



**King County**

## **Appendix C: Transportation**

### **2020 update to 2016 King County Comprehensive Plan**

July 20, 2020

# APPENDIX C: TRANSPORTATION

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# 1. Requirements of the Transportation Element

Specific requirements for the transportation element are found at RCW 36.70A.070(6)(a). The transportation element of the *King County Comprehensive Plan* (the Plan) meets those requirements as follows:

- **Land Use Assumptions.** The transportation element is based on the same population and employment growth targets provided in Chapter 2 (Urban Communities) of the *King County Comprehensive Plan*.
- **Estimated Traffic Impacts to State-Owned Facilities.** The travel forecast in Technical Appendix C uses the Puget Sound Regional Council Travel Model, which incorporates state-owned facilities.
- **An Inventory of Transportation Facilities and Services.** The inventory is provided in Appendix C of the *King County Comprehensive Plan*. As required by growth management legislation, it includes air, water, and ground transportation facilities and services as well as transit alignments and general aviation airport facilities. It includes both county-owned and state-owned transportation facilities within the county's boundaries.
- **Level of Service Standards including Standards for State Routes.** King County has adopted urban and rural area level of service standards for its Transportation Concurrency Management Program. The PSRC uses regional level of service standards to evaluate facilities, including state routes.
- **Actions to Bring Facilities into Compliance.** King County's Transportation Needs Report is adopted by reference with the *King County Comprehensive Plan*. In addition, the Roads Capital Improvement Program, guided by the Strategic Plan for Road Services, identifies specific projects, strategies, and actions to address transportation needs.
- **Traffic Forecasts for at Least Ten Years.** King County's Transportation Needs Report is prepared using the Puget Sound Regional Council's Travel Model which has a 2031 horizon year.
- **State and Local Transportation Needs to Meet Current and Future Demands.** The County's Transportation Needs Report identifies local system needs, the Roads Strategic Plan establishes the priorities, and the Capital Improvement Program provides the funds for projects. State and local transportation needs are included in the Puget Sound Regional Council travel demand forecasts provided in the *King County Comprehensive Plan* Technical Appendix C. These transportation elements address the Growth Management Act requirement of identifying state and local system needs to meet current

and future demand.

- **Analysis of Funding Capability.** A financial analysis is included in the Transportation Needs Report, which is adopted as an element of the *King County Comprehensive Plan*. More information on the financial analysis and supporting policies is provided in Chapter 8 of the *King County Comprehensive Plan*.
- **Intergovernmental Coordination.** King County contacted adjacent cities, counties, and state transit agencies as part of its update to the Transportation Needs Report (TNR). The Puget Sound Regional Council's Travel Model informs preparation of the TNR and the TNR's identified regional capacity project needs are also included as part of PSRC's adopted Transportation 2040, a key input in the agency's regional travel demand analysis.
- **Transportation Demand Management.** King County includes transportation demand management strategies in its policies, codes and project implementation, as well as providing support for others through its transit, rideshare, and market strategies. Chapter 8 of the *King County Comprehensive Plan* and the Transportation Inventory of this appendix contain more information on TDM-related efforts by King County.
- **Nonmotorized Transportation.** King County's Transportation Needs Report and Regional Trails Needs Report identify candidate improvements for pedestrian and bicycle facilities in support of enhanced community access, multimodal transportation and healthy lifestyles. Chapter 8 of the *King County Comprehensive Plan* also provides additional detail regarding this topic.
- **Concurrency.** The Concurrency program is described in Chapter 8 of the *King County Comprehensive Plan*.
- **Consistency of Plans.** The *King County Comprehensive Plan* is consistent with Transportation 2040, the regional transportation plan for the four-county region. Transportation 2040 is consistent with the region's urban growth strategy, Vision 2040, which is also developed by the Puget Sound Regional Council. The Puget Sound Regional Council reviews the *King County Comprehensive Plan* for consistency and has certified previous versions of the Plan and its amendments. The *King County Comprehensive Plan* provides policy direction for the development of the County's related functional plans.

## 2 King County Arterial Functional Classification

Arterial functional classification is the designation of highways, roads and streets into groups according to the “function” each road serves or is intended to provide. A foundational principle to this grouping process is that individual roads do not serve travel independently; instead, most travel involves movement through a network of roads. Functional classification helps to define the part that any individual road will play in serving traffic through the road system. There are two primary functions of a road: to provide mobility for users, and to provide access to adjacent land uses. Functional street classification is an important tool for planning a transportation or roadway system, as well as in designing and constructing individual facilities. The classification system and King County Road Standards are used to distinguish between different types of roads for planning analyses, road design, and for allocating public funds for transportation improvements.

In unincorporated King County, there are three types of arterial functional classifications:

- **Principal Arterials** - Provide for movement across and between large subareas of an urban region and serve primarily through traffic with minimum direct access to neighboring land uses. Note that Freeways and major highways under the jurisdiction of the Washington State Department of Transportation that fall within unincorporated King County also meet this definition, and are sometimes also referred to as Principal Arterials.
- **Minor Arterials** - Provide for movement within the larger subareas bound by principal arterials. A minor arterial may also serve through traffic but provides more direct access to adjacent land uses than does a principal arterial.
- **Collector Arterials** - Provide for movement within smaller areas which are often definable neighborhoods, and which may be bound by arterials with higher classifications. Collectors serve very little through traffic and serve a high proportion of local traffic requiring direct access to adjacent properties. Collector arterials provide the link between local neighborhood streets (i.e. non-arterials) and larger arterials.

Locations of proposed changes to current adopted Arterial Classifications are found in the map (Figure 1), “2020 King County Functional Arterial Classification Changes”, and described in Table 1.



Table 1. 2020 King County Functional Arterial Classification Changes

Map #	Road	Limits	Existing KC Arterial Classification	2020 KC Arterial Classification Change
1	154 PL NE	NE 124 St to NE 116 St	Local	Collector
2	Cedar Park Crescent NE/NE Cedar Park Crescent	NE Novelty Hill Rd to Redmond Ridge Dr NE	Local	Collector
3	NE Cedar Park Crescent	Redmond Ridge Dr NE to Eastridge Dr NE	Local	Collector
4	Eastridge Drive NE	NE 110 St to NE Cedar Park Crescent	Local	Collector
5	14 Ave S	Des Moines Memorial Drive S to SR-99 SB on-ramp	Local	Minor
6	S 129 St/64 Ave S/68 Ave S	S 129 St to Renton Ave S	Collector	Minor
7	68 Ave S	SR-900 to Renton CL	Collector	Minor
8	S Star Lake Rd	Military Rd S to S 277 St	Local	Collector
9	55 Ave S	S 277 St to Auburn City Limits	Collector	Minor

# 3 Transportation Inventory

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## 3.1 Introduction

### 3.1.1 Requirements

The Growth Management Act [RCW 36.70A.070(6)(A)] requires an inventory of air, water, and land transportation facilities and services, including transit alignments, and general aviation facilities, to define existing capital facilities and travel levels as a basis for future planning. The inventory must include state-owned transportation facilities within the unincorporated King County boundaries. This document fulfills this requirement by describing King County's multi-modal transportation system and by identifying available resource materials.

