclusion

Prior to bypassing flows around aquatic work areas, resident fish will be excluded and removed from the North watercourse and Watercourse 5 construction areas using methods outlined in WSDOT's 2012 Fish Exclusion Protocols and Standards (WSDOT 2012). At each location, it is anticipated that block netting will be installed a minimum of 25 feet upstream of the bypass pipe inlet. Several passes will then be made with a seine to herd fish out of the work area (pushed downstream) and then block netting will be installed a minimum of 25 feet downstream of the most downstream end of the bypass pipe. While every attempt will be made to remove fish using herding techniques, it is likely that electrofishing will be necessary to remove fish that are missed during herding/seining activities. Once fish are removed and the bypass is in place, the isolated area will be dewatered. No ESA-fish species will be affected by fish exclusion activities.

Dewatering

Construction dewatering will be necessary to place fill material and install culvert extensions in the North Watercourse. During the installation of the temporary bypasses, a revetment constructed out of sandbags or supersacks will be placed on the work area-side of the block netting at both the upstream and downstream locations. A sump may be installed within the work area to allow for complete dewatering and to maintain a dry work area throughout the construction period and for as long as the diversion is in place. It is possible that a trash pump will be used to collect water that enters the work area. An appropriately sized fish screen will be fitted to the pump intake, as specified in the Hydraulic Project Approval (HPA) obtained for the project, to prevent entrainment or impingement of fish that could potentially be missed

during the initial salvage efforts and remain trapped within the area to be dewatered. The drawdown of water behind the revetment will occur slowly, which will allow a qualified fisheries biologist to capture any remaining fish with a hand-held dip net and release these individuals downstream of the construction zone.

Disposal options for water collected in the sump include either permitted discharge to the local sewer system, trucking offsite to approved treatment facilities, or discharge to approved upland areas, where silt fencing and straw bales will be used to minimize runoff velocities and trap sediments prior to the water reaching surface waters or allowing infiltration into subsurface soils. In-stream turbidity levels will be monitored by the contractor under the NPDES Construction General Stormwater Permit and will be in compliance with state water quality standards. During this phase of the Northgate Bridge project, BMPs will be implemented and monitored to ensure that turbidity is kept to a minimum. No ESA-fish species will be affected by dewatering activities.

6.2.2 Aquatic Habitats Impacts

The project will have permanent and temporary impacts to wetlands and buffers described below and shown in Tables 4 and 5.

Wetland 1*:* Clearing and grading along the south end of the wetland will result in 305 square feet of permanent impact.

Wetland 4*:* At Wetland 4, temporary construction equipment access will result in 443 square feet of temporary impact due to clearing and grading for construction equipment access.

Table 4: Wetland and Buffer Impacts Summary

Wetland	Wetland Impact (Square Feet)		Buffer Impact (Square Feet)	
	Permanent	**Temporary**	**Permanent**	**Temporary**
Wetland 1	305	0	2, 441	1,056
Wetland 4	72	443	50	0
Wetland 6	79	0	1,115	8,757
Total	305	443	3,606	9,813

Wetland 6*:* Temporary impact to Wetland 6 from the bridge truss staging across the north end of the wetland will be about 8,757 square feet of wetland vegetation although construction equipment will not enter the wetland. Clearing and grading for staging areas in Wetland 6 will permanently impact 79 square feet wetland.

Table 5: Watercourse and Buffer Impacts Summary

Watercourse	Watercourse Impact (Square Feet)		Buffer Impact (Square Feet)	
	Permanent	Temporary	Permanent	Temporary
North Watercourse	6,269	0	0	0
Watercourse 5	465	109	22,049	4,012
Total	6,734	109	22,049	4,012

Watercourse 5: Permanent wetland impacts will occur in Watercourse 5. The western portion of Watercourse 5 will be re-aligned to the north. Fill will be placed within the existing western portion of Watercourse 5 to facilitate the bridge transition to N 100th Street, resulting in 465 square feet of permanent impact and 109 square feet of temporary impact. Impacts to Watercourse 5 from the fill and channel re-alignment will be mitigated on-site as channel improvements and revegetation. Trees in the vicinity of the bridge and path alignment will be removed. All permanent and temporary Watercourse 5 impacts will be mitigated onsite within Watercourse 5 and the north end of Wetland 6.

North Watercourse: Permanent wetland impacts will occur in the North Watercourse. Portions of the North Watercourse will be filled to facilitate construction of the protected bike lane from the intersection of 1st Avenue NE and NE 103rd Street to the east bridge approach. Approximately 135 cubic yards of material will be placed within the watercourse, permanently impacting 6,269 square feet of habitat. This fill will be placed below the ordinary high water mark (OHWM) within the watercourse and will be a combination of fill placed in the south end of the watercourse and the retaining wall along the eastern edge of the watercourse. The riparian vegetation along the North Watercourse will also be impacted.

Temporary impacts to the riparian corridor along the North Watercourse include clearing of trees and brush to allow construction of the bridge. Approximately 130 feet of existing stream channel will be filled. The existing outfall from the North Watercourse will be replaced at the revised southern end of the watercourse but will still discharge to the same drainage system as the existing outfall culvert. The loss of approximately 130 feet of existing stream will impact the amount of potential available prey (such as aquatic macroinvertebrates) and reduce the amount of nutrients and organic matter produced in the project area that feeds downstream. The filled section of stream channel will reduce the amount of cover and rearing habitat available to the three-spine stickleback and resident cutthroat trout that are found at this

location. Mitigation for the loss of fish habitat due to impacts at the North Watercourse will be provided off-site.

6.2.3 Terrestrial Habitat

Wetland Buffer Impacts

Wetland buffers are areas that surround a wetland and reduce adverse impacts to the wetland functions and values from adjacent development. City of Seattle ECA regulations require buffers for certain size and types of wetlands (SMC 25.09). The regulations require that buffers be retained to protect wetlands, or if they must be impacted, require that buffers be restored and/or impacts mitigated. Sixty-foot buffers have been designated for Wetlands 1, 2, 3, 4, 6, and 7. Impacts due to construction of the project have been limited to Wetlands 1, 4, and 6.

Wetland 1*:* The southwestern buffer of Wetland 1 will be impacted both permanently and temporarily. A new section of sidewalk that connects an existing north-south oriented trail with N 100th Street will permanently impact 2,441 square feet of buffer. In addition, improvements associated with the path in this area will result in approximately 1,056 square feet of temporary buffer impact.

Wetland 4*:* Construction easement and clearing and grading will result in 50 square feet of permanent impacts to the Wetland 4 buffer. Temporary impacts to wetland buffer vegetation due to fill and construction equipment access will total 443 square feet.

Wetland 6*:* Bridge construction and installation of Piers 2 and 3 will permanently impact 1,115 square feet of the buffer in Wetland 6. Staging of the bridge truss and construction access will result 8,757 square feet of temporary buffer impact to the north end of Wetland 6.

Watercourse Buffer Impacts

Watercourse 5: The buffer to Watercourse 5 will be impacted by clearing and grading activities as well excavation required to reach structurally suitable soils and will result in 4,012 square feet of temporary impact and 22,049 square feet of permanent impact. Other impacts to the Watercourse 5 buffer are due to mitigation work which includes sloping the banks back and creating wetland terraces or alcoves, and incorporation of LWD into the channel and as terrestrial habitat.

North Watercourse*:* The North Watercourse is within the WSDOT right-of-way and due to adjacent roads, no buffer has been designated for this waterbody. Because there is no designated buffer, there will be no impacts to the buffer of the North Watercourse.

6.2.4 Construction Noise

Construction of the project will occur over a period of 18-20 months. Elevated noise levels will occur in the action area as a result of the use of heavy construction equipment over this

timeframe. Pile driving will occur during construction of the temporary trestle. Construction activities can indirectly affect aquatic and terrestrial species as a result of elevated noise levels but BMPs and Minimization Measures will decrease the temporary noise impacts. However, there will be no impacts to listed species or critical habitat as none occur within the action area.

6.3 Permanent Changes in Vegetation and Habitat

The project will result in permanent changes to vegetation and habitat. The bridge alignment will result in re-alignment of the west end of Watercourse 5 (Figure A1- Appendix B), with associated impacts to vegetation and habitat and vegetation impacts. The bridge alignment and construction access requirements will also result in vegetation removal adjacent to Wetlands 1, 4, and 6 (Figure A1- Appendix B). Native riparian plants will be planted along the re-aligned wetland. Additional impacts will occur to maintained lawns associated with a stormwater facility located between the NSC parking lot and Wetland 6 (a surge pond). Clearing of vegetation and fill placement will also impact vegetation and habitat in the North Watercourse associated with the eastern bridge approach.

