



## DETROIT RIVER INTERNATIONAL CROSSING ENVIRONMENTAL ASSESSMENT

*Public Information Open House #1  
Workshop*

July 20, 2005



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## Getting and Giving the Most

- It's OUR meeting...participate enthusiastically
- Terminology expertise is secondary
- There is such a thing as a bad idea!
- Build, don't duplicate
- Respect (for each other and the process)
- Voices without titles
- Consensus on no consensus
- Informal style, structured approach



GLPi

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## Introduction & Review of Agenda

1. Introduction & Review of Agenda
2. Results of Public Information Open House #1
3. Discussion of Purpose and Problem Statement, including Travel Demand
4. Discussion of Assessment of Other Alternatives (i.e. rail, diversion to Blue Water Bridge)
5. Review / Discussion of Illustrative Alternatives (Crossings, Plazas and Routes)
6. Discussion of Evaluation Factors and Methods

*Closing Remarks*

## Results of PIOH #1

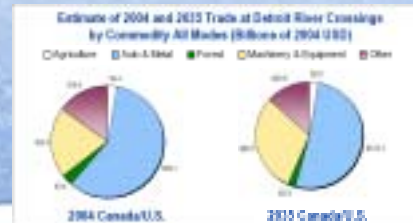
## Results of PIOH #1

- Total number of sign-ins: **477**  
(Windsor = 225; LaSalle = 155; Amherstburg = 97)
- Total number of comment sheets received: **181**  
(Windsor = 68; LaSalle = 64; Amherstburg = 37;  
mailed/faxed = 12)
- Total number of Rating Tools received: **67**  
(Windsor = 32; LaSalle = 11; Amherstburg = 6;  
mailed/faxed = 18)

## Discussion of Purpose and Problem Statement

### Future Travel Demand

- Approximately 28% of Canada-U.S. surface trade passes through Windsor-Detroit
- Over 80% of all goods crossing the Detroit River are carried by truck
- Corridor is significant to the economies of two nations
- The partnering governments must take all reasonable steps to reduce the likelihood of disruption to transportation service in this corridor.



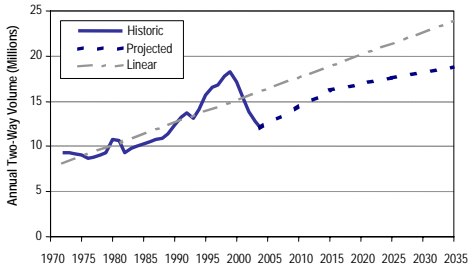
## Forecasting Approach

- Transportation Model Process developed to:
  - Estimate future cross-border car and truck traffic
  - test diversions/impacts of new/expanded a crossing
  - test other transportation improvements
- Forecasts take into account most recent data and impact of of unique events (e.g. 9-11, SARS, Iraq War)
- Model is based extensive truck & car surveys and detailed traffic data for crossings/access roads
- Forecasts produced by markets:
  - Passenger cars by trip purpose
  - Trucks by commodity types
  - Multiple time periods (a.m., p.m., mid-day)
- Future growth based on trends/ causal factors



