

Memorandum

Date: June 30, 2022
To: Steve Clark and Jeff Hamlin, City of Snoqualmie
From: Tino Jonga, EIT and Chris Breiland, PE, Fehr & Peers
Subject: **Snoqualmie Parkway Jurisdictional Traffic Analysis**

SE22-0854

Introduction

The City of Snoqualmie is interested in exploring the feasibility of transferring ownership of Snoqualmie Parkway to the Washington State Department of Transportation (WSDOT). In 2009, the House Committee on Transportation designated the Washington State Transportation Commission (WSTC) the responsibility to review route jurisdiction transfer requests from cities, counties, or the state and to provide recommendations to the Senate and House Transportation Committees prior to a legislative session.¹ WSTC utilizes criteria outlined in RCW 47.17.001² in evaluating jurisdiction transfer requests. This memorandum documents a traffic analysis conducted pursuant to the criteria described in RCW 47.17.001 to provide data for the City of Snoqualmie to consider with respect to transferring ownership of Snoqualmie Parkway to WSDOT.

Jurisdictional Transfer Review

Snoqualmie Parkway is a two-lane divided arterial that facilitates both regional and local trips in the City of Snoqualmie. The City of Snoqualmie's proposed transfer extents encompass the full length of the Snoqualmie Parkway from the terminus of State Route 18 (SR 18) to Railroad Avenue/State Route 202 (SR 202), as shown in **Figure 1**. In relation to RCW 47.17.001, the most relevant criteria related to this type of jurisdictional transfer include:

- **RCW 47.17.001 (2a):** [The highway] is part of an integrated system of roads and carries in excess of three hundred thousand tons [freight] annually and provides primary access to a rural port or intermodal freight terminal.

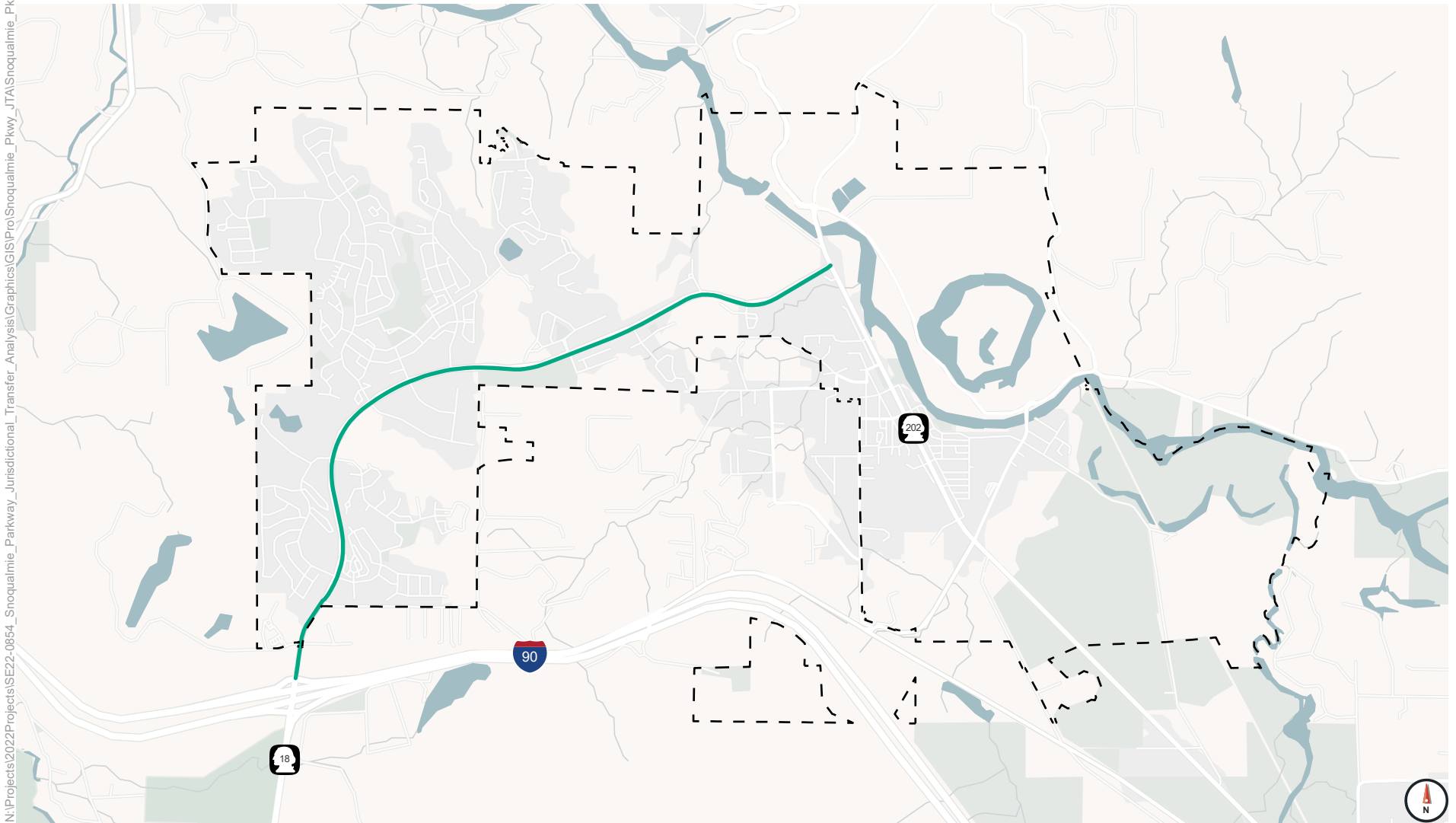
¹ House Committee on Transportation. House Bill Report SB 5028, 2009.

