This chapter describes future conditions along the US 2 corridor, including how changes in adjacent communities will impact traffic. The study area extends from the City of Snohomish on the west to the Town of Skykomish on the east; a distance of approximately 47 miles.

Chapter 3: Future Traffic Conditions

1 Introduction

Typical weekday traffic on US 2 has grown steadily since the 1980's in Segments 1, 2 and 3, while leveling off in Segment 4. However, as we have seen from the previous chapter, the issue for both Segments 3 and 4 is not as much weekday trips as it is weekend trips.

On any given Sunday during tourist season, westbound backups begin in Sultan and can stretch back through Gold Bar and beyond. This chapter includes a discussion of how traffic on US 2 is changing, from segment to segment, including on the weekends.

2 How is growth impacting traffic on US 2?

In 1990, the Washington State Legislature passed the Growth Management Act (GMA), in large part as a result of frustration with the impact growth was having on the transportation system. For local agencies planning under the GMA, "The Act links land use planning and development approvals with the provision of transportation facilities through the concurrency requirement."[1]

Historically, the State and local agencies within Washington have planned transportation improvements almost exclusively

[1] Page V-1, Your Community's Transportation System – A Transportation Element Guidebook, Washington State Growth Management Program, June, 1993.

as a reaction to safety concerns and congestion. Under the GMA, local agencies set level-of-service standards and then permit growth in accordance with those standards. If development would cause the local service standard to be exceeded, the transportation facility would have to be improved, the development denied, or the standard changed.

However, Highways of Statewide Significance, like US 2, are exempt from the transportation concurrency requirement under the GMA. Linking land use decisions to statewide transportation facility performance is becoming increasingly important.

Growth in traffic on US 2 has followed the general population and employment growth along the corridor. The greatest increase in traffic on US 2 occurred where there was the greatest growth in population and employment, in the City of Monroe. On this segment (using counts at Chain Lake Road from 1990 – 2005) traffic has increased by 57%. During this time period the population of Monroe increased by 278%[2] and employment by 74% (Exhibit 3-1).

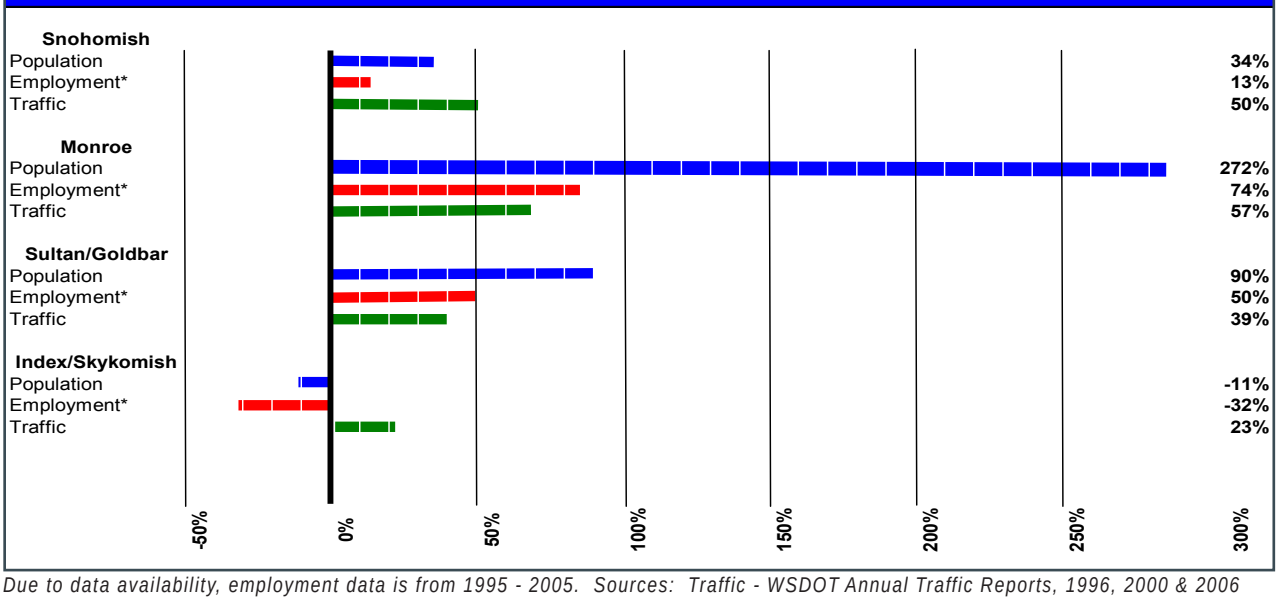
3 How were traffic forecasts derived?

