

FINDING OF NO SIGNIFICANT IMPACT

I-405, SR 522 Vicinity to SR 527 Express Toll Lanes Improvement Project
(MP 21.79 to 27.06)



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July 2021

I-405, SR 522 VICINITY TO SR 527 EXPRESS TOLL LANES IMPROVEMENT PROJECT (MILEPOST 21.79 TO 27.06)

King and Snohomish Counties, Washington

FINDING OF NO SIGNIFICANT IMPACT

*By the U.S. Department of Transportation
Federal Highway Administration*

This Finding of No Significant Impact (FONSI) is based on the Environmental Assessment (EA) (incorporated by reference) and other documents and attachments, as itemized in this FONSI. Having carefully reviewed the analysis and conclusions in the EA and its supporting documents, the Federal Highway Administration (FHWA) finds pursuant to 23 Code of Federal Regulations (CFR) 771.121 that there are no likely significant adverse impacts on the environment associated with the construction or operation of the I-405, SR 522 Vicinity to SR 527 Express Toll Lanes Improvement Project.

Daniel M. Mathis, P.E.
Division Administrator
Federal Highway Administration, Washington Division

The EA is incorporated by reference into the FONSI. The EA and FONSI are available for free online at: www.wsdot.wa.gov/Projects/i405/sr-522-sr-527/environmental-review/

Copies of the FONSI are available from WSDOT at a cost to cover printing and mailing by calling 425-456-8585.

For additional information about this document, contact Robert Woeck, WSDOT I-405/SR 167 Megaprogram Deputy Program Administrator, 600 108th Avenue NE, Suite 405, Bellevue, WA 98004; telephone 425-456-8585.

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ABBREVIATIONS

Abbreviation	Meaning
AASHTO	American Association of State Highway and Transportation Officials
AHERA	Asbestos Hazard Emergency Response Act
APE	area of potential effects
BMP	best management practice
BRT	bus rapid transit
CFR	Code of Federal Regulations
Corps	U.S. Army Corps of Engineers
CO	carbon monoxide
CPBC	Canyon Park Business Center
CSS	context sensitive solutions
CWA	Clean Water Act
dBA	A-weighted decibel
EA	Environmental Assessment
Ecology	Washington State Department of Ecology
EIS	Environmental Impact Statement
ESA	Endangered Species Act <i>or</i> Environmental Site Assessment
ETL	express toll lane
FHWA	Federal Highway Administration
FONSI	Finding of No Significant Impact
HOV	high-occupancy vehicle
I-405	Interstate 405
IVM	Integrated Vegetation Management
LED	light-emitting diode
MP	milepost
NAC	noise abatement criteria
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NO _x	nitrogen oxides

Abbreviation	Meaning
NOAA	National Oceanic and Atmospheric Administration
NRHP	National Register of Historic Places
PGIS	pollution-generating impervious surface
PM ₁₀	particulate matter 10 micrometers or less in diameter
PM _{2.5}	particulate matter 2.5 micrometers or less in diameter (fine particles)
PSRC	Puget Sound Regional Council
RCW	Revised Code of Washington
SPCC	Spill Prevention, Control, and Countermeasures
SR	State Route
TESC	Temporary Erosion and Sediment Control
U.S.C.	U.S. Code
USFWS	U.S. Fish and Wildlife Service
UST	underground storage tank
UW	University of Washington
VOCs	volatile organic compounds
WDFW	Washington Department of Fish and Wildlife
WSDOT	Washington State Department of Transportation

CHAPTER 1 INTRODUCTION

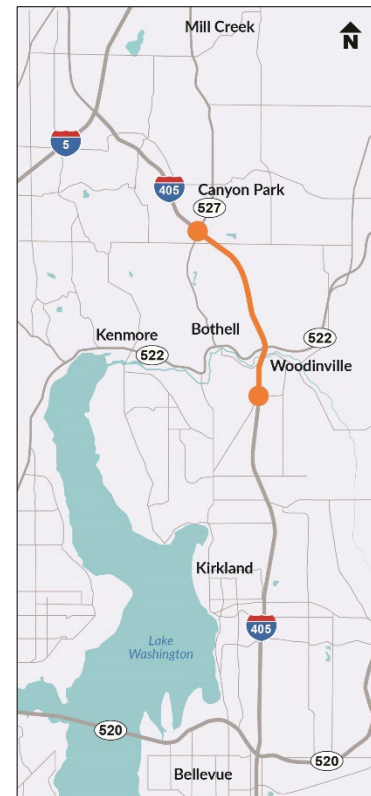
This document explains the determination by the Federal Highway Administration (FHWA) that the I-405, SR 522 Vicinity to SR 527 Express Toll Lanes Improvement Project (milepost [MP] 21.79 to 27.06) (Project) proposed by the Washington State Department of Transportation (WSDOT) in Bothell, Washington, is not likely to have a significant adverse impact on the environment.

This Finding of No Significant Impact (FONSI) is made based on the information in the Environmental Assessment (EA) issued on July 2, 2020, and considers comments received on the EA. The FONSI has been prepared by FHWA and WSDOT to comply with the National Environmental Policy Act of 1969 (Section 42 United States Code [U.S.C.] 4321) (NEPA), FHWA's Procedures for Considering Environmental Impacts (64 Federal Register 28545, May 6, 1999), and other related laws.

1.1 Where is the Project located?

The Project lies primarily in Bothell on Interstate 405 (I-405) between MP 21.79 and MP 27.06. The Project begins just south of the I-405/State Route (SR) 522 interchange in Bothell and continues to just north of the I-405/SR 527 interchange in Bothell, as shown in Exhibit 1-1.

Exhibit 1-1. Project Area Map



1.2 What is the purpose of the Project?

WSDOT's purpose for the Project is to:

- Provide a reliable trip for I-405 users using the express toll lanes (ETLs).
- Provide new direct access for users of the existing ETLs, including bus rapid transit (BRT).
- Increase vehicle capacity and person throughput.
- Improve reliability for transit riders.

1.3 Why do we need the Project?

The Puget Sound region needs the Project to increase vehicle capacity and person throughput to improve mobility and reliability in the I-405 ETLs from the vicinity of SR 522 to SR 527. I-405 is one of the most congested routes in the state, particularly during peak travel times. I-405 has some of the largest increases in vehicle volumes in the region. From 2014 to 2018, daily vehicle volumes on I-405 increased up to 6 percent in some areas between Bothell and Lynnwood (WSDOT 2018). The ETL system north of SR 522 is at or over capacity and is not meeting speed

and reliability requirements in the southbound direction. Because direct access is not currently provided to and from the existing I-405 ETLs in this area, I-405 users must travel across the general purpose lanes to reach the ETLs, limiting highway mobility and efficiency. Independent of this Project, Sound Transit is designing and conducting a separate environmental review process for a planned BRT line on I-405 to improve transit service and reliability. Building an additional ETL would support Sound Transit's development of a reliable BRT system. The Project is also responding to resource stewardship needs. These include removing fish barriers and restoring stream connections to provide access to habitat, and the management and treatment of stormwater so that water quality is protected.

CHAPTER 2 DESCRIPTION OF PROPOSED ACTION

2.1 What improvements are proposed with the Project?

The Project will begin on I-405 south of the I-405/SR 522 interchange at milepost (MP) 21.79 and continue to just north of the I-405/SR 527 interchange at MP 27.06. Exhibit 2-1 summarizes the improvements and Exhibit 2-2, Sheets 1 through 5, show the locations of the improvements.

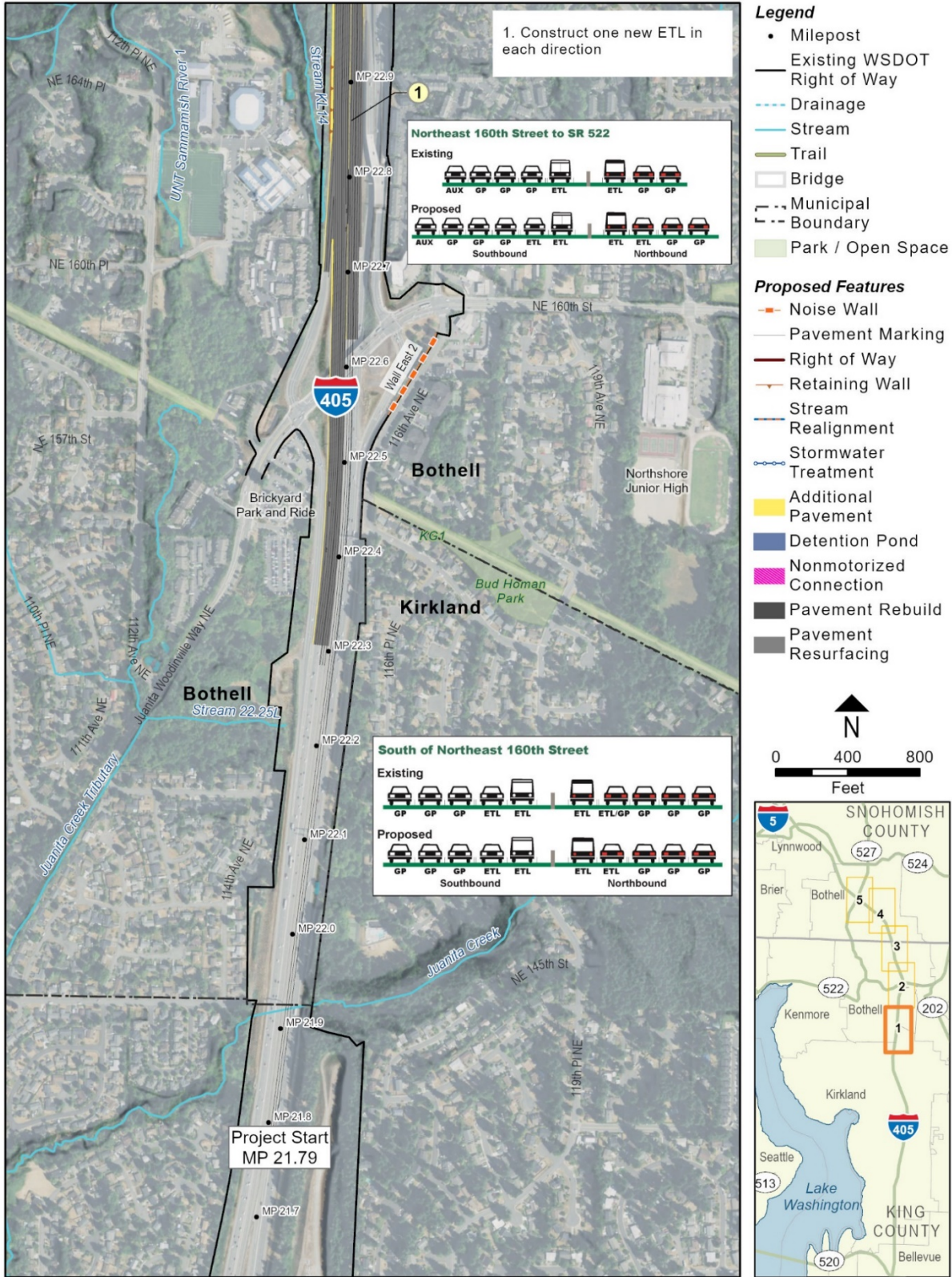
Exhibit 2-1. Improvements Proposed with the I-405, SR 522 Vicinity to SR 527 Express Toll Lanes Improvement Project

