

Detroit River
INTERNATIONAL CROSSING
STUDY

DETROIT RIVER INTERNATIONAL CROSSING STUDY

Presentation to Walpole Island First Nation Council

August 12th, 2008



URS

Detroit River
INTERNATIONAL CROSSING
STUDY

The Border Transportation Partnership

Canada

U.S. Department of Transportation
Federal Highway
Administration

Ontario

MDOT
Michigan Department of Transportation



2

URS

To provide for the safe, efficient and secure movement of people and goods across the Canadian-U.S. border in the Detroit River area to support the economies of Ontario, Michigan, Canada and the U.S.

To construct a new end-to-end transportation system that will link Highway 401 to the U.S. interstate system with inspection plazas and a new river crossing in between.

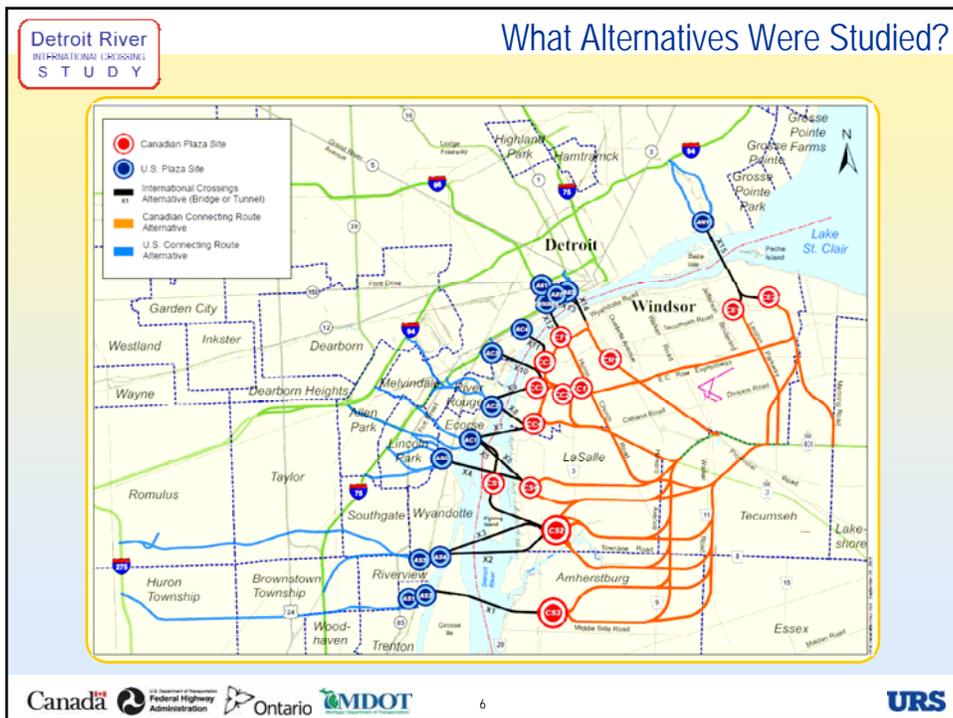
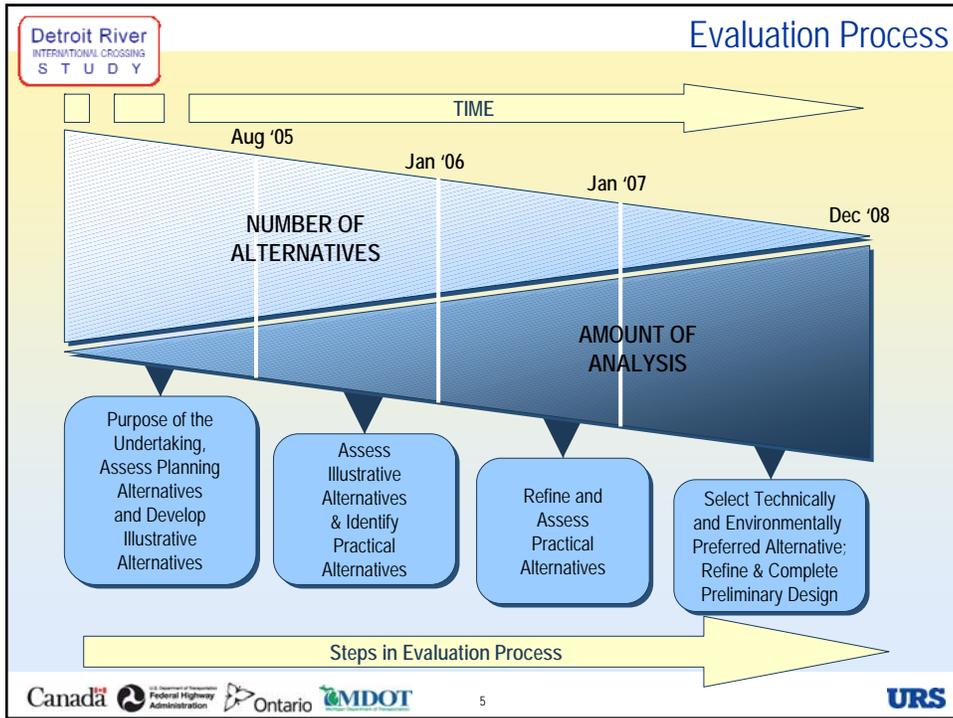
In order to meet the purpose, this study must address the following regional transportation and mobility needs:

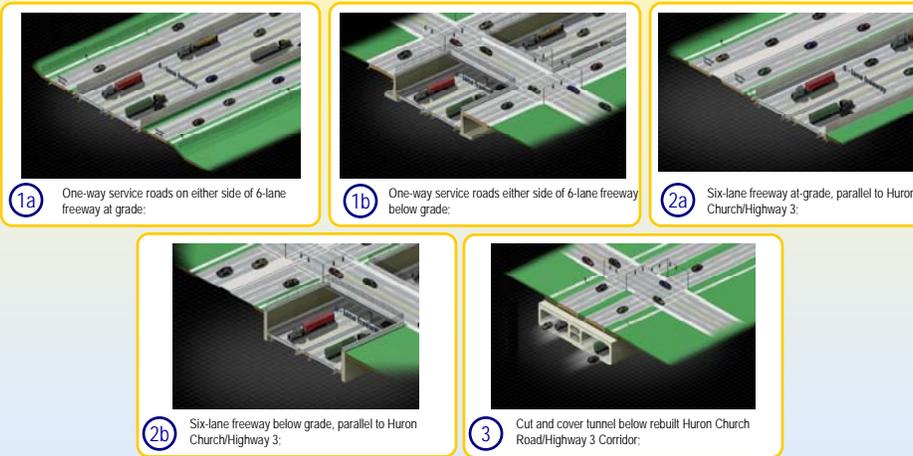
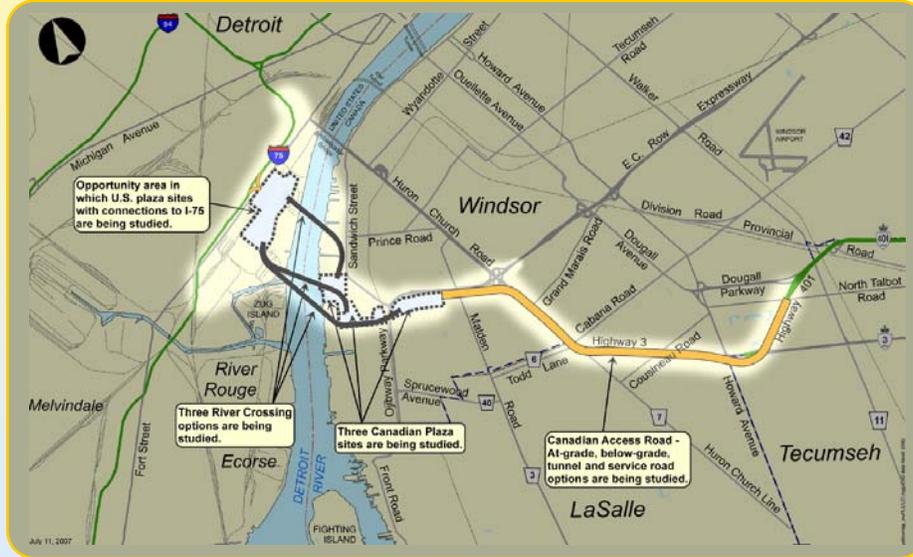
- Provide new border crossing capacity to meet increased long-term travel demand;
- Improve system connectivity to enhance the continuous flow of people and goods;
- Improve operations and processing capabilities at the border; and
- Provide reasonable and secure crossing options (i.e. network redundancy)

The Study Team seeks to implement transportation solutions which minimize community and environmental impacts as much as possible. In particular, the Canadian Study Team is looking to address the local communities' goals to:

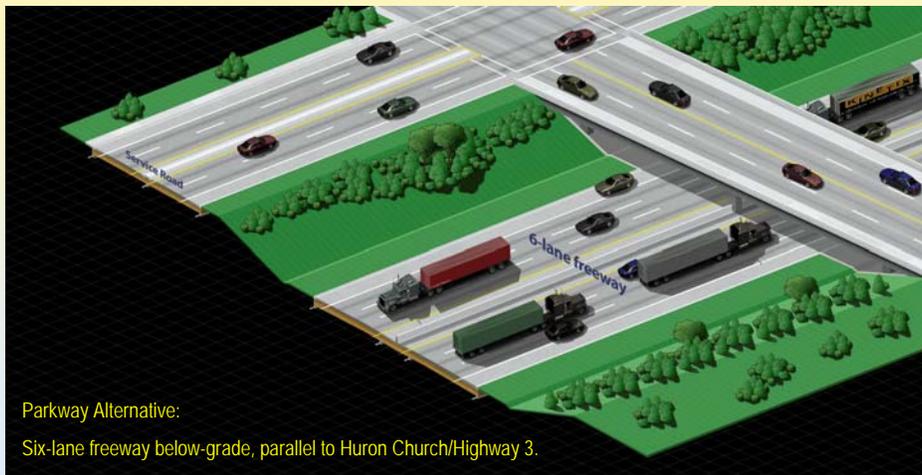
- *Improve quality of life*
- *Take trucks off local streets*
- *Improve traffic movement across the border*

- June 2005 – Initial Meeting regarding the DRIC Study
- January 2006 – Meeting held to review study progress
- February 2006 – Meeting held to review study progress
- April 2006 – Presentation to WIFN Council
- November 2006 – Meeting held to review study progress
- February 2007 – Meeting held to review study progress
- December 2007 – Meeting held to review study progress
- January 2008 – Meeting held to review study progress
- February 2008 – Presentation to WIFN Council
- February 2008 – WIFN Community Meeting
- June 2008 – Meeting held to review study progress

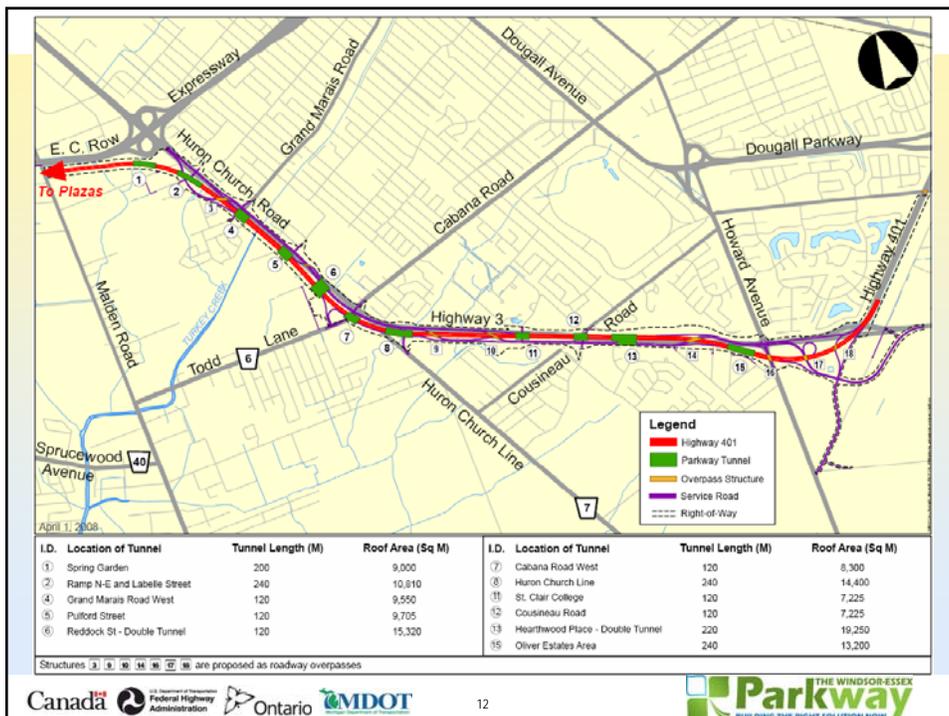




- The results of the analysis do not support further consideration of an at-grade roadway (Alternatives 1A and 2A)
 - Least costly solution and fewer constructability risks
 - Fewer benefits in terms of protecting community and neighbourhood characteristics
- The results of the analysis do not support further investigation of an end-to-end tunneled access road (Alternative 3)
 - No significant benefits to justify significant additional cost when compared to other alternatives
 - Other alternatives are available that offer similar benefits with less cost and less risks
- The Parkway alternative consisting of a below-grade access road with tunnel sections was developed based on refinements to the below grade and tunneled alternatives