WSDOT applied the City of Monroe forecast model for the area from Monroe to Sultan inclusive, and the PSRC forecast model for the remainder of the study area (only available model). Coupled with historic traffic counts, ADT and turning movement counts taken in the winter of 2006, as well as seasonal adjustment factors, future traffic flows for the target year 2030 were estimated at 23 intersections (for more detailed information, see Technical Memorandum No. 3).

While it is clear that the increase in traffic on US 2 during weekdays is attributable to population and employment growth nearby, the same cannot be said for weekend traffic. Weekend traffic volumes on Segment 1 (Snohomish) declines a little over 17% on the weekend and remains virtually unchanged on

[2] Population growth in Monroe has been the result of both real growth and growth attributable to annexation. According to the City of Monroe, the City increased from 4,275 people in 1990 to 16,170 in 2005. Of that increase, 2,120 were annexed, including 1,624 in the Department of Corrections facility in Monroe – a population that has since increased to 2,481.

Figure 3-1: **Population, Employment & Traffic Growth Along US 2, 1990-2005**



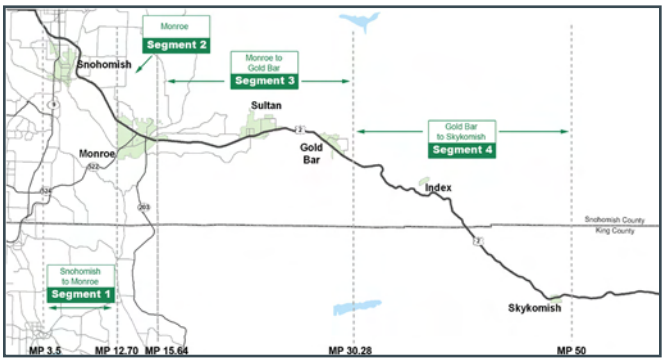
Due to data availability, employment data is from 1995 - 2005. Sources: Traffic - WSDOT Annual Traffic Reports, 1996, 2000 & 2006
Population - Washington Office of Financial Management Employment: Washington Employment Securities Division

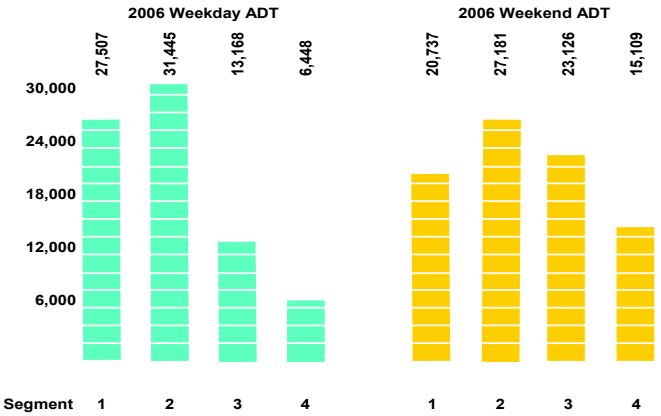
Segment 2. But, weekend traffic volumes increase substantially over weekday traffic volumes on Segment 3 and Segment 4 (30% and 79% respectively, see Exhibit 3-2)

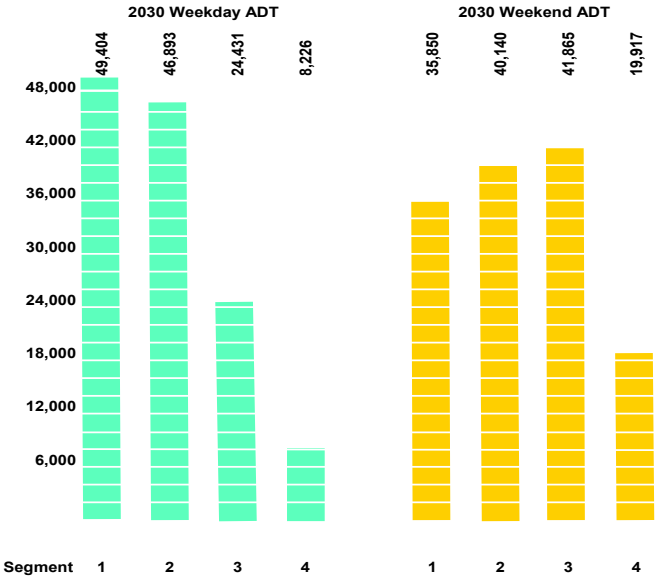
Future baseline intersection LOS

To understand the actual effect of these traffic volumes on traffic flow, WSDOT calculated future LOS values for the previously specified intersections along the corridor. LOS was determined using the 2000 Highway Capacity Manual methodology published by the Transportation Research Board. For almost all intersections, traffic flow degenerates to a stop & go level. In addition, multiple worst movement directions exist during both weekdays and weekends for all signalized intersections except two. As indicated above, weekend recreational travel is a major cause for traffic congestion along Segments 3 and 4. The following exhibits show forecast year (2030) LOS for all segments assuming no additional improvements to the highway.

