

## SR 542, MCLEOD ROAD TO BRITTON ROAD

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### **CHARACTERISTICS**

#### **Segment Description:**

This corridor runs from the intersection at McLeod Road (MP 1.74) to northeast of the intersection at Britton Road.

**County/Counties:** Whatcom

**Cities/Towns Included:** The entire length of this corridor is located within unincorporated Whatcom County.

**Number of lanes in the corridor:** 2 to 2

**Lane width:** 12 to 12 feet.

**Speed limit:** 35 to 55 mph.

**Median width:** 0 to 0 feet.

**Shoulder width:** 5 to 6 feet.

#### **Highway Characteristics:**

This section of SR 542 is classified as U2 (Urban-Minor Arterial) from MP 1.74 to MP 2.10. From MP 2.10 to MP 2.99, the highway is classified as R2 (Rural-Minor Arterial).

This corridor has a freight classification of T-3, with 3,610,000 tons of freight hauled annually. SR 542 is a State Scenic Byway.

#### **Special Use Lane Information (HOV, Bicycle, Climbing):**

There are no special use lanes identified.

#### **Access Control Type(s):**

Non Limited Access less restrictive (access Class 3).

#### **Terrain Characteristics:**

The entire length of this corridor is comprised of rolling terrain.

#### **Natural Features:**

SR 542 provides the only access to the Mount Baker Ski Area, as well as many other outdoor recreation sites in the Mount Baker National Forest.

#### **Adjacent Land Description:**

Zoning varies along the corridor. Zoning designations are: urban residential 4 units/acre, and urban residential mixed use.

#### **Environmental Issues:**

The corridor is located within a rural residential area of Bellingham and Whatcom county. Toad Creek crosses the highway near the midpoint of the corridor and is documented to support coho salmon and steelhead trout. A small area of wetlands is mapped near the corridor and will require ground verification. There are no other GIS-mapped points of sensitive habitat or species.

Need appropriate tribal consultation during planning, design and construction of projects in this corridor.

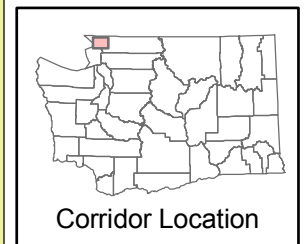
#### **Major Economic Issues:**

Population growth in Northeast Whatcom County is expected along with demand for new or expanded commercial centers accessed via this highway corridor.

