Detroit River International Crossing Study
Air Quality Assessment
Frequently Asked Questions

Air Quality

Q. Why isn't one of your primary goals the improvement of air quality in Windsor? Just not making the air quality worse is not good enough.
A. The Detroit River International Crossing (DRIC) study team has been clear that the goal of the project is to meet the long-term transportation and mobility needs, while minimizing the impacts to communities as much as possible. DRIC study team specialists are working in consultation with provincial and federal agencies to identify impacts and how they can be mitigated.

The Government of Ontario takes the concerns of the Windsor community very seriously. In response to public input, the DRIC study has added a field measurement component of the existing Air Quality work plan to improve our understanding of the current air quality conditions adjacent to the Highway 3/Huron Church corridor. This is an extraordinary measure that is being taken only in Windsor, directly in response to the community. It is not a normal part of the Ministry of Transportation's Environmental Assessment studies.

Q. Will this project worsen Windsor's air quality?
A. In order to properly answer this question air quality impacts associated with each of the alternatives will be assessed, using computerized prediction models. These models will allow the study team to predict, with confidence, the emissions associated with future traffic volumes. Results of these predictions will be available at the next round of Open Houses, scheduled for December 2006.

Although traffic volumes will increase in future, a number of factors are expected to have a positive influence on air quality. The six-lane freeway proposed by the DRIC study team will have no traffic signals. This means that trucks will no longer be required to stop and start at multiple traffic signals as they do today. This will minimize the impacts to air quality associated with braking and start-up of a stopped vehicle.

In general, changing regulations will help to reduce emissions of contaminants from trucks. More stringent emission standards for trucks and new standards for fuels will help reduce the contaminants from each vehicle.

Q. How can Windsor's air quality be improved?
A. Governments are acting and industry is responding to concerns for cleaner air. Emissions from diesel trucks will improve in future, based on new regulations for fuels and vehicles.

Transportation, in particular vehicle emissions along the access road as well as on the plaza and on the new crossing, is one source of pollutants that this study can address. By providing a modern, efficient border crossing system including additional roadway capacity, a freeway connection (with no traffic signals) from Highway 401 to the new crossing, and modern plazas for border processing activities, international traffic will flow more freely than it has in the past. These improved conditions are expected to reduce the impacts to air quality associated with braking and start-up at signalized intersections, and to reduce the likelihood of queuing of U.S.-bound trucks.

We are paying close attention to results from other ongoing studies, including a Health Canada study that is looking specifically at impacts in the Windsor area. We will look at measures to mitigate impacts on residents in the area.

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Q. How will the Detroit River International Crossing (DRIC) study team assess air quality?
A. The Government of Ontario takes the concerns of the Windsor community very seriously. In response to public input, the DRIC study team has added a field measurement component of the existing Air Quality work plan to improve our understanding of the current air quality conditions adjacent to the Highway 3/Huron Church corridor.

Air quality modelling is an essential part of the DRIC air quality assessment. The proven, state-of-the-art computerized air quality prediction models that will be used by the DRIC study team are widely used across North America for transportation projects. All models to be used on this study are accepted by Environment Canada (EC), HC, and the MOE, as well as various U.S. government agencies and have been proven to be reliable in predicting future traffic-related emissions.

Using the computerized models, the study team will be able to predict future air quality conditions, with and without the new freeway. The models will take account of future traffic volumes, changes in vehicle emission standards, changes in fuel composition, the refined field measurement component and Windsor's two air-monitoring stations.

Q. Was on-site monitoring ever part of the Environmental Assessment (EA) process?
A. In response to public input, the DRIC study team has added a field measurement component of the existing Air Quality work plan to improve our understanding of the current air quality conditions adjacent to the Highway 3/Huron Church corridor. This should give the community more confidence in our air study program. The results of the field measurement component, along with information from Windsor's two air-monitoring stations, will provide background information to the study team. Computer modelling will predict future air quality conditions, associated with each of the alternatives. This information will assist the study team in identifying the access road option that provides the best balance of transportation benefits with community impacts.

Q. Is the DRIC study team doing on-site air quality field testing and monitoring?
A. In response to public input, the DRIC study has added a field measurement component of the existing Air Quality work plan to improve our understanding of the current air quality conditions adjacent to the Highway 3/Huron Church corridor.

