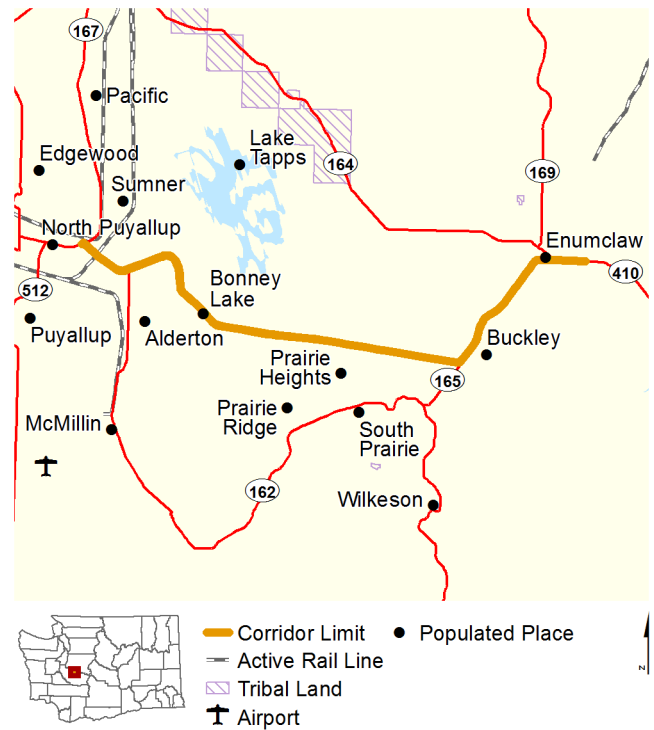


WSDOT's Corridor Sketch Initiative is a collaborative planning process with agency partners to identify performance gaps and select high-level strategies to address them on the 304 corridors statewide. This Corridor Sketch Summary acts as an executive summary for one corridor. Please review the User Guide for Corridor Sketch Summaries prior to using information on this corridor:

*SR 410: SR 167 Jct (Sumner) to 284th Ave SE Jct (Enumclaw)*

This 17-mile long east-west corridor is located east of the city of Tacoma. The corridor runs between the State Route 167 junction in the city of Sumner and the 284th Avenue SE junction in Enumclaw. In addition to Sumner and Enumclaw, the corridor directly passes through the cities of Bonney Lake and Buckley. Within the city of Enumclaw, SR 410 is also known as Enumclaw Buckley Road, the name then changes to Roosevelt Avenue, and finally to SE 448th Street. The character of the area surrounding the corridor is suburban within the city limits, and rural in between. Land uses along the corridor include residential, commercial, agricultural, and industrial. Within Bonney Lake, land uses include sections of box stores and residential developments. The Puyallup River runs parallel to the corridor for a short distance at the east end. The White River is perpendicular near the west end. Through Bonney Lake, SR 410 passes through an elevated area. Vegetation along this corridor includes deciduous and coniferous trees, farmland, and maintained flatlands.



**Current Function**

SR 410 is a state highway that crosses Pierce, King, and Yakima counties. This corridor serves as a freight and commuter route for traffic moving east-west and traffic connecting to SR 167. The corridor also functions as a recreation corridor for travelers to the Cascade Mountains, including Mt Rainier. This corridor serves as a main street for the cities of Bonney Lake, Buckley, and Enumclaw providing local access and supporting economic vitality and livability for the communities, while serving regional mobility needs. This corridor intersects with SR 162 in Sumner, SR 165 in Buckley, and SR 164 in Enumclaw. Other traffic generators on the corridor include commercial uses along the corridor and regional trips. Sound Transit provides service between the cities of Sumner and Bonney Lake. A portion of the corridor, from Enumclaw to 284th Avenue SE, allows bicycle use on the shoulders. The White River Trail is a multi-use shared trail in Sumner and Foothills Trail is a multi-use shared trail in Buckley.

**Future Function**

Based on the projected population, land use, and economic trends, the future function of this corridor is expected to remain the same.

