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2018 SEPA Addendum

to the

Lynnwood Link Extension

Final Environmental Impact Statement (April 2015)

Prepared Pursuant to Washington State Environmental Policy Act Chapter 43.21C RCW and WAC 197-11-625

May 2018

Sound Transit (Central Puget Sound Regional Transit Authority)



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May 3, 2018

Dear Recipient:

Sound Transit has prepared this State Environmental Policy Act (SEPA) Addendum for the Lynnwood Link Extension, which is a light rail extension from Seattle's Northgate Station to the Lynnwood City Center Station in the City of Lynnwood. This Addendum adds to the Lynnwood Link Extension (Lynnwood Link) Final Environmental Impact Statement (FEIS) issued in April 2015.

This document describes proposed design refinements to Lynnwood Link and provides additional analysis and information about the project. It describes proposed design changes to the project since 2015, new information related to construction, and new information related to mitigation.

Based on this evaluation, Sound Transit has determined that the potential refinements to the project would not substantially change the analysis of significant impacts and alternatives in the FEIS and would not result in new probable significant environmental impacts. Accordingly, no supplemental EIS is required.

Copies of the Addendum are available for review at Sound Transit offices, many public libraries, and on the Sound Transit website at www.soundtransit.org/About-Sound-Transit/Environment-andsustainability/Environmental-planning-documents. For further information about this Addendum or to request a CD copy please contact Elma Borbe, Environmental Planner, 401 S. Jackson St., Seattle WA 98104-2826, or 206.398.5000 TTY: 206.398.5410.

Sincerely,

Hever S. Kemech

Steve Kennedy Senior Environmental Planner Environmental Affairs and Sustainability

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CHIEF EXECUTIVE OFFICER Peter M. Rogoff This page intentionally left blank.

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ATTACHMENTS

- A Transportation Technical Memorandum
- B List of Additional Potential Acquisitions
- C Noise Technical Memorandum
- D Project Status Update for Endangered Species Act Compliance
- E Cultural and Historic Resources Documentation and Correspondence
- F Section 4(f) Concurrence Letters
- G Shoreline South/145th St. Station Refinements (2017)
- H Cross Section of Alignment Shift of I-5 Crossing

Acronyms and Abbreviations

APE	Area of Potential Effect
CFR	Area of Potential Effect Code of Federal Regulations
Corps	U.S. Army Corps of Engineers
DAHP	Washington Department of Archaeology and Historic Preservation
FEIS	Final Environmental Impact Statement
FEIS	
FEIMA	Federal Emergency Management Agency
	Federal Highway Administration Federal Transit Administration
FTA	
HOV	High occupancy vehicle
I-5	Interstate 5
LCCS	Lynnwood City Center Station
LOS	Level of Service
LRV	Light Rail Vehicle
Lynnwood Link	Lynnwood Link Extension
Metro	King County Metro
MTS	Mountlake Terrace Station
NEPA	National Environmental Policy Act
OHWM	ordinary high water mark
PHA	Priority Habitat Area
PSRC	Puget Sound Regional Council
RCA	Resource Conservation Area
RCW	Revised Code of Washington
ROD	Records of Decision
SCL	Seattle City Light
SEPA	State Environmental Policy Act
SHPO	State Historic Preservation Officer
Sound Transit	Central Puget Sound Regional Transit Authority
ST2	Sound Transit 2
ST3	Sound Transit 3
U.S.C.	U.S. Code
WAC	Washington Administrative Code
WDFW	Washington Department of Fish and Wildlife
WDNR	Washington Department of Natural Resources
WSDOT	Washington State Department of Transportation

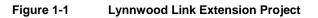
1 Executive Summary

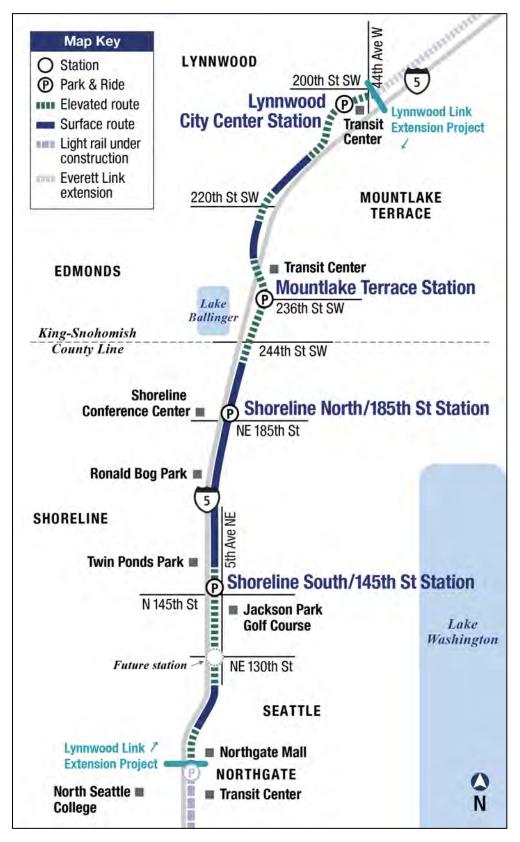
1.1 INTRODUCTION

The Central Puget Sound Regional Transit Authority (Sound Transit), in collaboration with the cities of Seattle, Shoreline, Mountlake Terrace, and Lynnwood and other agencies, have developed potential design refinements for the Lynnwood Link Extension (Lynnwood Link). The proposed light rail extension formerly known as the North Corridor Transit Project would be within the cities of Seattle and Shoreline in King County, and in Mountlake Terrace and Lynnwood in Snohomish County. In April 2015, Sound Transit and the Federal Transit Administration (FTA) published the Lynnwood Link Extension Final Environmental Impact Statement (FEIS) pursuant to the National Environmental Policy Act (NEPA) and the State Environmental Policy Act (SEPA) (Sound Transit and FTA, 2015). In April 2015, the Sound Transit Board selected the project to be built, hereafter referred to as the 2015 Project. The FTA and Federal Highway Administration (FHWA) issued their Records of Decision (ROD) for the Lynnwood Link Extension, respectively, in July 2015 (FTA) and August 2015 (FHWA). The Lynnwood Link project corridor is shown in **Figure 1-1**.

The FTA approved a NEPA Re-evaluation in January 2017 for project refinements related to the Shoreline South/145th Street Station (referred to as the 2017 Refinements). These refinements involved moving the station footprint about 400 feet to the north, resulting in the acquisition of additional single-family homes. The Interstate 5 (I-5) northbound on-ramp, which had been planned to be relocated in the 2015 Project, would not be moved and would remain in its current location. Please see **Attachment G** (Shoreline South/145th Street Station Refinements) for documentation including the FTA NEPA Reevaluation approval, and supporting materials including a matrix of changed impacts, and traffic and noise technical memos.

This document is a SEPA Addendum to the Lynnwood Link Extension FEIS and it provides additional analyses and information about the project (Washington Administrative Code [WAC] 197-11-600(4)(c)). The purpose of this SEPA Addendum is to describe proposed design refinements to Lynnwood Link, hereafter referred to as the 2018 Refinements. This addendum evaluates the potential environmental impacts resulting from these refinements and changes in mitigation measures, as warranted. The 2018 Refinements reflect design changes to the 2015 Project, new information related to construction, and new information related to mitigation. These refinements are described in Section 1.2 below and in detail in Section 4.





1.2 2018 REFINEMENTS

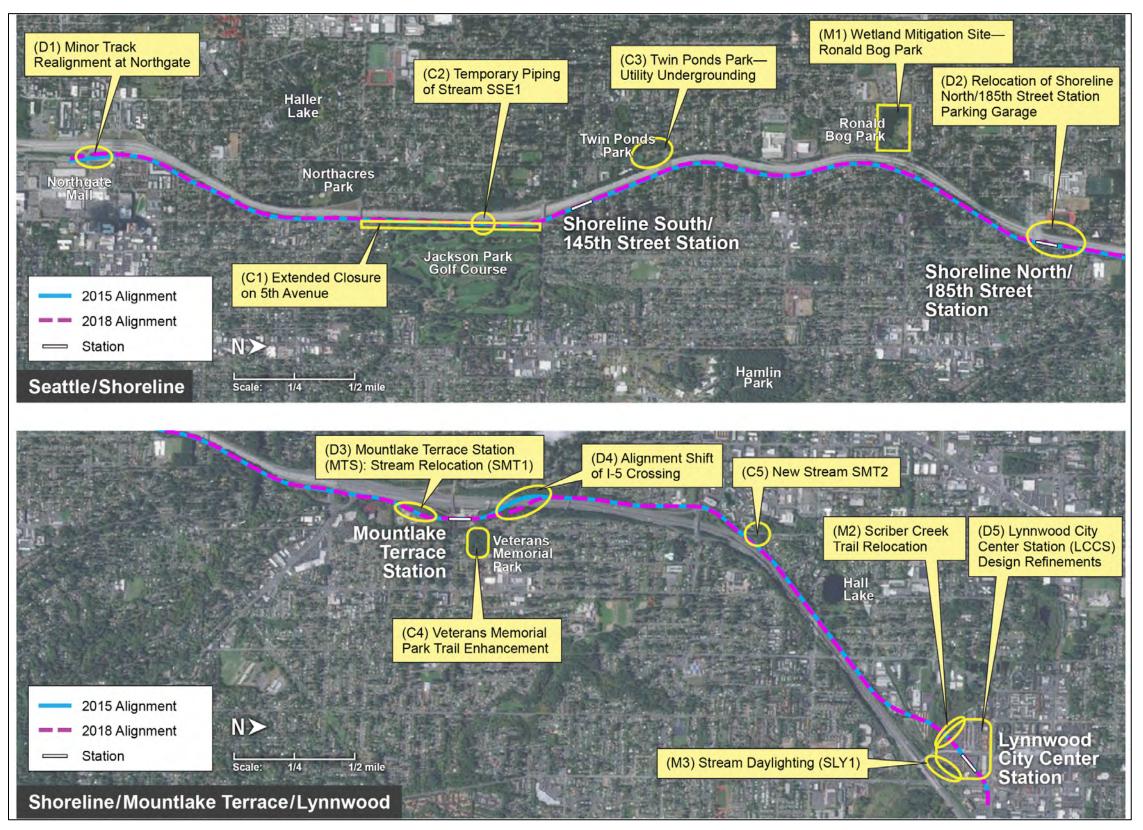
Potential refinements are summarized in **Table 1-1** and are shown on **Figure 1-2**. For more details on the 2018 Refinements, please see Section 4.