### 3.1.2 Process

The County's approach to the inventory construction is that of reference, rather than collection. This approach will enable planners to evaluate inventory information and determine what data will best meet their studies' requirements. Even though the scope of the Comprehensive Plan Transportation Element is primarily focused on unincorporated King County, the scope of the Transportation Inventory is generally countywide.

### 3.1.3 Coordination

The regional coordination of land use and transportation is mandated by the Growth Management Act [RCW 47.80.010].<sup>1</sup> King County has taken an active role in assuring a regionally coordinated transportation system. In cooperation with other central Puget Sound jurisdictions, King County is striving towards a regional approach to important planning issues such as level of service, concurrency, locations of regional and countywide transportation facilities, financing, nonmotorized transportation, and Transportation Demand Management.

### 3.1.4 Organization

The inventory is organized into three categories—(1) an inventory of the air transportation facilities and services; (2) an inventory of marine transportation facilities and services; and (3) an inventory of land transportation facilities and services.

## 3.2 Air Transportation System

The Growth Management Act requires an inventory of the air transportation system to define existing capital facilities and travel levels as a basis for future planning. The air transportation system plays an important role as part of the regional and national transportation network because it provides for quick and efficient intrastate, interstate, and international travel of passengers and cargo.

King County public-use airports represent an essential element of the County's transportation system and provide critical support to the King County economy. Sixteen airports are located within King County. The King County airports span a broad range in terms of scale and role, from the Port of Seattle, Seattle-Tacoma International Airport to King County International Airport-Boeing Field, to seaplane facilities and small privately owned airstrips. The King County airport inventory consists of public use and privately owned airport facilities which are open to the public.

The Puget Sound Regional Council (PSRC), Air Compatible Land Use Program Update Study, December 2011, included a wide variety of activities related to planning and support for the central Puget Sound region's public use airport system. Program activities were included such as airport ground access planning, regional air cargo planning, cooperative efforts with the WSDOT Aviation Division in planning for long-range airport capacity, and ongoing efforts to address airport compatible land use under the PSRC's Growth Management Act (GMA) authority. WSDOT released an update to the state Aviation System Plan in July, 2017.

The Air Compatible Land Use Program Update Study, King County International airport is in the final stages of completing an airport master plan update. Information on this, the Port of Seattle, and Airport statistics are available at:

<https://www.psrc.org/air-transportation>

<https://www.kingcounty.gov/services/airport/planning.aspx>

<https://www.portseattle.org/page/airport-statistics>

## 3.3 Marine Transportation System

The Growth Management Act requires an inventory of the marine transportation system to define existing capital facilities and travel levels as a basis for future planning. The marine transportation system plays an important role in the movement of people and goods within King County, supplying the main commuter link between Seattle's central business district and the west Puget Sound corridor and as the hub network for local, regional and international freight movements.

The marine passenger transportation system serves the entire Puget Sound region from Tacoma to Sidney, British Columbia. The facilities that serve King County include ferry terminals and vessels servicing ferry routes. Ferry services are provided by Washington State Ferries, King County Marine Division (KCMD), and Kitsap Transit. Other passenger-only ferry operators, such as Argosy and Clipper Vacations, offer more recreational and travel-related services. Additional plans are underway for future passenger-only ferry service on Puget Sound between Ballard and Downtown Seattle, on Lake Washington, and on Lake Union.

### 3.3.1 Washington State Ferries

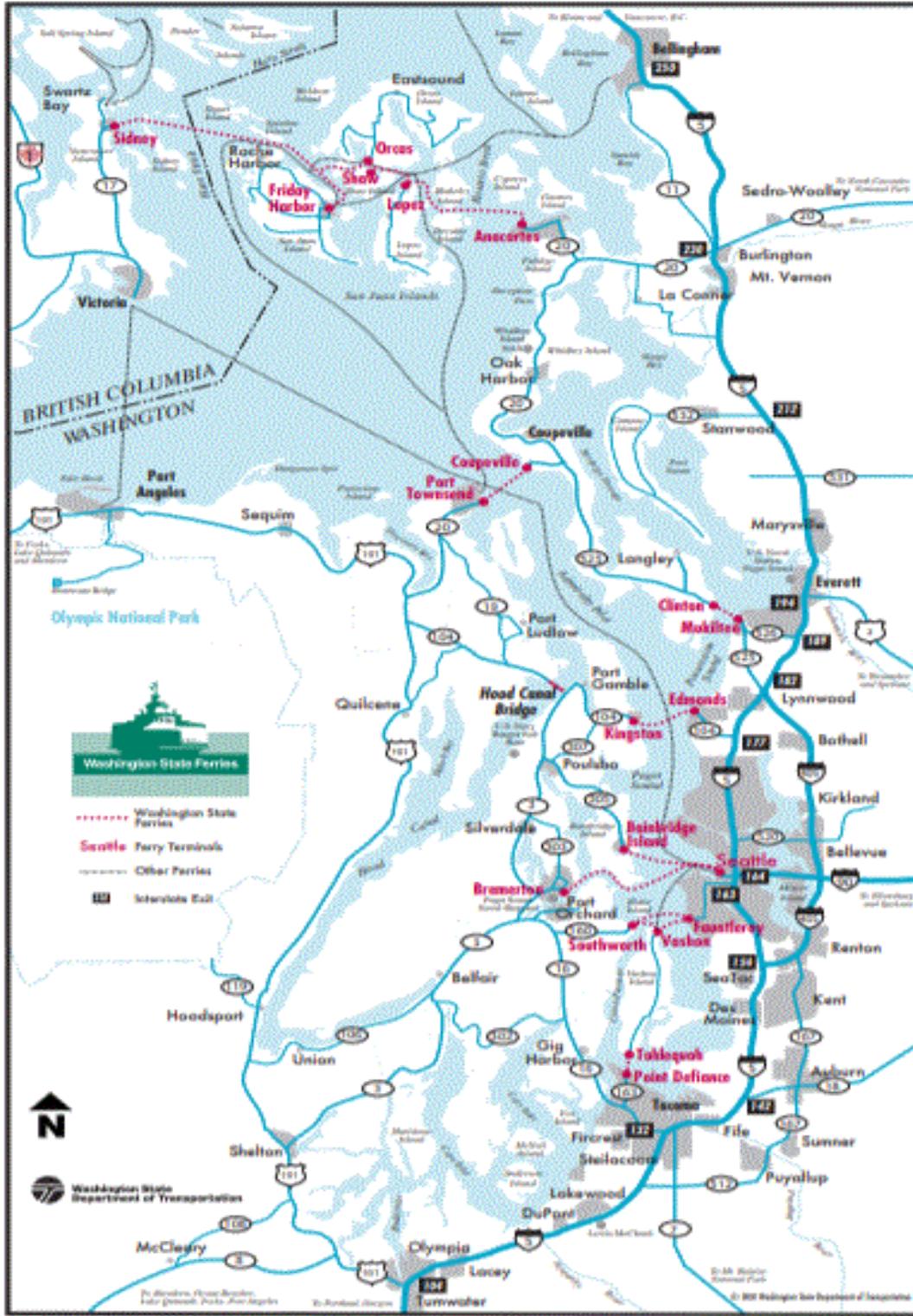
The Washington State Ferry System was established in 1951 and is the largest ferry system in the United States. The system includes 20 terminals and 23 vehicle/passenger ferries, carrying over 24.5 million passenger and vehicle trips annually. A vehicle reservation system continues to expand on select routes to spread demand and reduce capital improvement costs associated with traffic control.

