

Northgate Pedestrian/Bicycle Bridge Project Hazardous Materials Technical Memorandum

Prepared for
**Seattle Department of Transportation
Washington State Department of Transportation**

Lead Author
Clearway Environmental

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1 Introduction

This memorandum updates the Northgate Pedestrian and Bicycle Bridge Project (Project) Hazardous Materials Technical Memorandum previously prepared for this project and submitted to the Washington State Department of Transportation (WSDOT) in 2015. The document has been prepared to evaluate potentially hazardous contaminated sites along a project corridor that may:

- Affect the environment during construction
- Create significant construction impacts
- Incur cleanup liability for WSDOT and SDOT

The document discusses known or potentially contaminated sites within or near the project area, describes any contamination the project may encounter, and discusses the impact and possible mitigation measures at these sites.

The document is based on information contained in federal and state environmental regulatory databases, a review of historical information, and a site reconnaissance. It has been prepared in accordance with Chapter 447 of the WSDOT *Environmental Manual* (WSDOT 2017) and the WSDOT *Local Programs NEPA Categorical Exclusions: A Guidebook for Local Agencies* (WSDOT 2017).

2 Background

The purpose of the Northgate Pedestrian and Bicycle Bridge Project (Project) is to provide a non-motorized transportation corridor between the east and west sides of the Northgate community, helping knit together a neighborhood historically divided by a 10-lane interstate highway. The Project will provide a non-motorized corridor linking the King County Metro Transit Center and the planned Sound Transit Northgate Link Light Rail station with the Northgate, Licton Springs and Maple Leaf neighborhoods. The Transit Center currently serves over 6,000 passengers a day and the Northgate Link Light Rail is expected to serve over 15,000 passengers a day. The Project will connect transit, retail, and office uses on the eastside of Interstate 5 with residential neighborhoods and the North Seattle College (NSC) on the westside. Existing pedestrian connections are provided at vehicular crossings of I-5 to the north at N Northgate Way and to the south at N 92nd Street, separated by approximately 0.9 miles.

2.1 Project Location

The Project is located in the Northgate area of Seattle, Washington (Figures 1 and 2). The project area is generally bounded by College Way N on the west, 1st Avenue NE on the east, Northgate Way on the north, and N 92nd Street on the south. This project area is bisected by

the I-5 freeway. The eastern portion of the project lies within SDOT and WSDOT right-of-way. The western portion of the project lies within WSDOT right-of-way and lands owned by the NSC. Water resources within the project area are shown within Figure 3.