Project Element	Proposed Improvements
I-405 lanes and shoulders from SR 522 to SR 527	<ul style="list-style-type: none"> ▪ Create a dual ETL system from MP 21.79 (south of the I-405/SR 522 interchange) to MP 27.06 (just north of the I-405/SR 527 interchange). <ul style="list-style-type: none"> - From MP 21.79 to MP 22.30: Restripe existing lanes to create a dual ETL system. - From MP 22.30 to MP 26.30: Resurface and widen I-405 to add one ETL in each direction. - From MP 26.30 to MP 27.06: Widen I-405 to construct direct access ramps and connect to the existing single ETL starting near MP 26.30.
I-405 tolling from SR 522 to SR 527	<ul style="list-style-type: none"> ▪ Construct new tolling gantries to collect tolls for the ETLs and direct access ramps.
I-405/SR 522 interchange area	<ul style="list-style-type: none"> ▪ Construct new direct access ramps and two inline transit stations (one in each direction) in the I-405 median. Transit stations would include station platforms, signage, artwork, lighting, fare machines, and site furnishing such as shelters, lean rails, benches, bollards, bicycle parking, and trash receptacles. ▪ Construct a bus station and turnaround loop, pick-up and drop-off facilities, and new nonmotorized connection to the North Creek Trail near the SR 522 interchange. Funding and construction timeline to be coordinated with local transit agencies. ▪ Construct new northbound bridge through the SR 522 interchange. <ul style="list-style-type: none"> - Reconfigure the northbound I-405 to eastbound ramp SR 522 from one lane to two lanes. ▪ Reconfigure I-405 on- and off-ramps. <ul style="list-style-type: none"> - Realign the southbound I-405 to westbound SR 522 ramp. - Realign the eastbound and westbound SR 522 ramps to northbound I-405.
SR 522 roadway	<ul style="list-style-type: none"> ▪ Add three signalized intersections, which would change where the freeway portion of SR 522 begins and ends. Signals would be added at the following locations: <ul style="list-style-type: none"> - The northbound I-405 to westbound SR 522 off-ramp and the eastbound SR 522 to northbound I-405 on-ramp. - The southbound I-405 to eastbound SR 522 ramp. - Between the above two locations where the new I-405 ETL direct access ramps connect with SR 522.
228th Street SE	<ul style="list-style-type: none"> ▪ Widen the northbound I-405 bridge over 228th Street SE.

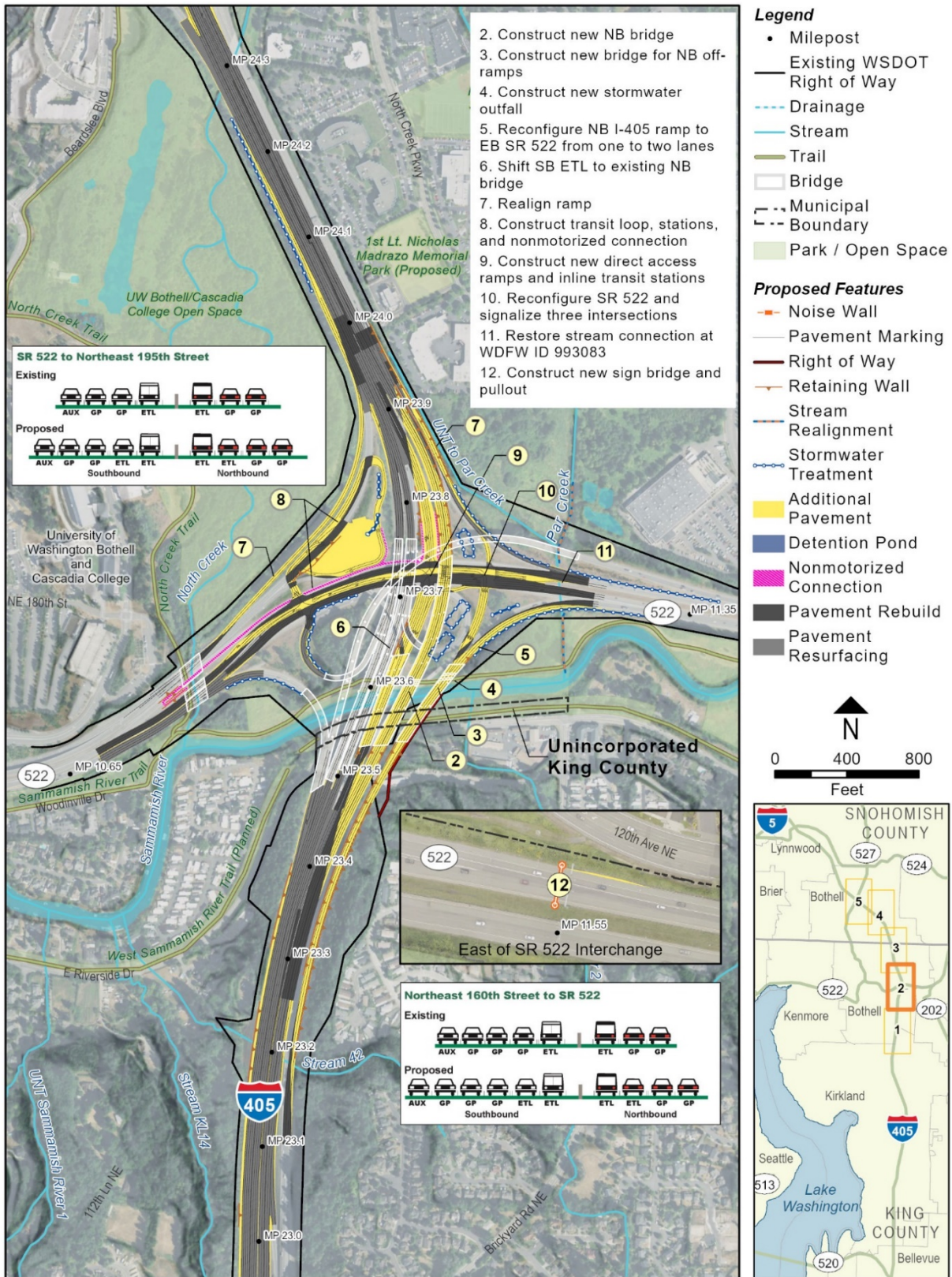
Project Element	Proposed Improvements
SR 527 interchange area	<ul style="list-style-type: none"> ▪ Construct new direct access ramps to the north, south and east just south of SR 527 at 17th Avenue SE. ▪ Construct two inline transit stations (one in each direction) in the I-405 median. Transit stations would include station platforms, signage, artwork, lighting, fare machines, and site furnishings such as shelters, lean rails, benches, bollards, bicycle parking, and trash receptacles. ▪ Reconstruct the pedestrian bridge over I-405.
17th Avenue SE, 220th Street SE, SR 527	<ul style="list-style-type: none"> ▪ Reconfigure 17th Avenue SE and portions of 220th Street SE and SR 527 to include a roundabout at the Canyon Park Park and Ride, bicycle and pedestrian improvements, and improvements at the SR 527 and 17th Avenue SE intersections with 220th Street SE.
Fish barrier corrections	<ul style="list-style-type: none"> ▪ Replace five fish barriers with restored stream connections at the following streams: <ul style="list-style-type: none"> - Par Creek (WDFWID 993083) - Stream 25.0L (WDFW ID 993104) - North Fork of Perry Creek (WDFW ID 08.0070 A 0.25) - Two fish barriers at Queensborough Creek (WDFW ID 993084 and 993109)
Sammamish River bridges	<ul style="list-style-type: none"> ▪ Remove the existing northbound I-405 to eastbound SR 522 bridge over the Sammamish River, including two bridge piers within the OHWM. ▪ Remove the existing northbound I-405 to westbound SR 522 bridge over the Sammamish River, including two bridge piers within the OHWM. ▪ Build a new bridge for northbound I-405 traffic over the Sammamish River. ▪ Build a new bridge over the Sammamish River for the new direct access ramp at SR 522. ▪ Build a new bridge over the Sammamish River for the northbound I-405 to SR 522 ramp.
Noise and retaining walls	<ul style="list-style-type: none"> ▪ Construct 3 new noise walls near NE 160th Street and SR 527. See Exhibit 2-2, Sheets 1, 4 and 5. ▪ Construct several new retaining walls. See Exhibit 2-2, Sheets 1 through 5.
Stormwater management	<ul style="list-style-type: none"> ▪ Provide enhanced treatment for an area equivalent to 100 percent of new PGIS (approximately 24 acres). ▪ Retrofit about 23 acres of existing untreated PGIS and continue to treat stormwater from the approximately 44 acres of PGIS that currently receives treatment. ▪ Construct three new stormwater outfalls, one on the Sammamish River and two on the North Fork of Perry Creek.
Construction duration	<ul style="list-style-type: none"> ▪ Construction is expected to last 3 to 4 years, beginning in 2021.

ETL = express toll lane; ID = identification number; MP = milepost; OHWM = ordinary high water mark; PGIS = pollution-generating impervious surface; WDFW = Washington Department of Fish and Wildlife

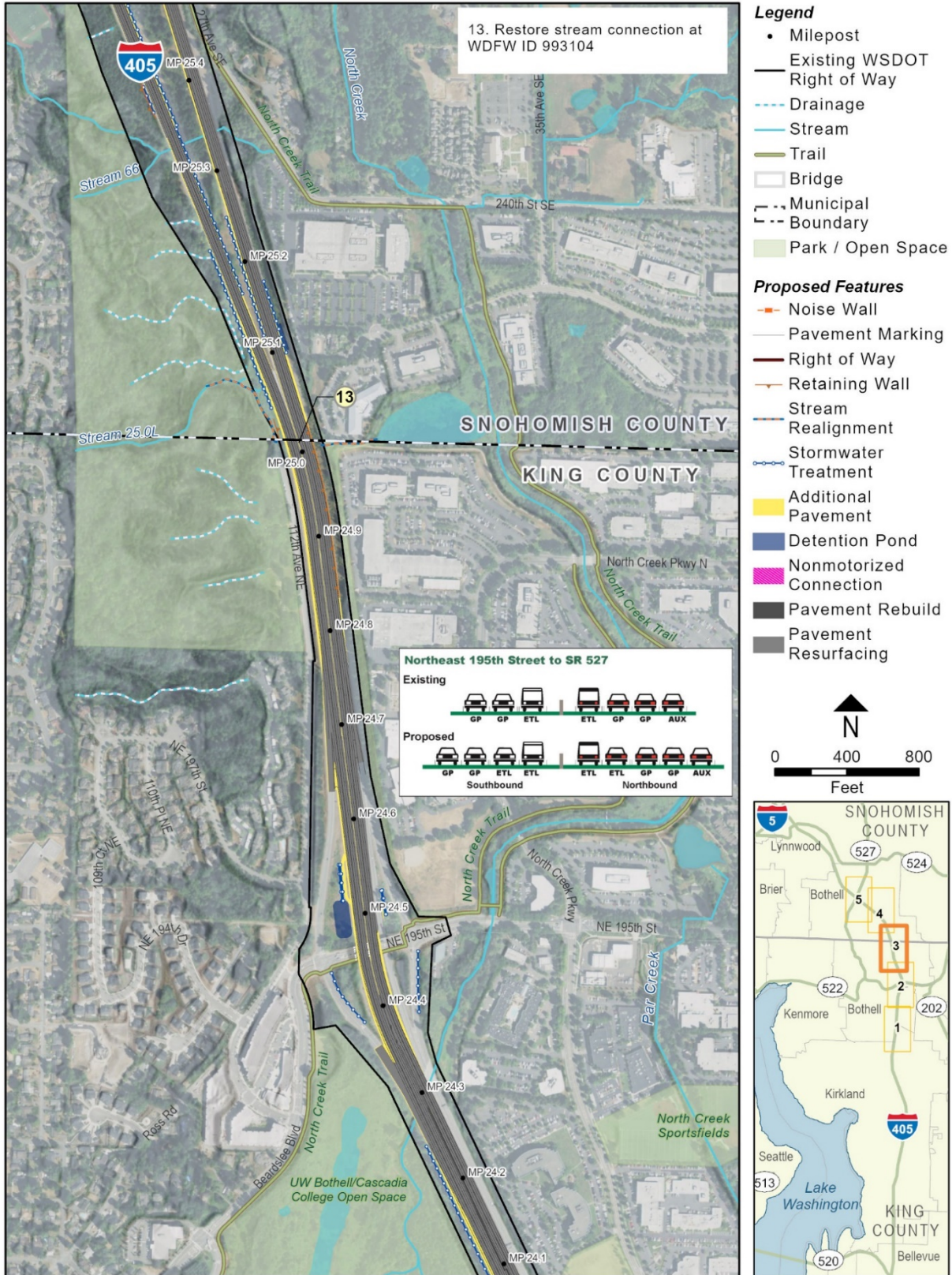
**Exhibit 2-2. I-405, SR 522 Vicinity to SR 527 Express Toll Lanes Improvement Project
 (Sheet 1 of 5)**