Exhibit 3-2. **Weekday & Weekend Average Daily Traffic, 2006 & 2030**



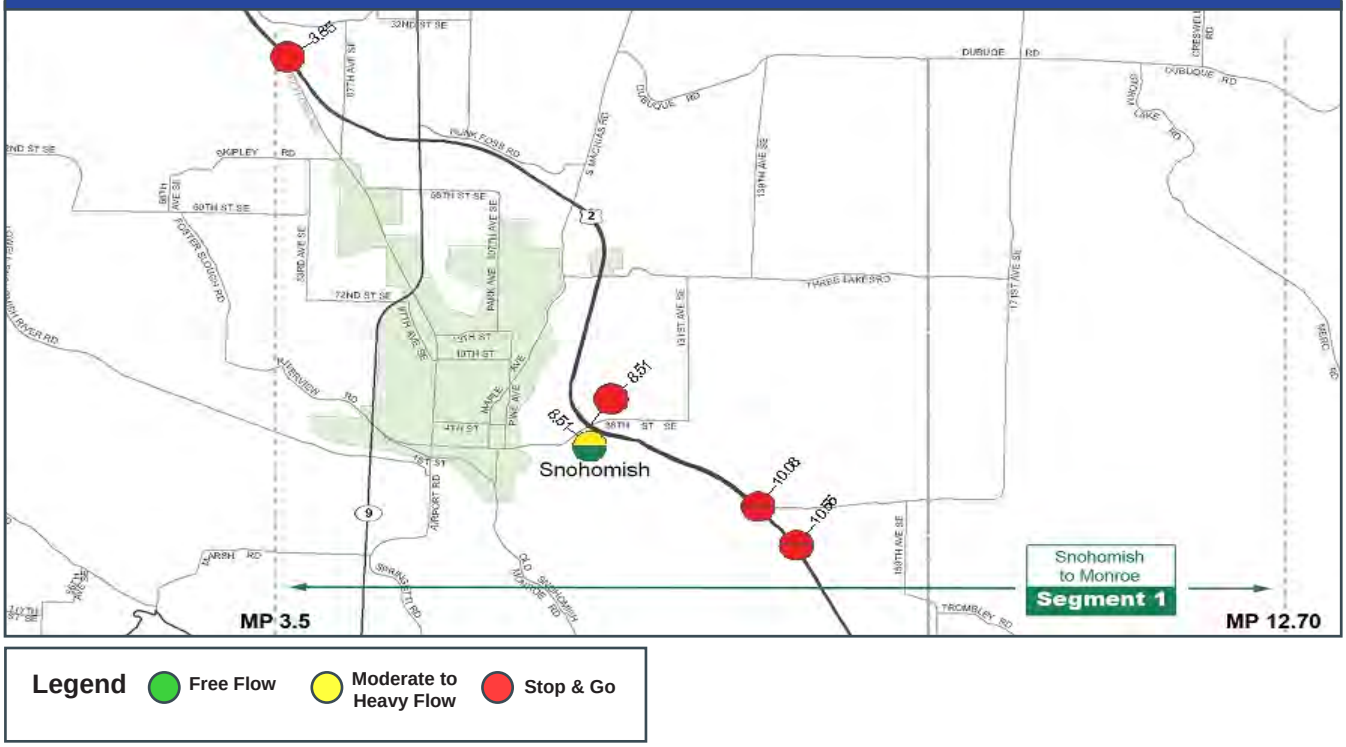




Percent Change, 2006 - 2030	**79%**	**49%**	**86%**	**28%**	**73%**	**49%**	**82%**	**32%**

