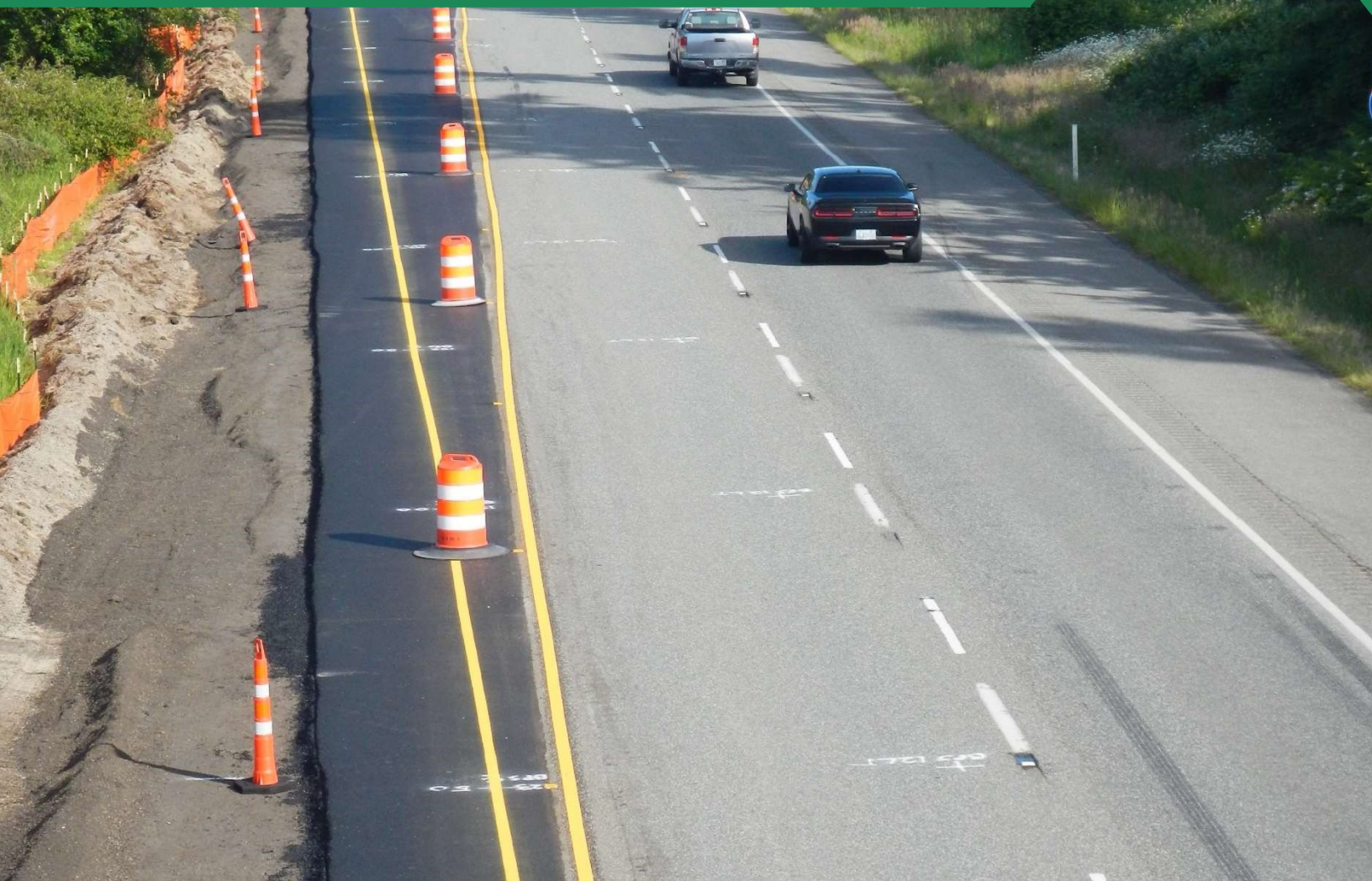


2020 Ramp & Roadway



Washington State Department of
Transportation

Northwest Region- Whatcom County
Seasonal Factors

Seasonal Factors – Description and Example Calculation

Since traffic counts are taken throughout the year, data from a particular month may need to be calibrated to a more representative month by applying what's known as a seasonal factor (also called a monthly factor). Generally, but not universally, summer months have higher measured traffic volumes compared to other seasons and applying seasonal factors allows for the most representative traffic volumes to be used in studies, reports, and other calculations.

For example, a traffic count taken in December or January may yield lower volumes than a similar count at the exact same peak hour taken in June or July. Using one count without investigating the roadway's seasonal variance in volumes could impact the accuracy of further operational analysis.