**Exhibit 2-2. I-405, SR 522 Vicinity to SR 527 Express Toll Lanes Improvement Project
 (Sheet 2 of 5)**



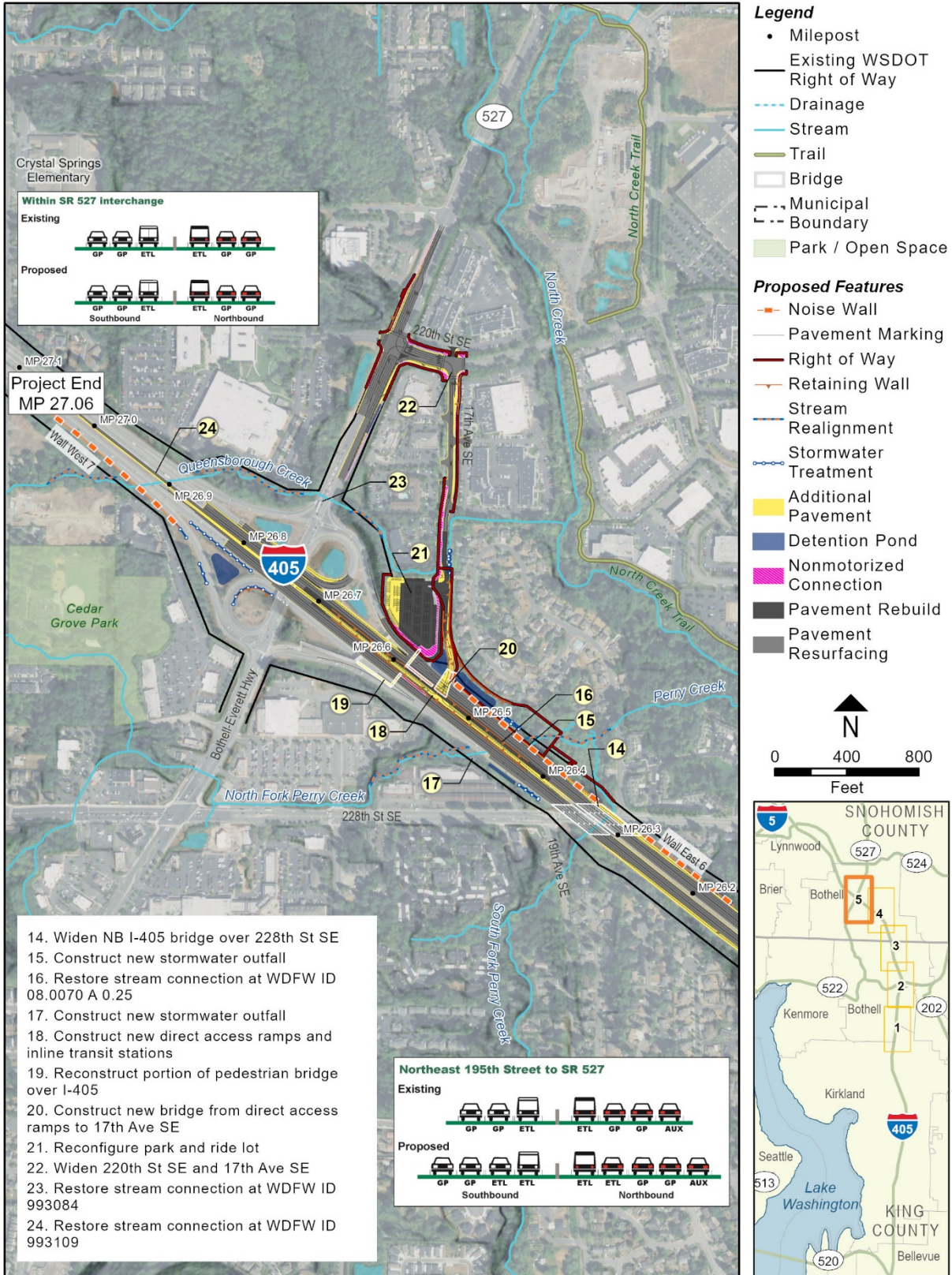
**Exhibit 2-2. I-405, SR 522 Vicinity to SR 527 Express Toll Lanes Improvement Project
 (Sheet 3 of 5)**



**Exhibit 2-2. I-405, SR 522 Vicinity to SR 527 Express Toll Lanes Improvement Project
 (Sheet 4 of 5)**



**Exhibit 2-2. I-405, SR 522 Vicinity to SR 527 Express Toll Lanes Improvement Project
 (Sheet 5 of 5)**



2.2 How will the express toll lanes work?

Currently, there is one express toll lane (ETL) in each direction of I-405 between SR 522 and SR 527. WSDOT expects that the new ETL in this section would operate in the same way as the existing ETL, from 5 a.m. to 7 p.m. on weekdays. At all other times and on major holidays, the ETLs would be free and open to all without a *Good To Go!* pass. During operating hours:

- **Single-occupancy vehicles** would pay a toll to use the ETLs with or without a *Good To Go!* pass.
- **Transit, high-occupancy vehicles (HOV) 3+, and motorcycles** would travel for free with a *Good To Go!* flex or motorcycle pass.
- **HOV 2+** would travel for free from 9 a.m. to 3 p.m. with a *Good To Go!* flex pass. From 5 a.m. to 9 a.m. and from 3 p.m. to 7 p.m., HOV 2+ would pay a toll to use the ETLs with or without a *Good To Go!* flex pass.
- **Large vehicles** over 10,000 pounds gross vehicle weight would not be able to use the ETLs at any time.

How do I get more information about express toll lanes on I-405?
<https://wsdot.wa.gov/Tolling/405/>

2.3 What methods will be used to construct the Project?

WSDOT will construct the Project using a design-build delivery method, in which WSDOT executes a single contract with one entity for design and construction services. With design-build projects, contractors have the flexibility to offer innovative and cost-effective alternatives to deliver the project, improve project performance, and reduce project effects. If the contractor proposes design modifications not covered by the Environmental Assessment (EA) prepared for the Project, additional environmental review would be conducted as needed. Construction will generally occur between 2021 and 2025, but construction activities in some areas could be complete prior to 2025. Once a contractor is selected for the Project, they could use multiple work crews in multiple locations to reduce the overall construction period.

Work will include activities such as removing existing asphalt and concrete surfaces, clearing and grading adjacent areas, laying the aggregate roadway foundation, placing new asphalt and concrete surfaces, replacing culverts, building noise walls and retaining walls, and building and demolishing bridges. Removing bridge piers from the Sammamish River could require the construction of temporary work bridges and will require in-water work, which may include temporary use of cofferdams and a work barge, depending on the contractor's chosen means and methods. The Project will require approximately 112,000 cubic yards of excavation and 182,000 cubic yards of fill. Construction equipment such as backhoes, excavators, front-end loaders, pavement grinders, jack hammers, pile drivers, trucks, vector trucks, cranes, drilling rigs and augers, concrete pumping equipment, and slurry processing equipment will be used. Specific haul routes and the number of construction vehicles will not be known until a construction contract is signed. When possible, the work sites will be accessed from I-405 and SR 522. Construction staging areas for employee parking, large equipment storage, and material stockpiles will be located within WSDOT and Bothell right of way to the extent possible. The contractor may also find other locations for construction staging.

CHAPTER 3 ENVIRONMENTAL ASSESSMENT COORDINATION AND COMMENTS

Focused outreach to agencies, stakeholders, tribes, and the public was integral to planning and development of the Project. Public involvement activities have included open houses and community forums; interviews with social service organizations; use of print and online media; and briefings and meetings with community and neighborhood organizations, local jurisdictions, and other interested groups. More detailed information on community outreach, agency coordination, and tribal consultation is included in Chapter 2, Alternatives Evaluated, of the Environmental Assessment (EA).

3.1 Interagency and Tribal Coordination

WSDOT coordinates with federal, state, and local entities on a range of issues, including design development, permitting, and other approvals needed for the Project. These agencies include but are not limited to the Federal Highway Administration (FHWA), National Oceanic and Atmospheric Administration Fisheries, U.S. Army Corps of Engineers, U.S. Coast Guard, U.S. Fish and Wildlife Service, U.S. Environmental Protection Agency, Washington State Department of Archaeology and Historic Preservation, Washington State Department of Ecology, Washington State Department of Fish and Wildlife, City of Bothell, King County, Snohomish County, Puget Sound Regional Council, Community Transit, and Sound Transit.

WSDOT has Government-to-Government responsibility under Revised Code of Washington (RCW) 43.376 for coordinating with federally recognized Native American tribes. Although there are no tribal lands within the EA study area, WSDOT consulted tribes about their interests related to cultural and natural resources. In accordance with Section 106 of the National Historic Preservation Act of 1966, WSDOT initiated consultation with the Muckleshoot Indian Tribe, Sauk-Suiattle Indian Tribe, Snoqualmie Tribe, Stillaguamish Tribe of Indians, Yakama Nation, and Duwamish Tribe in March 2019. WSDOT continues natural resources consultation on the Project with the Muckleshoot Indian Tribe, who have Usual and Accustomed fishing rights in the study area. The Yakama Nation also have Usual and Accustomed fishing rights in the study area but defer to the Muckleshoot Indian Tribe.

3.2 EA Comments and Responses

The EA for the Project was published on July 2, 2020, and made available to the public for review and comment pursuant to Section 42 United States Code (U.S.C.) 4332 (2)(c) and 23 Code of Federal Regulations (CFR) Part 771. The public comment period was open from July 2 through August 6, 2020.

Typically after publishing an EA, WSDOT holds an in-person public meeting during which community members may view materials, ask questions, and submit comments. Due to public health considerations at the time of publication, WSDOT hosted this public meeting online, and provided options for people to submit comments and questions by email, postal mail, an online form, and phone.

WSDOT notified the public, agencies, and tribes of the opportunity to view the online public meeting, review the EA, and participate in the comment period through the following methods:

- 5,167 (4,662 residences, 505 businesses) postcards sent via postal mail within 750 feet of the Project boundaries.
- Print and online display advertisements in the *Seattle Times*, *Bothell-Kenmore Reporter*, and *Woodinville Weekly* on July 2, 2020.
- A legal Notice of Availability of the EA published in the *Seattle Times* and *Woodinville Weekly* on July 2, 2020.
- A news release distributed to major news outlets, local publications, and other interested parties on July 2, 2020.
- WSDOT project website (www.wsdot.wa.gov/projects/i405/sr-522-sr-527/environmental-review).
- WSDOT Facebook post on July 2, 2020.
- WSDOT Eastside Transportation News and Snohomish County email newsletters on July 2, 2020.