ID	Name	2015 Project Description	2018 Refinement Description
Design Ch	hanges to the 2015 Project		
D1	Minor Track Realignment at Northgate	Elevated structure requires several straddle bents over 1 st Ave NE.	Slight shift of alignment 66 feet west between milepost 172.56 and 172.76 to reduce the number of straddle bents.
D2	Relocation of Shoreline North/185 th Street Station Parking Garage	Parking garage for the preferred alternative was on the west side of I-5, north of 185 th Street.	Garage relocated from the west side of I-5 to the east side of I-5. This refinement was evaluated as an alternative in the FEIS.
D3	Mountlake Terrace Station (MTS): Stream Relocation (SMT1)	The anticipated alignment and column spacing did not require stream relocation.	Relocation of stream due to change in alignment column spacing.
D4	Alignment Shift of I-5 Crossing	Alignment would cross the I-5 centerline approximately 520 feet south of the 2018 Refinements alignment (near milepost 178.5).	Alignment of the track would take a more northerly crossing of I-5, near milepost 178.6.
D5	Lynnwood City Center Station (LCCS) Design Refinements	High occupancy vehicle (HOV) parking access ramp in the parking lot north of the platform. A parking area in the southwest portion of the site would be reconfigured to accommodate 400 spaces. Bus layover and circulation would occur just north of the transit center.	Same station area footprint as the 2015 Project, but changes to the layout that include: a right-in, right-out parking garage driveway access point on 44 th Avenue W, south of 200 th Street SW; elimination of the HOV-only parking access ramp; addition of 202 nd Street SW, to facilitate site circulation and provide additional pick-up and drop-off areas; and the addition of 11 bus layover spaces, for a total of 20 spaces, to support additional bus service.
New Inf	ormation Related to Construct	ion	
C1	Extended Closure on 5 th Avenue NE	About 1 year.	Approximately 3½ years.
C2	Temporary Piping of Stream SSE1	N/A	100-foot portion of the stream would be piped during construction.
C3	Twin Ponds Park—Utility Undergrounding	N/A	Construction of underground vaults and duct banks, and replacement of Seattle City Light (SCL) poles in a portion of the parking lot of the park.

 Table 1-1
 2018 Refinements Summary

ID	Name	2015 Project Description	2018 Refinement Description	
C4	Veterans Memorial Park Trail Enhancement	N/A	Pedestrian path from the project site of MTS to maintain trail connection between the existing Transit Center and the Veterans Memorial Park.	
C5	New Stream SMT2	N/A	New stream identified on a previously inaccessible parcel. It is not known or expected to support fish.	
New Inf	ormation Related to Mitigation			
M1	Wetland Mitigation Site— Ronald Bog Park	N/A	Identified as a site for wetland mitigation as per ROD commitment.	
M2	Scriber Creek Trail Relocation	N/A	Trail would be relocated due to wetland mitigation.	
M3	Stream Daylighting (SLY1)	N/A	Piped stream to be daylighted and made fish-passable.	
M4	Resource Conservation Area	N/A	Proposed replacement areas identified. [Note: this is not shown on Figure 1-2 because the areas are scattered throughout the corridor, and some sites serve multiple purposes]	

Figure 1-2 2018 Project Refinements



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1.3 COMPARISON OF IMPACTS

Table 1-2 summarizes the potential impacts associated with the 2017 and the 2018 Refinements and compares them to the impacts identified in the FEIS for the 2015 Project. It also includes the range of impacts identified in the FEIS.

Table 1-2 Comparison of Impacts

Environmental			2017	2018	Total (2015 Project Plus 2017 and 2018	Impact Range from All Alternatives in the FEIS	
Resource	Impact Measure	2015 Project	Refinements	Refinements	Refinements)	Low	High
Transportation	Intersections not meeting Level of Service (LOS) (before/after mitigation)	5/0	0/0	2/0	7/0	5/0	10/0
Property Displacements	Residential displacements (households)	129	7	20	156	107	208
Displacements	Business displacements	9	0	0	9	1	31
Environmental Justice	Disproportionately high and adverse effects to low-income and minority populations	None	None	None	None	N/A	N/A
Visual and Aesthetic Resources	Visual impacts	Low, Medium, and High	Low	Low	Low, Medium, and High	Low	High
	Park-and-Ride impacts (before/after mitigation)	98/0	-1/0	2/0	99/0	25/0	102/0
Noise	Light Rail Vehicle (LRV) impacts (before/after mitigation)	540/0	0/0	-94/0	446/0	306/0	907/0
Vibration	Vibration impacts (before/after mitigation)	30/0	0/0	-5	25/0	8/0	32/0
	Permanent wetland impacts (acres)	2.4	0	-1.8	0.6	1.1	3.6
	Temporary wetland impacts (acres)	0.5	0	2.5	3.0	0	0.4
Ecosystems	Permanent wetland buffer impacts (acres)	2.9	0	-1.1	1.8	1.6	4.1
	Temporary wetland buffer impacts (acres)	0.6	0	4.3	4.9	0.2	0.7
Cultural Resources	Historic properties impacted (number of properties)	0	0	0	0	0	0
Parks	Number of parks/recreational resources/trails affected	4	0	3	7	3	5

1.4 CONCLUSIONS

Overall, the impacts from the 2018 Refinements would be of similar magnitude to the impacts identified for the 2015 Project and within the range of impacts disclosed previously for the alternatives evaluated in the FEIS. The 2018 Refinements would not result in new significant impacts, and impacts would be mitigated. Although three additional parks would be affected as a result of the 2018 Refinements, impacts would be minor and temporary in nature, not considered significant, and would be mitigated consistent with existing environmental commitments in the FTA and FHWA RODs (hereafter referred to as the ROD). Temporary impacts to wetlands and their buffers would be outside the range analyzed in the FEIS; however, permanent impacts would be reduced, and the temporarily impacted areas would be restored to a better condition than before. Other environmental impacts would be reduced from those described in the FEIS, including noise and vibration impacts. The Endangered Species Act effects determinations remain valid per National Marine Fisheries Service (January 30, 2018), which is included in **Attachment D**. The proposed 2018 Refinements do not substantially change the analysis of significant impacts evaluated in the FEIS, and no new probable significant adverse environmental impacts would arise. Accordingly, no supplemental EIS is required.

After considering this SEPA Addendum, the Sound Transit Board is expected to decide in spring of 2018 whether to revise the project to include any of the proposed design refinements.

2 Purpose of this Document

In April 2015, Sound Transit and the FTA published the Lynnwood Link Extension FEIS pursuant to the NEPA and the SEPA (Sound Transit et al., 2015). Subsequently, the Sound Transit Board selected the project to be built in April 2015, hereafter referred to as the 2015 Project. The FTA and FHWA issued their RODs for the Lynnwood Link Extension, respectively, in July 2015 (FTA) and August 2015 (FHWA).

This document is a SEPA Addendum to the Lynnwood Link Extension FEIS and it provides additional analyses and information about the project (WAC 197-11-600(4)(c)). The purpose of this SEPA Addendum is to describe proposed design refinements to Lynnwood Link, hereafter referred to as the 2018 Refinements. This addendum evaluates the potential environmental impacts resulting from the design refinements and identifies mitigation measures, as warranted. The purpose of this document is to determine whether the 2018 Refinements would substantially change the analysis of significant impacts and alternatives in the existing environmental document, and whether any new probable significant environmental impacts would result from implementing the refinements.

3 Project Background

Lynnwood Link implements the strategic vision for regional growth management and transportation established by the Puget Sound Regional Council's (PSRC) VISION 2040 (PSRC, 2009), Transportation 2040 (PSRC, 2010), and Sound Transit's Regional Transit Long-Range Plan (Sound Transit, 2014), all of which anticipate the eventual extension of light rail north of Lynnwood to Everett in Snohomish County. Voters approved funding for Lynnwood Link as an element of the Sound Transit 2 (ST2) Plan.

Lynnwood Link begins at the Northgate Transit Center in north Seattle and ends at the Lynnwood City Center Station (LCCS). The 8.5-mile project corridor generally follows I-5, the major north-south freeway through the state, and the primary route serving a large commuter market traveling between Snohomish and King counties. The project corridor travels through the cities of Seattle and Shoreline in King County, and Mountlake Terrace and Lynnwood in Snohomish County and is one of the most densely developed urbanized areas in the Pacific Northwest. Two stations would be located in the City of Shoreline (Shoreline South/145th Street and Shoreline North/185th Street); one station in the City of Mountlake Terrace (Mountlake Terrace); and one station in Lynnwood (LCCS). See **Figure 1-1**. In addition, a station in Seattle at 130th Street that was evaluated in the FEIS has been approved as part of Sound Transit 3 (ST3), but its development would occur in the future.

4 2018 Refinements

The locations of the 2018 Refinements are shown on **Figure 1-2** and described below. The refinements are categorized into three types:

- Design changes to the project (D);
- New information related to construction (C); and
- New information related to mitigation (M).

4.1 DESIGN CHANGES TO THE PROJECT

The project passes through the cities of Seattle, Shoreline, Mountlake Terrance, and Lynnwood. During final design, there are refinements to the project as Sound Transit continues to work with the cities as part of the permitting process and in an effort to reduce costs.

4.1.1 (D1) Minor Track Realignment at Northgate

The project alignment just north of the future Northgate light rail station (from milepost 172.56 to 172.76) would be shifted 66 feet to the west to improve constructability by eliminating three straddle bents. The shift of the alignment would result in a permanent conversion of 0.01 acre of Wetland WSE1 that was not anticipated in the 2015 FEIS. This realignment is shown on **Figure 4-1**.

4.1.2 (D2) Relocation of Shoreline North/185th Street Station Parking Garage

The parking garage for the Shoreline North/185th Street Station would be relocated from the west side of I-5 to reduce costs and enhance accessibility for pedestrians, which was the option chosen for the preferred alternative in the 2015 Project (shown on Figures 2-4, 2-5, and 2-6 of the FEIS), to the east side of I-5, next to the station. A parking garage on the east side of I-5 was an option evaluated in the FEIS but not identified as the preferred alternative. **Figure 4-2** shows the change in location of the parking garage as a result of the proposed refinement.

Figure 4-1 (D1) Minor Track Realignment at Northgate

N Northgate Way **NE Northgate Way** Ist Ave NE 1.111 Corliss 5 Alignment NTRACTOR Straddle Bents ENBEL CB C BEES Wetland 201 WSE1 Alignment Wetland

2015 Project

2018 Refinements



2018 SEPA Addendum to the Lynnwood Link Extension FEIS

Figure 4-2 (D2) Relocation of Shoreline North/185th Street Station Parking Garage

2015 Project



2018 Refinements



2018 SEPA Addendum to the Lynnwood Link Extension FEIS

4.1.3 (D3) Mountlake Terrace Station: Stream Relocation (SMT1)

For the 2015 Project, long-term impacts to stream SMT1 south of the station were limited to a portion of one guideway column being placed within the ordinary high water mark (OHWM) of the stream. As noted in the 2015 FEIS and Biological Assessment, SMT1 is not known or expected to support fish under current conditions due to the stream's intermittent flows and the presence of human-created barriers to fish passage downstream of the project area. However, the stream has the potential to support fish if downstream barriers are made fish-passable in the future.

