THE WHATCOM COUNCIL OF GOVERNMENTS

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Whatcom Mobility 2040

Introduction

Welcome to *Whatcom Mobility 2040*, the Whatcom region's combined metropolitan and regional transportation plan. This section provides an overview of state and federally-required transportation planning and the role that the Whatcom Council of Governments (WCOG) plays in satisfying those requirements.

What is the Whatcom Council of Governments?

WCOG is a regional planning conference: WCOG was created in 1966 pursuant to RCW 36.64.080 , the state law enabling the creation of "regional planning conferences," more commonly known in Washington as "councils of governments." In accordance with this legislation, WCOG serves as a regional planning forum for the various jurisdictions in Whatcom County, including the seven cities, Whatcom County government, the Port of Bellingham, the Whatcom Transportation Authority (WTA), the Lummi Nation and others. The state's objective under this legislation is to provide a framework for adjacent and nearby jurisdictions to collaborate on problems that are more effectively addressed as a region.

WCOG is a metropolitan planning organization (MPO): By 1980, the City of Bellingham's population exceeded 50,000, and accordingly, the federal government designated the City and its environs an "urbanized area." That designation gave Bellingham access to federal transportation funding, but also required that the federally prescribed transportation planning process be carried out. In order to meet these requirements, Governor John Spellman designated WCOG as the MPO for the Bellingham Urbanized Area in 1982. (Federal law regarding metropolitan planning is found at 23 U.S. Code § 134)

WCOG is a regional transportation planning organization (RTPO): In 1990, following passage of Washington's Growth Management Act (GMA), WCOG was designated as Whatcom County's RTPO. (The responsibilities of RTPOs under GMA are contained in RCW 47.80.) As such, WCOG is required to carry out a regional transportation planning process for all of Whatcom County, not just the Bellingham Urbanized Area.

While there are certain differences between the MPO and RTPO planning processes, they are similar enough that WCOG has integrated them into a unified process governed by a combined MPO/RTPO board known as the Whatcom Transportation Policy Board. As a result, *Whatcom Mobility 2040* serves as the long-range transportation plan for *all* of Whatcom County: its urbanized core in and around Bellingham, its smaller cities, and the County's vast rural areas.

Figure 1: The Regional Transportation Plan Adoption Process

Whatcom Mobility 2040: the long-range transportation plan for our region

While the unified planning process that WCOG carries out to meet its responsibilities as both an RTPO and MPO is continuous, updates to the region's long-range transportation plan are required every five years. Thus, *Whatcom Mobility 2040* is a snapshot as of 2017 that describes:

- The regional transportation system as it exists and functions today
- The region's transportation goals, i.e., the outcomes we expect from our investments in transportation projects, programs and services
- The forecast for transportation demand that our region will experience over the next 23 years, and
- Our collaboratively-developed regional strategy for advancing our transportation goals through projects, programs, collaboration and public engagement – and how to pay for it.

Though *Whatcom Mobility 2040* is now complete, WCOG's federal and state-mandated transportation planning process continues. System performance monitoring, collaborative identification of needs and solutions, and stakeholder engagement continue to inform policy and investment decisions. WCOG continues to work with and assist its numerous members, including providing technical assistance such as travel demand modeling and project prioritization. And, even with the completion and adoption of *Whatcom Mobility 2040*, WCOG staff is already looking ahead to the next update of the Whatcom region's long-range transportation plan, which will be adopted in 2022.

Why does WCOG prepare a regional and metropolitan transportation plan?

A *comprehensive, cooperative* and *continuing* process is required for an urbanized area to be eligible for federal transportation funding. This "3C" process – of which this plan is a product – is the mechanism for aligning future investments of public funds with communities' priorities, financial capabilities, land-use plans and population characteristics. More important than it being a statutory requirement, though, is that preparing a long-range transportation plan enables the region to better understand its needs, take stock of its assets, acknowledge its deficiencies and chart a course to improving mobility for *everyone* who travels within or through Whatcom County.

Relationship to sub-regional planning

Whatcom County and its seven cities all engage in transportation planning as part of their GMA-mandated comprehensive planning responsibilities, and the Lummi Nation and Nooksack Tribe carry out similar processes. The Whatcom Transportation Authority (WTA) – which operates the region's bus transit and ridesharing services – conducts a different, but extremely complex, planning process. The Port of Bellingham is also engaged in transportation planning to ensure access to its numerous facilities throughout Whatcom County, which include various marinas, industrial sites and Bellingham International Airport. Through their membership on the Whatcom Transportation Policy Board, these entities' transportation planning processes inform the regional planning process conducted by WCOG, and vice versa.

Relationship to state planning

Metropolitan and regional planning conducted by the various MPOs and RTPOs in the State of Washington – including that of WCOG – is integrated with the state's own transportation planning process, which is the responsibility of the Washington State Department of Transportation (WSDOT). One example of this is the alignment of WCOG's six-year regional Transportation Improvement Program (TIP) – a list of upcoming transportation projects developed in cooperation with WSDOT that includes all federally and state-funded regional projects – with the Statewide TIP. Another example is the collaboration among WSDOT, WCOG and its member jurisdictions on system evaluation and planning. The integration of regional and statewide planning is also reflected in WSDOT's membership on the Whatcom Transportation Policy Board.

Relationship to citizens

Good planning also requires the involvement of individual citizens, businesses, non-governmental organizations and other community groups and constituencies. This is partially facilitated through elected officials' participation on the Whatcom Transportation Policy Board, where they represent the interests of their constituents. A more direct role in regional transportation planning is played by the members of the Citizens' Transportation Advisory Group (CTAG). The members of CTAG are private citizens appointed to represent the concerns of the community in which they live (city, reservation or unincorporated Whatcom County) or certain groups who often have special transportation needs, such as senior citizens, disabled persons and college students.

The most basic way for citizens to participate in the regional and metropolitan transportation planning process is to attend meetings of the Whatcom Transportation Policy Board and/or share their concerns and ideas directly with the local elected officials serving on it. Forums held in conjunction with proposed transportation initiatives are also good opportunities for citizens to have their voices heard. Citizens can also stay abreast of the work being conducted by WCOG and its member jurisdictions and agencies through their websites, all of which are linked to WCOG's website, www.wcog.org. If you have questions about how you can engage in the regional transportation planning process, please see WCOG's Public Participation Plan.

2017 Transportation Conditions

Understanding the transportation system we have today – and how it’s working – is essential to developing strategies needed to create the system that will serve the mobility needs of the Whatcom region in 2040.

Whatcom Regionally Significant System

The scope and perspective of *regional* transportation planning is different than that conducted by local governments, the state, tribes, transit providers and other entities. This section of *Whatcom Mobility 2040* describes the Regionally Significant (transportation) System (RSS), including existing and future facilities, services, and programs that are of common interest and impact in the Whatcom region.

Facilities and related services

The RSS includes both publicly and privately-owned and operated components, including roads, portions of roads and other dedicated facilities for bicycle and pedestrian travel, railroads, marine terminals, transit stations and airports. Physical assets such as border inspection stations, parking lots and electric vehicle charging stations are also included in the RSS.

Roads

- Roads classified as *principal or minor arterials* per the U.S. Federal Highway Administration (FHWA)'s functional classification system
- All state roads
- Roads serving intermodal facilities, including:
    - Amtrak stations
    - Airports
    - Ferry terminals
    - Intercity bus terminals
    - Multipurpose passenger facilities
    - Port terminals
    - Public transit stations
    - Truck/pipeline terminals
    - Truck/rail facilities
- Roads serving major activity centers
    - Regional hospitals
    - Large schools
    - Emergency management centers
    - Shopping centers
    - Industrial centers
    - Employment centers
    - Recreation and tourism centers
- Washington State Freight and Goods Transportation System routes T-1 through T-4
- Roads that support facilities generating or attracting significant freight-truck shipments and/or deliveries (Note: Most routes between concentrations of freight trip-ends are served by roads

included in the RSS by virtue of the criteria listed above. This criterion allows inclusion of some roads that do not meet the other criteria, but because of the type and/or volume of traffic they serve, they advance regional transportation goals.)

Figure 2: Regionally Significant Roads

Bicycle and pedestrian

- Bicycle routes and bike/pedestrian facilities (trails, etc.) serving regional connections or intermodal facilities. Examples of regional bike/pedestrian *routes* include:
    - The Bay-to-Baker Trail route
    - The Coast Millennium Trail route
    - The Nooksack Loop
    - Regional sections of the U.S. Bicycle Route System
- Bike/pedestrian facilities that serve RSS intermodal facilities, including:
    - Dedicated trail serving a park-and-ride/transit hub
    - Bike-share station co-located with a transit hub
    - Bike-share services

Rail

- Railroads (tracks and related facilities)
- Passenger rail stations
- Freight-rail carrier services

Marine

- Alaska Marine Highway System
- Public ferry boats and auto and passenger ferry terminals
- Marine cargo terminals and services

Transit

- Public transit routes, services, built amenities (pullouts, shelters, etc.)
    - WTA (and partners on inter-county services)
    - Lummi Transit
    - Private scheduled-route operators (Greyhound, Bolt Bus, Bellair, Airporter, Quik Shuttle, etc.)
    - Amtrak Cascades inter-city rail service
    - School district buses
- Bus stations (WTA and private scheduled-route operators)

Air

- Bellingham International Airport
- Lynden Airport

- Passenger airlines (Alaska, Allegiant, Horizon, San Juan, others)
- Air freight carriers (Alaska Air Cargo, FedEx)

Other facilities

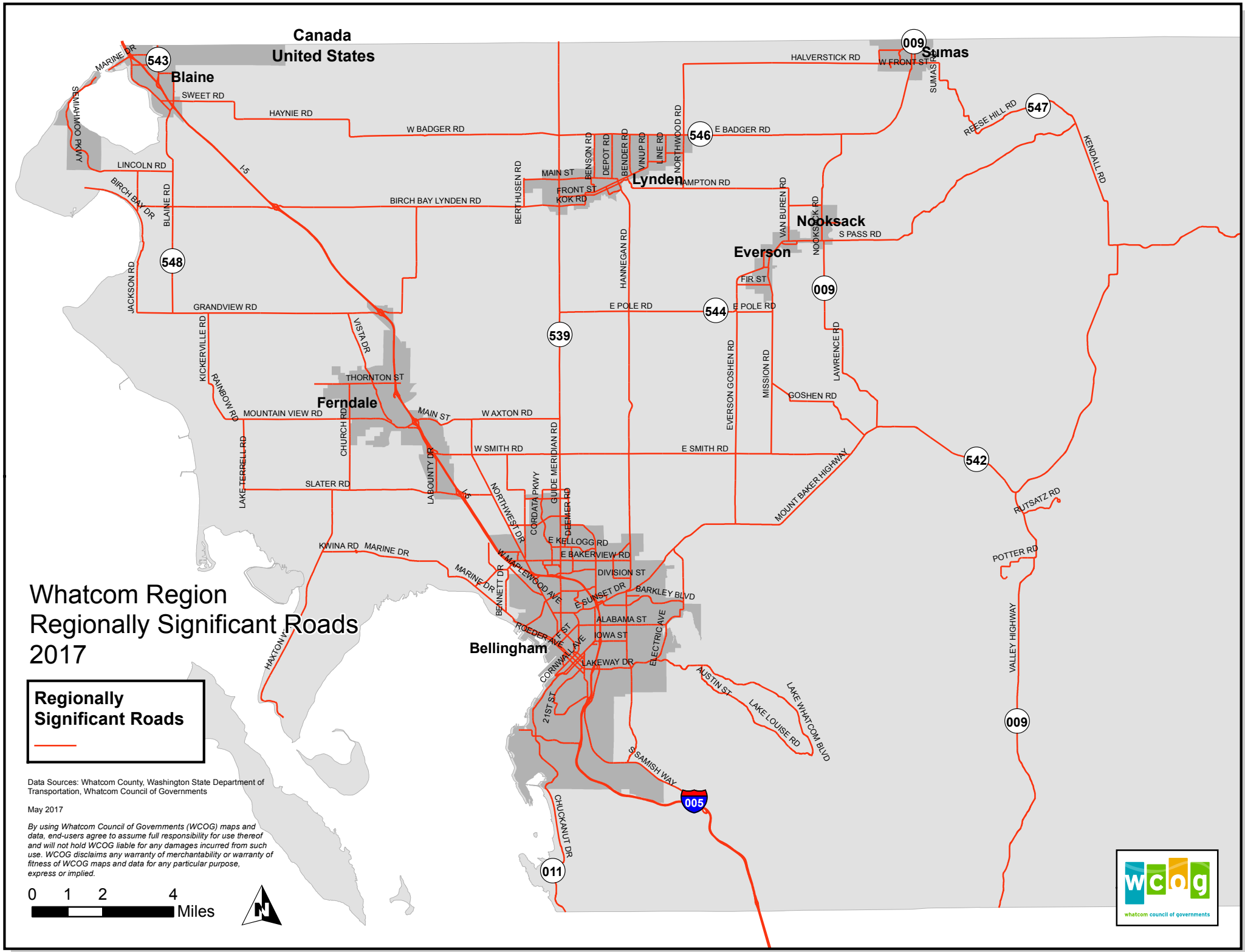
- Intermodal
- U.S. and Canadian federal border inspection stations
- Passenger vehicle parking facilities located at:
    - Employment centers
    - Institutional uses (schools, hospitals, etc.)
    - Retail and service providers
    - Intermodal (rail, ferry, transit, park-and-rides, etc.)
- Park-and-ride lots
- Truck parking facilities (public and private facilities where large freight trucks can park for legally-required driver rest periods)
- Electric vehicle charging stations

Other services

- Ride services (taxis, Lyft, Uber, etc.)
- Car share services (ZipCar, peer-to-peer, etc.)
- Vehicle rental

Programs

- Safety, including Washington State's Target Zero program
- Whatcom Unified Emergency Management
- Transportation demand management, particularly the Whatcom Smart Trips Program
- Washington State's Commute Trip Reduction Program
- Transportation system management and operational programs and strategies, including intelligent transportation systems
- Transportation system planning
- Metropolitan and regional transportation planning, as described in WCOG's Unified Planning Work Program
- The International Mobility and Trade Corridor Program (IMTC)
- North Sound Connecting Communities Program (also known as "The Farmhouse Gang")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Whatcom Region
Regionally Significant Roads
2017
Regionally Significant Roads
Data Sources: Whatcom County, Washington State Department of Transportation, Whatcom Council of Governments
May 2017
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2017 Transportation Activity

The Whatcom region relies on a complex, multi-modal transportation network to get people and goods where they need to go, whether within the county, to other parts of Washington, or to Canada and other foreign countries. This section discusses the common non-motorized and motorized transportation modes used.

Non-motorized transportation

Walking

Walking was humanity's first mode of transportation and it remains the foundation of our modern transportation system. Virtually all personal trips include some walking, whether directly to one's destination, to and from a car or a bus stop, or through an airport terminal. Walking is also the least-expensive mode of transportation, and as such is available to almost everyone (for those who cannot walk due to a disability, a wheelchair often provides the same benefits). While walking is an excellent mode choice for short trips, it becomes less viable as the length of the trip increases. Because the distance between home and destinations such as work, school, shopping or other activities is often too far, walking as the *only* mode used for an entire trip accounts for about 11 percent of all trips made in Whatcom County. For urbanized areas where trip ends are closer together, walking rates are higher. In Bellingham, 24 percent of trips are one mile or less, and 12 percent of all trips are made by walking. For people with disabilities, those with lower incomes, and seniors and children, walking accounts for about 30 percent of all trips. Walking trips are also among the shortest in travel time, averaging about 14 minutes per trip.

Bicycling

Citizens, local jurisdictions and WCOG have made significant efforts to increase bicycling within the region. Throughout Whatcom County, three percent of trips are made by bicycle, but in Bellingham the city-wide figure is six percent. Furthermore, in the section of Bellingham that is west of Interstate 5 – where the streets are better connected, there are many employment and shopping destinations, and there is better bicycle infrastructure – 11 percent of trips are made using bicycles.

Motorized Transportation

Transit

WTA is the public transit provider in Whatcom County and operates the following transit services:

- **Fixed-route buses** provide service at designated bus stops on more than 30 routes throughout the County and serve the largest share of transit trips, ranging from 16,000 to 20,000 passenger boardings a day.
- **Paratransit** serves people with disabilities which prevent them from using fixed-route bus service. Paratransit service follows the same route network as fixed-route buses, but will pick up passengers at home or other locations within three-quarters of a mile from the regular route. On a typical day, paratransit service provides between 570 and 590 rides.
- WTA's **vanpool program** allows employers to lease WTA-owned vans for ride-sharing to their employees' worksite.
- **Zone service** provides limited transit service to rural communities in Whatcom County. Riders must make a reservation for this service, which provides from 170 to 230 riders per month.

Park-and-Ride Lots

In Whatcom County there are many park-and-ride lots at which people meet to form carpools or connect to a WTA bus. There are both designated park-and-ride lots and informal park-and-ride locations, such as shopping center parking lots (although their use as park-and-ride lots is often prohibited by the property owner). Dedicated park-and-ride lots exist at the following locations:

Figure 3: Whatcom County Park-and-Ride Lots

Passenger rail

More than 150 miles of track owned by BNSF Railway stretch between the cities of Seattle and Vancouver, British Columbia, and it is on these tracks that Amtrak's Cascades passenger rail service operates. Each of the Amtrak Cascades' two daily round-trips between Seattle and Vancouver stops in Bellingham, providing residents of Whatcom County with an alternative to driving north to Vancouver or to points as far south as Eugene, Oregon.

Ridership on the Amtrak Cascades service has steadily increased (9.5 percent per year) as funding partners add capacity and improve on-time performance. There is regional interest in increasing the number of cross-border round trips, and the City of Blaine is actively seeking a stop to serve residents of northwest Whatcom County as well as the heavily-populated Lower Mainland of B.C., particularly those communities south of the Fraser River.

As a result of federal legislation, since October of 2013, the states of Washington and Oregon own and operate the Amtrak Cascades service. While the states collaborate on managing Amtrak Cascades, each is responsible for operating the service within its own boundaries, with Washington also assuming responsibility for the service in British Columbia.

Passenger ferry

Whatcom County operates a ferry between Gooseberry Point on the Lummi Reservation and Lummi Island (which is not part of the reservation). The "Whatcom Chief" carries approximately 180,000 passengers and 110,000 vehicles annually.

The Alaska Marine Highway System operates ferry service connecting Bellingham to Ketchikan,

Alaska, a 38-hour trip via the Inside Passage. Annually, these ferries transport approximately 13,700 passengers and 5,600 vehicles from Bellingham to Ketchikan, and 12,000 passengers and 5,100 vehicles in the other direction. This level of activity has remained relatively steady for the last ten years.

In addition to these regularly scheduled services, private companies offer seasonal marine services leaving from Fairhaven and from Drayton Harbor in Blaine to locations in the San Juan Islands, Victoria B.C., and Semiahmoo Point in Blaine.

Passenger air

Bellingham International Airport (BLI) provides commercial passenger service from Alaska Airlines, Allegiant and San Juan Airlines. Passenger travel out of BLI grew steeply in the 2000s, peaking at 573,714 boardings in 2013, largely due to the airport's popularity among British Columbians living in the Lower Mainland. Since then, there has been a significant decrease in boardings, primarily as a result of the decline in the Canadian dollar.

A smaller airport is also located in Lynden that provides facilities for general aviation and light aircraft charter services. Also, a seaplane terminal known as Floathaven is located on Lake Whatcom.

Automobiles

As in most places in the U.S., the personal automobile is the primary mode choice for personal trips in the Whatcom region, accounting for about 80 percent of all trips. The average household in Whatcom County owns two motor vehicles (cars and/or light trucks) and generates about seven automobile trips a day, with an average trip time of just over 17 minutes.

Other passenger travel modes

The region is also served by private bus services (including Greyhound, Bellair charters and shuttles and Bolt Bus), taxi services, ride sharing (Lyft and Uber), and rental car companies.

Commercial vehicles

The amount of freight carried by commercial long- and short-haul trucks within and through Whatcom County is substantial because of international border crossings, urban area activities, marine port connections, industrial activity and agriculture. Annually, about 18 million tons of freight are carried through the region on Interstate 5. Under Washington's Freight and Goods Transportation System (FGTS)classification, there are several state routes and city road segments that are classified as either "T-1," FGTS's highest-priority rating (carrying more than 10-million tons of freight per year), or "T-2," carrying between 4 and 10-million tons annually.

Roughly 75 percent of all commercial and passenger vehicles traveling between British Columbia and Washington cross the border at one of Whatcom County's four principal ports-of-entry: Peace Arch-Douglas, Pacific Highway, Lynden-Aldergrove or Sumas-Abbotsford-Huntingdon, known collectively as the Cascade Gateway. Nearly 3,000 commercial vehicles cross through Cascade Gateway every day, carrying an average of more than $30-million in trade goods. With 30 percent of commercial

trucks having a trip-end south of Washington State, the region's border crossings and highway system play an important role in both Washington's and the national economy, as well as the economies of B.C. and Canada. WCOG focuses on border transportation through its IMTC Program, which addresses the needs of freight and how to expedite cross-border truck movements while maintaining environmental quality and the safety of the communities impacted by these trips.

Rail freight

Commercial freight is also transported across Washington by rail. Whatcom County's main rail line, operated by Burlington Northern Santa Fe (BNSF) Railway, serves the bulk of regional rail freight movement. An additional rail line - also owned by BNSF - stretches 46 miles from Burlington in Skagit County to Sumas, at which it crosses the border into Canada. This line currently carries freight cars only.

Studies of the rail system were conducted in 2002 and again in 2011 to examine the potential growth of both freight and passenger rail and better ways to utilize existing infrastructure. As highways in the region grow more congested, regional agencies continue to explore how a greater proportion of freight movements could be served by rail.

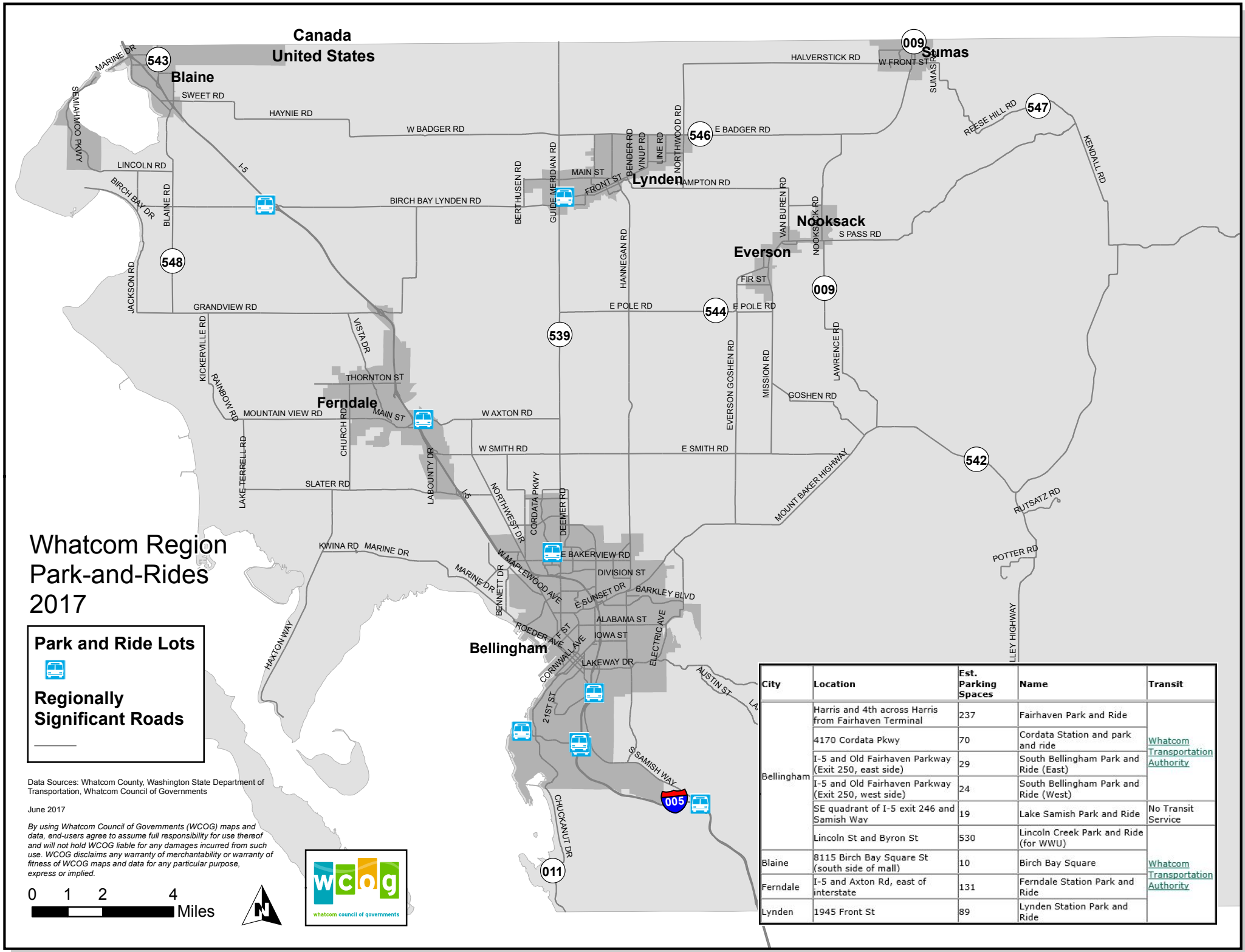
Marine cargo

The Bellingham Shipping Terminal on Squalicum Harbor, operated by the Port of Bellingham, provides a full-service marine terminal. Opportunities may exist to expand these services, which, depending on the commodities being transported, have some potential of reducing future demand on the region's highways. Landside facilities at Squalicum Harbor currently include a shipyard, rail lines, retail stores, seafood processing plants and cold storage.

Deep-water facilities are operated at the Cherry Point industrial area by Alcoa's Intalco Works, British Petroleum and Phillips 66.

Air freight

BLI is host to freight and mail transport operations, including freight airlines, freight forwarders, and trucking firms involved in air movement of freight.



Whatcom Region Park-and-Rides 2017

Park and Ride Lots

Regionally Significant Roads

Data Sources: Whatcom County, Washington State Department of Transportation, Whatcom Council of Governments

June 2017

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City	Location	Est. Parking Spaces	Name	Transit
Bellingham	Harris and 4th across Harris from Fairhaven Terminal	237	Fairhaven Park and Ride	Whatcom Transportation Authority
	4170 Cordata Pkwy	70	Cordata Station and park and ride	
	I-5 and Old Fairhaven Parkway (Exit 250, east side)	29	South Bellingham Park and Ride (East)	
	I-5 and Old Fairhaven Parkway (Exit 250, west side)	24	South Bellingham Park and Ride (West)	
	SE quadrant of I-5 exit 246 and Samish Way	19	Lake Samish Park and Ride	No Transit Service
	Lincoln St and Byron St	530	Lincoln Creek Park and Ride (for WWU)	Whatcom Transportation Authority
Blaine	8115 Birch Bay Square St (south side of mall)	10	Birch Bay Square	
Ferndale	I-5 and Axton Rd, east of interstate	131	Ferndale Station Park and Ride	
Lynden	1945 Front St	89	Lynden Station Park and Ride	

2040 Forecast Transportation Conditions

Sophisticated forecasting tools are used to create scenarios of the region’s future population, land use and transportation system to guide decision-making that ensures the greatest degree of mobility for Whatcom’s citizens.