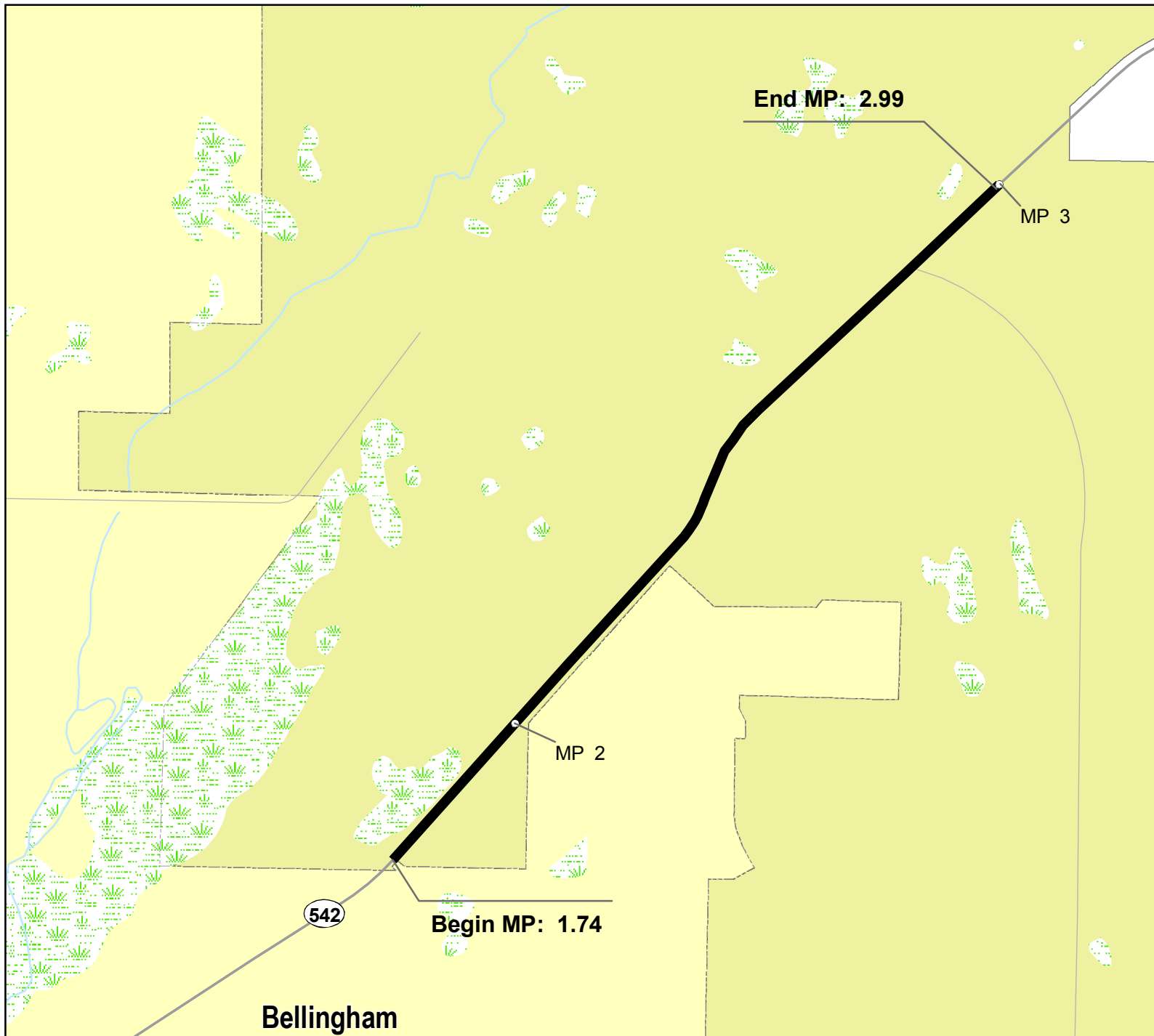
# HSP Congested Corridor Analysis

## Characteristics

- Milepost Marker
- █ HSP Corridor Location
- ══ U.S. Interstate
- U.S. Highway
- State Route
- Local Roads
- +++ Railroad
- ▨ Wetlands
- ▨ Military Reservation
- ▨ Tribal Lands
- ▨ City Limits
- ▨ Urban Area
- ▨ County Line



November, 2006



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### ***ASSETS***

#### **Pavement:**

There are 2.50 lane miles of Hot Mix Asphalt on this segment of SR 542.

#### **Signal:**

There is one signalized intersection at McLeod Road.

#### **Structures:**

There are no structures identified.

(Ramps, and locally owned structures (if any exist) are not identified in this section and may not be reflected on maps.)

#### **Features Crossed:**

There are no features crossed.