Under the 2018 Refinements, revised column spacing for the elevated guideway would result in the entire column being unavoidably placed within the OHWM of the SMT1 stream channel. To prevent the column from being permanently located in a narrow stream channel, the existing stream channel would be relocated west of the column and enhanced. This change is shown on **Figure 4-3**. To construct the column, the stream would first be temporarily rerouted and temporarily piped; the existing stream channel would then be filled so that the column can be constructed. Once column construction is complete, the new stream channel would be created, incorporating meanders and other features to improve fish habitat in the event that downstream barriers are removed in the future.

4.1.4 (D4) Alignment Shift of I-5 Crossing

North of the MTS, the alignment would cross I-5. The 2015 Project had the column adjacent to I-5 northbound placed at milepost 178.48, and the column adjacent to I-5 southbound placed at milepost 178.58. The 2018 Refinements include a more northerly crossing of I-5 in Mountlake Terrace for the alignment of the track to reduce construction impacts to the existing freeway flyer stop. With the 2018 Refinements, the column adjacent to I-5 northbound would be located at milepost 178.56 (approximately 575 feet north of the 2015 Project), and at milepost 178.67 for the column adjacent to I-5 southbound (approximately 465 feet north of the 2015 Project). This alignment shift is shown on **Figure 4-4**.



Figure 4-3 (D3) Mountlake Terrace Station Stream Relocation (SMT1)

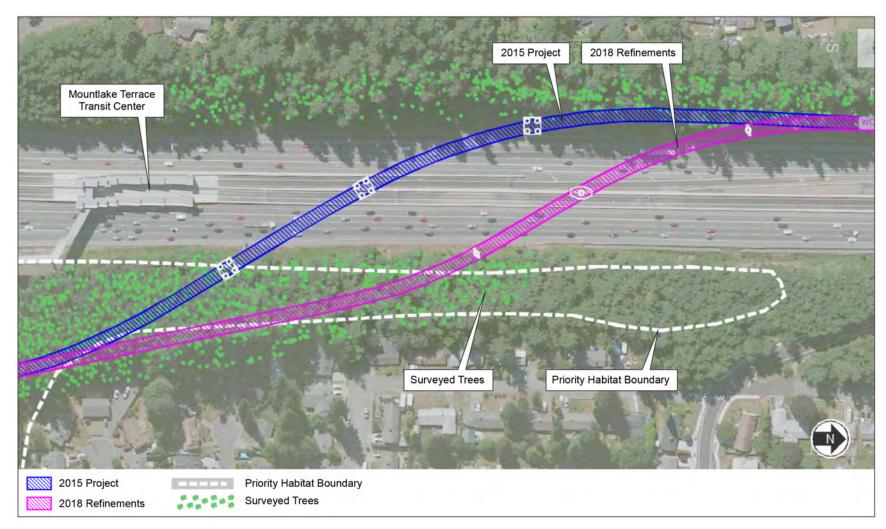


Figure 4-4 (D4) Alignment Shift of I-5 Crossing

4.1.5 (D5) Lynnwood City Center Station (LCCS) Design Refinements

The 2015 Project included a parking garage (up to four levels) at the LCCS that would be built partly over an existing park-and-ride lot between the high occupancy vehicle (HOV) direct access ramps (to the west) and 44th Avenue West (to the east). It would connect to the station as well as the existing bus transit center to the west of 48th Avenue NE. A parking area in the southwest portion of the site would be reconfigured to accommodate 400 spaces. Bus layover and circulation would occur just north of the transit center.

The 2018 Refinements at the LCCS include the following:

- A right-in, right-out parking garage driveway access point on 44th Avenue W, south of 200th Street SW;
- Elimination of the HOV-only parking garage driveway access point on 46th Avenue W;
- Parking garage reconfigured for more efficient use of space;
- The addition of 202nd Street SW, between 46th Avenue W and 48th Avenue W, to facilitate site circulation and provide additional pick-up and drop-off areas; and
- The addition of 11 bus layover spaces, for a total of 20 spaces, to support additional Community Transit and Sound Transit Regional Express bus service that is forecast to increase weekday peak hour bus trips from 112 to 182 buses per hour within the bus loop.

Impacts to the Scriber Creek Trail and Stream SLY1, which are in the vicinity of the LCCS and impacted by changes to the design, are covered in the new information related to mitigation, in Sections 4.3.2 and 4.3.3, respectively. The footprint of the LCCS would be unchanged from the 2015 Project and the FEIS. There would be no change in the number of parking stalls as documented in the 2015 FEIS. See **Figure 4-5** for an illustration of these refinements.

4.2 NEW INFORMATION RELATED TO CONSTRUCTION

The location of the construction-related elements described below are shown on Figure 1-2.

4.2.1 (C1) Extended Closure on 5th Avenue NE

Fifth Avenue NE between NE 130th Street and NE 145th Street would be closed for approximately 3.5 years during construction (2.5 years longer than anticipated in the FEIS). While identified in the FEIS, this closure is longer than the previously anticipated 1-year closure.

4.2.2 (C2) Temporary Piping of Stream SSE1

Sound Transit would temporarily pipe approximately 100 feet of Stream SSE1 between I-5 and 5th Avenue NE to minimize temporary impacts while constructing the guideway over this portion of the stream. Based on the 2015 FEIS and Biological Assessment, there is no documented fish use in Stream SSE1. Based on subsequent field assessments of stream width and gradient, potential fish habitat is present, but this stream segment is upstream of human-caused fish-passage barriers along I-5.

4.2.3 (C3) Twin Ponds Park—Utility Undergrounding

Construction of underground vaults and duct banks, and replacement of Seattle City Light (SCL) poles was determined necessary, affecting a portion of the parking lot for Twin Ponds Park. This would require the temporary use of some of the parking lot for construction staging along NE 155th Street, and potential excavation for the vaults/duct banks. No work would occur in the park outside of the parking lot, and the park would remain open during the approximately 6-month construction period. Some parking spaces would be restricted during construction, and suitable replacement parking is being identified.

Figure 4-5 (D5) Lynnwood City Center Station (LCCS) Design Refinements

Oxford Cambridge Apts Square Apts 200th St SW HOV Parking Cedar Creek Access Ramp Existing Bus Transit Center Condos Alignment Park Five Apts N Platform Surface Parking Area Parking Garage 5 Alignment Open Stream 2015 Project Parking Platform Piped Stream

2015 Project

2018 Refinements



2018 SEPA Addendum to the Lynnwood Link Extension FEIS

4.2.4 (C4) Veterans Memorial Park Trail Enhancement

The 2018 Refinements includes improving an existing gravel pedestrian path inside Veterans Memorial Park by extending and relocating this path into the MTS, ensuring a safer pedestrian experience in the station area. Construction would temporarily disturb a minor amount of parkland. While the portion of the trail that connects to the transit center would remain closed for approximately 4.5 years during construction, a detour would maintain access to the transit center from adjacent streets and sidewalks. The existing trail within the park would remain open.

4.2.5 (C5) New Stream SMT2

Sound Transit was granted access to a parcel that they were not granted access to during the FEIS. During a survey of the parcel, Sound Transit biologists identified one new stream that was not identified in the FEIS. As noted in the Project Status Update for Endangered Species Act Compliance (**Attachment D**), no fish are known or expected to use Stream SMT2 based on a field review and review of available information. The stream appears to originate in Wetland WMT7 on the same parcel, flows into an open channel through the project area, and then exits the parcel via a culvert under 60th Ave W.

4.3 NEW INFORMATION RELATED TO MITIGATION

The location of the mitigation actions described below are shown on Figure 1-2.

4.3.1 (M1) Wetland Mitigation Site—Ronald Bog Park

Sound Transit proposes to compensate for unavoidable wetland impacts using a combination of methods: purchasing credits from the King County In-Lieu Fee program, re-establishing wetlands at Ronald Bog Park and along Scriber Creek, and on-site wetland creation. While the need for wetland mitigation was identified in the FEIS and committed to in the ROD, final locations were not determined at that time. Ronald Bog Park (in Shoreline) is the only wetland mitigation site outside of the previously defined Area of Potential Effect (APE) for historic and cultural resources and also not previously evaluated as a Section 4(f) resource.

4.3.2 (M2) Scriber Creek Trail Relocation

Sound Transit would relocate and enhance a portion of the Scriber Creek Trail as part of Sound Transit's proposal to re-establish wetlands and wetland buffer along Scriber Creek. Removal of a portion of the existing trail within the Scriber Creek wetland complex will would provide wetland and floodplain mitigation.

4.3.3 (M3) Stream Daylighting (SLY1)

Stream SLY1 is currently contained in an underground pipe beneath property to be redeveloped as part of the LCCS. As a permit condition, the City of Lynnwood has required that the pipe be upgraded. Rather than replace the pipe, Sound Transit plans to make the stream fish-passable based on input from the Muckleshoot Indian Tribe, using a combination of daylighting and fish-passable culverts. Sound Transit is currently finalizing a design to enhance the resource by making SLY1 fish-passable through the LCCS.

4.3.4 (M4) Resource Conservation Area

The FEIS identified impacts to a designated Resource Conservation Area (RCA), and the ROD included a commitment to mitigate for those impacts, as agreed by the Washington State Department of Transportation (WSDOT) and FHWA, by providing replacement property. Pursuant to the Revised Code of Washington (RCW) 47.40.010 and 23 U.S. Code (U.S.C.) 752.2, areas that are converted from lands designated as a Resource Conservation Area (RCA) along I-5 must be mitigated by replacement land. The project would impact approximately 1 acre of RCA land as a result of unavoidable construction activities. The proposed replacement areas equal approximately 2 acres, which are located along the I-5 project corridor. This refinement is not shown on **Figure 1-2** because the parcels are scattered throughout the corridor.

5 Changes in Environmental Effects and Mitigation

Impacts for many of the elements of the environment analyzed in the FEIS would remain unchanged with the 2018 Refinements. The following areas do not require analysis in this SEPA Addendum because there would be no change in effects from the proposed design refinements:

- Air Quality and Greenhouse Gases
- Energy Impacts
- Geology and Soils
- Electromagnetic Fields
- Public Services, Safety, and Security
- Land Use
- Economics
- Social, Community Facilities, and Neighborhoods

Table 5-1 shows those areas of the environment that are determined to be potentially impacted by the2018 Refinements and are evaluated further in this document. Only those refinements with thepotential to impact each resource area are described in the analyses below. As shown in the table, eachof the 2018 Refinements would impact different environmental resources. Note that for the 2015Project, compared to the 2018 Refinements, the design changes (D1–D5) would affect the sameelements of the environment shown in **Table 5-1**. Environmental justice; acquisitions displacements, andrelocations; construction; and indirect and cumulative impacts are not listed in Table 5-1 because theyare evaluated on a corridor-wide basis and are not necessarily associated with specific projectrefinements listed. Impacts on those areas of the environment are evaluated later in this section.