Figure 1: Project Area Map

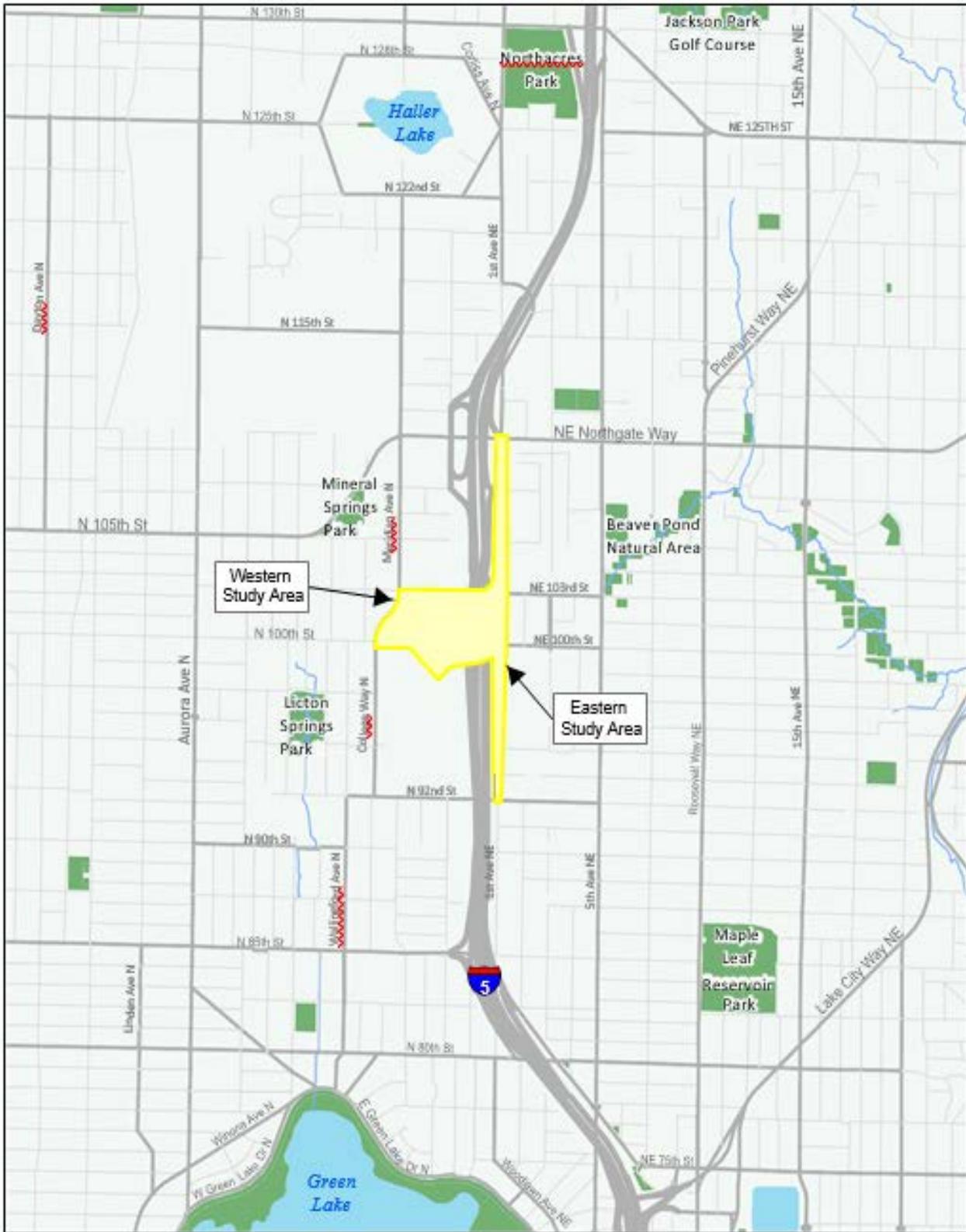
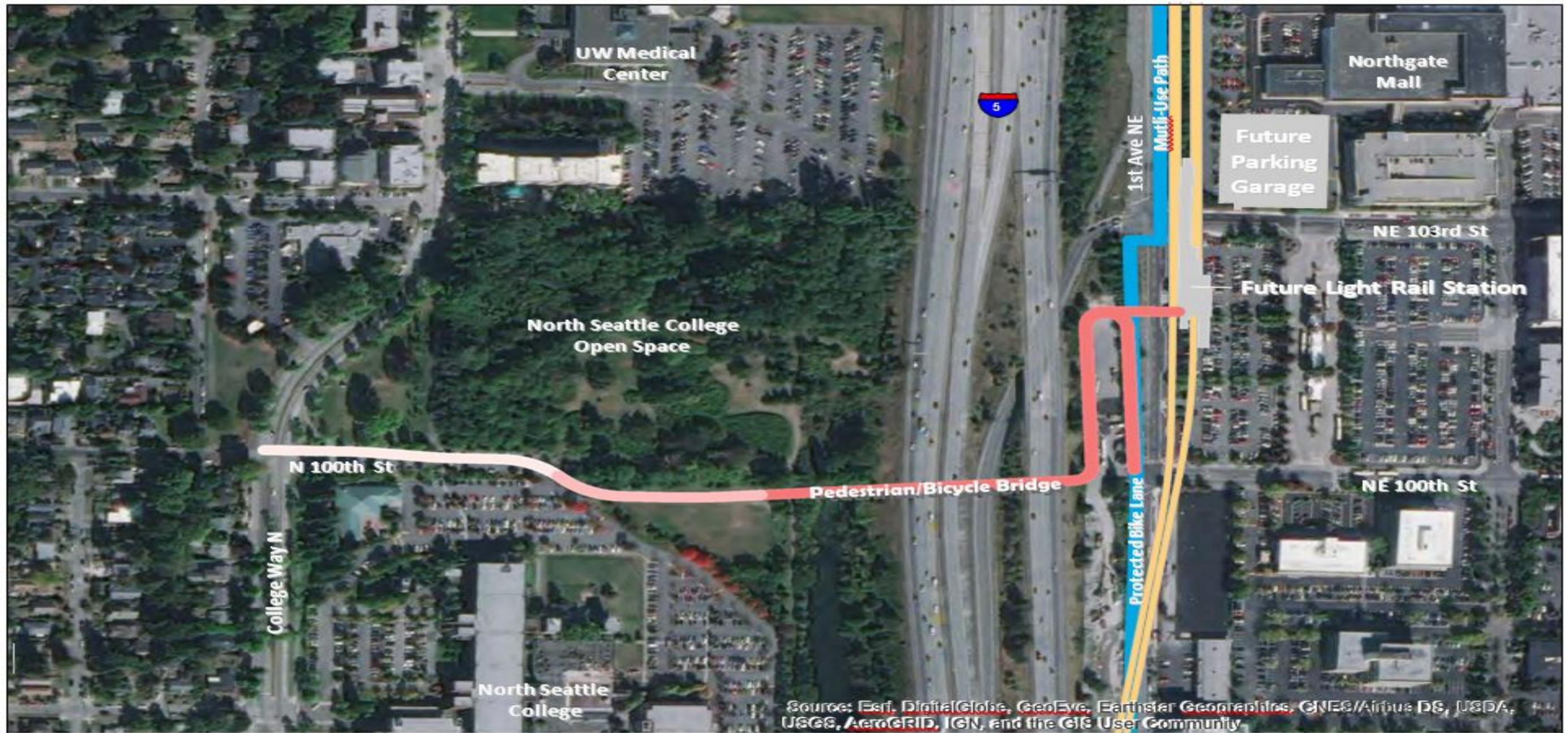