## Highlights and Performance

This section of SR 410 is primarily a four-lane, divided highway to 234th Ave E in Bonney Lake and two lane signalized highway with auxiliary lanes throughout. The auxiliary lanes along the corridor include left turn only and right turn only lanes on both sides of the corridor. The annual average daily traffic ranges from a high located at the SR 167/SR 410 interchange and a low located in the city of Bonney Lake.

### What's working well?

- This corridor provides access for or connections to commuter rail, passenger rail, walking, and bicycling.
- There are no chronic environmental deficiencies on the corridor.
- The corridor has a low climate change vulnerability rating in King County.

### What needs to change?

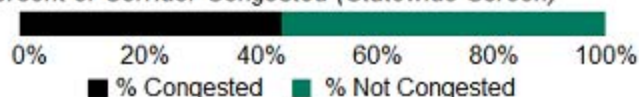
- Approximately 45% of this corridor experiences congestion on a regular basis.
- About 16% of surveyed pavements on the corridor are in poor to very poor condition.
- Three bridges on this corridor need seismic retrofitting.
- There are fish passage barriers present on the corridor.
- There is one high priority mile of wildlife connectivity to address on the corridor.

WSDOT monitors the state system in ongoing efforts to track asset performance. For this corridor, WSDOT finds:

|              |       |   |
|--------------|-------|---|
| High         | Low   |   |
| 73,274       | 9,241 | Annual Average Daily Traffic (AADT)           |
| 7.0%         | 4.7%  | Bus/Truck Percent                             |
| 51.45        |       | Number of Lane Miles                          |
| 17           |       | # of Signalized/Stop Controlled Intersections |
| \$38,008,000 |       | Corridor Investments (2005-2016)              |

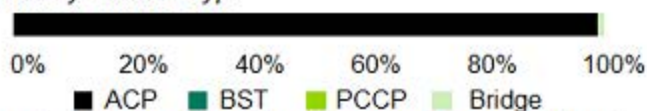
### Mobility

Percent of Corridor Congested (Statewide Screen)

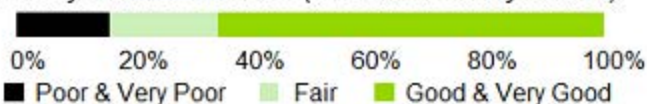


### Preservation

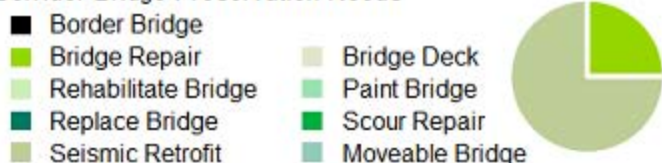
#### Roadway Surface Type



#### Roadway Surface Condition (Percent of Surveyed Area)



#### Corridor Bridge Preservation Needs



### Environment

|                                    | Protect   | Restore/ Enhance/ Assess            |
|------------------------------------|---|-------------------------------------|
| Fish Barriers                      | 45.5% Passable  | 54.5% to Do                         |
| Noise Walls                        | 0% Built  | 0% Proposed                         |
| Chronic Environmental Deficiencies | 0% Resolved   | 0% Unresolved                       |
| Wildlife Connectivity              | 0 Structures in Place   | 1 High Priority Miles               |
| Stormwater Treatment               | 9 BMPs  | Retrofit Prioritization in progress |
| 78.3                               | % of Corridor with high potential for increased Climate Impacts |                                     |
| 4                                  | Wetland Mitigation Locations                                    |                                     |
| None                               | Historical Bridges  |                                     |

1) 2015 data unless otherwise noted. 2) For more information see the User Guide for Corridor Sketch Summaries at <http://bit.ly/WSDOTcorridorsketch>

### What we heard from our partners

WSDOT collected feedback from agency partners. Key themes included:

- Concerns about SR 410/Traffic Avenue interchange experiencing congestion and queuing toward northbound SR 167 in the morning peak.
- Concerns about park and rides not having any advantages if there are no HOV lanes present on SR 410.
- Desire for Intelligent Transportation Systems between SR 167 and 155th Avenue interchanges.
- Desire for long range Pierce Transit expansion east of the Bonney Lake park and ride lot (to Buckley).
- Desire to complete the Foothills Trail shared use trail between Buckley and Enumclaw.
- Desire for intersection control options for efficiency between Bonney Lake and Enumclaw.
- Interest in adding HOV lanes between Sumner and Bonney Lake.
- Desire to add lanes between Bonney Lake and Enumclaw per the SR 410/234th Avenue to Garrett Street Corridor Study.