Table 5-1 Summary of Impacts by Refinement and Elements of the Environment

	2018 Refinements	Transportation	Visual	Noise & Vibration	Ecosystems	Cultural\Archaeological \Historic	Parks/Section 4(f)
	n Changes to the Project	1	[1			
D1 D2	Minor Track Realignment at Northgate Relocation of Shoreline North/185 th Street Station Parking Garage	x	x	x	Х		
D3	MTS: Stream Relocation (SMT1)				Х		
D4	Alignment Shift of I-5 Crossing		х	Х	Х		
D5	LCCS Design Refinements	х	х	Х	Х		
New I	nformation Related to Construction						
C1	Extended Closure on 5 th Ave NE	Х					
C2	Temporary Piping of Stream SSE1				Х		
C3	Twin Ponds Park – Utility Undergrounding					х	х
C4	Veterans Memorial Park Trail Enhancement						х
C5	New Stream SMT2				Х		
New I	New Information Related to Mitigation						
M1	Wetland Mitigation Site — Ronald Bog Park		х		х	х	х
M2	Scriber Creek Trail Relocation						Х
M3	Stream Daylighting (SLY1)		Х		х		
M4	Resource Conservation Area		Х		Х		

5.1 TRANSPORTATION

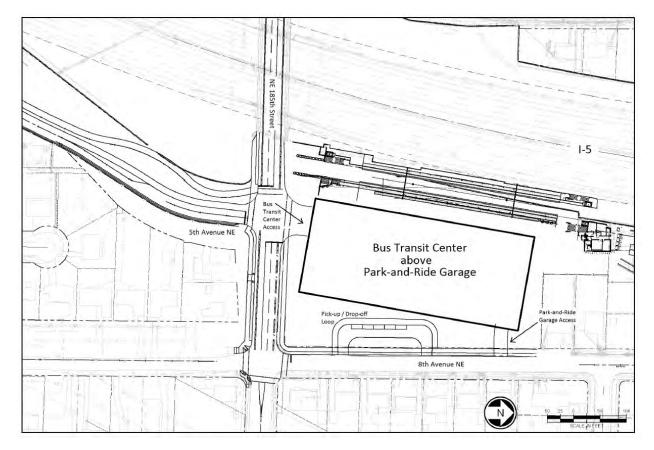
Several design refinements and new information related to construction would have potential effects on transportation. See **Attachment A** (Transportation Technical Memorandum) for full details on the refinements and new information and associated traffic impacts. The methodology used to analyze the 2018 Refinements is the same as that used for analysis in the 2015 Project.

For each of the 2018 Refinements described below, all of the affected intersections would meet applicable Level of Service (LOS) standards, with mitigation where needed. While some of these impacts would differ from those evaluated in the 2015 Project, all of the impacts would be mitigated.

5.1.1 Relocation of Shoreline North/185th Street Station Parking Garage.

The location of the 500-stall parking garage has been moved from the west side of I-5 to the east side of I-5, north of NE 185th Street, with bus transit center access from NE 185th Street at 5th Avenue NE. Vehicular access to the park-and-ride garage and pick-up/drop-off would be on 8th Avenue NE north of NE 185th Street. A parking garage on the east side of I-5 was evaluated in the 2015 Project as an option for several different alternatives (Alternatives 3, 5, 7, 10, and 11).

Transportation impacts associated with the station on the east side of I-5 are described in **Attachment A** (Transportation Technical Memorandum). The analysis shows that all intersections in the Shoreline North/185th Street Station area would meet the City of Shoreline LOS standard of D or better, except the intersection of NE 185th Street/8th Avenue NE. Under stop control in the 2035 PM peak hour, delays on the north and south legs of this intersection would exceed the LOS D threshold for unsignalized arterial intersections. In the 2035 PM peak hour, average traffic would back up on the north leg of 8th Avenue NE to the pick-up/drop-off loop driveways. Approximately 5% of the time, traffic queues would back up to the park-and-ride garage driveway, affecting the operation of these facilities. See **Figure 5-1**.





For the 2018 Refinements, a traffic signal and a roundabout were evaluated at the NE 185th Street/8th Avenue NE intersection. 2035 PM peak hour delays would be reduced with either a traffic signal or a

roundabout, although the roundabout option would result in shorter traffic queue lengths on the north leg of 8th Avenue NE, compared to a traffic signal, resulting in LOS B with a traffic signal, or LOS A with a roundabout. A traffic signal or roundabout would have similar average speeds on NE 185th Street between 5th Avenue NE and 8th Avenue NE.

Selection of a traffic signal or roundabout at this intersection will be performed in consultation with the City of Shoreline and implemented by Sound Transit.

5.1.2 LCCS Design Refinements

A comparison of design year traffic operations for the 2015 Project and the 2015 Project plus the 2018 Refinements is included in **Table 5-2**. City of Lynnwood standards are LOS E or better for City Center arterials, and LOS D or better for non-City Center arterials. The results of the intersection operations analysis reflect increased transit bus service and associated increases in bus volumes on streets providing access to the LCCS and associated bus transit facilities.

		2035 AM Peak Hour Intersection delay (sec/veh)/LOS		Intersect	Peak Hour ion delay :h)/LOS
		2015 Project Plus 2018			2015 Project Plus 2018
Intersection	LOS Standard	2015 Project	Refinements	2015 Project	Refinements
44 th Ave W/200 th St SW	E	65 / E	62 / E	55 /D	54 / D
46 th Ave W/200 th St SW	E	42 / D	39 / D	25 / C	50 / D
48 th Ave W/200 th St SW	D	64 / E	56 / E	60 / E	62 / E
50 th Ave W/200 th St SW	D	124 / F ¹	35 / C ¹	51/D	61 / E ²

Table 5-2 LCCS Comparison of Intersection LOS

Note: Project intersection LOS values reported from the Transportation Technical Report, Appendix C of the FEIS. 1) 2015 Project analysis did not include the northbound right-turn overlap phase described in the ROD Mitigation Plan (Appendix B of the FTA ROD). The 2015 Project plus 2018 Refinements analysis did include the northbound right-turn overlap phase. The City of Lynnwood has implemented the right-turn overlap phasing so it is no longer considered mitigation, but part of the existing conditions.

2) Intersection operations would improve to LOS D with additional mitigation at the 48^{th} Avenue W / 200^{th} Street SW intersection. Mitigation is not proposed at the 50^{th} Avenue W / 200^{th} Street SW intersection.

AM peak hour intersection operations in the 2015 Project plus 2018 Refinements configuration would be improved compared to the 2015 Project, due to the addition of the 44th Avenue W parking garage driveway. All four of the intersections would meet City of Lynnwood LOS standards in the design year AM peak hour.

The analysis for the 2015 Project plus 2018 Refinements shows that the 50th Avenue W / 200th Street SW intersection would not meet the LOS D standard in the PM peak hour. Additional mitigation measures at the 48th Avenue W / 200th Street SW would improve intersection operations by reducing eastbound vehicle queuing on 200th Street SW that would otherwise interfere with traffic operations at the 50th Avenue W intersection. Potential mitigation measures include, but are not limited to, eastbound and/or

southbound right-turn lanes at the 48th Avenue W / 200th Street SW intersection as identified in the ROD, and/or an additional westbound travel lane on 200th Street SW between 46th and 48th Avenues W. These potential additional mitigation measures could impact properties on the north and/or south sides of 200th Street SW at 48th Avenue W. **Attachment B** identifies the properties that could be impacted by these mitigation measures.

Additional mitigation measures to meet the LOS D standard at the 50th Avenue W / 200th Street SW intersection, and to support other operational objectives identified by Sound Transit, the City of Lynnwood, and other stakeholders, would be implemented consistent with language in the ROD: "Sound Transit would provide these improvements or other improvements as agreed to by the local jurisdictions" (page B-2 of Table B-1- Mitigation Plan, Lynnwood ROD [FTA, 2015]). Determination of the specific set of roadway modifications on 200th Street SW and on 44th Avenue W is being supported by a sensitivity analysis of roadway modification alternatives that is being performed by Sound Transit in collaboration with the City of Lynnwood.

5.1.3 Extended Closure of 5th Avenue NE

The FEIS evaluated the temporary (1-year) closure of a portion of 5th Avenue NE between NE 125th Street and NE 145th Street to all traffic except construction and emergency vehicles. It has since been determined that an extended closure of this roadway (approximately 3.5 years) would be necessary for construction of the elevated guideway that would be located between I-5 and 5th Avenue NE. The South Jackson Park Park-and-Ride would also be closed during the duration of the project. In consultation with King County Metro (Metro), no replacement parking is needed because it is not currently served by Metro or any other transit agency.

Local access would be maintained on 5th Avenue NE between NE 125th Street and NE 133rd Street. The northbound I-5 off-ramps at NE 130th Street and NE 145th Street would also remain open during construction, except for minor short-term closures.

The analysis for the 2015 Project plus 2018 Refinements shows that intersection operations would be characterized as LOS E or better during construction in the area bounded by 1st Avenue NE, 15th Avenue NE, NE 145th Street, and NE 125th Street. Existing conditions are at LOS D or better. LOS E would be acceptable during the peak hours per WSDOT LOS standards.

Because NE 145th Street and Roosevelt Way NE / NE 125th Street currently operate near capacity, and would not likely accommodate all of the motorists detouring from 5th Avenue, a public information campaign would be needed to alert motorists to the closure of 5th Avenue and help motorists shift their travel route to 15th Avenue NE or 1st Avenue NE north of NE 145th Street and south of NE 125th Street. The proposed alternative routes utilizing 15th Avenue NE and 1st Avenue NE would be able to accommodate motorists detouring from 5th Avenue NE. Traffic signal timing optimization would likely mitigate the higher traffic volumes on 15th Avenue NE and 1st Avenue NE during the closure of 5th Avenue NE.

5.2 ACQUISITIONS, DISPLACEMENTS, AND RELOCATIONS

The FEIS disclosed that the 2015 Project would displace 129 residential units and nine businesses. This SEPA Addendum analysis focuses on the change in residential units due to project refinements. There would be no changes in business displacements.

The displacement data presented in the FEIS were estimates based on conceptual designs for the light rail alternatives. The FEIS acknowledged that final determinations of the property needs for the project, including acquisitions and displacements, would occur during final design. Also, the FEIS estimates of the displaced land uses reflected the conditions at the time the analysis was conducted. Because property uses change, the number and/or type of displacements could vary between what is disclosed in the FEIS and what would actually be required.

