

SR 520, I-5 to Medina: Bridge Replacement and HOV Project NEPA/SEPA Environmental Reevaluation: I-5 Design Refinements

**23 CFR §771.129
Washington State Department of Transportation/Federal Highway Administration**

REGION/MODE ESO Megaprograms	SR 520	PROJECT PROGRAM# 852005E	FEDERAL AID #	PROJECT# U52005E
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PROJECT TITLE, ENVIRONMENTAL DOCUMENT TYPE & DATE APPROVED:

- 1) SR 520, I-5 to Medina: Bridge Replacement and HOV Project Final Environmental Impact Statement (EIS), approved by FHWA and WSDOT on May 26, 2011.
- 2) SR 520, I-5 to Medina: Bridge Replacement and HOV Project Record of Decision (ROD), approved by FHWA and WSDOT on August 4, 2011.
- 3) SR 520, I-5 to Medina: Bridge Replacement and HOV Project SEPA Addendum (Public Place Designation), approved by WSDOT on October 3, 2011.
- 4) SR 520, I-5 to Medina: Bridge Replacement and HOV Project SEPA Addendum (Floating Bridge and Landings), approved by WSDOT on November 18, 2011.
- 5) SR 520, I-5 to Medina: Bridge Replacement and HOV Project NEPA/SEPA Environmental Reevaluation (Kenmore Yard), approved by FHWA and WSDOT on December 8, 2011.
- 6) SR 520, I-5 to Medina: Bridge Replacement and HOV Project NEPA/SEPA Environmental Reevaluation (Floating Bridge and Landings), approved by FHWA and WSDOT on January 25, 2012.
- 7) SR 520, I-5 to Medina: Bridge Replacement and HOV Project NEPA/SEPA Environmental Reevaluation (Kenmore Yard Update), approved by FHWA and WSDOT on July 16, 2012.
- 8) SR 520, I-5 to Medina: Bridge Replacement and HOV Project NEPA/SEPA Environmental Reevaluation (Floating Bridge and Landings Proposed Final Design Features), approved by FHWA and WSDOT on October 22, 2012.
- 9) SR 520, I-5 to Medina: Bridge Replacement and HOV Project NEPA/SEPA Environmental Reevaluation (Temporary Westside Over-water Staging Area), approved by FHWA and WSDOT on February 1, 2013.
- 10) SR 520, I-5 to Medina: Bridge Replacement and HOV Project NEPA/SEPA Environmental Reevaluation (West Connection Bridge), approved by FHWA and WSDOT on February 1, 2013.
- 11) SR 520, I-5 to Medina: Bridge Replacement and HOV Project NEPA/SEPA Environmental Reevaluation (Floating Bridge Demolition), approved by FHWA and WSDOT on April 20, 2016.
- 12) SR 520, I-5 to Medina: Bridge Replacement and HOV Project NEPA/SEPA Environmental Reevaluation: West Approach Bridge South and Montlake Lid Design Refinements, approved by FHWA and WSDOT on October 31, 2016.
- 13) SR 520, I-5 to Medina: Bridge Replacement and HOV Project NEPA/SEPA Environmental Reevaluation: Montlake Market Closure and Demolition, approved by FHWA and WSDOT on July 18, 2018.
- 14) SR 520, I-5 to Medina: Bridge Replacement and HOV Project NEPA/SEPA Environmental Reevaluation: Wireless Communications Facility Removal and Relocation, approved by FHWA and WSDOT on August, 28, 2018.

REASON FOR REEVALUATION:

In this reevaluation, FHWA and WSDOT are evaluating how the creation of a reversible north-south transit and high occupancy vehicle (HOV) lane (auxiliary lane) connecting Mercer Street and SR 520 along the I-5 express lanes and other associated design refinements would affect the natural and built environment and whether those effects differ from the effects described in the Final EIS, Record of Decision (ROD), and subsequent environmental reevaluations and memoranda.

DESCRIPTION OF CHANGED CONDITIONS: (See Attachment 1 for more detailed description).

WSDOT and FHWA are evaluating the potential impacts associated with the creation of an auxiliary lane and reversible HOV/transit ramp connecting Mercer Street and SR 520 along the I-5 express lanes, as well as other associated design refinements including:

- Stormwater treatment improvements
- Revisions to the height of proposed retaining walls
- Construction of a 30-foot-tall sign gantry across the reversible ramp
- Installation of a ramp meter
- Replacement of fiber optic cable within the I-5 right-of-way

HAVE ANY NEW OR REVISED LAWS OR REGULATIONS BEEN ISSUED SINCE APPROVAL OF THE LAST ENVIRONMENTAL DOCUMENT THAT AFFECT THIS PROJECT? YES () NO (x) (If yes explain, use additional sheets if necessary)

