

APPENDIX 4

the metropolitan transportation system

This appendix contains a detailed description of the central Puget Sound's Metropolitan Transportation System, in accordance with federal Metropolitan Planning Organization planning requirements. See 23 USC 134(g). As part of a cooperative effort between the Regional Council, Washington State Department of Transportation (WSDOT) and local jurisdictions, regional facilities and services that comprise the region's Metropolitan Transportation System were identified as part of the 1995 Metropolitan Transportation Plan (MTP) and updated in 1998.

Destination 2030 once again updates the Metropolitan Transportation System. The plan emphasizes an integrated multi-modal transportation system and describes the regionally significant modal components of that system. The Metropolitan Transportation System consists of regionally significant multi-modal transportation facilities and services that are crucial to the mobility needs of the region. The Metropolitan Transportation System serves as a planning tool used to identify regional transportation problems, analyze and develop regional solutions, and it serves as a focus for required state and regional transportation system performance monitoring, particularly for the federally-required congestion management system (CMS). *Destination 2030* Map 3 is a composite map of the existing Metropolitan Transportation System.

Some transportation facilities may be included within more than one Metropolitan Transportation System component; this occurs most often with roadway facilities. These systems are highly interdependent. The ferry system, for example, would not perform as well without a roadway or transit system. Services included in the Metropolitan Transportation System, unlike facilities, do not necessarily have a physical structure to them, but nevertheless are considered regionally significant. Services help provide access to activities that are crucial to the social or economic health of the central Puget Sound region. Regionally significant transportation services help to improve overall system performance. These services are generally known as Transportation System Management, which includes intelligent transportation systems (ITS) and vehicle trip reduction programs. ITS services help to optimize and integrate the operation of the multi-modal transportation system, while vehicle trip reduction (also known as transportation demand management "TDM") programs encourage people to make fewer single occupant vehicle trips.

TRANSPORTATION FACILITIES AND SERVICES OF STATEWIDE SIGNIFICANCE.

In 1998, the State Legislature enacted HB 1487, more commonly known as the Level of Service or LOS bill, to recognize the importance of specific categories of transportation facilities and services that are of statewide significance. This legislative action amended the Growth Management Act (RCW 36.70A), Priority Programming for Highways (RCW 47.05), and Regional Transportation Planning Organizations (RCW 47.80) to direct further definition and planning through state, regional and local actions. As now codified under RCW 47.06.140, the nine categories of transportation facilities and services of statewide significance include:

1. The interstate highway system
2. Interregional state principal arterials including ferry connections that serve statewide travel
3. Intercity passenger rail services
4. Intercity high-speed ground transportation
5. Major passenger intermodal terminals, excluding all airport facilities and services
6. The freight railroad system
7. The Columbia/Snake navigable river system
8. Marine port facilities and services that are related solely to marine activities affecting international and interstate trade
9. High-capacity transportation systems serving regions as defined in RCW 81.104.015 (in the central Puget Sound, this is the Sound Transit express bus and rail system plus the state HOV system and related supporting facilities).

The first two categories include the interstate highway system and interregional state principal arterials and ferry connections. These state system elements were formally defined and designated in 1999 by respective actions of the State Transportation Commission and State Legislature as Highways of Statewide Significance (HSS) and include key ferry routes.

ROADWAY SYSTEM

The roadway and high occupancy vehicle (HOV) systems are integral components to the region's transportation system and will continue to be into the foreseeable future.

METROPOLITAN TRANSPORTATION SYSTEM (MTS) DEFINITION

MTS facilities and services are defined both functionally and geographically. A facility or service is part of the MTS if it provides access to any activities crucial to the social or economic health of the central Puget Sound region. Facilities that weave parts of the region together by crossing county or city boundaries are critical to the MTS. Any link that accesses major regional activity centers, such as an airport, is also a critical element of the MTS. Specific facilities or services are included in the MTS based on their function within the regional transportation system rather than their geometric design or physical characteristics.

Facilities in the MTS include those from the following seven transportation systems, supported by Transportation System Management services:

- Roadway System
- Ferry System
- Transit System
- Non-motorized System
- Freight and Goods System
- Intercity Passenger Rail
- Regional Aviation

REGIONAL ROADWAY COMPONENT OF THE METROPOLITAN TRANSPORTATION SYSTEM

Streets and highways are the backbone of the Region's transportation system. Any highway or roadway facility that is part of one of the three following categories is included as part of the Destination 2030 roadway MTS:

- Roadways included in the National Highway System (includes all interstate and US highways)
- State highways
- Principal arterials, either locally identified or officially identified according to the Federal Functional Classification System (approved by FHWA in April 1993)

The 1995 Metropolitan Transportation Plan advanced a balanced multi-modal transportation system that provides options to users and reduces the dependence upon single-occupant vehicles, while encouraging alternate modes of travel. *Destination 2030* also recognizes that highway improvements and capacity enhancements are needed to improve mobility on the region's roadways. Since 1995, great progress has been made in identifying local and regional arterial network improvements. Map 4-1 displays the roadway component of the Metropolitan Transportation System.

Individual streets and roads do not function independently, but rather form a network through which traffic flows. The 16,790 miles of roadways in the region can be classified along two dimensions: the functional classification system that is used to characterize the purpose of a roadway, and the system of ownership by which the management and financing of the roadway system is organized.

Centerline Miles by Jurisdictional Geography and Functional Classification, 1999

COUNTY	OWNER	INTERSTATE	PRINCIPAL ARTERIAL	MINOR ARTERIAL	COLLECTOR	LOCAL	TOTAL	% WITHIN COUNTY	% WITHIN REGION
King	State	114	207	125	0	-	445	6.0%	2.7%
	County	-	45	263	303	1,383	1,994	26.9%	11.9%
	Cities	-	240	424	410	3,278	4,352	58.6%	25.9%
	Other	-	1	-	-	633	635	8.5%	3.8%
	Total	114	493	811	714	5,294	7,426	100.0%	44.2%
Kitsap	State	-	87	13	3	-	103	6.1%	0.6%
	County	-	8	100	210	615	934	55.5%	5.6%
	Cities	-	7	20	58	220	305	18.1%	1.8%
	Other	-	-	-	-	342	342	20.3%	2.0%
	Total	-	101	133	272	1,178	1,683	100.0%	10.0%
Pierce	State	26	64	162	39	-	291	7.5%	1.7%
	County	-	52	246	401	807	1,505	38.9%	9.0%
	Cities	-	96	156	140	1,145	1,537	39.7%	9.2%
	Other	-	-	-	-	534	534	13.8%	3.2%
	Total	26	212	564	580	2,486	3,867	100.0%	23.0%
Snoh.	State	45	107	91	35	-	278	7.3%	1.7%
	County	-	5	73	436	1,083	1,598	41.9%	9.5%
	Cities	-	28	74	150	785	1,036	27.2%	6.2%
	Other	-	-	-	-	900	900	23.6%	5.4%
	Total	45	140	238	621	2,768	3,813	100.0%	22.7%
Region	State	185	464	391	77	-	1,117		6.7%
	County	-	111	682	1,350	3,888	6,032		35.9%
	Cities	-	371	673	758	5,428	7,230		43.1%
	Other	-	1	-	-	2,410	2,411		14.4%
	Total	185	947	1,746	2,186	11,726	16,790		100.0%

Source: Washington State Department of Transportation, January 2001

Roads serve two primary functions: mobility to move traffic, goods, and people from one location to another; and to provide access to land. The degree to which one of these functions predominates over the other determines the road's functional classification. The functional classification system describes roadways via a

hierarchy, and is comprised of the following categories: 1) interstate highways, 2) principal arterials, 3) minor arterials, 4) collectors, and 5) local streets.

