

Mobility monitor

Transportation Data

Monitoring today,
for tomorrow.

This issue

Vehicle traffic
volumes
crossing
screen lines

November 2008
Issue #31

Traffic screen lines in Calgary

A screen line is an imaginary line drawn through the City and all traffic crossing this line is counted. Normally a screen line will be designed to have as few crossing points as possible and often follow natural or artificial barriers such as rivers or railway tracks.

There are three major screen lines in Calgary: the Bow River, Deerfoot Trail and Glenmore Trail.

The Bow River screen line

The Bow River screen line runs south of Bowness to the Bow River. It then follows the Bow River to Cushing Bridge. The screen line then follows the west side of Deerfoot Trail past Bow Bottom Trail. Then it follows the Bow River to the city limit.

This screen line was adjusted over the years as Deerfoot Trail was built.

The Deerfoot Trail screen line

The screen line follows the west side of Deerfoot Trail from the north city limit past Bow Bottom Trail. Then it follows the Bow River to the city limit.

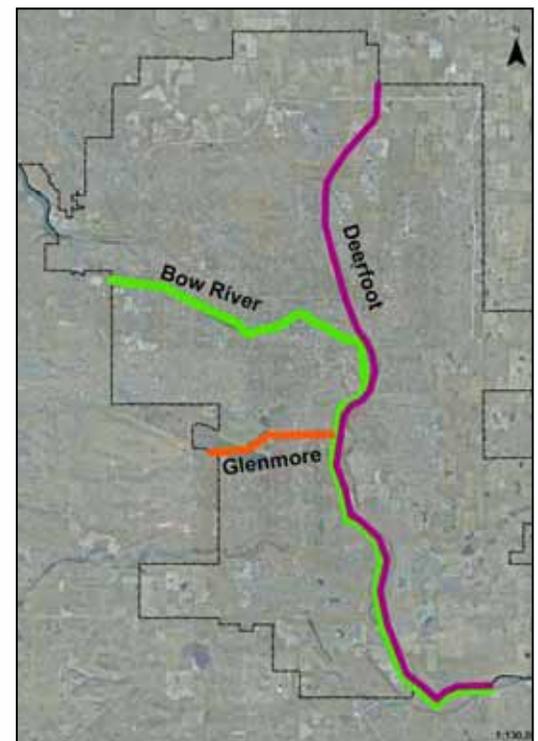
This screen line was adjusted over the years as Deerfoot Trail was built.

The Glenmore Trail screen line (14th Street S.W. to Deerfoot Trail)

The screen line follows the south side of Glenmore Trail from Glenmore reservoir to the east city limits.

Historically the Glenmore Trail screen line ended at the Bow River. As a result, information for the section east of Deerfoot Trail is limited. Although the section east of Deerfoot Trail has high growth, it was excluded from this analysis.

Screen line locations



KEY FINDING

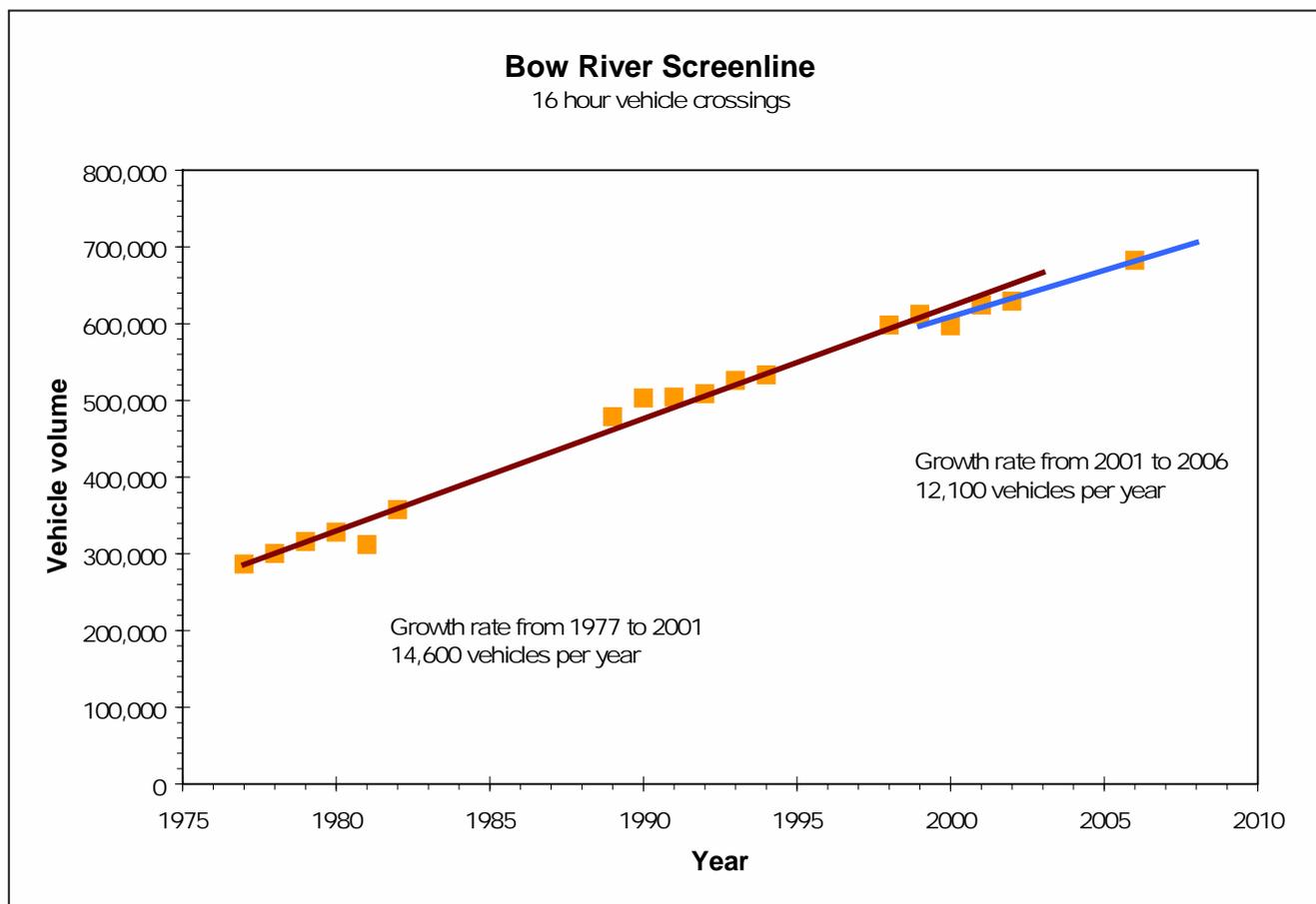
The growth of vehicle traffic crossing the Bow River screenline appears to be slowing down.