The current proposal includes the removal of up to about 52 trees to accommodate construction of the west approach ramp (Figure 7). All efforts will be made to reduce the number of trees being removed. Where feasible, existing trees will be topped, left as snags, or utilized as large woody debris. Tree replacement will occur adjacent to Watercourse 5 and Wetland 6 to meet Seattle Department of Construction and Inspection (SDCI) tree replacement requirements. Tree replacement on WSDOT and SDOT right-of-way will occur near the tree removal areas and meet the respective tree replacement requirements of each.

6.1 Aquatic Habitat Mitigation

The project proposes mitigation actions that meet the requirements of the US Army Corps of Engineers (USACE), Ecology, Washington Department of Fish and Wildlife (WDFW), and the City of Seattle. A summary of wetland and watercourse mitigation is provided in Tables 6 and 7 below. Mitigation ratios were selected to satisfy mitigation requirements for all permanent wetland and buffer impacts. Specific wetland mitigation proposed for the site will include both wetland creation and enhancement that will increase the functions and values of those resources to justify the blended mitigation ratio.

Figure 7: Existing and Impacted Trees

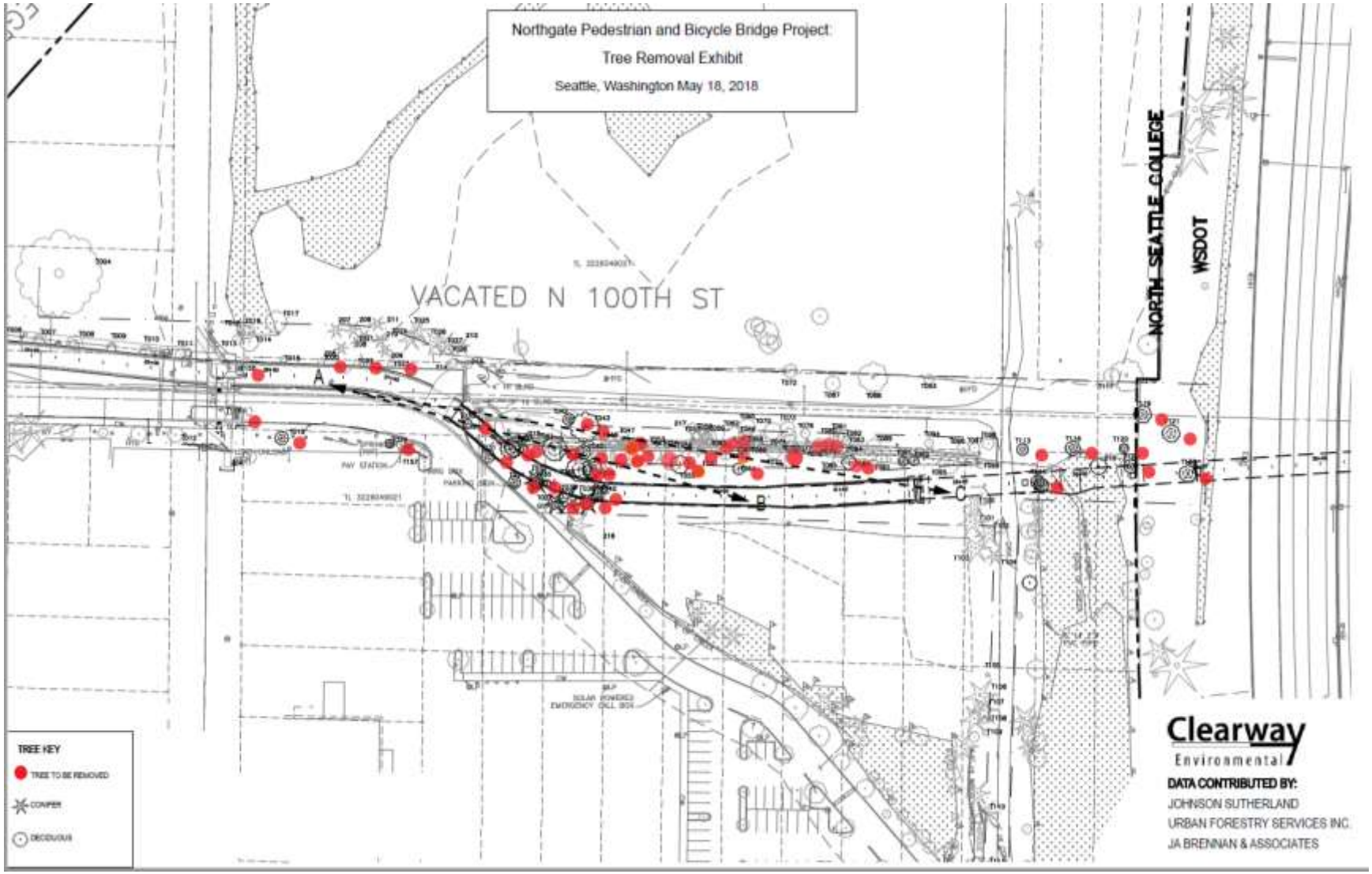


Table 6: Summary of Wetland Mitigation Required

Wetland	Permanent Impacts		Mitigation Required for Permanent Impacts 2:1	Temporary Impacts		Mitigation Required for Temporary Impacts 2:1
	Wetland	Buffer		Wetland	Buffer	
Wetland 1	305	2,441	5,492	0	1,056	2,112
Wetland 4	72	50	244	443	0	886
Wetland 6	79	1,115	2,388	0	8,757	17,514
TOTAL	456	3,606	8,124	443	9,813	20,512

Table 7: Summary of Watercourse Mitigation Required

Watercourse	Permanent Impacts		Mitigation Required for Permanent Impacts 1:1	Temporary Impacts		Mitigation Required for Temporary Impacts 1:1
	Watercourse	Buffer		Watercourse	Buffer	
North Watercourse	6,269	0	6,269	0	0	0
Watercourse 5	465	22,049	22,514	109	4,012	4,121
TOTAL	6,734	22,049	28,783	109	4,012	4,121

6.1.1 Mitigation of Impacts to Waterbodies West of I-5

The project will mitigate all permanent impacts to wetlands, watercourses and buffers on the west side of I-5 through a combination of invasive vegetation control, native vegetation plantings within the buffers of Wetlands 1 and 4, channel/habitat enhancement within Watercourse 5 and wetland establishment and enhancement within Wetland 6.

Temporary wetland, wetland buffer, and Watercourse 5 impacts will be restored on-site to replace wetland and watercourse functions temporarily lost during construction and to protect wetland functions into the future by re-establishing buffer vegetation. Compensation will occur at various mitigation ratios depending upon the specific nature of the impact and proposed mitigation. All temporary impact areas will be restored to pre-construction conditions following completion of project work

6.1.2 Mitigation of Impacts to Waterbodies East of I-5

North Watercourse

Permanent wetland impacts will occur in the North Watercourse. Portions of the North Watercourse will be filled to facilitate construction of the protected bike lane from the intersection of 1st Avenue NE and NE 103rd Street to the east bridge approach and pier placement for support of the pedestrian bridge. Approximately 150 cubic yards of material will be placed within the watercourse, permanently impacting 6,269 square feet of habitat. This fill will be placed below the ordinary highwater mark within the watercourse and will be a combination of fill placed in the south end of the watercourse and the retaining wall along the eastern edge of the watercourse. The riparian vegetation along the North Watercourse will also be impacted.

Temporary impacts to the riparian corridor along the North Watercourse include clearing of trees and brush to allow construction of the bridge. Approximately 130 feet of existing stream channel will be filled. The existing outfall from the North Watercourse will be replaced at the revised southern end of the watercourse but will still discharge to the same drainage system as the existing outfall culvert. The loss of approximately 130 feet of existing stream will impact the amount of potential available prey (such as aquatic macroinvertebrates) and reduce the amount of nutrients and organic matter produced in the geographic area that feeds downstream. The filled section of stream channel will reduce the amount of cover and rearing habitat available to the three-spined stickleback and resident cutthroat trout that are found at this location. Mitigation for the loss of fish habitat due to impacts at the North Watercourse will be provided off-site.

Victory Creek

Off-site mitigation is proposed at Victory Creek for loss of North Watercourse channel habitat due to installation of the retaining wall, piers, and filling in the lower 130 feet of channel at North Watercourse (Type F water). Project impacts will reduce the amount of potential prey base to downstream resources, by reducing terrestrial and aquatic macroinvertebrates, and allochthonous material produced in this area. Impacts will also reduce the amount of cover and rearing habitat available to the three-spine stickleback and resident cutthroat trout that are found in this habitat. There is not adequate on-site mitigation opportunity for the loss of channel habitat for fish because there is no buffer area for the watercourse.