2040 Forecast Population & Land Use

Households and employment

To measure impacts of population and employment growth on the regional transportation network, WCOG applies a conventional four-step, trip-based travel demand model. The model uses household travel characteristics to generate person trips that become the basis for a simulation of transportation activity on the transportation network, which includes transit routes as well as roads. Current and forecast household and employment numbers are geographically allocated to traffic analysis zones (TAZs), which are established using census block information and which are bounded by transportation facilities, usually roads. Then, using the travel demand model, each TAZ's expected trip activity is assigned to (and from) roads and transit routes in the regional transportation network. Transportation planners use these data and the outputs they generate to determine future demand and develop strategies to meet it, as well as to accomplish other regional transportation goals. More information on WCOG's travel demand model can be found by clicking on the following link: WCOG Regional Travel Demand Model.

Base year 2013

For the purpose of forecasting, *Whatcom Mobility 2040's* base year is 2013. That year is used because it was also used by Whatcom County and the seven cities as the base year for the updates of their comprehensive plans in 2016. Data used in the development of base year 2013 – which was the work of WCOG, Whatcom County and a consultant – were compiled from a variety of sources, including the U.S. Census Bureau, Washington State Office of Financial Management population estimates, parcel-level data from local governments, and other sources.

Whatcom County forecast year 2036

The team that developed base year 2013 also extrapolated the demographic and employment data used to create forecast year 2036 for the environmental impact statement prepared in conjunction with Whatcom County's comprehensive plan update. Subsequently, the transportation network in WCOG's travel demand model was updated to include capacity-adding projects currently listed in the regional and state transportation improvement programs through 2021, but only those for which full funding is secure. Projects not fully funded or those currently planned in years beyond 2021 were excluded.

Whatcom Mobility 2040 horizon year

By federal regulation, metropolitan transportation plans must be updated every five years and address no less than a 20-year planning horizon as of the effective date of the plan. The previous update to WCOG's plan was approved in June 2012, necessitating another update no later than June of 2017. Accordingly, the plan's horizon year could be no earlier than 2037. Because Whatcom County and its constituent cities updated their comprehensive plans in 2016 as required by Washington's Growth Management Act, they used 2036 as their forecast year. That presented WCOG with the opportunity to use the 2036 land-use, population and employment assumptions developed by its members and extrapolate them to 2037 or beyond to establish this plan's horizon year. Since extrapolation would be necessary in any case, WCOG chose to do so through 2040, primarily out of deference to the convention of using decennial years as horizons. The households and employment growth data in *Whatcom Mobility 2040* maintain the forecast distribution established by Whatcom County's land capacity analysis and preferred-alternative scenario for 2036, although at a slightly reduced overall annual growth rate.

(More information on Whatcom County's 2036 comprehensive plan can be found at the following link: Whatcom County Comprehensive Plan.)

Table 1: Projected Household Population, Households and Employment, 2008-2040

Forecast Summary

	2008	2013	2036	2040
Household Population*	185,774	198,882	268,750	282,204
Total Households	75,048	81,710	112,264	117,792
Total Employment	88,044	83,233	120,284	127,483

*Population is an estimate based on the household formula from the *2008 North Sound Travel Survey* . The survey reports an average of 2.3 persons per household.

Households and employment are projected to increase by 44 percent and 53 percent, respectively, from 2013 to 2040. Figure 4 illustrates the growth in households and employment by TAZ with respect to the region's network of regionally significant roads. As can also be seen on the maps, the geographic size of TAZs can vary significantly according to their land-use type and population density. Urbanized areas typically have much smaller TAZs than rural areas, where the population is more spread out.

Click on the tabs on the left-hand side of the map to switch between household and employment growth.

Figure 4: Future Households & Employment

Note how the growth areas for households are far more widespread than those for employment, which tends to be concentrated in and near Bellingham, with smaller concentrations along the Interstate 5 corridor and in Lynden.

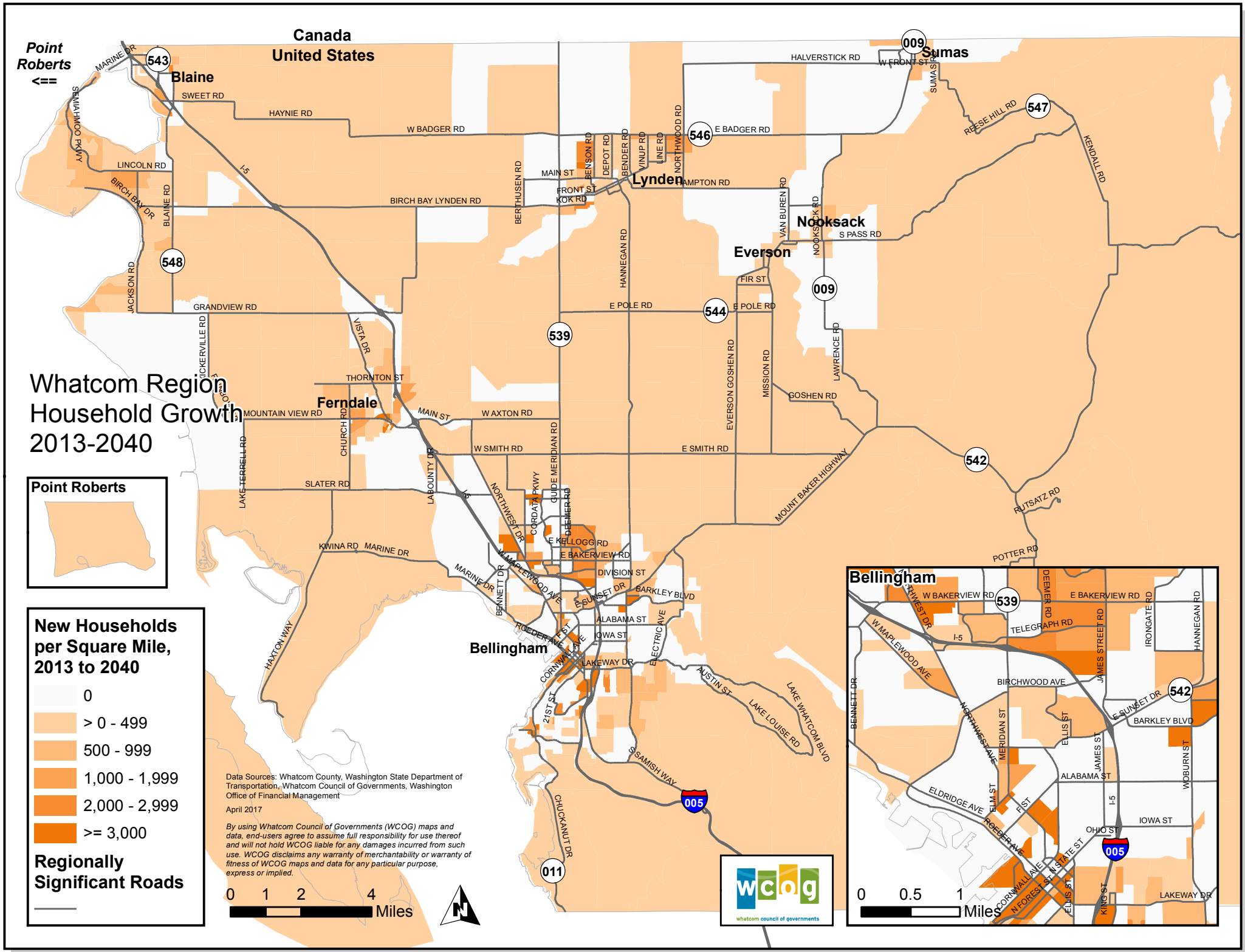
Table 2 lists the employment sectors and the number of jobs in each for base year 2013 and the horizon year of 2040, which were applied to the regional travel demand model.

Table 2: Growth by Employment Type

Growth by Employment Type

	2013	2040	% Increase
Education	7,721	10,953	41.9
Finance and Insurance	5,252	9,590	82.6
Services	25,370	39,480	55.6
Government	2,939	4,952	68.5
Manufacturing	8,892	12,510	40.7
Retail	18,863	27,283	44.6
Wholesale	3,749	7,037	87.7
Construction	6,369	9,523	49.5
Telecommunications	2,006	4,049	101.8
Agriculture	1,558	1,574	1.0
Other	367	380	3.5
Mining	147	152	3.4
All Employment	83,233	127,483	53.2

Please visit the Whatcom Mobility 2040 **interactive map collection** for more in-depth 2040 maps and analyses.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Regionally Significant Roads
Data Sources: Whatcom County, Washington State Department of Transportation, Whatcom Council of Governments, Washington Office of Financial Management
April 2017
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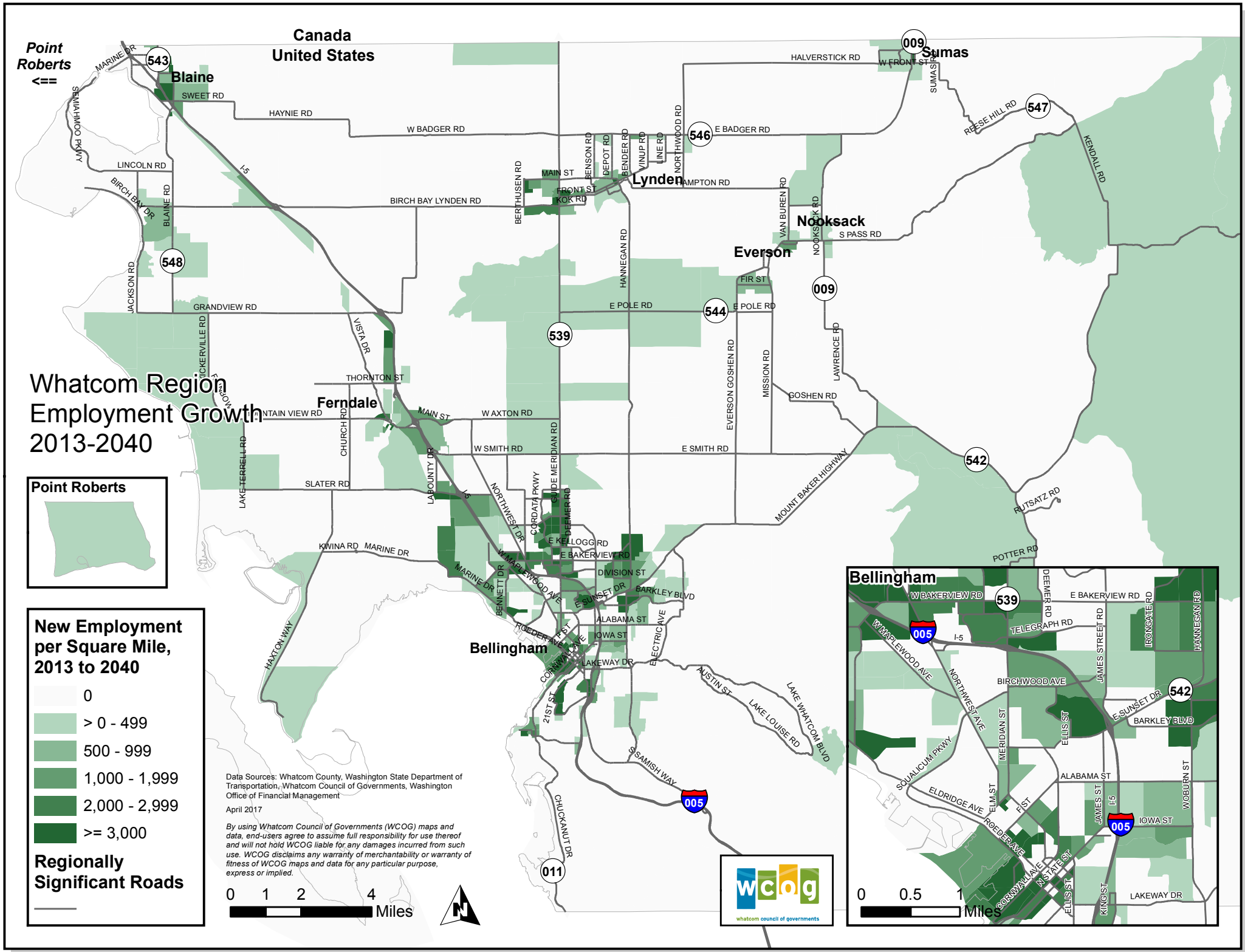
Point Roberts <==
Canada
United States
Blaine
Lynden
Sumas
Nooksack
Everson
Ferndale
Bellingham
Whatcom Region
Employment Growth
2013-2040
Point Roberts
New Employment per Square Mile, 2013 to 2040
0
> 0 - 499
500 - 999
1,000 - 1,999
2,000 - 2,999
>= 3,000
Regionally Significant Roads
Data Sources: Whatcom County, Washington State Department of Transportation, Whatcom Council of Governments, Washington Office of Financial Management
April 2017
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Bellingham
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2040 Forecast Transportation Activity

Roads

For the 212,000-plus residents of the Whatcom region, roads serve as the primary facilitator of travel, both within and to points outside the region. Whatcom County contains nearly 2,000 miles of roads, of which 486 miles are classified as “regionally significant.” WCOG’s travel demand model is used to analyze and forecast travel activities on regionally significant roads. The model provides regional-scale indicators of travel behavior, helps identify transportation system deficiencies, and estimates transportation activity relative to expected land-use and transportation system changes.

In order to assess the impact of planned projects on the regional transportation system, three scenarios were created for the travel demand model: a 2013 base year, the 2040 “no-build” scenario, and the 2040 “build” scenario. The 2040 no-build and build scenarios are distinguished by the following:

- The **2040 no-build** scenario is based on expected future population growth and land-use changes, but assumes that no additional roadway capacity is built to serve the increased travel demand that those changes would generate.
- The **2040 build** scenario assumes the same future population growth and land-use changes as the no-build scenario, but includes the additional road capacity that would be added to the regional transportation network as a result of completing all currently-planned transportation projects.

Regional vehicular travel patterns

Tables 3 and 4 describe daily vehicle trips made in base year 2013 and the projected trips under the 2040 no-build scenario, respectively. Note that the travel demand model balances the total number of trips between jurisdictions, but not for “external” trips, i.e., those that either begin or end outside of Whatcom County, including British Columbia.

Table 3: 2013 Daily Vehicle Trips by Jurisdiction

Destination

Trip Origin	Bellingham	Blaine	Everson	Ferndale	Lynden	Nooksack	Sumas	Unincorp.	External	Total
Bellingham	**169,487**	3,124	1,068	10,810	6,242	446	482	53,745	17,292	262,696
Blaine	3,124	**2,489**	56	1,090	676	26	55	5,407	2,578	15,501
Everson	1,068	56	**328**	127	667	157	156	1,781	327	4,667
Ferndale	10,810	1,090	127	**3,066**	970	53	60	9,328	1,373	26,876
Lynden	6,242	676	667	970	**6,423**	297	451	9,299	1,941	26,965
Nooksack	446	26	157	53	297	**16**	98	815	182	2,088
Sumas	482	55	156	60	451	98	**266**	1,222	719	3,508
Unincorp.	53,745	5,407	1,781	9,328	9,299	815	1,222	**44,789**	11,505	137,890
External	19,646	2,903	283	1,366	1,899	108	893	7,557	**3,270**	37,923
Total	265,050	15,826	4,623	26,869	26,923	2,014	3,682	133,942	39,186	**518,114**

Table 4: 2040 (No-build) Projected Daily Vehicle Trips by Jurisdiction

Destination

Trip Origin	Bellingham	Blaine	Everson	Ferndale	Lynden	Nooksack	Sumas	Unincorp.	External	Total
Bellingham	**276,751**	5,525	1,897	19,167	9,536	777	812	55,710	27,598	397,773
Blaine	5,525	**6,447**	116	2,580	1,337	52	105	8,492	5,405	30,058
Everson	1,897	116	**775**	265	1,203	341	290	2,732	611	8,228
Ferndale	19,167	2,580	265	**7,935**	1,952	106	126	13,404	2,654	48,187
Lynden	9,536	1,337	1,203	1,952	**11,635**	548	758	12,308	3,607	42,884
Nooksack	777	52	341	106	548	**40**	193	1,248	371	3,676
Sumas	812	105	290	126	758	193	**470**	1,747	1,549	6,049
Unincorp.	55,710	8,492	2,732	13,404	12,308	1,248	1,747	**46,990**	14,442	157,073
External	29,911	4,983	607	2,585	3,343	227	1,775	9,037	**5,399**	57,868
Total	400,086	29,637	8,225	48,118	42,620	3,532	6,275	151,668	61,635	**751,796**

Overall, the region is expected to see an increase of 45 percent in vehicle trips by 2040, and as would be expected, the majority of those trips will be made in the larger urban areas. Although unincorporated Whatcom County currently produces a substantial number of trips, its population growth and land-development rates are projected to be less than those of the urbanized areas, which will restrict the growth of vehicle trips in the county's rural areas. Table 5 illustrates the percentage growth in trips from 2013 to 2040.

Table 5: Projected Change in Daily Vehicle Trips by Jurisdiction, 2013 to 2040 (No Build)

Destination

Trip Origin	Bellingham	Blaine	Everson	Ferndale	Lynden	Nooksack	Sumas	Unincorp.	External	Total
Bellingham	**63%**	77%	78%	77%	53%	74%	68%	4%	60%	51%
Blaine	77%	**159%**	108%	137%	98%	103%	92%	57%	110%	94%
Everson	78%	108%	**136%**	108%	80%	118%	86%	53%	87%	76%
Ferndale	77%	137%	108%	**159%**	101%	101%	109%	44%	93%	79%
Lynden	53%	98%	80%	101%	**81%**	85%	68%	32%	86%	59%
Nooksack	74%	103%	118%	101%	85%	**147%**	97%	53%	104%	76%
Sumas	68%	92%	86%	109%	68%	97%	**77%**	43%	115%	72%
Unincorp.	4%	57%	53%	44%	32%	53%	43%	**5%**	26%	14%
External	52%	72%	115%	89%	76%	112%	99%	20%	**65%**	53%
Total	51%	87%	78%	79%	58%	75%	70%	13%	57%	**45%**

Note the substantial increase in intra-jurisdictional trips, i.e., starting and ending in the same jurisdiction, in each of the region's six smaller cities (Blaine, Everson, Ferndale, Lynden, Nooksack and Sumas). Emphasis on providing complete and accessible pedestrian and bicycle facilities in those communities will provide residents with alternatives to driving for short trips.

VMT and VHT

Vehicle miles traveled (VMT) is a common measurement of cumulative distances driven by all vehicles on the region's roads throughout an average 24-hour day. Vehicle hours traveled (VHT), the cumulative time that vehicles are driven during the same time period, reflects the efficiency of vehicular movement on the road network. VHT is a product of factors such as travel speed, roadway capacity, and congestion.

Table 6: Average Daily Miles Traveled, 2013-2040 (No Build)

Jurisdiction	2013	2040 No Build	Percent Growth
Bellingham	1,513,470	2,389,710	58%
Blaine	92,201	164,952	79%
Everson	22,575	47,135	111%
Ferndale	419,205	605,718	45%
Lynden	102,983	159,728	55%
Nooksack	14,043	22,649	62%
Sumas	14,609	24,795	70%
Unincorporated	2,238,866	2,851,882	27%
Regional Total	**4,551,270**	**6,445,650**	**42%**

Table 7: Average Daily Vehicle Hours Traveled, 2013-2040 (No Build)

Jurisdiction	2013	2040 No Build	Percent Growth
Bellingham	43,658	83,665	92%
Blaine	2,368	4,656	97%
Everson	589	1,256	113%
Ferndale	8,506	15,192	79%
Lynden	2,874	4,579	59%
Nooksack	363	594	64%
Sumas	390	664	70%
Unincorporated	52,972	71,789	36%
Regional Total	**114,317**	**186,237**	**63%**

As indicated in the tables, both VMT and VHT increase substantially as a result of the projected growth in households and employment, which varies significantly by jurisdiction. Note how much smaller the projected increases in VMT and VHT are for unincorporated Whatcom County compared to those of the seven cities. That is primarily the result of more restrictive land-use policies in the unincorporated county prescribed by Washington's Growth Management Act.

Table 8: Comparison of Region's Projected Daily VMT and VHT by 2040 Scenario

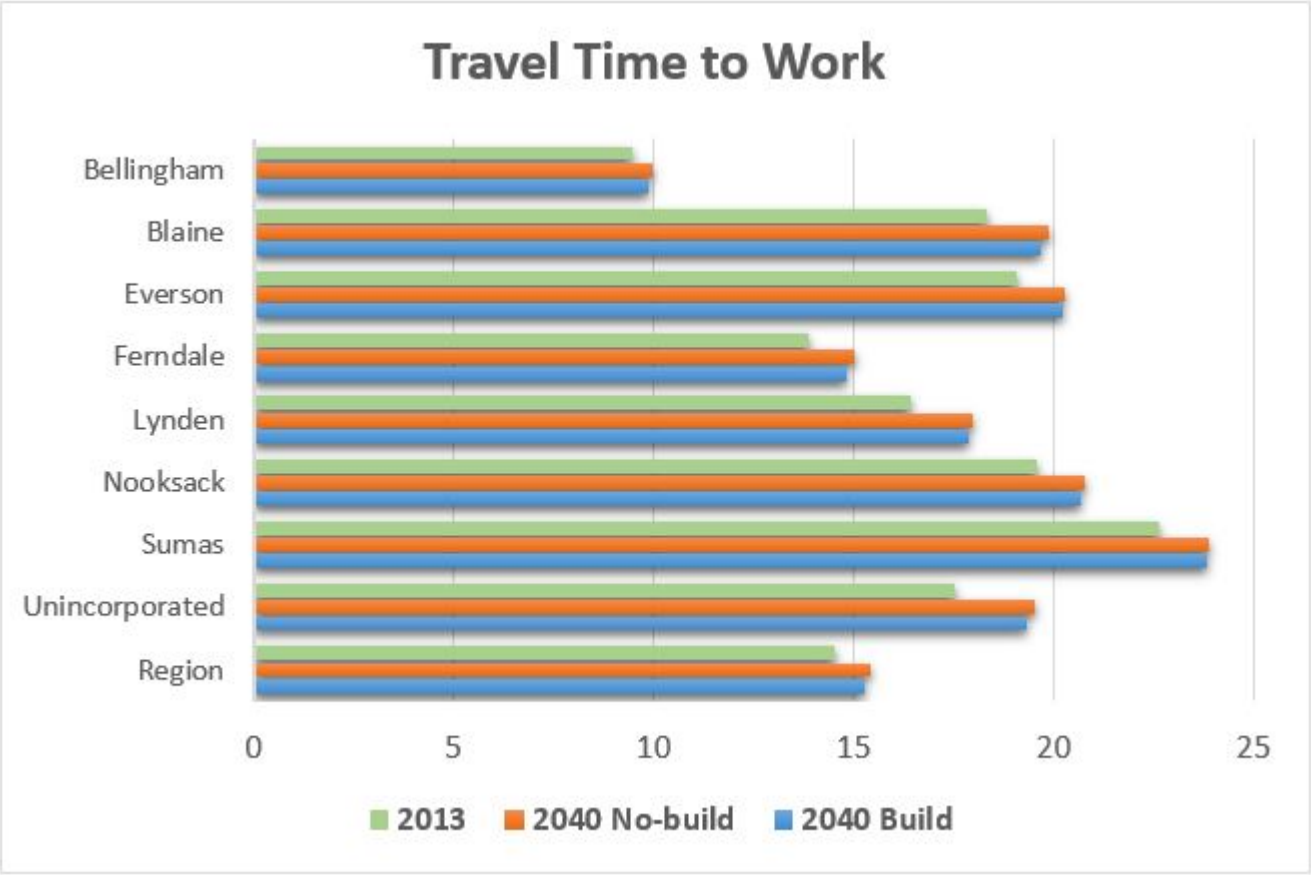
	2040 No-build	2040 Build
Vehicle Miles Traveled	6,445,650	6,447,625
Vehicle Hours Traveled	186,237	184,209

Table 8 illustrates the modest improvement in efficiency of the entire regional transportation system under the 2040 build scenario relative to the no-build scenario, which is the result of the extra capacity added at strategic locations by currently-planned projects factored into the former. In essence, drivers will be able to drive slightly longer distances in slightly less time with the currently-planned improvements than without them.

Commute time

Commute time refers to the average amount of time it takes to travel from home to place of employment. Trips to work constitute the second-largest share of daily trips in the region (and nationwide), with trips to home being the largest. Table 9 illustrates the commute times for residents of the Whatcom region's jurisdictions, comparing the current year 2013 with the 2040 no-build and build scenarios.

Table 9: Travel Time to Work



Commute times increase for all jurisdictions between 2013 and 2040 under both scenarios, although the increase is somewhat less in the build scenario as a result of the enhanced efficiency of the transportation network derived from the added capacity of currently-planned projects.

Volume-over-capacity and daily travel

The volume of traffic (i.e., the number of vehicles) on a particular roadway segment, divided by the

maximum number of vehicles that the segment can accommodate without congestion (its *capacity*), is a common measure of system performance known as the volume-over-capacity (V/C) ratio. A low V/C ratio (close to zero) means that there are few vehicles operating on a certain segment of roadway; a V/C ratio greater than 1.0 means that that segment is operating beyond its capacity, and is experiencing significant congestion. The V/C ratio is used to determine a roadway segment's *level of service* (LOS), which describes the operating conditions a driver will experience when traveling at a specific time of day. Level of service is expressed as a letter grade, with "LOS A" being the highest grade, representing free-flow driving conditions, down to LOS F, which is the failure of that segment to facilitate the movement of traffic, resulting in gridlock.

By analyzing roadway segments during peak hour traffic conditions, including approaches to problematic intersections, planners and engineers can determine which locations require additional analysis that may lead to improvements. The interactive map in Figure 5 illustrates V/C ratios and average daily traffic for road segments on the regional transportation network during afternoon (p.m.) peak hour for 2013 and the 2040 no-build and build scenarios.

Figure 5: Future Traffic Scenarios

Bicycle and walking

Local jurisdictions within the Whatcom region are continuing to provide more "complete streets," i.e., rights-of-way that are designed to serve pedestrians and cyclists as well as motor vehicles. Although the vast majority of bike and walk trips occur in the region's cities – most notably, Bellingham – they are vital to the regional transportation system's performance by providing connections to other modes, such as transit and ridesharing, and reducing traffic congestion. Bicycle and walk trips support environmental quality by not contributing to air and water pollution, and they also play an important role in improving community health. The travel demand model forecasts substantial increases in pedestrian and bicycle activities under both the 2040 no-build and build scenarios relative to 2013 (Table 10). Note that under both scenarios the increase for bike and walk trips is exactly the same, which is a reflection of the highly-localized nature of those trip types, which are generally not influenced by increased road capacity derived from the transportation projects factored into the 2040 build scenario.