Seasonal factors are not mandated to be used in WSDOT work; rather, they are provided as a resource to use when analyzing count data collected at various times throughout the year.

Example Calculation


A traffic count was taken in March along I-5 in Marysville in WSDOT's Northwest Region. The count yielded a daily vehicle count of 130,000 vehicles.

- Step 1: Identify a nearby Seasonal Factor Location (if any)
 - In this case, Seasonal Factor Location #1 can be used as it's noted to also be along I-5 in Marysville
- Step 2: Determine the Peak Month
 - In this case, the Peak Month (in terms of traffic volume) would be August
- Step 3: Apply Seasonal Factor adjustment to the count month
 - The Seasonal Factor Adjustment involves the following steps:
 - Peak Month Seasonal Factor: 1.067
 - Count Month Seasonal Factor: 0.979
 - Seasonal Adjustment: $1.067 / 0.979 = 1.09$

Therefore, traffic volumes in August are 1.09 times greater than in March. Because of this, a count at the same time of day in August would expect to count 141,700 vehicles (roughly 12,000 vehicles more).

Legend

AWD = Average Weekday Traffic

 = Seasonal Factor Location

Final Notes

Special thanks go to the Northwest Region Transportation Management Center engineers, technicians, and interns for their hard work in compiling and analyzing the data for this report.

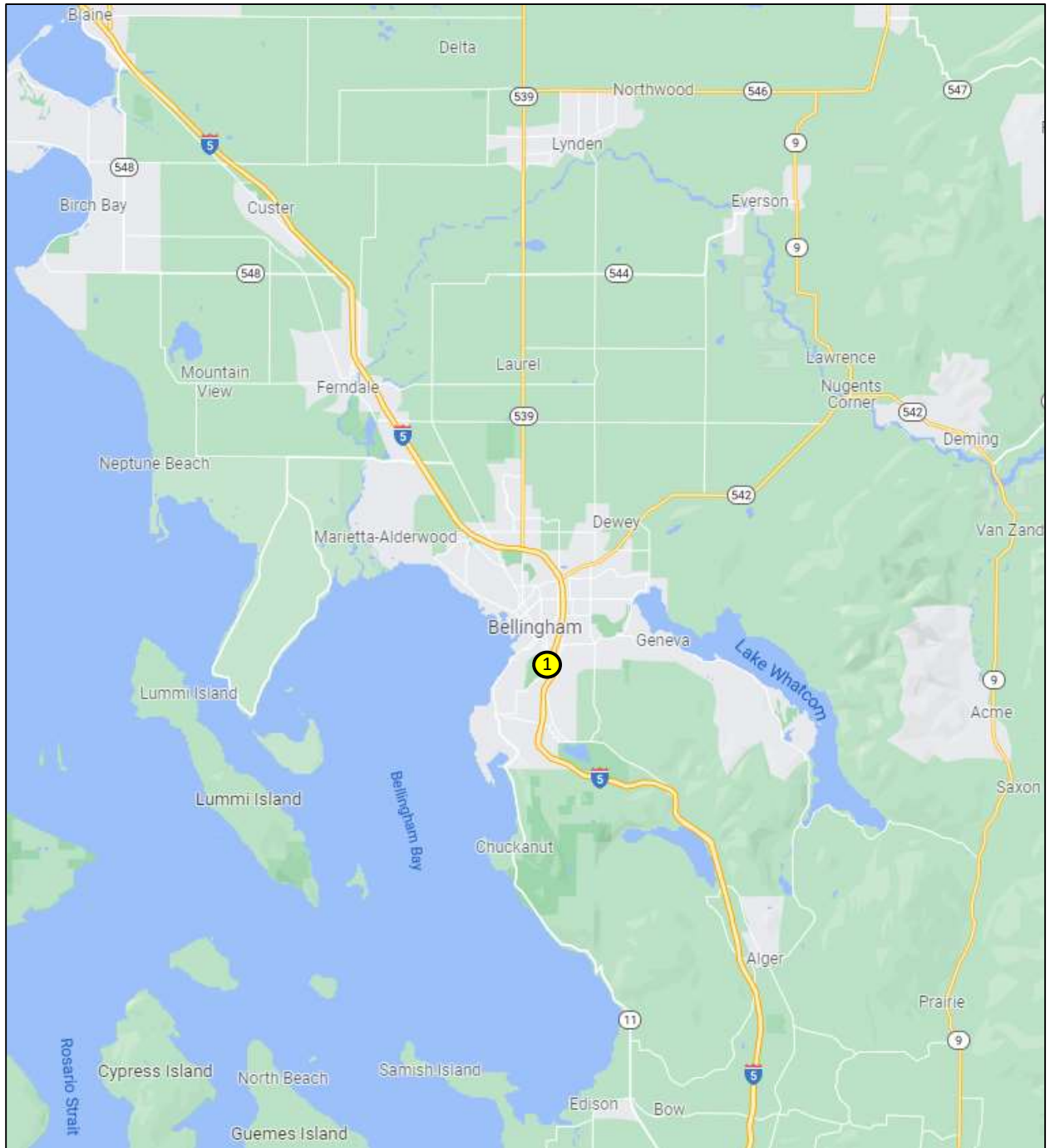
For more information, please contact:

WSDOT Transportation Management Center

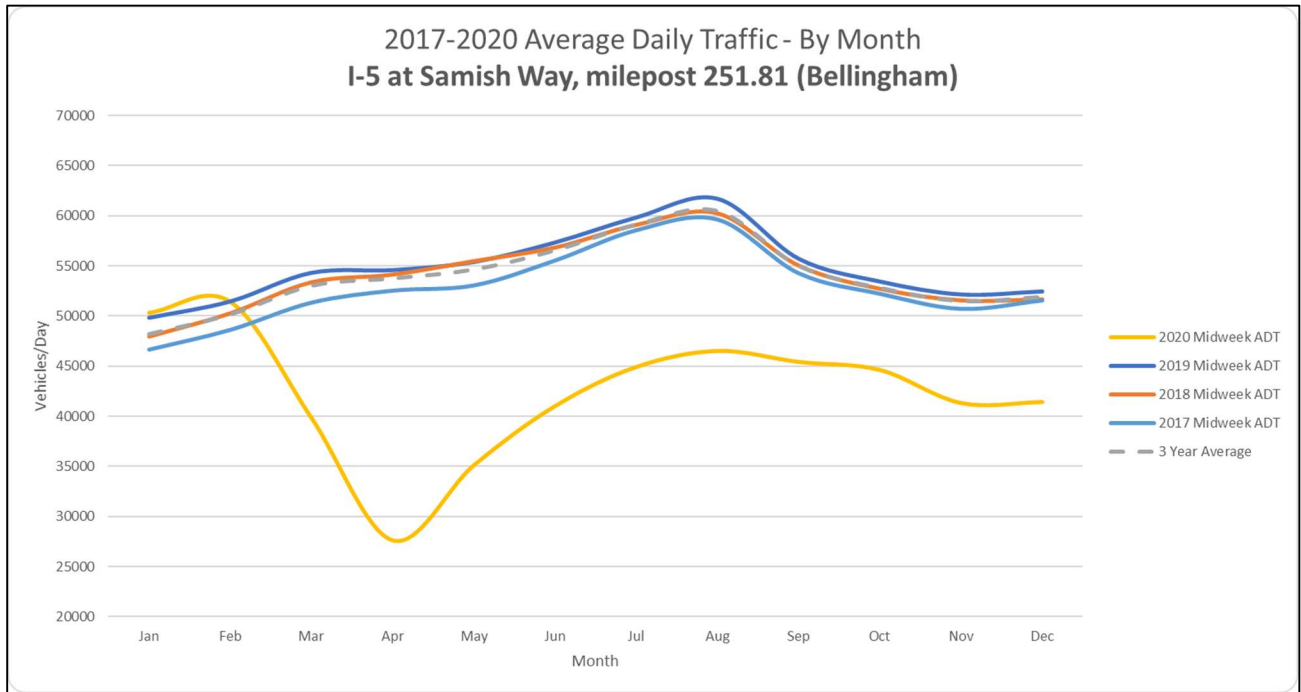
Telephone: (206) 410-0090

Email: NWFlow@WSDOT.WA.gov

Seasonal Factor Locations: Skagit and Whatcom Counties



Location 1: I-5 at Samish Way (Bellingham)



	2017-2019 AWD	2017	2018	2019	3-Year Average	2020 ¹
January	48160	0.882	0.886	0.905	0.891	1.193
February	50130	0.919	0.929	0.934	0.927	1.219
March	53010	0.971	0.985	0.986	0.981	0.944
April	53750	0.993	0.999	0.991	0.995	0.655
May	54640	1.003	1.024	1.006	1.011	0.833
June	56560	1.050	1.049	1.041	1.047	0.972
July	59140	1.107	1.090	1.086	1.094	1.065
August	60500	1.127	1.112	1.120	1.119	1.103
September	55000	1.026	1.016	1.011	1.018	1.077
October	52800	0.987	0.973	0.970	0.977	1.058
November	51480	0.959	0.952	0.947	0.953	0.980
December	51890	0.975	0.954	0.952	0.960	0.982

1. Seasonal Factors calculated for 2020 include region-wide COVID-reduced traffic volumes and do not reflect normal monthly variations when compared to 2017-2019 average seasonal factors.