Based on evaluation of impacts and mitigation opportunities, the USACE, Ecology, and WDFW indicated support for off-site restoration to mitigate for the loss of channel habitat at the North Watercourse. Coordination with these agencies occurred during three pre-application coordination meetings in 2017 and two mitigation site visits in 2018. Recommendations

included looking for opportunities that also address specific limiting factors and needs within the Thornton Creek watershed, including water quality and instream habitat.

At this site, stream habitat restoration opportunities would allow natural stream processes to take place by removing of the concrete flume and creating a roughened natural channel. Benefits would include increased macroinvertebrate production within the stream substrate, increased water quality treatment through the natural substrate and additional vegetation, potential fish passage improvements within Victory Creek Park, potential improvements for resident fish habitat for spawning and rearing, increased natural floodplain area, and opportunities to address maintenance issues for both City of Seattle Parks (within the park) and SDOT (at the upstream end of the culvert crossing NE Northgate Way). Additional opportunities at the park may include; replacement of an existing pedestrian bridge to allow a more natural stream width at the crossing; moving a pedestrian path further from the stream to allow stream widening and replanting; and removal of additional small concrete structures that alter the stream upstream from the concrete flume area. Education opportunities also exist at this site.

6.2 Monitoring

City of Seattle requires a minimum of a five-year monitoring period for mitigation (SMC 25.09.200.A). Ecology requires a 10-year monitoring period and WDFW requires at least a 5-year monitoring period. Monitoring requirements will be established by permits.

6.3 Long-Term Impacts

The project will result in minor permanent changes to vegetation and habitat, described above. The proposed project provides a pedestrian connection to the east side of I-5 and is consistent with existing land use patterns and does not add transportation capacity (e.g., new roadways). The project will result in more human activity above the wetland areas which could disrupt resident wildlife species. The species in this area have likely acclimated to high vehicular traffic volumes, human disturbance and associated noise. Once complete, pedestrians will remain above the wetland areas.

The project will not induce growth in the project vicinity. The project has independent utility and no other development or transportation plans, or projects depend upon this project as a requirement for completion. Based on the scope and scale of the proposed project, there are no anticipated changes in land use, transportation concurrency, or induced growth that have the potential to negatively affect ESA-listed species.

7 Interrelated and Interdependent Actions

This project has independent utility and no other actions are related to, or dependent upon, the bike and pedestrian bridge or cycle track. The Sound Transit Link light rail project was evaluated

in a separate NEPA and ESA process and is currently under construction. There are no identified projects that depend on the construction of the pedestrian bridge for completion. Therefore, ***no effect***s from interrelated or interdependent actions will occur.

7.1 Indirect Effects

Indirect effects are defined as effects that are likely to occur at some point after project completion. Examples of indirect effects may include:

• Changes to ecological systems resulting in altered predator/prey relationships.

• Changes to ecological systems resulting in long-term habitat alteration.

New riprap, bank stabilization and installation of a new outlet pipe in the North Watercourse are proposed impacts that will alter habitat and change bank conditions and hydraulics. All removed riparian vegetation is not proposed to be restored and the proposed and existing bank stabilization (riprap) will not be replaced to pre-disturbance conditions. However, the proposed project will not alter the ecological connectivity for aquatic resources, predator/prey relationships or long-term degradation of habitat downstream of the action area because mitigation for wetland, stream and buffer impacts will occur in the Thornton Creek watershed and will offset impacts to wetland and stream functions. Therefore the project will not have any indirect effects on listed species that are present in Thornton Creek.

8 Conclusions and Effect Determinations

Chinook salmon do not occur within the action area which includes the Victory Creek Offsite Mitigation site. Downstream fish passage barriers, and poor habitat conditions, are expected to prevent these species from entering the action area (WDFW, 2018a). Therefore, we have determined that this project will have ***no effect*** on Chinook salmon. Additionally, the project will have ***no effect*** on designated critical habitats for Chinook.

Bull trout do not occur within the action area which includes the Victory Creek Offsite Mitigation site. Downstream fish passage barriers, and poor habitat conditions, are expected to prevent these species from entering the action area (WDFW, 2018a). Therefore, we have determined that this project will have ***no effect*** on bull trout. Additionally, the project will have ***no effect*** on designated critical habitats for bull trout.

Steelhead trout do not occur within the action area which includes the Victory Creek Offsite Mitigation site. Downstream fish passage barriers, and poor habitat conditions, are expected to prevent these species from entering the action area (WDFW, 2018a). Therefore, we have determined that this project will have ***no effect*** on steelhead trout. Additionally, the project will have ***no effect*** on designated critical habitats for steelhead.

In addition to the species not being present within the action area, the following reasons were considered in developing effect determinations:

- With the implementation of BMPs, turbidity and sedimentation from project runoff will not enter fish-bearing surface waters, and. sedimentation from placement of fill within Watercourse 5 and the North Watercourse will not impact water quality more than 100 feet downstream of project activities.
- The project will add minimal PGHS in each sub-area, and the action area as a whole. The project will increase the overall amount of new PGHS impervious surface area in the project action area by about 6,989 square feet and distributed within six sub areas. This will increase stormwater runoff, but the project does not require water quality treatment because the six project sub-areas are each below the threshold of 5,000 square feet of new plus replaced pollution-generating hard surface (PGHS). There will be no stormwater discharge from PGHS into any waterbody containing listed fish. Therefore, the long-term downstream water quality conditions are not expected to be negatively affected by the project.
- All stream, wetland and associated buffer impacts will be mitigated in the Thornton Creek Watershed.

Based on IPaC , PHS maps, site visits and literature reviews, there is no habitat, or no known presence, of listed terrestrial or avian species. The project area does not offer suitable habitat for streaked horned lark, marbled murrelet, and yellow-billed cuckoo. The project area is currently utilized for transportation and urban purposes and lacks habitat complexity such as old growth forests, prairie habitat, or large woodlands. Therefore, it is concluded that the project will have ***no effect*** on streaked horned lark, marbled murrelet, or yellow-billed cuckoo.

There is no critical habitat within the project area, the proposed project will have ***no effect*** on designated critical habitat for any listed species.

9 Essential Fish Habitat

9.1 Essential Fish Habitat Analysis

Essential Fish Habitat (EFH) is broadly defined by the Act (now called the Magnuson-Stevens Act or the Sustainable Fisheries Act) to include "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity". This language is interpreted or described in the 1997 Interim Final Rule [62 Fed. Reg. 66551, Section 600.10 Definitions]—Waters include aquatic areas and their associated physical, chemical, and biological properties that are used by fish and may include historic areas if appropriate; substrate includes sediment, hard bottom,

structures underlying the waters, and associated biological communities; necessary means the habitat required to support a sustainable fishery and the managed species' contribution to a healthy ecosystem; and "spawning, breeding, feeding, or growth to maturity" covers a species' full life cycle. Additional guidance for EFH analyses can be found at the NOAA Fisheries web site under the Sustainable Fisheries Division.

The project elements and proposed actions for the EFH Analysis are the same as those proposed for the NE Assessment Template described in the body of the report, and the proposed effects to Pacific salmon EFH are similar.

9.1.1 Pacific Salmon

The EFH designation for the Pacific Salmon Fishery includes all those streams, lakes, ponds, wetlands, and other water bodies currently or historically accessible to salmon in Washington, Oregon, Idaho, and California, except above the impassible barriers identified by PFMC (1999). In the estuarine and marine areas, designated EFH for salmon extends from nearshore and tidal submerged environments within state territorial waters out to the full extent of the exclusive economic zone offshore of Washington, Oregon, and California north of Point Conception (PFMC 1999). The Pacific salmon management unit (the North Pacific salmon stocks off the coasts of Washington, Oregon, and Idaho) includes Chinook, Coho, and pink salmon (*O. gorbuscha*).

Of these three species, both Chinook and Coho salmon are known to be present in Thornton Creek and could potentially be downstream of the action area. Pink salmon are not known to inhabit Thornton Creek, and will not be further addressed.

9.1.2 Groundfish and Coastal Pelagic Species

Essential Fish Habitat for Pacific coast groundfish is generally defined as the aquatic habitat from the mean higher high water line, and the upriver extent of saltwater intrusion in river mouths seaward. The Coastal Pelagic Species Fishery Management Plan describes the habitat requirements of five pelagic species: Northern anchovy, Pacific sardine, Pacific (chub) mackerel, jack mackerel and market squid. These four finfish and market squid are treated as a single species complex because of similarities in their life histories and habitat requirements. Essential Fish Habitat for coastal pelagic species is generally defined all marine and estuarine waters from the shoreline offshore above the thermocline.

The aquatic habitats in and near the action area are freshwater, and no marine or estuarine habitats are present. As a result, there will be no potential effect to federally managed ground fish or coastal pelagic fish or habitat within the project action area, and these species and habitats will not be further discussed.