Q. How can you rely on data gathered from the air monitoring stations that are so far away from the access road area in South Windsor and LaSalle?
A. Air quality monitors currently located in Windsor provide information on the ambient concentrations of various airborne pollutants. This data is deemed representative of the current air quality conditions and pollutant concentrations in the Windsor area, and provides appropriate background information for use by the computer models. Existing traffic conditions on Highway 3 and Huron Church Road will be modelled to identify the existing impact of transportation in this corridor. In response to public input, the DRIC study has added a field measurement component of the existing Air Quality work plan to improve our understanding of the current air quality conditions adjacent to the Highway 3/Huron Church corridor.

Q. What situations does the modelling approach take into consideration?
A. Specific models have been developed to address different types of conditions, for example free-flow traffic as opposed to stop and go conditions. The models have proven to be reliable in predicting future traffic-related emissions. The models take account of temperature, winds, traffic volumes, regulatory changes in fuel and vehicle emission standards, and other factors that impact air quality.

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Q. What impacts will the model simulate?
A. The study team will predict future air quality conditions, with and without the new freeway, using an approved computerized model. The models will simulate how pollutants from the roadway will mix in the atmosphere. Scenarios will be developed for future traffic conditions on the existing road network, as well as on the alternatives under consideration, for the years 2015, 2025, and 2035. The practical alternatives will be assessed for air contaminants including NO_x (nitrogen oxides) and $PM_{2.5}$ (particulate matter 2.5).

Q. What are the benefits of air quality modelling?
A. There are many benefits to air quality modelling.

- Only modelling can reliably predict future conditions and can predict consequences of planning and other alternatives.
- The state of the art computerized air quality prediction models that will be used by the DRIC study are widely used across North America for transportation projects.
- All models to be used on this study are widely accepted by Environment Canada, Health Canada, and the Ontario Ministry of the Environment, as well as various U.S. government agencies.
- These models have proven to be reliable for accurately predicting future air quality conditions.
- The modelling approach uses existing data to establish background air quality conditions. The models used by the DRIC study team will take account of background information on pollutants, collected at the existing Ministry of the Environment and Environment Canada monitoring stations in Windsor.
- The field measurement component to be undertaken by the DRIC study will help to improve our understanding of the existing conditions.

Q. Do you need to do more than just computer modelling to get a realistic understanding of the pollution in this area?
A. Air quality monitoring is the only way to predict the future impacts associated with the various alternatives. The study team will predict future air quality conditions, with and without the new freeway, using approved computerized models. In response to public input, the DRIC study team has added a field measurement component of the existing Air Quality work plan to improve our understanding of the current air quality conditions adjacent to the Highway 3/Huron Church corridor. This is an extraordinary measure that is being taken only in Windsor, directly in response to the community. It is not a normal part of the Ministry of Transportation's Environmental Assessment studies.

Q. In what areas will you study air quality?
A. We will look at air quality impacts in the zone of influence directly related to the new transportation system, along the entire access road from Hwy 401 to the locations of the new river crossing options.

Q. What contaminants are included in the air quality assessment?
A. Results of the air quality assessment will be compared against existing Ontario air quality criteria and Canadian federal standards. Air contaminants to be considered include:

Nitrogen oxides (NO_x)
Sulphur dioxide (SO_2)
Carbon monoxide (CO)
Particulate matter 10 and 2.5 (PM_{10} and $PM_{2.5}$)
Ozone (O_3)

Q. When will the results of the air quality assessment be complete and available to the public?
A. We anticipate air quality assessment of the practical alternatives to be complete in the fall of 2006 and we will report the results at the Public Information Open Houses scheduled for December 2006.

Other testing

Q. What other tests are being conducted in the access road area over the summer?
A. We have been conducting many investigations in the access road area throughout the summer and many studies will continue into the fall.

- We are looking at all of the evaluation factors and incorporating feedback we received at our Public Information Open Houses in March into our studies.
- Our soil conditions testing that consists of shallow borings is ongoing and will help us to understand the soil conditions along Highway 3 and Huron Church Road.
- We are conducting noise studies through computer modelling.
- We are collecting information on natural environmental features, including plants, terrestrial wildlife, birds and fish wherever appropriate.
- We are looking at community impacts, including access across the freeway and access to local road network.
- We are continuing our work to develop the solution that best meets current and future transportation needs, while minimizing community impacts.