#### **ITS Facilities:**

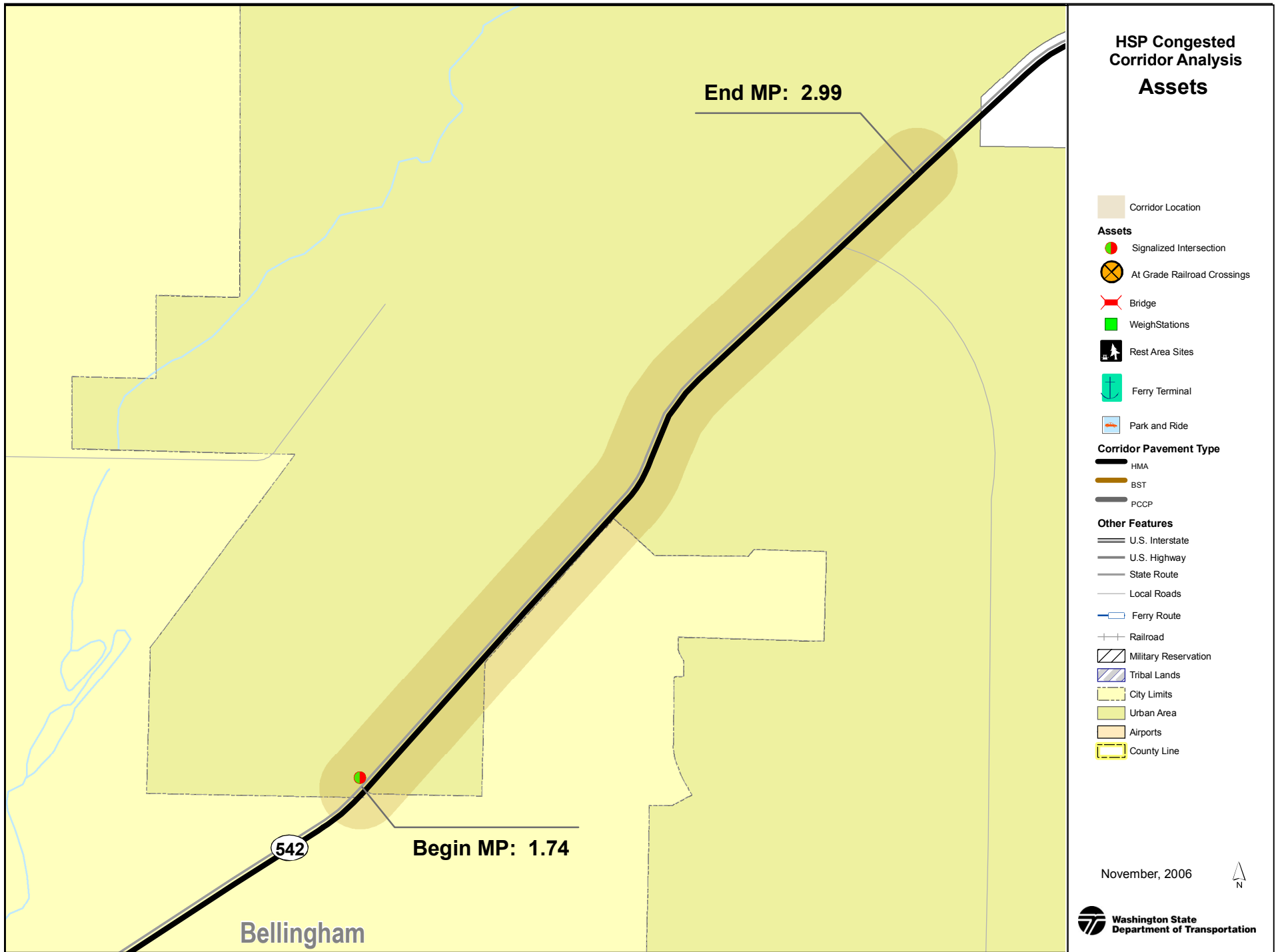
There are no intelligent Transportation systems on this corridor.

#### **Railroad Crossings:**

There are no at-grade rail crossings within this route segment.

#### **Asset Other:**

None Identified.



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### *USAGE*

#### **General Origin and Destination Travel Characteristics:**

This section of SR 542 is used mostly as an connection between the City of Bellingham, and communities to the east. There is also significant truck traffic, as well as recreational traffic.

#### **Snow/ice Issues:**

There are no sections within this corridor which present a problem for normal snow/ice control. This route also serves the Mount Baker area.

#### **Annual Average Daily Traffic:**

Ranges from 12,000 to 16,000.

#### **Significant Seasonal Average Annual Daily Traffic Changes:**

None identified.

#### **General Description of Major Average Annual Daily Traffic Locations:**

Annual average daily traffic (AADT) volumes range from a high of 16,000 vehicles per day just west of McLeod Rd, to a low of 12,000 vehicles per day just west of Dewey Rd.

#### **Freight:**

**Freight Classification:** T3

**Yearly Tonnage:** 3.6M

**Truck Percentage of Annual Average Daily Traffic:** None identified.

#### **Additional Usage Comments:**

There are no additional comments.