9.2 Effects of the Proposed Action

The federally managed Pacific salmon and life history forms that are potentially present within the project action area are downstream of the project area. Thornton Creek contains EFH for Chinook and Coho salmon, downstream of the project site below the fish passage barrier located on Lake City Way. Permanent impacts associated with culvert extensions at the North Watercourse are not expected to affect the mainstem Thornton Creek downstream of Lake City Way and the ability of this stretch of stream to support EFH fish spawning, foraging, rearing, and migration will not be impacted. Therefore, there will be no change to downstream functions and values of Thornton Creek as a result of the project.

The project will add approximately 6,989 square feet of pollution generating hard surfaces (PGHS) or stormwater volumes. The project will have ***no effect*** on EFH for Chinook and Coho salmon during construction; however, construction in uplands alongside the North Watercourse has the potential to temporary increase turbidity that could temporarily degrade downstream water quality, however all in-water work is expected to be completed during the low flow season, and work areas will be isolated from the flows in North Watercourse. BMPs for erosion control and bank and bed stability will be followed to limit the potential impacts of temporary erosion during construction of the project. Accidental spills of construction related materials (fuel/oil/hydraulic fluid) may also occur during construction. However, these effects will be minimized or eliminated due to the implementation of TESC measures, SPCC plan, and timing construction to work in the low-flow period. Disturbed areas will be restored, and appropriate erosion control measures will be installed as part of the final construction.

9.3 Proposed Conservation Measures

The conservation measures implemented for the proposed action in relation to the conservation of federally regulated species described in the NE Assessment Template will similarly avoid or minimize the potential adverse effects to designated EFH species and habitats.

9.4 Conclusions and Effect Determinations

Although the project does not result in a direct effect to EFH downstream of the action area, the proposed action will be timed to coincide with the time when the stream flows are low and fish, or redds are unlikely to be present. BMPs will be followed to reduce any potential for accidental spills of construction related materials (fuel/oil/hydraulic fluid) during construction. In compliance with the MSA, it is determined that no designated EFH occurs in the vicinity of the project. Therefore, for similar reasons as discussed above in the NE Assessment Template, we have determined the project will have ***no adverse effect*** on EFH for Pacific salmon fishery, federally managed groundfish, or coastal pelagic fisheries.

10 References

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Appendix A: Photographs

Photo 1: Culvert Outfall to Western End of Watercourse 5 – Looking Northeast

Photo 2: Watercourse 5 – Looking East from Western End of Watercourse 5

Photo 3: Inlet to Wetland 6 (Surge Pond) - Looking East at Northeast Corner of Wetland 6

Photo 4: Wetland 6 – Potential Mitigation Area

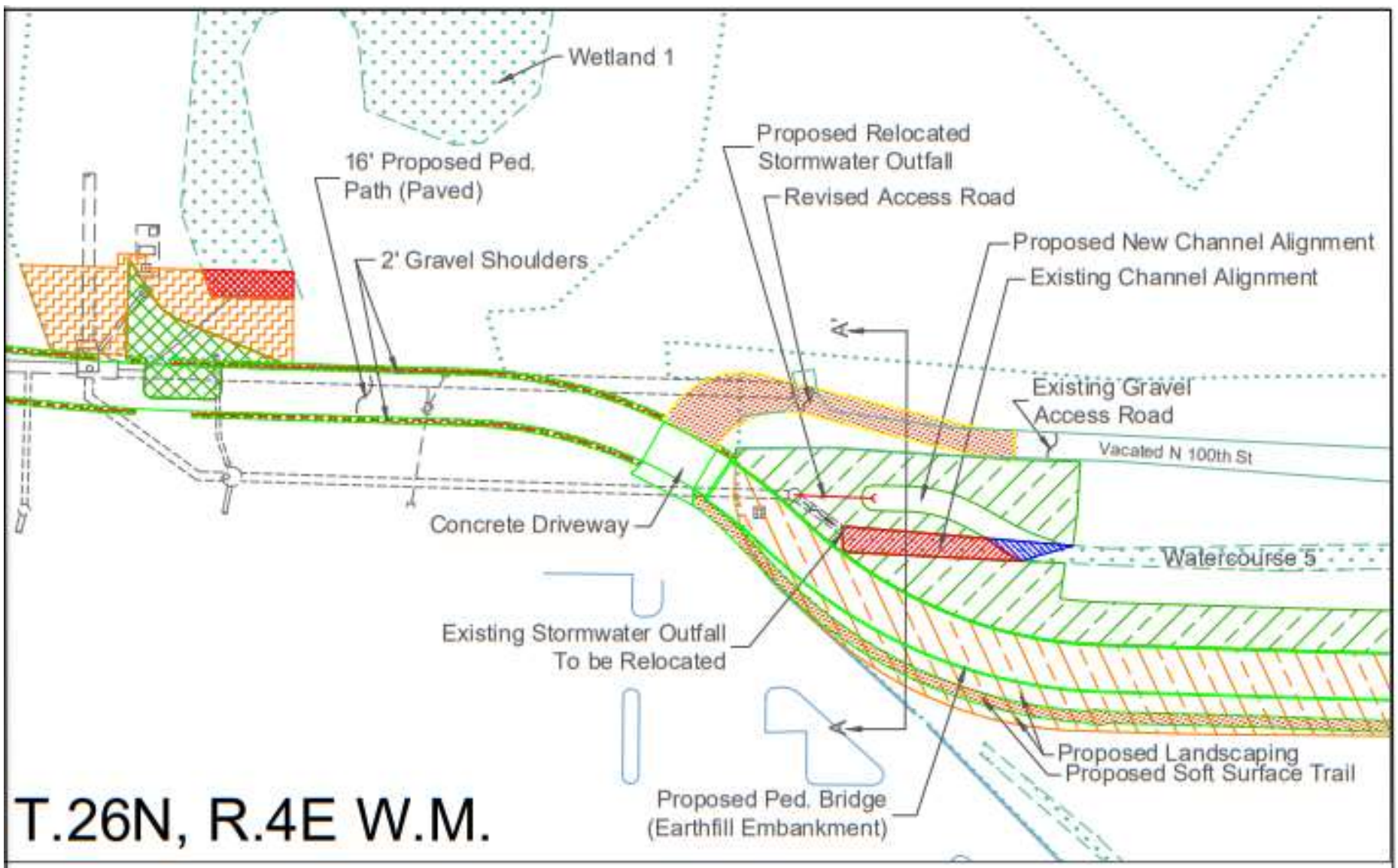
Photo 5: Wetland 6 (Surge Pond) Outlet Culvert under I-5 – Looking East-Northeast

Photo 6: North Watercourse along 1st Avenue

Photo 7: Water Quality Facility at Thornton Place

Appendix B: Aquatic Resources

Figure A-1 Western Geographic Area Aquatic Resources



WETLAND IMPACTS

WETLAND 1 (CAT III)	**SQ. FT.**	**ACRES**
WETLAND AREA	67,660	1.55
PERM. WETLAND IMPACT	305	0.01
WATERCOURSE 5	**SQ. FT.**	**ACRES**
WATERCOURSE AREA	3,718	0.09
PERM. WATERCOURSE IMPACT	465	0.01

LEGEND

- WETLAND
- PERMANENT WETLAND BUFFER IMPACT
- TEMPORARY WETLAND BUFFER IMPACT
- PERMANENT WETLAND IMPACT
- TEMPORARY WETLAND IMPACT
- PERMANENT WATERCOURSE IMPACT
- TEMPORARY WATERCOURSE IMPACT
- PERMANENT WATERCOURSE BUFFER IMPACT
- TEMPORARY WATERCOURSE BUFFER IMPACT
- WETLAND BOUNDARY
- WETLAND BUFFER
- PROPOSED BRIDGE / TRAIL CENTERLINE
- EXISTING CURB FACE
- PROPOSED STORM PIPE
- EXISTING STORM PIPE
- FLOW DIRECTION