Figure 2: Project Site and Bridge Alignment

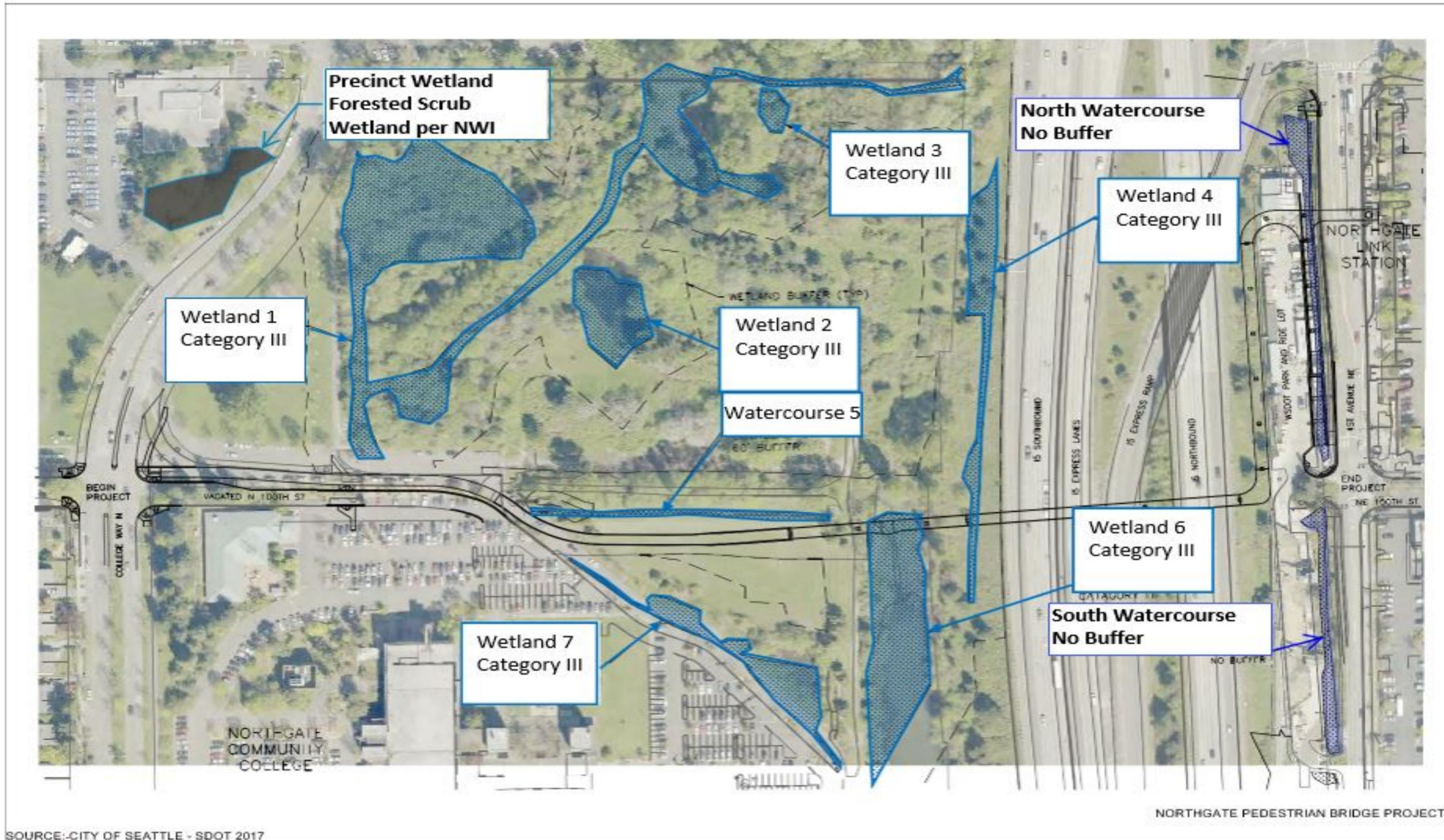


SOURCE: City of Seattle 2017; Sound Transit 2017; Esri 2016

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 3: Project Site Map Water Resources and Bridge Alignment Overlay



2.2 Description of Proposed Work

The key project elements include:

- A 16-foot wide and 1,900-foot long pedestrian/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.
- 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.