The online public meeting was available for viewing for the full duration of the public comment period (July 2 through August 6, 2020). WSDOT provided a series of interactive webpages with summary information and graphics about the Project; the I-405 corridor; and the major EA findings for transportation, noise, natural resources, property acquisitions, Section 4(f) and Section 6(f) recreational resources, and environmental justice. The website directed visitors to the Project website for the option to download the full EA and technical reports. The online public meeting website received a total of 1,943 page views (1,546 unique page views).

Because of facility closures due to public health considerations, WSDOT was unable to complete its typical practice of providing printed copies of the EA for viewing in libraries in the Project vicinity. WSDOT continued to offer people the option of calling a phone number to purchase a printed copy of the EA or making an appointment to review the EA at the Project office in Bellevue.

During the comment period, WSDOT received a total of 35 comments: 5 comments by email, 16 comments via the online form in the online public meeting, 7 comments by phone, and 7 comment letters (attached to emails). Some of the comments included in the total were follow-ups from the same individuals. Primary themes of the comments were traffic concerns in the Canyon Park area, proposed signals and ramp reconfigurations at the I-405/SR 522 interchange, bike and pedestrian facilities, wetland and stream mitigation, tolling, noise walls, visual quality and landscaping, and potential effects on private property.

WSDOT and FHWA reviewed and considered all comments in the development of this Finding of No Significant Impact (FONSI). Appendix 1 of this FONSI, Comments with Responses, provides copies of all public, agency, and tribal comments received along with WSDOT's and FHWA's responses.

CHAPTER 4 ENVIRONMENTAL FINDINGS

4.1 National Environmental Policy Act Finding

The Federal Highway Administration (FHWA) served as lead agency under the National Environmental Policy Act (NEPA) for the Project. WSDOT prepared the Environmental Assessment (EA) in compliance with NEPA, 42 United States Code (U.S.C.) Section 4332 et seq. and with FHWA's regulations, 23 Code of Federal Regulations (CFR) Part 771 and the Washington State Environmental Policy Act. The EA discusses the potential impacts of the Project on the environment so that FHWA can determine whether significant adverse impacts (Council on Environmental Quality 15.08.27) are probable. If such a determination were made, an Environmental Impact Statement (EIS) would need to be prepared.

WSDOT has incorporated environmental considerations into its study of the Project and has conducted evaluations of the Project's potential environmental impacts.

After considering the EA, its supporting documents, and the EA comments and responses, FHWA finds under 23 CFR 771.121 that the Project, with the mitigation to which WSDOT has committed, will have no significant adverse impact on the environment. The record provides sufficient evidence and analysis for determining that an EIS is not required. Should the effects of the proposed Project change, FHWA will conduct a NEPA Re-Evaluation to determine whether the NEPA decision document remains valid in accordance with 23 CFR 771.129 (c) and WSDOT's *Environmental Manual* (WSDOT 2020).

4.2 Air Quality Conformity Statement

Air quality was evaluated for the Project, including the I-405 freeway and arterials that will be affected by the Project within the west-central Puget Sound region.

The Project complies with all National Ambient Air Quality Standards. The Project will not cause or increase any exceedance of the National Ambient Air Quality Standards, and it meets project-level conformity requirements per 40 CFR 93.123. No significant adverse unavoidable impacts related to air quality are predicted because of the Project.

In 1978, the central Puget Sound region was classified as a nonattainment area by the U.S. Environmental Protection Agency (EPA) for carbon monoxide (CO). In 1996, having met the federal standards for several years, the region was redesignated by the EPA as "in attainment" with an approved maintenance plan for CO. On October 11, 2016, the area reached the end of the 20-year maintenance period for CO. Therefore, CO hot-spot modeling and a regional conformity analysis are no longer required. Likewise, transportation conformity is no longer required in the Puget Sound area for the revoked 1-hour ozone standard.

Although transportation conformity is not required for the Project, EPA recommends using the same emissions model (the latest version of EPA's Motor Vehicle Emissions Simulator, MOVES 2014b) for NEPA purposes to predict pollutant emissions for criteria, mobile source air toxics, and greenhouse gas pollutants. Compared to existing conditions, criteria pollutant emissions

and mobile source air toxics (MSAT) emissions are expected to decrease with the Project in both 2025 and 2045 because of newer and cleaner automobiles in the future.

After considering the EA, its supporting documents, and the EA comments and responses, FHWA finds that the Project meets all applicable requirements of the Clean Air Act.

4.3 Floodplain Finding

The Project will make very minor changes to floodplains. Mapped floodplains were identified along the Sammamish River and North Creek. The Project will be designed and constructed to meet all current federal, state, and local standards for work in floodplains. WSDOT and local design criteria mandate a zero rise in floodplain water surface elevations, so floodplain effects are not expected.

The Project will remove four bridge piers from the Sammamish River. All new bridge piers will be placed outside of the ordinary high water mark, with up to six bridge piers (two per proposed bridge) placed within the 100-year floodplain. Although this change will increase effects on the floodplain, the removal of the piers out of the Sammamish River will decrease the likelihood of backwater effects. Therefore, by design, the Project will have no effect on hydraulics or hydrology within the study area.

The Project's new restored stream connections will make the Project more resilient to future changes in the 100-year flood condition on the smaller streams. Those restored connections will provide enough room for the natural stream processes that will adjust to changes in severity and frequency of storms in the future.

After considering the EA, its supporting documents, and the EA comments and responses, FHWA finds that the Project meets all applicable floodplain requirements.

4.4 Surface Water and Water Quality Finding

The Project will add about 24 acres of new pollution-generating impervious surface (PGIS) to the existing approximately 132 acres of highway pavement. WSDOT will provide enhanced treatment for an area equivalent to 100 percent of new PGIS created by the Project (about 24 acres), plus about 23 acres of existing untreated PGIS. As a result, the amount of PGIS that receives stormwater treatment will change from just over 44 acres to about 91 acres. The Project will cause no substantial adverse effects on surface water flows because WSDOT will build facilities to detain increased flows.

In the current Project design, the existing detention ponds will likely remain, but some of the existing detention tanks, media filter drains, and biofiltration swales will be affected. The Project design proposes new detention and runoff treatment facilities. The conceptual stormwater design will continue to develop as the Project continues through WSDOT design-build procurement, so design optimization could change which facilities are affected and the locations or types of new facilities.

Overall, proposed stormwater facilities with the Project (Build Alternative) will reduce loading of total suspended solids, total copper, total zinc, and dissolved zinc compared to existing

conditions. There will be an increase in dissolved copper. However, because total copper will decrease, the change in the amount of the dissolved copper is more than compensated by the reduction in the non-dissolved copper.

After considering the EA, its supporting documents, and the EA comments and responses, FHWA finds that the Project will have no significant adverse impacts on surface water flows or water quality.

4.5 Endangered Species Act Finding

WSDOT prepared a Biological Assessment (BA) for the Project in compliance with Section 7 of the Endangered Species Act (ESA). Based on the effects and exposure analyses and implementation of best management practices (BMPs), the Project may affect listed species under the ESA as summarized in Exhibit 4-1.

Exhibit 4-1. Effect Determinations for Listed, Designated, Proposed Species

Species	Effect Determination
Puget Sound Chinook salmon	May affect, likely to adversely affect
Puget Sound steelhead	May affect, likely to adversely affect
Southern Resident killer whale	May affect, not likely to adversely affect
Coastal/Puget Sound bull trout	May affect, not likely to adversely affect
Yellow-billed cuckoo	May affect, not likely to adversely affect

National Oceanic and Atmospheric Administration (NOAA) Fisheries issued a Biological Opinion for the Project on June 16, 2020. NOAA Fisheries also assessed the effects on Southern Resident killer whales due to the potential reduction of prey, primarily Chinook salmon, and concluded the Project may affect, but is not likely to adversely affect Southern Resident killer whales. The U.S Fish and Wildlife Service concurred with the determinations for Coastal/Puget Sound bull trout and yellow-billed cuckoo on November 27, 2019. Documentation of the ESA consultation can be found in Appendix Q of the EA, *Agency and Tribal Correspondence*.

FHWA finds the Project is compliant with the ESA.

4.6 Magnuson-Stevens Act

WSDOT analyzed essential fish habitat (EFH) for species regulated under a federal Fisheries Management Plan under the Magnuson-Stevens Fishery Conservation and Management Act (MSA). In a Biological Opinion issued June 16, 2020, NOAA Fisheries concurred that the Project will have an adverse effect on EFH for Pacific Coast salmon.

After considering the EA, its supporting documents, and the EA comments and responses, FHWA finds that, with the conservation recommendations, the Project satisfies the requirements of the MSA.

4.7 Farmland Finding

Suitable soils and active farming do not occur within the Project area. Therefore, the Farmlands Protection Policy Act of 1981 (7 U.S.C. 4201-4209) and other applicable state and federal farmlands protection policies, orders, and guidance do not apply to the Project.

4.8 Wetland and Stream Finding

4.8.1 Wetlands

The Project will permanently affect 21 wetlands in the study area, including up to 6 acres of wetlands and up to 4 acres of associated wetland buffers. Where feasible, WSDOT made design modifications to the Project footprint to avoid or minimize permanent effects on wetlands and wetland buffers. All permanent impacts will be mitigated in accordance with local, state, and federal regulations.

WSDOT will mitigate permanent effects on wetlands by completing on-site restoration in the vicinity of Par Creek and by purchasing credits at the Keller Farm Mitigation Bank and the WSDOT Happy Valley Mitigation Site. Specific mitigation strategies at each of the sites are in development and will be detailed in permit documentation.

Project construction will temporarily affect about 0.25 acre of wetlands and up to 1 acre of wetland buffers in the study area. After the Project is complete, temporarily disturbed areas will be restored and replanted with appropriate native vegetation. Habitat functions will be temporarily diminished while these trees, shrubs, and emergent plants become established.

4.8.2 Streams and Fish Barrier Corrections

The Project will benefit aquatic habitats and species by removing four existing bridge piers in the Sammamish River. The Project will replace five WSDOT-owned fish barriers with restored stream connections at Par Creek (WDFW ID 993063), Stream 25.0L (WDFW ID 993104), North Fork of Perry Creek (WDFW ID 08.0070 A 0.25), and two fish barriers at Queensborough Creek (WDFW IDs 993084 and 993109). In addition, WSDOT will correct a fish barrier at Crystal Creek (WDFW ID 934994) as part of a separate project. WSDOT intends to construct the Crystal Creek fish barrier correction in the same timeframe as this Project.

The five fish barrier corrections included in this Project will restore full anadromous fish access to approximately 24,330 linear feet of upstream habitat. The Project will result in up to 16,600 square feet (0.37 acre) of permanent stream impacts and up to 15,900 square feet (0.36 acre) of permanent stream buffer impacts.

Construction will result in approximately 5,700 square feet (0.13 acre) of temporary stream impacts and approximately 143,400 square feet (3.3 acres) of temporary stream buffer impacts. The Project's temporary stream and stream buffer impacts will result from the five proposed restored stream connections, channel regrading, roadway widening, and installing bridge abutments and retaining walls.

After considering the EA, its supporting documents, and the EA comments and responses, FHWA finds that the Project, with the mitigation that is required herein, will have no significant adverse impact on wetlands, wetland buffers, streams, or stream buffers.