0 30 60
SCALE IN FEET

N

PROJECT NAME: NORTHGATE PEDESTRIAN AND BICYCLE BRIDGE PROJECT

PURPOSE: CONSTRUCT PEDESTRIAN BRIDGE & TRAIL

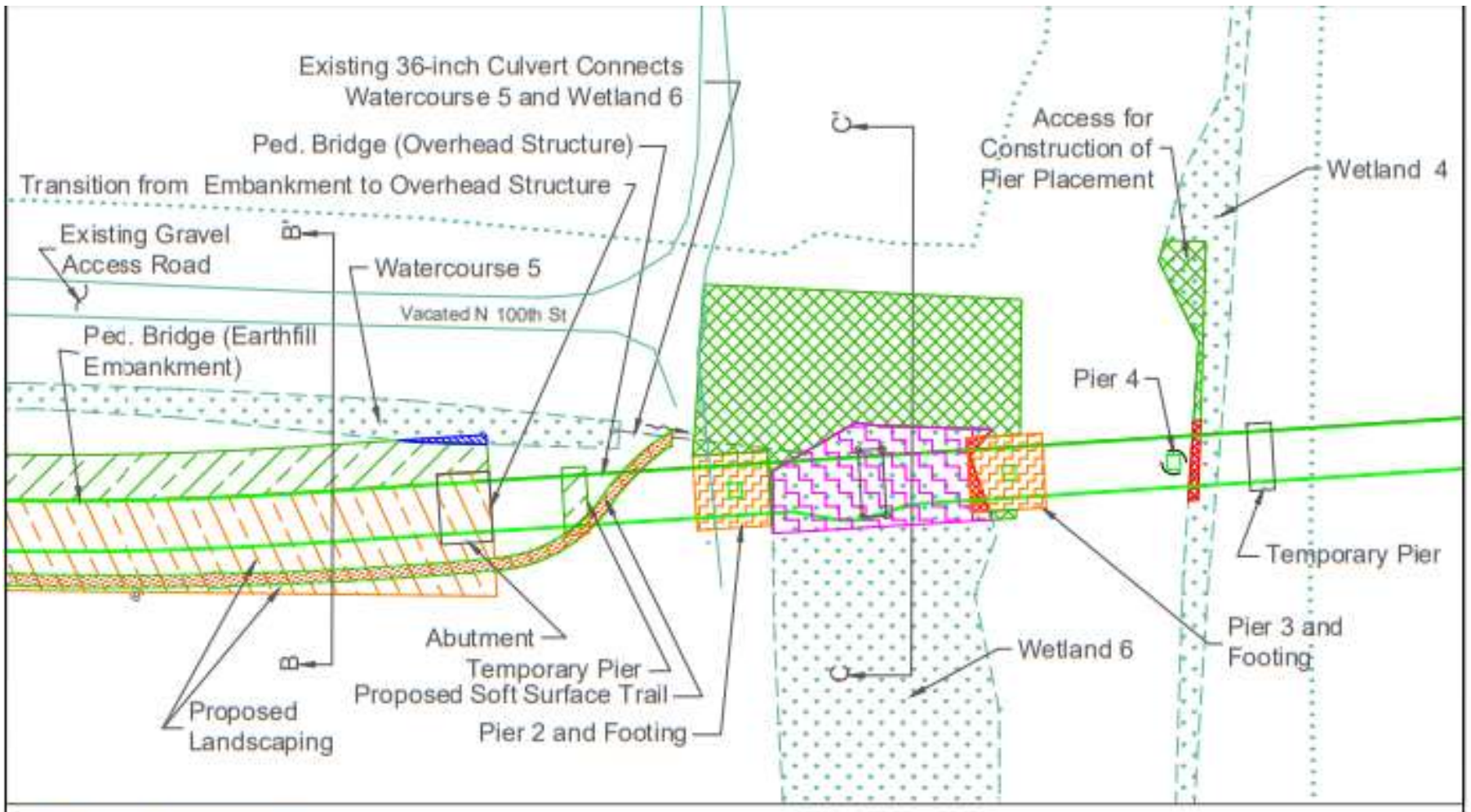
LOCATION: NORTHGATE AREA, SEATTLE WA
DATUM: NAVD 88

REFERENCE: NWS - 2018 - 1S1 - WRD
APPLICANT: SDOT
COUNTY: KING
NEAR: SEATTLE
WATER BODY: THORNTON CREEK, WRIA 8 & WETLANDS

Seattle Department of Transportation

SHEET: 2 OF: 8

Figure A-2 Western Geographic Area Aquatic Resources



WETLAND IMPACTS

WETLAND 4 (CAT III)	SQ. FT.	ACRES
WETLAND AREA	11,132	0.26
PERM. WETLAND IMPACT	72	0.002

WATERCOURSE 5	SQ. FT.	ACRES
WATERCOURSE AREA	3,718	0.09
PERM. WATERCOURSE IMPACT	465	0.01

WETLAND 6 (CAT III)	SQ. FT.	ACRES
WETLAND AREA	25,377	0.58
PERM. WETLAND IMPACT	79	0.002

T.26N, R.4E W.M.

LEGEND

- WETLAND
- PERMANENT WETLAND BUFFER IMPACT
- TEMPORARY WETLAND BUFFER IMPACT
- PERMANENT WETLAND IMPACT
- TEMPORARY WETLAND IMPACT
- PERMANENT WATERCOURSE IMPACT
- TEMPORARY WATERCOURSE IMPACT
- PERMANENT WATERCOURSE BUFFER IMPACT
- TEMPORARY WATERCOURSE BUFFER IMPACT
- WETLAND BOUNDARY
- WETLAND BUFFER
- PROPOSED BRIDGE / TRAIL CENTERLINE
- EXISTING CURB FACE
- PROPOSED STORM PIPE
- EXISTING STORM PIPE
- FLOW DIRECTION

0 30 60
SCALE IN FEET

N

PROJECT NAME: NORTHGATE PEDESTRIAN AND BICYCLE BRIDGE PROJECT

PURPOSE: CONSTRUCT PEDESTRIAN BRIDGE & TRAIL

LOCATION: NORTHGATE AREA, SEATTLE WA
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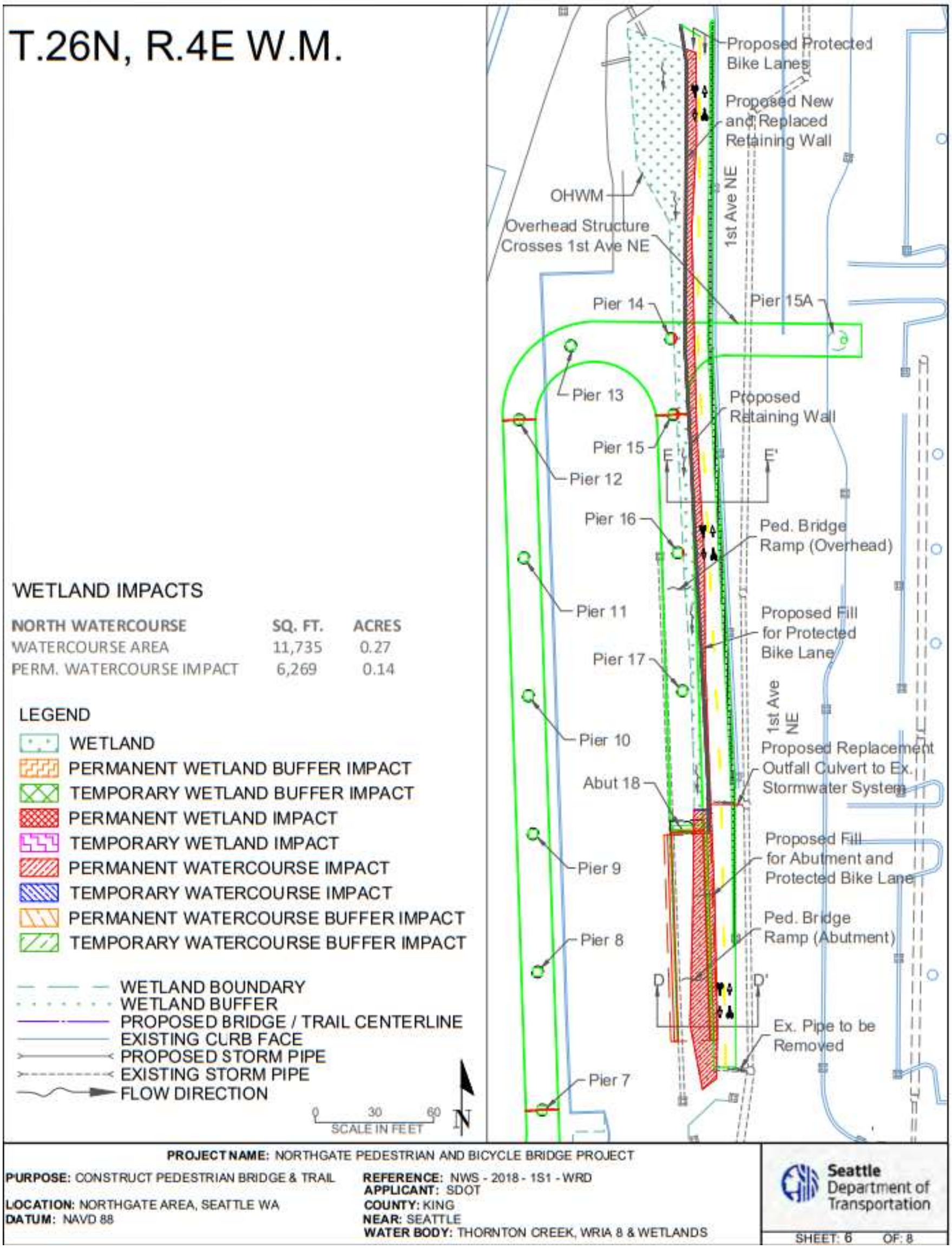
REFERENCE: NWS - 2018 - 1S1 - WRD
APPLICANT: SDOT
COUNTY: KING
NEAR: SEATTLE
WATER BODY: THORNTON CREEK, WRIA 8 & WETLANDS