The National Highway System (NHS). Title 23 of the U.S. Code section 103 states that the purpose of the NHS is to provide an interconnected system of principal routes that serve major population centers, international border crossings, ports, airports, public transportation facilities, intermodal transportation facilities, major travel destinations, meet national defense requirements, and serve interstate and interregional travel. Facilities included in the NHS are of clear regional significance.

State Highways. State highways are inherently of regional significance since inclusion in the state highway system requires that these routes function as the most important interregional, intra-regional, and urban-rural connections.

Principal Arterials. Principal arterials are classified by either the state for federal purposes, or local jurisdictions for developing Comprehensive or Arterial Plans. Classification as a principal arterial in either system denotes a facility of regional significance.

HOV System. The high occupancy vehicle (HOV) system includes dedicated lanes on freeways, regional arterials and local streets, limited access ramps to those facilities and designated by-pass lanes. High occupancy vehicles that use the dedicated facilities include public transit, vanpools, and carpools that carry at least two or more passengers (three or more in one case).

The Washington State Department of Transportation has responsibility for the planning, construction, and operations of freeway high occupancy vehicle lanes in the region, but coordinates planning and operations with local jurisdictions, transit service providers and the Regional Council. The department has further prioritized the freeway system through the identification of the "core" HOV lanes. The core system represents a subset of those identified in *Destination 2030* and includes higher priority dedicated lanes on interstate and limited access state routes. Like freeway HOV lanes, arterial HOV lanes provide greater speed and reliability for high occupancy vehicles. Arterial HOV lanes increase service reliability by avoiding congested intersections and general-purpose lanes.

FERRY SYSTEM

The regional ferry system is a unique hybrid of two modes. Ferry routes function as vehicle-carrying marine highways moving people and goods across Puget Sound. Ferries also are a high capacity transit mode for thousands of walk-on passengers. In addition to ferry boats, the ferry system includes routes and terminals, as well as other support facilities.

The Washington State Department of Transportation operates ferry service on ten routes in the four-county region. Two of these routes serve walk-on passengers only. The regional system also includes two other routes: a privately operated service in Kitsap County and ferries operated by Pierce County. Routes serve both commuters and recreational travelers. The ferry system component of the Metropolitan Transportation System is displayed on Map 4-2.

Terminals and Other Support Facilities. These facilities provide an important link between the termination of the ferry route and the landside transportation system on both sides of Puget Sound. Ongoing improvement projects at all terminals are designed to strengthen connections between ferries and other forms of transportation, such as bus, rail, auto, pedestrian, bicycle, and other modes. Other facilities are important in

FERRY COMPONENT OF THE METROPOLITAN TRANSPORTATION SYSTEM

The ferry component of the Metropolitan Transportation System consists of:

- Auto Ferries
- Passenger Only Ferries
- All WSDOT Ferry Terminals and support facilities

REGIONAL TRANSIT COMPONENT OF THE METROPOLITAN TRANSPORTATION SYSTEM

The regionally significant transit component of the Metropolitan Transportation System consists of:

- Existing and planned HCT services defined as public transportation services operating on exclusive right-of-way to provide a substantially higher level of passenger capacity, speed, and service frequency than typical bus services operating on general purpose roadways.
- Other existing and planned bus services (not considered HCT) that link major regional destinations and/or provide travel options in highly congested corridors.
- Existing and planned facilities that provide connections among and between the regional transit services, including large park-and-ride lots (>250 stalls), major bus transit centers, light rail and commuter rail stations, and auto and passenger-only ferry terminals.

supporting these transportation system interconnections. These include park-and-ride lots at most of the terminals, dedicated HOV lanes to assure ridesharing vehicles minimal delay when boarding or leaving ferries, and maintenance facilities such as the primary maintenance base at Eagle Harbor on Bainbridge Island.

TRANSIT SYSTEMS

The transit component of the Metropolitan Transportation System is comprised of major regional transit services and facilities that make a regionally-significant contribution toward providing public transportation access between activities that are crucial to the social or economic health of the central Puget Sound region.

Regional transit services that weave various parts of the region together and provide access to major regional activity centers, including connections between the designated urban centers and other major regional employment locations, are included as part of the Metropolitan Transportation System. In addition, regional transit services are those that provide efficient travel opportunities in congested areas by accommodating high volume demand. These services help to provide an alternative where congestion is particularly severe and travel options may be limited. In addition to the region's planned fixed route high capacity transit systems (light rail and commuter rail), and passenger-only ferry service, which identify actual transit routes, regional transit services are also represented on the Transit component of the Metropolitan Transportation System by the transportation facilities that they use, which include general purpose roadways, HOV lanes, and exclusive transit rights-of-way.

Regional transit facilities are included as part of the Metropolitan Transportation System based on their contribution to facilitate convenient connections between different public transit modes (for example, ferry and bus) and between transit and other transportation modes (for example, bus and auto). The major transit connection points include major park-and-ride lots, major transit centers, and ferry terminals. Transit centers, including rail, bus, and ferry, primarily serve connections between public transit modes while park-and-ride lots primarily serve connections between transit and auto. Some facilities serve as both major park-and-ride lots and transit centers (such as Northgate, Tacoma Dome). Major park-and-ride lots were defined as having a minimum of 250 parking stalls. Major transit centers are defined as locations with facility and access improvements focused on providing transfer opportunities to or between one or more regionally significant transit routes. All WSDOT ferry terminals, commuter rail stations, and light rail stations are considered major transit facilities as well as the larger bus transit facilities in the region. The public transit component of the Metropolitan Transportation System is displayed on Map 4-3.

PEDESTRIAN AND BICYCLE NON-MOTORIZED TRANSPORTATION SYSTEM

The regional non-motorized system includes facilities for both bicycle and pedestrian travel. The system consists of three conceptual components: linking communities at the regional level, substituting non-motorized trips for vehicle trips at the local level, and providing intermodal connections at rail, ferry, and other transit stops. The non-motorized component of the Metropolitan Transportation System is displayed on Map 4-4. There are five general types of non-motorized facilities, each with varying levels of separation from adjacent roadways:

- **Shared Use Bicycle/Pedestrian Paths** are facilities that are physically separate from roadways. These are usually appropriate for both bicycle and pedestrian travel.