The 2017 Refinements include seven single-family residential properties not previously considered in the 2015 Project.

The 2018 Refinements would require the acquisition of 35 properties that were not considered for acquisition under the 2015 Project. Of the 35 properties, 24 would be full takes and 11 would be partial takes. Each property owner has been notified by Sound Transit in writing of the potential for acquisition of their property. Of the 24 full takes, four properties are vacant and 20 properties include single-family residences that would be displaced. No businesses would be displaced as a result of these additional acquisitions. See **Attachment B** for a list of parcels potentially affected and a map of their locations throughout the corridor.

Table 5-3 shows the change in new displacements from the 2015 Project to the 2015 Project plus 2017 and 2018 Refinements. The number of residential displacements (156) for the 2015 Project plus the 2017 and 2018 Refinements is within the range previously analyzed for all FEIS alternatives evaluated (107–208). There is no change in business displacements from the 2015 Project.

			2018	Total (2015 Project Plus 2017	-	ge from All s in the FEIS
Impact Measure	2015 Project	2017 Refinements	Refinements (displacements)	and 2018 Refinements)	Low	High
Residential displacements	129	7	20	156	107	208
Business displacements	9	0	0	9	1	31

Table 5-3 Project Displacements

Table 5-3 shows there would be 20 new residential displacements not identified as acquisitions in the FEIS (in addition to the seven identified in the 2017 Refinements, which are discussed in **Attachment G**), and no new business displacements. As noted in the FEIS and included in the ROD, Sound Transit will

comply with local, state, and federal laws and policies to ensure that property owners and tenants are treated uniformly and fairly.

There are several reasons for the 2018 Refinements, which consequently change property impacts. These include the following:

- The need to provide mitigation for RCA impacts;
- Changes in the location or size of stormwater facilities;
- The need to provide mitigation for replacement parking during construction;
- Minor roadway or sidewalk improvements resulting from coordination with local jurisdictions; and
- Refinements in the siting of stations, parking garages, or the guideway alignment.

5.2.1 Resource Conservation Area

Pursuant to RCW 47.40.010 and 23 U.S.C. 752.2, areas that are converted from lands designated as RCA along I-5 must be mitigated by replacement land. The project would impact approximately 1 acre of RCA land as a result of unavoidable construction activities. The proposed replacement area equals approximately 2 acres. The proposed replacement approach matches the character and functions of the RCA areas that would be impacted. RCA replacement properties were identified in consultation with WSDOT, and these properties are located along I-5, pursuant to RCA replacement requirements. Some replacement land would likely have additional trees planted to meet WSDOT's RCA mitigation requirements. All ground disturbance would be within the concurred Area of Potential Effect. New affected properties are listed in **Attachment B**.

5.2.2 Changes to Stormwater Facilities

Through the design refinement process, stormwater facilities have been identified, which consist of ponds, drainage systems, and in certain areas underground vaults. Compared to the 2015 Project, 2018 stormwater facilities would be larger, requiring additional property acquisition. The changes resulted from the following:

- Changes in the City of Shoreline flow control standard for the Thornton Creek basin, which required more detention;
- Updated rainfall data;
- Requirements for maintenance access to the stormwater facilities;
- Requirements for street improvements and infiltration ponds; and
- Requirements for accommodating runoff from existing WSDOT embankments.

Although changes to stormwater facilities have contributed to the need for additional acquisitions, Sound Transit has minimized and optimized the number of acquisitions by acquiring properties that can serve multiple purposes in several locations.

5.2.3 Replacement Parking during Construction

The FEIS identified impacts to existing parking and included a commitment to mitigate for these impacts. To comply with this ROD commitment, Sound Transit proposes to acquire several properties to the east of MTS for a temporary parking site to replace surface parking removed at the Transit Center during construction (see **Attachment B**). This would result in the acquisition and displacement of eight single-family homes. These properties are included in **Table 5-3** and in **Appendix B**.

5.2.4 Other 2018 Refinements Affecting Properties

The ROD environmental commitment for impacts to Ridgecrest Park stipulated that replacement land would be provided consistent with the park land deed requirements. Sound Transit has consulted with the City of Shoreline who requested different replacement land not identified in the FEIS, which would require the acquisition of two residential properties. Sound Transit has received documentation from the City of Shoreline confirming their agreement with this change in replacement parcels compared to the FEIS (see Section 5.8.5 and **Attachment F**).

Roadway and sidewalk improvements have also been identified as Sound Transit worked with four local jurisdictions, which typically are partial takes. Project-wide there have been refinements in the siting of stations, parking garages, or the guideway alignment, as additional engineering, traffic, transit, and access information is available and coordination has occurred with local jurisdictions and transit agencies in final design.

As stated in Section 4.1.6 of the FEIS, there would be adequate opportunities for residents to relocate within the general area. As per mitigation described in the ROD, Sound Transit will compensate displaced owners and offer relocation assistance consistent with the agency's acquisition and relocation policies and federal requirements. The project is designed to utilize the I-5 corridor or other public rights-of-way to minimize displacements.

5.3 ENVIRONMENTAL JUSTICE

In the FEIS, FTA concluded that the 2015 Project would not result in disproportionately high and adverse effects on minority and low-income populations. Additional displacements resulting from the 2018 Refinements are all within the FEIS Environmental Justice study area. The largest concentration of new displacements is in the vicinity of the MTS, which includes eight additional residential displacements for temporary parking for the MTS. This area includes census tracts made up of less than 10% low-income populations (U.S. Census Bureau, 2010). The displacements are located in Census Blocks with 26–50% minority populations (U.S. Census Bureau, 2010). The remainder of the displacements are scattered throughout the study area identified in the FEIS. Figures C-2 and C-3 in Appendix C of the FEIS (Environmental Justice Analysis) show the census block concentration of both minority and low-income populations throughout the corridor. The FEIS analysis found that the project corridor has a minority concentration of approximately 37%. Property owners and displaced residents and businesses would

receive compensation and relocation assistance consistent with federal and state regulations, and Sound Transit's Real Estate Property Acquisition and Relocation Policy.

Based on census data, information from Sound Transit outreach meetings with affected property owners, and windshield surveys of the properties, along with the requirements to compensate property owners and to provide relocation assistance, the additional residential displacements would not result in high and adverse disproportionate effects on minority or low-income populations.

5.4 VISUAL AND AESTHETIC RESOURCES

Overall, the visual and aesthetic impacts of the 2018 Refinements would be similar to the effects described in the FEIS for the 2015 Project. Impacts associated with changes to the project alignment would be minor because the design of the track would be the same, and the relatively minor shifts in the alignment would not result in new roadways, or generally viewers being impacted in substantially different ways. The view to drivers on I-5 would not substantially change from that analyzed in the FEIS.

5.4.1 Relocation of Shoreline North/185th Street Station Parking Garage

The relocation of Shoreline North/185th Street Station parking garage was an option evaluated in the 2015 Project. As part of final design, in consultation with the City of Shoreline, King County Metro, and Community Transit, an entire floor was removed and the footprint was expanded to maintain the same number of parking spaces. This refinement is a visual change but is not considered substantial. The lower height of the garage may be perceived by nearby residents and others as a beneficial visual effect compared to the 2015 Project.

5.4.2 Alignment Shift of I-5 Crossing

The change in alignment north of the MTS to be a more northerly crossing of I-5 would result in the guideway being closer to several homes east of the alignment. While the guideway would be at an elevation below the homes, and it is expected that a vegetative buffer between the homes and the guideway would remain, this change may be perceived as different from existing views by some residents. Sound Transit will attempt to preserve the vegetative buffer and reduce visual impacts, consistent with ROD commitments. Please refer to **Attachment H**.

5.4.3 LCCS Design Refinements/Stream Daylighting (SLY1)

Although the layout of the LCCS would differ in some respects from that evaluated in the FEIS, no additional adverse impacts are anticipated because it would be sited in the same location and the height, bulk, and scale of the structure would be unchanged. Daylighting a portion of Stream SLY1 at the LCCS would result in visual improvements in a highly urbanized environment, including streamside plantings.

5.4.4 Wetland Mitigation Site – Ronald Bog Park

Re-establishing wetlands in Ronald Bog Park (shown on Figure 5-2) would not result in adverse impacts to the visual quality of the aesthetic environment. Ronald Bog Park is a natural area that already contains wetlands and wetland buffers. The integration of additional wetland areas would be consistent with the existing aesthetic environment and may be perceived as a visual enhancement.



5.4.5 Resource Conservation Area

Figure 5-2 Ronald Bog Park

While removal of forested RCAs would be a temporary visual impact, these areas will be replaced at a 2:1 ratio, as per WSDOT and FHWA criteria, resulting in a long-term visual enhancement.

5.5 NOISE AND VIBRATION

Noise and vibration impact criteria and limits are described in Section 4.7.1 of the FEIS. The noise and vibration impact analysis of the 2018 Refinements (HNTB Jacobs, 2018) resulted in a lower number of total noise impacts compared to the 2015 Project (see Table 5-4). The overall reduction in noise and vibration impacts is due to several reasons, including the following: new property acquisitions since the FEIS that removed some affected sensitive receptors; changes in the track alignment shifting the tracks away from receptors; and modeling refinements resulting from additional field measurements, observations, and refined train speed profile. Detailed information in **Attachment C** (Noise Technical Memorandum) describes the evaluation of noise and vibration effects from the 2018 Refinements. Please note that this analysis only evaluated the change in noise impacts in the vicinity of the 2018 Refinements. All other impacts identified within the project corridor are unchanged.

Table 5-4 compares noise and vibration impacts and mitigation for the 2015 Project with the 2015 Project plus 2018 Refinements. Mitigation measures, which include noise walls, track-level vibration mitigation (ballast mat and floating slab), and residential sound insulation where noise walls are not feasible, would address all noise and vibration impacts, and no residual impacts are anticipated.

		2017	2015 Project PlusImpact Range from A2017 and 2018Alternatives in the FE		-
Impact	2015 Project	Refinements	Refinements	Low	High
LRV ¹ Noise Impacts	540/0	0/0	446/0	373/0 ³	919/0 ³
Park & Ride Noise Impacts	98/0	-1/0	99²/0	373/0	
Vibration Impacts	30/0	0/0	25/0	8/0	32/0

Table 5-4 Number of Properties with Projected Noise and Vibration Impacts (Before/After Mitigation)

¹ Light Rail Vehicle.

² The Noise Technical Memorandum prepared for the 2018 Refinements (Attachment C) shows two additional impacts near the LCCS. The 2017 Refinements eliminated one impact near the 145th Street Station.

³ The FEIS did not evaluate LRV and Park & Ride noise impacts separately.

