

# 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\_

<b>Revenue Type</b>	<b>Methodology</b>	<b>Source</b>
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\_

<b>Expenditure Type</b>	<b>Methodology</b>	<b>Source</b>
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: <ul style="list-style-type: none"> <li>• 3-year average for Construction and Other.</li> <li>• 5-year average for Facilities.</li> </ul>	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
<b>Projects included in Model Network Year 2013</b>				
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
<b>Model Network Year 2016 Projects included in 2040 No-build Network</b>				
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
<b>Near-term 2017 - 2022 Projects included in 2040 Build Network</b>				
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
<b>Long-term 2023 - 2040 Projects included in 2040 Build Network</b>				
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](mailto:thomas.buroker@ecy.wa.gov)
- Whatcom County Health Department  
Community Health Manager, Astrid Newell, [health@whatcomcounty.us](mailto:health@whatcomcounty.us)
- Lummi Nation  
Transportation Planner, Kirk Vinish, [kirkv@lummi-nsn.gov](mailto:kirkv@lummi-nsn.gov)
- Nooksack Tribe  
Transportation Planner, Keri Cleary, [kshepherd@nooksack-nsn.gov](mailto:kshepherd@nooksack-nsn.gov)  
Tribal Council Chair, Robert Kelly, [bkelly@nooksack-nsn.gov](mailto:bkelly@nooksack-nsn.gov)
- U.S. Forest Service  
Mount Baker-Snoqualmie, Forest Supervisor, Jamie Kingsbury, [Mailroom\\_r6\\_mt\\_baker\\_snoqualmie@fs.fed.us](mailto:Mailroom_r6_mt_baker_snoqualmie@fs.fed.us)
- Washington State Department of Natural Resources  
Northwest Region, [northwest.region@dnr.wa.gov](mailto:northwest.region@dnr.wa.gov)
- Washington State Department of Fish & Wildlife  
North Puget Sound Region, Regional Director, Bob Everitt, [TeamMillCreek@dfw.wa.gov](mailto: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 applicable 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](http://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  
office 425.649.7128  
cell 425.681.6236  
Meg.Bommarito@ecy.wa.gov

## 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 21 <sup>st</sup> 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