4.9 Section 106 Finding

WSDOT conducted a cultural resources survey of the area of potential effects (APE) in summer 2019 in compliance with Section 106 of the National Historic Preservation Act of 1966 (NHPA). The survey, documented in Appendix E of the EA, *Cultural Resources Survey*, identified 17 historic built environment resources, all of which are historic-age single-family residences, and two archeological sites. Two of the historic-age residences qualify as historic properties under Section 106 of the NHPA. The George Shaw House (property 40731) was determined eligible for listing in the NRHP by the Washington State Department of Archaeology and Historic Preservation in 2005, and the Dr. Reuben Chase House (property 39187) was listed in the NRHP in 1990. The Project as currently designed will not adversely affect either historically significant resource. None of the 15 other historic-age residences or two archeological sites within the study area are NRHP-eligible.

Six historic-age residences are considered contributing elements to two potential historic districts in the Windsor Vista and Queensgate neighborhoods. The cultural resources survey identified these districts as potentially eligible for NRHP listing, but they have not been formally evaluated. The Project as currently designed will not adversely affect contributing elements of either potential historic district.

No cultural resources were recovered during subsurface investigations in the APE, as documented in Appendix E and Appendix E1 of the EA, *Cultural Resources Survey Addendum*. The subsurface investigation conducted for both surveys recommended five locations for monitoring during ground-disturbing activities because they have the potential for buried cultural materials.

On December 16, 2019, and January 16, 2019, WSDOT received concurrence from the Washington Department of Archaeology and Historic Preservation that the Project will have no adverse effect on eligible or listed properties within the APE. The Section 106 documentation is provided in Appendix Q of the EA, *Agency and Tribal Correspondence*.

After considering the EA, its supporting documents, and the EA comments and responses, FHWA finds that the Project will have no adverse effect on historic properties.

4.10 Section 4(f) Finding

WSDOT evaluated resources protected under Section 4(f) of the U.S. Department of Transportation (DOT) Act of 1966 as part of the EA. The study area contains 14 recreational resources (12 existing and 2 planned), including parks, open spaces, athletic fields, and trails. Most of these Section 4(f) resources are located far enough from the I-405 corridor that the activities, features, or attributes of these resources will not be affected by construction activities or long-term operations of the Project. The Section 4(f) findings for the Project are summarized

in Exhibit 4-2. Information following the table explains determinations that qualified as exceptions, temporary occupancy, or *de minimis* findings under Section 4(f).

Exhibit 4-2. Effects on Recreational Resources

Resource Name	Distance from Project Footprint	Permanent Acquisition	Effects and Section 4(f) Determinations
Public Parks and Recreational Areas			
Bud Homan Park	Approximately 800 feet	None	None, no Section 4(f) use
KG1	Approximately 400 feet	None	None, no Section 4(f) use
Brackett's Landing	Approximately 800 feet	None	None, no Section 4(f) use
North Creek Sportsfields	Approximately 800 feet	None	None, no Section 4(f) use
UW Bothell/Cascadia College Open Space	Adjacent to WSDOT right of way	None	None, no Section 4(f) use
North Creek Forest	Adjacent to WSDOT right of way	None	Reestablishment of trees and vegetation, <i>de minimis</i> use
1st Lt. Nicholas Madrazo Memorial Park (Planned)	Approximately 350 feet	None	None, no Section 4(f) use
Cedar Grove Park	Approximately 400 feet	None	None, no Section 4(f) use
Canyon Park Middle School	Approximately 350 feet	None	None, no Section 4(f) use
Crystal Springs Elementary School	Approximately 900 feet	None	None, no Section 4(f) use
Trails			
Tolt Pipeline Trail	Within and adjacent to Project footprint	None	None, no Section 4(f) use
Sammamish River Trail	Within and adjacent to Project footprint	None	Relocation of trail, <i>de minimis</i> use
West Sammamish River Trail (Planned)	Within and adjacent to Project footprint	None	None. Temporary occupancy during construction meets the temporary use exception criteria in 23 CFR 774.13(d).
North Creek Trail	Adjacent to/within WSDOT right of way at closest point	None	None. WSDOT owns property with trail and leases it to UW where improvements occur. Other sections of trail are owned and maintained by others. There is no Section 4(f) use.
Historic Resources			
Dr. Reuben Chase House	Adjacent to WSDOT right of way	None	None, no Section 4(f) use and no adverse effects under Section 106 of NHPA
George Shaw Residence	Approximately 200 feet	None	None, no Section 4(f) use and no adverse effects under Section 106 of NHPA

CFR = Code of Federal Regulations; NHPA = National Historic Preservation Act; UW = University of Washington

4.10.1 Sammamish River Trail

The Project will require temporary realignment of the Sammamish River Trail to allow for construction of three new bridges and demolition of two existing bridges. This work will require nighttime trail closures. In addition, a portion of this trail will need to be permanently realigned outside of its existing footprint to maintain King County trail specifications and/or to improve sight distance. Both the temporary and permanent trail realignments are expected to occur within WSDOT's existing right of way. However, it is possible that some of the temporary and/or permanent realignment may take place on property owned by King County, at the request of the County, to improve sight distance on the trail. Because of this possibility, a Section 4(f) *de minimis* determination has been made.

A determination of a *de minimis* under Section 4(f) may be made when all three of the following criteria are satisfied:

- The transportation use of the Section 4(f) resource, together with any avoidance, minimization, and mitigation or enhancement measures incorporated into the project, does not adversely affect the activities, features, and attributes that qualify the resource for protection under Section 4(f).
- The public has been afforded an opportunity to review and comment on the effects of the project on the protected activities, features, and attributes of the Section 4(f) resource.
- The official(s) with jurisdiction over the property are informed of the U.S. Department of Transportation's intent to make the *de minimis* effect determination based on its written concurrence that the project will not adversely affect the activities, features, and attributes that qualify the property for protection under Section 4(f).

It was determined that the acquisition will have a *de minimis* effect determination under Section 4(f) because the Project will not adversely affect the activities, features, and attributes that qualify the property for protection under Section 4(f). King County Parks, the agency with jurisdiction, was informed of the U.S. Department of Transportation's intent to make the *de minimis* effect determination.

The public was provided an opportunity to review and comment on the *de minimis* finding as required by Section 4(f) as part of the public comment period for the EA that was held between July 2, 2020, and August 6, 2020. No comments were received from the public about the Sammamish River Trail or objecting to the *de minimis* determination.

King County provided concurrence with the *de minimis* determination for the Sammamish River Trail on April 6, 2021. This concurrence letter is contained in Appendix 5, *Section 4(f) Updates*.

4.10.2 West Sammamish River Trail

The Project will not negatively affect future construction of this planned King County Trail. The Project will construct a new I-405 bridge, requiring WSDOT to obtain an airspace lease from King County Parks in the vicinity of the planned West Sammamish River Trail. There will be no negative effects on the planned trail because adequate clearance will be maintained. A temporary construction easement will be needed for clearing vegetation and establishing a

temporary construction staging area. The area will be restored after construction is complete. The construction activities meet the criteria for a temporary occupancy exception in 23 CFR 774.13(d) and will not result in a temporary use under Section 4(f).

The proposed Project activities will meet the Section 4(f) temporary occupancy exemption listed in 23 CFR 774.13(d) because the following conditions will be satisfied:

- The duration is temporary, i.e., less than the time needed for construction of the Project, and there should be no change in ownership of the land. Construction activities near the planned trail are expected to last less than three years, whereas the overall Project construction is estimated at 3 to 4 years.
- The scope of the work is minor, i.e., both the nature and the magnitude of the changes to the Section 4(f) property are minimal. Work will involve clearing vegetation and establishing a temporary construction staging area associated with constructing a new I-405 bridge.
- There are no anticipated permanent adverse physical effects, nor would there be interference with the protected activities, features, or attributes of the property on either a temporary or permanent basis.
- The land being used will be fully restored, i.e., the property will be returned to a condition that is at least as good as the condition that existed prior to the Project.
- There is documented agreement of the official(s) with jurisdiction over the Section 4(f) resource regarding the above conditions.

King County provided concurrence with the temporary occupancy determination for the West Sammamish River Trail on April 6, 2021. This concurrence letter is contained in Appendix 5, *Section 4(f) Updates*.

4.10.3 North Creek Forest

The Project will reconstruct and realign portions of one stream, Stream 25.0L, within the North Creek Forest, a City of Bothell open space, to correct a fish barrier. This work will benefit fish and aquatic species by restoring full anadromous fish access to upstream habitat and replacing the existing stream channel, which is currently in a pipe, with an open stream channel.

Proposed construction activities will require a temporary construction easement from the City of Bothell. Construction activities will be located within an area of approximately 0.75 acre and will include clearing existing mature trees and vegetation, regrading soils, and constructing ground improvements by driving untreated timber piles to stabilize steep slopes. The Project will restore the area with native trees and vegetation after construction is complete.

Although the fish barrier correction and stream enhancement will improve the natural setting and features within the park, it will take time for replanted vegetation to mature. Because of this, a Section 4(f) *de minimis* determination has been made. A determination of a *de minimis* under Section 4(f) may be made when all three of the following criteria are satisfied:

- The transportation use of the Section 4(f) resource, together with any avoidance, minimization, and mitigation or enhancement measures incorporated into the project, does not adversely affect the activities, features, and attributes that qualify the resource for protection under Section 4(f).
- The public has been afforded an opportunity to review and comment on the effects of the project on the protected activities, features, and attributes of the Section 4(f) resource.
- The official(s) with jurisdiction over the property are informed of the U.S. Department of Transportation's intent to make the *de minimis* effect determination based on its written concurrence that the project will not adversely affect the activities, features, and attributes that qualify the property for protection under Section 4(f).

It was determined that the acquisition will have a *de minimis* effect determination under Section 4(f) because the Project will not adversely affect the activities, features, and attributes that qualify the property for protection under Section 4(f). The City of Bothell, the agency with jurisdiction, was informed of the U.S. Department of Transportation's intent to make the *de minimis* effect determination.

The public was provided an opportunity to review and comment on the *de minimis* finding as required by Section 4(f) as part of the public comment period for the EA that was held between July 2, 2020, and August 6, 2020. One comment was received from the City of Bothell regarding the North Creek Forest; see Comment OF16 in Appendix 1, *Comments with Responses*. No comments were received from the public objecting to the *de minimis* determination.

Bothell provided concurrence with the *de minimis* determination for the North Creek Forest on May 18, 2021. This concurrence letter is contained in Appendix 5, *Section 4(f) Updates*.

After considering the EA, its supporting documents, and the EA comments and responses, FHWA finds that the Project will have a temporary occupancy or *de minimis* use of three properties protected by Section 4(f) of the DOT Act of 1966.

4.11 Section 6(f) Finding

WSDOT evaluated the existence of properties protected under Section 6(f) of the Land and Water Conservation Fund Act of 1965 as part of the EA. There is one Section 6(f) resource in the study area, the North Creek Forest. As documented in the EA, the Project will not result in the conversion of any part of the North Creek Forest to a transportation-related use; therefore, there will be no effects on Section 6(f) resources.

After considering the EA, its supporting documents, and the EA comments and responses, FHWA finds that the Project will not cause a conversion of any property protected by Section 6(f) of the Land and Water Conservation Fund Act of 1965.

4.12 Environmental Justice Finding

Environmental justice populations include persons who identify as minorities or are low-income. As documented in the EA and Appendix C of the EA, *Community Impact Assessment and Environmental Justice Discipline Report*, U.S. Census data indicate that about 33 percent of the

study area population identify as minorities, 5 percent identify as low-income, and 3 percent identify as limited English proficient, which is similar to Bothell, where the majority of the Project is located (U.S. Census Bureau 2017). The highest concentrations of minority populations reside in the Canyon Park and Fitzgerald/35th SE neighborhoods on the east side of I-405 between the NE 195th Street and SR 527 interchanges.