5.5.1 Relocation of Shoreline North/185th Street Station Parking Garage

The 2015 Project identified 13 noise impacts associated with the 185th Street Station (with the parking garage on the west side of I-5). Nine noise impacts were identified for Alternatives 3 and 7 in the FEIS (which included a parking garage on the east side of I-5). With the 2018 Refinements, the same number of single-family residences (13) were calculated to equal or exceed the WAC noise limit, which is applied to stationary facilities where state and local ordinances are applicable, with all impacts related to buses entering and exiting and moving within the park-and-ride. Impacts would be fully mitigated in the form of a 9-foot-high noise wall on three sides of the park-and-ride. If a noise wall is deemed to have an unacceptable visual impact, sound insulation for the 13 impacted residences can be considered to remove all impacts.

5.5.2 Alignment Shift of I-5 Crossing

At the I-5 crossing in Mountlake Terrace between mileposts 178.5 and 178.6, the 2015 Project track alignment would be shifted to a more northerly crossing of I-5 as part of the 2018 Refinements. See **Figure 4-4** for a comparison of the 2015 and 2018 alignments. This change moves the tracks closer to receptors on the east side of the freeway, but the retaining wall would provide shielding from train noise, reducing the number of impacts from 12 to 8. The guideway in this area would be below the level of the homes to the east. See **Attachment H**, which includes a cross-section of this area. This change also moves the tracks away from receptors on the west side of the freeway, reducing the number of impacts there from 12 to 6. No vibration impacts were predicted for this area for either the 2015 Project or the 2015 Project plus 2018 Refinements.

5.5.3 LCCS Design Refinements

5.5.3.1 Park-and-Ride

The existing bus loop would remain in place at the LCCS Park & Ride after construction, but there would be 11 additional bus layover spaces. A total of 58 noise impacts at the receptors of Cedar Creek Condominiums and Park Five Apartments (shown on Figure 2 of the Noise Technical Memorandum in **Attachment C**) were predicted for both the 2015 Project and the 2015 Project plus 2018 Refinements.

Because of the elevation of the multifamily units, all noise impacts would be mitigated with sound insulation. The refinements to the LCCS are shown on **Figure 4-5**.

5.5.3.2 Roadway Improvements

Some of the design refinements at the LCCS include roadway improvements that could alter the noise pattern produced by traffic in and around the station. These improvements include the following:

- A right-in, right-out parking garage driveway access point on 44th Avenue W, south of 200th Street SW;
- Elimination of the HOV-only parking garage driveway access point on 46th Avenue W;
- The addition of 202nd Street SW, between 46th Avenue W and 48th Avenue W, to facilitate site circulation and provide additional pick-up and drop-off areas;
- Park-and-ride garage access from 200th Street SW via 48th Avenue W, and from 44th Avenue W via a right-in/right-out driveway south of 200th Street SW; and
- Surface parking lot and pick-up/drop-off access from 200th Street SW via 46th and 48th Avenues W, and from 202nd Street SW.

Modeling of the proposed roadway changes identified 20 impacted residences during the AM peak, and an additional five residences that would be impacted during the PM peak. This is an increase of two impacts compared to the 2015 Project. Mitigation options for the impacted residences are listed in **Table 5-5**. All impacts would be mitigated as per ROD requirements. No residential receptors would be impacted after the implementation of mitigation.

Table 5-5 Noise Mitigation Summary for LCCS Roadway Improvements

	2015 Project	2015 Project plus 2018 Refinements
Mitigation ¹	Approximately 1,275 feet of noise walls or insulation offered to 23 residential units	Approximately 1,275 feet of noise walls or insulation offered to 25 residential units

1) If noise walls up to 15 feet in height are determined to be infeasible or unacceptable to the City of Lynnwood, sound insulation would be offered.

5.6 ECOSYSTEM RESOURCES

Potential effects of the 2018 Refinements on ecosystem resources such as wetlands, streams, and terrestrial habitat; and additional information about wetland and stream impact mitigation are described below and in **Attachment D** (Project Status Update for Endangered Species Act Compliance). The National Marine Fisheries Service reviewed the materials in Attachment D and confirmed that the Endangered Species Act and Magnuson-Stevens Fisheries Conservation and Management Act effects determinations made in 2015 remain valid (see January 30, 2018 correspondence, which is included in **Attachment D**).

5.6.1 Wetlands

Design refinements throughout the corridor have changed the amount of impacts to wetlands, reducing the total amount of permanent impacts and increasing temporary impacts. Permanent wetland impacts have been reduced substantially for several reasons. As part of the FEIS, Sound Transit assumed that wetlands within the entire footprint directly below the elevated guideway would be permanently impacted. During final design, in consultation with agencies with jurisdiction, the permanent impacts were more accurately defined to reflect primarily the footprint of the guideway columns. As a result, permanent impacts were substantially reduced, particularly at the Scriber Creek wetland complex (WLY4) and WMT6, as shown in **Table 5-6**.

For the FEIS, permanent impacts to Scriber Creek wetlands were conservatively estimated by using the entire guideway footprint – approximately 330 feet long by 65 feet wide. This converts to approximately 0.5 acre of impact. By more accurately using just the footprint of the guideway columns (four approximately 6-foot-diameter columns to support the elevated guideway approximately 42 to 46 feet above grade), the permanent impact is reduced to approximately 0.007 acre. Given the height of the guideway above the wetlands, the U.S. Army Corps of Engineers (Corps) determined that the only permanent impacts to this wetland would be from the guideway columns.

In the Northgate area, at Wetland WSE1 (see **Figure 4-1**), permanent wetland impacts would increase. In the 2015 FEIS, Sound Transit estimated <0.001 acre of wetland impact. With the shift of the guideway westward, the guideway is closer to Wetland WSE1, resulting in a permanent conversion impact of 0.01 acre. This impact is not a loss of wetland, but rather a conversion from a forested wetland to a scrubshrub wetland and would be mitigated accordingly.

Sound Transit also proposed additional avoidance/minimization measures along the corridor, further reducing permanent impacts.

Additional fieldwork and resource agency coordination was done to verify boundaries of jurisdictional features including wetlands, streams, and jurisdictional ditches. As a result, one wetland identified in the FEIS was determined to be non-jurisdictional by the Corps: WSH1. This wetland is in Shoreline, just north of 145th Street and 5th Avenue NE adjacent to I-5. Because it is non-jurisdictional, it is no longer considered an impact.

Temporary wetland impacts would increase for several reasons. As mentioned above, the entire area under the guideway that was originally identified as a permanent impact has been changed to temporary impacts. Also, as part of final design, Sound Transit has developed construction sequencing and methodologies that increased temporary impacts to wetlands. Consistent with the ROD, Sound Transit would restore temporarily disturbed areas as soon as practical following construction activities to minimize the risk of introduction and spread of noxious and invasive species. To minimize the use of herbicides and fertilizers, restoration will include mulching, ground cover, and other planting strategies that discourage undesirable species. Please see **Table 5-6**. While temporary impacts would be outside the range of impacts anticipated in the FEIS, permanent impacts would be reduced and the area would be restored to better conditions than it was before in accordance with ROD commitments.

		2015 Project Plus 2018	Impact Range from All Alternatives in the FEIS	
Impact Measure	2015 Project	Refinements	Low	High
Permanent Wetland Impacts (acres)	2.4	0.6	1.1	3.6
Temporary Wetland Impacts (acres)	0.5	3.0	0	0.4
Permanent Wetland Buffer impacts (acres)	2.9	1.8	1.6	4.1
Temporary Wetland Buffer Impacts (acres)	0.6	4.9	0.2	0.7

Table 5-6 Comparison of Wetland Impacts

5.6.2 Floodplains

Scriber Creek is located within a floodplain, as designated by the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (Panel 53061C1310E, effective on 11/08/1999 [FEMA, 1999]). This area is in a Zone AE floodplain, which indicates a high risk (i.e., a 1% chance per year) of flooding according to FEMA. There is no mapped floodway (the portion of a floodplain where water depths and velocity are highest) for this portion of Scriber Creek. The 2018 Refinements to this area include excavating a portion of the Scriber Creek Trail that is within the floodplain and is prone to flooding. The trail is in poor condition as a result of frequent inundation and unsuitable for many users. Once the trail is relocated, this area would be replanted with native vegetation to re-establish wetlands and an adjacent wetland buffer. As stated above and in accordance with the ROD commitments, the area would be restored to better conditions than it was before. Sound Transit will work with the City of Lynnwood to supply technical data related to the changed physical conditions of Scriber Creek to FEMA so that the community may comply with federal data reporting requirements (44 Code of Federal Regulations [CFR] 65.3).

5.6.3 Streams

Similar to wetlands, impacts to streams were reevaluated with the 2018 Refinements and field-verified. Based on additional research and field review, Stream SSH2 identified in the FEIS was determined by Sound Transit to be a stormwater conveyance feature. Based on the new information, the City of Shoreline agreed that it does not meet the definition of a stream per City code.

Additional mitigation measures have been developed by the General Contractor/Construction Manager to further protect water quality in streams during project construction beyond those identified in the FEIS. All stream work, including restoration activities, would be conducted in compliance with the Hydraulic Project Approval permit from the Washington Department of Fish and Wildlife (WDFW) and other regulatory approvals secured for the project.

5.6.3.1 Temporary Piping of Stream SSE1

Approximately 300 feet south of where Thornton Creek crosses the alignment, Stream SSE1 emerges from a culvert in the I-5 right-of-way. The stream flows south in an open channel for approximately 100 linear feet in a ditch on the west side of 5th Avenue NE and then drains to Thornton Creek via a culvert under 5th Avenue. Based on the 2015 FEIS and Biological Assessment, there is no documented fish use in Stream SSE1. Based on subsequent field assessments of stream width and gradient, potential fish habitat is present, but this stream segment is upstream of existing human-caused fish-passage barriers along I-5.

The project alignment would cross over SSE1 on an elevated guideway. The FEIS stated there could be temporary disturbance from construction-related sedimentation and turbidity, but no in-water work. To construct the guideway in this location, the open channel portion of this stream (100 feet in length) would need to be temporarily piped to access the construction area. The stream would be piped for approximately 2 years.

5.6.3.2 MTS: Stream Relocation (SMT1)

Stream SMT1 is a tributary to McAleer Creek that originates in Veterans Memorial Park northeast of the Mountlake Terrace Transit Center. It flows south through a series of open channels and culverts east of I-5 that are barriers to fish passage. The stream enters the project area via a culvert under the I-5 northbound off-ramp to 236th Street SW. Within the project area, under the guideway, the stream flows in an open channel for approximately 200 feet where it then passes through another culvert as it exits the I-5 right-of-way. According to WDFW, based on intermittent flows and the presence of fish barriers, SMT1 is not known or expected to support fish use under current conditions. However, the basin size, channel width, and stream gradient of the watercourse indicate the potential to support fish in the future.