WILL THE CHANGED CONDITIONS AFFECT THE FOLLOWING DIFFERENTLY THAN DESCRIBED IN THE ORIGINAL ENVIRONMENTAL DOCUMENT? (If yes, attach a detailed summary addressing the impacts and mitigation)

	YES	NO		YES	NO
1) THREATENED or ENDANGERED SPECIES	(x)	()	5) HAZARDOUS WASTE SITES	()	(x)
2) PRIME and UNIQUE FARMLAND	()	(x)	6) HISTORIC or ARCHAEOLOGICAL SITES	()	(x)
3) WETLANDS	()	(x)	7) 4 (f) LANDS	()	(x)
4) FLOODPLAINS	()	(x)	8) 6 (f) LANDS	()	(x)

Threatened and Endangered Species: WSDOT reinitiated Endangered Species Act consultation with National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS) regarding the proposed design refinements. The proposed changes were documented under formal reinitiation submitted to NMFS and USFWS July 17, 2019 and, based on initial consultation, are anticipated to be approved by USFWS and by NMFS in December 2019. The SR 520/I-5 Project will not be advertised for bidding until the ESA reinitiation process is completed.

WILL THESE CHANGES RESULT IN ANY CONTROVERSY? YES () NO (x) (If yes explain)

WILL THESE CHANGES CAUSE ADVERSE IMPACTS IN THE FOLLOWING AREAS: (If yes, address comments below.)

	YES	NO		YES	NO
1) AIR QUALITY	()	(x)	7) WATER QUALITY	()	(x)
2) NOISE	()	(x)	8) VISUAL QUALITY	()	(x)
3) LAND USE	()	(x)	9) NATURAL RESOURCES and ENERGY	()	(x)
4) TRAFFIC or TRANSPORTATION	()	(x)	10) PUBLIC SERVICES and UTILITIES	()	(x)
5) DISPLACEMENT (business or residence)	()	(x)	11) VEGETATION and WILDLIFE	()	(x)
6) ECONOMIC GROWTH and DEVELOPMENT	()	(x)	12) RECREATION	()	(x)
			13) SOCIAL IMPACTS	()	(x)

COMMENTS:

The creation of a transit and HOV lane (auxiliary lane) along the I-5 express lanes and other proposed design refinements will not result in new significant environmental impacts as defined by the National Environmental Policy Act (NEPA). This action does not substantially change the overall impacts that were discussed in the previously prepared project documents listed at the top of this form. None of the previously identified environmental commitments would change as a result of the design refinements identified.

CONCLUSIONS and/ or RECOMMENDATIONS:

Changes as noted above would not result in new significant environmental impacts that were not evaluated in the Final EIS. . The SR 520, I-5 to Medina: Bridge Replacement and HOV Project remains compliant with current federal, state, local, and departmental regulations and directives with regard to National Environmental Policy Act (NEPA) and State Environmental Policy Act (SEPA) processes. This reevaluation document, along with supporting information, demonstrates that there would be no new significant environmental impacts resulting from these changes since the Final EIS was approved in May 2011 and the ROD was approved in August 2011.

I concur with the conclusions and recommendations above

Region / Mode Official

FHWA Official

Date

Date

Attachment 1

Description of Changed Conditions and Effects

Environmental Reevaluation/Consultation Form for
SR 520, I-5 to Medina: Bridge Replacement and HOV Project
Final Environmental Impact Statement, approved May 26, 2011;
Record of Decision, approved August 4, 2011;
SEPA Addendum: Public Place Designation, approved October 3, 2011;
SEPA Addendum: Floating Bridge and Landings, approved November 18, 2011;
NEPA/SEPA Environmental Reevaluation: Kenmore Yard, approved December 8, 2011;
NEPA Environmental Reevaluation: Floating Bridge and Landings, approved January 25, 2012;
NEPA/SEPA Environmental Reevaluation: Temporary Westside Over-water Staging Area,
approved February 1, 2013; NEPA/SEPA Environmental Reevaluation: West Connection
Bridge, approved February 1, 2013; NEPA/SEPA Environmental Reevaluation: Floating Bridge
Demolition, approved April 20, 2016; NEPA/SEPA Environmental Reevaluation: West Approach
Bridge South and Montlake Lid Design Refinements, approved October 31, 2016; NEPA/SEPA
Environmental Reevaluation: Montlake Market Closure and Demolition, approved July 18,
2018; NEPA/SEPA Environmental Reevaluation: Wireless Communications Facility Removal
and Relocation, approved August, 28, 2018.