Table 10: Percentage Change in Bike and Walk Trips, 2013-2040

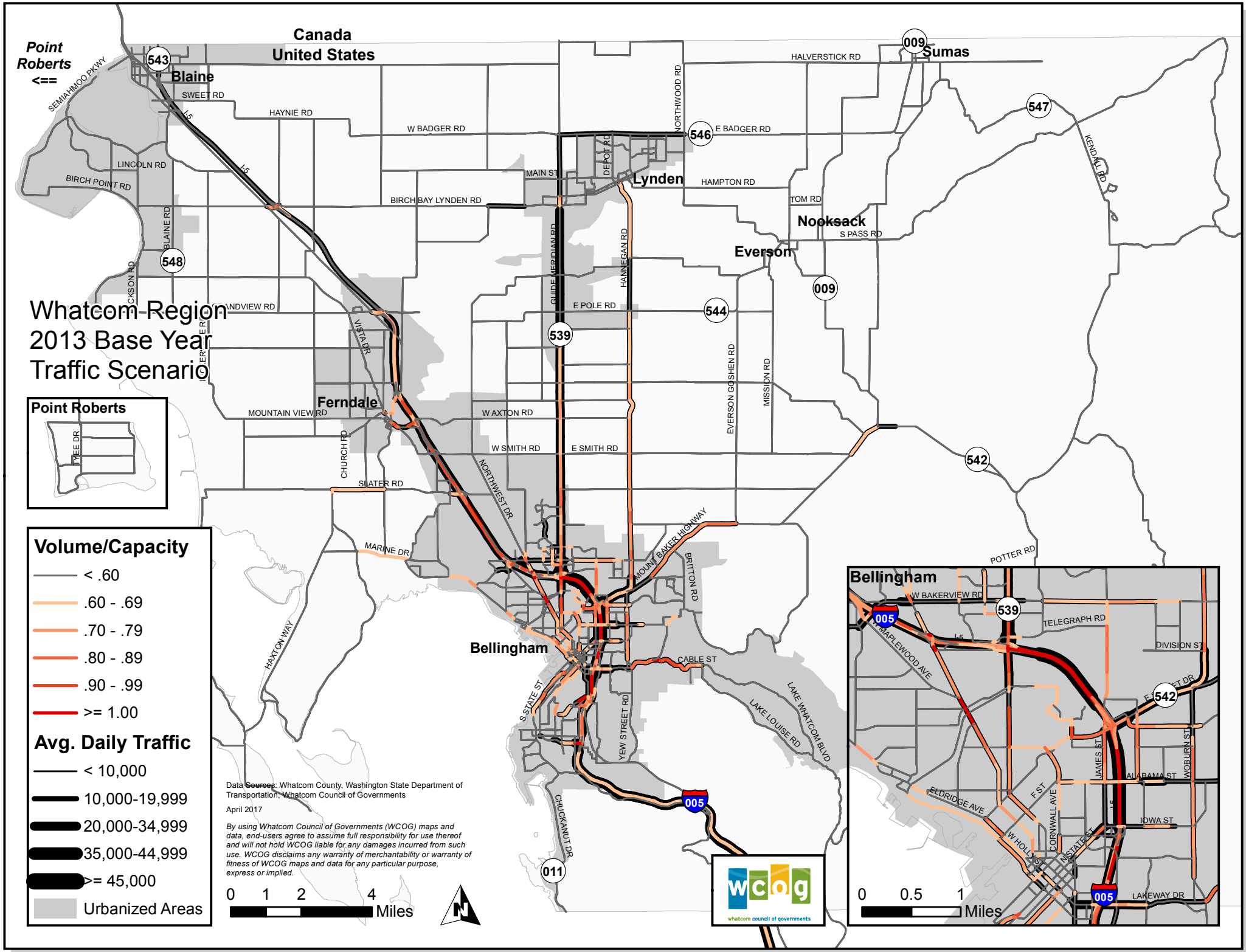
	2013 Base vs 2040 No-build	2040 No-build vs 2040 Build
Bike	+49%	Same
Pedestrian	+46%	Same

It should also be noted that the significant growth in bicycle and pedestrian trips forecast by WCOG's travel demand model did not factor in emerging technology, evolving life-style trends, or socio-economic factors which seem to point to a future in which there will be greater support for walking and biking. Car-sharing, automated vehicles, the growing popularity of urban living and smaller dwelling units, and demand-responsive transportation services like Lyft and Uber are some of the factors that could potentially lead to and/or support more walk and bicycle trips.

Transit

As the primary transit service provider in the region, the Whatcom Transportation Authority grows and adapts its services as a response to population growth and land development in coordination with local jurisdictions. Although WTA does not currently plan beyond a six-year horizon, WCOG, in consultation with WTA, employed its travel demand model to develop a transit scenario to forecast region-wide transit boardings for 2040 (Figure 6). The 2040 scenario includes a new fixed-route service in the Bakerview Road/James Street area in northeast Bellingham. Anticipated growth in daily WTA bus boardings shows a ridership increase of 35 percent between 2016 and 2040, going from 20,000 to 27,000 a day.

Like automobile, bicycle and walk trips, the majority of transit trips take place in the region's urbanized areas, especially Bellingham. It should be noted that the travel demand model forecast does not take into account the strong likelihood that WTA will implement new transit routes to meet travel demand generated by the region's projected growth in population and employment. Also, when combined with the fact that the local jurisdictions continue to promote transit and, in some cases, plan for infrastructure to support it, it is very possible that transit ridership will surpass the travel demand model's 35 percent growth forecast.


Point Roberts <==
Canada
United States
Blaine
Sumas
Lynden
Nooksack
Everson
Ferndale
Bellingham
Whatcom Region
2013 Base Year
Traffic Scenario
Point Roberts
Volume/Capacity
< .60
.60 - .69
.70 - .79
.80 - .89
.90 - .99
>= 1.00
Avg. Daily Traffic
< 10,000
10,000-19,999
20,000-34,999
35,000-44,999
>= 45,000
Urbanized Areas
Data Sources: Whatcom County, Washington State Department of Transportation, Whatcom Council of Governments
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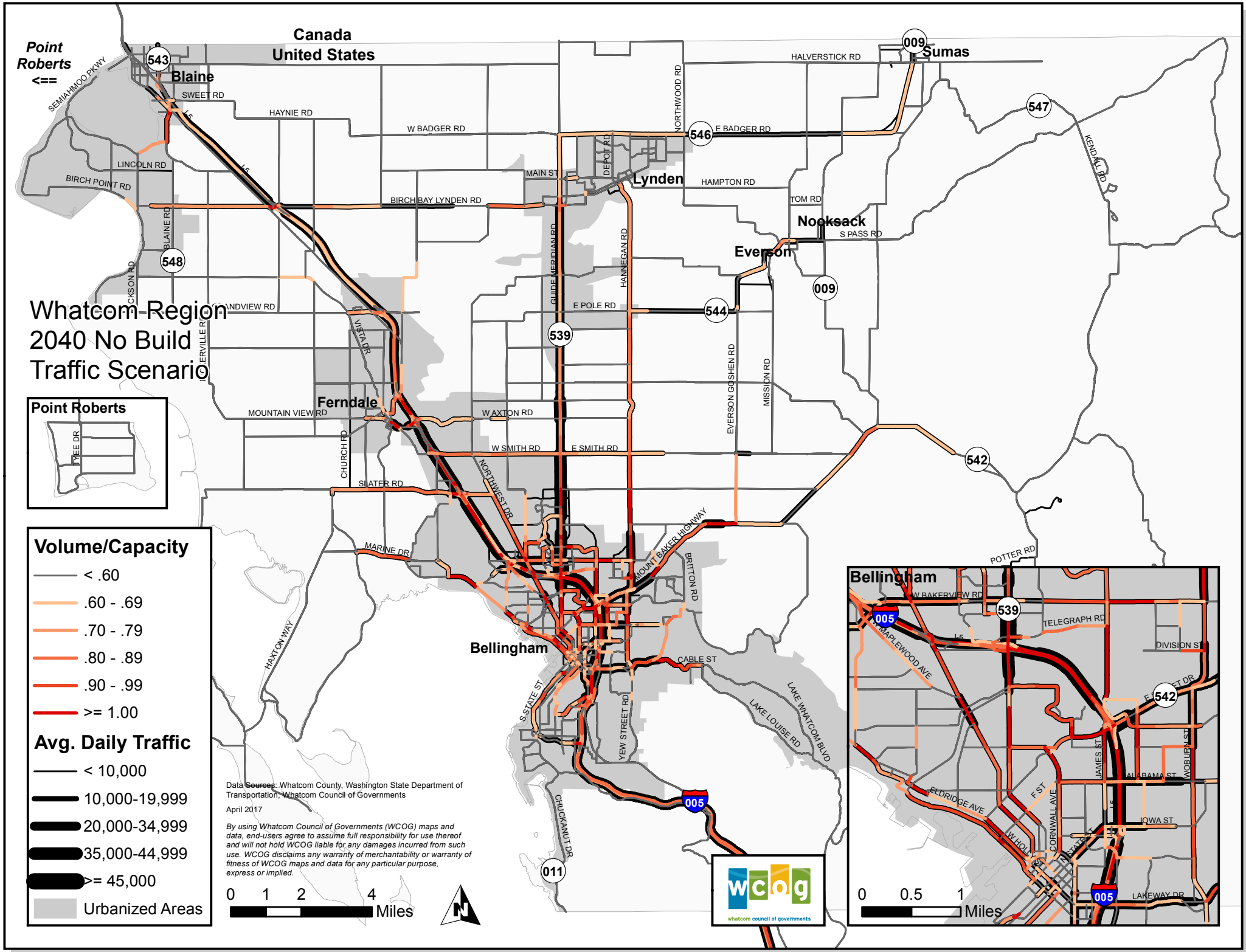
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Whatcom Region
2040 No Build
Traffic Scenario
Point Roberts
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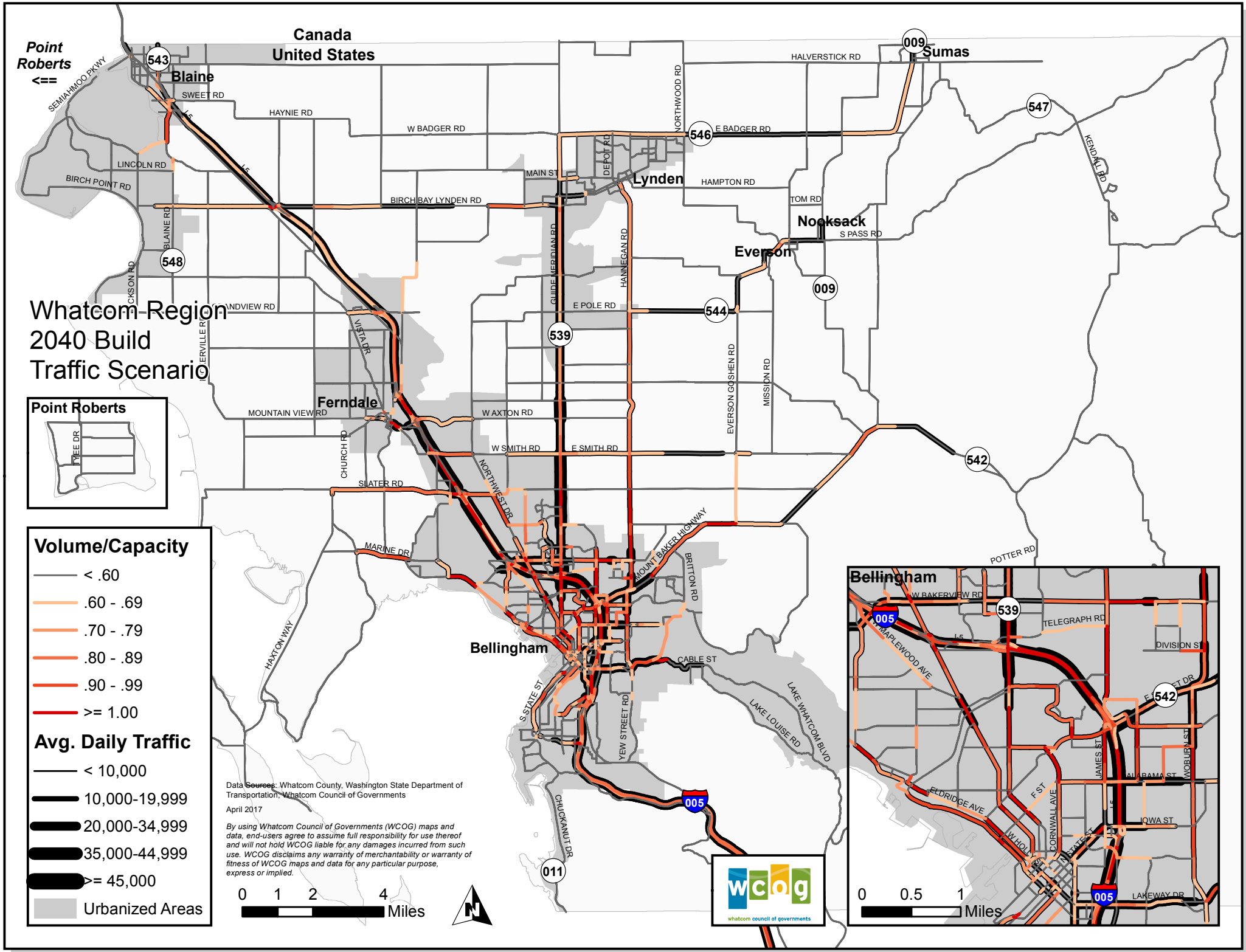
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Whatcom's Regional Transportation System Goals

To plan for our region's transportation future, we first need to know what our goals are – what we as a region want to accomplish with the strategies and investments we choose.

Regional goals

Whatcom Mobility 2040 draws on the transportation goals adopted in the comprehensive plans of WCOG's member jurisdictions: Whatcom County, the seven cities, the Lummi Nation and Nooksack Tribe – in establishing the goals for the Whatcom region. The transportation elements of all the jurisdictions' comprehensive plans were carefully reviewed, and the goals emphasized in each of them were compiled in a matrix to identify those shared by a majority of the jurisdictions.

Table 11: Regional Goals List

No.	Goal (and number of jurisdictions that established it as a goal in local comprehensive plans)
1	Safety (10)
2	Environmental quality (8)
3	Efficiency, effectiveness and system sustainability (8)
4	A multimodal transportation system (8)
5	Access and convenience (7)
6	Maintenance and preservation (6)
7	Freight transportation (6)

These seven regional goals – which largely overlap with the more numerous planning factors that federal and state law, respectively, require MPO and RTPO transportation plans to address – will take precedence in prioritizing project funding requests and developing performance measures and targets (see Regional Projects).

Safety. All ten of the Whatcom region's jurisdictions included safety as one of their transportation goals. The safety of all users of the region's transportation system – pedestrians, bicyclists, automobile drivers and their passengers, and truckers – must be maximized to the greatest degree practicable in the establishment of regional transportation policies and investment decisions.

A multi-modal transportation system. Residents of the region consistently express their support for a transportation system that provides mobility for people – *all* people – and not just those who drive. All modes of transportation should be considered when choosing among the many possible investments in projects and programs to meet the demand for travel and goods movement, and in

support of the other goals, notably efficiency and sustainability.

Efficiency, effectiveness and system sustainability. A program or project is *efficient* if it can be implemented for an appropriate cost relative to both its projected benefits (its *effectiveness*) and the cost of reasonable alternatives. It should also be *sustainable*, i.e., it will last as long (or longer) than projected and be able to be kept in a state of good repair and/or operated at or below its projected cost.

Environmental quality. Residents of the Whatcom region are second to none in their commitment to environmental quality, and, at the very least, they expect the environmental impacts of regional transportation investments to be neutral, if not positive. Energy conservation, reducing greenhouse gas emissions, habitat preservation and ensuring water quality are among the many environmental values that are of paramount importance in the region. Also important is consistency among transportation investments, land-use plans and economic development, which leads to optimal results.

Access and convenience: The region's transportation system is intended to serve all people and acknowledge and reduce barriers to mobility that exist for older adults, people with disabilities, and people with low incomes.

Maintenance and preservation: This goal complements the goal of sustainability: the importance of first choosing investments in facilities and programs that our region has the fiscal capacity to pay for and is willing to operate and/or maintain into the future, and then – as reflected in this goal – appropriately prioritizing the necessity of keeping our regional transportation system in a state of good repair.

Freight transportation: Given Whatcom County's adjacency to the Canadian border, along with the presence of two of the nation's premier trade corridors within its boundaries (Interstate 5 and the BNSF Railway), goods movement has a significant impact on the region's transportation system. Freight transportation is also an important consideration in all of the previously-listed goals, except "access and convenience."

State and national goals

Because of WCOG's dual responsibilities as both a federally-recognized metropolitan planning organization and as the state-designated regional transportation planning organization for Whatcom County, *Whatcom Mobility 2040* must consider and emphasize national and state transportation policy goals, in addition to regionally-adopted goals. The transportation goals of these three levels (regional, state and national) guide the Whatcom region's ongoing regional transportation planning process and are reflected in the strategies identified in this plan.

A basic requirement of metropolitan transportation plans prepared by MPOs is that they "consider factors described in CFR §450.306 [the federal planning factors] as they relate to a minimum 20-year forecast period." Additionally, CFR §450.324(f)(2) notes that a plan's discussion of existing and proposed facilities emphasizes ". . . those facilities that serve important national and regional transportation functions." A notable recent addition to the original federal planning factors are seven "national goals" introduced as part of the National Goals and Performance Management Measures from the 2012 U.S. transportation funding authorization act known as "Moving Ahead for Progress in

the 21st Century," which are included in the discussion below. In addition to national goals and the Whatcom regional goals discussed in the previous section, the Washington State Legislature has also adopted transportation policy goals.

Aligning regional goals with state and national goals

Among the three levels of government (regional, state, federal) there are four overlapping sets of transportation system goals, all of which are important. Table 12 organizes these four lists so that the state and national goals are grouped into sets that correspond to each of the seven Whatcom regional goals. This approach acknowledges the importance of the state and national goals and planning factors, but places them in a supporting and secondary role to the seven locally-developed Whatcom regional goals. As indicated in the table, the regional goals align neatly with all but five of the 24 state and/or national goals, those being economic vitality, security, resiliency, tourism, and reduction of project delivery delay. It should be noted that WCOG and its member jurisdictions acknowledge the importance of those five state and federal transportation goals that do not align with the Whatcom regional goals, but, unlike the others, they were not consistently mentioned in the transportation plans of Whatcom County's local jurisdictions, which are the basis of the regional goals in *Whatcom Mobility 2040*.

Table 12: Relationship of Whatcom Regional Goals to State and National Goals

Whatcom Region		Washington	United States	
Seven most commonly listed goals, in jurisdictions' comprehensive plan transportation elements, in descending order of frequency		*Statewide transportation policy goals (RCW 47.04.280)*	*FAST Act planning factors 23 U.S. Code § 134(h)(1)*	*National goals 23 U.S. Code § 150(a)(b)*
1	**Safety**	"**Safety**: To provide for and improve the safety and security of transportation customers and the transportation system."	"(2) Increase the **safety** of the transportation system for motorized and non-motorized users."	"(1) **Safety**: To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.
2	**Efficiency, Effectiveness, & System Sustainability**	"**Mobility** (congestion relief): To improve the predictable movement of goods and people throughout Washington state, including congestion relief and improved freight mobility."	"(7) Promote **efficient system** management and operation."	(3) **Congestion reduction**: To achieve a significant reduction in congestion on the National Highway System.
		"**Stewardship**: To continuously improve the quality, effectiveness and efficiency of the transportation system."		(4) **System reliability**: To improve the efficiency of the surface transportation system.
	Environmental Quality	"**Environment**: To enhance Washington's quality of life through transportation investments that promote energy conservation, enhance healthy communities, and protect the environment."	"(5) Protect and enhance the **environment**, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and state and local planned growth and economic development patterns." *Also, see (9) below regarding storm water impacts.*	(6) **Environmental sustainability**: To enhance the performance of the transportation system while protecting and enhancing the natural environment.
	A Multimodal Transportation System		"(6) Enhance the integration and connectivity of the transportation system, **across and between modes**, for people and freight."	
3	**Access & Convenience**		"(4) Increase **accessibility and mobility** of people and freight."	
4	**Maintenance & Preservation**	"**Preservation**: To maintain, preserve and extend the life and utility of prior investments in transportation systems and services."	"(8) Emphasize the **preservation** of the existing transportation system." *Also, see (9) below regarding reliability.*	(2) **Infrastructure condition**: To maintain the highway infrastructure asset system in a state of good repair.
	Freight Transportation	*Freight included as part of Mobility and Economic Vitality policy goals.*	*Freight included with FAST Act planning factors 4 and 6.*	(5) **Freight movement and economic vitality**: To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.
		Economic vitality: To promote and develop transportation systems that stimulate, support, and enhance the movement of people and goods to ensure a prosperous economy.	(1) Support **economic vitality** of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.	
			(3) Increase the **security** of the transportation system for motorized and non-motorized users. (9) Improve the **resiliency** and **reliability** of the transportation system and reduce or mitigate storm water impacts of surface transportation. (10) Enhance travel and **tourism**	(7) **Reduced project delivery delays**: To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices.

Applying regional goals to WCOG's transportation planning process

WCOG is in the early stages of applying *Whatcom Mobility 2040's* regional goals to its comprehensive, cooperative and continuing metropolitan and regional transportation planning process, but some initial applications have already begun.

Regional project selection

The Whatcom Transportation Policy Board is responsible for allocating funds from the federal Surface Transportation Block Grant (STBG) and Transportation Alternatives (TA) programs to projects in the Whatcom region. In recent years, approximately $2.7-million in STBG funds and $180,000 in TA funds have been available annually for projects requested by the Policy Board's member jurisdictions. For a project to be considered, the requesting jurisdiction completes the regional STBG funding application and submits it to WCOG by a prescribed date. All applications are compiled by WCOG so that they can be reviewed and ranked by the Transportation Technical Advisory Group (TTAG) using weighted selection criteria based on the regional goals in *Whatcom Mobility 2040.* TTAG's rankings are then considered by the Policy Board when it makes its funding decisions.

Project prioritization in the regional Transportation Improvement Program

Regional STBG and TA program funds are prioritized in the TIP based on the ranking they receive during the review and selection process. All federally-funded projects in the first four years of the TIP must be "fiscally constrained," i.e., all of the funding needed to complete the project must be identified. Projects programmed in the first year of the TIP are "priority one" projects, projects in the second year are priority two, etc., through the fourth year.

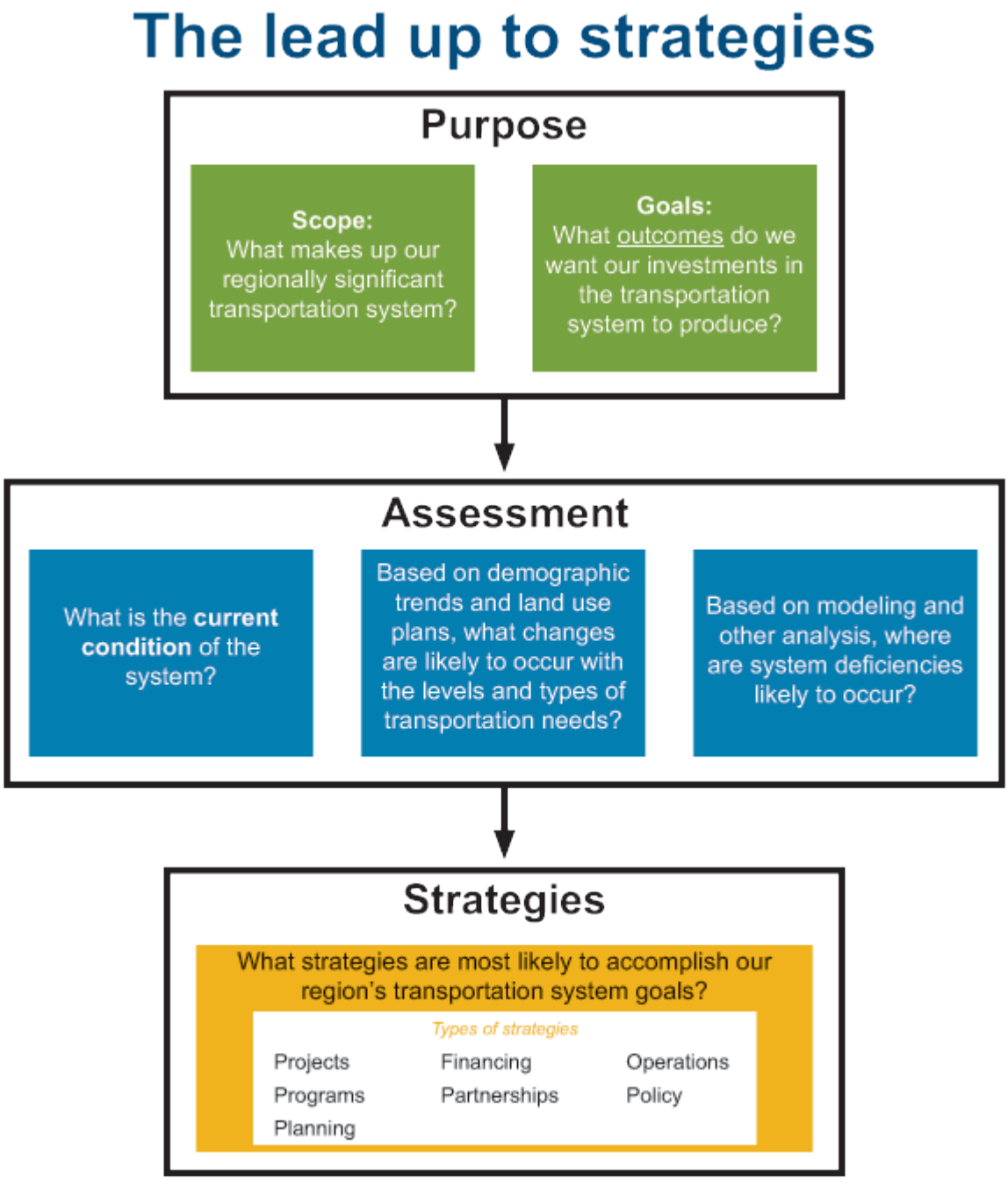
Identifying regional transportation corridors

As discussed in the planning section,WCOG uses the ranked regional goals as a way to support an ongoing discussion among its member jurisdictions and agencies about identifying a set of "regional transportation corridors" that connect population centers within the county (cities, unincorporated hamlets and tribal lands), and then developing operational and investment strategies to maximize the efficiency of those routes.

Whatcom’s Transportation System Strategies

Achieving the Whatcom region’s goals for its transportation system requires strategies. Figure 6 illustrates the process WCOG used to determine the following seven strategies employed in *Whatcom Mobility 2040:*

Figure 6: Strategy Development Process



Projects: These are carefully-considered, targeted investments for the preservation and/or improvement of specific elements of the regional transportation system, which are compiled in *Whatcom Mobility 2040's* project list.

Programs: WCOG carries out two important, ongoing initiatives that optimize the effectiveness of the regional transportation system: Whatcom Smart Trips and the IMTC program. There are also other programs conducted by the region's jurisdictions and WCOG's partner agencies that contribute to the

accomplishment of regional goals. More info

Planning: The central purpose of the comprehensive, cooperative and continuing planning process conducted by WCOG staff and overseen by the Whatcom Transportation Policy Board is to advance regional, state and national transportation goals for the benefit of the region's residents and other users of the transportation network. More info

Financing: Paying for the region's desired transportation system – especially with aging infrastructure and strained budgets at all levels of government – is one of the central challenges in meeting the region's goals, but also presents opportunities to advance them. More info

Policy: Relative to the regional transportation system, policies are any number of formal decisions – either mandatory or advisory – made by local governments, facility operators (like WTA and WSDOT), state and federal regulatory agencies, and/or the Whatcom Transportation Policy Board, which are intended to influence the likelihood of a desired outcome. Typically implemented with public consultation, some examples of policy strategies are dedication of freeway lanes for high-occupancy vehicles, ramp-metering, pricing of publicly-owned parking spaces, etc. While the Policy Board is responsible for formulating and approving regional transportation investment priorities, it has no authority to establish binding policies with respect to any of its member jurisdictions' or agencies' own facilities. However, as it has for more than three decades, it will continue to seek consensus on regional transportation priorities, such as those contained in this plan. More info

Partnerships: Through ongoing interaction among the region's transportation system managers and operators, opportunities to partner to achieve shared goals often present themselves. Such interaction is one of the many benefits derived from the cooperative and continuing transportation planning process that occurs in the Whatcom region, and there are many examples of successful partnerships involving Whatcom County, the cities, the tribes, WTA, the Port of Bellingham, WSDOT, WCOG, and even Canadian entities. Identifying and seizing opportunities to partner will continue to be an important strategy, not just for achieving the regional goals in *Whatcom Mobility 2040* but also those of the individual jurisdictions and agencies constituting WCOG.

