

Chapter 1 - Introduction

Exhibit 1-1: Study area



The Washington State Legislature allocated funds in the 2018 session for a planning study of I-5 between SR 121 in Tumwater and Mounts Road near DuPont to develop mid- and long-term strategies for improving the region's transportation system performance. This report documents the analyses and engagement process Washington State Department of Transportation (WSDOT) and the Thurston Regional Planning Council (TRPC) conducted to develop those strategies with local partners and the community at-large. In addition, the Legislature also directed WSDOT and partners to consider how the proposed transportation strategies can improve salmon habitat and benefit the overall ecosystem in the Nisqually River Delta. Collaborating with local partners, WSDOT and TRPC developed mid- and long-range strategies that meet the study goals as well as support local land use, transportation, and environmental goals focusing on the following items as required by funding legislation¹:

*“The study should further develop mid- and long-term strategies from the corridor sketch, and **identify potential US 101/I-5 interchange improvements, a strategic plan for the Nisqually River bridges, regional congestion relief options, and ecosystem benefits to the Nisqually River estuary for salmon productivity and flood control.**”*

WSDOT approaches solving transportation issues using a process called *Practical Solutions*.² This approach to planning and designing focuses on achieving specific performance outcomes and working collaboratively with communities and partners in order to make the right investments in the transportation system at the right place and at the right time. For example, investing in incremental and multimodal improvements first, such as Transportation Systems Management and Operations or non-highway solutions, can avoid or delay costly expansion.

¹ Engrossed Substitute Senate Bill 6106, page 45 line 37 – page 46 line 6. <http://lawfilesexternal.leg.wa.gov/biennium/2017-18/Pdf/Bills/Session%20Laws/Senate/6106-S.SL.pdf>

² WSDOT Practical Solutions webpage <https://www.wsdot.wa.gov/about/practical-solutions>

The study area

This study focused on I-5 between the 93rd Avenue SW interchange in Tumwater (milepost 99) and Mounts Road east of the Nisqually River (milepost 116) and the nearby area. The study area includes the cities of Tumwater, Olympia, Lacey, unincorporated parts of Thurston and Pierce Counties, the Billy Frank Jr. Nisqually National Wildlife Refuge, and is near the Nisqually Indian Tribe Reservation. In addition to I-5, study partners considered communities' multimodal transportation facilities, such as local roads and transit, in their analysis. The study area's northern end is near Joint Base Lewis-McChord (JBLM) and the city of DuPont. Most of the surrounding area is suburban or urban with rolling terrain. There are also two large valleys along the Nisqually and Deschutes rivers.

This segment of I-5 experiences recurring delay or congestion due to high traffic volumes and weaving at interchanges, which reduces vehicle throughput. These issues occur mostly at three locations during peak commute periods: the US 101 interchange at Exit 104; within the Olympia and Lacey urban growth areas between Exits 105 and 109; and near the Nisqually River bridges.

I-5 and the Puget Sound regional context

I-5 is the primary north-south route along the United States' west coast, connecting most major cities between Canada and Mexico. This segment of I-5 in particular is an important freight corridor, providing the only high-speed, north-south interstate corridor on the west side of the Cascade Mountains for trucks serving major seaports in Seattle, Tacoma, and Vancouver B.C. and Seattle-Tacoma International Airport. Trucks on this section of I-5 make up 10.2% to 13.4% of all traffic. Between 11,000 and 14,000 trucks use this section of I-5 daily, the third-highest daily truck volume across the state³.

³ WSDOT Freight and Goods data layer- <https://wsdot.maps.arcgis.com/home/item.html?id=09185bbba7c94253a26961489bb8ad20>



Commuters pull up to Joint Base Lewis-McChord's main gate. Photo courtesy of South Sound Military and Communities Partnership.

I-5 is important for operation of Joint-Base Lewis-McChord

In addition to its important role in commerce, this section of I-5 provides access to JBLM, the U.S. Department of Defense's premier west coast military installation and one of the largest military bases in the country. JBLM's location along I-5 and access to nearby seaports are essential to the base's function as a power projection platform. JBLM is the largest single-location employer in Washington State and the largest employer in Pierce County. Roughly 52,000 service members and civilians work at the base and 85% live off post⁴ and many use I-5 to access the base.

I-5 is a major commuting corridor in south Puget Sound

I-5 is also important for local commuting and travel, connecting Olympia and Tacoma and providing local access to communities in between. Commuter destinations along the corridor include major employment centers like the state capitol, JBLM, downtown Tacoma, and other commercial and industrial centers. Multiple transit agencies provide bus and vanpool services, and

there are multiple park-and-ride lots along the corridor. Sound Transit and Amtrak Cascades provide commuter and intercity/long-distance rail service, respectively. Bicycles are permitted on some of I-5 where alternate facilities are limited. A shared-use trail follows I-5 through Olympia and Lacey connecting with other regional trails. There is no trail connection between Thurston and Pierce counties so bicyclists must use highway or local roadway shoulders.

Alternate routes and capacity for I-5 are extremely limited

One of the reasons I-5 is so critical for regional and national travel is it is the only major highway connecting Thurston and Pierce counties. State Route 507 near Yelm and Nisqually Cutoff Road provide the only other connections. During major traffic disruptions, these two routes and a 75-mile detour around the west side of south Puget Sound through Tacoma, Purdy, and Shelton are the only alternates available to non-military vehicles. Other alternate routes such as Perimeter Road through JBLM and a gated maintenance path connecting to Mounts Road in DuPont just north of the Mounts Road interchange have only been made available during major disruptions such as the 2017 Amtrak derailment.

The Nisqually River and its delta

The Legislature directed WSDOT to consider "ecosystem benefits to the Nisqually River estuary for salmon productivity and flood control" in addition to considering transportation performance issues. The river and its delta – the traditional home of the Nisqually Indian Tribe – are designated critical habitat under the Endangered Species Act for listed Chinook salmon and steelhead and are critical to the exercise of the Nisqually Tribe's treaty rights. I-5 passes directly through this environmentally important and sensitive area and which has issues with adequate sediment delivery the delta, salmon habitat, and flooding.



Interstate 5 crosses the main stem of the Nisqually River just upstream of where it meets Puget Sound.

⁴ South Sound Military and Communities Partnership- <https://cityoflakewood.us/south-sound-military-and-communities-partnership/>