The purpose of this reevaluation is to document National Environmental Policy Act (NEPA), State Environmental Policy Act (SEPA), Endangered Species Act (ESA), and Section 106 and 4(f) compliance for the SR 520, I-5 to Medina: Bridge Replacement and HOV Project (project) associated with the creation of a reversible north-south transit and high occupancy vehicle (HOV) lane (auxiliary lane) connecting Mercer Street and SR 520 along the I-5 express lanes and other proposed design refinements to evaluate if any changed conditions would cause environmental impacts that are significant and not evaluated in the Final EIS (23 CFR 771.129; 23 CFR §771.130(b)(1)). This reevaluation describes how the creation of the auxiliary lane and other proposed design refinements would affect the natural and built environment and whether those effects differ from the effects described in the Final EIS, ROD, and subsequent environmental reevaluations and memoranda.

Description of Changed Conditions

WSDOT is proposing a reversible auxiliary lane between Mercer Street and SR 520 along the I-5 express lanes (Exhibit 1). The auxiliary lane would be added within the existing I-5 express lane corridor. It would carry southbound HOV and bus traffic during the AM peak hour and northbound HOV and bus traffic during the PM peak hour. The existing four lanes of traffic in the I-5 express corridor would be maintained and continue to be operated as under current conditions. The auxiliary lane would connect to SR 520 with a reversible ramp that was previously evaluated in the 2011 Final EIS. The existing southbound off-ramp would be repurposed as a reversible ramp to connect to Mercer Street to the express lanes. This ramp was not evaluated in the 2011 Final EIS.

The new Mercer Street ramp would eliminate the need for northbound express lane traffic from Mercer Street to weave across four lanes of traffic to access SR 520. Currently, the existing northbound on-ramp from Mercer Street operates only during peak PM hours and enters the I-

5 express lanes on the right (or east) side. Under the current configuration, northbound traffic from Mercer Street heading to SR 520 would have to weave through four lanes of traffic to access the new left (or west) off-ramp to SR 520. The new reversible ramp from Mercer Street would eliminate this weave for HOV and transit traffic by accessing I-5 from the left (or west) side. Northbound HOV traffic could then access the ramp to SR 520 (which exits the I-5 express lanes on the left [or west] side) without having to weave through four lanes of traffic.

Elimination of the weave maneuver would also make it feasible for northbound buses to travel between Mercer Street and SR 520. Transit agencies have indicated they would not route buses through this weave movement, as they are unable to safely maneuver this right side on from Mercer to left side exit to SR 520 in the available 2,860 feet.

The Mercer Street ramp would have a reversible lane control system with swing gates. It would be illuminated with overhead lights and have signage alerting drivers about the status of the ramp.

In addition to the creation of the auxiliary lane and the reversible HOV/transit ramp to/from Mercer Street to the I-5 express lanes, WSDOT has also made the following design refinements along I-5:

- *Stormwater Treatment.* To account for new and replaced pollution generating impervious surface (PGIS) surfaces, a biofiltration swale is proposed in the I-5 and SR 520 interchange in the landscaped median between the I-5 southbound lanes and the reversible express lanes. Discharge from this swale would be into Lake Union through a closed stormwater system that discharges through an existing outfall pipe at the western terminus of East Allison Street.
- *Retaining Walls.* The retaining walls required for the reversible ramp from I-5 to SR520 were previously analyzed in the Final EIS. However, two of the walls would be constructed about 2 feet higher than previously analyzed. Also, the existing retaining walls would be lengthened by about 100 feet and about 400 feet would be relocated to accommodate the new Mercer Street ramp.
- *Sign Gantry and Other Signage.* A new 30-foot tall sign gantry would be constructed and span the I-5 to SR 520 reversible ramp. The sign gantry would communicate to drivers whether the lanes are open to traffic with a green arrow (to indicate that traffic is open in that direction) or a red x (to indicate that traffic is currently closed in that direction). Additional signage would be installed prior to the ramp for eastbound traffic on Mercer Street to indicate whether the ramp is open or closed. There would also be signage installed along westbound SR 520. This would include a cantilever sign indicating whether the express lanes are open or closed. Additional signs would be installed on existing infrastructure as required.
- *Ramp Meter.* Installation of a new ramp meter to northbound I-5 located further north of the existing meter at the Mercer Street interchange.
- *Fiber Optic Cable Replacement.* Fiber optic cable that is currently found in an existing conduit through the project area would be replaced. The existing cable would be removed through two cable vaults found outside of the project limits at North 56th Street and Denny Way along I-5. New fiber optic cable would be pulled in from the same locations. No earthwork or excavation activities would be required for the replacement.

The proposed design refinements to allow for the construction of the auxiliary lane would shift the limits of construction previously considered in the 2011 Final EIS to the south along I-5 to the Mercer/I-5 interchange. Construction of these proposed elements considered in this re-evaluation is expected to last approximately 2 to 3 years.

Public and Agency Outreach and Engagement

In 2018, WSDOT began facilitating a transit pathway planning and evaluation effort with King County Metro, Sound Transit, and the City of Seattle to identify opportunities for future transit service using the new connections provided by the SR 520/I-5 Project. These partner agencies are also working together to provide public outreach about transit service improvements in Eastside and South Lake Union communities.