Operations: Responsible and efficient management of transportation system facilities and supporting infrastructure (roads, rolling stock, ferries, airports, communication infrastructure, etc.) can play an important role in achieving Whatcom's regional transportation goals. Operators include WSDOT, Whatcom County, WTA, the cities, the tribes, the Port of Bellingham and private-sector concerns such as BNSF Railway and trucking companies. Measuring the performance of these intertwined elements is generally the responsibility of the individual operators, which is oftentimes a requirement of funding partners such as the Federal Highway and Transit administrations, WSDOT and others. Improving operational efficiency rests with the operators themselves, although their ability to do so is often constrained by inadequate funding or reliance on other entities to make improvements to their own systems. Through its facilitation of the Transportation Technical Advisory Group, which includes most of the system operators in Whatcom County, WCOG will continue to provide assistance to operators to support ongoing operational efficiency.

Regional Projects

Whatcom regional project list, 2017-2040

Each of the jurisdictions in the Whatcom region annually updates a transportation improvement program. While local TIPs vary somewhat in format, they are all six-year lists of planned projects, with projects in the first four years having secure funding, and those in the fifth and sixth years being considered as "planned" projects. In compiling a regionalproject list for Whatcom Mobilty 2040, WCOG has consulted with the individual jurisdictions to identify projects that 1) advance one or more of the region's transportation goals, 2) provide a regional benefit and are already on, or are eligible to be on, the Regionally Significant System, and 3) are fiscally constrained, i.e., they will not exceed or contribute to exceeding the jurisdiction's reasonably-expected revenue over the planning period.

The following interactive table lists regional transportation projects planned out to 2040 and their estimated costs, inflated to their currently-estimated year of expenditure.

Project List PDF

Table 13: Whatcom Region Fiscally Constrained Project List, 2017-2040

Whatcom Region Fiscally Constrained Project List, 2017-2040

Agency	Project Label	Location	Project Description	Cost Estimate, Year of Expenditure (000's)	Completion Year
Bellingham	Pedestrian Master Plan	Citywide	Various unknown Tier 1, 2, 3 sidewalk links	$7,574	2016-2021
Bellingham	Bicycle Master Plan	Citywide	Various unknown Tier 1, 2, 3 bikeway links	$6,492	2016-2021
Bellingham	Citywide	Citywide	Arterial street resurfacing, repair, maintenance	$27,049	2016-2022
Bellingham	Mahogany Avenue	Northwest Drive to Pacific Highway	New urban arterial - sidewalks, bike lanes, 2 travel lanes, left-turn lanes	$7,388	2017
Bellingham	Woodstock Intersection Improvements	James Street/Woodstock Way	Revise the intersection layout with Woodstock Way making James Street Road to Woodstock Way the through traffic movement to eliminate site distance hazards; widen road to incorporate two way left turn lane, bicycle lanes, and sidewalks	$3,300	2017
Bellingham	12th Street/Mill Avenue Intersection	12th Street/Mill Avenue	Intersection realignment/reconstruction, curb extensions, bikeways improvements	$671	2017
Bellingham	Northwest Avenue/West Bakerview Road Intersection Safety Improvements	Northwest Avenue/West Bakerview Road	Feasibility study for safety improvements; Safety improvements for vehicle collision reduction could include access management and, if possible, conversion of signal to roundabout	$593	2017
Bellingham	Granary Avenue and Laurel Avenue	Roeder Avenue to Cornwall Avenue	Construction Granary Ave arterial from Roeder Ave to Laurel St; construct Laurel Ave arterial from Granary Ave to Cornwall Ave; signal and channelization improvements at the intersection of Granary Ave and Roeder Ave, and intersection improvements at Cornwall Ave	$10,346	2018
Bellingham	West Maplewood Avenue, Phase 1	Northwest Avenue to Alderwood Avenue	Reconstruct to urban arterial standard; bicycle lanes, sidewalks, intersection bicycle markings, curb, gutter, curb ramps and street light	$3,300	2018
Bellingham	Cordata Parkway/Stuart Street Roundabout	Cordata Parkway/Stuart Street	Convert stop control to roundabout	$2,285	2018
Bellingham	Cordata Safe Routes to School Program	Aldrich Road/Mahogany Avenue to Cordata Elementary School	Fill the Tier 1 sidewalk and Tier 1 bike lane gaps on the east side of Aldrich Rd, install flashing 20 mph school zone signs, and improve street lighting	$1,951	2018

Bellingham	West Horton Road, Phase 1	Pacific Rim Lane to Aldrich Road	Construct new minor arterial roadway, including bike lanes, separated boardwalk path, and illumination	$5,412	2019
Bellingham	Orchard Drive Extension	Birchwood Avenue/Squalicum Parkway to James Street	Orchard Drive Extension is a new multi-modal arterial and multi-use trail connection extending from east Birchwood Ave/Squalicum Pkwy, under I-5 along the railroad tunnel, to west of James St	$12,114	2020
Bellingham	James Street Multimodal Improvements	East Orchard Drive to East Bakerview Road	Widen to urban arterial standards - sidewalks, bike lane, 2 travel lanes, left-turn lanes	$8,628	2021
Bellingham	Telegraph Road Multimodal Improvements	Deemer Road to James Street	Multimodal improvements	$863	2021
Bellingham	James Street/East Bakerview Road Intersection Safety Improvements	James Street/East Bakerview Road	Convert signal to roundabout	$4,479	2022
Bellingham	Central Avenue/Roeder Avenue- Traffic Signal	Central Avenue/Roeder Avenue	New traffic signal and new "Quiet Zone" BNSF railroad crossing	$1,766	2022
Bellingham	West Horton Road Multimodal Corridor Extension, Phase 2	Aldrich Road to Northwest Drive	New urban arterial - sidewalks, bike lanes, 2 travel lanes, left-turn lanes; roundabout at Northwest Dr/Horton Rd, signal at Aldrich Rd/Horton Rd	$15,217	2022-2027
Bellingham	Connelly Avenue/I-5 Southbound On-Off Intersection	Connelly Avenue/I-5	Construct a 4-way traffic signal	$496	2022-2027
Bellingham	Northwest Drive/Aldrich Road Intersection	Northwest Drive/Aldrich Road	Install right-in; right-out only turn restrictions	$62	2022-2027
Bellingham	Northwest Avenue/West Maplewood Avenue Intersection	Northwest Avenue/West Maplewood Avenue	Construct a 4-way traffic signal	$496	2022-2027
Bellingham	North Samish Way, Phase 1	Ellis Street to Bill MacDonald Parkway	Road/transit/bikeway feasibility study	$124	2022-2027
Bellingham	North Samish Way, Phase 2	Ellis Street to Bill MacDoland Parkway	Asphalt resurfacing & ADA upgrades (5-foot sidewalks)	$8,688	2022-2027
Bellingham	James Street/East Orchard Drive Intersection	James Street/East Orchard Drive	Construct a 4-way traffic signal	$496	2022-2027
Bellingham	James Street/Telegraph Road Intersection	James Street/Telegraph Road	Construct a 4-way traffic signal	$496	2022-2027
Bellingham	Pedestrian Master Plan	Citywide	Various unknown Tier 1, 2, 3 sidewalk links	$8,780	2022-2027

Bellingham	Bicycle Master Plan	Citywide	Various unknown Tier 1, 2, 3 bikeway links	$7,526	2022-2027
Bellingham	Citywide	Citywide	Arterial street resurfacing, repair, maintenance	$31,357	2022-2027
Bellingham	North James Street Multimodal Arterial Connection	North James Street	Multimodal Arterial Connection	$7,062	2023
Bellingham	Boulevard Park to Cornwall Park Overwater Pedestrian Walkway	Boulevard Park to Waterfront	Construction of overwater pedestrian walkway	$11,182	2023
Bellingham	C Street/West Holly Street Traffic Signal	C Street/West Holly Street	New traffic signal	$506	2023
Bellingham	C Street/Roeder Avenue Traffic Signal	C Street/Roeder Avenue	New traffic signal	$500	2023
Bellingham	South Cornwall Avenue	Wharf Street to Cornwall Beach	New collector arterial to connect Cornwall Ave to the south end of the Waterfront District	$7,289	2028
Bellingham	Cordata Parkway/Horton Road Intersection	Cordata Parkway/Horton Road	Convert stop control to roundabout	$2,482	2028-2040
Bellingham	Meridian Street/Birchwood Avenue and Meridian Street/Squalicum Way Intersection	Meridian Street/Birchwood Avenue, Meridian Street/Squalicum Way	Reconstruct traffic signals to roundabouts	$9,929	2028-2040
Bellingham	West Maplewood Avenue, Phase 3	City Limits to West Bakerview Road	Reconstruct to urban arterial standard - sidewalks, bike lanes, 2 travel lanes	$6,778-$8,707	2028-2040
Bellingham	James Street, Phase 2	East Bakerview Road to East Kellogg Road	Widen to urban arterial - sidewalks, bike lane, 2 travel lanes, left-turn lanes	$7,710-$9,905	2028-2040
Bellingham	James Street, Phase 3	Gooding Avenue to Van Wyck Road	New urban arterial - sidewalks, bike lanes, 2 travel lanes, left-turn lanes	$15,860-$20,373	2028-2040
Bellingham	West Maplewood Avenue, Phase 2	Alderwood Avenue to City Limits	Reconstruct to urban arterial standard - sidewalks, bike lanes, 2 travel lanes	$9,489-$12,189	2028-2040
Bellingham	Van Wyck Road	James Street to SR 539	New urban arterial - sidewalks, bike lanes, 2 travel lanes, left-turn lanes	$12,200-$15,672	2028-2040
Bellingham	East Bakerview Road	Deemer Road to Hannegan Road	Widen to urban arterial - sidewalks, bike lanes, 2 travel lanes, center left-turn lane	$14,911-$19,154	2028-2040
Bellingham	East Horton Road	SR 539 to Deemer Road	Widen to urban arterial - sidewalks, bike lane, 2 travel lanes, left-turn lanes	$5,015-$6,443	2028-2040

Bellingham	Kline Road	Cordata Parkway to Aldrich Road	Widen to urban arterial - sidewalks, bike lane, 2 travel lanes, left-turn lanes	$10,980-$14,105	2028-2040
Bellingham	Pedestrian Master Plan	Citywide	Various Tier 1, 2, 3 sidewalk links	$18,513	2028-2040
Bellingham	Bicycle Master Plan	Citywide	Various Tier 1, 2, 3 bikeway links	$15,427	2028-2040
Bellingham	Citywide	Citywide	Arterial street resurfacing, repair, maintenance	$90,250	2028-2040
Bellingham	Cornwall Avenue Bridge Reconstruction	Over BNSF Railroad	Reconstruct existing bridge to three travel lanes, 5' bike lanes, 5' sidewalks	$33,469	2030
Bellingham	North Samish Way Principal Arterial	Bill McDonald Parkway to East Maple Street	Planted center median, turn lanes, on-street parking between Abbott St and Consolidation Ave, sharrows	$7,000	2032-2040
Blaine	Hughes Avenue Improvements	Peace Portal Drive to Odell Road	Widen Hughes Ave and upgrade to truck standards from approx 200 feet west of Peace Portal Dr to approx 200 ft east of I-5 underpass; other improvements include bus stop, sidewalks, larger turn radii, and storm sewer upgrades	$2,580	2018
Blaine	H Street School Safety Improvements	6th Street to SR 543	School safety improvements	$150	2018
Blaine	Peace Portal Drive Downtown Sidewalk Reconstruction	G Street to Clark Street	Sidewalk reconstruction	$609	2019
Blaine	Semiahmoo Parkway Resurfacing	Drayton Harbor Road to City Limits	Resurfacing	$476	2019
Blaine	Peace Portal Drive Community Trail, Phase 2	Bayview Avenue to Hughes Avenue	Bay to Bay Trail connection	$210	2020
Blaine	Boblett Street Traffic Channelization and Corridor Improvements	Boblett Street	Improvements will include: channelization, ROW acquisition, non-motorized, sidewalk replacement, storm drainage, roundabout construction	$1,660	2020
Blaine	Boblett Street Signalization and SR 543 Improvements	Boblett Street to H Street	Improvements will include: channelization, ROW acquisition, non-motorized, sidewalk replacement, storm drainage, roundabout construction	$3,064	2020
Blaine	Peace Portal Drive Sidewalk Gap Elimination	Clark Street to Boblett Street	Sidewalk gap elimination	$265	2022
Blaine	Peace Portal Drive/Bell Road Channelization Improvements	Peace Portal Drive/Bell Road	Channelization improvements	$63	2022
Blaine	Peace Portal Drive/Bell Road Signalization	Peace Portal Drive/Bell Road	Improve signalization	$828	2022

Blaine	Semiahmoo Spit Pedestrian Path Safety Improvements, Phase 2	County Park to Marina	Pedestrian path safety improvements	$2,784	2022
Blaine	Marine Drive, Phase 3	Lighthouse Point Water Reclamation Facility to Public Pier	Reconstruct road	$3,106	2022
Blaine	Mitchell Avenue/H Street Signalization	Mitchell Avenue/H Street	Improve signalization	$621	2022
Blaine	I-5 Exit 274 Interchange	I-5 Exit 274	Interchange Justification Report [IJR] update, environmental review and preliminary design, and construction of interchange	$24,180	2028
Blaine	H Street/Peace Portal Drive Signal	H Street/Peace Portal Drive	Add signal to intersection	$540	2028-2040
Blaine	Mitchell Avenue/Peace Portal Drive Signal	Mitchell Avenue/Pece Portal Drive	Add signal to intersection	$540	2028-2040
Blaine	Hughes Road/Peace Portal Drive Signal	Hughes Road/Peace Portal Drive	Add signal to intersection	$700	2028-2040
Blaine	H Street/Harrison Avenue Signal	H Street/Harrison Avenue	Add signal to intersection	$700	2028-2040
Everson	Preservation Program	Designated Arterials	Preserve designated arterials through timely overlays and reconstruction	$306	2017-2022
Everson	Lincoln Street Improvements, Phase 1	Everson Road (SR 544) to South Washington Street	Reconstructing approximately 1,285 feet of significantly deteriorated roadway, including widening travel lanes, sidewalks on both sides of the street, and construction of a bike lane on one side	$1,918	2018
Everson	Lincoln Street Improvements, Phase 2	South Washington Street to Blair Drive	New construction and extension of Lincoln St from Washington St to Blair Dr includes sidewalks and a bike lane	$1,585	2018
Everson	SR 544 South Everson Sidewalk Improvements	SR 544 South Everson	Fill in missing segments of sidewalk along SR 544 from approximately Robinson St to Everson Rd	$1,851	2018
Everson	BNRR R/W - Trail/Utility Corridor	Chestnut Street/Mission Road Intersection south to South Everson	Land acquisition of the abandoned BNRR/RW for purpose of creating a trail extension for the Bay to Baker trail	$315	2020
Everson	Everson Road Improvements	SR544 to Robinson Street	Overlay Everson Rd and add sidewalks on the west side from SR 544 to Robinson Street	$907	2023

Everson	Preservation Program	Designated Arterials	Preserve designated arterials through timely overlays and reconstruction	$353	2023-2028
Everson	Preservation Program	Designated Arterials	Preserve designated arterials through timely overlays and reconstruction	$858	2029-2040
Ferndale	Pavement Rehabilitation Program	City-wide	City-wide program	$4,686	2017-2027
Ferndale	Main Street/Washington Street/Legoe Avenue Intersection	Main Street/Washington Street/Legoe Avenue	Realignment and channelization; construct an exclusive southbound left-turn lane	$444	2017
Ferndale	Main Street Signal Improvements - Short Term	Labounty Drive to Douglas Road	Separate left turn lane loop detectors, implement traffic signal cabinet and controller upgrades, and expand/upgrade interconnect system	$118	2018
Ferndale	Thornton Road/Malloy Avenue Intersection	Thornton Road/Malloy Avenue	Construct single lane roundabout	$4,979	2019
Ferndale	Church Road/Thornton Road Intersection	Church Road/Thornton Road	Dig out and repave to repair failing driving surface and install ADA ramps on all corners of intersection	$365	2019
Ferndale	Thornton Street Overpass	Malloy Avenue to Portal Way	Construct Thornton Rd Overpass from Malloy Ave to Portal Way	$33,345	2020
Ferndale	Portal Way/I-5 Northbound Ramps Intersection	Portal Way/I-5 Northbound Ramps	Construct single lane roundabout	$801	2028
Ferndale	Washington Street/Vista Drive Intersection	Washington Street/Vista Drive	One larger roundabout or two compact roundabouts at Washington St and Vista Dr	$4,412	2028-2040
Ferndale	Main Street/Hovander Drive Intersection	Main Street/Hovander Drive	Install partial signal to provide phase for westbound left-turns	$610	2028-2040
Ferndale	Main Street/Labounty Drive Intersection	Main Street/Labounty Drive	Construct 2 lane roundabout, including northbound and eastbound slip lanes and two southbound approach lanes	$2,149	2028-2040
Ferndale	Smith Road/Labounty Drive Intersection	Smith Road/Labounty Drive	Construct single lane roundabout	$801	2028-2040
Ferndale	Slater Road/Rural Avenue Intersection	Slater Road/Rural Avenue	Maintain a signilized intersection; extend westbound left-turn and northbound right-turn lanes	$343	2028-2040
Ferndale	Labounty Drive/Nordic Way Intersection	Labounty Drive/Nordic Way	Signalize intersection	$839	2028-2040
Ferndale	Barrett Road/Southeast Connector Road Intersection	Barrett Road/Southeast Connector Road	Construct 1 lane roundabout	$877	2028-2040

Ferndale	Slater Road/Pacific Highway Intersection	Slater Road/Pacific Highway	Construct 1 lane roundabout	$1,068	2028-2040
Ferndale	Main Street/Southeast Connector Road Intersection	Main Street/Southeast Connector Road	Construct 1 to 2 lane roundabout with eastbound and northbound right turn lanes	$1,653	2028-2040
Ferndale	LaBounty Drive	Seahawk Drive to Sunset Avenue	Reconstruct and widen to meet City standards, including utilities	$8,926	2028-2040
Ferndale	Main Street	Barrett Road to East City Limits	Reconstruct and widen to meet City standards, including utilities	$10,185	2028-2040
Ferndale	Barrett Road	Smith Road to North City Limits	Reconstruct and widen to meet City standards, including utilities and sidewalk on one side of the street	$16,543	2028-2040
Ferndale	LaBounty Drive	Main Street to Smith Road	Reconstruct and widen to meet City standards, including utilities and sidewalk on one side of the street	$16,937	2028-2040
Ferndale	Pavement Rehabilitation Program	City-wide	City-wide program	$7,220	2028-2040
Ferndale	Main Street/I-5 Overpass Widening	Main Street/I-5 Overpass Interchange	Widen to five lane section	$25,484-$32,737	2028-2040
Ferndale	Portal Way/North Enterprise Street/Destiny Street Intersection	Portal Way/North Enterprise Street/Destiny Street	Remove south leg of Portal Way and improve alignment into Destiny St/N Enterprise St intersection	$1,897-$2,386	2029-2040
Ferndale	Smith Road/Barrett Road Intersection	Smith Road/Barrett Road	Construct 2 lane roundabout	$1,467-$1,846	2029-2040
Ferndale	Main Street/Barrett Road Intersection	Main Street/Barrett Road	Signalize intersection or construct roundabout	$914-$1,149	2029-2040
Ferndale	Thornton Road	Church Road to Maureen Drive	North side of road - 8-ft wide road widening and curb, gutter, sidewalk and storm; existing road and south side curb, gutter and sidewalk remains	$2,603-$3,274	2029-2040
Ferndale	Portal Way	I-5 Northbound to Trigg Road	Reconstruct and widen to meet City standards, including utilities	$19,894-$25,023	2029-2040
Ferndale	Thornton Road	Vista Drive to Malloy Avenue	Reconstruct and widen to meet City standards, including utilities	$2,049-$2,577	2029-2040
Ferndale	Main Street Signal Improvements, Long Term	Labounty Drive to Douglas Road	Implement an Adaptive Signal Control system	$554-$697	2029-2040
Lynden	Line Road	Burlwood Road to Aaron Drive	Upgrade to full City standard	$1,032	2017

Lynden	Aaron Drive and Northwood Road Intersection	Aaron Drive and Northwood Road	Complete to full City standard	$826	2017
Lynden	Bicycle Facilities and Pathways Program	Bicycle Facilities and Pathways Program	Striping of City-identified bicycle routes within City limits; some facilities may be listed above in reconstruction projects	$260	2017-2027
Lynden	Sidewalk/Crossing Improvement Program	Sidewalk/Crossing Improvement Program	Annual program to construct missing sidewalk links, repair existing sidewalks, improve crosswalk markings, and install ADA- accessible curb ramps at intersections	$716	2017-2027
Lynden	Street Overlay and Maintenance	Street Overlay and Maintenance	Annual program to maintain the City's transportation roadway infrastructure.	$1,302	2017-2027
Lynden	Riverview Road Gap Elimination	Hannegan Road to 6th Street	New road construction providing southeastern access to downtown Lynden and Historic Business District	$3,002	2018
Lynden	Fisher Safe Route to Schools	North 14th Street to 17th Street	The project includes shared use path, sidewalk, curb, gutter, planter strip, speed feedback signs with flashing beacons, and educational materials and events	$781	2018
Lynden	Glenning Street Sidewalk/Trail	British Columbia Avenue to 8th Street	Sidewalk and trail construction	$70	2018
Lynden	7th Street from Judson Street to Grover Street	7th Street from Judson Street to Grover Street	Reconstruct corridor to City standards (inc. 36' width), including sidewalks; consider intersection improvements at Grover St, including compact roundabouts, in coordination with this project	$1,061	2019
Lynden	Main Street Corridor Completion	Berthusen Road east 0.5 miles to existing roadway	Reconstruct corridor to City standards (inc. 36' width), including sidewalks and bicycle facilities	$2,108	2019
Lynden	Northwood Road	South City limits to East Badger Road	Preliminary engineering; upgrade to full City standard	$565	2020
Lynden	SR 546 Intersection w/ City Arterials	Intersections	Upgrade lighting & channelization	$905	2020
Lynden	Line Road Box Culvert Bridge Reconstruction	Line Road Box Culvert Bridge	Reconstruct box culvert on Line Rd near the KOA campground	$2,578	2020
Lynden	Bradley Road	Vinup Road to Line Road	Reconstruct corridor to City standards (inc. 36' width), including sidewalks and bicycle facilities.	$3,901	2021
Lynden	Benson Road	Benson Lane to East Badger Road	Reconstruct to City standards (inc. 36' width), including sidewalks and bicycle facilities	$7,938	2021
Lynden	Berthusen Road	Birch Bay Lynden Road to Main Street	Design engineering to full City standard	$353	2022

Lynden	3rd Street Corridor	Front Street to Grover Street	Reconstruct corridor to HBD standards (inc. 36' width), including sidewalks. Complete intersection and signal timing improvements as needed	$687	2028-2040
Lynden	1st Street and Grover Street Intersection	1st Street and Grover Street	Add left-turn signal heads and adjust signal timing to provide for protected left-turns on Grover St	$64	2028-2040
Lynden	17th Street and Front Street Intersection	17th Street and Front Street	Add left-turn signal heads and adjust signal timing to provide for protected left-turns on Front St	$64	2028-2040
Lynden	Birch Bay-Lynden Road and Berthusen Road Intersection	Birch Bay-Lynden Road and Berthusen Road	Evaluate intersection operations and install roundabout to improve future level of service when needed	$1,322	2028-2040
Lynden	Bicycle Facilities and Pathways Program	Bicycle Facilities and Pathways Program	Striping of City-identified bicycle routes within City limits; some facilities may be listed above in reconstruction projects	$401	2028-2040
Lynden	Sidewalk/Crossing Improvement Program	Sidewalk/Crossing Improvement Program	Annual program to construct missing sidewalk links, repair existing sidewalks, improve crosswalk markings, and install ADA- accessible curb ramps at intersections	$1,103	2028-2040
Lynden	Street Overlay and Maintenance	Street Overlay and Maintenance	Annual program to maintain the City's transportation roadway infrastructure	$2,006	2028-2040
Lynden	SR 546 and Benson Road	SR 546 and Benson Road	Upgrade intersection to a roundabout consistent with designs at adjacent intersections on SR 546 corridor	$1,399	2029-2040
Lynden	SR 546 and Vinup Road	SR 546 and Vinup Road	Upgrade intersection to a roundabout consistent with designs at adjacent intersections on SR 546 corridor	$1,373	2029-2040
Lynden	SR 546 and Line Road	SR 546 and Line Road	Upgrade intersection to a roundabout consistent with designs at adjacent intersections on SR 546 corridor	$1,399	2029-2040
Lynden	SR 539 (Guide Meridian) from Birch Bay-Lynden Road to SR 546 (Badger Road)	SR 539 (Guide Meridian) from Birch Bay-Lynden Road to SR 546 (Badger Rd)	Add roadway capacity as part of WSDOT project; widen roadway to 4 travel lanes between Birch Bay-Lynden Rd and Main St; lane and shoulder widening north of Main St with safety improvements; possible roundabouts at Main St and Badger Rd intersections	$27,478	2029-2040
Lynden	Line Road	East Badger Road to Bradley Road	Reconstruct corridor to City standard (inc. 36' width), including sidewalks and bicycle facilities, and other safety measures to address building of a new school along Line Rd	$2,963	2029-2040
Lynden	17th Street and Grover Street Intersection	17th Street and Grover Street	Evaluate intersection operations and install traffic signal to improve future level of service when needed	$665-$836	2029-2040

Lynden	7th Street and Front Street Intersection	7th Street and Front Street	New connection on 7th St will add additional volume to intersection; evaluate intersection operations and install improvements (signal/compact roundabout) to improve future level of service when needed	$415-$522	2029-2040
Lynden	Benson Road and Main Street Intersection	Benson Road and Main Street	Evaluate intersection operations and install traffic signal to improve future level of service when needed	$665-$836	2029-2040
Lynden	West Front Street and Tromp Road	Duffner Drive to Birch Bay-Lynden Road	Reconstruct corridor to City standard (inc. 36' width), including sidewalks and bicycle facilities	$5,828-$7,331	2029-2040
Nooksack	Preservation Program	Multiple Arterials	Preservation program	$144	2017-2022
Nooksack	Nooksack Avenue (SR 9) Sidewalk	Hayes Street to Tom Road	Install sidewalk on Nooskack Ave (SR 9) on west side of street	$177	2022
Nooksack	South Pass Road Sidewalk	South Pass Road east of SR 9	Sidewalk along north side of road, approximately 450 feet	$302	2023
Nooksack	Preservation Program	Multiple Arterials	Preservation program	$166	2023-2028
Nooksack	Preservation Program	Multiple Arterials	Preservation program	$404	2029-2040
Sumas	Various Sidewalks	Sumas City Limits	Repair various arterial sidewalks throughout the city	$26	2017
Sumas	Sumas Avenue Reconstruction	East Front Street (SR 547) to Garfield Street	Reconstruct Sumas Ave from SR 547 (Front St) to Garfield St	$2,781	2024
Sumas	Barbo Road	Barbo Road	Reconstruct to meet heavy haul road standards	$931	2024
Sumas	SR 9 (Cherry Street) bridge replacement	SR 9 bridge crossing Johnson Creek	Replace SR 9 (Cherry Street) bridge that crosses Johnoson Creek	$3,724	2025
Whatcom County	Various Bridges Rehabilitation/Replacement	Whatcom County	As prioritized	$9,613	2017-2040
Whatcom County	Roberts Road/Anderson Creek Bridge No. 249 Replacement Project	Roberts Road/Anderson Creek Bridge No. 249	Replace existing bridge with new bridge structure	$1,951	2018
Whatcom County	Slater Road/Jordan Creek Fish Passage	Slater Road/Jordan Creek	Construct new bridge	$6,193	2018
Whatcom County	Lummi Island Dolphin and Breakwater Replacement	Lummi Island	Replace existing timber pile dolphins and breakwater with steel pile supported structures	$1,750	2018
Whatcom County	East Smith Road	Everson Goshen to Mt. Baker Highway	Pavement rehabilitation	$1,875	2018
Whatcom County	Bennett Drive	Marine Drive to West Bakerview Road	Rehabilitation	$2,500	2018