# Forecasts - Detroit River Crossings

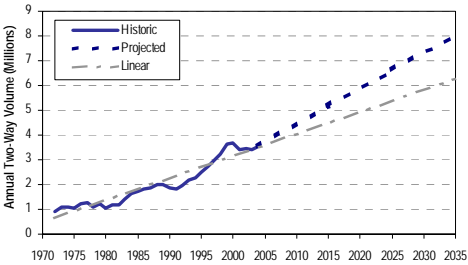
## Passenger Cars



2004 Annual Volume	11,950,000
2035 Annual Volume	18,740,000
Absolute Growth	6,790,000
% Growth	57%
Annual Growth	1.5%

- Preliminary for Discussion Purposes Only

## Commercial Vehicles

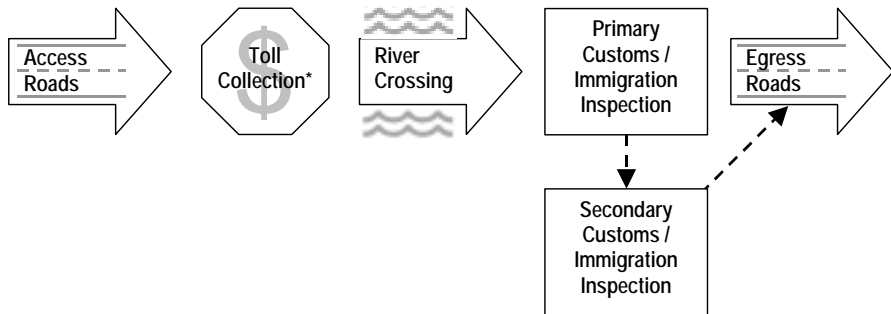


2004 Annual Volume	3,530,000
2035 Annual Volume	8,060,000
Absolute Growth	4,530,000
% Growth	128%
Annual Growth	2.7%

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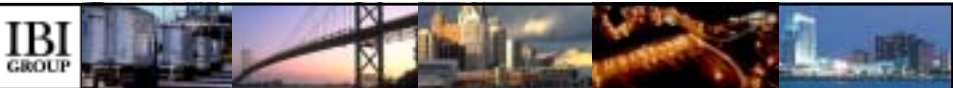
# Border Crossing System



Five components to system – lowest capacity component dictates throughput

- Preliminary for Discussion Purposes Only

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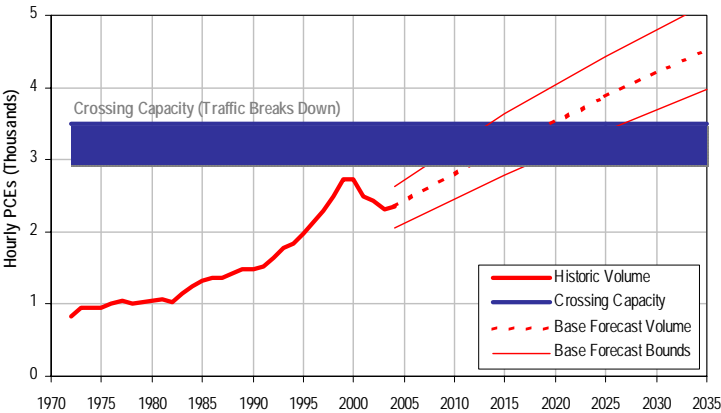
## Year Capacity Reached

Crossing	Year Capacity Reached				
	US Road Access	US Border Processing	Bridge / Tunnel	CAN Border Processing	CAN Road Access
Ambassador Bridge	> 30 years	5 to 10 years	10 to 15 years	5 to 10 years	5 to 10 years
Detroit-Windsor Tunnel	0 to 5 years	5 to 10 years	> 30 years	5 to 10 years	5 to 10 years