Source: LOCHNER

Exhibit 3-3. **Segment 1 Future Baseline LOS (2030)**

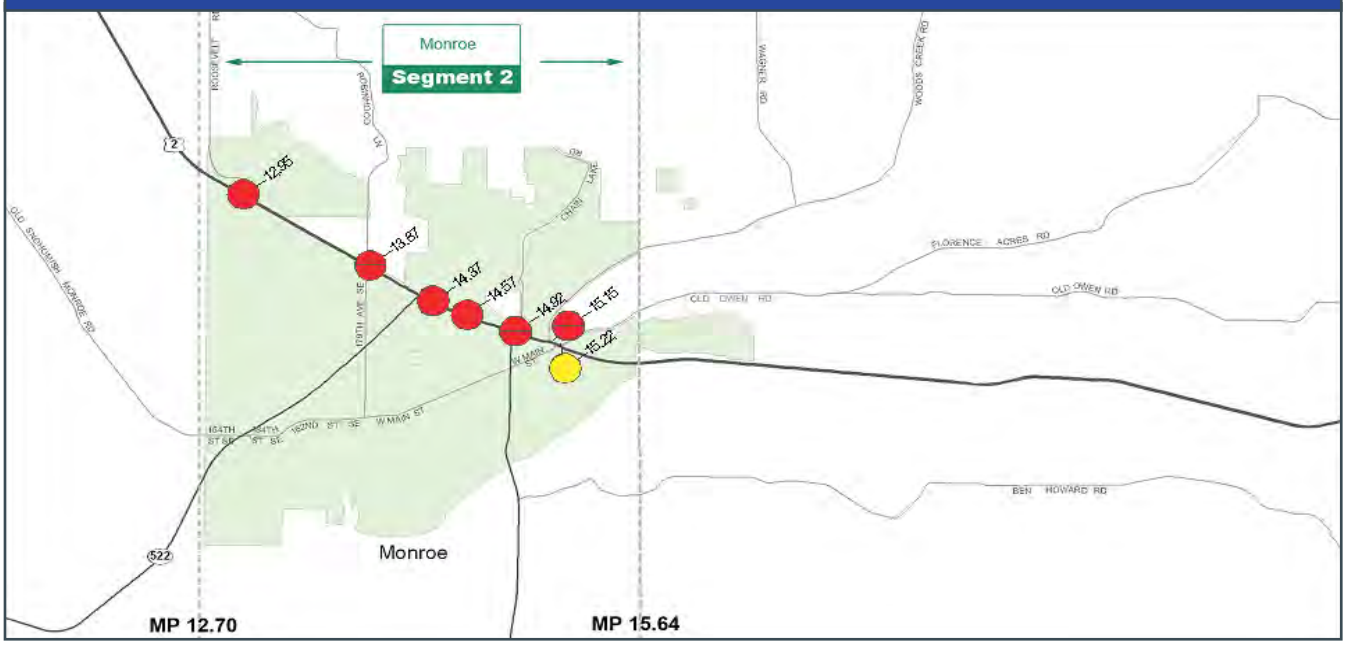


Legend Free Flow | Moderate to Heavy Flow | Stop & Go

Note: Top halves of circles indicate weekday LOS, bottom halves indicate weekend LOS. (Based on Exhibit 2-9.)