Following the September 2018 project update, WSDOT has continued in-person community outreach to share information and receive feedback on SR 520/I-5 Project construction. In 2018, WSDOT representatives met with the North Capitol Hill Neighborhood Association to provide updated project information and answer questions regarding project design and construction. WSDOT also met with representatives of South Lake Union area organizations. Additionally, WSDOT has continued to include project design and construction updates to the Section 106 Concurring Parties as part of the ongoing consultation and coordination process.

In May 2019, WSDOT hosted a public meeting to share project updates as well as to provide information on a nighttime noise variance application process. In June 2019, WSDOT conducted an in-person and online SR 520 Rest of the West projects public open house, which included information on the SR 520/I-5 Project. WSDOT is currently preparing project and construction update materials for an October 2019 online and in-person open house.

WSDOT will continue to communicate with community members in advance of and throughout project construction by: maintaining construction and project web pages; providing regular construction email updates; mailing construction notifications in advance of work; hosting public information meetings; and providing community members the opportunity to contact an ombudsman.

Analysis of Changed Conditions and Effects

FHWA and WSDOT have evaluated the proposed design changes, changes to the affected environment, and potential changes to the environmental effects as previously described in the Final EIS. FHWA and WSDOT have concluded that no new significant environmental impacts, beyond those described in the Final EIS and ROD, would result from the changed conditions. Changes pertaining to specific resources that have the potential to be affected are described below.

Water Resources

Construction of the proposed design refinements would result in the potential for stormwater runoff into nearby water bodies. To minimize impacts on water quality, runoff from the construction sites into nearby water bodies would be controlled through the implementation of construction best management practices (BMPs) such controlling erosion at the site using silt fencing and using hay bales to minimize materials entering stormwater drains. The impacts and BMPs described in Section 5.10 of the 2011 Final EIS would not change.

The work associated with the SR520/I-5 Project would disturb surfaces in three threshold discharge areas (TDAs) within the I-5 corridor, TDAs 0, 1 and 2. TDA's 1 and 2 were included in the 2011 Final EIS analysis (Exhibit 2). These permanent improvements would increase the amount of pollution generating impervious surface (PGIS) from 43.78 acres to 45.22 acres within the 3 TDAs.

Improvements along I-5 are located in TDAs 0, 1 and 2. Each of these three TDAs has an outfall that discharges into Lake Union. The Demonstrative Approach Team, which includes staff from Ecology and WSDOT, approved a deviation to the Highway Runoff Manual (HRM) that allows an equivalent area treatment approach for these 3 TDAs. This deviation allows surfaces within a single TDA to be used to account for surface disturbances in the other TDAs that drain to the same receiving water body.

TDA 1 does not trigger the water quality thresholds at the TDA level due to the minimal amount of new and replaced PGIS areas, and therefore treatment is not required for this TDA. To mitigate for the improvements in TDAs 0 and 2, a biofiltration swale is proposed in TDA 2. This swale is categorized as a "basic" runoff treatment BMP, which complies with the Project commitments and the receiving water body requirement, as shown in Table 5.10-2 of the Final EIS. The swale would be located in the I-5 and SR 520 interchange area, in the existing landscaped median between the I-5 southbound lanes and the reversible express lanes. Discharge from this BMP would be into Lake Union through a closed stormwater system that discharges through an existing outfall pipe at the western terminus of East Allison Street.

TDA 0 would continue to discharge into Lake Union untreated; however, 6.14 acres of equivalent area will be treated in the biofiltration swale in TDA 2 to mitigate for the new and replaced PGIS areas in both TDAs 0 and 2. The total area of PGIS discharging into Lake Union untreated will be reduced as a result of project changes because of the equivalent area treatment approach for the I-5 TDA's (Exhibit 2). No negative impacts to water resources are anticipated because the biofiltration swale has been designed to accommodate all of the HRM runoff treatment requirements. The proposed design refinements also would not result in any changes to the authorized wetland or aquatic habitat impacts for the project. The impact values approved in the October 2016 addendum to the Final Wetland Mitigation Report and Final Aquatic Mitigation Plan still apply.

Ecosystems

WSDOT analyzed the potential effects of the proposed design refinements on fish and aquatic habitat, including potential changes to stormwater discharges into Lake Union. Overall, the analysis demonstrates that the proposed design refinements would not create adverse effects on aquatic species in Lake Union. As addressed in the ESA reinitiation process, the potential effects would not change the conclusions regarding threatened and endangered species from the previous ESA consultations.