During the 1977 to 2001 period, vehicle traffic on the Bow River screen line was growing faster than the population. Since 2001, it has been growing slower than the population.

Between 1977 and 2001 vehicle traffic crossing the Bow River screen line grew at a rate of 4.9 per cent per year. Between 2001 and 2006 vehicle traffic crossing the Bow River screen line grew at a rate of only 1.9 per cent per year.

During the six year period 2000 to 2006 Calgary's population grew by 131,000. To maintain the 2000 rate of 6.6 pedestrian overpasses per 100,000 people, nine new overpasses were needed or about one and a half new pedestrian overpasses per year.

Between 1977 and 2001 Calgary's population grew at a rate of 3.3 per cent per year. Between 2001 and 2006 Calgary's population grew at a rate of 2.6 per cent per year.



Source: City of Calgary Screen line count program

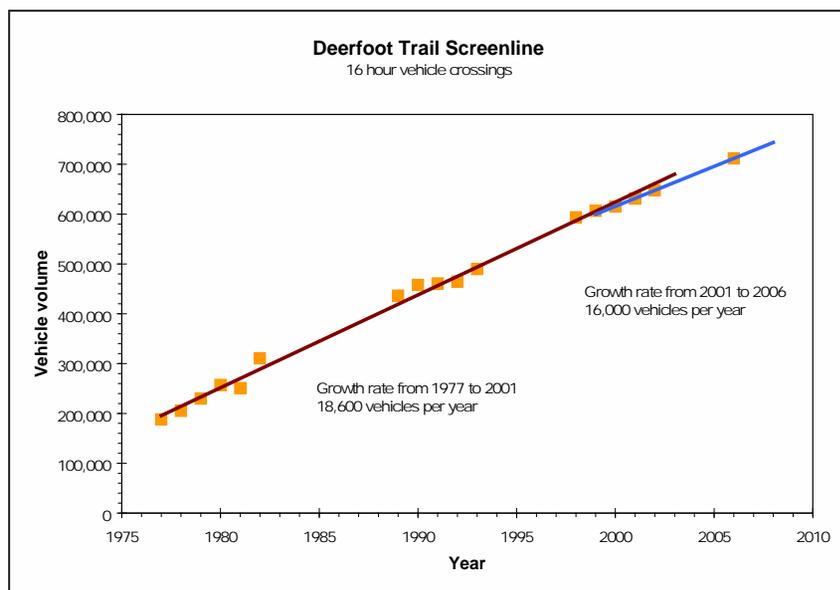
KEY FINDING

The growth of vehicle traffic crossing the Deerfoot Trail screenline appears to be slowing down.

From 1977 to 2001, traffic crossing the Deerfoot Trail screen line was growing faster than the population. Since 2001, it has been growing slower than the population.

From 1977 to 2001 vehicle traffic crossing the Deerfoot Trail screen line grew at a rate of 9.8 per cent per year. Between 2001 and 2006 vehicle traffic crossing the Deerfoot Trail screen line grew at a rate of 2.5 per cent per year.