- Following the last round of PIOHs in August of 2007, the Parkway was refined to include:
 - Additional Tunnel in vicinity of Spring Garden
 - Location and Length of Tunnel at Oliver Estates revised
 - Overall length of tunnels increased to 1.86 km
 - Other Tunnel lengths and locations refined
 - Pedestrian and Cyclists Trails refined
 - New Loop ramp at Todd Lane (EW-S)
 - Howard Avenue Interchange modified to include connection to possible future Laurier Parkway Extension



Changes in Air Quality

- All alternatives provide a net benefit to local air quality by reducing tailpipe emissions and reducing traffic diversion to city streets
- No substantive difference in changes in air quality among all alternatives considered
- End-to-end tunnel with ventilation buildings can result in minor reductions in particulate concentrations within 50m of right-of-way when compared to other alternatives
- The Windsor-Essex Parkway has similar benefits to air quality as other alternatives

Protect Community & Neighbourhood Characteristics

All Alternatives:

- Reduce international traffic on local streets
- Have no predicted noise impacts
- Have impacts in the Spring Garden Road / Malden Road area
- Have similar effect to neighbourhoods/businesses/social features
- Affect the same neighbourhoods to varying degrees

Plaza A connection has greater impacts than Plaza B/C connections

Below-grade alternatives provide aesthetic benefits

Protect Community & Neighbourhood Characteristics

- The Windsor-Essex Parkway provides greater buffer between neighbourhoods and roadway and as such requires more property
 - New tunnel connections reduce the 'barrier effect' of the roadway
 - New recreational and greenspace areas are possible along the corridor
 - Buffering effect reduces exposure of residences adjacent to roadway



*  preferred

Maintain Consistency with Existing & Planned Land Use

- Windsor-Essex Parkway design enables buffer areas and landscaping
- Recreational uses can be developed with the Windsor-Essex Parkway, consistent with Windsor and LaSalle planning policies promoting active and healthy communities
- The Windsor-Essex Parkway is consistent with Provincial Planning Policies
- Plaza A connection has greater impacts than Plaza B/C connection

*  preferred

Protect Cultural Resources

- No difference among alternatives in terms of built heritage and archaeological features impacted
- Windsor-Essex Parkway provides greater opportunities for new parks/recreation areas linked to existing parks/trails

*  preferred

Protect the Natural Environment

- No significant difference among alternatives
- The Windsor-Essex Parkway provides greater opportunities for restoration, enhancement and ecological connections
- Plaza A connection has greater impacts than Plaza B/C connection

Improve Regional Mobility

- All alternatives provide a high benefit to regional mobility
 - Add capacity
 - Separate international and local traffic
 - Get trucks off local streets
- The Windsor-Essex Parkway provides
 - Better access between freeway and service road
 - Better service road operation

*  preferred
BUILDING THE RIGHT SOLUTION NOW

Cost and Constructability

- The Windsor-Essex Parkway alternative (\$1.6 billion) has higher construction cost than other below-grade alternatives
- Cost estimates (\$CDN for year 2011, Highway 401 to Malden Road)
 - At-grade alternatives: \$620 million to \$920 million
 - Below-grade alternatives: \$1.0 billion to \$1.4 billion
 - Tunnel alternatives: \$3.6 billion to 3.8 billion
- Windsor-Essex Parkway cost much higher than at-grade alternatives but much less than end-to-end tunnel