As outlined in the current ESA reinitiation (Exhibit 3), the proposed project is not expected to result in effects to listed species or habitat except through the discharge of stormwater runoff to Lake Union. Stormwater discharges during project operation are expected to result in effects on the chemical and/or biological environment of Lake Union. The total affected area from the proposed stormwater discharges to Lake Union will be enlarged and will increase from one nearshore area to three. Consistent with previous determinations made in the Project Biological Assessment, discharge of operational stormwater could adversely affect Coastal-Puget Sound

bull trout, Puget Sound steelhead, and Puget Sound Chinook salmon in the immediate vicinity of the outfalls through a modification of normal behavior or through direct sublethal effects. Direct injury or mortality from stormwater discharge exposure are not anticipated. The proposed stormwater discharges would continue to impair the water quality conditions of designated critical habitat for Chinook salmon or bull trout. However, the Project overall is expected to result in long-term reductions in the rate of pollutant loading and concentrations from stormwater discharges by providing treatment where none currently exists. Specifically, the project will include equivalent stormwater treatment for all new and replaced pavement and also will capture stormwater runoff from additional areas that are currently untreated.

The nearshore and shoreline habitat conditions in Lake Union are heavily modified, characterized by a lack of riparian vegetation, armored shorelines, and extensive overwater cover in the form of piers, floats, and houseboats. All three of the outfall locations are generally characterized by these conditions. Aquatic vegetation communities in the littoral zone are generally dominated by invasive Eurasian water milfoil. The risk of exposure to increased pollutant loads and concentrations is likely somewhat low due to poor habitat conditions for rearing and foraging, and the generally low residence time in Lake Union during outmigration. However, use of the shoreline environment in Lake Union by juvenile salmonids cannot be discounted. Returning adult salmonids are highly unlikely to deviate from the cooler, deeper water of the Ship Canal and enter Lake Union, which is 303(d)-listed as impaired due to temperature.

WSDOT Biology Program staff and FHWA staff have reviewed and concurred with this analysis. In order to meet the SEPA requirements needed to obtain the local permits required for the changes evaluated in this re-evaluation, this re-evaluation is being completed prior to completion of the ESA reinitiation. Prior to the reinitiation of ESA consultation, the project team held a briefing meeting with USFWS and NMFS on the proposed project changes and the effects to listed species. The effects to listed species are limited to revisions in stormwater management from the original consultation. Based on the meeting, FHWA and WSDOT requested to reinitiate consultations with the USFWS and NMFS in July, 2019. Services liaison staff concurred with the characterization of effects and the analysis pursuant to the 2009 Memorandum of Agreement (FHWA/WSDOT/NMFS/USFWS) for analyzing the effects of stormwater on ESA-listed fish species in Washington state. At this time, FHWA and WSDOT are only awaiting issuance of the amended Biological Opinions to conclude the reinitiation and do not anticipate any new requirements or conditions as a result of the reinitiation.

The ESA reinitiation is currently in review by USFWS and NMFS and anticipated to be final by the end of 2019. The project contract will not be advertised until the Biological Opinions are amended and reinitiation is concluded. If the reinitiation results in any additional project requirements, FHWA and WSDOT will assess the impacts, if any, of the new requirements. FHWA has determined that the consultation that has been conducted with the Services provides reasonable assurance that the requirements of Section 7 of the ESA will be met prior to advertisement, and therefore this NEPA reevaluation complies with 23 CFR 771.133.

Transportation

As outlined in Exhibit 4, the construction of the auxiliary lane and maintaining the existing four lanes of express lane traffic would result in peak general-purpose traffic travel times between NE 80th Street and south of Stewart Street that are similar to the Final EIS alternative

where the auxiliary lane and Mercer connection were not constructed. AM Peak (southbound) travel times would be 12.5 minutes under the Final EIS alternative and 12.8 minutes with the proposed design changes. PM peak (northbound) travel times would be 3.7 minutes under the Final EIS alternative and 3.8 minutes with the proposed design changes. No new significant impacts are anticipated. Because planning is continuing for the transit route re-configuration to provide direct access for buses from SR 520 the South Lake Union neighborhood, forecast transit travel-time savings is not available. However, travel times via transit would be expected to improve as the auxiliary lane creates a more direct route between SR 520 and Mercer Street. This would be a positive benefit to local communities, commuting employees, and people who rely on transit service for their commute.

