



Air Quality Summary

Air quality issues can be regional or localized in nature, depending on the pollutant and the source of the pollutant. Air pollutant emissions from vehicles are the single largest contributor to air pollution in the Greater Portland – Vancouver area. The U.S. Environmental Protection Agency (EPA) and the Oregon Department of Environmental Quality (ODEQ) have established ambient air quality standards (AAQS) for seven different pollutants that are designed to protect the health and welfare of the public. Of those seven pollutants, the ones of primary concern in the Portland – Vancouver area are carbon monoxide, (CO) ozone precursors, including volatile organic compounds (VOC) and nitrogen oxides (NO_x), sulfur dioxide (SO₂) and particulate matter (PM₁₀ and PM_{2.5}).

Air quality in the Greater Portland area has, in the past, exceeded the AAQS and as a result, the Greater Portland area is considered an air quality maintenance area for CO and the ozone precursors, VOC and NO_x. Because of this, all transportation projects that have a potential to make air quality worse, must be analyzed, including the Bethany Boulevard Project. The air quality study may include modeling of the CO output from vehicles along Bethany Boulevard, and a comparison of the results to the AAQS to provide proof of compliance with state and federal standards. It is important to note that because of EPA regulations for new vehicles, elimination of leaded fuel and other restrictions from the Clean Air Act, air quality impacts rarely occur and none are expected for the Bethany Boulevard Project. If air quality impacts are identified, the project team will work with the traffic engineers to modify traffic flow to correct the impact.

Important Air Quality Facts Include:

- Automobiles produce the highest concentrations of pollutants when idling.
- Because of the above fact, the highest concentrations of CO are found near congested signalized intersections.
- Air quality modeling is only performed for those intersections where the delay is greater than 35 seconds, as intersections with lower delays have been proven to meet the AAQS.
- The proposed Build alternative would improve traffic flow, and therefore improve local air quality when compared to the No-Build alternative.
- Air quality impacts rarely occur due to improvements in the emissions from vehicles.
- The Bethany Air Quality Study will be performed for the existing conditions and the future conditions, with and without the project, for a full comparison of the differences in air quality.
- The Bethany Boulevard Air Quality Study Report will include an introduction to air quality, a summary of the AAQs and results of the modeling in table format to aid in the understanding of the results of the analysis.

Next Steps

Now that there is a selected alternative, the project team will conduct the air study and have the results reviewed by ODEQ. Once that is complete, and the ODEQ has accepted the study, we will make the report available for public review.