## Strategies

WSDOT identified the following strategies and associated actions to keep the corridor working well and address performance gaps. Regional partners collaborated on high-level mobility strategies. The identified strategies are not meant to be all-inclusive, nor an established list of priorities. Further evaluation is needed before any strategy can be recommended as a solution to address performance. Project funding decisions will take place at the programming phase, and are subject to statewide prioritization. For more strategy information, visit the Corridor Sketch Summary User Guide.

### Policy Goals / Strategies Description and Near-Term Actions

#### Economic Vitality

|                   |   |
|-------------------|---|
| Under Development | <i>WSDOT will continue to work with partners in developing strategies to address economic vitality.</i> |
|-------------------|---|

#### Environment

|                       |  |
|-----------------------|--|
| Protect and Maintain  | <i>Protect and maintain existing assets that provide environmental function (these include WSDOT's mitigation sites, storm water systems, fish passable culverts).</i>   |
| Enhance or Restore    | <i>Enhance or restore natural areas and environmental functions associated with the multimodal transportation system.</i>  |
| Fish Barrier Retrofit | <i>WSDOT has prioritized the removal of state-owned culverts that block habitat for salmon and steelhead. See interactive map of uncorrected fish barriers at <a href="http://www.wsdot.wa.gov/Projects/FishPassage/default.htm">http://www.wsdot.wa.gov/Projects/FishPassage/default.htm</a>.</i> |

#### Mobility

|            |   |
|------------|---|
| Assessment | <i>Further information about the proposed strategies can be found attached at the end of this document.</i> |
|------------|---|

#### Preservation

|                  |   |
|------------------|---|
| Maintenance      | <i>Based on expenditure history, it is expected that the top three activities will continue to be maintenance on snow and ice control, pavement repair, and rest areas.</i> |
| Pavement         | <i>WSDOT has identified two Pavement actions in the next six years encompassing 46% of the corridor.</i>  |
| Structures       | <i>WSDOT has identified one Structures action in the next six years at a single location on this corridor.</i>  |
| Other Facilities | <i>WSDOT has identified one Other Facilities action in the next six years encompassing 11% of the corridor.</i>   |

#### Safety

|            |   |
|------------|---|
| Investment | <i>WSDOT has identified three Safety Investment actions in the next six years encompassing 46% of the corridor.</i> |
|------------|---|

#### Stewardship

|          |   |
|----------|---|
| Planning | <i>Under Practical Solutions, the Corridor Sketch Initiative identifies corridor performance, and assesses alternative strategies to improve the quality, effectiveness, and efficiency of the transportation system.</i> |
|----------|---|



This segment of SR410 serves as a freight, recreation, local and urban commuter route. It is a main street within Bonney Lake.

The segment typically has one hour of daily congestion (with a spike up to 15 hours in the westbound direction near SR 167).

### Corridor Segment Characteristics

- This segment of SR 410 is an urban divided four-lane freeway between SR 167 and Bonney Lake with 55 mph posted speeds in level to rolling terrain. In Bonney Lake, it is a divided four-lane highway with speeds ranging from 40 mph to 45 mph in rolling terrain.
- The Freight and Goods designation is T-1 and T-2. The T-1 segment of the corridor is from the beginning of the corridor at SR 167 to Sumner Buckley Highway/181st Street (13,140,000 in annual tonnage and 3,400 daily trucks in 2017) and then T-2 in remainder of Bonney Lake (4,060,000 in annual tonnage and 1,100 daily trucks).
- The annual average daily traffic ranges from a low of 21,000 after the 214<sup>th</sup> Ave E junction to a high of 75,000 after the SR 167 ramp in 2016.