Washington State Ferries provides service to 20 different communities in 8 different counties, including King County. The system serves two vital transportation functions: As a marine highway and as a transit service provider. Ferries provide frequent mainland access to several island communities, including Vashon Island in King County, Bainbridge Island in Kitsap County, and Whidbey Island in Island County. Washington State Ferries take people to and from work in the downtown Seattle business corridor and to other communities on the east and west sides of Puget Sound.

Detailed information about the Washington State Ferry System and the 2040 Long-Range Plan are available at:

- <http://www.wsdot.wa.gov/ferries/>
- <https://www.wsdot.wa.gov/sites/default/files/2019/01/07/WSF-2040-Long-Range-Plan-2019.pdf>

# Washington State Ferries Route Map



### 3.3.2 King County Marine Division

The King County Metro Transit Department's Marine Division is responsible for the operations, moorage, and maintenance of the vessels that provide passenger-only ferry services in King County. Passenger-only ferry services are currently provided between downtown Seattle, Vashon Island, and West Seattle.

The Marine Division operates out of three terminals: Pier 50 in downtown Seattle is home to a new King County owned ferry terminal and part of the Colman Dock multi-modal hub. The ferry dock on Vashon Island is leased from Washington State Ferries. The West Seattle ferry dock, located at Seacrest Park, is leased from the Seattle Parks Department. King County Marine Division owns a moorage and maintenance barge located at Pier 48 on the Seattle waterfront.

The Marine Division owns three vessels: The MV Sally Fox and MV Doc Maynard are vessels constructed for the Marine Division in 2014 – 2015. Each vessel is certified for a capacity of 278 passengers and operated by a crew of three. The MV Spirit of Kingston is a 150 passenger vessel and is used to back up the two in-service vessels. It also operates with a crew of three.

In 2018, King County's Water Taxi provided service for over 660,000 passengers system-wide. Passenger ferry services provide reliable trip planning as regional waterways are not subjected to the typical congestion of our roadway network. As population increases and the demand for additional transportation options grow, more communities are evaluating passenger ferry services as part of the solution. Recent examples include Kitsap Transit, which implemented a Bremerton to Downtown Seattle service in 2017 and a Kingston to Downtown Seattle service in 2018. Kitsap Ferry has plans for a Southworth to Downtown Seattle route beginning in 2020.

The Cities of Tacoma and Olympia are also studying routes from the south Sound to Seattle. Passenger-only plans are also underway for passenger ferry service to be considered on Lake Washington and Lake Union.

### King County Water Taxi Route Map



Additional information on services provided is available at:

- <https://www.kingcounty.gov/depts/transportation/water-taxi.aspx>
- <http://www.kitsaptransit.com/service/category/fast-ferry>
- <http://cms.cityoftacoma.org/pds/fastferrystudyresults.pdf>

### 3.3.3 Port of Seattle Marine Facilities and Services

The Port of Seattle plays a key role in the maritime sector in the Pacific Northwest. Through commercial fishing, cargo shipping, cruise, recreational boating, and maritime industrial development, the Port of Seattle and local maritime industries make our region more globally competitive while focusing investments towards environmental and community health. The Port operates:

- Two passenger cruise ship terminals: Smith Cove Terminal at Pier 91 and Bell Street Terminal at Pier 66.

- Three fishing and commercial moorages: Fishermen’s Terminal, Maritime Industrial Center and Terminal 91
- Five small boat marinas: Bell Harbor, Fishermen’s Terminal, Harbor Island, Salmon Bay, and Shilshole Bay
- Six waterfront parks: 8<sup>th</sup> Avenue South Park, Bridge Gear Park, Centennial Park, Jack Block Park, Seattle Fishermen’s Memorial, and Terminal 105 Park

Publications on seaport activities, facilities plans, and service and activity levels are available at: <https://www.portseattle.org/maritime/maritime-home>

## 3.4 Land Transportation System

This section includes a wide range of information and references for land transportation related facilities, services and transportation demand management programs in King County. This information provides a foundation for the Comprehensive Plan transportation element and for future transportation planning.

### 3.4. 1 Unincorporated King County Roads

King County maintains a detailed inventory of assets that comprise the county’s unincorporated roadway system. Physical features include information on pavement type, roadway and shoulder width, number of lanes, median, retaining and sea walls, guardrails, sidewalks and walkways. Administrative features include information such as the roadway’s functional classification, its comprehensive plan designation, and location in the urban or rural areas. The unincorporated-area road system owned and managed by Roads includes the following asset inventory (numbers are approximate):<sup>1</sup>

- 1,466 miles of roadways
- 182 bridges, including several jointly owned with cities
- Over 47,000 traffic control signs
- 80 traffic signals
- 114 miles of protective guardrail
- 54 traffic cameras
- 4.7 million feet of drainage ditch
- 3 million feet of drainage pipe

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<sup>1</sup> Based on best available data from spring 2018 Roads inventory data. Data represents a point in time and can change slightly throughout the year.

### Pavement

Pavement deteriorates naturally over time. As it ages, the pavement and underlying road base become increasingly susceptible to the impacts of stormwater, weather and temperature changes, and growing traffic volumes. Roads monitors the condition of unincorporated King County roads by assessing and tracking pavement condition over time. Roads conducts regular field assessments of all roadways to visually determine the condition of the pavement using the County Road Administration Board visual data collection system. Arterial roads are inspected every two years and local roads are inspected every three years. For more information on the Pavement Management System, contact the King County Department of Local Services, Road Services Division. Current road resurfacing project information is available at:

<http://www.kingcounty.gov/depts/transportation/roads/paving-projects.aspx>

### Bridges

King County Road Services Division owns and maintains 182 bridges in the unincorporated area of King County. Built over many generations, these bridges are made of concrete, steel, timber, or a combination of the three building materials. King County's bridge inventory includes long span bridges (those over 20 feet in span length, which appear on the national bridge inventory), short span bridges, safety enhancement bridges that keep wildlife off roadways, and pedestrian bridges. King County's bridge inventory includes:

- 178 vehicular bridges
- 3 pedestrian bridges
- 1 safety corridor bridge

An updated list of bridge needs is included in the Annual Bridge Report, which is prepared each year by the King County Department of Local Services Road Services Division to fulfill the requirements of Washington Administrative Code (WAC) 136-20-060. Roads Services is required to review and update its list of bridge needs for replacement/rehabilitation, seismic retrofit, and re-decking annually, preparatory to the Capital Improvement Program budgeting process. The King County Annual Bridge Report is available at:

<http://www.kingcounty.gov/depts/transportation/roads/bridges.aspx>

### Roadside Barriers (Guardrails)

One way King County promotes safety on county-maintained unincorporated roads is by installing new guardrails, repairing existing barriers and rails, and upgrading older guardrails to meet current roadway standards. This network includes approximately 114 miles of guardrail. More information on guardrails can be obtained by contacting the Road Services Division, Engineering Services Section.