The growth rate on the Deerfoot Trail screen line has been higher than the growth on the Bow River screen line. This likely reflects the high population and employment growth rates in the area east of Deerfoot Trail.



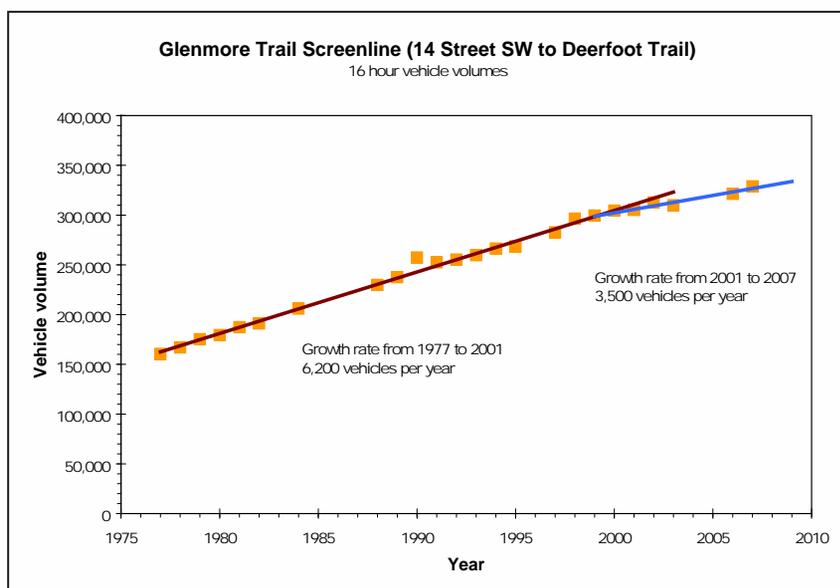
Source: City of Calgary Screen line count program

KEY FINDING

The growth of vehicle traffic crossing the Glenmore Trail screenline appears to be slowing down.

From 1977 to 2001, traffic crossing the Glenmore Trail screen line was growing faster than the population. Since 2001, it has been growing slower than the population.

From 1977 to 2001 vehicle traffic crossing the Glenmore Trail screen line grew at a rate of 5.7 per cent per year. Between 2001 and 2006 vehicle traffic crossing the Glenmore Trail screen line grew at a rate of 2.2 per cent per year.



Source: City of Calgary Screen line count program

Implications

Before 2001, all of the screen line volumes show a long-term steady growth rate that was higher than the population growth rate. Since 2001 the pattern seems to have changed, with a growth rate lower than the population growth rate.

This was not expected because of the impression that traffic has been growing faster in the last few years. The impression may come from the increase in traffic congestion in recent years, which can grow much faster than traffic growth as the system approaches capacity.

The Mobility Monitor

The Mobility Monitor is part of the Ongoing Monitoring and Implementation Program (OMIP) for the Calgary Transportation Plan (CTP). The purpose of the Mobility Monitor is to report on strategic trends and events that affect the implementation of the CTP. The Mobility Monitor is produced by the Transportation Data division of Transportation Planning.



Sources of Information

The traffic volumes crossing the screen lines came from the City's screen line and cordon traffic count program.

The City counts vehicles by class for the screen lines and cordons in Calgary. For the Downtown cordon, The City also counts vehicle passengers, transit passengers, pedestrians and cyclists. The City of Calgary uses screen line and cordon traffic counts to monitor traffic growth in the City.

A screen line is an imaginary line drawn through the city and all traffic crossing this line is counted. Normally a screen line will be designed to have as few crossing points as possible and often follow natural or artificial barriers such as rivers or railway tracks.

The City has been collecting screen line and cordon traffic counts since at least 1958. Information from counts prior to 1977 is not readily available, due to changes in information storage practices.

The screen line counts were not done every year. The program has been suspended periodically due to financial constraints and shifts in data collection priorities. For years where information was available for major screen line crossings, missing minor crossings were estimated from interpolation or extrapolation.

How accurate and reliable are these data?

How concerned should you be by the potential for error in the data presented in the Mobility Monitor? Traffic on a road can vary by ten per cent or more from one day to the next. The City tries to minimize the variation by counting about the same time every year.

Even so, a change from one year to the next may be due to some random event, such as the weather, accidents or illness. This is why it is wise to look at trends, since changes that are consistent over a long period of time are more likely to be real, and not just the result of random events.

It must be kept in mind that no one source of information can claim to be infallible. Consideration and appropriate weighting of other sources of information is to be encouraged before making decisions.

Mobility Monitor Reader Survey

We will be doing a survey of our readers to help plan the future of the Mobility Monitor. Everyone on our distribution list will receive an e-mail with more information in the next few weeks. If you have any questions about the survey, please e-mail trandata@calgary.ca