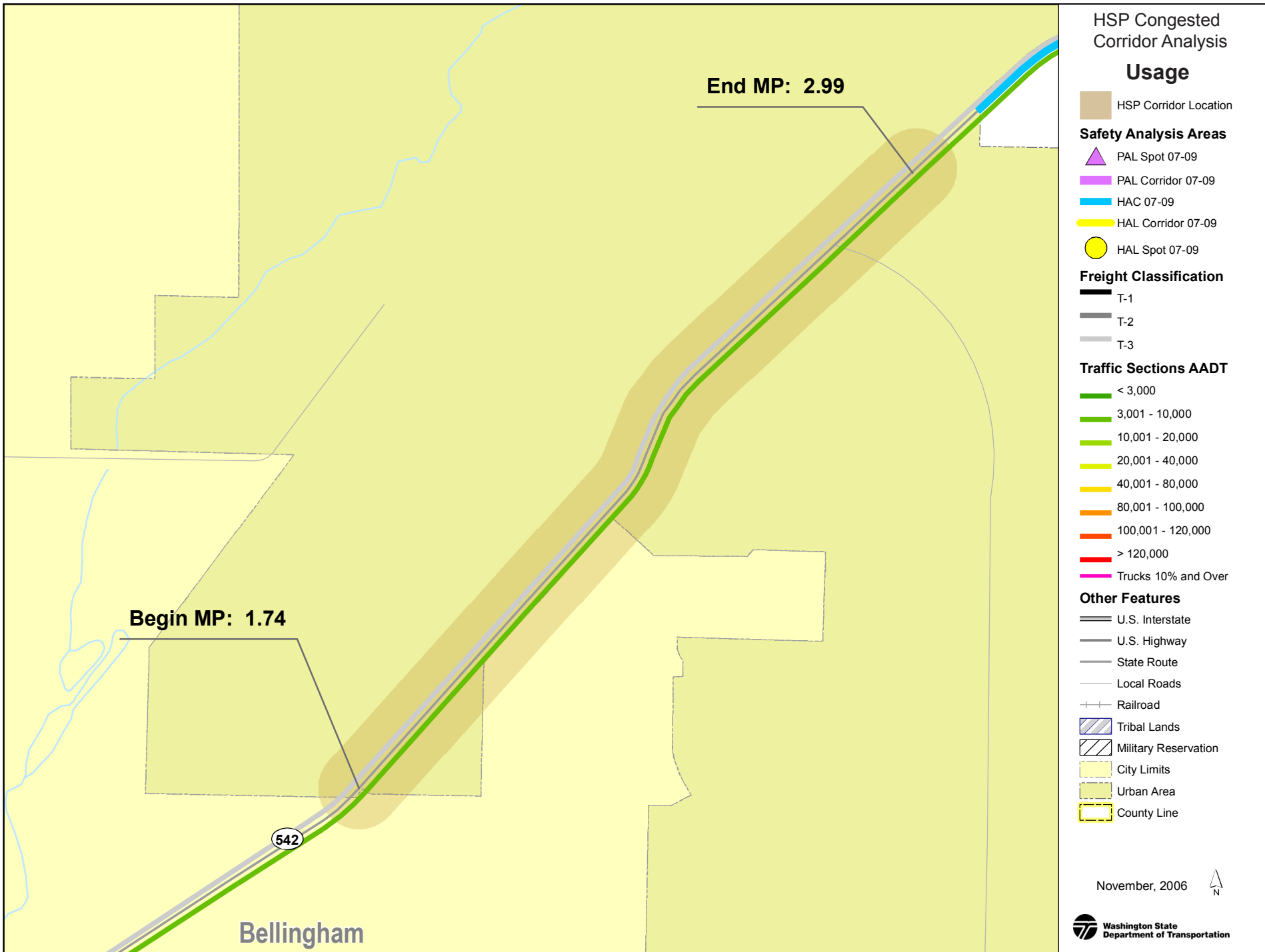
**Average Annual Societal Cost of All Collisions:** None Identified

#### **Collisions:**

**Severe No of Collisions:** 0

**Less Severe No of Collisions:** 102

**List Data Years:** None identified



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### *NEEDS AND STRATEGIES*

#### **Preservation**

##### **Pavement Condition and Needs:**

This corridor section's pavement type is ACP. It was resurfaced in 2000. Pavement condition is good.

##### **Pavement Management Strategies:**

Pavement is expected to remain ACP for the next 20 years during which one resurfacing of the entire corridor is expected in 2012 per the WSPMS.

##### **Structures Condition and Needs:**

There are none identified. (This may include ramps and locally owned structures if any exist.)

##### **Structures Management Strategies:**

There are none identified.

##### **Additional Condition and Needs:**

There are none identified.

##### **Additional Management Strategies:**

There are none identified.