### Traffic Control Devices

Traffic control devices are signals and information systems used to regulate, warn, or guide both vehicular and pedestrian traffic. These devices are placed on, over, or adjacent to a roadway, pedestrian path, or shared-use path. Examples of traffic control devices include traffic signals, signs, and pavement markings. Information on traffic control devices can be obtained by contacting the Roads Services Division, Traffic Section at:

<http://www.kingcounty.gov/depts/transportation/roads/traffic.aspx>

### Traffic Counts

Information on unincorporated area traffic counts can be found at:

<http://gismaps.kingcounty.gov/TrafficCounts/>

### Safety

The Road Services Division produces an annual Traffic Safety Report. This report reviews collision trends within unincorporated King County in the ongoing effort to reduce the number and severity of collisions. The report is intended to provide critical information that can be used to better allocate limited safety funds, increase driver awareness of safety concerns, and improve the safety of the traveling public. King County Traffic Safety Reports are available at:

<http://www.kingcounty.gov/depts/transportation/roads/traffic.aspx> Washington State

Department of Transportation, statewide travel and collision data is available at:

[http://www.wsdot.wa.gov/mapsdata/tdgo\\_home.htm](http://www.wsdot.wa.gov/mapsdata/tdgo_home.htm)

### Maintenance Facilities

King County Road Services' Roads Maintenance Section is responsible for enhancing and maintaining over 1,400 miles of paved roadway. More information on the Roads Maintenance Section, including a map of maintenance divisions and shop locations, is available at:

<http://www.kingcounty.gov/depts/transportation/roads/road-maintenance.aspx>

### King County Heritage Corridors

In an effort to preserve the county's transportation history, King County has identified nine "Heritage Corridors" in unincorporated King County. These corridors share King County's history through its most formative decades of development, from the 1870s through the 1930s. They touch on industrial, commercial, agricultural, and maritime themes. Identification of these Heritage Corridors helps the county maintain and operate its historic and scenic roads in keeping with their unique character.

The Heritage Corridors program also includes public education materials that enhance the public's travel experience and lead to a greater understanding and appreciation of the region's

transportation history. The county also encourages adjacent private property owners to support the preservation of the corridors

The identified Heritage Corridors are:

- Cedarhurst Road / Westside Highway, Vashon Island
- Dockton Road, Vashon-Maury Island
- Green Valley Road, Auburn-Black Diamond
- Issaquah-Fall City Road, Snoqualmie Valley
- Osceola Loop, Enumclaw Plateau
- West Snoqualmie River Road, Snoqualmie Valley
- West Snoqualmie Valley Road / Carnation Farm Road, Snoqualmie Valley
- Old Cascade Scenic Highway, Stevens Pass
- Old Sunset Highway, Snoqualmie Pass

Information about King County's Heritage Corridors, including maps and final report, are available at: <http://www.kingcounty.gov/depts/transportation/roads/historic-corridors.aspx>

### 3.4.2 State and Federal Highways within King County

#### Major Highways

The State Highways of Washington comprise of a network of state highways, including all Interstate and U.S. Highways that pass through the state, maintained by the Washington State Department of Transportation. Four Federal Highways and twenty-eight State Highway Routes are located in King County, including five ferry routes. All state highways are designated by the Washington State Legislature. Maps of the State Highways can be viewed at:

<http://www.wsdot.wa.gov/Publications/HighwayMap/view.htm>

#### Highways of Statewide Significance

Highways of Statewide Significance (HSS) include interstate highways and other state principal arterials that are needed to connect major communities in the state. The designation helps assist with the allocation and direction of funding. A map of the HSS corridors is available at:

<http://www.wsdot.wa.gov/planning/HSS/Default.htm>. Maps of the state highway system are available at: <http://www.wsdot.wa.gov/MapsData/products/digitalmapsdata.htm#pdfmaps>

#### Washington State Scenic and Recreational Highways

Washington's Scenic and Recreational Highways, as designated in RCW 47.39, are important access routes to some of the most scenic resources and best recreational destinations in the state.<sup>xxxii</sup> In King County there are approximately 175 miles of designated Scenic and Recreational Highways. These include portions of I-90 (Mountains to Sound Greenway), US2

(Stevens Pass Greenway), SR 410 (Chinook Pass Scenic Byway), and SR 202 (Cascade Valleys Scenic Byway). A map of Washington Scenic and Recreational Highways is available at: <http://www.wsdot.wa.gov/travel/highways-bridges/scenic-byways>

### High Occupancy Vehicle System

The High Occupancy Vehicle (HOV) system is an important element of King County's and the region's multi-modal transportation system. High occupancy vehicle lanes - also known as carpool lanes, commuter lanes, diamond lanes, or bus lanes - are reserved for vehicles containing at least a specified number of occupants (such as 2, 3, 4, or more) or for transit vehicles. Such lanes can be on highways, on arterials, or on metered entrance ramps to highways. They may be physically separated from other lanes, or indicated with signage. Some operate only during certain hours. Other types of strategies that potentially promote higher vehicle occupancy include ridesharing programs, parking management, guaranteed ride home policies, and other employer-based programs.

Coupled with the County's Transportation Demand Management program, HOV facilities are designed to help accommodate growth by moving more people in fewer vehicles, reducing the need for new road construction or major widening projects on the County's existing arterial system. Recent changes to the HOV lane system include direct access ramps to support Sound Transit's regional bus service, as well as freeway to freeway improvements to interconnect the system. The HOV system is a crucial part of the central Puget Sound area's highway system, carrying more than 1/3 of freeway travelers during rush hours. Information on the HOV system is available at: <http://www.wsdot.com/HOV/default.htm>

### 3.4.3 Transit Services

Transit services in King County are provided by four public transit agencies and the City of Seattle. King County Metro Transit (Metro) provides the vast majority of regular bus service, including RapidRide bus rapid transit, and flexible mobility options including demand area response transit ("DART"), paratransit, and alternative services that are available to King County residents. Pierce Transit and Community Transit provide commuter bus services into King County urban centers including downtown Seattle, downtown Bellevue, the University District in northeast Seattle and Federal Way in South King County. Sound Transit provides regional high capacity transportation throughout parts of King, Pierce and Snohomish counties through commuter rail (Sunder), light rail (Link) and a regional express bus system (ST Express). Link light rail and ST Express bus service within King County are currently operated by Metro Transit under contract to Sound Transit. The Seattle Department of Transportation provides streetcar service in and near downtown Seattle. This streetcar service is also currently operated by Metro Transit under contract to the City of Seattle.