Whatcom County	Birch Bay Drive & Pedestrian Facility	Birch Bay Drive	This project will construct a soft shore roadway protection berm with a pedestrian pathway and install drainage upgrades	$11,450	2019
Whatcom County	West Badger Road/Bertrand Creek Bridge No. 50 Replacement Project	West Badger Road/Bertrand Creek Bridge No. 50	Replace existing bridge with new bridge structure	$1,808	2019
Whatcom County	Hannegan Road/Ten Mile Creek Bridge No. 236 Replacement Project	Hannegan Road/Ten Mile Creek Bridge No. 236	Replace existing bridge with new bridge structure	$1,280	2019
Whatcom County	Marine Drive	Bancroft Road to Alderwood Avenue	Add left-turn lanes at urban minor arterial standards	$3,493	2019
Whatcom County	Lakeway Drive Corridor Improvements	Lakeway Drive	Reconstruction	$2,500	2019
Whatcom County	East Smith Road/Hannegan Road	East Smith Road/Hannegan Road	Improve/redesign intersection or build roundabout when warranted	$3,392	2020
Whatcom County	Marine Drive/Little Squalicum Bridge No. 1	Marine Drive/Little Squalicum Bridge No. 1	Rehabilitation	$2,000	2020
Whatcom County	Lake Whatcom Boulevard Water Quality Improvements	Lake Whatcom Boulevard	Water quality improvements	$6,785	2020
Whatcom County	Hannegan Road	Bellingham City Limits to Van Wyck Road	Add left-turn lanes at intersections and driveways and widen the road to meet the urban minor arterial standard	$4,450	2021
Whatcom County	Marine Drive	McAlpine Road to Alderwood Ave	Reconstruction	$5,000	2021
Whatcom County	West Badger Road	Sunrise Road to Markworth Road	Reconstruction	$5,000	2021
Whatcom County	West Horton Road Extension, Phase 2	Aldrich Road to Northwest Drive	New road construction extending Horton Rd west as a secondary urban arterial with sidewalks, bike lanes, and turn lanes	$15,000	2022
Whatcom County	Slater Road & Northwest Drive	Slater Road & Northwest Drive	Construction	$5,000	2022
Whatcom County	Hannegan Road	Van Wyck Road to SR 544	Add left-turn lanes at intersections and driveways and widen the road meet the rural major collector standard	$11,386	2022
Whatcom County	Marine Drive	McAlpine Road to BNSF RR Overpass	Reconstruct to urban minor arterial standards with non-motorized facilities	$1,648	2022

Whatcom County	Slater Road	I-5 Interchange to Pacific Highway	Reconstruction	$16,000	2022
Whatcom County	Marine Drive II	Alderwood Avenue to Bridge No. 172	Reconstruction	$5,000	2022
Whatcom County	Jackson Road/Terrell Creek Bridge No. 81	Jackson Road/Terrell Creek Bridge No. 81	Replacement	$3,000	2023
Whatcom County	Birch Bay-Lynden Road/Blaine Road (SR 548)	Birch Bay-Lynden Road/Blaine Road (SR 548)	Construct intersection improvements to include roundabout or install turn lanes and traffic signal, when warranted	$3,627	2023
Whatcom County	Hampton Road	Hampton Road	Reconstruction	$5,000	2023
Whatcom County	West Smith Road/Northwest Drive	West Smith Road/Northwest Drive	Construct roundabout when warranted	$4,523	2023
Whatcom County	Slater Road/Nooksack River Bridge No. 514	Slater Road/Nooksack River Bridge No. 514	Bridge Construction	$12,000	2024
Whatcom County	Mosquito Lake Road/Porter Creek Bridge No. 141	Mosquito Lake Road/Porter Creek Bridge No. 141	Replacement	$3,000	2024
Whatcom County	North Lake Samish Road Bridge No. 107	North Lake Samish Road Bridge No. 107	Reconstruction	$8,463	2024
Whatcom County	Birch Bay-Lynden Road/Harborview Road	Birch Bay-Lynden Road/Harborview Road	Construct intersection improvements to include turn lanes and install traffic signal when warranted	$3,815	2025
Whatcom County	Birch Bay Drive/Harborview Road	Birch Bay Drive/Harborview Road	Improve/redesign the intersection with turn lanes, and install traffic signal, when warranted	$3,815	2026
Whatcom County	Lincoln Road Extension and Improvement	Harborview Road to Blaine Road (SR 548)	Reconstruct existing road and construct 2-lane urban arterial to Blaine Rd with nonmotorized enhancement including construction of roundabouts at intersections with Blaine Rd and Harborview Rd	$5,585	2028
Whatcom County	Northwest Drive	Bellingham City Limits to West Smith Road	Add left-turn lanes at rural minor arterial standards	$7,026	2028
Whatcom County	Grandview Road (SR 548)/Vista Drive	Grandview Road (SR 548)/Vista Drive	Construct intersection improvements to include roundabout or install turn lanes and traffic signal when warranted	$3,899	2028
Whatcom County	Birch Bay Drive	Alderson Road to Point Whitehorn Road	Improve to urban minor arterial standards including non-motorized facilities	$2,340	2028

Whatcom County	Everson Goshen Road	SR 542 to SR 544	Add left-turn lanes at rural major collector standards	$10,835	2028
Whatcom County	Birch Bay Drive	Alderson Road to Shintaffer Road	Improve roadway to urban minor arterial standards including non-motorized facilities	$1,209	2028
Whatcom County	Slater Road (along Kelly Road)	Hannegan Road to SR 542 (Mt. Baker Highway)	Upgrade from local to collector class and reconstruct at collector standards including drainage system and non-motorized facilities	$13,844	2028-2040
Whatcom County	Lake Louise Road	Sudden Valley Gate 13 to Austin Street	Reconstruct to major collector standards including non-motorized facilities	$10,840-$13,930	2028-2040
Whatcom County	Lake Louise Road	Sudden Valley Gate 13 to Whatcom Boulevard	Reconstruct to major collector standards including non-motorized facilities	$10,840-$13,930	2028-2040
Whatcom County	Slater Road	Hannegan Road to Northwest Drive	Construct 2-lane extension road to Kelly Rd at collector standards with non-motorized facilities	$5,420-$6,970	2028-2040
Whatcom County	Slater Road/Ferndale Road	Slater Road/Ferndale Road	Install traffic signal when warranted	$4,070-$5,220	2028-2040
Whatcom County	Birch Bay-Lynden Road/Kickerville Road	Birch Bay-Lynden Road/Kickerville Road	Construct intersection improvements to include roundabout or install turn lanes and traffic signal, when warranted	$4,070-$5,220	2028-2040
Whatcom County	Harborview Road	Birch Bay Drive to Birch Bay-Lynden Road	Improve roadway to urban principal arterial standards including non-motorized facilities	$270-$350	2028-2040
Whatcom County	Harborview Road	Birch Bay-Lynden Road to Drayton Harbor Road	Improve roadway to major collector standards including non-motorized facilities	$270-$350	2028-2040
Whatcom County	Jackson Road	Birch Bay Drive to Grandview Road	Reconstruct to rural collector standards including paved shoulders for non-motorized facilities	$1,630-$2,090	2028-2040
Whatcom County	Blaine Road (SR 548)/Drayton Harbor Road	Blaine Road (SR 548)/Drayton Harbor Road	Improve/redesign the intersection with turn lanes and install traffic signal when warranted	$2,710-$3,480	2028-2040
Whatcom County	Blaine Road (SR 548)/Loomis Trail Road	Blaine Road (SR 548)/Loomis Trail Road	Improve/redesign the intersection with turn lanes and install traffic signal when warranted	$2,710-$3,480	2028-2040
Whatcom County	Bakerview Road	East Bakerview Road to Aldrich Road	Reconstruct to urban arterial, standards including non-motorized facilities	$4,070-$5,220	2028-2040
Whatcom County	San Juan Boulevard	40th Street to 48th Street	Construction and extension of new urban arterial (2 phases) with non-motorized facilities	$10,440-$13,410	2028-2040
Whatcom County	Lakeway Drive/Terrace Avenue North/Cable Street	Bellingham City Limits to Lake Whatcom Boulevard	Widen to 4 lanes at urban minor arterial standards; add left turn lanes	$16,810-$21,600	2028-2040

Whatcom County	Marine Drive	Lummi Shore Drive (North of Cagey Road) to Country Lane	Add left-turn lanes at rural major collector standards	$2,480-$3,190	2028-2040
Whatcom County	Slater Road	Lake Terrell Road to 0.70 miles west of Haxton Way (1.8 miles)	Add left-turn lanes at rural major collector standards	$2,900-$3,730	2028-2040
Whatcom County	Mountain View Road	Mountain View Road	Reconstruction	$10,000	2029
Whatcom County	Birch Point Road	Semiahmoo Drive to Shintaffer Road	Reconstruct to urban minor arterial standards including non-motorized facilities	$4,150-$5,220	2029-2040
Whatcom County	Kickerville Road	Kickerville Road	Reconstruction	$10,000	2030
Whatcom County	Horton Road/Northwest Drive/Slater Road Corridor	Horton Road/Northwest Drive/Slater Road Corridor	New roadway, reconstruction, intersection Control	$20,000	2032
Whatcom County	Hannegan Road	Hannegan Road	Capacity enhance	$20,000	2032
Whatcom County	Ferry Dock Improvements	Lummi Island Ferry Dock	Improvements to Lummi Island ferry docks	$8,000	2026
Whatcom County	Replacement of Whatcom Chief	Lummi Island Ferry Dock	New ferry	$20,000	2026
WSDOT	I-5/SR 11 to SR 548 - Cable Barrier Upgrade	I-5/SR 11 to SR 548	Replace cable rail systems	$2,752	2017
WSDOT	SR 539/Ten Mile Road to Nooksack Overflow Bridge - Cable Barrier	SR 539/Ten Mile Road to Nooksack Overflow Bridge	Replace cable rail systems	$781	2017
WSDOT	SR 542/SR 9 East Junction - Intersection Improvements	SR 542/SR 9 East Junction	Install single-lane roundabout	$1,441	2018
WSDOT	SR 548/Kickerville Road - Intersection Improvements	SR 548/Kickerville Road	Install single-lane roundabout	$1,418	2018
WSDOT	SR 542/Hedrick Creek - Fish Barrier	SR 542/Hedrick Creek	Replace fish barrier with passable structure	$6,224	2018
WSDOT	I-5/Custer SB SRA Sewer Line Replacement - NWR	I-5/Custer	Replace sewer line	$1,493	2018
WSDOT	I-5/Lake Samish - Stormwater Pipe Replacement	I-5/Lake Samish	Pipe replacement	$1,397	2018

WSDOT	SR 539/Birch Bay-Lynden Drive to SR 546 - ADA Compliance	SR 539/Birch Bay-Lynden Drive to SR 546	Upgrade ADA sidewalk ramps	$439	2018
WSDOT	SR 542/Dewey Road - Culvert Replacement	SR 542/Dewey Road	Replace culvert	$728	2018
WSDOT	SR 542/I-5 to Hannegan Road - ADA Compliance	SR 542/I-5 to Hannegan Road	Upgrade ADA sidewalk ramps	$532	2018
WSDOT	Asphalt/Chip Seal Preservation	Countywide	Resurface the roadway with chip seal or hot mix asphalt	$12,104	2019
WSDOT	SR 9/Tawes Creek - Fish Passage	SR 9/Tawes Creek	Replace fish barrier with passable structure	$2,597	2019
WSDOT	SR 9/Two Tributaries to Tawes Creek - Fish Passage	SR 9/Two Tributaries to Tawes Creek	Replace fish barrier with passable structure	$2,918	2019
WSDOT	SR 20/Cascade Rd to Goodell Creek Campground - Rumblestrip Installation	SR 20/Cascade Road to Goodell Creek Campground	Install centerline rumblestrips	$220	2019
WSDOT	SR 20/Lillian Creek to Granite Creek - Rumblestrip Installation	SR 20/Lillian Creek to Granite Creek	Install centerline and shoulder rumblestrips	$770	2019
WSDOT	SR 20/Newhalem to Lillian Creek - Rumblestrip Installation	SR 20/Newhalem to Lillian Creek	Install centerline rumblestrips	$1,140	2019
WSDOT	SR 539/Telegraph Road to Westerly Road - ADA Compliance	SR 539/Telegraph Road to Westerly Road	Upgrade ADA sidewalk ramps	$468	2019
WSDOT	I-5/Northbound On-Ramp at Bakerview Road Improvements	I-5/Northbound On-Ramp at Bakerview	Construct northbound on-ramp	$10,000	2022
WSDOT	Highway Preservation	Countywide	State highway overlays and reconstruction	$54,644	2021-2027
WSDOT	Environmental Programs	Countywide	Fish passageway and other environmental projects	$25,925	2021-2027
WSDOT	Safety Improvements	Countywide	Enhancement projects to improve safety such as curve warnings, rumblestrips, lighting, and other projects	$14,689	2021-2027
WSDOT	Mobility	Countywide	Construction of new facilities or reconstruction of existing facilities that expand mode capacity	$23,750	2021-2027
WSDOT	I-5/Slater Road Interchange Improvements	I-5/Slater Road	Interchange improvements	$21,100	2022-2027

WSDOT	SR 542/Glacier Creek Bridge CED - Replace Bridge	SR 542/Glacier Creek Bridge CED	Replace bridge	$33,377	2022-2027
WSDOT	Highway Preservation	Countywide	State highway overlays and reconstruction	$98,824	2028-2040
WSDOT	Environmental Programs	Countywide	Fish passageway and other environmental projects	$62,798	2028-2040
WSDOT	Safety Improvements	Countywide	Enhancement projects to improve safety such as curve warnings, rumblestrips, lighting, and other projects	$37,860	2028-2040
WSDOT	Mobility	Countywide	Construction of new facilities or reconstruction of existing facilities that expand mode capacity	$37,901	2028-2040
WTA	Paratransit Vehicles	Countywide	Replace paratransit vehicles	$8,897	2017-2027
WTA	Fixed-Route Vehicles	Countywide	Replace fixed-route vehicles	$23,716	2017-2027
WTA	Paratransit Vehicles	Countywide	Replace paratransit vehicles	$17,874	2028-2040
WTA	Fixed-Route Vehicles	Countywide	Replace fixed-route vehicles	$61,681	2028-2040

Regional Programs

The following programs are administered by WCOG to advance regional transportation goals as well as support state and national objectives.

Transportation demand management: Whatcom Smart Trips

Transportation demand management (TDM) reduces the demand for overburdened roads by providing opportunities for people to use sustainable modes like walking, biking, sharing rides and riding the bus, or to not travel at all (such as working from home). In the Whatcom region, TDM is primarily implemented under the auspices of WCOG's Whatcom Smart Trips program. The program is currently funded through a partnership among WTA, WSDOT, the City of Bellingham and the Northwest Clean Air Agency.

Whatcom Smart Trips is a collection of initiatives and tools that help and encourage community members to use more efficient and sustainable transportation modes. These include:

- **An online trip diary** that helps community members identify opportunities for making trips by walking, bicycling, sharing rides and riding the bus
- **Smart Trips Incentives**, which include discount cards, gift certificates, cash prizes and recognition to motivate community members to try new forms of transportation
- **Emergency rides home** using limited, free taxi service so bus riders and other Smart Trips participants who experience an emergency or become ill at work can get home
- **Smart Trips employer partners** to provide support to businesses and organizations that want to promote sustainable transportation to their employees
- **Community outreach** provides education, assistance and incentives by partnering with community groups that wish to promote walking, bicycling, sharing rides and riding the bus
- **School Smart Trips** program, which provides classroom activities for middle school students and bicycle skills courses for elementary school students
- **An ongoing public awareness campaign** that includes advertising and public presentations to make the community aware of the benefits of participation in the Smart Trips program.

In addition to Whatcom Smart Trips, several jurisdictions in the Whatcom region utilize TDM as part of their local transportation strategies. Taken together, regional TDM programs advance the Whatcom regional goals of:

- **Efficiency, effectiveness and system sustainability** – Reducing single-occupant vehicle travel contributes to reduced traffic congestion, faster travel time, and reduced road maintenance needs. It also supports WTA through increased ridership.
- **Environmental quality –**Increased walking and biking advances healthy communities both as a function of increased physical activity and avoided vehicle-related emissions.
- **Multimodal transportation system** – Increasing people's awareness of the transportation options they have and informing them how to use more modes directly increases the viability and value of transit, ride-share services, bicycle and pedestrian facilities and indirectly improves effectiveness of roads.

Coordination of cross-border planning, programming and operations: The International Mobility and Trade Corridor Program (IMTC)

The Whatcom region's northern boundary is the United States' international border with Canada. While the Whatcom region is home to about 212,000 people, just across that border there are approximately 2.5-million people living in Metro Vancouver, one of Canada's largest metropolitan areas. As an international border region, the Whatcom transportation system includes the national facilities of U.S. and Canadian federal border inspection agencies. Whatcom County's location on the coastal transportation corridor between Vancouver, B.C. and Seattle results in high volumes of nationally-significant truck and rail freight through the region. Additionally, this asymmetrical population density is a very important dimension of transportation demand in the Whatcom region: in 2015, approximately 4.2-million Canadian vehicles crossed the border into the Whatcom region, with approximately 46 percent of those trips (1.9-million vehicles/4.4-million person trips) having destinations in Whatcom County (per the 2013 IMTC travel survey). This level of activity has a significant positive impact on the Whatcom region's economy, but also generates a large share of the vehicles using the regional road system. These added cross-border flows of freight and travel are important factors in WCOG's metropolitan and regional transportation planning process.

Since 1997, WCOG has been the lead agency of the IMTC, a voluntary, binational coalition of government, business interests and non-governmental entities established to support the improvement of safety, mobility and security in the "Cascade Gateway" – the five land-border ports-of-entry connecting Whatcom County to B.C.'s Lower Mainland. The IMTC program focuses on coordinating planning, identifying shared system needs, and optimizing investments and operations through collaboration, innovation and partnership. Active participants include:

- U.S. Federal Highway Administration
- Transport Canada
- U.S. Customs and Border Protection
- Canada Border Services Agency
- WSDOT
- B.C. Ministry of Transportation & Infrastructure
- B.C. and Washington border municipalities
- U.S. Consulate, Vancouver
- Canadian Consulate, Seattle
- Industry associations (trucking, customs brokers, duty-free stores)
- Federal, state, provincial and local legislative offices
- Non-governmental organizations

Because it encompasses planning, programming and operations, IMTC advances all of the Whatcom region's transportation goals to some degree. However, because it addresses the functionality and performance of the region’s five ports-of-entry as part of the Cascade Gateway system, IMTC has the most directly advances the regional goals of:

- **Efficiency, effectiveness and system sustainability**
- **A multimodal transportation system**
- **Access and convenience,**and
- **Freight transportation.**

More information on the objectives and strategies of the IMTC Program can be found in IMTC Purpose, Goals and Strategies.

Regional Planning

Since becoming the metropolitan planning organization for the Bellingham Urbanized Area in 1982, WCOG has been engaged in a robust program of transportation planning to satisfy the numerous planning requirements to keep the region eligible for federal transportation assistance. Following its designation in 1990 as the regional transportation planning organization for Whatcom County under Washington's GMA, WCOG merged its MPO and RTPO responsibilities into a unified metropolitan/regional transportation planning program. Additionally, WCOG provides technical assistance and support to its member jurisdictions and assists its various partners, including WSDOT, WTA and others.

Metropolitan and regional transportation planning

As an MPO, WCOG is responsible for carrying out a *comprehensive, cooperative* and *continuing* planning process for the Bellingham Urbanized Area. As part of that "3C" process it subsequently included its state-mandated RTPO planning requirements. Among the principle activities and products generated by this process are:

- Development of a long-range metropolitan transportation plan, which must be updated every five years. The update to *Whatcom Mobility 2040* will begin in 2020, with adoption by June 2022.
- Preparation of an annual (or biennial) Unified Planning Work Program (UPWP), the focus of which is derived from the adopted metropolitan long-range transportation plan *(Whatcom Mobility 2040)* as well as the planning emphasis areas specified in federal regulations and in the Revised Code of Washington.
- In cooperation with WCOG's members and WSDOT, preparation of the Regional Transportation Improvement Program. The TIP provides a comprehensive six-year listing of transportation improvements within the county that are included on the regional transportation network as defined by *Whatcom Mobility 2040*. It also includes any other projects utilizing federal transportation funds, regardless of their location.
- As an RTPO, WCOG must certify that the "transportation elements" of the comprehensive plans of Whatcom County and the region's seven cities are consistent with the provisions of the GMA and the current adopted regional transportation plan.

These activities and others are ongoing as part of WCOG's responsibility to advance the region's transportation goals and to support state and national transportation objectives.

Performance-based planning and programming

Federally required measures and targets:

With the passage in 2012 of the federal transportation act called *Moving Ahead for Progress in the 21st Century*(MAP-21), MPOs must establish and utilize a performance-based approach to transportation planning and decision-making in support of the national planning factors. MAP-21 also established requirements for states and MPOs to adopt specific performance measures and targets in the areas of safety, infrastructure condition, system performance and environmental sustainability. (All

of these MAP-21 requirements were carried forward into its successor, *Fixing America's Surface Transportation*, known as the "FAST Act.") At the time *Whatcom Mobility 2040* was approved in June 2017, the deadline for adoption of these federal measures and targets was 2018, and the consultative process between WSDOT and the state's MPOs to formally adopt the required metrics and targets was still underway. When these are agreed to with WSDOT and subsequently adopted by the Whatcom Transportation Policy Board, *Whatcom Mobility 2040* will be amended to incorporate them.

WCOG regional corridors:

As part of its efforts to adopt performance-based planning practices, WCOG has identified "regional corridors" that serve as the principal connection between two or more communities in Whatcom County. For each of these corridors a generalized geography was established that accounts for all modes and the system components that facilitate mobility along the corridor (roads, transit routes, trails, etc.). Identification of regional corridors is intended to provide a framework to support coordination between jurisdictions and agencies with operational responsibilities on each corridor (Whatcom County, WTA, WSDOT, etc.). When performance measures are applied to these corridors, WCOG and its partners will be able to track progress toward meeting established operational goals and more clearly identify system needs and the investments necessary to meet them.

Figure 7 below illustrates the eight regional corridors for which WCOG will be developing performance measures and then testing them as a basis for the establishment of an ongoing, corridor-focused planning process with the involved facility owners, operators and users.

Figure 7: Regional Corridors for Performance Measurements

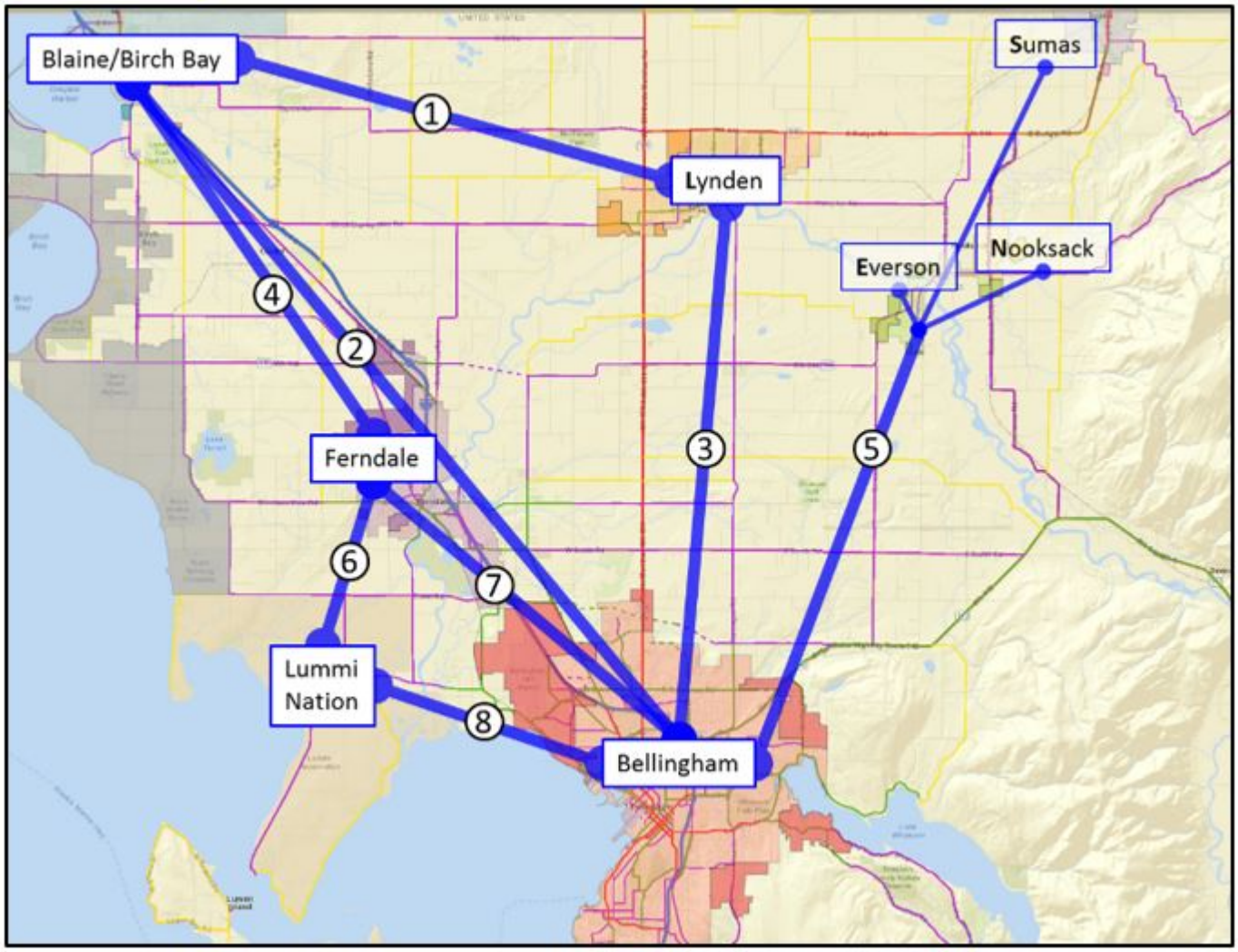
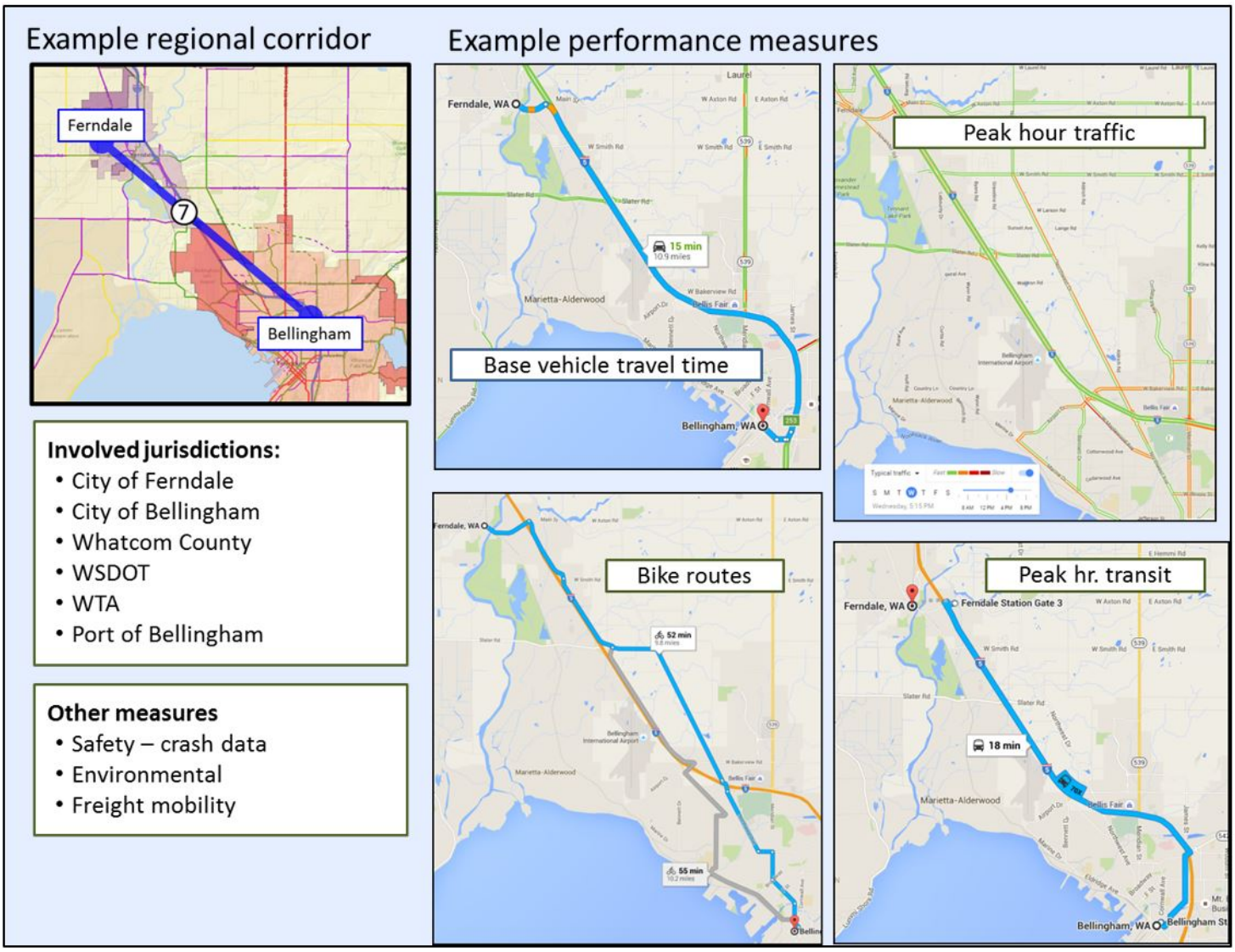


Figure 8 below takes one example corridor (Bellingham-Ferndale) and illustrates a possible application of performance measures. Corridor measures are intended to assess the availability and effectiveness of all modes and support comparison over time so that performance targets can be set and strategies developed to achieve them. Figure 8 also lists the jurisdictions and transportation agencies with responsibilities on this corridor, as well as additional performance measures in support of the Whatcom regional transportation goals.