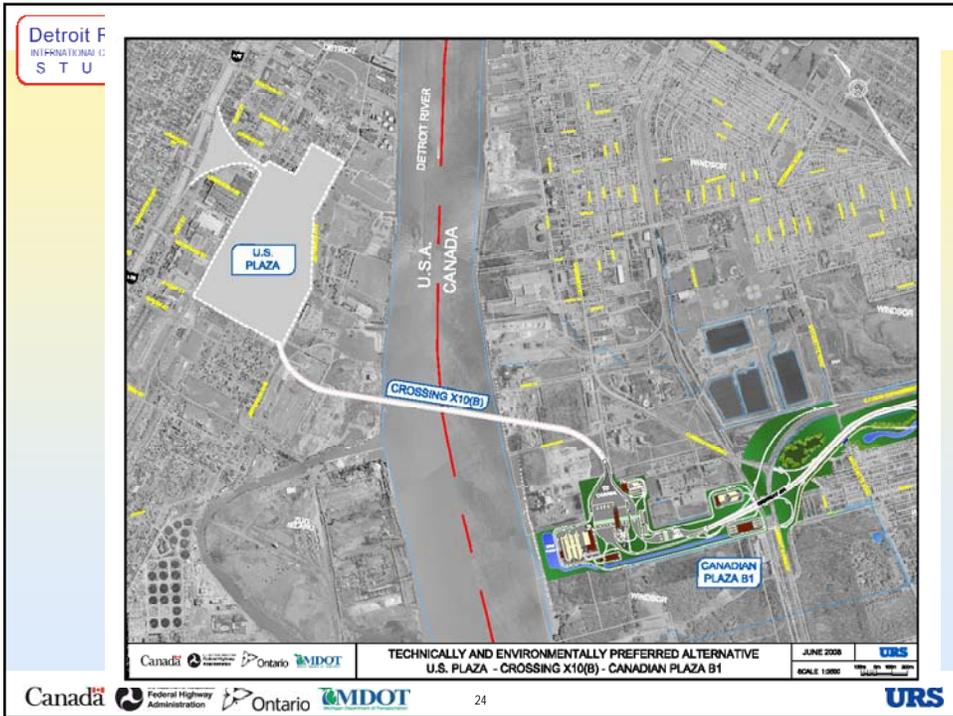
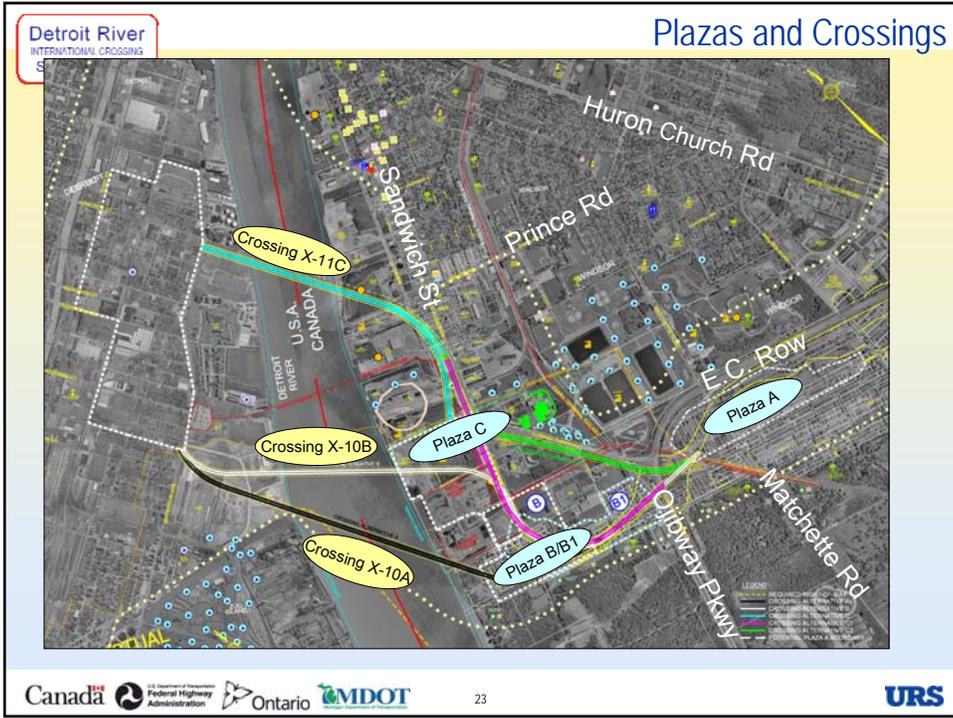
Summary of Assessment

Factor	Preferred Alternative
Air Quality	No Clear Preference
Community & Neighbourhood	Windsor-Essex Parkway
Land Use	Windsor-Essex Parkway
Cultural Resources	Windsor-Essex Parkway
Natural Environment	No Clear Preference
Regional Mobility	Windsor-Essex Parkway
Cost & Constructability	At-grade

- Overall: Advantages of Windsor-Essex Parkway outweigh higher costs and constructability concerns associated with this alternative