#### **Improvement**

##### **Mobility Condition and Needs:**

Failing level of service.

##### **Mobility Management Strategies:**

Roundabouts at McLeod and Britton Roads for turnaround ability and access management with a closed median through corridor.

##### **Safety Condition and Needs:**

There are none identified.

##### **Safety Management Strategies:**

There are none identified.

##### **Environmental Condition and Needs:**

Toad Creek is a fish-bearing creek and crosses SR 542

##### **Environmental Management Strategies:**

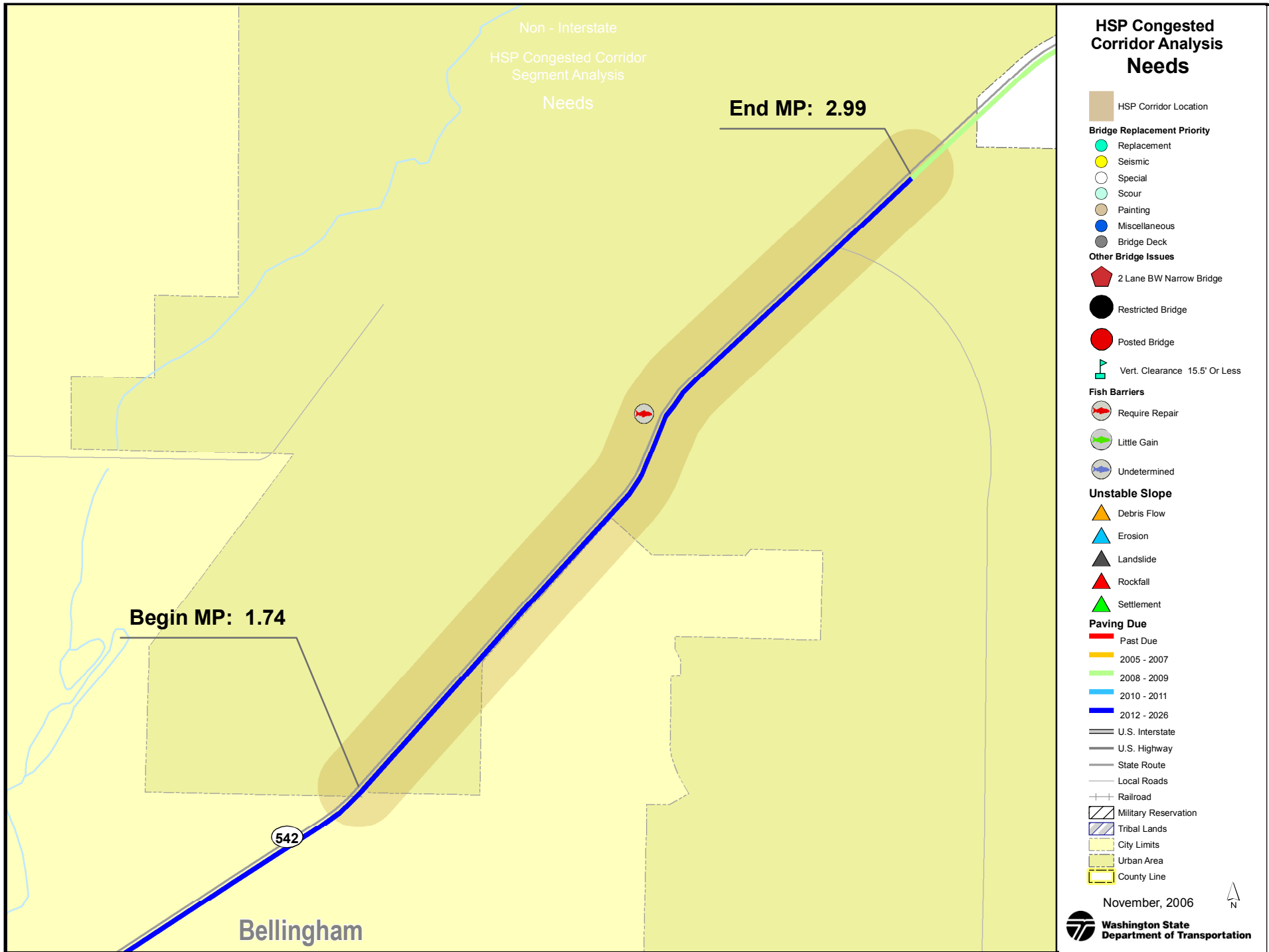
There are none identified.