NON-MOTORIZED COMPONENT OF THE METROPOLITAN TRANSPORTATION SYSTEM

Facilities within the Destination 2030 regional non-motorized network meet one or more of the following criteria:

1. Multi-use trails and bike lanes within the corridors of the roadway component of the Metropolitan Transportation System.
2. Multi-use trails and bike lanes that connect designated urban centers.
3. Multi-use trails and bike lanes that are within, or provide direct access to, designated urban centers or high capacity transit stations.
4. Pedestrian facilities that provide circulation within, access to, or enhance designated urban centers, or high capacity transit station areas.

PEDESTRIAN IMPROVEMENT ZONES

Pedestrian infrastructure and design in these zones should include:

- Wide, continuous sidewalks on both sides of streets
- Narrower streets scaled for pedestrians and lower vehicle speeds
- Interconnected streets and small block patterns
- Marked crosswalks and signal improvements at major intersections with crossing opportunities at least every two blocks
- Wide curb bulbs, and crosswalk and intersections curb ramps
- Street furniture and amenities such as benches and water fountains
- Street lighting at pedestrian scale
- Awnings/covered building entrances that shelter pedestrians from weather
- Planting buffers, landscaping and/or street trees
- Public spaces adjacent to main pedestrian travel ways that provide places to rest and interact
- Traffic calming devices to slow traffic
- Median islands to provide safe refuge areas for pedestrians
- On-street parking restrictions near pedestrian crossing areas
- Signage identifying nearby services

- **Bike Lanes** are portions of roadways that are physically designated for exclusive bicycle travel by signs and pavement markings.
- **Bike Routes** are portions of roadways that are signed as preferred routes for bicycle travel, but not striped.
- **Bikeways** are portions of roadways that are not signed or marked, but are accessible to bicycle travel and identified by the local jurisdiction as a preferred bicycle route.
- **Walkways** are pedestrian facilities that can be either separated from roadways, such as sidewalks and paths, or part of roadways, such as crosswalks or wide shoulders. Walkways are designed, or appropriate, for use by pedestrians.

An important distinction should be made between local and regional facilities. At the local level, facilities are important links in the non-motorized transportation system, as they both feed into regional-level facilities. However, it is not effective or efficient to designate all facilities as regional. Therefore, a subset of facilities were identified as regional, based on their function and location. Regional pedestrian facility improvement zones are located in designated urban centers and regional transit station areas. Regional transit station areas include bus, rail and ferry facilities. See Maps 2 and 7.

Due to safety concerns, much of the regional non-motorized network is situated on roads with lower levels of automobile traffic. These roads often are parallel to major arterials and highways that comprise the roadway component of the MTS. A road that is not part of the roadway MTS, yet contains a regional non-motorized facility, does not necessarily become part of the federally-required Congestion Management System, and is considered regional for non-motorized transportation planning purposes only.

Pedestrian Improvement Zones. Pedestrian Improvement Zones are areas that are targeted as top priority for pedestrian improvements. These zones generally extend for 1/2 mile radius around designated Urban Centers, regional transit station areas, and other regionally-significant places.

The regional non-motorized network is based on county and local jurisdiction non-motorized plans. It was designed to link and provide access to urban centers and major destinations, and to provide connections to major inter-modal facilities.

FREIGHT AND GOODS MOBILITY

The regional Freight and Goods System consists of roadways, port facilities, railroads and rail yards, and airport facilities, all of which serve to move freight within and through the region. The Freight and Goods mobility component of the Metropolitan Transportation System is displayed on Map 4-5.

Freight Roadways. Parts of the Freight and Goods System were first designated by the State of Washington in 1995, and updated in 1999. The State's system consists of road classifications based on the amount of annual freight tonnage carried by trucks. The heaviest tonnage routes, those designated for 4 million annual tons and above (T1 and T2), may receive priority for funding future improvements. These routes are primarily freeways and major state highways. In addition to T1 and T2 routes, as part of the Freight and Goods component of the Metropolitan Transportation System, the Regional Council has identified additional regionally significant roadways, also based on current use and a broad set of regional criteria.

Ports. There are three marine deepwater ports in the region, in Everett, Seattle, and Tacoma. These ports accommodate ocean-going container ships that carry cargo in and out of the region. Together, the Ports of Seattle and Tacoma are the second largest marine container terminal complex in North America. The

FREIGHT AND GOODS COMPONENT OF THE MTS

Facilities that meet the following criteria are included as the Freight and Goods mobility component of the MTS:

- State and local principal arterials, as identified on Map 4-5.
- National Highway System routes within the region.
- T1 and T2 Freight and Goods Transportation System routes, as defined by the Washington State Transportation Commission in 1999.
- Routes providing access to the designated Urban Centers, other major industrial and commercial sites.
- Port of Everett, Seattle and Tacoma facilities.
- Mainline and branch rail lines, as well as intermodal rail yards associated with Burlington Northern/Santa Fe and Union Pacific railroad facilities.
- Air Cargo Facilities (Sea-Tac and King County International Airports)

Ports of Seattle, Tacoma, and Everett are making on-going improvements to their facilities (berths, cranes, on-dock rail and access roads) to meet growing demand in regional and Pacific Rim trade.

Railroads. Two major national railroads serve the central Puget Sound region. Burlington Northern/Santa Fe and Union Pacific provide intercontinental freight service on their nationwide rail networks; each maintains significant yard and on-dock capacity to serve the ports. Both mainline and branch lines as well as intermodal connector rail yards are indicated on Map 4-5.

Airports. Freight is transferred to and from aircraft at two major airports in the region: Seattle-Tacoma International Airport (Sea-Tac) and King County International Airport (Boeing Field). Sea-Tac Airport handles the majority of the freight, although Boeing Field has captured a growing percentage. Freight is carried in the cargo holds of passenger aircraft, or in all-cargo aircraft. A limited amount of freight is moved by the "sea-

air" link; that is, cargo is transferred from ships, loaded onto aircraft, and flown to the East Coast, Europe, or other international destinations. Roadways accessing Sea-Tac Airport and Boeing Field are important parts of the inter-modal and freight roadway systems.

REGIONAL AVIATION SYSTEM

The existing regional airport system is comprised of 26 public use airports and 2 military airfields within the four central Puget Sound counties of King, Kitsap, Pierce, and Snohomish. The airport system includes Seattle-Tacoma International Airport (the region's primary commercial service airport), McChord Air Force Base, Gray Army Airfield at Fort Lewis, 5 general aviation reliever airports, 13 general aviation airports, 4 seaplane bases, and 3 state-owned emergency airfields. A subset of this region-wide aviation system is considered regionally significant, and is part of the Metropolitan Transportation System. The aviation component of the Metropolitan Transportation System is defined as noted in the sidebar below, and is displayed on Map 4-6.