Seattle Department of Transportation

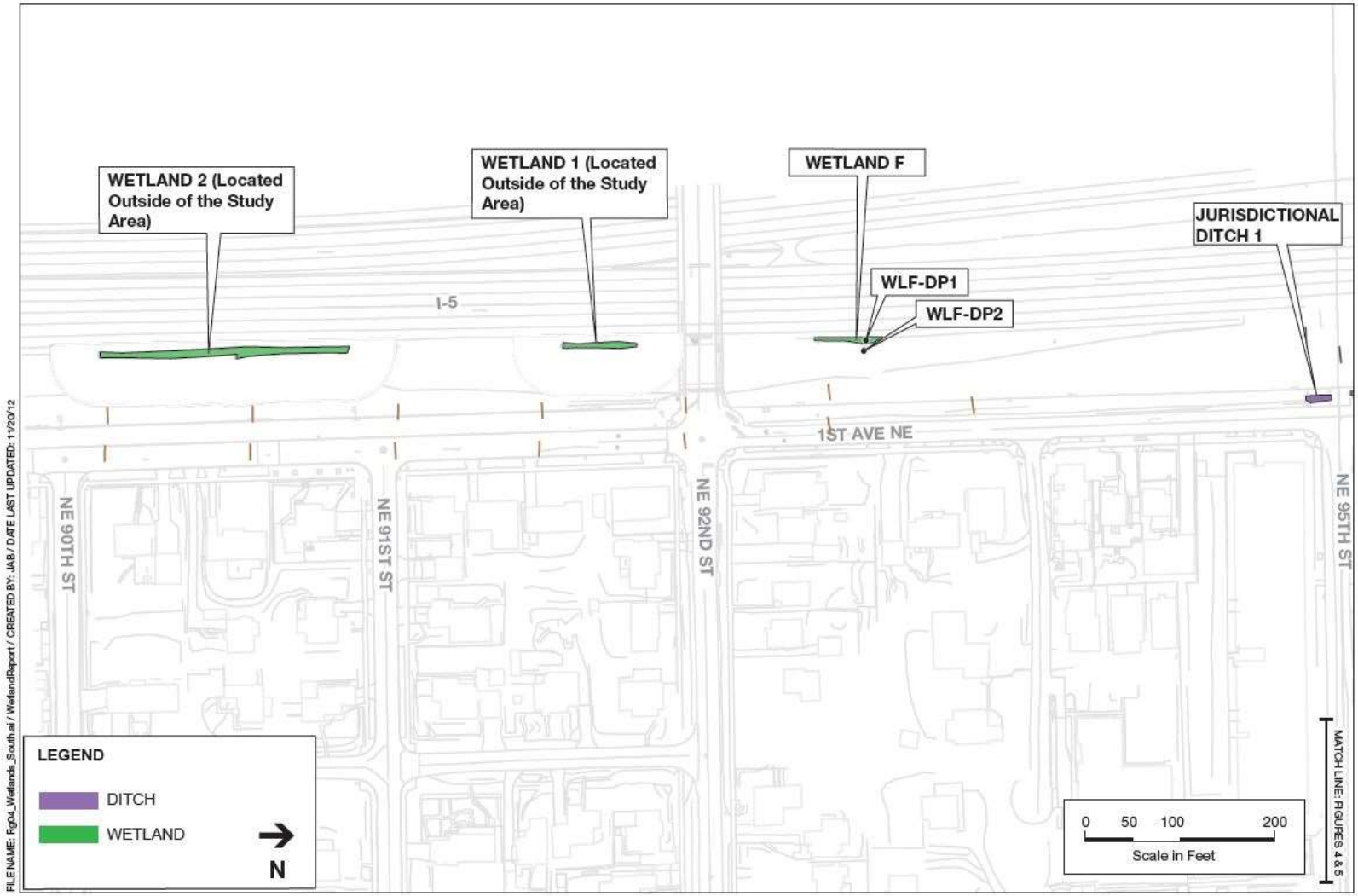
SHEET: 4 OF: 8

Figure A-3 Western Geographic Area Aquatic Resources



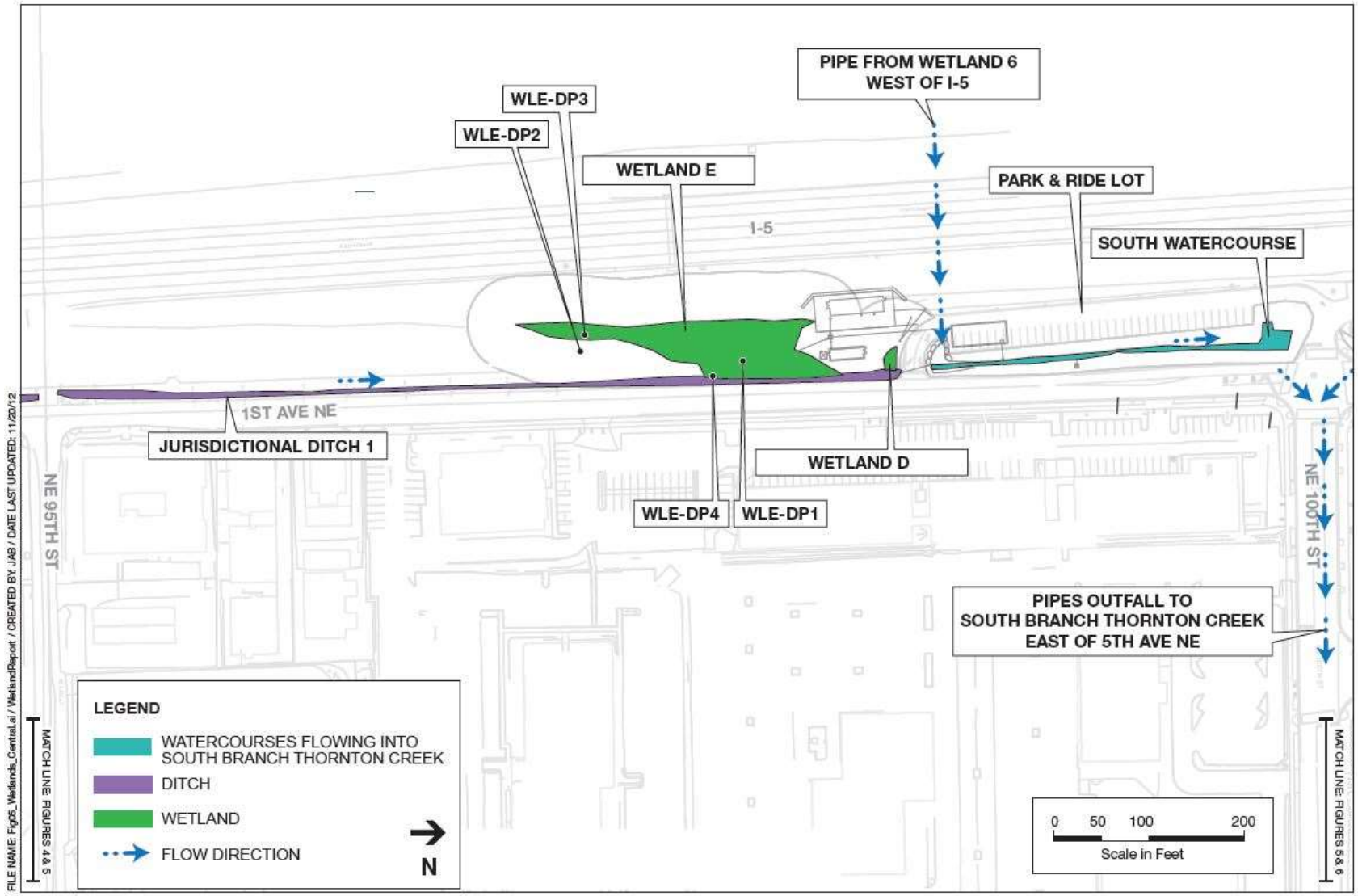
Source: City of Seattle—SDOT 2017

Figure A-8 Eastern Geographic Area Aquatic Resources—South



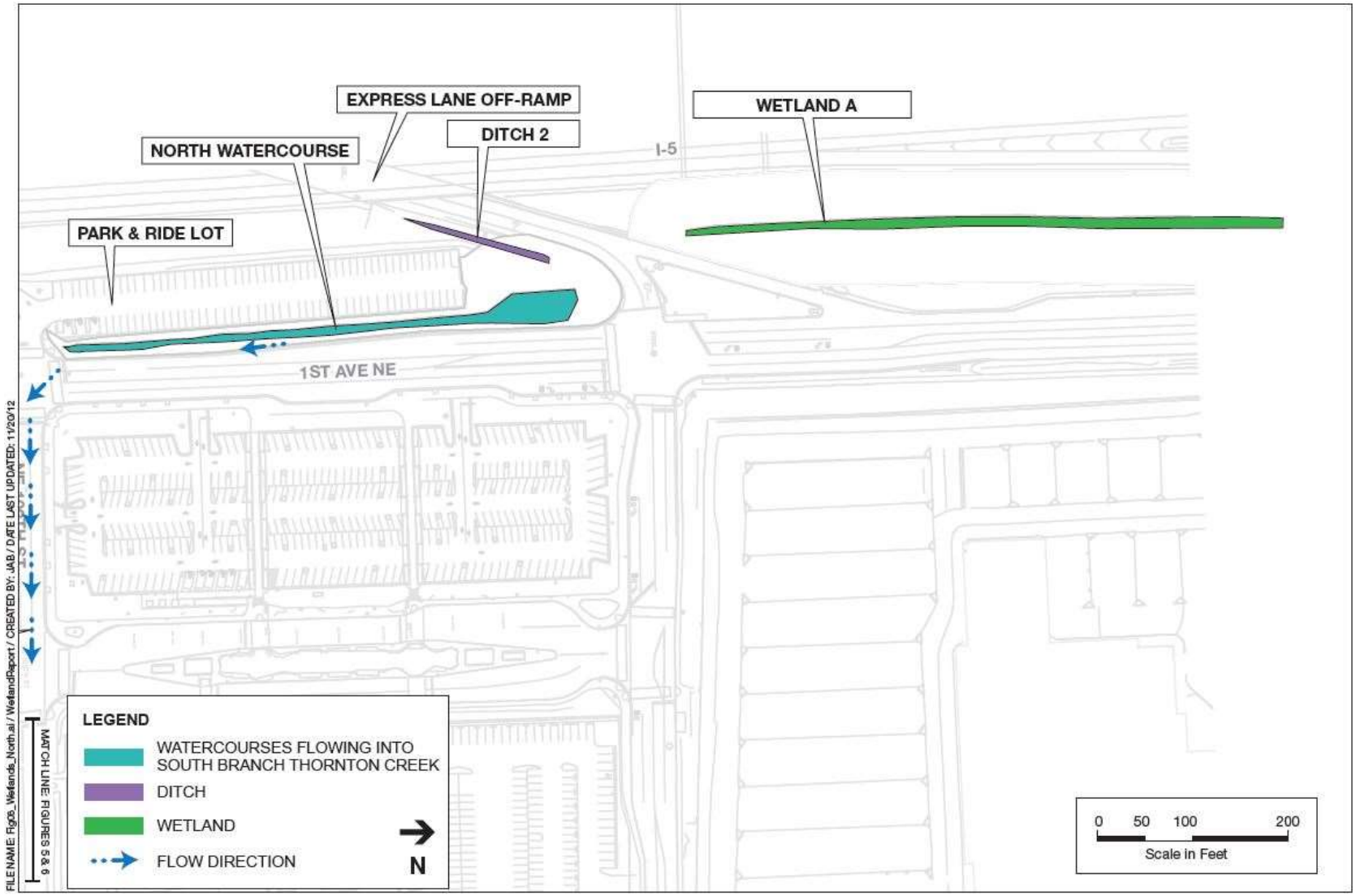
Source: City of Seattle—SDOT 201

Figure A-9 Eastern Geographic Area Aquatic Resources—Middle



Source: City of Seattle—SDOT 2017

Figure A-10 Eastern Geographic Area Aquatic Resources—North



Source: City of Seattle—SDOT 2017

Appendix C: IPaC and PHS Reports

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE
PRIORITY HABITATS AND SPECIES REPORT

SOURCE DATASET: PHSPlusPublic　　　Query ID: P180112150508
REPORT DATE: 01/12/2018 3.05

Common Name Scientific Name Notes	Site Name Source Dataset Source Record Source Date	Priority Area Occurrence Type More Information (URL) Mgmt Recommendations	Accuracy	Federal Status State Status PHS Listing Status	Sensitive Data Resolution	Source Entity Geometry Type
Freshwater Emergent	N/A NWIWetlands	Aquatic Habitat Aquatic habitat http://www.ecy.wa.	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
Freshwater Emergent	N/A NWIWetlands	Aquatic Habitat Aquatic habitat http://www.ecy.wa.	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
Freshwater Emergent	N/A NWIWetlands	Aquatic Habitat Aquatic habitat http://www.ecy.wa.	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
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Freshwater Emergent	N/A NWIWetlands	Aquatic Habitat Aquatic habitat http://www.ecy.wa.	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