### 3.4.3.a King County Metro Transit

In a service area of more than 2,000 square miles and 2.15 million residents, Metro operates over 200 bus, RapidRide, trolley and demand area response transit (DART) routes that serve destinations across King County. The following data is from the 2017 King County Metro Strategic Plan Progress Report, June 2018:

• Fixed-route ridership:	122.2 million
• Vanpool ridership:	3.6 million
• Access ridership:	1.3 million
• Annual service hours:	4 million
• Active fleet:	1,552 buses
• Bus stops:	8,011
• Park-and-rides:	136
• Park-and-ride spaces:	26,300

A list of Metro routes and schedules, including route maps, is available at:

<http://metro.kingcounty.gov/schedules/>

Other information about Metro's system and performance can be found at:

<http://metro.kingcounty.gov/am/accountability/>

#### Metro Services RapidRide

RapidRide is Metro's arterial bus rapid transit network launched in 2010. As of 2019, Metro operates six RapidRide lines throughout King County. RapidRide separates itself from standard bus service with high frequency (every 10 minutes during peak hours), fewer stops, use of semi-exclusive lanes, and all-door passenger boarding and exiting. King County Metro is looking to the future to determine how to continue to provide quality service to King County residents and businesses. In 2017, King County adopted METRO CONNECTS, the agency's long-range plan. METRO CONNECTS calls for a significant expansion of the RapidRide program. By 2025, Metro plans to add six additional RapidRide lines, providing this service to all areas of urban King County. Additional information on RapidRide is available at: [metro.kingcounty.gov/travel-options/bus/rapidride/](http://metro.kingcounty.gov/travel-options/bus/rapidride/)

#### Alternative Services

The King County Metro Community Connections Program (formerly known as Alternative Services), brings a range of mobility services to parts of King County that do not have the infrastructure, density, or land use to support traditional fixed-route bus service. Alternative services and other innovative mobility options are an important part of Metro's efforts to cost effectively deliver transportation alternatives across King County in an equitable and sustainable way. For 2015-2018, funding for alternative services was provided through a demonstration program. The 2019-2020 County Budget provided funds to allow the program to become an ongoing part of Metro Transit's range of services. Community Connections is currently providing services developed through the Community Connections program in cities

throughout King County. Information on Metro's Community Connections Program is available at: <https://www.kingcounty.gov/depts/transportation/metro/programs-projects/community-connections.aspx>

#### Access Paratransit

Access Paratransit is Metro's response to the Americans with Disabilities Act, which requires transit agencies to provide paratransit services for people who cannot use regular, fixed route transit. Access provides shared rides for eligible riders within  $\frac{3}{4}$  of a mile on either side of non-commuter fixed route bus service during the times and on the days those routes are operating. Paratransit service is intended to offer a comparable level of service to that provided by regular bus service. Paratransit service is not required nor intended to meet all the transportation needs of persons with disabilities. Rather, it is intended to provide public transportation in a more specialized form. Individuals must be evaluated and deemed eligible prior to using Access services to determine whether their disability prevents them from performing the tasks needed to ride regular bus service some or all of the time. Metro provides Access service through private contractors. Additional information on the ADA Paratransit Program:

<http://metro.kingcounty.gov/tops/accessible/programs/paratransit.html>

#### Transportation Demand Management, Equity and Social Justice, and Partnership Programs

Metro offers many programs, products, and services to area employers, other organizations, and individuals to make transit accessible and affordable. Major Metro programs include:

- *ORCA Business Partnerships* – Employers can contract with Metro to provide ORCA cards as subsidized passes for their employees for access to public transportation services, including bus, commuter rail, Link light rail, streetcar, ferry, water taxi, vanpool/vanshare, and guaranteed ride home service. Employers can select a comprehensive program or a flexible package to suit their needs. Currently, more than 1,000 local employers participate through Metro's ORCA Business Passport and ORCA Business Choice programs.
- *ORCA LIFT* – ORCA LIFT provides a discounted transit fare of \$1.50 per trip for residents who earn less than 200 percent of the federal poverty level, which is currently \$24,980 for a one-person household. As of the end of the first quarter of 2019, there were 58,687 active ORCA LIFT users. Information on ORCA LIFT can be found at: <http://metro.kingcounty.gov/programs-projects/orca-lift/>
- *Human services bus tickets* – Each year, Metro makes available subsidized bus tickets to be purchased by eligible human services agencies and then distributed to the people they serve. Metro subsidizes 90% of the cost of the tickets, for a total annual subsidy of \$4 million. Human services agencies apply to participate in the program. During 2019, 168 agencies have been selected to participate and will distribute more than 1.5 million tickets over the course of the year to people in need. More information is available at <https://www.kingcounty.gov/depts/community-human-services/housing/services/homeless-housing/bus-ticket-program.aspx>

- *Commuter vans (vanpool/vanshare)* – Vanpools provide a complete trip, usually travel at least 10 miles each way from home or park-and-ride to a worksite and can have as many as 15 riders. Vanshares are for shorter trips, intended to bridge the gap between public transportation (bus, train, water taxi, or ferry) and a final destination. Metro provides the van and covers rider support services, maintenance, insurance, fuel, tires and training for a per-rider monthly fee.
- *Community Access Transportation* – This program provides vans, maintenance, and some operating funds to community organizations. The program makes use of high-quality retired Access and vanpool vehicles for transportation services operated by these organizations. One example is the Downtown Circulator Bus, a free downtown circulator bus for people living on low incomes that provides access to health and human services in downtown Seattle. The circulator bus is operated through a partnership with the nonprofit organization, Solid Ground.
- *Bicycle programs and facilities* – Metro supports bicycling in conjunction with public transportation by providing racks on every bus to accommodate three bicycles, racks on request for vanpools, bicycle lockers at park-and-rides and transit centers, and information about getting around by bicycle. Bicycling is also included as a travel option in Metro incentive programs that encourage alternatives to driving alone.
- *Home Free Guarantee* – Metro provides emergency taxi service for commuters who arrive at work without their personal vehicle (by transit, carpool, vanpool, bicycle or walking) and have an unplanned emergency or unscheduled overtime. Information on this program can be found at:  
<http://www.kingcounty.gov/transportation/CommuteSolutions/products/HFG.aspx>
- *JARC program* – The Job Access Reverse Commute (JARC) Transportation Program partners with social service agencies, community based organizations, housing authorities, local jurisdictions and employers to assist with transportation issues for low income individuals. Information on Metro’s JARC program can be found at:  
<http://metro.kingcounty.gov/tops/jobaccess/jobseeker.html>
- *In Motion* – In Motion enlists local businesses, organizations, and communities as partners to entice people to register as participants and pledge to reduce car trips over a period of time. Participants earn rewards for their reduced trips. Information on In Motion can be found at:  
<https://www.kingcounty.gov/depts/transportation/metro/programs-projects/transit-education-outreach/in-motion.aspx>
- *Rideshare Online* - RideshareOnline.com provides free online self-serve ride matching services. The online system matches commuters interested in sharing rides in carpools, commuter vans, group biking, event travel, and with other parents transporting kids to school. Information on Metro’s Rideshare program can be found at:  
<http://metro.kingcounty.gov/tops/van-car/van-car.html>