Source: LOCHNER

Exhibit 3-4. **Segment 2 Future Baseline LOS (2030)**

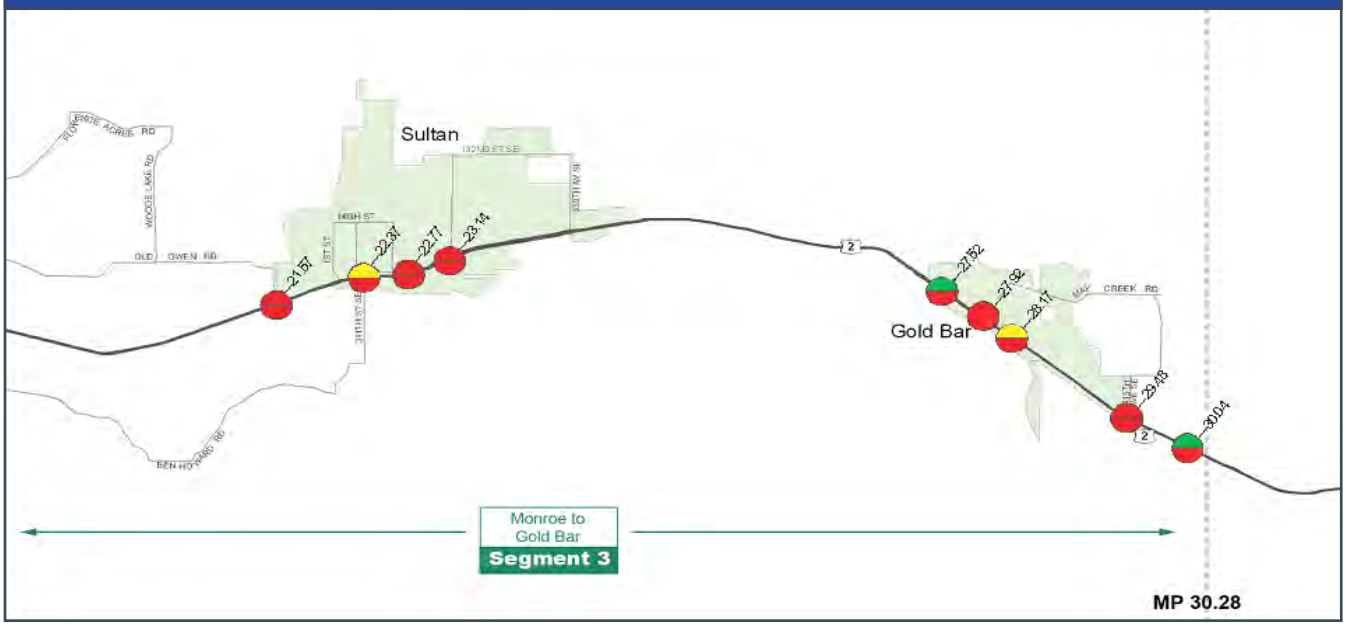


Legend Free Flow | Moderate to Heavy Flow | Stop & Go

Note: Top halves of circles indicate weekday LOS, bottom halves indicate weekend LOS. (Based on Exhibit 2-9.)

Source: LOCHNER

Exhibit 3-5. **Segment 3 Future Baseline LOS (2030)**

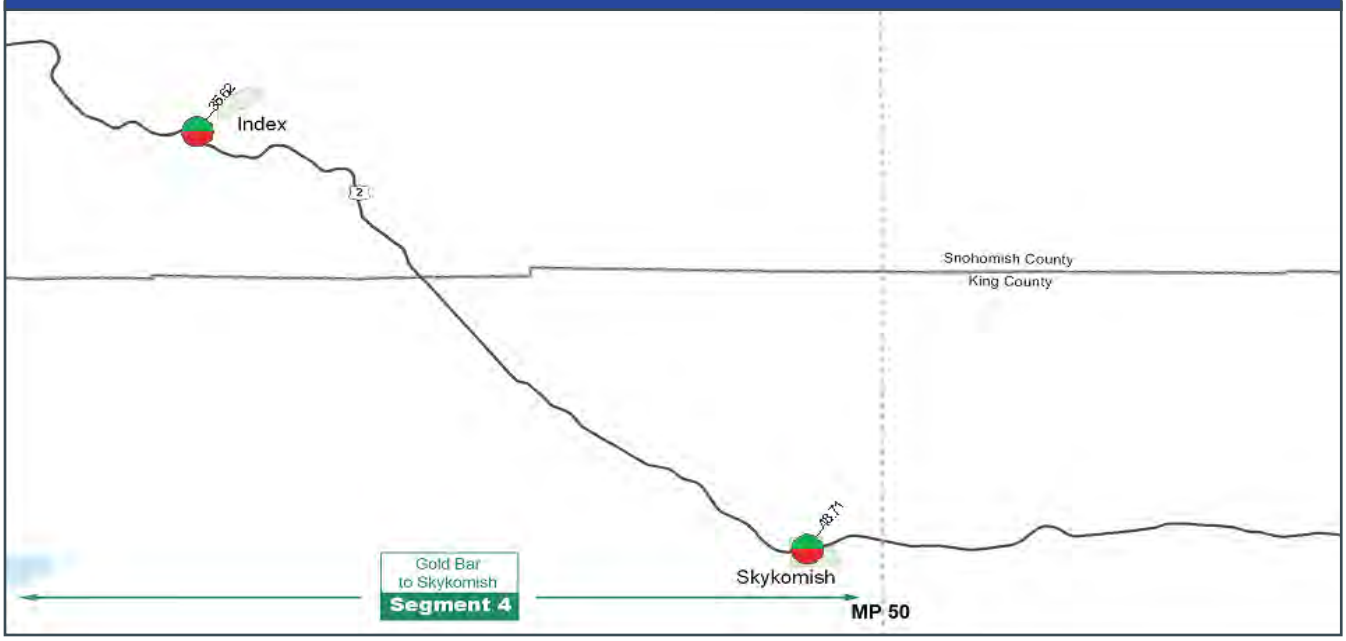


Legend Free Flow | Moderate to Heavy Flow | Stop & Go

Note: Top halves of circles indicate weekday LOS, bottom halves indicate weekend LOS. (Based on Exhibit 2-9.)

Source: LOCHNER

Exhibit 3-6. **Segment 4 Future Baseline LOS (2030)**



Legend Free Flow | Moderate to Heavy Flow | Stop & Go

Note: Top halves of circles indicate weekday LOS, bottom halves indicate weekend LOS. (Based on Exhibit 2-9.)

Source: LOCHNER