Freshwater Emergent	N/A NWIWetlands	Aquatic Habitat Aquatic habitat http://www.ecy.wa.	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
Freshwater Emergent	N/A NWIWetlands	Aquatic Habitat Aquatic habitat http://www.ecy.wa.	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons

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Freshwater Forested/Shrub	N/A NWIWetlands	Aquatic Habitat Aquatic habitat http://www.ecy.wa.	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons

Common Name Scientific Name Notes	Site Name Source Dataset Source Record Source Date	Priority Area Occurrence Type More Information (URL) Mgmt Recommendations	Accuracy	Federal Status State Status PHS Listing Status	Sensitive Data Resolution	Source Entity Geometry Type
Freshwater Forested/Shrub	N/A NWIWetlands	Aquatic Habitat Aquatic habitat http://www.ecy.wa.	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
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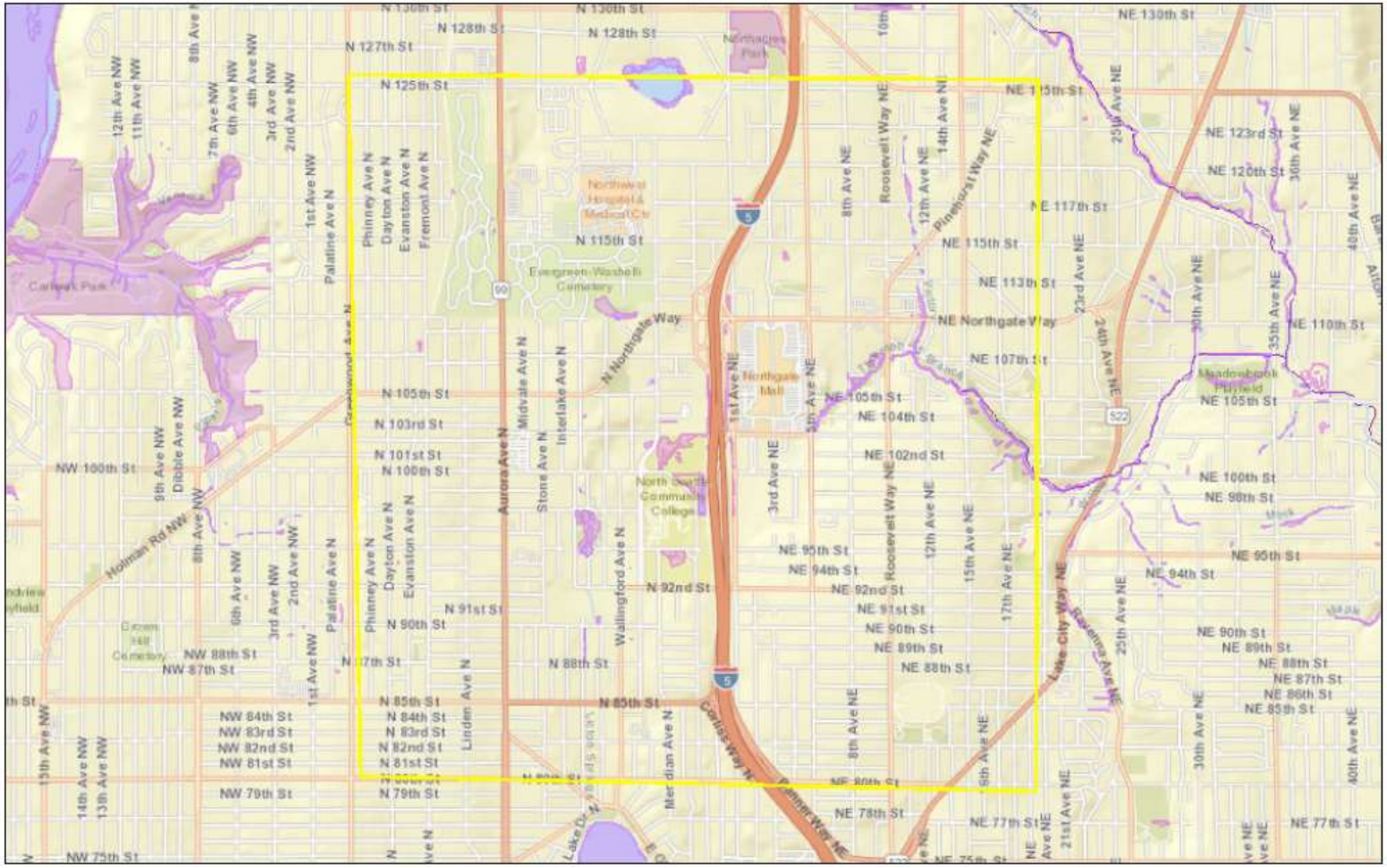
Freshwater Forested/Shrub	N/A NWIWetlands	Aquatic Habitat Aquatic habitat http://www.ecy.wa.	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
Lake	N/A NWIWetlands	Aquatic Habitat Aquatic habitat http://www.ecy.wa.	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
Lake	N/A NWIWetlands	Aquatic Habitat Aquatic habitat http://www.ecy.wa.	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
Lake	N/A NWIWetlands	Aquatic Habitat Aquatic habitat http://www.ecy.wa.	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
Lake	N/A NWIWetlands	Aquatic Habitat Aquatic habitat http://www.ecy.wa.	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
Lake	N/A NWIWetlands	Aquatic Habitat Aquatic habitat http://www.ecy.wa.	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons

Common Name Scientific Name Notes	Site Name Source Dataset Source Record Source Date	Priority Area Occurrence Type More Information (URL) Mgmt Recommendations	Accuracy	Federal Status State Status PHS Listing Status	Sensitive Data Resolution	Source Entity Geometry Type
Resident Coastal Cutthroat Oncorhynchus clarki	Maple Leave Creek SWIFD 41003	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?	NA	N/A N/A PHS LISTED	N AS MAPPED	Lines
Riverine	N/A NWIWetlands	Aquatic Habitat Aquatic habitat http://www.ecy.wa.	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons

DISCLAIMER. This report includes information that the Washington Department of Fish and Wildlife (WDFW) maintains in a central computer database. It is not an attempt to provide you with an official agency response as to the impacts of your project on fish and wildlife. This information only documents the location of fish and wildlife resources to the best of our knowledge. It is not a complete inventory and it is important to note that fish and wildlife resources may occur in areas not currently known to WDFW biologists, or in areas for which comprehensive surveys have not been conducted. Site specific surveys are frequently necesssary to rule out the presence of priority resources. Locations of fish and wildlife resources are subject to vraition caused by disturbance, changes in season and weather, and other factors. WDFW does not recommend using reports more than six months old.

WDFW Test Map



January 12, 2018

PHS Report Clip Area **POLY**

PT

LN

AS MAPPED

SECTION

QTR-TWP

TOWNSHIP

1:42,179

0 0.35 0.7 1.4 mi

0 0.5 1 2 km

Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand),

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Washington Fish And Wildlife Office
510 Desmond Drive Se, Suite 102
Lacey, WA 98503-1263
Phone: (360) 753-9440 Fax: (360) 753-9405
http://www.fws.gov/wafwo/

In Reply Refer To:
Consultation Code: 01EWFW00-2018-SLI-0477
Event Code: 01EWFW00-2018-E-00854
Project Name: Northgate1

January 12, 2018

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(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Washington Fish And Wildlife Office
510 Desmond Drive Se, Suite 102
Lacey, WA 98503-1263
(360) 753-9440

11 Project Summary

Consultation Code: 01EWFW00-2018-SLI-0477

Event Code: 01EWFW00-2018-E-00854

Project Name: Northgate1

Project Type: TRANSPORTATION

Project Description: Northgate Bike and Pedestrian Improvements Project

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/47.70051722986301N122.32859912041802W

Counties: King, WA

12 Endangered Species Act Species

There is a total of 5 threatened, endangered, or candidate species on this 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. See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

13 Mammals

NAME	STATUS
North American Wolverine *Gulo gulo luscus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5123	Proposed Threatened

14 Birds

NAME	STATUS
Marbled Murrelet *Brachyramphus marmoratus* Population: U.S.A. (CA, OR, WA) There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7268	Threatened
Streaked Horned Lark *Eremophila alpestris strigata* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7268	Threatened
▪ Yellow-billed Cuckoo *Coccyzus americanus* Population: Western U.S. DPS There is **proposed** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

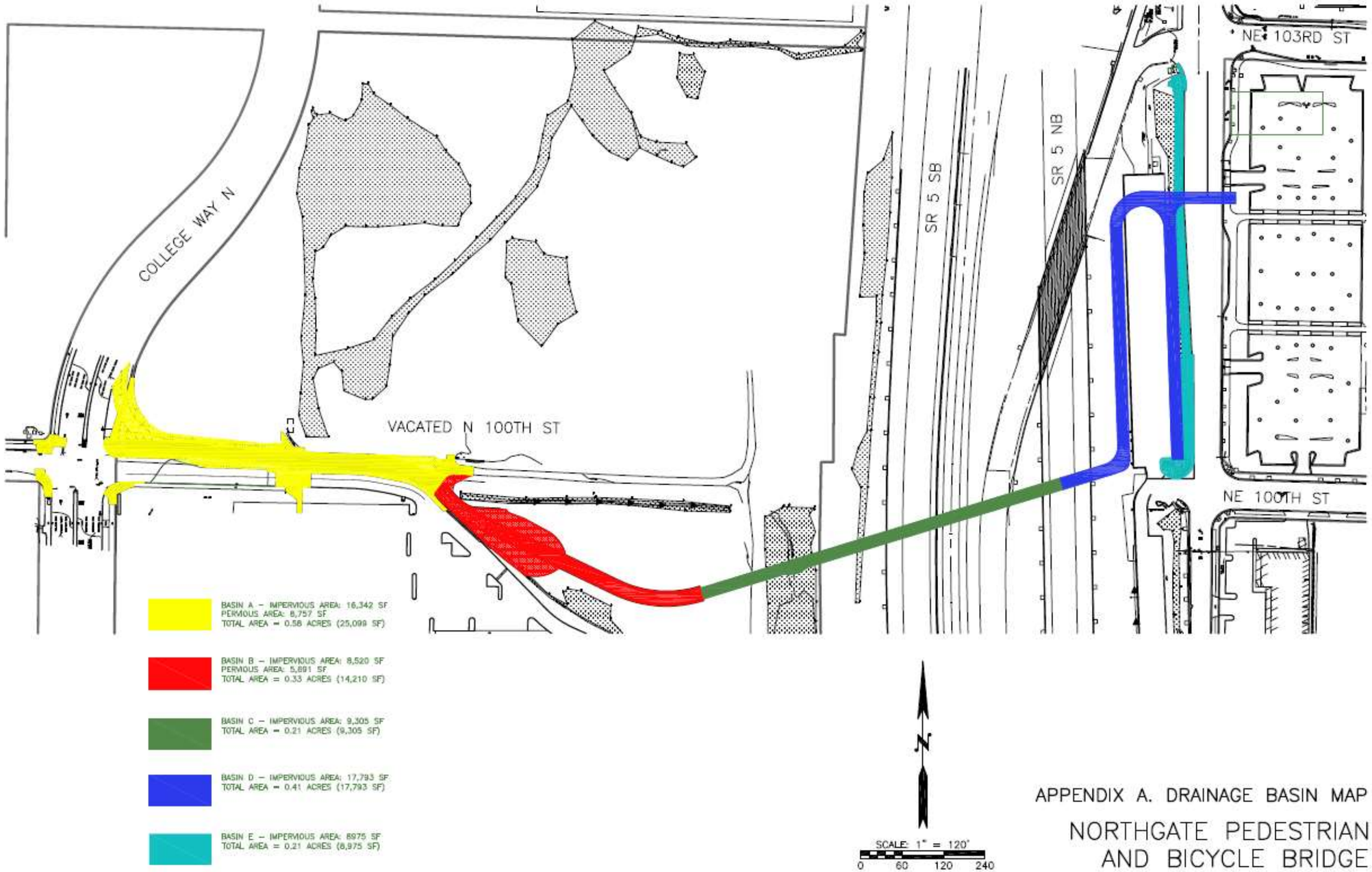
15 Fishes

NAME	STATUS
Bull Trout *Salvelinus confluentus* Population: U.S.A., conterminous, lower 48 states There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8212	Threatened

16 Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Appendix D: Stormwater Basins Map



APPENDIX A. DRAINAGE BASIN MAP

NORTHGATE PEDESTRIAN AND BICYCLE BRIDGE