The analysis found that operation of the Project will generally have no adverse effects on environmental justice populations, except for a projected increase in traffic noise. With the three proposed noise walls under the Build Alternative (the Project), fewer receivers will be affected by noise levels above FHWA noise abatement criteria (NAC) than the No Build Alternative. However, with the Project, some areas close to the freeway will continue to experience noise effects above FHWA NAC where noise walls are not be feasible and/or cost-effective to build under WSDOT's noise policy.

In most areas where noise levels will increase above FHWA NAC, the population is predominantly non-minority and non-low income. However, within parts of the Fitzgerald/35th SE and Canyon Park neighborhoods on the east side of I-405 south of SR 527, the population is predominantly minority. In these neighborhoods, construction of one of the proposed noise walls, Wall East 6 shown on Exhibit 2-2, Sheets 4 and 5, will benefit a number of residents, both minority and non-minority, by reducing traffic noise levels by up to 9 A-weighted decibels (dBA) compared to the No Build Alternative. In areas near these neighborhoods where noise levels will still be above the FHWA NAC, there will be either no increase or a 1 to 2 dBA decrease compared to the No Build Alternative. Overall, because any increases in traffic noise levels across all study area neighborhoods will affect all populations to the same degree, there will be no disproportionately high and adverse effects for minority populations.

WSDOT also found that, with the Project, operation of the express toll lanes (ETLs) will continue to have a disproportionate effect on low-income populations and will continue to affect limited English proficient populations. However, with the Project, travel times for most vehicles, including transit, in both the ETLs and general purpose lanes will be similar to the No Build Alternative or will improve in 2025 (year of opening) and 2045 (design year), which will benefit all users of I-405.

The Project will benefit water resources and aquatic habitat in the study area, which is located within treaty-protected fishing areas of the Muckleshoot Indian Tribe. The Project will correct fish barriers at five stream crossings in compliance with the terms of the 2013 United States District Court Injunction (*United States et al. vs. Washington et al.* No C70-9213, Subproceeding No. 01-1, dated March 29, 2013), restoring full anadromous fish access to about 24,330 linear feet of upstream habitat. The Project will also improve water quality in the study area by detaining and treating more stormwater runoff as compared to the No Build Alternative.

Construction activities will have a disproportionate effect on minority populations in the Fitzgerald/35th SE and Canyon Park neighborhoods because there is a predominantly minority population in these neighborhoods. However, because all populations in neighborhoods close to construction will be affected by construction to the same degree, there will be no disproportionately high and adverse effects on minority populations during construction.

Project construction will include work in the Sammamish River during the approved in-water work window for fisheries. The Muckleshoot Indian Tribe has informed WSDOT that the Tribe may be actively tracking tagged adult salmon in the Sammamish River during Project construction. WSDOT will consult with the Muckleshoot Indian Tribe on measures to avoid and minimize conflicts with the tracking activities during WSDOT's planned construction activities.

After considering the EA, its supporting documents, and the EA comments and responses, FHWA finds that the construction and operation of the Project will not have a disproportionately high and adverse effect on environmental justice populations.

4.13 Noise Finding

WSDOT used modeling software to predict future noise levels at 989 noise-sensitive locations, known as receivers, including properties such as residences, outdoor sports areas, places of worship, trails, hotels, day care centers, and playgrounds.

Traffic noise effects occur when predicted noise levels approach or exceed FHWA NAC. WSDOT considers a noise impact to occur if predicted noise levels approach within 1 dBA of the NAC and/or if there is an increase of 10 dBA or more. In areas where traffic noise with the Project was expected to approach or exceed the NAC, WSDOT evaluated possible noise abatement (mitigation).

In 2045 with the Project, the number of receivers approaching or exceeding the NAC is expected to be 221 receivers (representing 293 dwelling units). This is less than the No Build Alternative, which will affect 227 receivers (representing 307 dwelling units). With the proposed noise walls for the Project, 34 receivers representing 43 residences will drop below the NAC. This means that with the Project, 187 receivers (representing 250 dwelling units) will be affected, which is less than under the No Build Alternative.

Appendix B of the EA, *Noise Discipline Report*, provides a detailed explanation of the criteria used to assess feasibility and reasonableness of noise walls, as well as the results of the analysis. WSDOT evaluated 17 possible noise walls and determined that 3 noise walls were both feasible and reasonable to construct:

- Wall East 2 along the northbound I-405 off-ramp to NE 160th Street (see Exhibit 2-2, Sheet 1)
- Wall East 6 along northbound I 405 on either side of 228th Street SE (see Exhibit 2-2, Sheets 4 and 5)
- Wall West 7 along the west side of southbound I 405, north of SR 527 near 9th Avenue SE (see Exhibit 2-2, Sheet 5)

In addition to the new walls proposed for construction, WSDOT may need to remove and replace one of nine existing noise walls (Wall NW1) in the study area to accommodate the Project design. The remaining eight noise walls in the study area will remain in their current locations.

There is a neighborhood screening wall currently attached to Wall NW1 that will be removed with the Project. The proposed elevation of 17th Avenue SE with a retaining wall will provide noise shielding to the neighborhood in place of the screening wall, and traffic noise levels with the Project are not predicted to approach or exceed the NAC in the area of this removed wall. Therefore, no additional abatement or replacement is recommended.

Construction will create temporary noise. Noise levels during construction will depend on the type, amount, and location of construction activities, and WSDOT will acquire temporary noise variances as needed.

After reviewing the EA and supporting documents, including comments and responses made to those comments, FHWA finds that, with proposed mitigation, the Project will have no significant adverse effects on noise.

CHAPTER 5 MITIGATION COMMITMENTS

This section describes Project mitigation commitments organized by elements of the environment, as presented in the Environmental Assessment (EA). These commitments were included in the EA as Chapter 6, Measures to Avoid, Minimize, or Mitigate Effects. In some cases, mitigation commitments have been modified or added since the EA was published. Any changes made to mitigation commitments are reflected in this chapter, and changes are shown in Appendix 2, Errata to the Environmental Assessment.

These commitments have been adopted as part of the Federal Highway Administration's (FHWA's) final decision on the proposed Project. They are listed to "assist with agency planning and decision-making" and to "aid an agency's compliance with NEPA when no Environmental Impact Statement is necessary" [40 Code of Federal Regulations (CFR) 1501.3(b) and 1508.9(a)(2)].

The following sections describe the established design and construction practices that WSDOT will include to avoid or minimize impacts to the various environmental resources during both the construction and operation phases of the Project. WSDOT will use best management practices (BMPs), WSDOT Standard Specifications, and design elements to avoid or minimize potential effects on the environment from the Project.

As part of the Project construction, the following state and federal permits will be required or may be required. WSDOT will obtain these permits and will adhere to their conditions.

Required Permits

- Section 404/10 Individual Permit, U.S. Army Corps of Engineers (Corps)
- Section 408 Permission, Corps
- Section 9 Bridge Permit, U.S. Coast Guard
- Section 401 Water Quality Certification, Washington State Department of Ecology (Ecology)
- Section 402 National Pollutant Discharge Elimination System Construction Stormwater General Permit, Ecology
- Coastal Zone Management Act Consistency Determination, Ecology
- Hydraulic Project Approval, Washington Department of Fish and Wildlife (WDFW)
- Shoreline Conditional Use Permit, Shoreline Substantial Development Permit, and Shoreline Variance, Bothell
- Special Use Permit, King County

Potential Permits Depending on Final Design

- Notice of Intent for geotechnical borings, Ecology

- Notice of Intent for installing, modifying, or removing piezometers, Ecology
- Notice of Intent for installing, modifying, or decommissioning wells, Ecology
- Request for Chemical Treatment Form, Ecology
- Administrative Order for Chemical Treatment, Ecology
- Floodplain Development Permit, Bothell
- Clearing and Grading Permit, Bothell
- Building Permit, Bothell
- Noise Variance, Bothell and Kirkland

5.1 What measures will WSDOT use to avoid, minimize, or mitigate operational effects?

5.1.1 Transportation

- WSDOT is proposing mitigation to offset traffic impacts at the intersection of 20th Avenue SE and 220th Street SE, a private street located in the Canyon Park Business Center (CPBC). This intersection currently operates poorly and would continue to operate poorly with the Build Alternative. Overall traffic level of service in the CPBC would be similar with the Build Alternative as compared to the No Build Alternative. An agreement outside the Project scope is being discussed but is not necessary to mitigate Project effects; WSDOT will continue to work with the CPBC to advance the agreement.
- WSDOT will provide signs at key locations outside of the CPBC directing all traffic to or from I-405 to use public streets. While not quantitatively analyzed, the signs could reduce the volume of I-405 direct access ramp traffic using private roads within the CPBC, which could further improve operations under the Build Alternative on 29th Drive SE and 220th Street SE. The locations of the signs will include, but are not necessarily limited to:
 - Westbound 228th Street SE approaching 29th Drive SE
 - Northbound 17th Avenue SE approaching 220th Street SE

5.1.2 Noise

- Construct new noise walls at three locations: (Wall East 2, Wall East 6, and Wall East 7).

5.1.3 Ecosystems

- Prepare and implement a revegetation plan in accordance with WSDOT's *Roadside Policy Manual* (WSDOT 2015) and minimize the amount of vegetation clearing to retain as many trees as practicable to minimize impacts. Replant areas where vegetation is cleared

with appropriate native species, including grasses, forbs, and shrubs adjacent to the roadway, and trees where a suitable setback from the roadway exists.

Wetlands

- Design the Project to avoid and minimize operational impacts on wetlands and their buffers pursuant to regulations outlined in the Clean Water Act (CWA).
- Conduct ongoing maintenance of stormwater treatment and detention facilities.
- Meet local, state, and federal permit requirements to mitigate any permanently affected wetlands and their buffers.

Streams and Aquatic Resources

- Correct the fish barrier at Crystal Creek (ID 934994). WSDOT intends to construct this correction in the same timeframe as the overall Project.
- Direct lighting away from streams and waterbodies wherever possible. Luminaires that are above or adjacent to streams or rivers shall have high pressure sodium lamps. Use of light-emitting diode (LED) lighting above or adjacent to streams or rivers is prohibited.
- Prioritize cultural and mechanical control methods for vegetation management as part of ongoing WSDOT highway maintenance after construction. Biological and chemical methods would be considered only as a last resort.

Land-Based Wildlife

- Implement WSDOT's Integrated Vegetation Management (IVM) of the right of way to minimize the spread of non-native species as part of ongoing WSDOT highway maintenance after construction.

5.1.4 Water Resources

- Follow the WSDOT *Maintenance Manual* when construction is complete (WSDOT 2019a).
- Control stormwater so that peak and base flows of receiving waters are not adversely affected by treated stormwater discharge from additional pollution-generating impervious surface areas created by the Project.

5.1.5 Visual Quality

- Plan, develop, and design the Project in accordance with context sensitive solutions (CSS) guidelines described in the *I-405 Urban Design Criteria* (WSDOT 2016). Generally, the application of CSS guidelines precludes the need to further mitigate visual impacts. These guidelines cover aesthetic treatments for elements such as vegetation, structural elements, lighting, and signage and are designed to offset the increase in humanmade highway and related transportation elements. However, this section describes mitigation measures for some Project-specific items that may not be covered by the CSS guidelines.