² Washington State Legislature. RCW 47.17.001: Criteria for changes to system.



- **RCW 47.17.001 (3c):** [The highway] is an urban extension of a rural state highway into or through an urban area and is necessary to form an integrated system of state highways.
- **RCW 47.17.001 (3d):** [The highway] is a principal arterial that is a connecting link between two state highways and serves regionally oriented through traffic in urbanized areas with a population of fifty thousand or greater, or is a spur that serves regionally oriented traffic in urbanized areas.

The subsequent sections present an in-depth review of each of the relevant criteria with respect to the existing conditions of Snoqualmie Parkway using various data sources, including WSDOT's 2021 Freight and Goods Transportation System update, historical traffic count data, and Big Data (location-based services and navigation global positioning system (GPS) data from anonymized smartphones and navigation devices in vehicles).



Legend



-  City_Limits
-  Snoqualmie_Parkway



Figure 1

Study Corridor - Snoqualmie Parkway



RCW 47.17.001 (2a)

The criterion described under **RCW 47.17.001 (2a)** merits a highway based on its role in facilitating freight and good movement. Snoqualmie Parkway is a designated truck route of the state's Freight and Goods Transportation System (FGTS), a Washington-specific freight designation system, which classifies the state's freight corridors by modes based on annual freight tonnage moved through truck, rail, and waterway freight corridors (illustrated in **Figure 2** and **Figure 3**).³ Based on 2021 WSDOT data, Snoqualmie Parkway is classified as a T-3 corridor that facilitates the transportation of more than three hundred thousand but less than four million tons of freight per year. Consequently, this highlights the critical role of the highway in freight and goods movement as it exceeds the minimum threshold of three hundred thousand tons of freight per year outlined under **RCW 47.17.001 (2a)**. Furthermore, 2018 and 2020 traffic counts indicate that about ten percent of average daily traffic on the highway is attributed to heavy vehicle traffic.

Part of the criterion also requires that a highway provides primary access to a rural port or an intermodal freight terminal. However, out of the 74 ports in the state, none are located in the immediate vicinity of Snoqualmie Parkway, and neither is an intermodal freight terminal. To fully understand where trucks are coming from or going, the project team utilized truck "Big data" from StreetLight Data, which offers several trip-making metrics from navigation-GPS data from a commercial fleet management system. StreetLight Data uses truck data with two classification categories: medium-duty commercial vehicles, defined as those between 14,000 and 26,000 lbs. and heavy-duty commercial vehicles, defined as those over 26,000 lbs.