Construction of the Project will involve clearing and grading for site preparation, excavation for bridge piers and footings, erection of the bridge structure, paving for the bicycle lane/shared use path and for curb and gutters, and landscape planting. Staging for the Project will likely be within the north WSDOT park and ride lot on the east side, and within the I-5 median for work in the central portion. On the west side of the Project, staging would likely occur within vacated N 100th Street road end/maintenance road.

Construction is proposed to commence in 2019 and will require about 18 months to complete. Opening is scheduled for Fall/Winter 2020. Portions of I-5 will be temporarily closed on one or multiple occasions to facilitate installation of bridge trusses.

3 Methodology

The term “hazardous materials” is used to describe waste materials that require special handling and disposal. The term covers all types of contaminated or hazardous media, including dangerous waste (WAC 173-303-070 through 173-303-100), hazardous waste (40 CFR 261), problem waste (WAC 173-304), hazardous substances (42 USC 9601[14] and 40 CFR 116), and petroleum products.

This analysis follows the WSDOT *Local Programs NEPA Categorical Exclusions: A Guidebook for Local Agencies* (2017) and is based on information contained in federal and state environmental regulatory databases, a review of historical information, and site reconnaissance.

Clearway Environmental conducted reconnaissance of the project area in August, September, and October of 2017. The project area was observed to identify environmental conditions at the project site and surrounding area. The adjacent properties were observed from the project site and from within the road right-of-way.

3.1 Study Area

The project study area includes the project site and properties within one mile of the edge of the site (Figure 1). For the purposes of this analysis, the project site has been divided into two areas: the area east of I-5 and the area west of I-5. Each has different geological and hydrological conditions.

4 Existing Conditions

4.1 Soils

The description of existing soil conditions is summarized from historical subsurface explorations (Hart Crowser, 2014) (HWA Geosciences Inc, 2017). Generally, the soils in the area are fill soils that can be broken up into two sub-units based on the location that they were encountered.

East Area

The soil profile at a depth of 12 feet is dense, gravelly, silty sand, and sandy gravel. It was most likely placed as part of the historic development of the I-5 and the Northgate mall (Hart Crowser 2016). These subsurface conditions east of I-5 generally overlay very dense, glacially over-consolidated coarse and fine-grained soils. Glacially consolidated, hard peat layers were observed in some borings at depths of 48 to 99 feet below ground surface. Typical reported peat layer thickness is three to five feet with a maximum 10-foot-thick layer.

West Area

At a depth of 12.5 feet, the subsurface conditions west of I-5 generally consist of very loose to loose fill overlying glacial deposits. These fill soils consisted of loose to medium dense, gravelly, silty sand (Hart Crowser 2016). The fill was most likely placed as part of the historic development of the NSC area. Glacial deposits generally consist of medium dense to very dense coarse-grained soils.

4.2 Hydrology

There are numerous wetlands and several watercourses in the project area and in the vicinity of the project (Figure 3). All wetlands and watercourses are connected hydraulically either by pipe, surface flow, or groundwater.

East Area

On the east side of I-5, there are four wetlands (wetlands A, D, E, F) two ditches (Ditch 1 and 2), and two watercourses (North and South watercourses) as shown in figures 5, 6, and 7.

The South Watercourse receives water from NSC Wetland 6 via a 72" culvert that crosses I-5.

The North Watercourse receives water from the I-5 right-of-way.