##### **Restrictions:**

There are none identified.

##### **50-Year Configuration:**

The area in question will be urbanized in 50 years. High growth. Capacity Improvements from I-5 to Nugent's Corner (SR 9) with spot widening and intersection improvements (i.e. roundabouts). Access Management.



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### ***TIERED PROPOSED SOLUTIONS***

#### **Minimum Fix**

**Description:**

Incorporating access management strategies in the corridor will help to reduce accidents and delays caused by the many driveways which exist here. Intelligent Transportation Systems (ITS) strategies will help to make the corridor more efficient by providing real-time information to drivers, as well as the traffic management center. Transportation Demand Management will help to reduce the demand of vehicles using the corridor. This solution will include new Park and Ride lots at Britton Rd, and in Nugents Corner. The pavement in this corridor will need to be rehabilitated, based on data from the WSPMS. Some intersection and spot capacity improvements will be needed to address congestion/delay issues. These improvements could include signals, roundabouts, turn lanes, and auxiliary lanes.

**Delay Reduction:** None identified.

**Collision Reduction:** 20%

**Deficient Concrete Lane Miles:** None identified.

**Total Estimate Cost:** \$65 M

**Cost Estimate Explanation:**

Access Management Strategies approximately \$5M, ITS approximately \$10M, TDM approximately \$30M, Pavement Rehab approximately \$5M, 2 roundabouts @ \$5M ea., and Spot improvements approximately \$5M.

**Minimum Fix Benefits:**

Improve flow of traffic by eliminating left turns out of driveways.

#### **Moderate Fix**

**Description:**

Intelligent Transportation Systems (ITS) strategies will help to make the corridor more efficient by providing real-time information to drivers, as well as the traffic management center. Transportation Demand Management will help to reduce the demand of vehicles using the corridor. This solution will include new Park and Ride lots at Britton Rd, and in Nugents Corner. A change to a limited access facility will be needed in order to alleviate mobility and safety concerns.

**Delay Reduction:** None identified.

**Collisions Reduction:** 33%

**Deficient Concrete Lane Miles:** None identified.

**Total Estimate Cost:** \$140 M

**Cost Estimate Explanation:**

Limited access assume 2 interchanges @ \$50M ea. approximately \$100M, ITS approximately \$10M and TDM approximately \$30M.

**Moderate Fix Benefits:**

Better flow of traffic by creating a limited access, free-flow situation.

#### **Maximum Fix**

**Description:**

Intelligent Transportation Systems (ITS) strategies will help to make the corridor more efficient by providing real-time information to drivers, as well as the traffic management center.

Transportation Demand Management will help to reduce the demand of vehicles using the corridor. This solution will include new Park and Ride lots at Britton Rd, and in Nugents Corner.

A change to a limited access facility will be needed in order to alleviate mobility and safety concerns.

Some local street enhancements will be needed to address traffic operation problems which will arise in the future. These enhancements will allow drivers to have a choice of routes, and will reduce the demand on the State Route.

**Delays Reduction:** None identified.

**Collisions Reduction:** 33%

**Deficient Concrete Lane Miles:** None identified.

**Total Estimate Cost:** \$150 M

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### **Cost Estimate Explanation:**

Limited access assume 2 interchanges @ \$50M ea. and frontage roads ~ \$110M

ITS ~ \$10M

TDM ~ \$30M

### **Maximum Fix Benefits:**

Better flow of traffic by creating a limited access, free-flow situation.

### **Off-System Solutions:**

None identified.

### **Special Studies/Reports:**

SR 542 Scenic Corridor Management Plan.

### **Required Studies**

None identified.

### **Start/Completion Date of Study:**

None identified.

### **Expected Results**

None identified.