*  preferred
BUILDING THE RIGHT SOLUTION NOW

Plaza and Crossings



Canadian Analysis

- Increased concentrations of pollutants in the immediate area of the plaza
- Plazas B and B1 located away from sensitive receptors
- All alternatives have moderate impacts

U.S. Analysis

- Air quality will improve
- All alternatives spread traffic and reduce truck volumes on local streets

No clear preference determined

Canadian Analysis

- Crossing X-10A/Plaza A results in higher degree of change in character
- Crossing X-11C/Plaza B impacts community character of Sandwich Towne
- Crossing X-10B/Plaza B1 has no substantial impacts

U.S. Analysis

- Crossing X-11 impacts a greater number of homes and businesses than Crossing X-10

Crossing X-10B/Plaza B1 is preferred

Canadian Analysis

- Crossing X-10A/Plaza A has highest impacts
-
- Plazas B and B1 located on vacant industrial land

U.S. Analysis

- With no-build, continued industrialization of neighbourhood will continue
- With DRIC crossing, positive land use changes are possible
- Concepts with both crossings are being explored

Crossing X-10A/Plaza A is least preferred

Canadian Analysis

- No sites of high significance impacted
- Crossing X-11C has impact to cultural landscape of Sandwich Towne

U.S. Analysis

- No archaeological resources affected
- Two parks and a community centre removed by either plaza

Crossing X-11C/Plaza C is least preferred

Canadian Analysis

- Crossing X-10A/Plaza A has greatest impact to features of high significance
- Crossing X-10B/Plaza B1 has lowest impact

U.S. Analysis

- Crossing X-11 impacts small (0.01 acre) area of low quality wetland
- Crossing X-10 A and B have no impacts

Crossing X-10A/Plaza A is least preferred

- All three crossings will add capacity and work effectively
- X-10 A & B crossings could attract up to 50% more traffic from Huron Church Road
 - Improved levels of service on this important local road
 - Greater benefits to regional and local mobility
- Crossing X-10A/Plaza A has security/monitoring concerns
 - Distance to border
 - No direct line of sight

Crossing X-10B/Plaza B1 is preferred

- Canadian approach to Crossing X-11C passes over suspected underground cavity
 - Risk of future settlements
- Main Span Costs (2007 USD):
 - Crossing X-10A = \$620 million (suspension)
 - Crossing X-10B = \$487 million (suspension) / \$442 million (cable stay)
 - Crossing X-11C = \$435 million (suspension) / \$377 million (cable stay)
- Length of Crossing X-10A increases cost, schedule as well as risks to cost and schedule
 - At 1300 metres/4,265 feet, would be longest suspension bridge in the Americas

Crossing X-10B/Plaza B1 is preferred

Factor	Crossing/Plaza Alternative		
	X-10A/Plaza A	X-10B/Plaza B1	X-11C/Plaza B
Air Quality	No Preference		
Community and Neighbourhood Characteristics		Preferred	Least Preferred
Existing and Planned Land Use	Least Preferred		
Cultural Resources			Least Preferred
Natural Environment	Least Preferred		
Regional Mobility		Preferred	
Constructability		Preferred	

- Provides for state-of-the-art border inspection facilities
- Provides opportunities to incorporate gateway features
- Located away from residential areas
- Avoids area of known brine wells
- Enables construction of cable-stay or suspension bridge
- Provides capacity to meet future traffic needs
- New crossing in border transportation network





- **Protection of Cultural Resources**
 - Possession of Artifacts
- **Protection of Natural Environment**
 - Impacts to Natural Features on a traditional territory and ecosystem basis
 - Air and water quality
 - Species at Risk
 - Impacts of flyways in relation to the two bridge types considered
- **Introduction of Foreign Species**
- **Protection of Other Interests**
 - Detroit River land claim
 - Legal duty to consult
 - Sharing of information with other First Nations
 - Funding for meaningful participation
 - Economic opportunities
 - Reflect historical presence in naming of bridge

- DEIS has been reviewed by the public/agencies
- Public review period for the DEIS is complete
- Responses to comments are being incorporated into the Final EIS
- Tribal authorities have been part of the study process as documented in the DEIS

- Complete technical and environmental studies
- Continue to consult with WIFN and the public
- Complete Environmental Assessment documentation
- Submit final study documents
- Hold Public Information Open House (PIOH #7) to discuss mitigation and construction management
- Hold a bus tour for WIFN members of the locations of the proposed access road, plaza and crossing locations