- Minimize impacts on existing vegetation to the greatest extent feasible in accordance with WSDOT policy. In areas where vegetation is cleared for construction, the Project will replace trees and vegetation in accordance with the WSDOT *Roadside Policy Manual* (WSDOT 2015).
- Work with Sound Transit to meet the intent of the *I-405 Urban Design Criteria* for joint Project elements, including the transit facilities at the SR 522 interchange and the inline transit stations at the SR 522 and SR 527 interchanges. Lighting at the transit stations will use fixtures with hoods to minimize light pollution.
- Minimize visual impacts of proposed noise walls with a green-over-gray strategy, applying a varied planting structure to include a combination of trees, shrubs, and vines. Where there is no longer room for vegetation, context-appropriate walls will be used to blend the adjacent natural character with the built environment.
- Mitigate for adverse visual impacts along the Sammamish River Trail by restoring areas where existing ramps are removed with native vegetation. Trees will be planted in this area to blend with existing native vegetation and help to screen the new ramps, inline station, and signalized intersections from view. Where the Project removes existing galvanized chain-link fencing adjacent to the trail, WSDOT will install black-coated chain link fencing in its place to blend with newer sections of fencing on the east side of I-405.
- Install mortar-set cobblestones over the existing sloped abutment walls for the North Creek Trail underpass at SR 522. The existing underdeck light fixtures mounted on the box girder will be replaced with new rectangular box-style fixtures shown in the *I-405 Urban Design Criteria*.
- Install Boston ivy on the retaining walls that support the new direct access ramp near the Canyon Park Park and Ride. These walls will also have an Ashlar texture and pigmented sealer to help blend with I-405 corridor design elements and the surrounding suburban context.
- Design the two new pedestrian bridges at the Canyon Park Park and Ride to match the style of the existing pedestrian bridge, a portion of which will remain west of I-405.

5.1.6 Recreational, Section 4(f), and Section 6(f) Resources

- Coordinate with King County Parks on the permanent realignment of the Sammamish River Trail under I-405 to ensure it meets King County trail specifications.

5.1.7 Community Resources

To minimize the effects of permanent property acquisitions and the one residential displacement associated with the Project, WSDOT will apply the following measures:

- Conduct property acquisition in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended and implemented by the Federal Highway Administration (FHWA) under 49 Code of Federal Regulations, Part

24, and according to Chapter 468-100 Washington Administrative Code Uniform Relocation and Assistance and Real Property Acquisition.

- Offer interpretation and translation services to property owners and tenants with limited English proficiency to ensure they understand the property acquisition process and are able to fully participate in negotiations.

WSDOT also took the following steps to minimize adverse effects on the one displaced household:

- Collected information to identify the specific needs of any resident(s) to be relocated and prepared a relocation plan in advance of actual displacement.
- Made relocation resources available, without discrimination, to the eligible residential relocatee.
- Ensured there was at least one comparable replacement property available to relocate.
- Reimbursed the displaced resident for certain costs, including the difference between the cost of the current residence and the cost of the comparable replacement.

For the residential property owners affected by partial acquisitions and permanent easements, WSDOT will take the following measures:

- Conduct property acquisition in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.
- Provide access to interpretation and translation for owners who need language assistance to participate in negotiations upon request.

For the commercial property owners affected by partial acquisitions and permanent easements:

- WSDOT will conduct property acquisition in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.

5.1.8 Environmental Justice

The Project will not result in disproportionately high and adverse operational effects on environmental justice populations; therefore, no specific environmental justice mitigation is required. As part of the overall tolling program, WSDOT will continue to work to reduce possible barriers to obtaining and maintaining a *Good To Go!* toll payment account for persons who have low incomes or who may not have access to bank accounts that would allow them to load and/or replenish a *Good To Go!* account, through the following measures:

- Continue to offer the option for low-income persons who are eligible for public benefits to use their Electronic Benefit Transfer cards to open and maintain their *Good To Go!* accounts.
- Continue to offer the option to open and maintain a *Good To Go!* account using cash, to allow those without access to a bank account to use a *Good To Go!* account and pay the lowest toll rates.

- Work toward a system that could offer toll accounts that do not require a minimum balance. The Pay As You Go option will allow customers to pay the lowest toll rates and have their toll charged directly to their credit card after the travel.
- Continue to work to expand the network of retail locations where people can buy *Good To Go!* passes with cash, making it easier for people to purchase a pass without a bank account.
- Work with community service organizations that serve low-income populations to provide free passes when WSDOT launches new toll facilities.

5.2 What measures will WSDOT use to avoid, minimize, or mitigate construction effects?

5.2.1 Transportation

- Maintain existing capacity during construction activities to the extent possible. Lane or roadway closures will be minimized and scheduled to occur when there is the least effect on traffic in the study area, such as overnight and weekend time periods.
- Coordinate with the local agencies and other projects to prepare a Transportation Management Plan prior to making any changes to the traffic flow or lane closures. Local agencies, the public, school districts, emergency service providers, and transit agencies will be informed of the changes in advance through the media, the Project website, and an email listserv. Pedestrian and bicycle circulation will be maintained as much as possible during construction. For any road, bicycle lane, and/or sidewalk closure, clearly marked detours will be provided.

5.2.2 Noise

- Construct proposed noise walls and barriers before other construction activities, if possible.
- Equip construction equipment engines with mufflers, intake silencers, and engine enclosures, as appropriate.
- Turn off construction equipment during prolonged periods of non-use to reduce noise.
- Locate stationary equipment away from receiving properties to decrease noise.
- Maintain all equipment and train their equipment operators in good practices to reduce noise levels.
- Use Occupational Safety and Health Act approved ambient sound-sensing backup alarms that could reduce disturbances from backup alarms during quieter periods.

5.2.3 Ecosystems

- Prepare and implement a revegetation plan in accordance with WSDOT's *Roadside Policy Manual* (WSDOT 2015) and minimize the amount of vegetation clearing to retain as

many trees as practicable to minimize impacts. Replant areas where vegetation is cleared with appropriate native species, including grasses, forbs, and shrubs adjacent to the roadway, and trees where a suitable setback from the roadway exists.

Wetlands

- Design the Project to avoid and minimize construction impacts on wetlands and their buffers pursuant to regulations outlined in the CWA.
- Follow construction BMPs specified in WSDOT's current *Highway Runoff Manual* (WSDOT 2019b).
- Develop and implement a Temporary Erosion and Sediment Control (TESC) plan and a Spill Prevention Control and Countermeasures (SPCC) plan to avoid effects on wetlands.
- Develop a Water Quality Monitoring and Protection Plan that provides specific information on activities that will be performed within and/or over waters of the State in accordance with the Project's CWA Section 401 Water Quality Certification.
- Restore temporary construction impacts in accordance with federal and state laws and regulations and local critical area ordinances.

Streams and Aquatic Resources

- Follow construction BMPs specified in the current *Highway Runoff Manual*. WSDOT will adhere to requirements outlined in the Project's Hydraulic Project Approval issued by the Washington Department of Fish and Wildlife, the Water Quality Standards for Surface Waters of the State of Washington (Chapter 173-201A of the Washington Administrative Code), and regulations outlined in the CWA.
- Develop and implement a TESC plan and an SPCC plan to prevent sediment from entering aquatic areas. Additionally, staging and stockpiling areas will be located away from streams to avoid spills and prevent sediment from entering streams or stream buffers.
- Limit construction lighting for this project, particularly at night, to the amount necessary to complete the work. The lighting will be directed away from the streams and waterbodies whenever possible.
- Adhere to conditions identified in the U.S. Fish and Wildlife Service (USFWS) and National Oceanic and Atmospheric Administration (NOAA) Fisheries Biological Opinions and agency concurrence letters.
- Prohibit in-water work except during seasonal work windows established as a condition in the Hydraulic Project Approval. Follow permit requirements for in-water work as required by local, state, and federal permits.
- Direct anthropogenic debris from bridge demolition toward storage areas on land or barges and support vessels. Bridge demolition will include sectioning the structure to

the extent possible to provide for safer disposal and to minimize debris falling into surface waters.

- Remove all fish species from the work area prior to any in-water work activities. Fish exclusion activities will follow the most recent WSDOT protocol that has been approved by NOAA Fisheries and USFWS.
- Isolate work areas of the Sammamish River with sheet piles or cofferdams as needed prior to pier removal.
- Minimize disturbance to riparian vegetation from the operation of heavy equipment, as practicable, by straddling the vegetation with heavy equipment or by pruning it without damaging the roots. Existing riparian vegetation outside of the work area will not be removed or disturbed.
- Prepare and implement a revegetation plan and minimize the amount of vegetation clearing to retain as many trees as practicable to minimize impacts. Replant temporary impacts with appropriate native species, including grasses, forbs, and shrubs adjacent to the roadway, and trees where a suitable setback from the roadway exists.
- Mitigate permanent buffer impacts through enhancement of degraded sensitive areas within the Project vicinity, focusing on increasing native plant diversity and habitat value.
- Control all Class A noxious weeds, and additional nuisance weeds throughout the life of the Project using WSDOT's IVM.

Land-Based Wildlife

- Develop and implement a TESC plan to minimize impacts on terrestrial habitat and preserve topsoil.
- Adhere to conditions identified in the USFWS and NOAA Fisheries Biological Opinions and agency concurrence letters.
- Minimize the amount of vegetation clearing to retain as many trees as practicable and prepare and implement a revegetation plan with appropriate native species.
- Position exclusion devices and remove nest material before the beginning of the nesting season to prevent Migratory Bird Treaty Act-protected bird species from nesting on the bridge during demolition and construction of bridges.

5.2.4 Water Resources

- Protect groundwater with the use of standard BMPs.
- Prepare and implement a TESC plan and an SPCC plan.
- Locate spill response equipment at regular and specified intervals along the Project alignment.

5.2.5 Visual Quality

- Locate material and equipment storage/staging in less prominent areas, where possible.
- Shield freeway lighting and use downcast lighting so light sources (such as light bulbs) are not directly visible from residential areas and local streets, when possible.
- Restore areas as work in each area is completed, when feasible.
- Use common signs and public notices with clear directions.

5.2.6 Recreational, Section 4(f), and Section 6(f) Resources

Sammamish River Trail

- Design temporary trail realignments to maintain access during construction and ensure the trail is consistent with King County Parks specifications for temporary trails, including needed signage.
- Schedule trail closures to build new structures and demolish existing structures at night to avoid peak-use hours. Coordinate the nighttime construction period with King County Parks.
- Use flaggers for short-term trail closures to facilitate construction vehicle access across the trail.
- Restore the property after construction and coordinate with King County Parks on the restoration of the disturbed areas.

West Sammamish River Trail

- Restore the property after construction and coordinate with King County Parks on the restoration of the disturbed areas.

North Creek Trail

- Coordinate with University of Washington (UW) Bothell/Cascadia College campus on any trail closures and detours. Use flaggers as needed to maintain trail access during construction.

North Creek Forest

- Complete construction of improvements in the North Creek Forest in a total of six months or less. This construction duration does not include follow-up visits to inspect Project improvements, such as the fish barrier correction or proposed plantings.
- Coordinate with City of Bothell to replant areas that are disturbed during construction with native vegetation as part of the stream restoration planned for this area. Remove invasive species and noxious weeds, if present, prior to planting native vegetation.