Figure 8: Example Regional Corridor and Associated Performance Measures



In 2017 and 2018, WCOG will continue working with the region's jurisdictions and transportation agencies to develop the regional corridor performance measurement framework and use it to form strategies for best serving inter-jurisdictional travel and goods movement across all modes.

Regional coordination of level of service (LOS) standards:

Level of service is a broad term used to describe a measurement of how well a transportation facility (usually a road) or service (like a bus route) is performing. It is important, then, to acknowledge this context before discussing how LOS does and does not fit into WCOG's planning strategy.

There are various reasons that LOS measures are adopted and applied. In Washington, LOS is defined as "an established minimum capacity for both transit and regional arterials," and cities and counties subject to GMA are required to establish minimum LOS standards. If, as a result of a jurisdiction's land-use and transportation analyses, it is determined that development will generate enough vehicle trips to cause arterial roads or transit systems to fall below the adopted LOS minimums, that jurisdiction must then explain how it will pay for additional road capacity or transportation facility improvements, and/or what changes will be made to its land-use plan, to maintain the adopted LOS. Under GMA, this policy of requiring jurisdictions to keep their adopted level of transportation capacity in running balance with vehicle demand is called *concurrency*, and

LOS standards are used to monitor compliance with this requirement.

When applied to road segments, corridors or intersections, LOS measures have typically been based on traffic volume, vehicle travel time, or a combination of variables such as distance traveled, road conditions or safety hazards. Measures such as comparing observed vehicle travel times to a free-flow condition, or comparing observed vehicle counts (volume) to the road's designed vehicle capacity, are usually batched and associated with a corresponding range of letter grades from "A" - indicating free-flowing vehicle traffic - to "F," when traffic is at a standstill. In Whatcom County, most (although not all) jurisdictions use an A-F LOS measure based on the volume of vehicles on a road segment compared to its designed vehicle capacity during the afternoon (p.m.) peak hour of traffic.

Example:

*Whatcom County has adopted an LOS standard of C. If a road segment in the county has a designed capacity of 400 vehicles/hour, but during the p.m. peak hour (e.g., 4:00 to 5:00 p.m.) only 350 vehicles are able to move through it, that segment is operating at **LOS D** (350/400 = 0.875), which is below the adopted standard.*

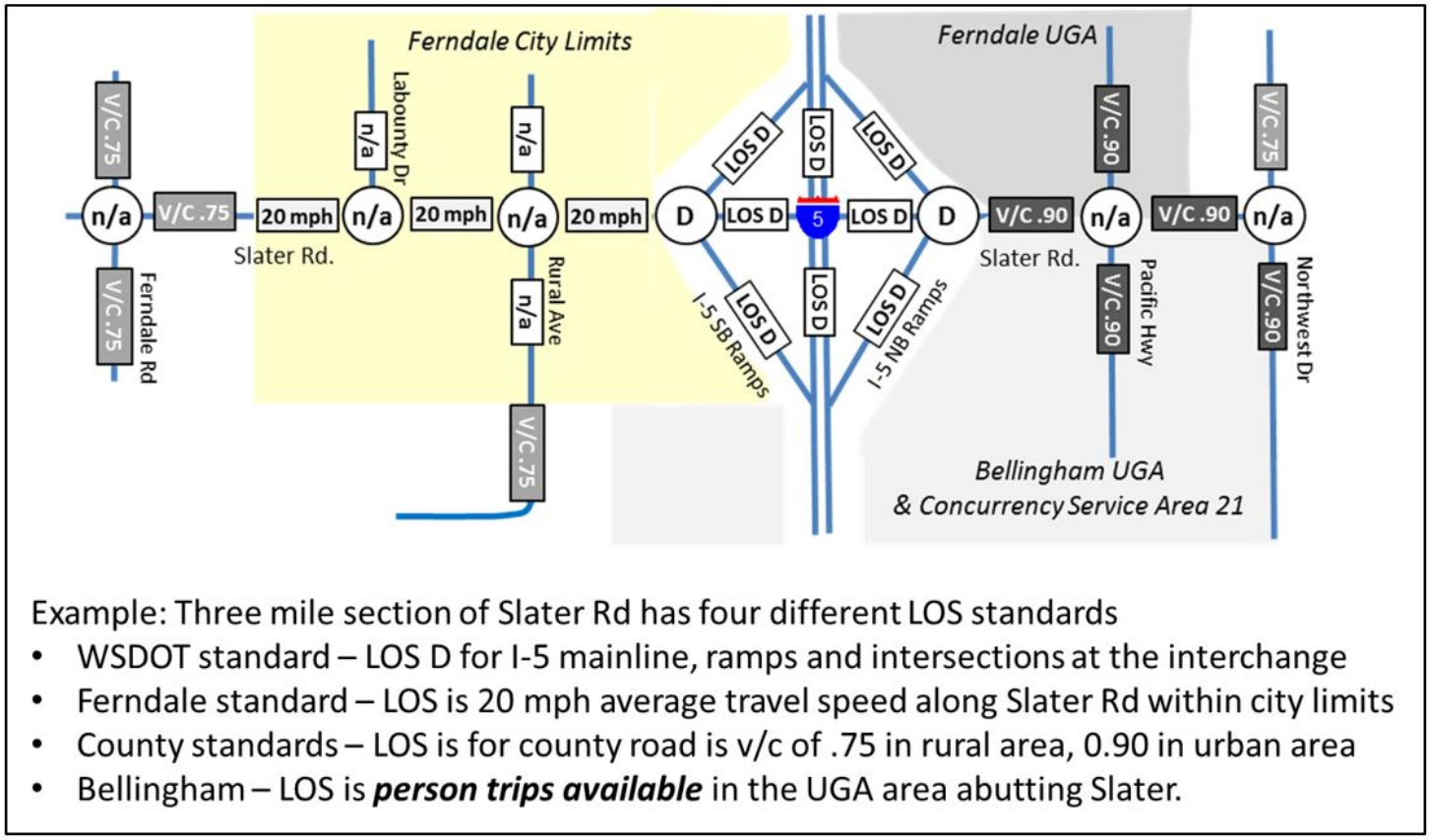
LOS Designation	Volume/capacity range
A	0 – 0.59
B	0.60 – 0.69
C	0.70 – 0.79
D	***0.80 – 0.89***
E	0.90 – 0.99
F	>1.00

Another reason that jurisdictions adopt LOS standards is to assess *impact fees:* mandatory payments from land developers to jurisdictions to offset the cost of transportation improvements necessitated by their projects. The use of impact fees is one of the principal means by which jurisdictions fund compliance with GMA's concurrency requirement. Unlike a county or city, WCOG does not use LOS to assess concurrency or, for that matter, any type of fee calculation. As an RTPO, state law requires WCOG to 1) review level of service methodologies used in the planning area and promote a consistent regional evaluation of transportation facilities and corridors, and 2) work with cities, counties, WTA, WSDOT and others to develop LOS standards or alternative transportation performance measures. The LOS measurement WCOG applies for the purposes of *regional* transportation planning encompasses a range of methodologies and applications that are used in various ways to measure performance and inform planning.

For measures and forecasts of the regional road network generated by its regional travel demand model, WCOG uses the same LOS scale as Whatcom County (shown below the *Example* box above). While WCOG's regional LOS measurement sometimes conflicts with that of a particular city, it allows the regional road network to be visualized and assessed in a consistent way across jurisdictional boundaries. This application of LOS also helps communicate the operational effects expected from forecast changes in population as well as funded or planned investments in the

regional transportation system. Figure 9 illustrates the difficulty of attempting to use multiple LOS scales in regional transportation planning. Moving across the image from left to right (west to east), Slater Road traverses unincorporated Whatcom County, the City of Ferndale, the I-5 right-of-way (owned by the state), Bellingham's and Ferndale's urban growth areas, and unincorporated Whatcom County again.

Figure 9: Challenges in Establishing LOS Measurements



Example: Three mile section of Slater Rd has four different LOS standards

- WSDOT standard – LOS D for I-5 mainline, ramps and intersections at the interchange
- Ferndale standard – LOS is 20 mph average travel speed along Slater Rd within city limits
- County standards – LOS is for county road is v/c of .75 in rural area, 0.90 in urban area
- Bellingham – LOS is ***person trips available*** in the UGA area abutting Slater.

As a general planning principle, WCOG believes consistent transportation metrics are the most helpful in assessing future investment alternatives on facilities owned and operated by multiple jurisdictions, like in the previous example. However, WCOG acknowledges that the jurisdictions' adoption and use of different LOS methods and standards is not, by itself, an inconsistency with respect to regional planning or the attainment of regional transportation goals. As discussed before, these varying measures and standards are used by jurisdictions for purposes other than planning and are based on locally-preferred metrics (e.g., travel time vs. vehicle volumes), different expectations for system effectiveness (LOS C vs. LOS E), and the amount of funding deemed necessary to maintain or achieve a local LOS standard. However, for regional planning studies led by WCOG or in which WCOG participates (such as a sub-area or corridor study), the use of a consistent LOS methodology will be encouraged.

Least-cost planning:

The Washington Administrative Code requires regional transportation plans prepared by RTPOs to be based on a "least-cost planning methodology appropriate to the region." *Least-cost planning* is the process by which a region pursues its transportation goals using the most cost-effective mix of options. Furthermore, the process should:

- Consider both transportation *supply strategies* (e.g., building or widening roads, adding new transit service, etc.) and *demand strategies,* such as converting general-purpose lanes into high-occupancy vehicle lanes, transportation demand management programs like Whatcom Smart Trips, charging for parking and similar strategies.
- Consider *direct costs* like infrastructure, operations, preservation and debt service, and *indirect costs* such as safety, travel time, air quality, public health and habitat loss.

To meet this administrative requirement, WCOG has done or is doing the following:

- Adopted regional goals that reflect the expectation that the future effectiveness of the regional transportation system should, and will, rely on a mix of options.
- In addition to calling for strategic increases in the supply of transportation infrastructure and services, WCOG has adopted regional transportation-demand strategies, most notably its Whatcom Smart Trips program. Through Smart Trips, WCOG works closely with the jurisdictions and transit providers to support the future effectiveness and attractiveness of transportation modes other than single-occupancy vehicles.
- By adopting regional goals and strategies as a means to both develop and continuously improve performance measures, WCOG's regional planning activities can include benefit-cost analyses that include indirect cost factors (such as safety, travel time, health, environmental quality), which are essential to a least-cost planning approach.
- As it relates to the desired least-cost planning outcome of "the most cost-effective mix of options," WCOG has adopted the regional goal of *efficiency, effectiveness and system sustainability*, which entails:
    - Making the best use of *available* information to identify alternatives
    - Evaluating the relative direct and indirect costs and benefits as described above, and
    - Using the strategy that the region can afford *and* that provides the most expected benefit for the least cost.

Longer-range planning in support of public transit

The Whatcom region has two public transit providers: the Lummi Nation's Lummi Transit system, and the WTA. Lummi Transit service is available to all but primarily serves residents of the reservation. It operates two routes: Route A, which circulates throughout the reservation, and Route B, which provides service between the reservation and the City of Ferndale, where Lummi Transit riders can connect to WTA service at Ferndale Station. If and when requested by the Lummi Nation, WCOG will support and assist Lummi Transit in developing a long-range transit service plan.

In 2017, WTA adopted a new six-year strategic plan. The plan calls for WTA to monitor population growth and employment trends as part of two-year planning cycles, and assume transit demand will follow. If WTA's growth rate equals the population growth rate of Whatcom County, WTA would need to increase service by approximately 12,000 revenue hours over the life of the six-year plan. Using WTA's historical growth rate would mean adding approximately 18,000 revenue hours of service; by 2036, these targets would increase to between 35,000 and 55,000 additional hours of service. Of

course, exactly *where* that additional service would be needed is unknown at this time. The allocation of new transit service over *Whatcom Mobility 2040's* 23-year planning horizon will be based on the distribution of a significantly larger population – and with different demographic characteristics – than the population in 2017. Future service will also be influenced by land-use decisions, over which WTA has no authority. Given these uncertainties, WTA and WCOG will continue their longstanding collaboration and will pursue the development of a regional, longer-range (i.e., more than six years) planning strategy to optimally provide future transit services. However, to be successful, such a strategy must also include transit-supportive initiatives of local jurisdictions, regional agencies and other institutions, and not merely WTA operational improvements. This includes elements such as roadway design, park-and-ride facilities, bicycle and pedestrian connectivity to transit hubs, information and data sharing, public-private partnerships, and other measures.

Specific longer term transit planning strategies:

The most obvious intersection of WTA's service goals and WCOG's regional transportation goals is fostering a *multimodal transportation system*. Identifying the best strategies to help the region make the highest and best use of all available transportation modes, including transit, depends on knowledge of where the potential ridership is now and will be in the future. Thus, WCOG and WTA will:

- Will ensure that future household travel surveys (undertaken to refresh trip-tables for the regional transportation demand model) include sampling strategies, information fields and temporal parameters to generate useful information for longer-term transit planning.
- Explore geographic information system applications, census data products, and various analytical techniques to improve the quality of demographic data on quarter-mile bands (the approximate maximum walking distance of transit riders) around existing and proposed bus routes.
- Consider strategies for more productive operation of park-and-ride facilities.
- Monitor system conditions that, in the future, may warrant the use of strategies such as congestion-bypass protocols.
- Evaluate demographic trends relative to expected transit use rates, particularly characteristics such as age, income and disability.
- Continue to support inter-regional transit services like the County Connector, and facilitate a continuing dialogue with WSDOT on shared interests in service along state routes.
- Continue to monitor the feasibility of cooperating with regional transit providers in British Columbia to provide an effective cross-border public transit connection.
- Monitor current and potential future activities of private bus companies that serve regional transportation demand and consider how public facilities can complement privately-owned bus services to make the overall system more efficient and successful.
- Monitor the evolution of other transportation services and technologies that are likely to have implications for transit operations and alternatives. Examples include augmenting rural transit service through partnerships with ride-hailing services like Lyft and Uber, and using autonomous transit vehicles when that technology becomes viable.

Freight

In support of the regional goal to provide mobility for freight, WCOG employs several strategies:

- **Regional freight system assessment**: In 2015, with funding from WSDOT, WCOG undertook

a region-wide freight survey, mailing questionnaires to more than 1,000 local companies regarding their current and future freight-transportation needs, their assessment of the current freight system in the region, and recommendations for improvements and other changes. (For findings and analysis, please see the report *2015 WCOG Freight System Assessment*.)

- **Freight and Goods Transportation System (FGTS)**: WCOG participates in WSDOT's data-based FGTS by working with member jurisdictions to provide truck counts on primary roadways that are used to estimate the tonnage of freight moving over them. (More information about the FGTS classification system is available on WSODT's FGTS webpage.) WCOG uses the FGTS to improve regional awareness of freight flows and trends, and to inform the application of freight criteria in project selection and prioritization.
- **Participation in state and federal freight initiatives**: In addition to statewide freight planning, WSDOT's Freight Systems Division undertakes and supports various activities in which WCOG and its member jurisdictions participate. Examples include:
    - Stakeholder committee to evaluate an approach to statewide modeling of freight flows.
    - Stakeholder review and participation of a process to designate critical urban freight corridors.

WCOG also works closely with the Washington FHWA Division Office to stay aware of federal funding opportunities for freight planning, such as the FAST Freight programs.

- **International Mobility and Trade Corridor (IMTC) Program**: Analyzing the flow of freight associated with cross-border trade is an important activity of the IMTC Program. IMTC serves as an essential forum through which federal (Canadian and U.S.), state and provincial agencies collaborate on freight planning and freight system operations, which is informed by the involvement of various other IMTC participants, including the B.C. Trucking Association, the Washington Trucking Association, and the Vancouver Airport Authority. In support of these interests, IMTC has conducted a series of cross-border commercial vehicle studies, compiling a time-series on regional cross-border commodity flows, origin-destination data and other trip and conveyance characteristics relevant to cross-border system planning, inspection program strategies, and identification of operational efficiencies.

Human services transportation planning

In 2006, WSDOT directed WCOG and the state's other regional transportation planning organizations to convene stakeholder groups comprising local human services agencies, schools, transportation providers and others to develop consolidated human services transportation (HST) plans to ensure that the mobility needs of people who do not or cannot drive due to age, income or disability, are being met. This process results in the creation of a prioritized list of HST project proposals within Whatcom County based on the rankings of WCOG's HST stakeholder group and reviewed by both TTAG and CTAG. Sponsors of project proposals included on the list are then eligible to apply for state and federal public transportation grant funding. (For more information, please see the regional HST plan.)

Regional Intelligent Transportation Systems (ITS) Architecture

Intelligent transportation systems is a broad term that encompasses many different types of technology that are intended to improve mobility. Such improvement may come in the form of shorter travel times, enhanced safety, lower operating costs and other benefits to both operators and users of the transportation system, the latter including drivers, transit users, freight operators and even

pedestrians. Generally speaking, a technology is “intelligent” if it has the ability to communicate (with system operators, users of the facility or other components in that system), is dynamic (i.e., it can be adjusted as conditions warrant) and it generates data that can be analyzed to further improve the operation of that specific facility or the broader transportation network. The Whatcom Regional Intelligent Transportation Systems (ITS) Architecture is an inventory of this type of transportation technology that is currently deployed, or deployment of which is planned, in Whatcom County. This Regional ITS Architecture is updated periodically to keep pace with the rapid advancement of transportation technology.

Public Participation Plan

The Federal Highway and Transit administrations have jointly issued an Interim Policy on Public Involvement that supports public involvement at all stages of planning and project development. Federal law requires metropolitan planning organizations to develop, with the public, effective involvement processes tailored to local conditions. The performance standards for these proactive public involvement processes include early and continuous involvement; reasonable public availability of technical and other information; collaborative input on alternatives, evaluation criteria and mitigation needs; open public meetings where matters related to federal-aid highway and transit programs are being considered; and open access to the decision-making process. The State of Washington also requires public participation in the regional transportation planning process. WCOG’s Public Participation Plan provides guidelines for establishing and maintaining robust public involvement in the Whatcom region’s transportation planning process.

Environmental Justice

Environmental justice (EJ) is the practice of identifying and addressing those disproportionately-high adverse effects of transportation programs, policies and activities on minority groups and low-income communities to ensure the equitable distribution of both benefits and burdens. WCOG strives to maintain an awareness of potential EJ issues in its transportation planning process and take the necessary actions to prevent inequitable outcomes. Specific and overlapping strategies include:

- Inclusion of EJ as a specific objective related to the “environmental quality” scoring criterion as part of the evaluation of STBG funding requests.
- Inclusion of the U.S. Environmental Protection Agency’s environmental justice screening and mapping tool (EJSCREEN) on WCOG’s GIS portal.
- WCOG’s human services transportation planning activities (described above) include focused attention on the transportation needs of low-income populations.

The following interactive map series uses data from the EPA's EJSCREEN to identify potentially vulnerable demographic populations in the Whatcom region.

Figure 10: Environmental Justice in Whatcom County

Safety and environmental quality

Although they are discrete regional transportation goals – as well as being state and federal priorities – *safety* and *environmental quality* are also advanced in the Whatcom region through integration with various other planning strategies.

All users of the regional transportation system – from long-haul truckers on Interstate 5 to babies in

strollers on sidewalks – have the right to expect that they will be safe using the region's transportation facilities. As described previously, WCOG has adopted the following strategies to advance this goal.

- In administering the process for awarding the regional appropriation of STBG funds, safety is assigned the highest weighted score under the criteria adopted by the Whatcom Transportation Policy Board. In this way, projects proposed that address locations with a history crashes, and especially fatal or serious-injury crashes, are more likely to be funded than other projects.
- WCOG uses the crash data resources compiled and made available through WSDOT's Transportation Data, GIS & Modeling Office, particulalry its Crash Data Portal, to monitor and visualize locations in the region that exhibit problematic crash trends. Working with its member jurisdictions, WCOG analyzes these data and supports efforts to identify and fund strategies to address safety issues.
- WCOG will continue to work with WSDOT to formally adopt upcoming standardized FHWA safety performance measures and targets. As suggested in current federal regulations, these will likely consist of region-wide measures of annual fatal and serious injury crashes, assessed on a five-year rolling average.

Together with related state and federal goals, WCOG's regional transportation goal of environmental quality seeks the following specific outcomes:

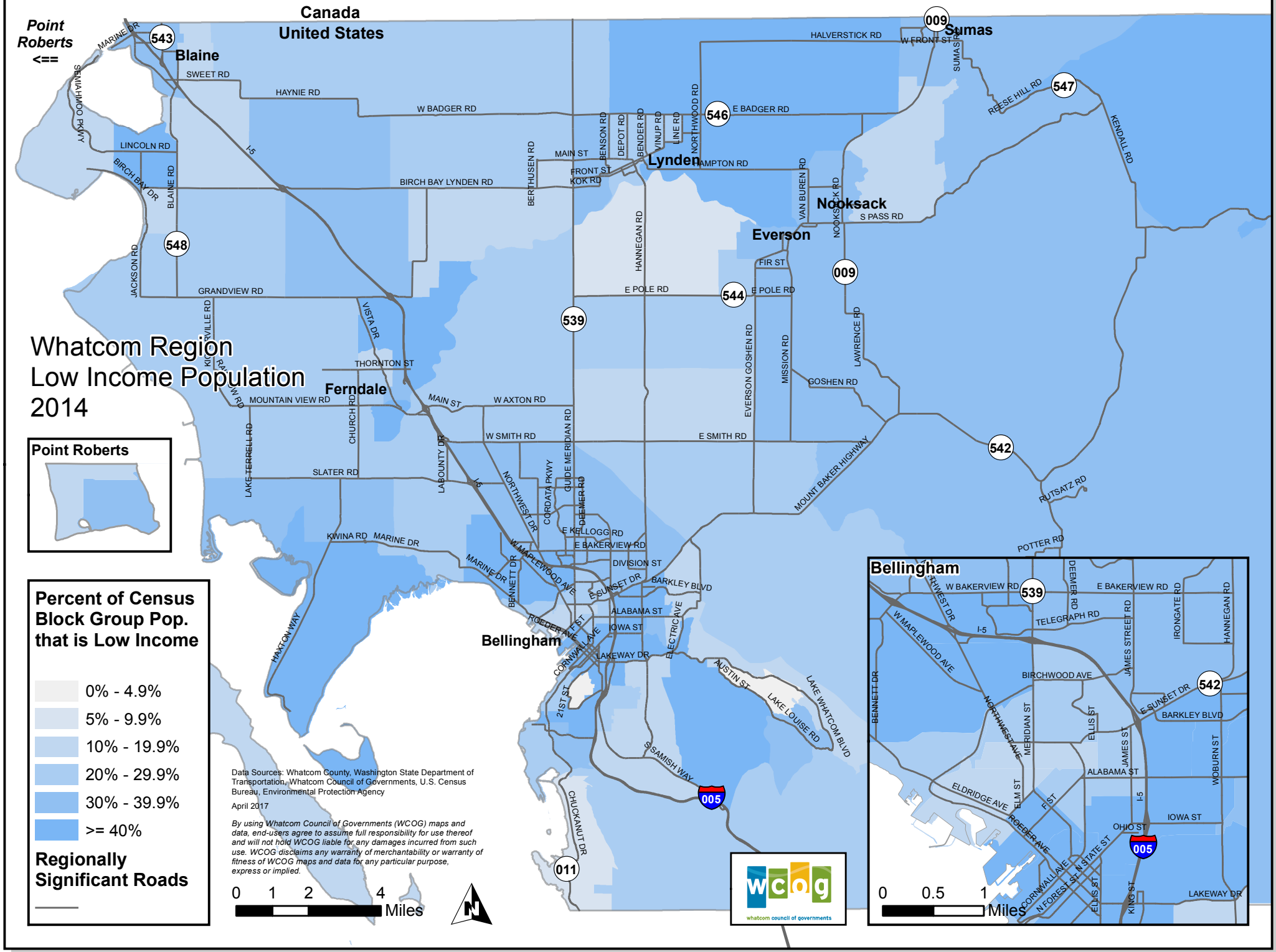
- Reduction of greenhouse gas emissions
- Energy conservation
- Protection of the natural environment, including habitat and water quality
- Enhancement of community health, and
- Promotion of consistency between planned land-use and economic development.