Figure 2 and **Figure 3** highlight the key origins and destinations for trucks that access Snoqualmie Parkway using all-day truck trip activity data for all days of the week during the months of July and August in 2021. As illustrated in **Figure 2**, the highway not only serves as an access link for trucks originating within city limits or the North Bend/Tanner area but also from different parts of the Puget Sound region, including the Port of Tacoma, Kent Manufacturing/Industrial Center (MIC), warehouses in Kent and Redmond. Similar trends are shown in Error! Reference source not found. Notable daily truck activity is observed for trucks accessing the area on the northeast side of the City of Snoqualmie, where commercial logging and aggregate extraction/processing occurs. To further reinforce the highway's freight significance, the project team also reviewed pass-through truck trips along Snoqualmie Parkway (trips that neither originate nor have destinations within city limits). One-third of truck trips along Snoqualmie Parkway are pass-through trips to and from other parts of the Puget Sound region, and only 15 percent of all truck trips utilizing Snoqualmie Parkway have an origin-destination pair within city limits. These findings emphasize Snoqualmie Parkway's role in connecting resource extraction

³ WSDOT. Washington State freight and Goods Transportation System (FGTS) Update, 2021.



activities in East King County to regional manufacturing and export facilities that are linked by the state highway network.

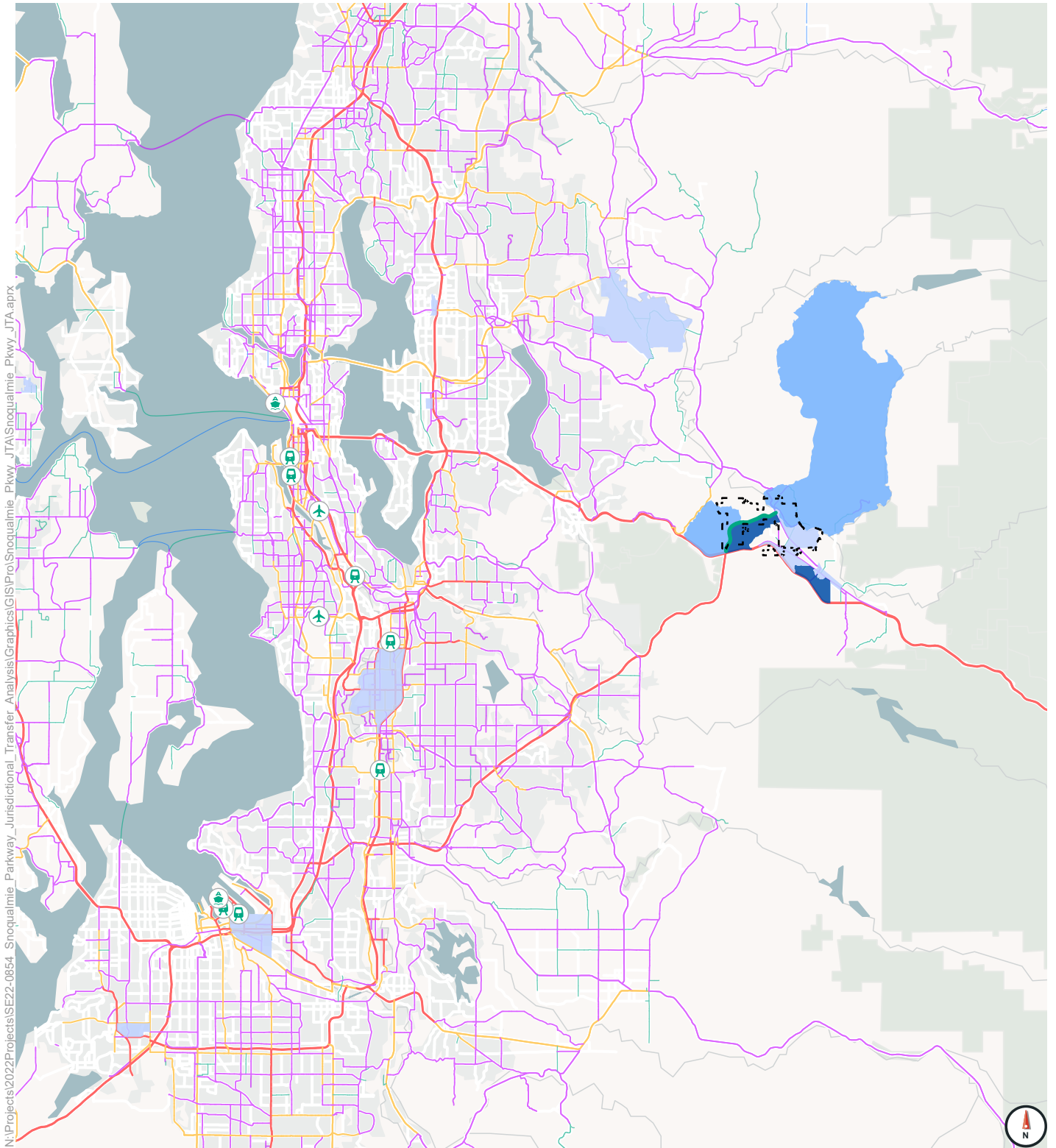


Figure 2

Regional Freight Significance of Snoqualmie Parkway Top Truck Origin Locations



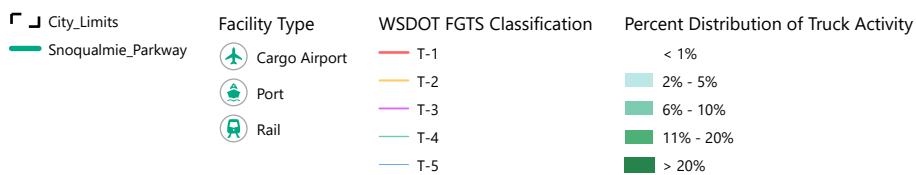
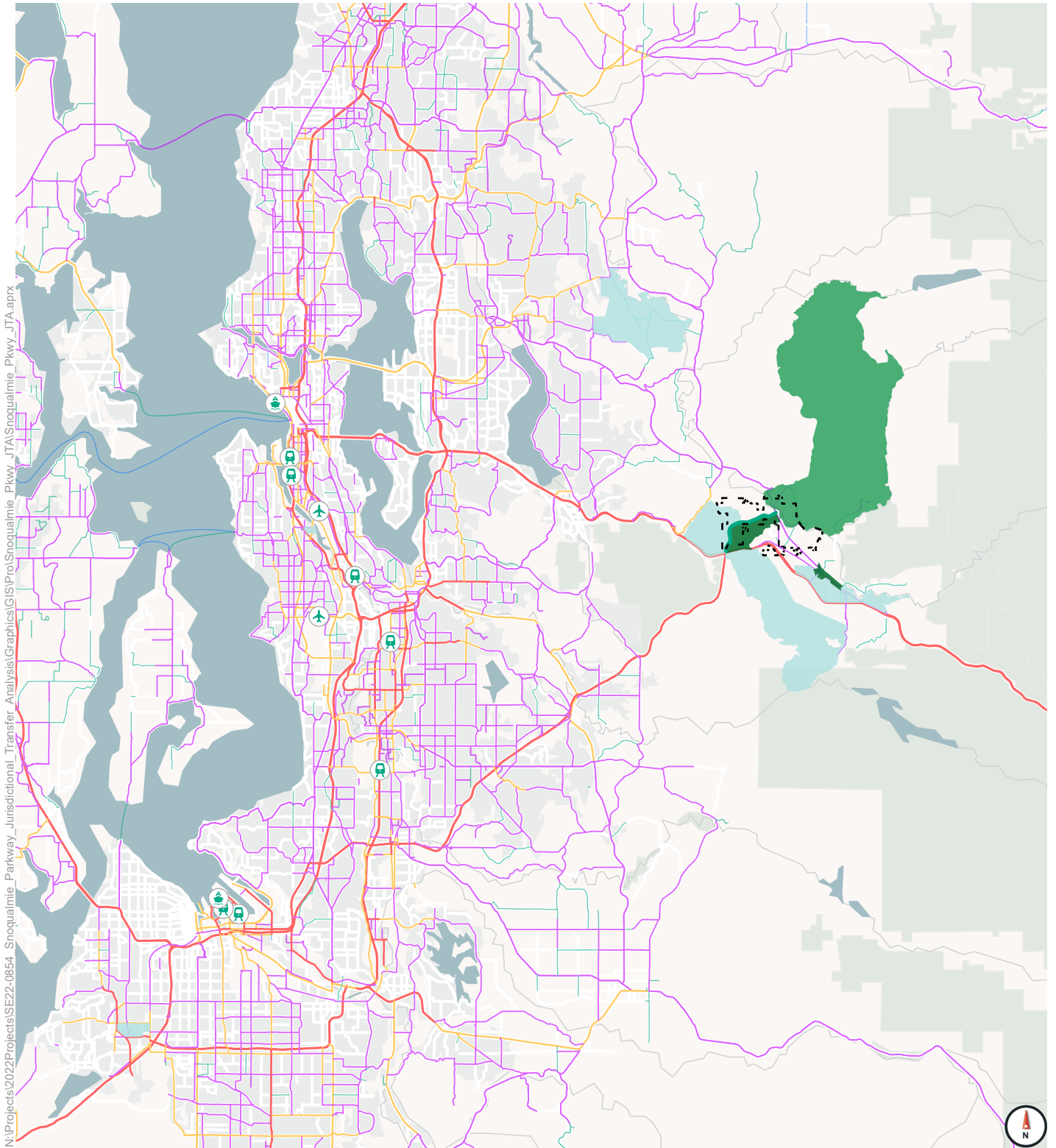