Mandate for Inclusion of the Regional Aviation System in Destination 2030. State legislation requires that Regional Transportation Planning Organizations include existing and planned airports in their regional transportation plans. In addition, the National Environmental Policy Act (NEPA) rules for airports (FAA Order 5050.4A, "Airport Environmental Handbook") require that major airport projects involving a NEPA record of decision must be "...reasonably consistent with plans of public agencies for development of the area." *Destination 2030* fulfills these requirements by including airport improvement projects which address the region's commercial and general aviation improvement needs. *Destination 2030* replaces the 1988 Regional Airport System Plan (RASP) with long range policy direction and an ongoing planning program for improving the region's 25 general aviation airports. The program also provides for continuing analysis of regional aviation system issues and needs.

REGIONAL AIRPORT FACILITIES IN THE MTS

The aviation component of the MTS consists of the following airport facilities:

- Sea-Tac International Airport
- King County International Airport (Boeing Field)
- Paine Field
- Renton Municipal Airport
- Harvey Field
- Auburn Municipal Airport

The following table displays the region's existing airport facilities by type of use and ownership/management (that is, public or private facilities).

Regional Airport Facilities

TYPE OF USE	AIRPORT FACILITY	OWNERSHIP/MANAGEMENT (PUBLIC / PRIVATE)
Primary Commercial (air passenger and cargo)	Sea-Tac International Airport	Public (Port of Seattle)
General Aviation/Reliever (provide relief for Sea-Tac)	Auburn Municipal Airport	Public (City of Auburn)
	Harvey Field	Private
	King County Int'l (Boeing Field)	Public (Metropolitan King County)
	Paine Field	Public (Snohomish County)
	Renton Municipal Airport	Public (City of Renton)
General Aviation	Apex Airpark	Private
	Arlington Municipal	Public (City of Arlington)
	Bremerton National	Public (Port of Bremerton)
	Crest Airpark	Private
	Darrington Municipal	Public (City of Darrington)
	FirstAir Field	Private
	Pierce County/Thun Field	Public (Pierce County)
	Port Orchard	Private
	Sky Harbor	Private
	Spanaway	Private
	Swanson	Public (City of Eatonville)
	Tacoma Narrows	Public (City of Tacoma)
	Vashon Island	Private
General Aviation/Seaplane Base	American Lake	Private
	Kenmore Air Harbor	Private
	Lake Union Chrysler Air	Private
	Will Rogers/Wiley Post	Public (City of Renton)
General Aviation/Emergency Airfields (emergency landings and support for search and rescue)	Bandera State	Public (WSDOT)
	Ranger Creek State	Public (WSDOT)
	Skykomish State	Public (WSDOT)
Military Airfields	Gray Army Airfield (Fort Lewis)	US Army
	McChord Air Force Base	US Air Force

As of 1999 the region's airports were home to 3,620 based aircraft (53 percent of the state's total based aircraft) and served nearly 2.1 million annual flights (take-offs and landings). Of these, there were over 1.6 million flights at general aviation airports while Sea-Tac Airport handled 434,425 flights (20 percent of the region's total). Sea-Tac Airport served over 27 million passengers in 1999. Sea-Tac passenger forecasts show demand will grow from 27.7 million in 1999 to 44.6 million in 2020, while flights will increase from 434,000 to 532,000 over the same time period. Forecasts of regional general aviation activity show the number of based aircraft will increase from 3,620 in 1999 to 4,832 in 2030, while general aviation flights will increase from nearly 1.7 million in 1999 to 2.0 million in 2030.

The region's five reliever airports provide alternate landing areas for flights that might otherwise use Seattle-Tacoma International Airport, thereby allowing Sea-Tac to focus almost exclusively on meeting the region's

commercial passenger and air cargo market. These reliever airports provide a high level of aviation services and facilities to meet the aviation needs of the region. Together, these five airports served some 950,000 annual take-offs and landings in 1999, and were home to nearly 1,800 based aircraft, about half of the regional total. Three of the region's five reliever airports (Boeing Field, Paine Field, and Renton Airport) provide critical airport infrastructure supporting the Boeing Commercial Airplane Company's production of commercial jet aircraft to serve the world's passenger and air cargo markets. These airports support the production, testing, certification, and eventual customer delivery of the majority of Boeing's large commercial jet aircraft.

Commercial Aviation. A Regional Airport System Plan (RASP) was adopted in 1988 to provide general direction for development of the region's commercial and general aviation airport facilities. The 1988 RASP was partially modified and incorporated into the 1995 Metropolitan Transportation Plan (MTP) as the interim regional aviation system component of the MTP to reflect changing needs and findings related to commercial air passenger travel demand in the early 1990s. In 1996, after years of extensive technical and environmental analysis to address long-range commercial air transportation capacity options, a major step was taken when the Regional Council amended the MTP to include planning for a third runway at Sea-Tac International Airport. That policy is currently being implemented at the project level by the Port of Seattle. *Destination 2030* does not revisit the commercial aviation decisions made in 1996. While including the planned third runway at Sea-Tac Airport, *Destination 2030* updates the 1988 RASP to provide direction for investments in the general aviation airport system. See Appendix 7 for summary documentation of Regional Council actions related to commercial aviation.

According to the Port of Seattle's Airport Master Plan and associated environmental documents, the third runway at Sea-Tac will bring the airport's theoretical maximum capacity to 600,000-630,000 annual takeoffs and landings. This level of airport capacity would meet the region's forecast demand until the year 2030 or beyond. In the longer term, beyond the capacity of the third runway, the Regional Council recognizes the need for additional commercial airport capacity to meet state and regional needs, and recommends that the state, in cooperation with appropriate local jurisdictions and regional transportation planning organizations, implement a comprehensive process for evaluating all options to meet the State of Washington's long-term air travel and inter-regional ground transportation needs, including high speed rail.

Air Cargo. With a national growth rate of over 6 percent per year, air cargo is the fastest growing segment of the aviation industry. Regional air cargo forecasts predict total air cargo volumes will grow from 613,099 U.S. tons in 1998 to 1,048,795 U.S. tons in 2010. To meet these needs, the Airport Master Plans prepared for Sea-Tac Airport and King County International Airport/Boeing Field identify facility requirements for the coming 10-15 years. Beyond that time frame, there is a need for additional long range strategic and facility planning to address the region's air cargo facility needs, including ground access improvements. These needs will be addressed in future updates to the Sea-Tac Airport and Boeing Field master plans in coordination with regional airport system planning by the Regional Council.

