

Air Quality

Air quality is one of seven evaluation factors that were taken into consideration as part of the Detroit River International Crossing (DRIC) environmental assessment (EA) study. Air quality specialists worked in consultation with provincial and federal agencies to identify the air quality impacts for crossing, plaza and access road alternatives.

A detailed work plan, reviewed by the Ontario Ministry of the Environment (MOE), Health Canada (HC) and Environment Canada (EC), outlined how the DRIC study team assessed air quality. In response to public input, the DRIC study team added a field measurement component to the existing Air Quality work plan. This improved the understanding of the current air quality conditions adjacent to the Huron Church/Highway 3 corridor.

What the studies revealed

- During the monitoring program, the pollutant concentration levels for the pollutants being measured were generally within relevant federal Canada Wide Standards and provincial Ambient Air Quality Criteria.
- The Huron Church Road corridor contributes less than 2% of the nitrogen oxides emissions to the Windsor region air shed.
- The effect of all vehicles on all paved roads in the region amounts to less than 20% of the particulate matter and only two per cent of the particulate concentrations comes directly from vehicle exhaust or tailpipes; the remainder is from road dust.
- Any of the alternatives, including the at-grade alternatives, would improve air quality over doing nothing at all. This is because a new access road would provide a widened right-of-way and improvements in traffic flow by eliminating stop-and-go conditions caused by traffic lights.
- There is effectively no difference in air quality between the below-grade alternatives and the end-to-end tunnel alternative beyond 100 metres from the roadway, and only minor differences beyond 50 metres.
- Constructing longer tunnels than proposed in The Windsor-Essex Parkway would not provide additional improvements in air quality.
- Particulate concentrations in Windsor are more strongly influenced by other sources within and outside the region. Area sources such as agriculture, construction sites, and unpaved roads contribute to almost half the particulate concentrations. Industry contributes over a third.

What does this mean for future air quality

Air quality modelling is an essential part of the DRIC air quality assessment. Computerized models allowed the DRIC study team to understand the future air quality impacts of the access road options. The models use background information on pollutants collected at the existing Ministry of the Environment monitoring stations in Windsor and other air quality studies, as well as the information gathered from our own monitoring stations in combination with meteorological and traffic data.

More information on air quality can be found by viewing the latest air quality report at www.partnershipborderstudy.com