Figure 3

Regional Freight Significance of Snoqualmie Parkway Top Truck Destination Locations





RCW 47.17.001 (3c)

Snoqualmie Parkway also meets the criterion described under **RCW 47.17.001 (3c)** for jurisdiction transfer from the city to WSDOT. As illustrated in **Figure 1**, the southern terminus of the highway is directly connected to SR 18; therefore, the highway serves as a natural extension of the state highway system, linking SR 18 to SR 202 through the City of Snoqualmie, which is part of the Census Bureau's urban area designation for the greater Puget Sound Region.

RCW 47.17.001 (3d)

To discuss the relevance of criteria **RCW 47.17.001 (3d)**, the project team relied on both GPS and LBS data from StreetLight Data. In addition to the truck GPS data discussed earlier, trip activity for passenger cars was compiled to obtain a comprehensive picture of traffic on Snoqualmie Parkway. Similar to the truck data, the passenger-car data included all-day trip activity for all days of the week during the months of July and August in 2021. Passenger cars accessing Snoqualmie Parkway have a geographic coverage that extends throughout the Puget Sound region. Approximately two-thirds of the total passenger-car trips are regional in nature; the trips have an origin or destination beyond city limits. Approximately 23 percent of passenger-car trips have an origin or destination more than 5 miles away from Snoqualmie Parkway and about 17 percent more than 10 miles away. The top routes for these regional passenger-car trips include Interstate 90 and SR 202.

As highlighted earlier under **RCW 47.17.001 (2a)**, Snoqualmie Parkway plays a critical role in facilitating freight and goods movement. 85 percent of trucks accessing Snoqualmie Parkway are regional in nature, and 34 percent neither originate nor have destinations within city limits, thus only using Snoqualmie Parkway as a connecting link between other state highways. Looking at both passenger-car and truck trips, it is evident that Snoqualmie Parkway serves regionally oriented through traffic.

Conclusion

Based on the travel pattern data reviewed against the guidelines outlined in RCW 47.17, it is evident that there is justification for a jurisdictional transfer from the City of Snoqualmie to WSDOT. Specifically, as it relates to the criteria described in RCW 47.17.001, Snoqualmie Parkway is a designated T-3 freight corridor that is part of an integrated Freight and Goods Transportation System (FGTS) and carries more than three hundred thousand tons of freight per year between resource extraction sites and regional manufacturing and industrial centers and the Port of Tacoma. Additionally, the highway is a natural extension of SR 18 through Snoqualmie, forming an integrated system of state highways SR 202 to I-90, SR 169, SR 516, SR 164, SR 167, and I-5. Snoqualmie Parkway also serves regionally oriented traffic from the greater Snoqualmie/North Bend area. One-third of truck trips on Snoqualmie Parkway are pass-through trips to and from other parts of the Puget Sound region, and only 15 percent of all truck trips utilizing Snoqualmie



Parkway have an origin-destination pair within the City of Snoqualmie. Furthermore, two-thirds of the total passenger-car trips are regional in nature; the trips have an origin or destination beyond city limits, accessed using other state highways – primarily I-90 and SR 202. Approximately 23 percent of these trips have an origin or destination more than 5 miles away from Snoqualmie Parkway and about 17 percent more than 10 miles away.