### Contributing Factors

- High mainline traffic volumes with merging, diverging, and weaving between interchanges reduce mainline capacity.
- Traffic signals in Bonney Lake reduce mainline capacity

### Mobility Strategies: Operational Improvements

- Consider implementing Intelligent Transportation Systems on SR 410 from SR 167 to 166<sup>th</sup> Ave to improve efficiency.
- Consider one master controller for new and existing signal systems in Bonney Lake for efficiency.

### Demand Management

- Consider a new park and ride lot in the vicinity of SR 410/Traffic Avenue to reduce congestion.
- Consider connecting Sumner Link Trail at Traffic Ave to Foothills Trail for pedestrians and bicyclists to increase mode options.
- Evaluate long range transit expansion along the corridor by expanding public transportation bus service east of the Bonney Lake park and ride lot to encourage mode shift.
- Encourage Sound Transit’s “Sumner Station Improvement” to build a new parking garage to encourage mode shift.

### Further Study

- Study South Prairie Road and 214<sup>th</sup> Ave E intersections to reduce congestion.
- Study the SR 410/166<sup>th</sup> interchange to improve traffic flow.
- Study SR 410/Traffic Ave interchange for congestion relief.
- Study the impact of implementing High Occupancy Vehicle lanes from SR 167 to 184<sup>th</sup> Avenue E to improve transit efficiency and reduce congestion.



This segment of SR410 serves as a freight, recreation, local and urban commuter route. It is a main street within Buckley and Enumclaw.

This segment typically has one hour of daily congestion.

### Corridor Segment Characteristics

- This segment of SR 410 is typically an urban undivided two-lane facility between Bonney Lake and Enumclaw with posted speeds ranging from 35 mph to 55 mph in rolling and level terrain. There are short segments of center two-way left turn lanes in both Buckley and Enumclaw.
- The Freight and Goods designation is T-2 and T-3. The T-2 segment is between Sumner Buckley Highway/181<sup>st</sup> St in Bonney Lake and 244<sup>th</sup> Ave SE in Enumclaw (4,060,000 in annual tonnage and 1,100 daily trucks in 2017) and then T-3 in remainder of Enumclaw (3,110,000 in annual tonnage and 760 daily trucks).
- The annual average daily traffic ranges from a low of 8,300 west of 284<sup>th</sup> Ave SE-Farman St to a high of 21,000 west of 244<sup>th</sup> Ave SE in 2016.

### Contributing Factors

- High mainline traffic volumes and traffic signals in Buckley and Enumclaw reduce capacity.

### Mobility Strategies:

#### Operational Improvements

- Update signal timing and consider interconnect between signals in Buckley to improve efficiency.

#### Demand Management

- Consider wider shoulders and improving roadway connections and crossings to better accommodate bicyclists and pedestrians to encourage mode shift.
- Expand public transportation bus service east of Bonney Lake park and ride lot and south of Enumclaw to encourage mode shift.
- Complete the Foothills bicycle and pedestrian trail between Buckley and Enumclaw over the White River to encourage mode shift.

### Local Network Improvements

- Evaluate Old Sumner Buckley Highway as a northern alternative parallel east-west route between Bonney Lake and Buckley to reduce peak hour congestion spreading on SR 410 to improve traffic flow.

### Further Study

- Study intersection control options for efficiency at 254<sup>th</sup> Ave E, 262<sup>nd</sup> Ave E, Mundy Loss Rd, and 244<sup>th</sup> Ave SE.
- Study alternative options to reduce congestion.
- Study options to improve mobility at the White River Bridge which is functionally obsolete.



## For more information

To find out more information about this corridor or how to get involved, please contact:

### Dennis Engel

Olympic Region Planning Office

Planning Manager

360-357-2651

[engeld@wsdot.wa.gov](mailto:engeld@wsdot.wa.gov)

Washington State Department of Transportation's Corridor Sketch Initiative is a set of planning activities that engage our partners to define the context and performance information for all of the state's 304 highway corridors. The Corridor Sketch complements and supports regional planning processes in Washington. It is not intended to duplicate, substitute or compete with other planning efforts; nor is it intended to generate lists of projects.

Under 23 U.S. Code § 148 and 23 U.S. Code § 409, safety data, reports, surveys, schedules, lists compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential crash sites, hazardous roadway conditions, or railway-highway crossings are not subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.

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