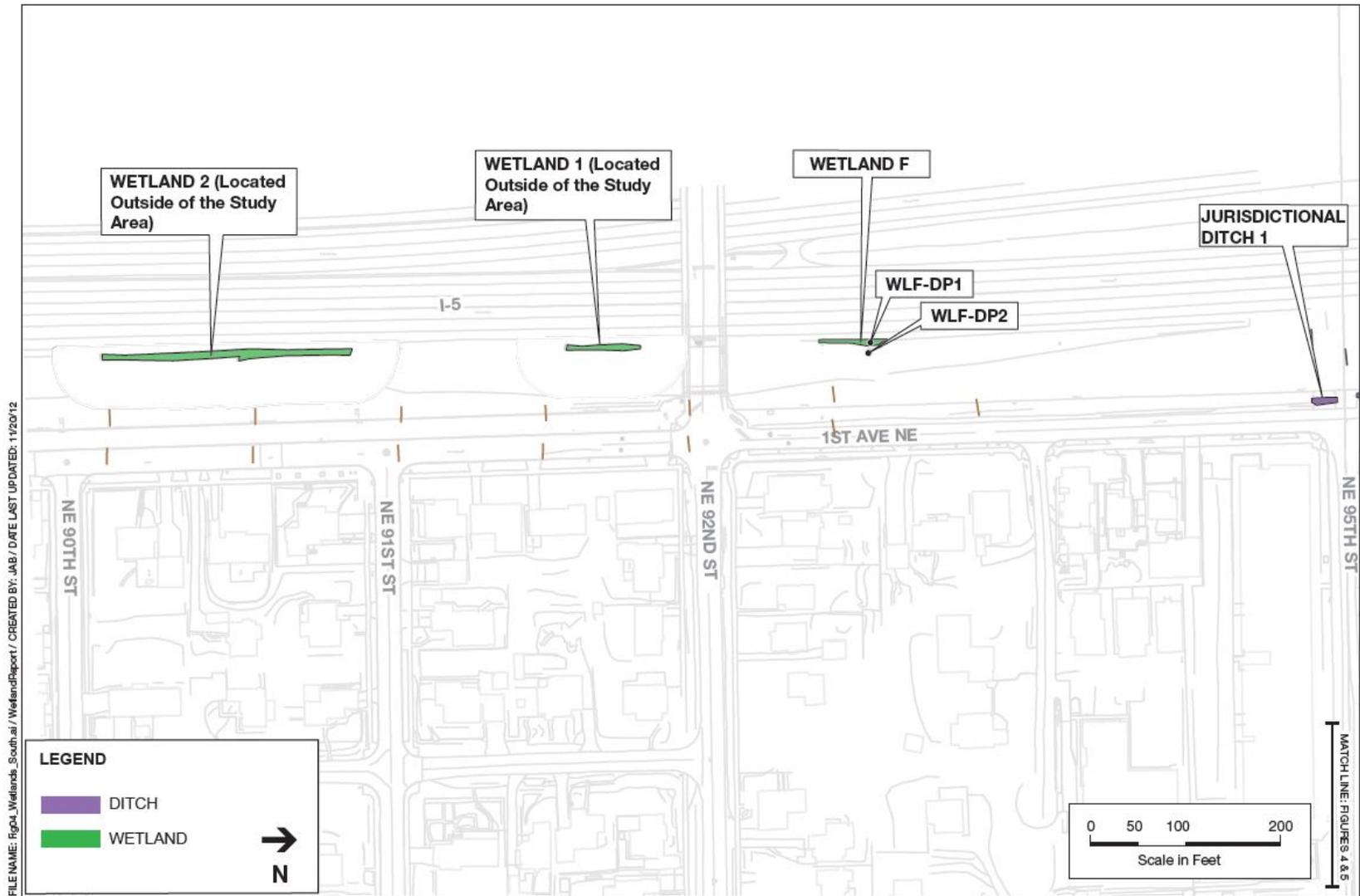
The North and South Watercourses flow via pipes in NE 100th Street to a water quality treatment facility that conveys flows through Thornton Place, a condominium development.

From here, water is discharged downstream to the South Branch of Thornton Creek at NE 103rd Street and 5th Avenue NE via 0.18 mile of enclosed drainage and 0.15 mile of open channel.