To advance these goals, WCOG has adopted the following strategies:

- Environmental quality is second only to safety in the project scoring criteria the Whatcom Transportation Policy Board utilizes in awarding regional STBG funds. Projects that are likely to result in some or all of the aforementioned environmental outcomes tend to rank more highly than funding requests with lesser environmental benefits. WCOG has also added outcomes to the project selection guidance that include addressing environmental justice issues and project implementation strategies that make use of recycled materials.
- WCOG embraces Whatcom County's adoption of Resolution 2015-038, *Committing Whatcom County to Adopt a "Healthy Planning Approach."* As a result, WCOG strives to advance the desired outcomes of health and well-being in its metropolitan and regional transportation planning activities.

Environmental mitigation

Federal regulations require that long-range transportation plans "include a discussion of types of potential environmental mitigation activities and potential areas to carry out these activities, including activities that may have the greatest potential to restore and maintain the environmental functions affected by the plan." Accordingly, MPOs are required to seek consultation with federal, state and tribal land-management, wildlife and regulatory agencies during the preparation of long-range transportation plans. A list of the agencies that were provided draft versions of this plan for consultation is included in Appendices.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Whatcom Region
Low Income Population
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Percent of Census Block Group Pop. that is Low Income
0% - 4.9%
5% - 9.9%
10% - 19.9%
20% - 29.9%
30% - 39.9%
>= 40%
Regionally Significant Roads
Data Sources: Whatcom County, Washington State Department of Transportation, Whatcom Council of Governments, U.S. Census Bureau, Environmental Protection Agency
April 2017
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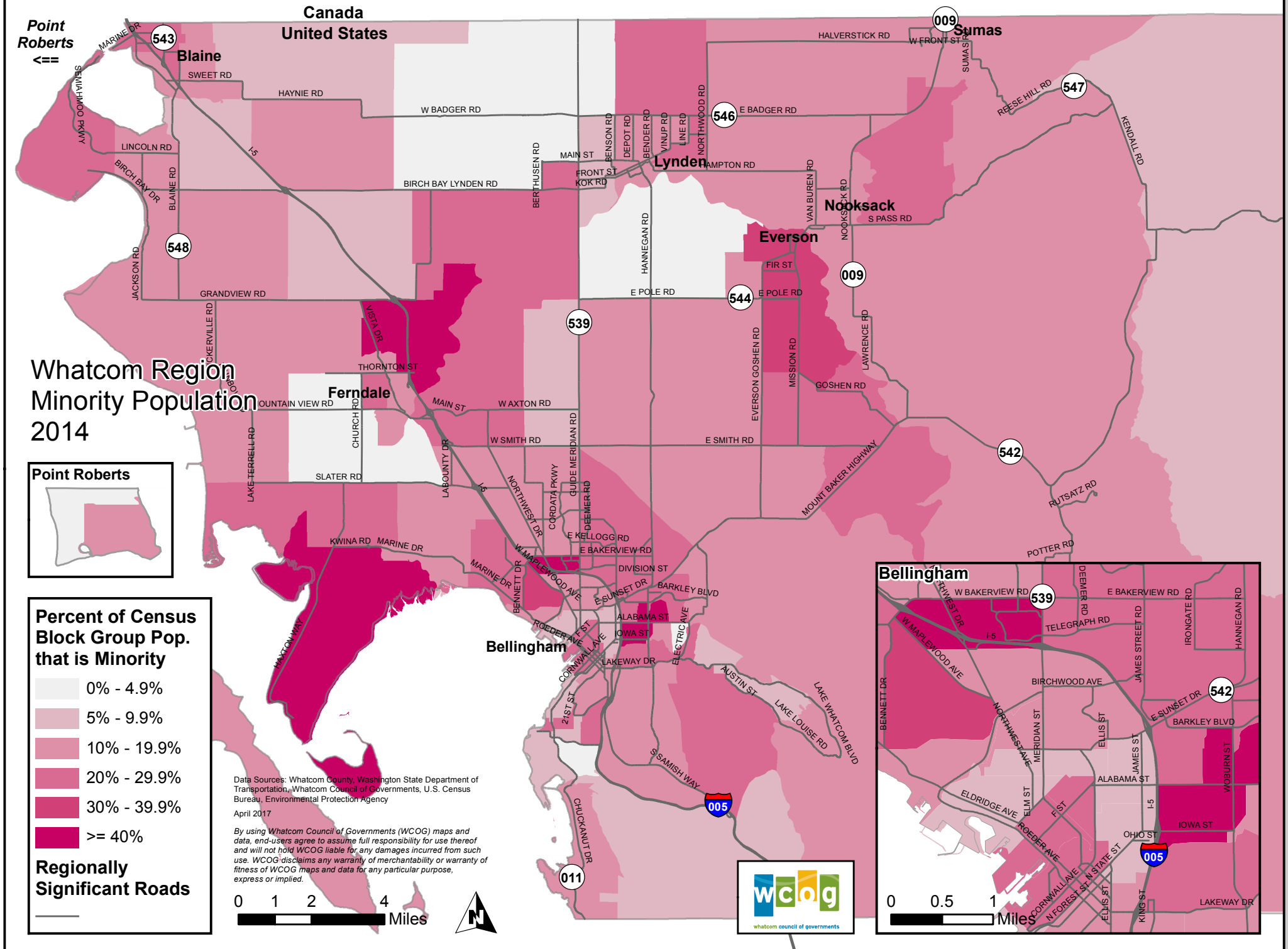
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Minority Population
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Percent of Census Block Group Pop. that is Minority
0% - 4.9%
5% - 9.9%
10% - 19.9%
20% - 29.9%
30% - 39.9%
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Regionally Significant Roads
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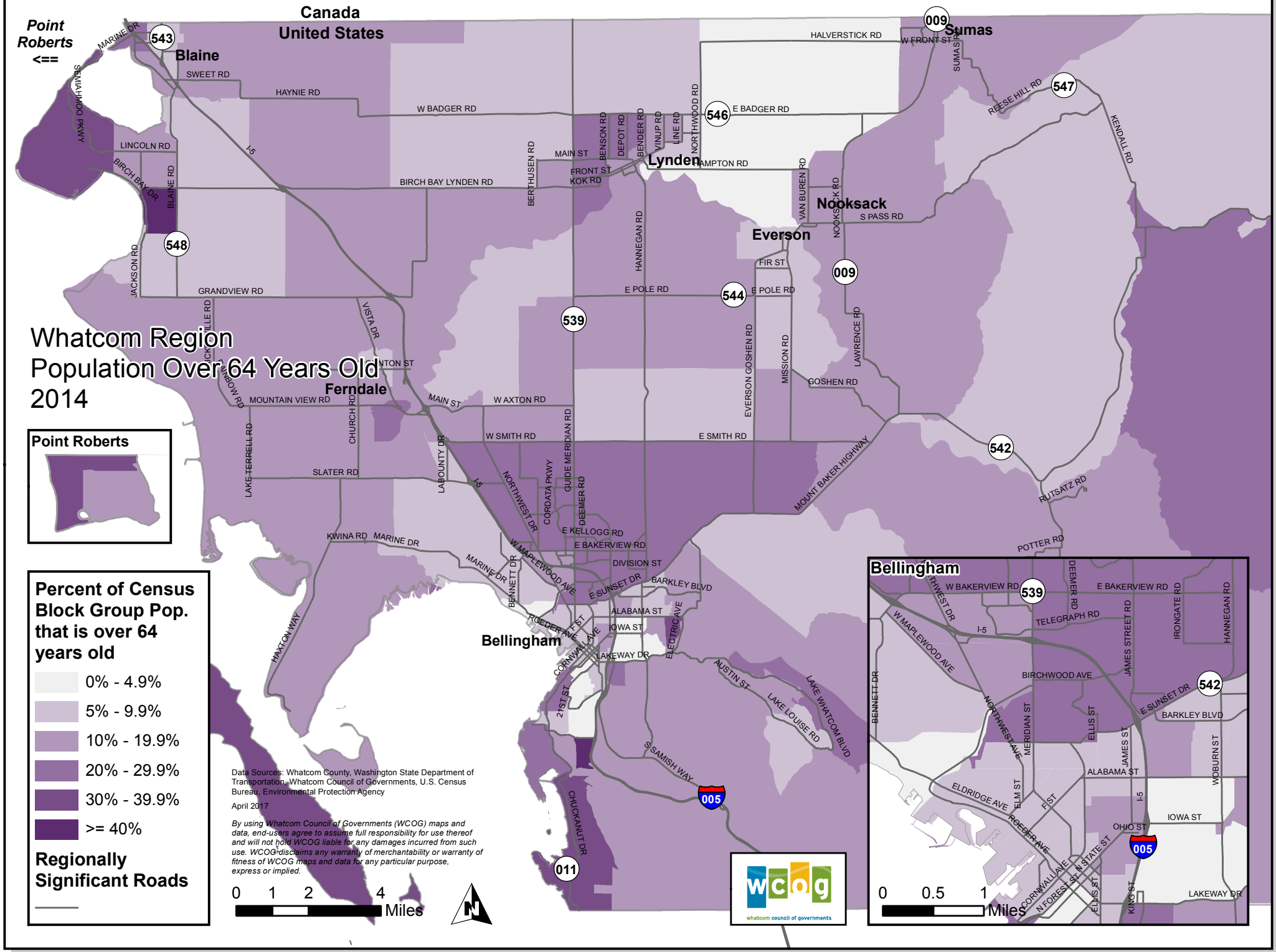
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Whatcom Region
Population Over 64 Years Old
2014
Point Roberts
Percent of Census Block Group Pop. that is over 64 years old
0% - 4.9%
5% - 9.9%
10% - 19.9%
20% - 29.9%
30% - 39.9%
>= 40%
Regionally Significant Roads
Data Sources: Whatcom County, Washington State Department of Transportation, Whatcom Council of Governments, U.S. Census Bureau, Environmental Protection Agency
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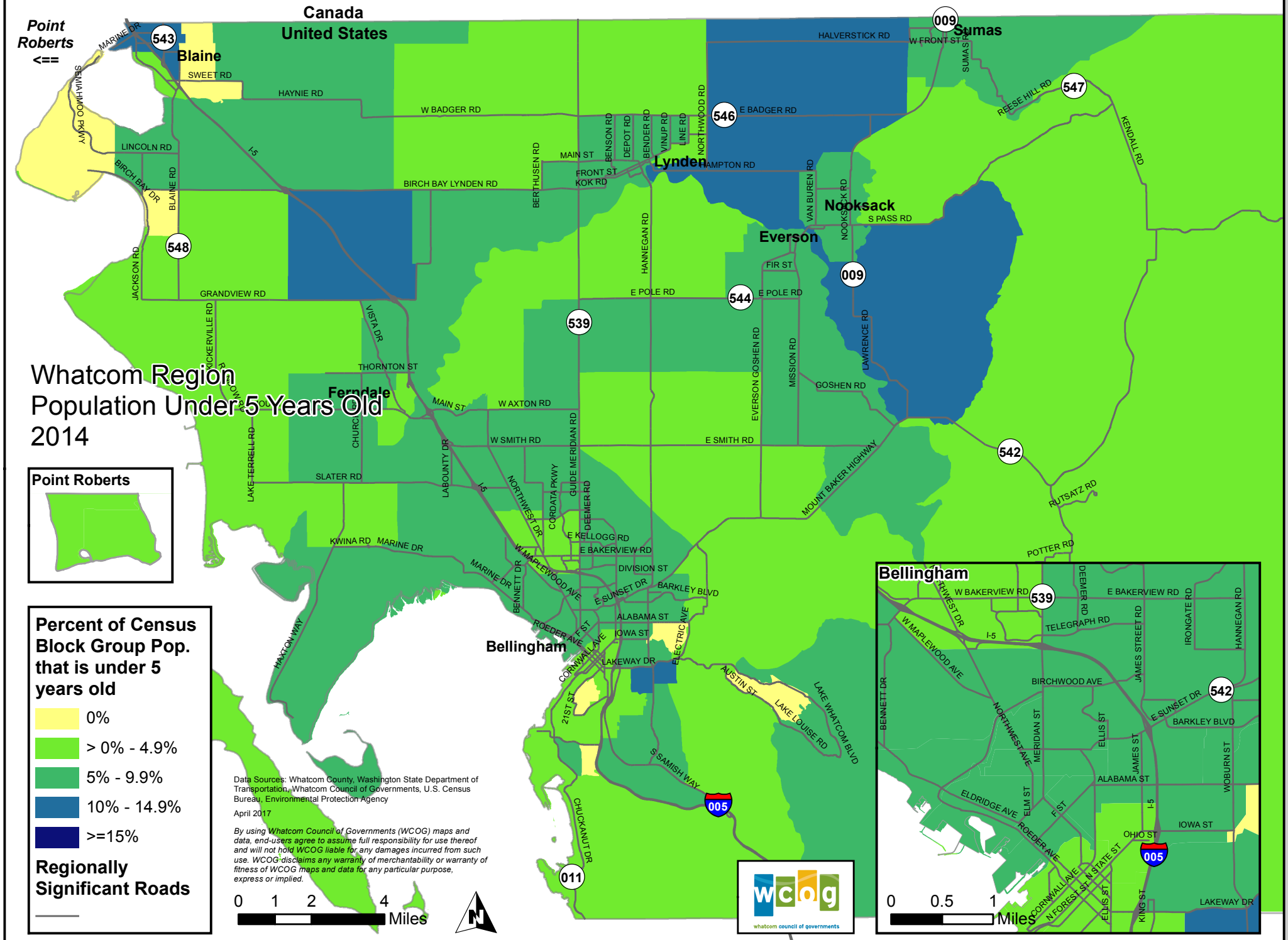
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Whatcom Region
Population Under 5 Years Old
2014
Point Roberts
Percent of Census Block Group Pop. that is under 5 years old
0%
> 0% - 4.9%
5% - 9.9%
10% - 14.9%
>=15%
Regionally Significant Roads
Data Sources: Whatcom County, Washington State Department of Transportation, Whatcom Council of Governments, U.S. Census Bureau, Environmental Protection Agency
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Financing the Regional Transportation System

Planning is the process of identifying needs, establishing goals to meet those needs, and then developing and implementing a set of strategies to achieve the goals. Of course, implementation requires funding, and this section of *Whatcom Mobility 2040* identifies the funding sources reasonably expected to be available to implement the strategies and projects in this plan along with recommendations for additional financing strategies. In accordance with federal regulations, *Whatcom Mobility 2040* is *fiscally constrained*, i.e., its projections of future funding are conservative to ensure that the cost of planned projects will not exceed available financial resources. WCOG's financial analysis of regional transportation costs and revenues is based on historical trends of revenues and expenditures along with a review of previous regional long-range transportation plans. This analysis takes into account the unique circumstances of each program area, such as local roads, state highways, bicycle and pedestrian facilities, and transit.

Obviously, shorter-range forecasting tends to yield more accurate results than that performed for time periods farther in the future, and this is especially true today given the rapid advancements in transportation technology (such as automated vehicles), private-sector engagement in transportation (Google, Lyft, Uber, etc.) and evolving generational preferences such as the trend among younger adults to live in urbanized areas without owning a car. For these reasons, *Whatcom Mobility 2040's* financial forecast is broken into two time periods:

1. **2017-2027:** This forecast period is based on a list of programmed and planned projects that will or are highly likely to be advanced by the region's jurisdictions.
2. **2028-2040:** Outer-year revenues and planned expenditures are aggregated to account for the uncertainty posed by the likelihood of changes in project costs, economic conditions, new regulations and local priorities.

Financial assumptions

Federal, state and local revenue estimates change over time and are revised regularly due to a variety of factors including adjustments for actual uses, changes in funding estimates, and other economic conditions. Despite fluctuations, the estimates in this plan depend on some reasonable assumptions to set a baseline and estimate future trends in transportation funding for the region. Assumptions include the following:

- Federal funding will continue to be available in similar amounts for regional roadway and transit infrastructure. U.S. transportation acts will continue through the planning horizon period, currently the FAST Act authorizes federal funding.
- Because the Whatcom region's economic vitality and quality of life depend on a functioning

transportation network, state agencies and local municipalities will continue to invest to maintain and preserve the transportation network. Therefore, it is assumed that state and local resources will support the transportation system of this region through 2040 with levels comparable to recent years.
- Funding will continue to be available for transit. Transit funds in the region are administered through the WTA in the form of federal grants, revenue bonds, pay-as-you-go funding, and interest earnings. WTA has been able to refinance bonds, cut expenses and improve fare box revenue through increased ridership and will continue to work at innovative financing to maintain its level of service. It is therefore assumed that WTA will maintain similar levels of funding as in recent years.
- Bond proceeds and debt payments have a minimal influence on transportation investments in the region and will continue to. However these are difficult to forecast and are not reasonably expected to be available. Therefore have been excluded from long-range plan consideration.
- The Port of Bellingham manages the BIA and maritime freight activities in the region. Federal and state resources used to support these activities reside outside the requirements of the FHWA, Federal Transit Administration and WSDOT for inclusion in metropolitan and regional transportation plans, and therefore they are not included in*Whatcom Mobility 2040.* Planning documents for the Port of Bellingham can be found through this link.

Historical and current funding

As mentioned previously, the Whatcom region utilizes several funding sources from all levels of government to finance regional transportation projects. Historical revenues and expenditures inform the 2040 financial forecast.

Federal funding

The Whatcom region receives federal support through two primary sources:

- **FHWA** provides funding for a number of regional projects through several programs, such as the National Highway System, Interstate Maintenance, the STBG program, and the Coordinated Border Infrastructure program.
- **Federal Transit Administration (FTA)** administers programs to fund transit operators and other regional transportation agencies, such as its Rural Transit Assistance Program, the Metropolitan and Statewide Planning program, and the Transit Cooperative Research program.

FHWA's STBG program funds are allocated to WCOG, allocations of FTA 5307 grant funds are managed by WTA. Both federally managed programs receive apportionments based on the federal authorization at the time. The following table illustrates the federal transportation funding in the region since 1992.

Table 14: FHWA and FTA Allocations to the Whatcom Region (in $000s)

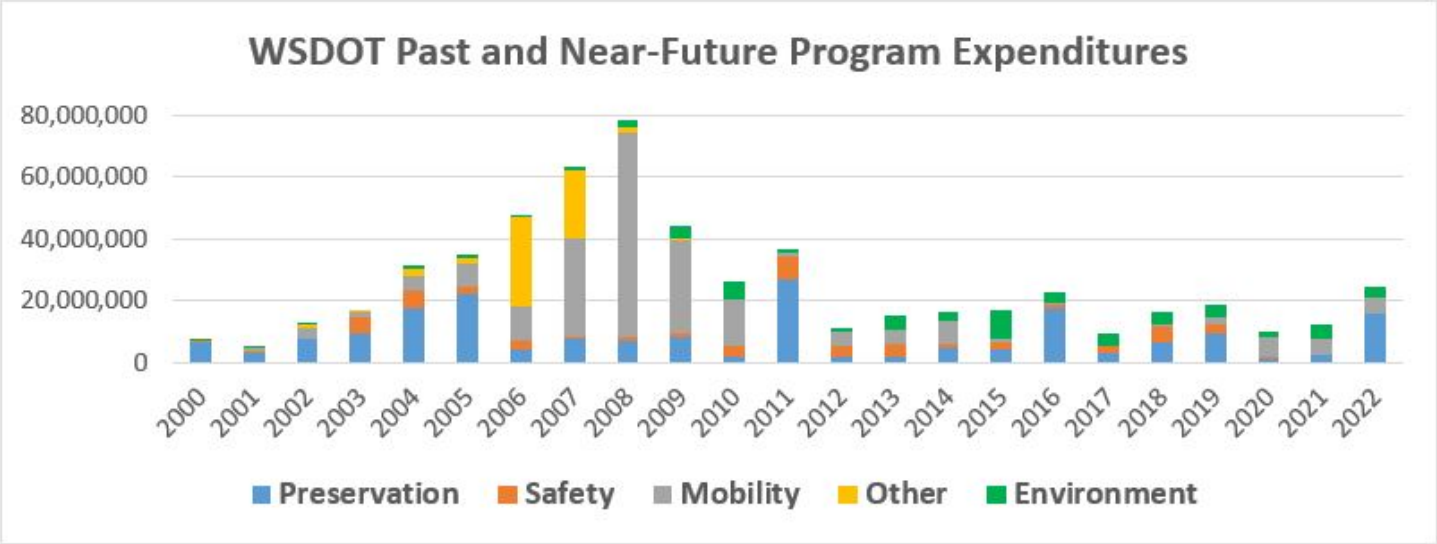
Federal Authorization	Federal Fiscal Year	Surface Transportation Program Allocations to WCOG		Federal Transit Administration Allocations to WTA	
		Nominal Dollars	Adjusted for Inflation	Nomimal Dollars	Adjusted for Inflation
ISTEA	1992	$465	$812		
	1993	$1,322	$2,242	$280	$475
	1994	$1,596	$2,638	$1,877	$3,103
	1995	$1,023	$1,645	$2,257	$3,629
	1996	$1,390	$2,171	$575	$898
	1997	$1,507	$2,300	$484	$739
TEA-21	1998	$1,226	$1,843	$1,842	$2,769
	1999	$1,745	$2,567	$633	$931
	2000	$1,817	$2,586	$528	$751
	2001	$1,982	$2,743	$2,493	$3,450
	2002	$2,097	$2,857	$1,297	$1,767
	2003	$1,714	$2,282	$575	$766
SAFETEA-LU	2004	$2,207	$2,863	$1,071	$1,389
	2005	$1,733	$2,175	$981	$1,231
	2006	$1,721	$2,092	$110	$134
	2007	$2,239	$2,646	$2,059	$2,433
	2008	$2,243	$2,553	$575	$655
	2009	$1,512	$1,727	$4,832	$5,518
	2010	$2,695	$3,028	$4,133	$4,644
	2011	$2,840	$3,094	$2,892	$3,150
MAP-21	2012	$2,701	$2,882	$925	$987
	2013	$2,912	$3,063	$5,293	$5,567
	2014	$2,825	$2,924	$1,872	$1,938
	2015	$2,719	$2,812	$218	$225
FAST ACT	2016	$2,963	$3,021	$4,608	$4,699
	2017	$2,963	$2,963	$3,692	$3,692

State highway funding

WSDOT manages state facilities and operations. State highways make up 11 percent of all roadway miles in the Whatcom region and 45 percent of regionally significant roadway miles. State highways also support the highest vehicular activity in the region. WSDOT funds state highways with both federal and state revenues primarily generated from fuel tax revenue. Figure 11 illustrates the trend

line of WSDOT expenditures in that agency's funding categories: preservation, safety, mobility improvements, environmental, and other projects.

Figure 11: WSDOT Past and Near-Future Program Expenditures

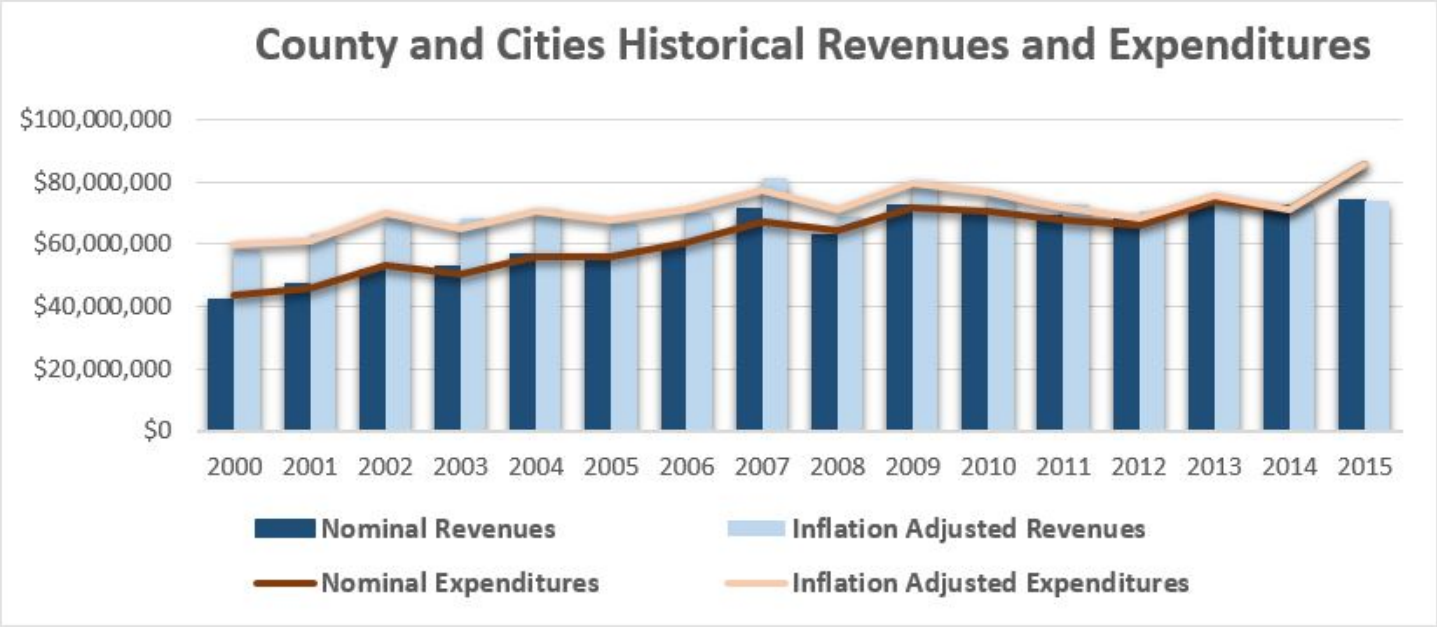


Note that WSDOT currently has investments identified in the regional and state capital improvement program for years 2017-2022. A recent peak in state program funding occurred from 2006 to 2009 during the federal transportation authorization act known as SAFETEA-LU, when there were also annual legislative appropriations that benefited the region. Since that time, program funds making their way to the region have hovered in the $10-20 million range annually with the continuance of funding through 2020 from the current federal transportation authorization (the FAST Act).

Local funding

Whatcom County's seven cities maintain local roads within their jurisdictions, while the county does so for roads in the unincorporated areas. As indicated in below, the region's local governments have seen their expenditures increasing at a faster rate than revenue (local tax collection and state and federal grant funds), making it more difficult for them to make the necessary improvements to locally-owned roads on the regional transportation network.

Figure 12: County and Cities Historical Revenues and Expenditures



The following charts depict the recent five-year averages of transportation funding and expenditures for the region's cities and county. The majority of funding is generated locally and the bulk of transportation investments is expended on maintenance and operations.

Figure 13: Local Jurisdiction Funding and Expenditures

Revenue and expenditure forecast

In general, transportation funding sources are in decline. It is therefore important to consider how funding is designated for specified project categories. For the purposes of this plan, four project types are identified: operations, maintenance, preservation, and improvements.

Operations: Operations refers to the personnel, facilities, and capital required to administer, plan, engineer, and police the transportation system.

Maintenance: Jurisdictions in the region continuously monitor conditions of the transportation system to maintain a functional state of operation. Maintenance work responds to specific events or seasonal impacts that deteriorate assets. Continuous scheduled maintenance avoids more significant future costs.

Preservation: Preservation encompasses those activities that sustain or improve transportation facilities without adding capacity. Preservation activities such as repaving roads, protecting against rock falls, and rehabilitating bridges are identified through a local needs analysis as well as WSDOT's pavement and bridge management systems. These projects are typically more expensive than maintenance projects, but when executed well they can reduce future reconstruction costs.

Improvements: In addition to maintaining and preserving existing system components, this plan includes a recommended set of projects to improve safety, access, connectivity, mobility, transportation demand management and transportation alternatives. Improvement projects that add vehicle capacity are typically very expensive and thus, completing even a small number of them reduces a region's ability to pay for basic preservation and maintenance on originally anticipated schedules. Conversely, improvement projects that expand mode sharing, such as adding bicycle lanes, tend to be less expensive.