The 2015 FEIS anticipated that a partial column would need to be placed within the OHWM of SMT1. Once new column locations were established in final design, the new column locations resulted in one column being placed entirely within the OHWM of stream SMT1. This is a slight increase in the impact previously identified in the FEIS. Because the column cannot be placed outside of the existing channel, Sound Transit will mitigate the stream impact by permanently rerouting the stream and creating approximately 229 linear feet of new open stream channel west of the column after construction of the column is complete. The new Stream SMT1 channel will be constructed to match current bankfull width, flow, and volume capacity. The channel substrate will be sized appropriately for the flow regime, and the slopes will be vegetated to prevent erosion. All soils, including topsoil, amendments, and stream bed materials, will be imported. By incorporating sinuosity into the stream design and revegetating the stream buffer with native vegetation, the stream will be restored to conditions that are better than current conditions.

5.6.3.3 New Stream SMT2

Property access to Wetland WMT7 was granted in 2017 and biologists identified New Stream SMT2, which originates in WMT7 and flows approximately 100 feet across the parcel before it enters a culvert underneath 60th Avenue W. This new stream was not identified in the FEIS, is not mapped by WDFW or by the City of Mountlake Terrace, and is not known to support fish. Based on the Washington Department of Natural Resources (WDNR) Forest Practices water typing methodology, the stream is classified as either a "non-fish perennial" or "non-fish seasonal" stream type due to its channel size, gradient, and basin size. It is not expected to support fish in the future.

Construction of a sidewalk across the stream (as requested by the City of Mountlake Terrace) will require placing the stream in a short culvert under the sidewalk. Since the stream is not known or expected to support fish in the future, this culvert does not need to be made fish-passable.

There would be approximately 0.15 acre of permanent impact to the stream buffer for a new stormwater pond and sidewalk. There would also be approximately 0.08 acres of temporary impacts to the stream buffer during construction. Temporary loss of riparian vegetation and potential release of turbid water or pollutants are also expected. Mitigation for the temporary impacts would be generally the same as identified in the FEIS. Sound Transit would coordinate with local and state agencies to ensure that the design and proposed mitigation meets all regulatory requirements.

5.6.3.4 Stream Daylighting (SLY1)

Stream SLY1 is in a buried culvert for most of the project area, except for a small portion east of the LCCS where it flows through a patch of forested vegetation. It is not known or expected to support fish and is separated from known fish-bearing waters by culverts under I-5 and the I-5 on- and off ramps.

A section of the piped portion of SLY1 is under the LCCS area. The FEIS stated that the 2015 Project would have no potential to affect the stream or its riparian buffer. Since the FEIS was published, the City of Lynnwood has required that Sound Transit replace the portion of the pipe in the station area due to its age. Because SLY1 has the potential to support fish in the future if downstream barriers are removed, instead of replacing the pipe, Sound Transit plans to reroute and daylight the piped portion of the stream as well as use fish-passable culverts (see **Figure 4-5**).

Re-routing SLY1 would temporarily increase sedimentation and turbidity. Overall, the change would have a net benefit to the stream by improving the riparian environment.

5.6.4 Alignment Shift of I-5 Crossing

The 2015 Project alignment at MTS would cross the middle of a WDFW designated Priority Habitat Area (PHA), which was disclosed in the FEIS. WDFW provides relevant information and maps designating PHAs for land use planning purposes by local governments, state and federal agencies, private landowners, consultants, and tribal biologists. The PHA designated at the MTS has been classified a terrestrial biodiversity area, which includes a stand of Douglas fir, but is not associated with a specific

state or federally listed species. By shifting the crossing of I-5 farther north of the station, the amount of priority habitat anticipated to be impacted has decreased slightly from approximately 1.5 acres to approximately 1.48 acres with a corresponding reduction of impacted trees from 365 to 352 (see **Figure 4-4**).

WDFW's direction for mitigating impacted PHA is to allow local jurisdictions the authority to establish specific tree replacement ratios. While the City of Mountlake Terrace does not require specific replacement tree ratios, Sound Transit and the City have agreed to replace each removed tree by adding three trees (3:1 ratio). Priority habitat trees in the WSDOT right-of-way are not regulated by the City and are being replaced at a 1:1 ratio, as agreed to with WSDOT.

5.6.5 Wetland Mitigation Site—Ronald Bog Park

Ronald Bog Park is a 13.4-acre park on the west side of I-5, just south of N 175th Street in Shoreline. It is a passive-use park with a small conifer arboretum, a pond, and a large grassy area north of the pond that provides public access from the parking area. A portion of Thornton Creek flows along the eastern portion of the park. There is a total fish barrier approximately 3,145 feet downstream of the park, near N 163rd Street.

The vast majority of permanent wetland impacts for the project occur within the City of Shoreline. As mitigation for wetland impacts, Sound Transit proposes to remove enough fill material next to the pond to re-establish approximately 1 acre of wetlands. The area would be replanted with native vegetation. In addition, Sound Transit would enhance adjacent wetland buffers within the park by removing invasive species and replanting with native vegetation.

To compensate for any loss of recreational use at the park, Sound Transit would develop a new trail to the existing shelter near the pond as well as bring the existing trail in the arboretum up to Americans with Disabilities Act (ADA) trail standards. Sound Transit would also relocate King County's "Kiss" sculpture so that it is not within protected wetland area. Ronald Bog Park is shown on **Figure 5-3**.

Figure 5-3 Ronald Bog Park Mitigation Site





Park boundary Wetland creation area Buffer enhancement area LLE Project alignment

5.7 CULTURAL, ARCHAEOLOGICAL, AND HISTORIC RESOURCES

The FEIS Cultural, Archaeological, and Historic Resource Technical Report evaluated the Area of Potential Effects (APE) for the study of historic and archaeological resources, which was generally 200 feet on either side of the guideway's centerline, and 200 feet from the edges of station and parking areas and ancillary facilities such as Traction Power Substation locations (North Corridor Transit Partners, 2014).

5.7.1 Temporary Parking Site adjacent to MTS

Eight historic-aged (older than 50 years) single-family residences in a cul-de-sac on 59th Place W in Mountlake Terrace are proposed for acquisition and demolition to create temporary parking during construction at the MTS. All residences are Ranch-style homes built in 1954. FTA has determined and the State Historic Preservation Officer (SHPO) concurred that the properties are not eligible for the National Register of Historic Places (see letter in **Attachment E**). The other four residences in the cul-desac on 59th Place W were surveyed during the EIS and determined by FTA, with SHPO concurrence, as not eligible (see **Attachment E**).

5.7.2 Twin Ponds Park – Utility Undergrounding

Given that Twin Ponds Park is outside of the APE as presented in the FEIS, FTA and Sound Transit have consulted with the Washington Department of Archaeology and Historic Preservation (DAHP) with regards to cultural resources. FTA has determined and SHPO concurred that there are no historic properties affected in the revised APE and that there is no change to the overall project determination of no adverse effect (see **Attachment E)**.

5.7.3 Wetland Mitigation Site—Ronald Bog Park

Section 106 consultation has been completed for new wetland mitigation areas at Ronald Bog Park. In February 2017, archaeological monitoring was conducted during excavation of 10 geotechnical test pits and six groundwater monitoring test pits at Ronald Bog Park; no archaeological remains or potential cultural resources were observed during monitoring. FTA has determined and SHPO concurred that there are No Historic Properties Affected at the park and there is no change to the overall determination of no adverse effect (see **Attachment E**).

5.8 PARKS AND SECTION 4(F) EVALUATION

Although additional park properties would be impacted compared to the FEIS, impacts would be minor in nature. The 2018 Refinements would not adversely affect the features or attributes that qualify the properties as 4(f) resources. The 2018 Refinements would provide enhancements to affected parks and trail resources in several instances. Disturbed areas would be restored to existing conditions following completion of the project.

5.8.1 Twin Ponds Park—Utility Undergrounding

Work in the park would include replacing two SCL poles at the north edge of the park with three new poles that include overhead conductors that would hang over the park parking lot (**Figure 5-5**). The poles are outside the park property. Sound Transit would also construct an underground vault and duct bank. Sections of the sidewalk on N 155th Street would be removed for placement of the vault/duct bank. The sidewalk would be reconstructed to match existing conditions or updated to current City of Shoreline standards.

Approximately 13 (of the 24 existing) parking stalls would be closed during the 6-month construction period. Sound Transit would work with the City of Shoreline to find replacement parking during construction. Sound Transit would restore impacted areas to previous conditions following construction. All park uses and access would be maintained during construction.

Twin Ponds Park is a Section 4(f) resource, and as such, Sound Transit has consulted with the official with jurisdiction from the City of Shoreline regarding the applicability of a Section 4(f) exception for a

temporary occupancy (23 CFR 774.113(d)). See **Attachment F** for a letter from the City of Shoreline concurring with this finding.



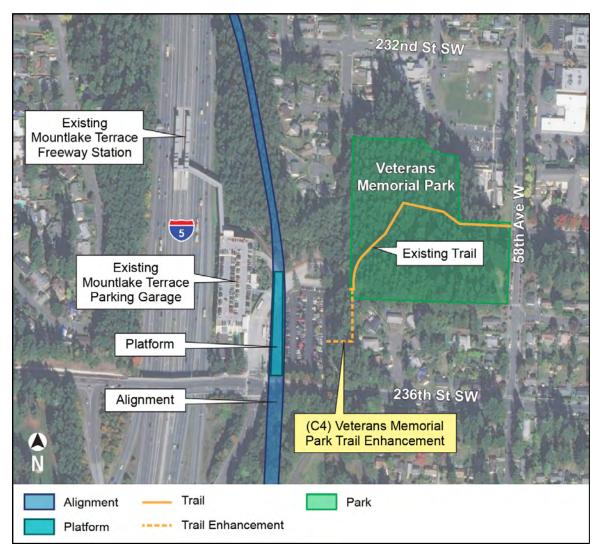
Figure 5-4 Twin Ponds Park Impacts and Mitigation

5.8.2 Veterans Memorial Park Trail Enhancement

Work in the Veterans Memorial Park would temporarily disturb parkland that is approximately 2,500 square feet (165 feet long and 15 feet wide). The construction duration is about 4.5 years. The trail connection from the park to the MTS would be closed during construction, but the trail within the park would remain open. Pedestrian detours from the park to the MTS would be in place while this trail connection is closed. Sound Transit would restore all impacted areas to their original condition following construction.

Veterans Memorial Park is a Section 4(f) resource, and as such, Sound Transit has consulted with the official with jurisdiction from the City of Mountlake Terrace regarding the applicability of a Section 4(f) exception for a temporary occupancy (23 CFR 774.113(d)). See **Attachment F** for a letter from the City of Mountlake Terrace concurring with this finding. See **Figure 5-6** below.