General Aviation. The regional airport system includes both general aviation and commercial aviation facilities that accommodate commercial passenger demand, air cargo, and a range of general aviation activity. Air carrier airports serve certified air carrier airlines offering scheduled service. These airports primarily accommodate passenger and cargo airlines using large jet and commuter aircraft. General aviation airports are smaller, have shorter runways, and primarily serve business and corporate aviation, personal air travel, and recreational users. While the region has experienced growth in the general aviation market, recent analysis shows there is no need to develop new general aviation airports within the region between 2000 and 2030, as forecast aviation needs can be accommodated by improvements to existing general aviation airports.

Military Airfields. The region's two existing military airfields are McChord Air Force Base and Gray Army Airfield at Fort Lewis. Both are located in Pierce County and are used exclusively by the military to fulfill U.S. Department of Defense military missions. The Defense Department indicates that the missions for these two bases continue to be critical to national defense and their role as military airfields will continue over the coming decades. Therefore, no changes are envisioned for these military airfields in the planning horizon for *Destination 2030*. The Regional Council will continue to support compatible land use planning programs adjacent to these military airfields, and will support transportation improvements providing surface access to these airfields.

COMMUTE TRIP REDUCTION

The Commute Trip Reduction (CTR) law was enacted in 1991 as part of the Washington Clean Air Act. It has proven that vehicle trip reduction programs can have a significant impact on the populations they serve. Between 1993 and 1999, the region reduced its single-occupant vehicle rate for work commutes of CTR-covered employees by 5.5 percent. However, only 22 percent of the region's jobs are covered by the law, and only 20 percent of the region's trips are work trips. Expanding CTR and other vehicle trip reduction services and incentives to other work commutes and to nonwork trips could result in tremendous vehicle-travel reductions for the region.

MTS MANAGEMENT

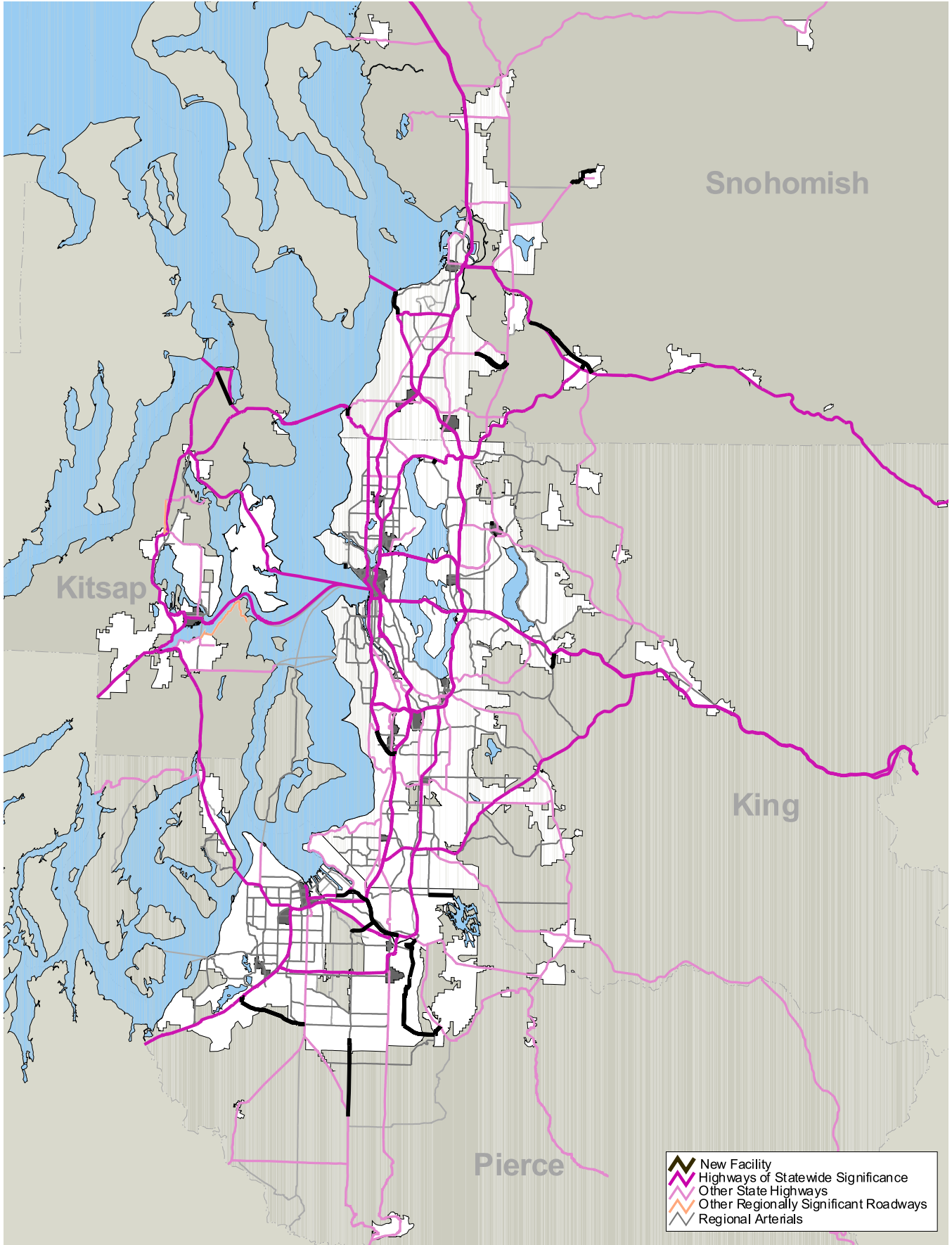
Most of the systems that are part of the Metropolitan Transportation System include system management elements so that they can be operated and utilized as safely and as efficiently as possible. System operations on the Puget Sound region's multimodal transportation system are the responsibility of many jurisdictions and agencies. In many cases the safety, efficiency and dependability of the overall Metropolitan Transportation System can be enhanced by developing methods for integrating various system management organizations. *Destination 2030* identifies the management centers, communications infrastructure and roadside equipment that make up the Regional Intelligent Transportation System Architecture and are used to operate and integrate this system as an integral part of the Metropolitan Transportation System.

The WSDOT Traffic Operation Centers (TOCs) in Shoreline and Tacoma are one example of a type of management center that is used to optimize the performance of part of the MTS, in this case the freeway system. The TOCs monitor traffic and road conditions, identify and verify incidents, detect faults in operations, and collect data for traffic strategy development and long range planning. This is done using information collected by roadside equipment, like cameras and loop detectors, that is supplied by a communication link to the TOC. The WSDOT TOCs also have a communication link to the Washington State Patrol's (WSP) Computer Aided Dispatch System so they can respond quickly to incidents in a coordination with WSP.