Figure 4: Drainage Features Map

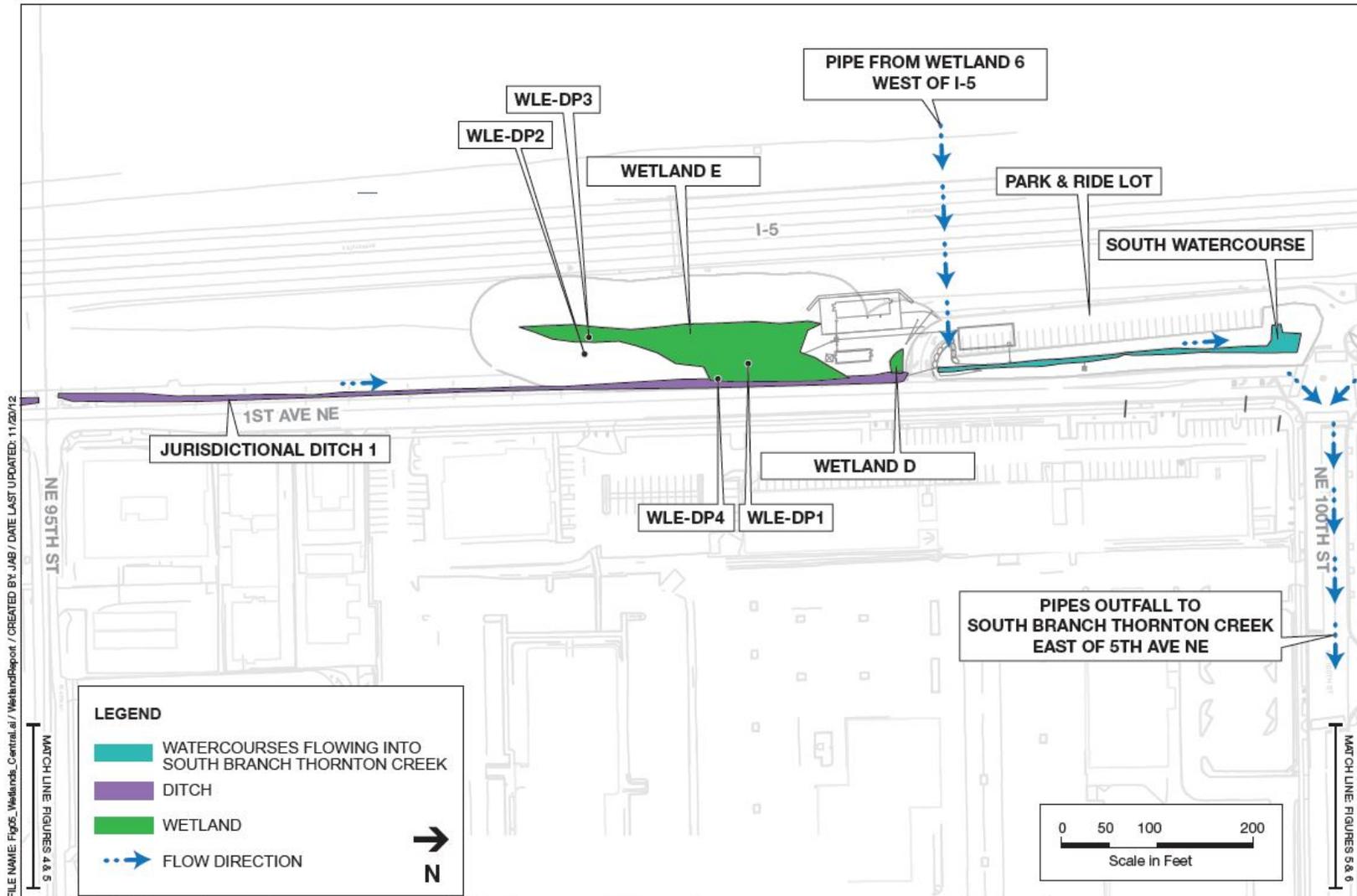


Figure 5: Eastern Side of I-5 Aquatic Resources - South



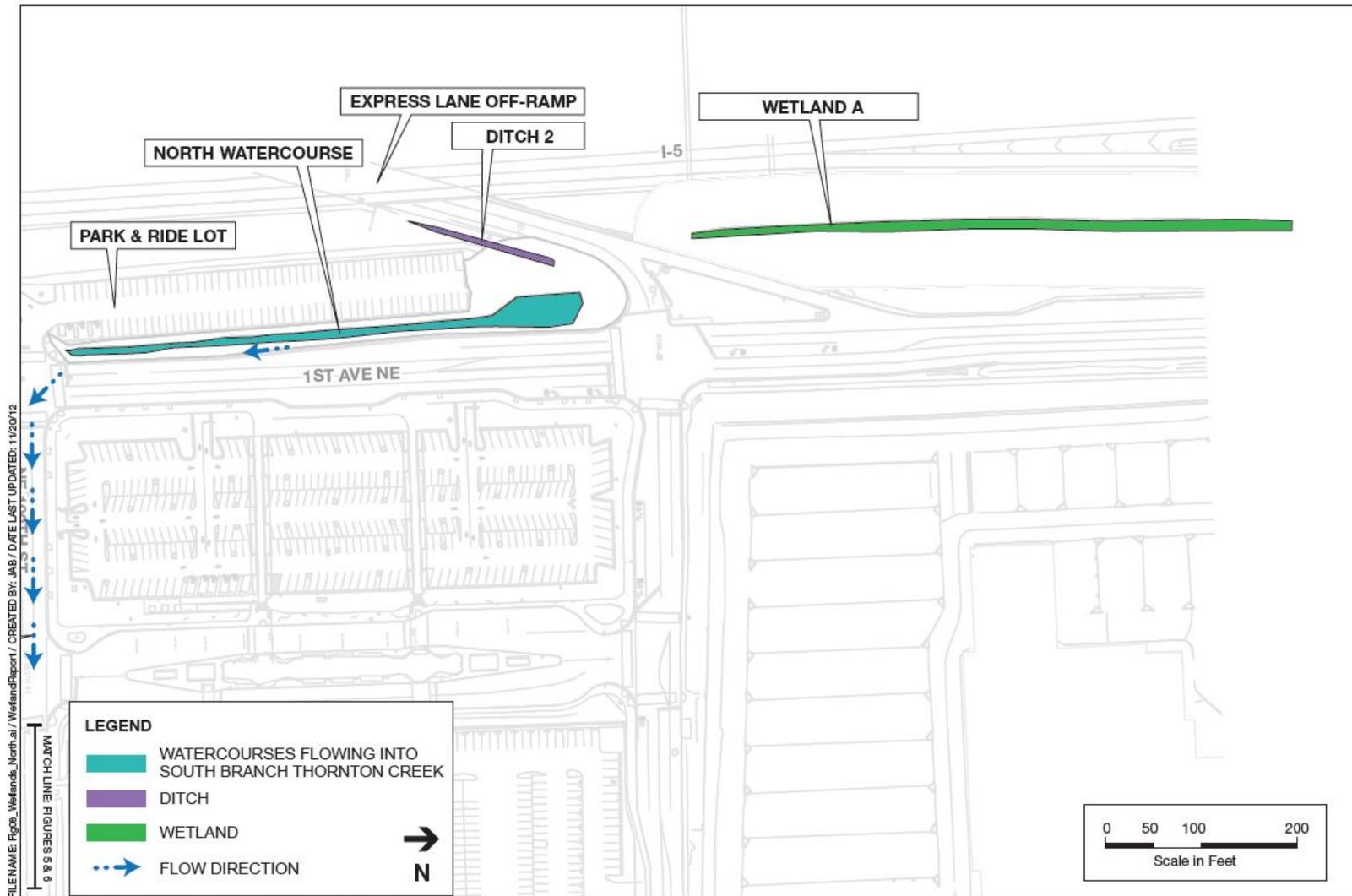
Source: ESA Fish Wildlife and Vegetation Technical Memorandum 2016

Figure 6: Eastern Study Area Aquatic Resources - Middle



Source: ESA Fish Wildlife and Vegetation Technical Memorandum 2016

Figure 7: Eastern Study Area Aquatic Resources - North



Source: ESA Fish Wildlife and Vegetation Technical Memorandum 2016

West Area

West of the project area, a wetland constructed as a stormwater detention facility is located at 10049 College Way N on the Seattle Police North Precinct site (Precinct Wetland). This wetland drains across College Way N onto the NSC campus.

On the NSC campus there are several wetlands and one watercourse (Figure 3). All are connected hydraulically either by pipe, surface flow or groundwater. Flows from the Precinct Wetland are piped under Campus Way N to Wetland 1.

At times of high rainfall, Wetland 1 overflows into Watercourse 5 which drains directly into Wetland 6, the "Surge Pond". The southern portion of the NSC parking lot drains directly into Wetland 6 while the northern portion of the NSC parking lot drains to Wetland 7. Wetland 7 then discharges into Wetland 6. At times, the parking lot floods and drains into a triangular grassy area between wetlands 5 and 7. This area drains via wetlands 5 and 7 to Wetland 6. The water table is high in this area. Wetland 6 connects to the South Watercourse on the east side of the freeway through a long culvert underneath I-5.

Groundwater was encountered at about 15 feet below ground surface (Hart Crowser, 2014; HWA Geosciences Inc, 2017).

4.3 Site Reconnaissance

Land use to the north of the study area contains the NSC. To the west there are multifamily and single family residential developments. To the east is the interstate bisecting the project site, a commercial development, multifamily residential developments, a transit center and associated parking infrastructure.

The east end of the alignment is mostly paved with areas of vegetation around the North Watercourse and South Watercourse. Within the road right-of-way and the parking lots were signs of petroleum spills, likely from heavy vehicle use. Immediately adjacent to the eastern end of the proposed bridge, Sound Transit (ST) is constructing a new Link Light Rail station. The use of hazardous materials in the construction activities was evident; however, all materials appeared to be properly contained and there were no signs of leaks or spills.

There were no strong, pungent, or noxious odors, aside from vehicle exhaust, observed in the project vicinity on either the west or east side of I-5.