### **Funded Projects within Corridor Limits**

<b>Project No</b>	<b>Title</b>
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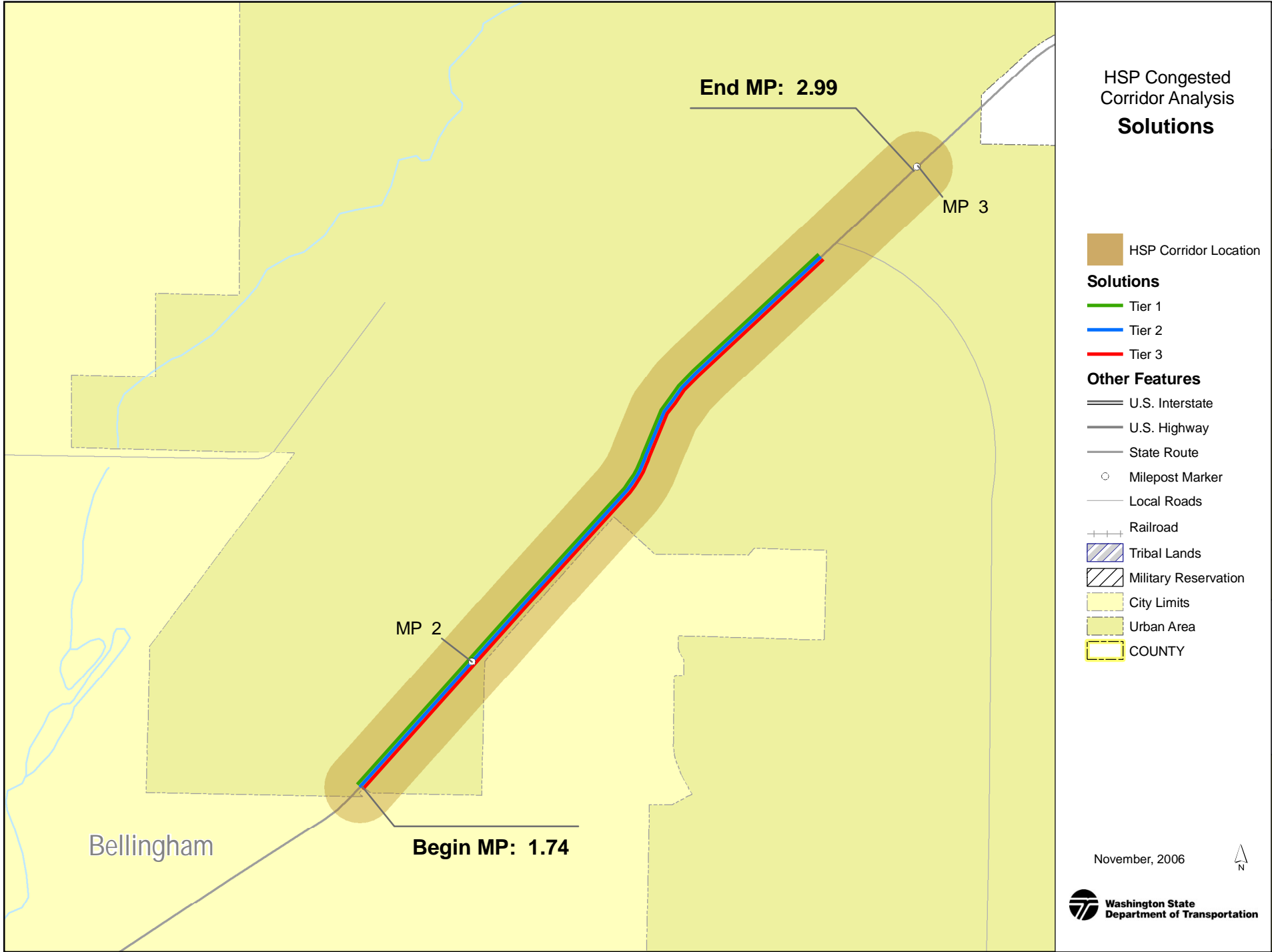
None identified.

### **Additional Comments:**

None identified.

### **Data Sources and Contacts used:**

None identified.



**HSP Congested Corridor Analysis Solutions**

HSP Corridor Location

**Solutions**

- Tier 1
- Tier 2
- Tier 3

**Other Features**

- U.S. Interstate
- U.S. Highway
- State Route
- Milepost Marker
- Local Roads
- Railroad
- Tribal Lands
- Military Reservation
- City Limits
- Urban Area
- COUNTY

November, 2006



Bellingham

End MP: 2.99

MP 3

MP 2

Begin MP: 1.74