Transit agencies also operate management centers, communications and roadside equipment that help optimize the routing and scheduling transit services. Transit operators use management centers to monitor performance of the transit system to aide in schedule adherence and to respond to incidents. This information is provided to the management center over communication links. Transit vehicles also communicate in the field with other devices to enable technologies like transit signal priority (TSP). TSP is where a transit vehicle is given a longer green light at traffic signals so that it can remain on schedule or get back on schedule.

Vehicle trip reduction is a major policy area included in *Destination 2030*. Unlike other MTS components, demand management is not focused on facilities, but rather on programs or strategies designed to manage demand for vehicle travel to achieve system performance, environmental, and growth objectives. Demand management strategies are designed to 1) promote alternatives to driving alone, 2) shift trips out of peak travel periods, or 3) eliminate the need for certain trips. One of the best known vehicle trip reduction programs is the Commute Trip Reduction law enacted in 1991.

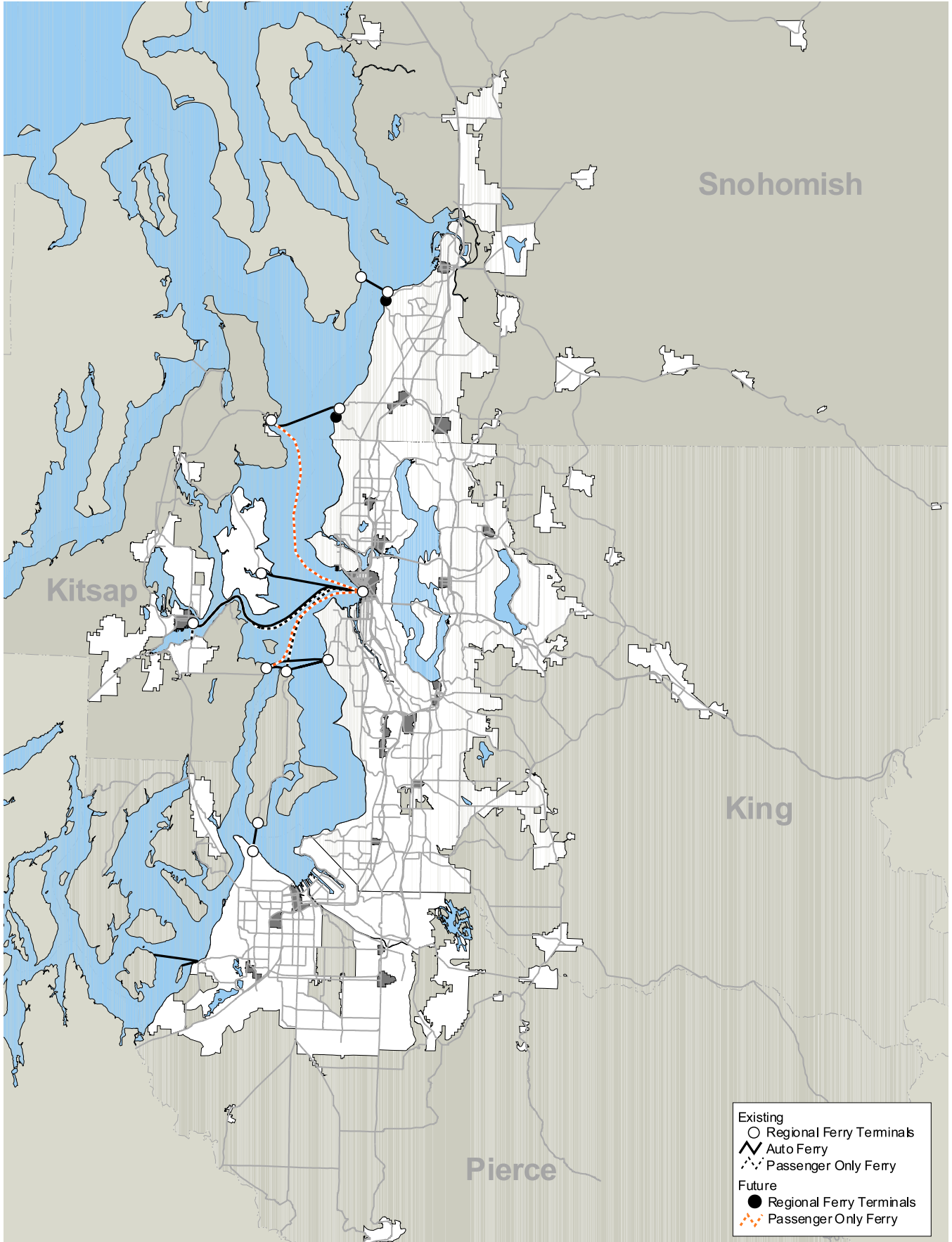
MAP 4-1. Metropolitan Transportation System (MTS) Roadway Component



- New Facility
- Highways of Statewide Significance
- Other State Highways
- Other Regionally Significant Roadways
- Regional Arterials