WCOG Transportation Improvement Program

Anticipated resources for transportation projects listed in the regional TIP have been considered in the financial forecast. The TIP provides a six-year comprehensive list of transportation projects that utilize federal funds or are considered a regional project. The total cost of projects programmed, funded and schedule to spend in the first four years of the WCOG 2017-2022 TIP do not exceed anticipated resources and are thus deemed to be *fiscally constrained*.

Balance sheet

The assumptions applied to the Whatcom region’s long-term financial forecast include growth estimates based on local, state and federal sources. There are a host of known and unknown variables that will affect both the revenues acquired and expenditures necessary to sustain the regional transportation system. WCOG, with the assistance of local and state partners, developed a financial forecast to conservatively estimate future outcomes.

The listed regional transportation projects programmed through 2040 are fiscally constrained.

Table 15: Estimated Revenues and Expenditures (In $000s)

Years	Program	Revenues	Expenditures	Difference
2017 - 2027	Cities and County	950,513	986,525	-36,012
	WSDOT	173,480	179,254	-5,774
	Transit	50,053	42,177	7,876
	Totals	1,174,046	1,207,956	-33,910
2028 - 2040	Cities and County	1,195,778	1,332,668	-136,890
	WSDOT	220,408	276,037	-55,629
	Transit	88,830	94,132	-5,303
	Totals	1,505,015	1,702,838	-197,822
2017 - 2040	Cities and County	2,146,291	2,319,193	-172,902
	WSDOT	393,888	455,291	-61,404
	Transit	138,883	136,309	2,574
	Totals	2,679,061	2,910,794	-231,733

The balance sheet indicates that future revenues will be insufficient to accommodate the rising costs of maintenance, operations, preservation and improvements for the local and state systems.

Fiscal constraint

For a fiscally-constrained plan, the cost of planned investments in the regional transportation system are compared with the forecast of available revenue needed to complete those projects. Projects are individually prioritized within the first 10-year period (2017-2027) and batched as an aggregate estimated cost for *Whatcom Mobility 2040's* outer years (2028–2040). Projects fall into three funding-status categories in the regional plan:

1. **Currently funded** projects are those programmed in the TIP and for which construction will commence during the period 2017-2022. These projects are fiscally constrained.
2. **Planned** projects are expected to secure funding and start construction during *Whatcom Mobility 2040's* These projects are also fiscally constrained.
3. **Illustrative** projects support regional goals, but funding for them has not yet been identified and therefore they cannot be classified as fiscally constrained. However, their inclusion in this plan acknowledges their potential value to the region and constitutes a commitment to seek funding for them.

The financial gap

With the exception of transit, available revenues through 2040 are not expected to cover forecast expenditures. Over the same planning period, *vehicle miles of travel* are forecast to continue rising as the population in the region continues to grow. Improved vehicle fuel efficiencies are also reducing fuel tax revenues over time, which increases the importance of prioritizing transportation investments

in order to best maintain a functional regional transportation system. There is no single funding source that will make-up the anticipated revenue shortfall. Rather, employing a combination of transportation strategies and program adjustments will serve to alleviate the gap.

Local jurisdictions

Looking ahead to the 2040 planning horizon, Whatcom County and its incorporated cities have a current estimated shortfall of approximately **$173-million**. The primary revenue sources for the locally-managed transportation system in the Whatcom region include:

- **Property taxes** collected by Whatcom County provide nearly 50 percent of revenues generated for transportation spending in unincorporated areas. To a lesser extent, cities also use property taxes to fund transportation.
- **City sales taxes and other local receipts** contribute more than 50 percent of funding used for transportation spending in incorporated areas.
- **Federal funds** provide about 16 percent of annual regional revenues.
- **State funds** through the general fund appropriations, state fuel tax distribution, and other state-generated funds e.g. County Road Administrative Board (CRAB) and Transportation Improvement Board (TIB) contribute nearly 25 percent of revenues.

State highway system

The state highway system managed by WSDOT will have an estimated shortfall of approximately $61-million through the year 2040. Funding for agency operations and programs is primarily generated through the motor vehicle fuel tax. WSDOT also employs other revenue tools and sources such as bond sales, federal funds, tolls and ferry fares.

Strategies to close the gap

Options to more fully implement all regionally identified system improvements, or to bring the costs of planned investments within the bounds of fiscal constraint, include generating more revenue, changing how systems operate (e.g., mode shift, technology, etc.), and prioritizing proposed transportation investments. Prioritization of investments to maximize achievement of regional goals may include emphasis on maintenance and preservation over projects to increase roadway capacity. Other local investments to reduce future system costs include continued support for multi-modal transportation options such as bicycling, pedestrian and transit facilities.

Long-term financial strategies

State and local entities function under their respective policies and decision-making structures that largely determine the funding options available to them. These entities may have to assess their

revenue sources over time and will likely make adjustments (requiring policy changes or voter approval) in order to realign planned transportation system investments with available funding.

The City of Bellingham focuses on the continued development of a complete transportation network and operational strategies. Their goal is to reduce single-occupant vehicle use from the current 68 percent down to 50 percent by 2036. By acknowledging peak-hour congestion as an urban reality, Bellingham emphasizes the promotion of pedestrian, bicycle, and transit activities that result in less need for costly improvements.

WSDOT's Practical Solutions initiative places a premium on low-cost investments, collaboration with regional and local jurisdictions, performance-based management and planning also supports a long-term strategy to sustain the state system. These initiatives and continuous assessments of revenue sources are needed to help close the gap, especially in the outer years 2028-2040.

Revenue tools

Current funding tools

Transportation benefit districts (TBD) can be important revenue options used by county and city jurisdictions in the region. Bellingham's TBD, Street Fund and the transportation impact fees it assesses together will provide an estimated $250-million through 2040. The state also allows cities within 10 miles of the Canadian border to assess a one percent per gallon "border area fuel tax" to fund local street maintenance and construction. Blaine, Nooksack, Point Roberts (administered by Whatcom County) and Sumas currently collect this tax. Largely paid by Canadians crossing into Whatcom County, this tax generates more $300,000 annually countywide. With cross-border travel generally increasing over time – 18 percent for cars and 11 percent for trucks since 2010 – the border area fuel tax has the potential to generate even more revenue for transportation over the long term.

Future funding tools

For large capital projects in the region that meet specific criteria, the most likely funding strategy will be to compete for federal grants such as *Transportation Investment Generating Economic Recovery* , *Fostering Advancements in Shipping and Transportation for the Long-Term Achievement of National Efficiencies* or other programs included in the FAST Act, which will remain in effect until at least 2020.

The State of Washington is studying the feasibility of replacing fuel taxes with "road user charges" (RUC) as a potential alternative to the state fuel tax, which is declining and is expected to decline even further as vehicle fuel efficiency continues to improve. A road user charge would be assessed on vehicles based on the number of miles they are driven in Washington (but not outside the state). An analysis performed by the Washington State Transportation Commission – which in 2018 will conduct a statewide RUC pilot program – indicates that in the early years, a statewide RUC program would net less revenue than the fuel tax, but as its start-up costs are amortized, it would generate a larger and more reliable revenue stream.

Washington State Freight Mobility Strategic Investment Board

The Washington State Freight Mobility Investment Board (FMSIB) was established in 1998 to identify and prioritize freight-related projects to alleviate congestion and freight-related choke-points. Funds

are requested from the state legislature to complete these projects and are often combined with local or other sources of funding. Since its establishment, FMSIB has leveraged $177-million toward 53 freight projects statewide totaling $917-million, including a project in Sumas.

Regional Policy

Relative to our regional transportation system, policies are any number of formal decisions by local government administrations or facility agencies (e.g. WTA, WSDOT), made within the parameters of legal authorities, to influence the likelihood of a desired outcome. Typically implemented with public consultation, some examples of policy strategies are dedication of road lanes for high-occupancy vehicles, ramp-metering, pricing of publicly owned parking spaces, etc. While the WCOG Transportation Policy Board has responsibilities for formulating and approving regional investment priorities, its role has not included developing policies that would apply across multiple jurisdiction's facilities or with respect to regional financing strategies.

Some of the Whatcom regional goals are addressed by WCOG more as a matter of policy than programs or specific projects, namely safety and environmental quality.

For WCOG, two regional goals (and state and federal planning requirements) that are implemented primarily as a matter of policy are safety and environmental quality. While individual jurisdictions often advance these goals with more direct actions, as an MPO, WCOG advances these desired outcomes through integration with various other planning strategies.

Safety

As described in table 12 of the Goals section, the objective of maximizing safety applies to everyone using the transportation system – motorized and non-motorized users. WCOG has adopted the following strategies to advance this goal.

- In administering the process for awarding the regional appropriation of FHWA STBG funds, WCOG has made safety the highest weighted scoring criteria. Under the safety criterion, projects that address system locations with history of fatal or serious injury crashes are emphasized. Projects that address any documented history of crashes (of all types) are also advanced under the criterion.
- WCOG uses the crash data resources compiled and made available thought the WSDOT Transportation Data, Geographic Information Systems (GIS), & Modeling Office – especially its Crash Data Portal – to monitor and visualize locations in the region that exhibit problematic crash trends. WCOG works with member jurisdictions to interpret these data and support efforts to identify and fund strategies to address safety issues.
- WCOG will continue to work with WSDOT to formally adopt upcoming standardized FHWA safety performance measures and targets. As suggested in current federal regulations, these will likely consist of region-wide measures of annual fatal and serious injury crashes, assessed on a five-year rolling average.

Environmental quality

As described in table 12 of the Goals section, WCOG's connection to advancing the regional

transportation goal of environmental quality overlaps with state and federal goals which, together, highlight some specific outcomes: greenhouse gas emissions reduction, energy conservation, protection of the natural environment including habitat and water quality, enhancement of community health, and promotion of consistency between planned land-use and economic development. WCOG has adopted the following strategies which advance these goals:

- In administering the process for awarding the regional appropriation of FHWA STBG funds, WCOG has made environmental quality a second-tier criterion (along with efficiency and multi-modal). Only the safety criterion is weighted more. Under the environmental quality criterion, projects that result in improvements to the environment related to the above-listed outcomes, is emphasized. WCOG has also added outcomes to the project selection guidance that include addressing environmental justice issues and project implementation strategies that make use of recycled materials.
- WCOG acknowledges Whatcom County's adoption of Resolution 2015-038, "Committing Whatcom County to adopt a 'Healthy Planning Approach'." With this acknowledgement, WCOG will strive to pursue the other strategies listed in this plan with ongoing consideration of how they could be implemented to best support the desired outcomes of health and well-being of our region's residents.

Appendices

- Financial Assumptions PDF
  Growth factors used to estimate revenues and expenditures for the financial forecast, also includes funding sources and programs
- Public Outreach for Whatcom Mobility 2040 PDF
  Summary of public outreach events in Bellingham, Lynden, Kendall and Blaine
- Travel Demand Model Projects List PDF
  Projects used to develop the 2040 forecast model network
- Record of Consultations PDF
  Contact list and feedback for land management and environmental agencies
- Whatcom Mobility 2040 Acronyms PDF
  Abbreviations used in the plan

Financial Assumptions for Whatcom Mobility 2040

Growth factors for revenues and expenditures derived from Washington State Department of Transportation (WSDOT) Budget and Financial Analysis department, Whatcom Transportation Authority (WTA), Whatcom County and incorporated cities, and WSDOT Northwest Regional Office.

Years forecasted for the *Whatcom Mobility 2040* long-range plan include: 2017 – 2027, 2028 – 2040, and overall 2017 – 2040.

Revenues Assumptions Table_

Revenue Type	Methodology	Source
Property Taxes	Local 2.34% - cities 5-year annual growth average. County 1%	WA Economic and Revenue Forecast Council (ERFC) November 2015 Revenue Forecast. County 2032 Plan
Special Assessments	Flat line 10-year historical average	Washington State Department of Transportation (WSDOT) Budget and Financial Analysis Department
Gen Fund Appropriations	3-year historical average	WSDOT Budget and Financial Analysis Department
Local Road User Taxes	Annual % Growth Vehicle Registrations forecast to 2027, 1.36% average applied 2027-2040	Washington State Transportation Revenue Forecast Council (TRFC) November 2015 Transportation Revenue Forecast
Other Local Receipts	5.23% sales tax forecast, 5-year annual growth average	ERFC November 2015 Revenue Forecast
State Fuel Tax Distributions	Diesel and gasoline gallons growth rates to 2027. 0.6% average applied 2028-2040	TRFC November 2015 Transportation Revenue Forecast
Other State Funds	10-year historical average	WSDOT Budget and Financial Analysis Department
Federal Revenues	Federal growth % Apportionments through 2027. 0.46% average applied 2027-2040	TRFC November 2015 Transportation Revenue Forecast
Ferry Tolls	1% annual growth	Whatcom County. Ordinance 2005-090 requires a 55% recovery rate that's continuously evaluated.
CRAB and TIB	Distribution Estimates 2016 - 2027	WSDOT Budget and Financial Analysis Department
Transit - WTA	3.22% Capital and 1.96% Operations – 14-year growth rate. Operations +1%	Whatcom Transportation Authority

Expenditures Assumptions Table_

Expenditure Type	Methodology	Source
Local: Administration & Operations, Maintenance	1% annual increase. Base year 2015 Maintenance, 3-yr Average Administration & Operations	Local Jurisdictions

Local: Construction, Facilities and Other	Cost Construction Index (CCI) forecast growth: • 3-year average for Construction and Other. • 5-year average for Facilities.	WSDOT Budget and Financial Analysis Department
Local: Traffic Policing	Held Constant	County (2032 Plan)
WSDOT: State Highways	Cost Construction Index (CCI)	WSDOT Budget and Financial Analysis Department
Transit Capital	Cost Construction Index (CCI)	WSDOT Budget and Financial Analysis Department
Transit Operations	Consumer Price Index - Implicit Price Deflator (CPI-IPD)	WSDOT Budget and Financial Analysis Department

Current Regional Transportation Programs

Federal (FAST Act)

Federal Highway Administration (FHWA)

- National Highway Performance Program (NHPP)
- Surface Transportation Block Grant (STBG)
    - Previously: Surface Transportation Program (STP)
- Highway Safety Improvement Program (NHPP)
- Transportation Alternatives (TA), also known as STP set-aside
- Metropolitan Planning
- Transportation Infrastructure Financing and Innovation Act (TIFIA)
- Nationally Significant Freight and Highway Projects (NSFHP) program, FASTLANE Grants
- Transportation Investment Generating Economic Recovery (TIGER)

Federal Transit Authority (FTA)

- Urbanized Area Formula Program (5307)

State

- Transportation Improvement Board (TIB)
- County Road Administration Board (CRAB)
- Connecting Washington Account
- Regional Mobility Grant Program
- Consolidated Public Transportation Grant Program
- Real Estate Excise Tax (REET)
- Safe Routes to School

Local

- Border Area Fuel Tax
- Transportation Benefit District (TBD)

The Whatcom Council of Governments held public outreach events in Bellingham, Lynden, Kendall and Blaine. A total of 62 people participated and provided feedback.

We listed the region's top seven transportation goals and asked people to place a sticky dot next to the goal they felt was the most important. The goals and corresponding dot count are as follows:

- Safety (11)
- A Multimodal Transportation System (11)
- Efficiency, effectiveness, and system sustainability (16)
- Environmental Quality (8)
- Access and Convenience (6)
- Maintenance and Preservation (8)
- Freight Transportation (1)

Participants were also asked to provide feedback on how transportation connections between jurisdictions could be improved. The feedback we received, both written and verbal includes:

- North county east – west bus service is needed.
- Within Bellingham, James Street should connect to Horton Road.
- Rail should be more affordable so that two people are able to take the train for a cost that's less than driving.
- Side roads in town (Bellingham) should be smoother. There are many potholes that are noticeable when riding a bike.
- Better bike and ped connections when arriving to town via boat or rail.
- Traffic volumes make it hard to turn out of my driveway on Smith Road.
- I-5 and Hannegan both need another lane, there is too much volume. I would be willing to pay more taxes if it would improve travel time.
- Need better infrastructure for bikes – e-bikes are really cool and that's the way us old people can keep using bikes to get around – but people need to feel comfortable.
- We need secure long term bike parking at the airport.
- Need a trail between Bellingham and Ferndale.
- Need a bike lane on Ellis Street between Lakeway and State.
- Lithium Ion batteries have just been redesigned and will soon hold a charge for ten times as long and have ten times the range. This will improve electric bikes. (A high school student).
- SR 542 was improved across Smith Creek but no bike lane was built.
- WTA bus service was reduced in Kendall.
- The UGA for Birch Bay is incorrect on your map.
- Speed limit on Hampton Road should be increased.
- Increase speed limits. Use more yield signs, let's teach driving skills. California stops and so on are good for the environment. Allow benefits of all the modern safety features in cars and trucks.

Modelled Projects for Whatcom Mobility 2040

The following table illustrates the transportation projects included in the travel demand modelled network scenario years for 2013, 2016 (2040 No-build scenario), and 2040 Build scenario. All the near-term and long-term projects are included in the *Whatcom Mobility 2040* fiscally constrained project list.

Travel Model Network Scenario Years:

Project Identification	Agency	Location	Description	Completion Year
Projects included in Model Network Year 2013				
Eliza Avenue	Bellingham	Matanuska Dr. to E. Bellis Fair	Construct new 2 lane road.	2013
Barkley Blvd	Bellingham	East of Saint Paul St to Woburn St	New eastbound lane	2013
June Rd	Bellingham	West Kellogg Rd to Aldrich Rd	Construct new 2 lane road.	2013
West Bakerview Overpass	Bellingham	Pacific HWY to Bennett Dr	Reconstruct to a 4 lane arterial.	2013
Guide Meridian	WSDOT	Bellis Fair PKWY to West Bakerview Rd	Add an additional northbound lane.	2013
Guide Meridian	WSDOT	Telegraph Rd Intersection	Prohibit NB left turn	2013
Model Network Year 2016 Projects included in 2040 No-build Network				
Alabama St	Bellingham	Cornwall Ave to James St	Reduce to 1 lane	2015
Artic Street	Bellingham	Bakerview Ave to Mahogany St	Construct new 2 lane road.	2016
Near-term 2017 - 2022 Projects included in 2040 Build Network				
Aaron Dr	Lynden	Line Rd to Northwood Rd	Construct new 2 lane road.	2017
Boblett St/ Yew Ave	Blaine	Boblett St/ Yew Ave	Yew Ave NB Left Turn Prohibit to Boblett St; Boblett St WB Left Turn Prohibit to Yew Ave	2018
Boblett St	Blaine	SR 543 to Roundabout	Eastbound Lane	2017
Lincoln Street Extension	Everson	Washington Street to Blair Dr	Construct new 2 lane road.	2017
Riverview Rd	Lynden	1st St to 7th St	Construct new 2 lane road.	2017
Laurel Ave	Bellingham	Granary Ave to Cornwall Ave	Construct new 2 lane road.	2017
Granary Ave	Bellingham	Bloedel Ave to Roeder Ave	Construct new 2 lane road.	2017
Mahogany Street	Bellingham	Pacific HWY to Northwest Ave	Construct new 2 lane road.	2017
Orchard Drive Extension	Bellingham	Squalicum Parkway to James St	Construct new 2 lane road.	2018
West Horton Phase 1	Bellingham	From Pacific Rim to Aldrich Rd	Construct new 2 lane road.	2018
I-5 Bakerview IC	WSDOT	Northbound on ramp	On-ramp	2021
Long-term 2023 - 2040 Projects included in 2040 Build Network				
Bennett Drive	Bellingham	Airport Dr to Marine Dr	Upgrade to Urban Minor Arterial	2023-2027
South Cornwall Avenue	Bellingham	Wharf Street to Cornwall Beach	Construct new 2 lane road.	2023-2027

Northwest Drive/Aldrich Road Intersection	Bellingham	Northwest Drive/Aldrich Rd	Prohibit left turn onto Northwest	2023-2027
Birch Bay Drive	Whatcom	Alderson Road to Shintaffer Rd	Upgrade to Minor Arterial	2023-2027
Lincoln Rd Extension and Improvement	Whatcom	Harborview Rd to Blaine Rd (SR 548)	Construct new 2 lane road.	2023-2027
Birch Bay Drive	Whatcom	Alderson Road to Point Whitehorn Road	Upgrade to Minor Arterial	2023-2027
James Street, Phase 3	Bellingham	Gooding Avenue to Van Wyck Rd	Construct new 2 lane road.	2028-2040
Slater Rd	Whatcom	Hannegan Rd to Northwest Dr	Construct new 2 lane road.	2028-2040
Harborview Rd	Whatcom	Birch Bay Dr to Birch Bay-Lynden Rd	Upgrade to Minor Arterial	2028-2040
Birch Point Rd	Whatcom	Semiahmoo Dr to Shintaffer Rd	Upgrade to Minor Arterial	2028-2040
Lakeway Dr/Terrace Ave, North/Cable St	Whatcom	Bellingham City Limits to Lake WhatcomBlvd	Upgrade to Minor Arterial: widen to 4 lanes	2028-2040
West Horton Rd Phase 2	Bellingham	From Aldrich Rd to Northwest Dr	Construct new 2 lane road.	2028-2040
SR 539 (Guide Meridian) from Birch Bay Lynden to SR 546 (Badger Rd)	Lynden	SR 539 (Guide Meridian) from Birch Bay Lynden Rd to SR 546 (Badger Rd)	Widen to 4 lanes	2028-2040
Thornton Street Overpass	Ferndale	Malloy Avenue to Portal Way	Construct new 2 lane road.	2028-2040

Record of Consultations for Whatcom Mobility 2040

Tribal, land-management, and wildlife agencies provided draft versions of Whatcom Mobility 2040 and asked to provide comment per MPO planning requirements.

- Department of Ecology - State of Washington
  Northwest Region, Director, Tom Buroker, thomas.buroker@ecy.wa.gov
- Whatcom County Health Department
  Community Health Manager, Astrid Newell, health@whatcomcounty.us
- Lummi Nation
  Transportation Planner, Kirk Vinish, kirkv@lummi-nsn.gov
- Nooksack Tribe
  Transportation Planner, Keri Cleary, kshepherd@nooksack-nsn.gov
  Tribal Council Chair, Robert Kelly, bkelly@nooksack-nsn.gov
- U.S. Forest Service
  Mount Baker-Snoqualmie, Forest Supervisor, Jamie Kingsbury,
  Mailroom_r6_mt_baker_snoqualmie@fs.fed.us
- Washington State Department of Natural Resources
  Northwest Region, northwest.region@dnr.wa.gov
- Washington State Department of Fish & Wildlife
  North Puget Sound Region, Regional Director, Bob Everitt, TeamMillCreek@dfw.wa.gov

Letter sent to above contacts *(April 10, 2017)*

Dear _____,

The Whatcom Council of Governments (WCOG), the region's federally designated metropolitan planning organization (MPO), is updating our region's twenty-year MTP.

There are two elements of an MTP that we are specifically inviting input from your agency or government on.

23CFR1.450.324(f)(10): A discussion of types of potential environmental mitigation activities and potential areas to carry out these activities, including activities that may have the greatest potential to restore and maintain the environmental functions affected by the metropolitan transportation plan. The discussion may focus on policies, programs, or strategies, rather than at the project level. The MPO shall develop the discussion in consultation with applicEventable Federal, State, and Tribal land management, wildlife, and regulatory agencies. The MPO may establish reasonable timeframes for performing this consultation

23CFR1.450.324(g): The MPO shall consult, as appropriate, with state and local agencies responsible for land use management, natural resources, environmental protection, conservation, and historic preservation concerning the development of the transportation plan. The consultation shall involve, as appropriate 1) Comparison of transportation plans with state conservation plans or maps, if available; or 2) Comparison of transportation plans to inventories of natural or historic resources, if available.

WCOG would very much appreciate your agency's or government's review of the current draft of *Whatcom Mobility 2040*, especially with respect to the environmental mitigation and land-use management themes described above. Please provide us with any feedback your agency or government has regarding how elements of the draft MTP present opportunities for environmental mitigation and or present incompatibilities with current natural or historic resource management plans. *Whatcom Mobility 2040* is scheduled to be considered for adoption by the Whatcom Transportation Policy Board on May 10, 2017. Please submit any comments or feedback before Wednesday, May 3.

A draft of *Whatcom Mobility 2040* is available at WhatcomMobility.org

WCOG appreciates your help with improving the MTP's discussion of environmental impacts and inter-agency mitigation strategies. I'm more than happy to talk in person or on the phone to discuss this request, hear feedback from your agency or government and review the draft MTP in greater detail.

Responses received

From WA Department of Ecology, May 4, 2017.

Thanks for the opportunity to comment on the WCOG MTP update! We sent the information you provided to our program leads in the Northwest office for their review and also tapped our headquarters Air Quality team. We received the following comments from our air program:

- It is not clear what the projects proposed will do to improve air or water quality, or how preventing further degradation or causing improvements is used in the project selection process.
- There does not seem to be a lot of clarity related to changes in the vehicle fleet as alternative fueled vehicles become a larger percentage of the vehicle fleet – i.e projects or plans to encourage private investment charging stations for electric vehicles, or fueling stations selling compressed or liquefied natural gas for fleet and private vehicles.
- Evaluations of projects along shorelines need to address the potential effects of climate change on water levels, especially sea level rise.
- There has been a West Coast push to provide truck stop electrification. It does not seem like this is reflected in this plan, especially for those locations where combination truck/trailers are parked and idled for long periods of time, such as at the Canadian Border. This larger policy should be reflected within the plan.

I hope these are helpful. Thanks again for allowing a chance for input!

Please let us know if you'd like to discuss our comments or other issues.

Meg Bommarito
Regional Planner
Northwest Regional Office
Department of Ecology
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Whatcom Mobility 2040 Acronyms

BLI	Bellingham International Airport
BNSF	Burlington Northern Santa Fe Railway
CBP	U.S. Customs & Border Protection
CBSA	Canada Border Services Agency
CRAB	County Road Administrative Board
CTAG	Citizens Transportation Advisory Group
EJ	Environmental Justice
FAST	Fixing America's Surface Transportation
FASTLANE	Fostering Advancements in Shipping and Transportation for the Long-Term Achievement of National Efficiencies
FGTS	Freight and Goods Transportation System
FHWA	Federal Highway Administration
FMSIB	Freight Mobility Strategic Investment Board
FTA	Federal Transit Administration
GIS	Geographic Information Systems
GMA	Growth Management Act
HST	Human Services Transportation Plans
IMTC	International Mobility & Trade Corridor Program
ITS	Intelligent Transportation Systems
LCP	Least Cost Planning
LOS	Level of Service
MAP-21	Moving Ahead for Progress in the 21st Century
MPO	Metropolitan Planning Organization
RSS	Regionally Significant System
RTPO	Regional Transportation Planning Organization
RUC	Road User Charges
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
STBG	Surface Transportation Block Grant
TA	Transportation Alternatives
TAZ	Traffic Analysis Zones

TBD	Transportation Benefit Districts
TDM	Transportation Demand Management
TIB	Transportation Improvement Board
TIGER	Transportation Investment Generating Economic Recovery
TIP	Transportation Improvement Program
TSM	Transportation System Management
TTAG	Transportation Technical Advisory Group
UPWP	Unified Planning Work Program
V/C	Volume-over-capacity ratio
VHT	Vehicle Hours Traveled
VMT	Vehicle Miles Traveled
WCOG	Whatcom Council of Governments
WSDOT	WA State Department of Transportation
WTA	Whatcom Transportation Authority