### Special and Custom Bus Service

Metro provides special transit services for major community and sporting events in partnership with event sponsors. Information regarding Metro's special event service can be found at: <http://metro.kingcounty.gov/up/spclevent.html>

### Contract Services

Metro serves as the operator for other transit services in Seattle and King County. Metro operates Regional Express bus routes in King County, as well as light rail for Sound Transit. Metro operates the Seattle Streetcar lines for the City of Seattle.

### Service Connections

Metro service connects to a wide range of other transportation services in King County, including for bus, rail, ferry, and air travel hubs. Metro provides intermodal connections with Sound Transit Link light rail and Sounder commuter rail service, Amtrak rail service, Washington State Ferries, and Seattle-Tacoma International Airport. Metro also connects with other bus services including Sound Transit, Community Transit, Pierce Transit and intercity Greyhound bus service.

### Equity and Sustainability

As a mobility agency, King County Metro Transit moves people throughout King County. It is our duty to provide mobility opportunities to all people in the county in a way that supports healthy communities, a thriving economy, a sustainable environment, and equity and access to opportunities.

Metro is developing a framework for the equitable implementation of mobility services. In this framework, Metro will identify guiding principles that support equity and sustainability and propose actions, based on best practices, to improve outcomes for King County's priority populations and reduce greenhouse gas emissions from transportation. Metro's goal is to help align our funding, policies, and investments to deliver livable communities, a thriving economy for all, and a sustainable environment.

### Capital Facilities

Metro provides buses, use of semi-exclusive lanes, and facilities such as park-all-door passenger boarding and-rides and bus shelters for King County bus exiting. Voter approved sales tax and federal grants are the primary revenue sources.

### Physical Plant

Metro's administrative offices are located at 201 South Jackson Street in downtown Seattle. Metro also has seven operating bases located throughout the county, and a variety of other physical facilities to support the provision of transit and ridesharing service. Major facilities include:

- *Central Campus and SODO (Seattle)*
  - Atlantic/Central Bases, 1270 6th Ave. S., Seattle
  - Atlantic Maintenance, 1555 Airport Way South, Seattle

- Central Maintenance, 640 South Massachusetts, Seattle
- Ryerson Base, 1220 4th Ave. S., Seattle
- Transit Control Center, 1263 6th Ave. S., Seattle
- Employee Parking Garage, 1505 6th Avenue South, Seattle
- Tire and Millwright Shop, 1555 Airport Way South, Seattle
- Marketing Distribution Center, 1523 6th Ave South, Seattle
- Power Distribution, 2255 4th Avenue South, Seattle
- *Campus & Eastside*
  - Bellevue Base, 1790 124th NE, Bellevue
  - East Base, 1975 124th NE, Bellevue
  - Vanpool Distribution, 18655 NE Union Hill Road, Redmond
- *Tukwila*
  - South Base, 12100 East Marginal Way S., Tukwila
  - Training and Safety Center, 11911 East Marginal Way S., Tukwila
  - South Facilities, 11911 East Marginal Way S., Tukwila
  - Component Supply Center, 12200 East Marginal Way S., Tukwila
- *Shoreline*
  - North Base, 2160 N. 163rd St., Shoreline

On March 23, 2019, Metro ceased bus operations in the Downtown Seattle Transit Tunnel (DSTT), a 1.3 mile dual-bore transit-only facility with four stations. To accommodate the expansion of Sound Transit's Link light rail service, the DSTT is now served by light rail trains only and is no longer a bus facility. Metro operates service on the SODO busway, a transit-only roadway between South Spokane Street and Royal Brougham Way in Seattle.

Fifteen Metro routes use electric trolley buses. To support the electric trolley bus network, Metro operates and maintains a network of overhead power infrastructure and electrical substations to power the system. In addition, Metro has been testing battery-electric buses and developing the charging stations and power infrastructure necessary to charge them, with the goal of achieving a zero-emission fleet by 2040 or sooner.

#### Bus Stops and Shelters

Metro's transit system includes 8,011 bus stops. As of 2018, nearly two-thirds of housing units in King County were within a quarter-mile walk from a bus stop, and nearly half of all households and two-thirds of all jobs were within a half-mile walk from a transit stop with frequent service.

#### Park-and-Ride Lots

A park-and-ride lot is a designated passenger facility where individuals can leave their private vehicles or bicycles to access public transportation. A park-and-ride lot can also serve as a park-and-pool lot, where individuals can rendezvous to form carpools and vanpools.

There are 136 park-and-ride facilities in the King County Metro area, with a total of 26,523 vehicle spaces as of 2018. Metro, Sound Transit, and WSDOT own permanent park-and-ride lots within King County, and a wide variety of agencies and organizations own spaces that Metro leases for use. In 2019, as a way to make parking more available for people who depend on park and ride lots as a way to access transit, Metro developed a fee program for Metro-owned lots at or above 90% capacity. Pending demand, up to 50% of stalls would be available for permit parking on weekdays from 4:00-10:00 AM. The proposed standard price range for solo driver permits is \$60-\$120/month, with ORCA LIFT (low-income fare) participants to pay \$20/month, and carpool permits to be free. A list of park-and-ride locations with information on capacity, routes, and amenities can be found at: [metro.kingcounty.gov/tops/parknride/](http://metro.kingcounty.gov/tops/parknride/). Metro's quarterly park-and-ride utilization reports can be found at: <http://metro.kingcounty.gov/am/accountability/park-ride-usage.html>

#### Charging Station Program

King County promotes the use of alternative fuel vehicles. King County's charging station program is an initiative aimed at growing the plug-in vehicle market. As of June 2012, King County Metro manages 27 earlier generation 110-volt plug-in outlets. The latest County effort adds 36 new, 220-volt electric vehicle charging stations at multiple locations. In a related effort, the County created the Metropool program, adding 25 all-electric vehicles to the Vanpool, Vanshare, and Motorpool programs. More information on the Metropool program is available at: <http://metro.kingcounty.gov/tops/van-car/programs/metropool/index.html> More information on park-and-plug spaces and locations in King County park-and-rides is available at: <http://metro.kingcounty.gov/tops/parknride/>

#### Capital Program

Metro Transit is part of King County's Capital Improvement Program. Capital projects help to maintain and improve King County assets and infrastructure. Metro has its own designated revenue sources and service areas.