The west end of the project alignment is heavily vegetated. The north end of this vegetated area contains pedestrian trails. Although there was evidence of littering, there were no signs

of hazardous materials on-site or on nearby properties, nor were there signs of previous contamination.

4.4 Suspected and Known Hazardous Materials Sites

A review of the state and federal data bases in 2017 was used to update the list of all sites in the vicinity of the project site that contain, or could potentially contain, hazardous materials. Six sites were identified in the Washington State Department of Ecology (Ecology) databases within one mile of the project site¹, in 2015. These same sites were identified in 2017 and are shown in Table 1. Information contained in the records for each site was evaluated to determine the potential for environmental impacts to the Northgate Bridge Project. As in 2015, there are no United States Environmental Protection Agency superfund sites within one mile of the project site.

The review of environmental records and site-specific history shows that none of the six sites identified near the Northgate Bridge Project are sites of concern. All identified sites were listed as having completed cleanup actions according to state and federal requirements (Figure 8).

¹ The one-half mile radius is specified in the WSDOT Environmental Classification Summary Guidebook (WSDOT, 2015).

Table 1: Summary of Sites of Concern

Site Name	Site Address	Facility Site Number	Listing Type*	Status**	Dates
Goodyear Auto Svc Center	810 Northgate Way	31681294	LUST	NFA	1995-2000
Northgate Cleaners	11020 8th Ave NE	73865355	HazWaste Generator	NFA	2001-2003
Northgate Holding Co	10202 5th Ave NE	2529	LUST	NFA	1994-1995
Northgate II	535 NE Northgate Way	14817	Construction Stormwater General Permit	NFA	2013-2013
Standard Oil Service Station	501 NE Northgate Way	3206139	LUST	NFA	2006-2008
Warren Westlund Buick 1st Ave	9600 1st Ave NE	75815391	LUST	NFA	2000-2011

Source: Ecology Confirmed and Suspected Contaminated Sites Report (Ecology, 2017).

*LUST: Leaking Underground Storage Tank.

**NFA: No Further Action required.

Figure 8: Hazardous Materials Sites



6 Project Effects

6.1 Short-term Effects

It is unlikely that any of the six sites should present a risk of encountering hazardous materials in the Northgate Bridge Project during construction activities. This is based on local topography, the inferred direction of shallow groundwater flow, the regulatory status of the listed sites, and information contained in the regulatory database.

Short-term effects associated with hazardous materials caused by construction of the Project include excavation of previously unknown contaminated materials and the potential for hazardous materials spills (such as fuel for construction equipment).

Excavation will be required for installation of bridge footings and groundwater is likely to be encountered at that time. All water encountered during excavation activities will be pumped to holding tanks or into the next excavation location to aid in construction.

6.2 Long-term Effects

Long-term use of the Northgate Bridge Project would not require the use of hazardous materials; therefore, long-term hazardous materials effects are not expected from this project.

7 Mitigation

To avoid potential impacts from contamination, the Project will follow the 2017 edition of the City of Seattle's Standard Specifications and Standard Plans for Road, Bridge and Municipal Construction Project Best Management Practices (BMPs). It will include preparation and implementation of a Temporary Erosion and Sediment Control Plan, a Construction Stormwater Pollution Prevention Plan, and a Spill Prevention Control and Countermeasures Plan.

All efforts will be made to contain groundwater, and any groundwater encountered during excavation will not be discharged on the ground. Specific BMPs for groundwater containment, treatment, and disposal will be part of the National Pollutant Discharge Elimination System (NPDES) Construction Stormwater General Permit, Ecology 401 Water Quality Certification process, and local agency permits for this construction project. If required to be obtained, a King County Industrial Waste Discharge Permit would include specific conditions and BMPs to protect against groundwater contamination. Contingency planning for extra pumps, hoses, tanks, and BMPs to deal with any potential spills will be required as part of the construction contract. Fueling of equipment and contingency plans for hydraulic leaks or other potential hazardous materials spills will be specifically addressed in the construction contracts. All efforts to reduce or minimize impacts from contaminated or hazardous materials will be made.

SDOT will follow City of Seattle Standard Specifications for Road, Bridge and Municipal Construction (2017) Section 1-07.3 Management and Disposal of Waste; Section 1-07.15 Spill Plan, 1-07.29 Discoveries of Contaminated Material(s), Dangerous Waste(s) and Toxic Substances Control Act Waste(s).

SDOT will follow City of Seattle Stormwater Code Section 6-07.3(2)(D) Hazardous Waste Containment, Collection, Testing and Disposal the City of Seattle Stormwater Code (SMC 22.800-SMC 808).

8 References

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