The addition of the auxiliary lane, while maintaining the existing four lanes of express lane traffic, could result in a slight increase in crash frequency. As outlined in Exhibit 4, in 2022 for the northbound express lanes, the analysis predicts a small increase in crashes relative to the Final EIS alternative primarily as a result of narrowed shoulders. Although no new significant impacts are anticipated, WSDOT and FHWA are considering the following strategies to improve the safety performance of this roadway:

- Provide continuous illumination throughout the interchange;
- Provide curve ahead and similar warning signage in advance of smaller radius horizontal curves, and traffic merge locations;
- Provide profiled lane and edge lines providing a warning rumble effect for when vehicles inadvertently leave the traveled way; and,
- Apply methyl-methacrylate pavement markings to improve visibility and durability of pavement markings, particularly during night-time and inclement weather;

At the new Mercer Street ramp, zero additional fatal or serious injury crashes per year are expected in 2030. Although no additional fatal or serious injury crashes are anticipated, WSDOT and FHWA are considering the following strategies:

- Provide overhead roadway lighting as a strategy to reduce the effect of headlight glare;
- Provide automated reflectorized gates between SR 520 and the I-5 express lanes to warn and prevent wrong way traffic; and
- Provide dynamic speed reduction signage to advise drivers to “reduce speed” when speeds 5 mph or greater above the ramp design speed are detected.

The baseline performance metric for all WSDOT mobility improvement projects and a goal of the Washington State Strategic Highway Safety Plan “Target Zero” is to reduce traffic fatalities and serious injuries. FHWA and WSDOT are committed to continuing to evaluate the safety performance of the proposed roadways and will evaluate mitigation strategies to further reduce crashes as appropriate.

Land Use

The creation of the auxiliary lane and associated infrastructure would not result in land use impacts. The auxiliary lane and associated infrastructure would be created within WSDOT right-of-way. Therefore, the proposed design refinements would be compatible with current

uses and would not result in any new impacts. The impacts described in Sections 5.2 and 6.2 of the Final EIS would not change.

Section 4(f) Resources

No Section 4(f) Resources would be affected by the creation of the auxiliary lane and associated infrastructure. I-5 Colonnade Park is located within the I-5 right of way south of East Newton Street and within the limits of the SR 520 I-5 to Medina Program SR 520/I-5 Project. The park is operated and maintained by the City of Seattle Department of Parks and Recreation on land owned by WSDOT through a lease agreement as amended September 12, 2013. Clause 9 of the lease agreement acknowledges WSDOT's ownership of the land as highway right of way, which states in sub-clause A that:

CITY and WSDOT hereby affirm that the Leased Premises is part of the highway right of way of Interstate 5, and will remain so even after CITY is permitted to improve and use the Leased Premises for a public recreational area on an interim basis only, and that upon expiration or termination of this Lease for any reason, and the subsequent use of the Leased Premises for transportation or other purposes, such use will not be considered the use of any publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge within the meaning of 23 U.S.C. 138 and 49 U.S.C. 303.

As such, the land is not protected under Section 4(f) of the U.S. DOT Act of 1966, and construction of the SR 520/I-5 Project would not constitute use of Section 4(f)-protected land. Also, two National Register of Historic Places (NRHP)-eligible properties are located in the expanded area of potential effects (APE) for the project. As detailed in the *Cultural Resources* sub-section below, the project would not affect the two newly-identified historic properties and would not incorporate land from them; therefore, there would be no Section 4(f) use of the historic properties. The proposed design changes would not trigger revisions to the 2011 Section 4(f) evaluation. The impacts described in Chapter 9 of the Final EIS would not change.

Section 6(f) Resources

No Section 6(f) Resources would be affected by the creation of the auxiliary lane or other design refinements considered in this reevaluation. The impacts described in Chapter 10 of the 2011 Final EIS would not change.

Visual Resources

No adverse impacts to visual resources are anticipated. The addition of a signaling gantry above the SR 520 reversible ramp and the new reversible ramp from Mercer Street would be consistent with the existing visual environment of a highway corridor. The approximately 2-foot increase in the height of retaining walls, the 100-foot extension of the retaining wall, and the 400-foot of retaining wall that would be relocated along the ramps would not substantially change the views of any sensitive viewers near the construction area relative to the Final EIS (Exhibit 1). During construction, construction equipment would be visible within the corridor, but would be removed following completion of the auxiliary lane and associated facilities. The impacts described in Sections 5.5 and 6.5 of the 2011 Final EIS would not change.

Cultural Resources

The creation of the auxiliary lane and associated infrastructure along with some design refinements to retaining walls along SR 520 east of the I-5 interchange, required consultation on the APE and associated limits of construction (LOC) changes with the WA Department of Archaeology and Historic Preservation (DAHP) and other consulting parties under the Programmatic Agreement for the project implementing Section 106 of the National Historic Preservation Act (NHPA). The APE was expanded to account for potential effects to two properties along Federal Avenue where subsurface easements may be required for future retaining wall tiebacks, as well as to account for work associated with the new reversible ramp at Mercer Street as the original APE ended further north along the I-5 corridor. Five properties were inventoried for historic built environment resources, one of which contained two buildings on a single parcel that had been previously determined eligible for listing on the NNRHP. Two of these properties have been determined eligible for listing on the NRHP, and documentation for the previously determined eligible property was updated to reflect recent loss of integrity unrelated to this project (Exhibit 5). Proposed project activities would not diminish the integrity of these NRHP-eligible properties given the condition of existing settings, the limited scope of the closest project activities and their relative distance from the properties, and existing PA requirements to minimize effects to historic properties within the APE.