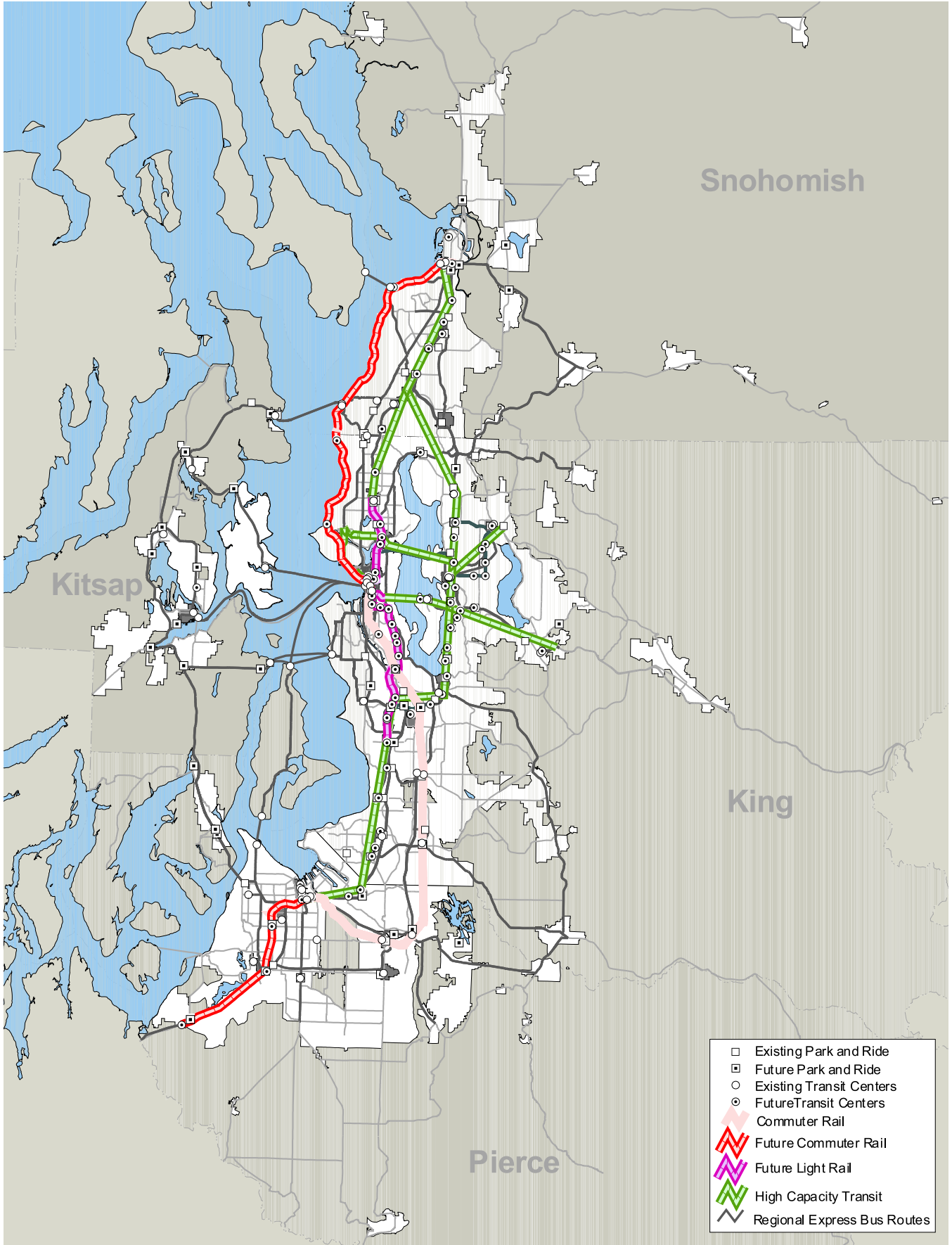
Adoption Date: May 24, 2001

MAP 4-2. MTS Ferry Component



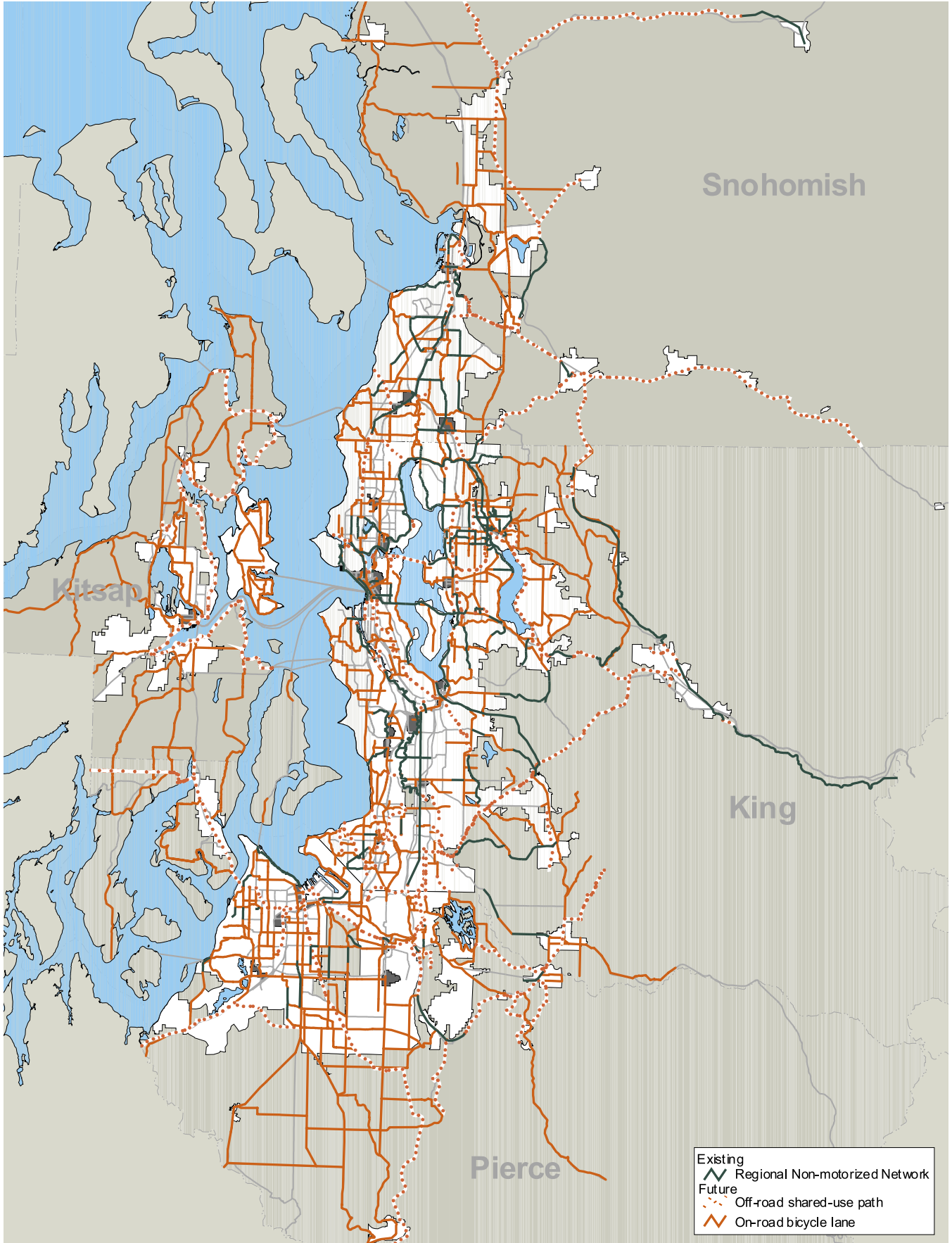
Adoption Date: May 24, 2001

MAP 4-3. MTS Regional Transit Component



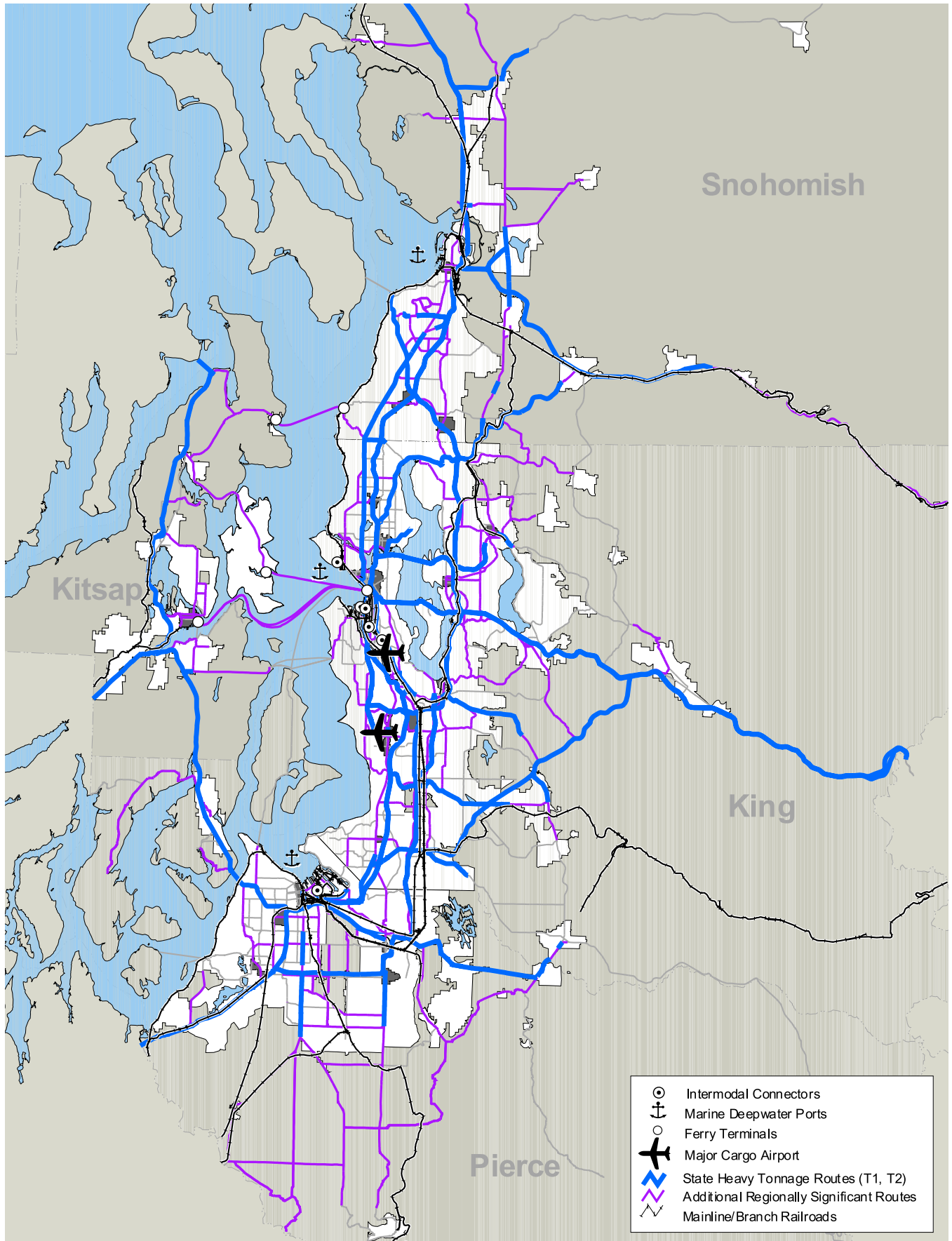
Adoption Date: May 24, 2001