Figure 5-5 Veterans Memorial Park Impacts



5.8.3 Wetland Mitigation Site—Ronald Bog Park

Ronald Bog Park will also include a mitigation site for unavoidable wetland impacts. Elements of the wetland mitigation in Ronald Bog Park would include re-establishing approximately 1 acre of wetlands and establishing a functional wetland buffer around the new wetlands. Sound Transit would also relocate King County's "Kiss" sculpture so that it is not within a protected wetland area. Additional work would include the installation of a new waterfront access trail and improvements to existing trails.

Ronald Bog Park is a Section 4(f) resource, and as such, Sound Transit has consulted with the official with jurisdiction from the City of Shoreline regarding the applicability of a Section 4(f) exception for transportation enhancements/mitigation measures under federal regulations (23 CFR 774.113(g)). See **Attachment F** for a letter from the City of Shoreline concurring with this finding.

5.8.4 Scriber Creek Trail Relocation

As mitigation for unavoidable impacts to wetlands, Sound Transit proposes to re-establish wetlands and wetland buffer along Scriber Creek near the future LCCS, which includes excavating a portion of the Scriber Creek Trail and underlying fill material that was placed in Scriber Creek when the trail was constructed. The excavated area would be replanted with native vegetation to re-establish wetlands and adjacent wetland buffer. Additionally, a portion of the Scriber Creek Trail would be relocated north, upland of the existing trail, adjacent to the park-and-ride perimeter roadway. The existing trail is in poor condition as a result of flooding and wet soils. Relocating the path to higher ground would provide a benefit to trail users.

Scriber Creek Trail is a Section 4(f) resource, and as such, Sound Transit has consulted with the official with jurisdiction from the City of Lynnwood regarding the applicability of a Section 4(f) exception for transportation enhancements/mitigation measures under federal regulations (23 CFR 774.113(g)). See **Attachment F** for a letter from the City of Lynnwood concurring with this finding. See **Figure 5-4** below.

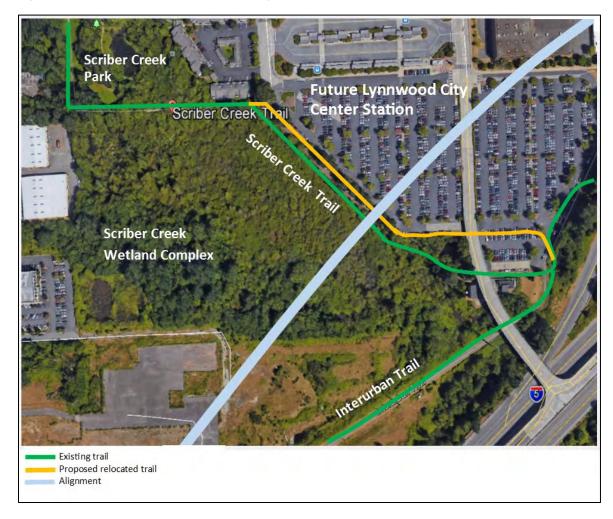


Figure 5-6 Scriber Creek Wetland Mitigation and Trail Improvements

2018 SEPA Addendum to the Lynnwood Link Extension FEIS

5.8.5 Ridgecrest Park

As described in Section 5.2.4, replacement parcels for impacts to Ridgecrest Park, which is a Section 4(f) resource, have been revised as per coordination with the City of Shoreline and based on the City's request. Two different parcels, as compared to the FEIS, will be acquired as replacement land for project impacts to park land. See documentation in **Attachment F**, which lists the parcels and provides City of Shoreline concurrence (March 8, 2018). These two parcels are also listed in **Attachment B**.

5.9 CONSTRUCTION IMPACTS

Overall, construction impacts from the 2015 Project with 2018 Refinements would be similar to those described in the FEIS, with a few differences, as described earlier in this document in the sections summarizing transportation; acquisitions, displacements, and relocations; environmental justice; visual and aesthetic resources; noise and vibration; ecosystem resources; cultural, archaeological, and historic resources; and parks and Section 4(f) resources. Similar to the FEIS, to address potential construction impacts on surrounding neighborhoods, Sound Transit would develop detailed construction mitigation plans, consistent with ROD requirements, in coordination with all of the cities during the permitting phase of the project.

5.10 INDIRECT AND CUMULATIVE IMPACTS

The proposed refinements will not substantially change the analysis of indirect or cumulative impacts contained in the existing environmental documents.

6 Agency Coordination and Public Engagement

6.1 AGENCY COORDINATION AND PUBLIC OUTREACH/OPEN HOUSES DURING FINAL DESIGN

Sound Transit has coordinated extensively during the final design process with the four cities in the corridor (Seattle, Shoreline, Mountlake Terrace, and Lynnwood), as well as with WSDOT, the FHWA, SC L, the Ronald Wastewater District, King County Metro, Community Transit, and other agencies. Regular meetings have occurred throughout final design with all of these jurisdictions and agencies. To date, jurisdictions and agencies have had an opportunity to comment on 30% and 60% design plans, and thousands of comments have been received and responded to.

In addition to other public outreach community meetings, there have been two sets of major public comment opportunities on plans and designs, with open houses and presentations. These open houses for the public occurred at 30% design (November 2016), and in the spring and summer of 2017 for 60% design. These open houses have been well attended and considerable support for the project has been expressed. These meetings are summarized below.

- There were three separate public meetings in November 2016 (City of Shoreline, City of Mountlake Terrace, and City of Lynnwood). Thirty percent design plans were available for review, Sound Transit staff gave a presentation at each open house, and participants viewed display boards and asked questions of staff. A total of 400 people attended these meetings, with over 3,750 participants in an online open house. A total of 177 comments were received at the three in-person open houses and the online open house. Overall, themes heard across the corridor included:
 - General positivity and excitement for the project—many expressed their support for the project and encouraged more public involvement and updates on project development in the future.
 - Participants showed skepticism for planned access amenities at and to stations, to meet ridership projections; comments specifically noted a perceived need for more bike and car parking at stations to encourage ridership.
 - Comments reflected concerns about resulting traffic congestion and road safety surrounding each station area, noting specific ideas for individual intersections, pedestrian or bike amenities that may solve these issues, and ultimately may be City-led efforts.
- An open house was held on May 24, 2017, in the City of Shoreline at which 60% plans were available for review, a presentation was given, and attendees viewed display boards on the project and asked questions of Sound Transit and consultant staff. For the City of Shoreline open house, 200 people attended the meeting and over 300 have participated in the online open house. Some of the most common comments received included the following:

- Supportive comments about the project in general and layout of the stations (145th Street and 185th Street).
- Some property owners asked for updates on the acquisition process.
- Some property owners wanted to check to see if their properties were still impacted.
- Requests for more bike parking at stations.
- Questions about mitigation plans for the Ronald Bog Park mitigation site.
- April 13, 2017: Ronald Bog Community Meeting Sound Transit and the City of Shoreline Department of Parks, Recreation, and Cultural Services held a meeting to show plans for project wetlands mitigation at the Ronald Bog Park site. About 60 residents attended.
- An open house to review 60% design for the City of Mountlake Terrace was held on June 28, 2017. A total of 160 people attended, and there were 2,584 participants in an online open house. Some of the most common comments received included the following:
 - Not enough parking at Mountlake Terrace Station.
 - Concerns about noise, including a group of residents near 220th Street.
 - \circ $\;$ Several had questions about tree removal/replanting.
 - Supportive comments about the project.
 - Several liked the bus access into the Mountlake Terrace Station area.
 - Several residents from the 59th Place W cul-de-sac wanted to confirm their properties were impacted (temporary parking site during construction).
- For the City of Lynnwood, an open house to discuss 60% design was postponed, in consultation with the City, until summer of 2018 when the 90% design is available.
- Similar open houses are planned for summer 2018 for 90% design in the cities of Lynnwood, Shoreline, and Mountlake Terrace. Notification would also be extended to interested neighborhoods in the City of Seattle.

6.2 PROPERTY OWNER NOTIFICATIONS AND MEETINGS

Sound Transit's Outreach and Real Estate staff have notified by written correspondence all of the additional property owners affected by the 2018 Refinements (not previously notified during the EIS process) whose properties are being acquired (see Section 5.2 and **Attachment B**: List of Additional Potential Acquisitions). Sound Transit staff have talked on the phone with many of these property owners to answer their questions and have met in person with a number of homeowners requesting meetings (see below).

The following is a brief summary of the meetings Sound Transit has held with property owners affected by the 2018 Refinements, and other community meetings related to some of the refinements:

 May 9, 2017: Ridgecrest Park Neighborhood Association Community Meeting - Hosted by the Ridgecrest Park Neighborhood Association; the revised park mitigation plan, which included two additional parcels, was shown (these parcels are included in the discussion found in Section 5.2.4). Approximately 55 residents attended.

- March 29–May 9, 2017: Met with 7 of 8 property owners whose homes would be displaced for temporary parking near the MTS.
- Week of March 29, 2017: Met with two additional property owners affected by the mitigation plan for Ridgecrest Park (see Section 5.2.4).
- Week of March 22, 2017: Impacted Property Owners Letters Sent letters to affected property owners in Mountlake Terrace (eight) impacted by temporary parking plans and two additional property owners in Shoreline affected by the Ridgecrest Park mitigation plans. Individual meetings with property owners began on March 30, 2017.

7 Conclusions

Changes in impacts resulting from the 2018 Refinements were identified and compared to impacts of the 2015 Project. The impacts of the proposed refinements are of similar magnitude to the impacts identified for the 2015 Project and are generally within the range of impacts identified for all alternatives evaluated in the FEIS. None of the refinements would result in new significant impacts not previously identified and evaluated in the FEIS, or substantially different conclusions with regard to the significance of the impacts. Temporary wetland impacts and temporary wetland buffer impacts are outside the range analyzed in the FEIS; however, permanent impacts would be reduced, and the temporarily impacted areas will be restored to a better condition than before. The 2018 Refinements would also reduce other impacts compared to the 2015 Project in some cases, including the number of noise and vibration impacts. The Endangered Species Act effects determination remains valid per the National Marine Fisheries Service (January 30, 2018).

Three additional parks were identified as having potential impacts as a result of the 2018 Refinements. However, the impacts would be minor and would not affect the attributes of the parks that qualify them for protection under Section 4(f). In addition, the officials with jurisdiction over these park resources have concurred with Section 4(f) exceptions, as indicated in **Attachment F**.

In summary, some impacts related to transportation, property acquisition, noise, ecosystems, and parks associated with the 2018 Refinements are different than those disclosed in the FEIS, but all would be mitigated consistent with existing environmental commitments in the ROD. The indirect and cumulative impacts from the various 2018 Refinements would not be significant. The proposed 2018 Refinements do not substantially change the analysis of significant impacts evaluated in the FEIS and no new probable significant adverse environmental impacts would occur. Accordingly, no supplemental EIS is required.

8 References

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