Metro's Public Transportation Fund Capital Program provides for ongoing replacement of aging infrastructure and supports service delivery and expansion. The focus of the Capital Improvement Program (CIP) is on maintaining existing infrastructure and systems, partnering with other regional transportation agencies and providing the physical capacity needed to support projected service. A key priority for Metro is developing adequate bus base capacity to meet regional needs. Metro's capital improvement plan outlines a strategy to develop space for an additional 625 buses by 2030. More information can be found at: [https://www.kingcounty.gov/~media/depts/executive/performance-strategy-budget/budget/2019-2020/19-20\\_Budget-Book/Metro\\_Transit\\_2019-2020\\_Biennial\\_Budget\\_Book.ashx?la=en](https://www.kingcounty.gov/~media/depts/executive/performance-strategy-budget/budget/2019-2020/19-20_Budget-Book/Metro_Transit_2019-2020_Biennial_Budget_Book.ashx?la=en)

Information on King County's Transit Asset Management Program (TAMP) can be found at: <http://www.kingcounty.gov/transportation/kcdot/MetroTransit/PowerAndFacilities/AboutUs.aspx>

### 3.4.3.b Sound Transit

Sound Transit is a regional transit authority that plans, builds and operates express buses, light rail, and commuter train services for the central Puget Sound Region so that people can get to where they're going, safely and economically. More information can be found here:

<http://www.soundtransit.org/>

#### ST Express Regional Bus Service

ST Express regional bus service includes limited-stop bus routes, partnerships with WSDOT to develop HOV direct-access projects, and a variety of community connection facilities including transit centers, access improvements, and park-and-ride lots. ST Express buses travel between major cities in King, Snohomish, and Pierce counties. Information on routes, related projects, and fares is found at: [soundtransit.org/Rider-Guide/ST-Express-bus](http://soundtransit.org/Rider-Guide/ST-Express-bus)

#### Souder Commuter Rail

Souder commuter rail uses diesel-powered locomotives and multi-level passenger coach trains that run on BNSF Railway Company railroad freight tracks. Souder shares the tracks with freight trains and Amtrak passenger trains, using upgraded signals, switches, and street crossings. Trains travel between Lakewood and Seattle and between Everett and Seattle.

Information on routes, related projects, and fares is found at: [soundtransit.org/Rider-Guide/Souder-train](http://soundtransit.org/Rider-Guide/Souder-train)

#### Link Light Rail

Link light rail is an electrically-powered service that provides high-capacity transportation within the region's highest employment and transit ridership areas. Link light rail travels between the University of Washington campus in Seattle, Seattle-Tacoma Airport and Angle Lake. Information on routes, related projects, and fares is found at: [soundtransit.org/Rider-Guide/Link-light-rail](http://soundtransit.org/Rider-Guide/Link-light-rail)

#### Future Expansion and System Integration

The initial phase of the regional mass transit light rail system was completed in 2016, connecting Angle Lake, Seattle-Tacoma Airport, downtown Seattle, and the University of Washington. The next phases of light rail expansion will include service north to Northgate (2021), Lynnwood (2024); east to Bellevue and Overlake (2023) and downtown Redmond (2024); south to Federal Way (2024); and then a series of expansions to provide additional service within Seattle and throughout the region.

Sound Transit's ST3 plan, which was adopted by the voters in November 2016 outlines the next phases of light rail and express bus expansion. (<http://soundtransit3.org/>)

Sound Transit services are integrated with the local bus routes operated by King County Metro so that all services support and complement each other. A 1998 Memorandum of Understanding (MOU) between the two agencies established the basic principles under which a coordinated system will be planned and operated. Metro has adapted bus service to reflect the existing components of Link light rail, and is planning for future changes as additional segments

of Link light rail are opened in the 2020s and beyond. Information on Sound Transit's services and plans is available at: [soundtransit.org/Projects-and-Plans](http://soundtransit.org/Projects-and-Plans). Sound Transit's Transit Development Plan Annual Reports are available at: [soundtransit.org/About-Sound-Transit/News-and-events/Reports/Transit-Development-Plan](http://soundtransit.org/About-Sound-Transit/News-and-events/Reports/Transit-Development-Plan). A complete list of Sound Transit projects: <http://www.soundtransit.org/Projects-and-Plans>

### 3.4.4 Nonmotorized Facilities

#### Bicycle Parking and Lockers

Bicycle parking and secure storage support ridership by increasing options for people to connect to bus service or to meet a carpool or vanpool. King County park-and-ride lots and transit centers have bicycle racks and/or bicycle lockers on a space-available basis to cyclists who commute. Metro aims to reduce car travel to these locations by making it reliable to secure bicycles. Combined, Metro and Sound Transit currently provide 523 lockers across 40 locations for cyclists. Information on bicycle parking and lockers is available at:

<http://metro.kingcounty.gov/tops/bike/parking/index.html>

#### King County Trails

The King County Parks System includes more than 294 miles of regional greenway and shared use paths. This expanding network includes over 175 miles of trails for hiking, biking, walking, and horseback riding. The backcountry trail system offers 215 miles of backcountry trails with year-round accessibility for hiking, mountain biking, and horseback riding. These trail systems provide extensive opportunities for recreational use and nonmotorized mobility and commuting throughout King County. The overall vision of the future Regional Trail system includes about 300 miles of trails. Information about the King County Regional Trails System is available at: <http://www.kingcounty.gov/recreation/parks/trails.aspx>

### 3.4.5 Rail

#### Interstate Rail Facilities

The rail network in the state has three distinct types of rail services: freight, intercity passenger, and commuter. The Class I railroad system primarily serves the inland transportation component of the supply chain for large volumes of import and export cargo moving through state ports including the Port of Seattle. Two Class I railroads, the BNSF Railway and the Union Pacific Railroad, as well as 23 short-line railroads operate through communities in Washington State. Amtrak provides intercity passenger rail service along the I-5 corridor, this intercity rail service is known as Amtrak Cascades. As the demand for reliable passenger rail travel increases, stations are being expanded and refurbished to serve growing numbers of passengers and to provide them with enhanced security, comfort, and timely information. The Cascades High-Speed Rail Program includes four Amtrak Cascades round trips between Seattle and Portland, and two between Seattle and Vancouver, B.C. Currently there are two Amtrak Stations in King County.