MAP 4-4. MTS Non-Motorized Transportation Component



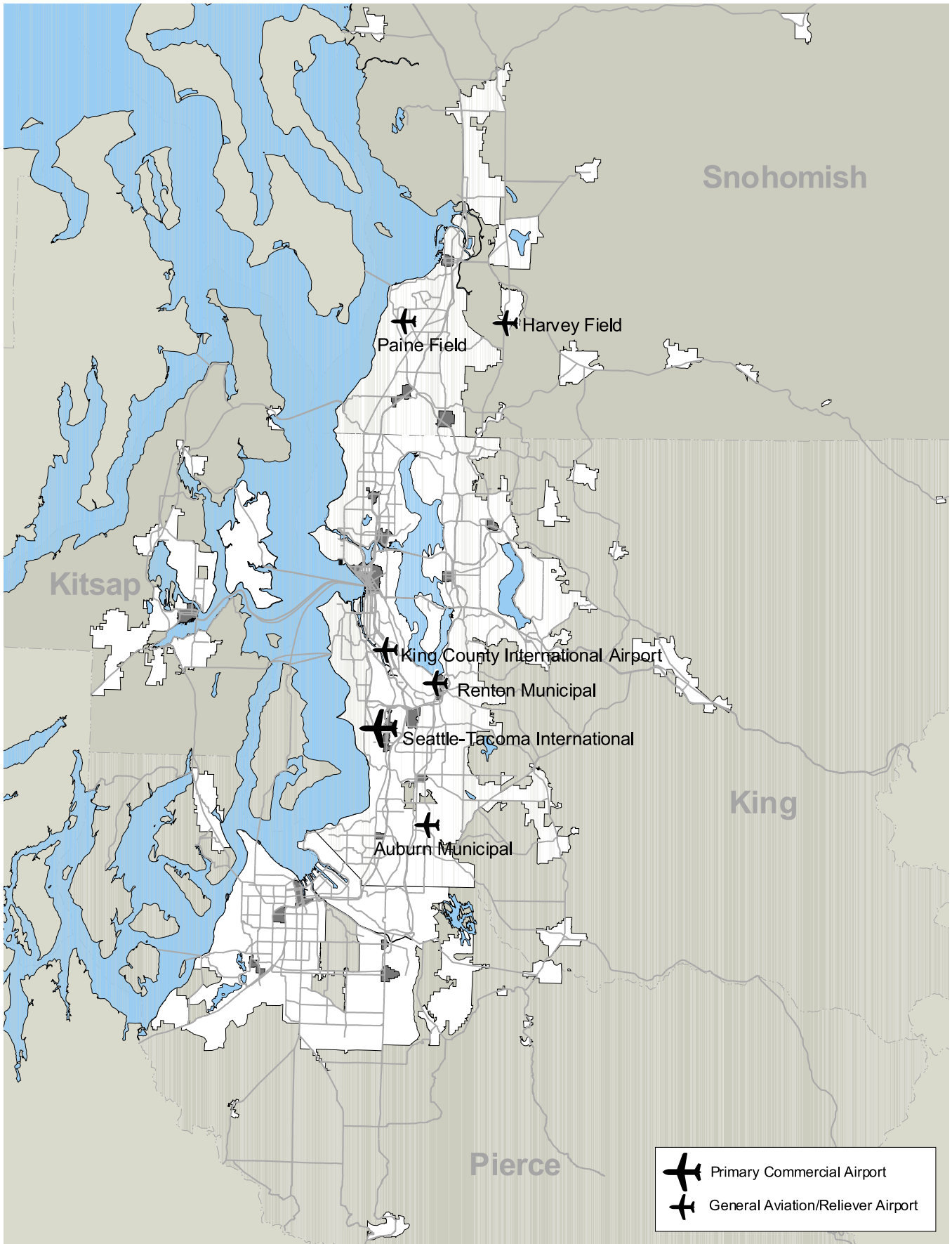
Adoption Date: May 24, 2001

MAP 4-5. MTS Freight Mobility Component



Adoption Date: May 24, 2001

MAP 4-6. MTS Aviation Component



Adoption Date: May 24, 2001