5.2.7 Community Resources

Other topics covered in Section 5.2 describe BMPs that will also reduce potential effects on community resources from construction activities related to transportation, noise, visual quality, air quality, water resources, geology and soils, and hazardous materials. The following measures are also part of WSDOT's commitments related to community resources:

- Notify and coordinate with fire departments if water line relocations are required that could temporarily cause a disruption in service or reduce flow.
- Coordinate closely with utility providers during final design and prior to construction to confirm the locations and depths of utilities, and to determine if lines can be protected during construction or if they will require relocation. Potential utility conflicts within the WSDOT right of way will be relocated, and expenses will be determined based on the permit that WSDOT has with the utility owner.
- Coordinate scheduling with utility providers to minimize effects of utility relocations and provide them with time to schedule equipment and construction crews in advance of Project construction.

5.2.8 Environmental Justice and Limited English Proficiency

The Project will not result in disproportionately high and adverse construction effects on environmental justice populations; therefore, no specific environmental justice mitigation is required. However, WSDOT will continue to conduct targeted outreach during construction. The following measures are part of WSDOT's commitment to public involvement:

- Translate project materials about construction effects if requested.
- Distribute Project materials—especially prior to construction-related closures that would affect motorists and transit riders—through social service agencies, community-based organizations, libraries, community groups, and schools.
- Consult with the Muckleshoot Indian Tribe on measures to avoid and minimize conflicts to their planned salmon-tracking activities in the Sammamish River.

5.2.9 Historic, Cultural, and Archaeological Resources

- Prepare an Unanticipated Discovery Plan for the Project that construction contractors will follow.
- The I-405 Corridor Program has a programmatic agreement regarding the Section 106 process. This programmatic agreement establishes a process for integrating additional Section 106 review, as needed, with the design-build approach during design and construction.
- Conduct monitoring during future ground-disturbing activities at five locations with the potential for deeply buried cultural materials. Please see Exhibits 6-78 and 6-79 of EA Appendix E, *Cultural Resources Survey*, and Exhibits 17 and 18 of EA Appendix E1, *Cultural Resources Survey Addendum*, for these locations.

5.2.10 Air Quality

The construction contractor will be contractually obligated to control fugitive dust in accordance with the *Memorandum of Agreement between WSDOT and Puget Sound Clean Air Agency Regarding Control of Fugitive Dust from Construction Projects* (WSDOT 1999).

The following measures will be used, where applicable, to control and minimize the dispersion of dust (PM₁₀ and PM_{2.5}); transmission of particulate matter; and emissions of carbon monoxide (CO), nitrogen oxides (NO_x) and volatile organic compounds (VOCs) during construction:

- Encourage contractors to use newer construction equipment and maintain all equipment in good mechanical condition to minimize exhaust emissions.
- Encourage contractors to carpool and use commute trip reduction and other transportation demand management programs for construction workers.
- Stage construction between other I-405 transportation projects to minimize congestion that contributes to regional emissions of pollutants during construction.
- Encourage contractors to reduce construction truck idling.
- Locate construction equipment and staging areas away from sensitive receptors such as fresh-air intakes to buildings, air conditioners, and sensitive populations, such as the elderly and the young.
- Spray exposed soil with water or other suppressant as needed to minimize emissions of PM₁₀ and reduce deposition of particulate matter.
- Cover all loads in trucks transporting materials and wet materials in trucks, or provide adequate freeboard (space from the top of the material to the top of the truck bed) to minimize PM₁₀ and deposition of particulates during transportation.
- Provide wheel washers to remove particulate matter that would otherwise be carried off site by vehicles to decrease deposition of particulate matter on area roadways.
- Remove particulate matter deposited on paved roads, public roads, sidewalks, and bicycle and pedestrian paths to reduce mud and dust.
- Cover and stabilize Project-site dirt, gravel, and debris piles, as needed, to minimize dust and wind-blown debris. This may include using wind fencing to reduce soil disturbance.
- Restrict the speed of construction vehicles when operating in areas of exposed earth.
- Route and schedule construction trucks to reduce delays to traffic during peak travel times to minimize air quality impacts caused by a reduction in traffic speeds.

5.2.11 Geology and Soils

Seismicity

- Design Project elements to the American Association of State Highway and Transportation Officials (AASHTO) design standards and implement design methods

that meet AASHTO's design event and limit susceptibility to collapse under an unlikely larger event.

Liquefaction-Prone Areas

- Identify Project areas where liquefaction-prone soils may be located.
- Evaluate the potential effects on Project structures from liquefaction, if structures underlain by liquefaction-prone soils are identified.
- Use appropriate measures to reduce long-term liquefaction and lateral spreading risks to Project elements if it is determined that liquefaction risks are unacceptable. Such mitigation might include soil densification such as stone columns, vibratory compaction, compaction grouting, and dynamic compaction. Liquefaction potential along the Project alignment ranges from very low to moderate to high.

Soft Ground Areas

- Take appropriate measures to assess and reduce potential settlement problems associated with existing utilities or structures in Project areas underlain by soft, compressible soil. If necessary, structures could be underpinned and utilities could be relocated or made more flexible. In cases where settlement exceeds WSDOT-allowable tolerances and the settlement is allowed, any repairs, as needed, will be made after the settlement is complete. Where soft-ground areas are identified, WSDOT will conduct preconstruction surveys and monitor construction settlements.
- Assess the potential for settlement for structures and embankments underlain by soft, compressible soil. If the potential for settlement is unacceptable, design the structures and embankments to accommodate or avoid the settlement, such as deep foundations for structures or surcharge fills for embankments.
- Develop the means and methods to avoid or minimize settlement resulting from construction vibrations in areas underlain by soft or loose soils.

Slope Stability and Landslide Areas

- Develop appropriate construction procedures to maintain or enhance slope stability in areas underlain by landslides or with landslide-prone geology. The design through these areas will include suitable wall types such as soldier piles with tiebacks, possibly supplemented with enhanced drainage, such as improved surface drainage or horizontal drains.
- Drain suspected or observed seepage in Project areas to reduce the risk of landslide and surface sloughing through the use of gravel drainage blankets, French drains, horizontal drains, placement of a surface rock facing, or other methods.

Dewatering

- Use properly designed, installed, and operated dewatering systems as dewatering for utility trenches can induce ground settlement in areas of soft compressible soils. These activities may include sheet-pile cut-off shoring, recharge wells, a settlement and groundwater level monitoring system, and other procedures. WSDOT understands that complete elimination of settlement near excavations can be difficult, particularly if loose granular soils are densified by installing sheet piles.
- Control dewatering discharge to avoid adverse effects. If dewatering occurs in contaminated ground, discharge into storm drains or adjacent surface drainages could affect water quality. This condition will be mitigated by disposing the discharge in a sanitary sewer or performing on-site treatment.

Erosion

- Prepare and implement a TESC plan to minimize erosion and protect water quality.
- Take additional action to minimize erosion, maintain water quality, and achieve the intended environmental performance, should any BMP or other operation not function as intended.

Earthwork

- Control dust through the use of a water truck or other dust control measures.
- Control soil tracked onto nearby surface streets from truck tires.
- Place and maintain stockpiles properly to avoid erosion or slope stability problems. Erosion control of stockpiles will be included in the TESC plan.

Permanent Drainage Systems for Cut Slopes

- Locate areas where permanent drainage will be required by site conditions for cut slopes. At one location, installation of a drainage system adjacent to a new retaining wall has the potential to impact additional wetland areas by drawdown of the groundwater table. If these additional impacts are identified during construction, they will be mitigated in accordance with federal, state, and local regulations.

5.2.12 Hazardous Materials

The following standard mitigation measures apply to typical impacts that may be encountered during construction:

- To reduce the potential for hazardous materials being released to the environment during construction, construction plans should be prepared that include procedures to help mitigate, avoid, control, and manage hazardous materials. These plans include:
 - SPCC plan to provide specific guidance for managing potentially hazardous materials brought on to and/or generated on site.

- Stormwater Pollution Prevention Plan to prevent the release of contamination and hazardous substances to the environment.
- Health and Safety Plans to reduce potential risks to human health and the environment.
- Hazardous substance contingency management plan for handling, transportation, and disposal of known and unanticipated contamination.
- Prior to demolition, a Good Faith Asbestos and Hazardous Materials Survey should be completed by an Asbestos Hazard Emergency Response Act (AHERA)-certified building inspector. The survey should be conducted on all structures and/or facilities that will be renovated or demolished within the Project limits.
- If a known or unanticipated underground storage tank is discovered within the Project limits, the procedures and regulations for decommissioning these tanks should be followed.
- WSDOT's contractor will dispose of all waste material at approved disposal facilities in accordance with federal, state, and local regulations.
- If unanticipated contamination is discovered within the Project limits, it should be addressed by contract language, General Special Provisions, and/or Special Provisions. WSDOT Standard Specifications require the contractor to comply with environmental regulations and current federal and state laws and regulations.
- Contaminated groundwater originating from properties located up-gradient of the right of way could migrate to the Project limits. WSDOT generally will not incur liability for groundwater contamination that has migrated into the Project limits as long as the agency does not acquire the source of the contamination. However, the contaminated media will be managed in accordance with all applicable rules and regulations.
- Conduct an environmental re-evaluation if subsequent changes are made to the Project, such as project realignment, planned excavation depths, or changes to the proposed property acquisitions.

The following additional mitigation measures will be required at specific sites:

- Include specifications advising contractors of the appropriate handling and disposal of identified or suspected contamination that may be encountered during excavations or soil disturbances near or on the study area. WSDOT routinely uses General Special Provisions or Special Provisions to account for uncertainties of hazardous materials, such as the removal and disposal of unanticipated hazardous materials. (An example of a provision would be to stockpile suspected contaminated soils for laboratory analysis prior to reuse or disposal.)
- Prior to demolition of the I-405 off-ramp bridges at the SR 522 interchange and the building on the Bothell City Shop/Public Works UST property, a certified AHERA Building Inspector should conduct a Good Faith Asbestos and Hazardous Materials Survey, complying with and providing an AHERA-level assessment in accordance with

U.S. Environmental Protection Agency, 40 Code of Federal Regulations 763, and Washington State Department of Labor and Industries standards, Washington Administrative Code 296-62-07721(2)(b)(ii).

- For proposed partial acquisitions and temporary construction easements of properties with Historical Recognized Environmental Conditions and Recognized Environmental Conditions, a Phase II Environmental Site Assessment (ESA) should be considered prior to any purchase agreement, based on proposed Project activities on these properties. A Phase II ESA should be conducted where excavations are proposed near adjoining sites of concern with potential groundwater contamination.
 - A limited Phase II ESA was completed for the Former Excell Cleaners site in March 2021. WSDOT will develop General Special Provisions and Special Provisions to limit dewatering and require assessment of any generated fluids prior to disposal.
 - A Phase II ESA was completed for the Bothell City Shop/Public Works UST/King County parcel 0926059013 in May 2020. A Hazardous Materials Management Plan will be required for this site to address known and unknown contamination in the work area.
 - A limited Phase II ESA was conducted for the Chevron 93299 site in November 2020. WSDOT will develop General Special Provisions and Special Provisions to limit dewatering and require assessment of any generated fluids prior to disposal.
 - For the King County Parks/Former BNSF rail line site, if the contractor proposes construction activities that would require any excavation at this site, soil should be sampled and pre-characterized to determine baseline conditions.
 - For the AT&T Wireless site, if the contractor plans to excavate into shallow groundwater, the groundwater should be sampled and pre-characterized for disposal purposes.

Please see Appendix 6, *Hazardous Materials Update*, for more updates since the EA was published in July 2020.

CHAPTER 6 REFERENCES

- U.S. Census Bureau. 2017. American Community Survey 5-Year Estimates - Geodatabase Format - Tables X01, X03, X16, X17, X19, X25.
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- WSDOT. 2019b. *Highway Runoff Manual*. M31-16.05. April.
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