Sound Transit's Sounder commuter rail uses diesel-powered locomotives and multi-level passenger coach trains that run on BNSF Railway Company railroad freight tracks. Sounder shares the tracks with freight trains and Amtrak passenger trains, using upgraded signals, switches, and street crossings. Trains travel between Lakewood and Seattle and between Everett and Seattle. Information on existing freight and Amtrak facilities, projects, and data is available at: <http://www.wsdot.wa.gov/Freight/Rail/default.htm>  
<http://www.wsdot.wa.gov/rail/> Information on Sounder routes, related projects, and fares is found at: <https://www.soundtransit.org/>

### Freight Transport

Freight transport, is a major function of the regional transportation system. The Puget Sound Regional Council (PSRC) has developed a comprehensive, multimodal Freight Strategy that will serve as the freight component of the adopted long range transportation plan, Transportation 2040. The Freight Strategy describes the regional freight mobility system and incorporates all of the main freight modes, including rail, truck, air, and marine cargo. It examines the current and future conditions and issues as the region looks to planning for a sustainable transportation system out to 2040. Additional information on Regional Freight and Goods Movement is available at: <https://www.psrc.org/sites/default/files/rtp-appendixi-freightandgoodsmovement.pdf> and <http://www.wsdot.wa.gov/Freight/FGTS/default.htm>

## 4 Travel Forecast Summary

The Washington State Growth Management Act (GMA) requires the transportation element of comprehensive plans to include a forecast of traffic for at least ten years based on the adopted land use plan, and to provide information on the location, timing, and capacity needs of future growth (RCW 36.70A.70(6)(E)). It also requires an estimate of traffic impacts to state-owned transportation facilities resulting from the land use assumptions. To meet these requirements, the King County Department of Local Services, Road Services Division adopted the Puget Sound Regional Council's (PSRC) Regional Travel Demand Forecasting Model (Travel Model).

The PSRC Travel Model forecasts future travel patterns and conditions within the four counties (King, Kitsap, Pierce, and Snohomish) of the Puget Sound region. The Travel Model produces data that are used to analyze the likely impacts of travel forecasts on the region's transportation infrastructure and environment, and thus provides the foundation from which the PSRC develops many of its plans, most notably the Regional Transportation Plan. The Travel Model is used to support the technical analysis of transportation projects and investments under consideration in the region. In addition to transportation analysis, the travel model also supports growth management activities at the agency.

King County Road Services worked with PSRC modeling staff to run a model scenario with a forecast year of 2031. Raw model output was analyzed by King County planning staff. The forecasted pm peak hour (afternoon rush hour) traffic volumes on state facilities were mapped to review performance on state facilities (Figure 1). Modeled traffic volumes and roadway capacities on local roads were also reviewed for indications of potential future congestion. Road segments where traffic volumes exceeded roadway capacities (ratios greater than 1) were also mapped (Figure 2). Planning and engineering staff considered Travel Model analysis and other factors in the development of projects for King County's Transportation Needs Report.

Detailed information on the traffic forecasting model and assumptions used for the Comprehensive Plan are available from the Puget Sound Regional Council.

Puget Sound Regional Council Travel Model information is available at:

<https://www.psrc.org/trip-based-travel-model-4k>.

More information on the Regional Transportation Plan is available at:

<https://www.psrc.org/our-work/rtp>

Figure 1. 2031 Forecasted Travel Volumes

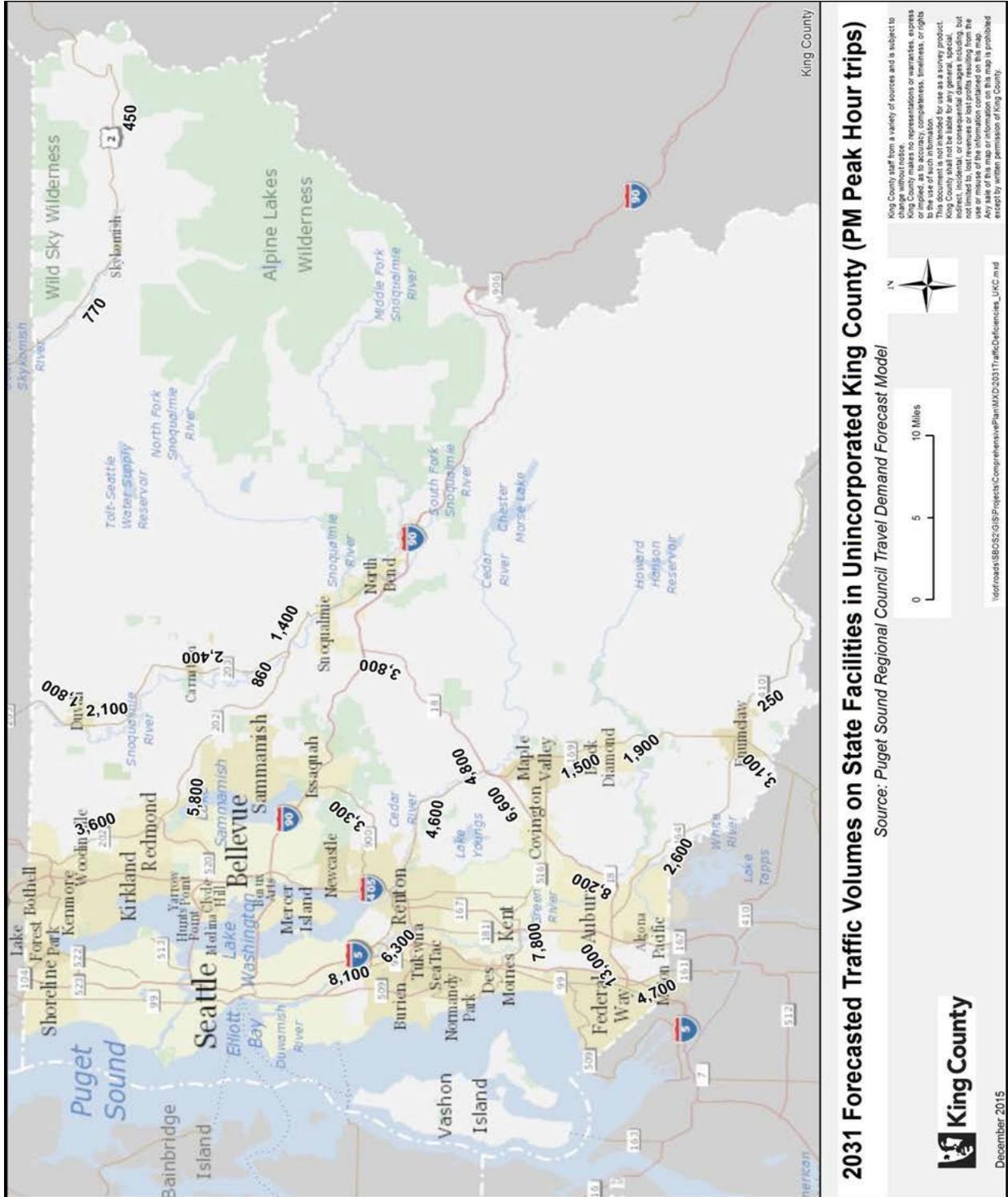


Figure 2. PSRC 2031 Travel Model Forecast