The expansion of the APE and the LOC required additional archaeological investigation. These efforts did not identify archaeological resources within the new project footprint (Exhibit 5). WSDOT shall review project activities within the expanded footprint for archaeological monitoring, consistent with existing commitments for the corridor.

WSDOT, on behalf of FHWA, consulted with the State Historic Preservation Office (SHPO), consulting tribes, and consulting parties about the expanded APE and LOC. Concurrence on the APE was received from SHPO on March 11, 2019. WSDOT notified the same parties of the results of identification efforts and determined that the proposed changes would not result in additional adverse effects to historic properties. Concurrence was received from SHPO on July 31, 2019.

A WSDOT Cultural Resources Specialist reviewed planned replacement of fiber optic cable and determined that there is little potential to cause effect given that the utility tie in will take place through existing infrastructure and does not involve ground disturbance. As such, this activity fits exemption A-36 in the 2018 statewide Programmatic Agreement implementing Section 106 of the National Historic Preservation Act for the Federal-aid Highway Program in Washington State administered by the Federal Highway Administration. This activity was documented in an exemption memo per the statewide PA.

Noise and Vibration

During project construction, areas adjacent to the project would be exposed to construction noise and vibration in addition to traffic-related noise. Impacts during construction are of short duration, and would be conducted in accordance with the requirements of a noise variance, as described in Section 6.7 of the Final EIS.

During operations, traffic-related noise would be generated by the addition of the auxiliary lane between SR 520 and I-5. As outlined in Exhibit 6, under existing conditions, 445 residences, 5

parks (Eastlake Triangle, I-5 Colonnade, St Marks Greenbelt, Lakeview Place, and Bellevue Place) and two trails (East Howe Street Hill Climb and Melrose Trail) approach or exceed the noise abatement criteria (NAC) of 67 dBA. Under modeled conditions for the no build alternative in 2030, 450 residences and the same 5 parks and 2 trails would approach or exceed the NAC. Under modelled conditions for the build alternative, 451 residences and the same 5 parks and 2 trails would approach or exceed the NAC. Under the build alternative, there would not be a substantial increase in impacts (of 10 dBA or greater over existing noise levels). Build traffic noise levels in the year 2030 for all modeled receivers are within 1 dBA of existing noise levels and 2030 No Build noise levels. When compared to the results of the noise analysis conducted for the 2011 Final EIS, the new results did not identify any new noise impacts relative to the prior modelling for this geographic area. Therefore, the addition of the auxiliary lane would not affect the impacts and mitigation included in the 2011 Final EIS.

The Type 1 noise barrier evaluation in the 2011 Final EIS remains applicable in the Roanoke and North Capitol Hill neighborhoods that were within the project area identified in the Final EIS.

Per FHWA and WSDOT noise policy for Type 1 projects, noise levels were analyzed and mitigation was considered for any locations within the expanded project area where future traffic noise levels would approach or exceed the NAC, independent of whether the project would have any effect on the traffic noise level. Noise abatement was considered at locations where traffic noise levels were predicted to exceed the criteria with or without the project.

In the areas located west of I-5 between the two crossings of Lakeview Boulevard East and east of I-5 from the northbound I-5 off-ramp at Lakeview Boulevard East to the crossing over Lakeview Boulevard East noise barriers were not evaluated for reasonableness. A structural assessment conducted in October of 2018 determined construction of a noise barrier atop the elevated I-5 viaduct structure in this area was not feasible (Exhibit 6).

Noise barriers were evaluated at four locations. Two of the four noise barrier alignments evaluated were found to meet WSDOT Criteria for the placement of a feasible noise barrier. However, neither noise barrier that met WSDOT Feasible Criteria also met WSDOT Criteria for Reasonableness because of high costs associated with foundations that would be needed to safely construct the barriers at the top edge of a slope with poor soil conditions.

Air Quality

Construction of the auxiliary lane and associated facilities would generate dust. Construction vehicles, worker vehicles, and diesel fuel-fired construction equipment would generate emissions. Fugitive dust may become airborne during material transport, grading, driving of vehicles and machinery on and off the site, and through wind events. Construction will comply with the procedures outlined in the Memorandum of Agreement between WSDOT and the Puget Sound Clean Air Agency (PSCAA) for controlling fugitive dust (WSDOT 2004).

Although the new auxiliary lane would be added to the I-5 express lanes, traffic operations in the project area would not change significantly. Section 6.8 of the 2011 Final EIS found that the project would not result in exceedances of the National Ambient Air Quality Standards (NAAQS). That determination would still apply and the project continues to be included in the current conforming plan. Also, since issuance of the Final EIS, the project is no longer located in a maintenance area for CO and ozone. Therefore, no new conformity determination is

required. The Final EIS determination in Sections 5.8 and 6.8 that there would not be an adverse effect to air quality would continue to be valid.

Hazardous Materials

No impacts associated with hazardous materials are anticipated due to the proposed design refinements. WSDOT conducted a records review and collected samples from two locations in the expanded project area. No contamination was identified. The impacts described in Sections 5.13 and 6.13 of the Final EIS would not change.

Navigation

The proposed design refinements and creation of an auxiliary lane would not impact navigation. The impacts described in the Sections 5.14 and 6.14 of the Final EIS would not change.

Social Elements

Construction and operation of the auxiliary lane and other proposed design refinements would not change the conclusions regarding community cohesion, demographics, tribal fishing, or recreation from the Final EIS. Community facilities within the expanded project area include the Bright Water Waldorf School, St. Mark's Episcopal Cathedral, Fusion Academy Seattle, Lowell Elementary School, the Capitol Hill Branch of the Seattle Public Library, Parkside School, St. Spiridon Orthodox Cathedral, Grace Church Seattle, Seattle Cancer Care Alliance, Swedish Primary Care, and Fred Hutchinson Cancer Research Center. These facilities would not be impacted by the proposed design refinements.

Parks and trails in the expanded project area include Eastlake Triangle, I-5 Colonnade, St Marks Greenbelt, Lakeview Place, and Bellevue Place, East Howe Street Hill Climb, and Melrose Trail. No parkland would be acquired for the proposed design refinements. Public parks and recreation facilities would remain open and available to all.

The expanded limits of construction would include the eastern portion of the South Lake Union neighborhood and additional areas of Eastlake and Capitol Hill. The South Lake Union neighborhood has undergone substantial changes in terms of neighborhood density and character in the last 10 years. This has led to displacement and increased traffic levels along Mercer Street. One positive benefit of the auxiliary lane would be improved transit service between South Lake Union and SR 520, Montlake and Bellevue. Travel times via transit would be expected to improve as the auxiliary lane opens up a more direct route between SR 520 and Mercer Street. This would be a positive benefit to local communities, commuting employees, and people who rely on transit service for their commute.

The impacts described in Sections 5.3 and 6.3 of the Final EIS would not change.

Environmental Justice

The expansion of the limits of construction to the south to Mercer Street would change the neighborhoods potentially affected by the proposed project. As such, analysis of the potential impacts to environmental justice populations has been expanded to include the entirety of census tracts 65 and 66 (which were partially analyzed in the 2011 Final EIS) and census tracts 73 and 74.01 (which were not included in the 2011 Final EIS). The census tracts presented in Table 1 have similar characteristics to the census tracts analyzed and shown in Exhibit 4.3-2 of the 2011 Final EIS.

Table 1. Census Tracts in Expanded Study Area

Census Tract	Block Group	Neighborhoods	Households with Limited English Proficiency	Households Below Poverty Level	Minority Households
65	All	Capitol Hill	1.65%	3.01%	18.12%
66	All	Eastlake, South Lake Union	1.78%	8.38%	28.50%
73	All	South Lake Union	5.67%	18.15%	38.36%
74.01	All	Capitol Hill	2.11%	11.74%	27.43%

Source: <https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>

Construction and operations would affect low-income, minority, and limited English proficient (LEP) residents of neighborhoods in the new study area in the same way that it would affect other residents. Demographic analysis shows that neighborhoods in the project study area have similar proportions of low-income, minority, or LEP populations compared to adjacent, unaffected neighborhoods. Therefore, construction-related and operational effects on neighborhoods would not fall disproportionately on low-income, minority, or LEP populations.

Conclusion

Based on the information included in this reevaluation, FHWA and WSDOT have concluded that no new significant environmental impacts, beyond those described in the Final EIS and ROD, would result from the changed conditions. The construction and operation of the auxiliary lane and other proposed design refinements would not result in additional significant environmental impacts beyond those described in the Final EIS, ROD, and subsequent Environmental Reevaluations and technical memoranda. The project remains compliant with current federal, state, local, and departmental regulations and directives with regard to NEPA/SEPA processes, Section 106 and 4(f), and ESA. FHWA and WSDOT have concluded, in accordance with 23 CFR §771.130(b)(1), that the changes would not necessitate a supplemental EIS.

Exhibits

(provided on request)

1. Project Features
2. Stormwater Threshold Discharge Areas
3. ESA Reinitiation
4. Traffic Memorandum
5. Section 106 Documentation
6. Noise Analysis

Exhibit 1

Project Features

Exhibit 2

Stormwater Threshold Discharge Areas

Exhibit 3

ESA Reinitiation

Exhibit 4

Traffic Memorandum

Exhibit 5

Section 106 Documentation

Exhibit 6

Noise Analysis