- Preliminary for Discussion Purposes Only

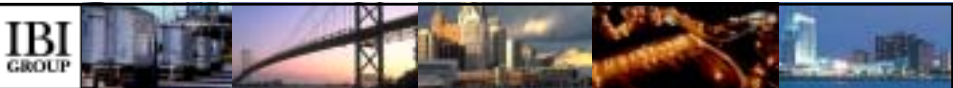


## Ambassador Bridge Demand & Capacity

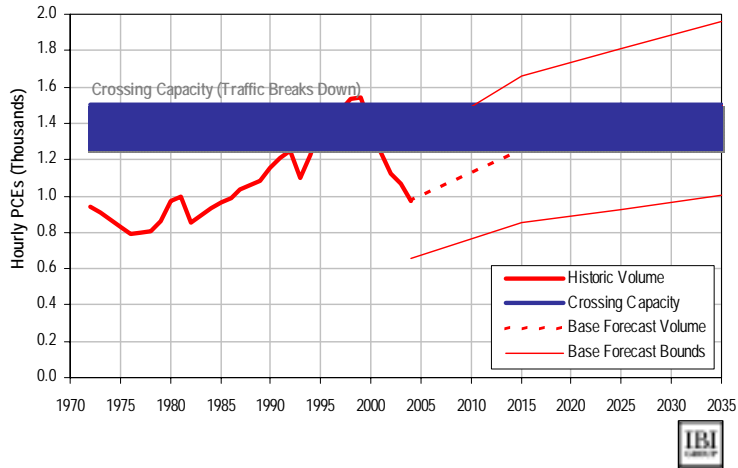


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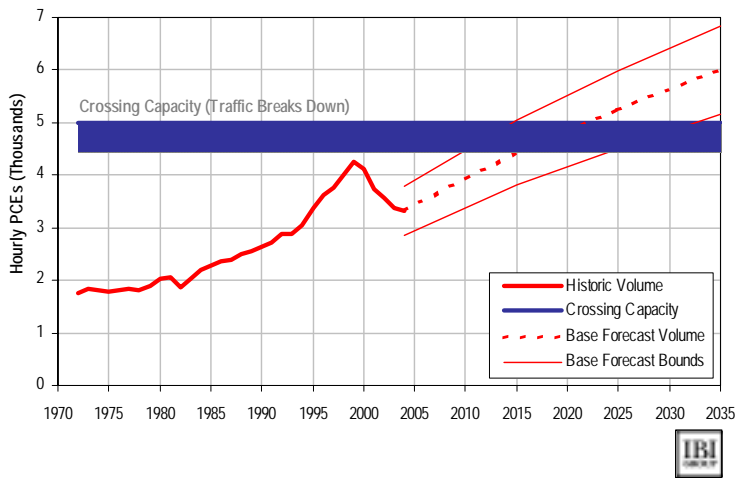
## Detroit–Windsor Tunnel Demand & Capacity



- Preliminary for Discussion Purposes Only



## Detroit River Crossings Demand & Capacity



- Preliminary for Discussion Purposes Only



## Sensitivity Analysis

Scenario	Year Capacity Reached
Sensitivity Tests	
High Trade Growth	Advance 3 years
Low Trade Growth	Defer 3 years
Diversion to Intermodal Rail	Defer 2 years
High Diversion to St. Clair River Crossing	Defer 6 years
High Passenger Car Demand	Advance 4 years
Low Passenger Car Demand	Defer 5 years
Extreme Low Scenario	Defer 13 years

- Preliminary for Discussion Purposes Only

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## Alternatives to the Undertaking

- Diversion of trucks to Blue Water Bridge (17% possible) could delay need by 3 years (but does not negate need)
- Increased intermodal rail share (5% possible) could delay need by 2 years (but does not negate need)
- Increased truck ferry service (potential of 1,000 trucks/day) could delay need by 1 year (but does not negate need)
- Public transit and passenger rail are minor modes

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## Summary

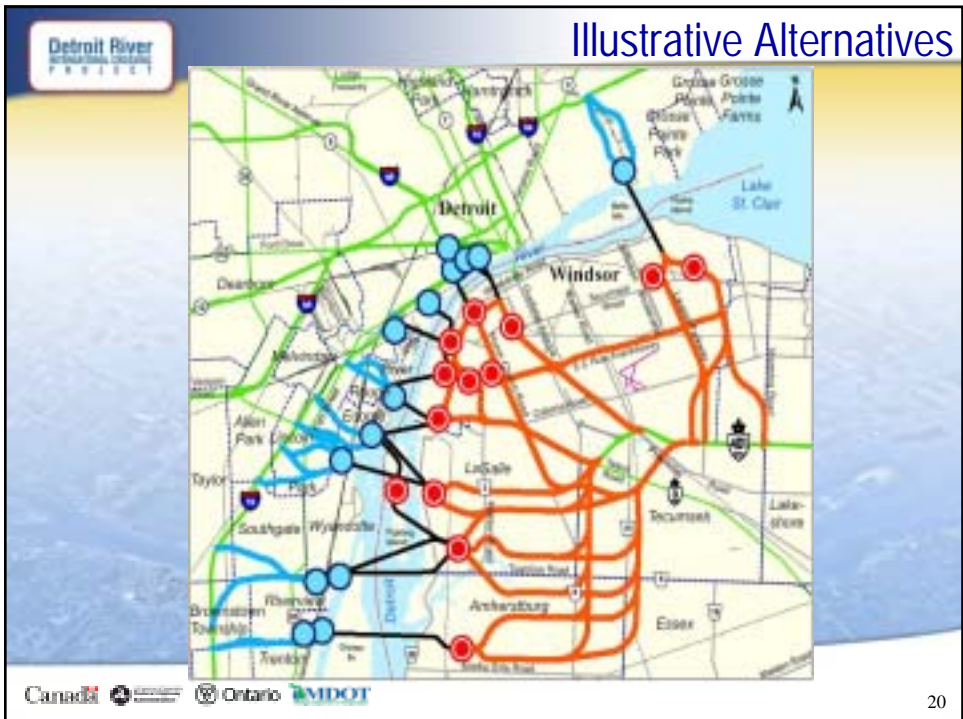
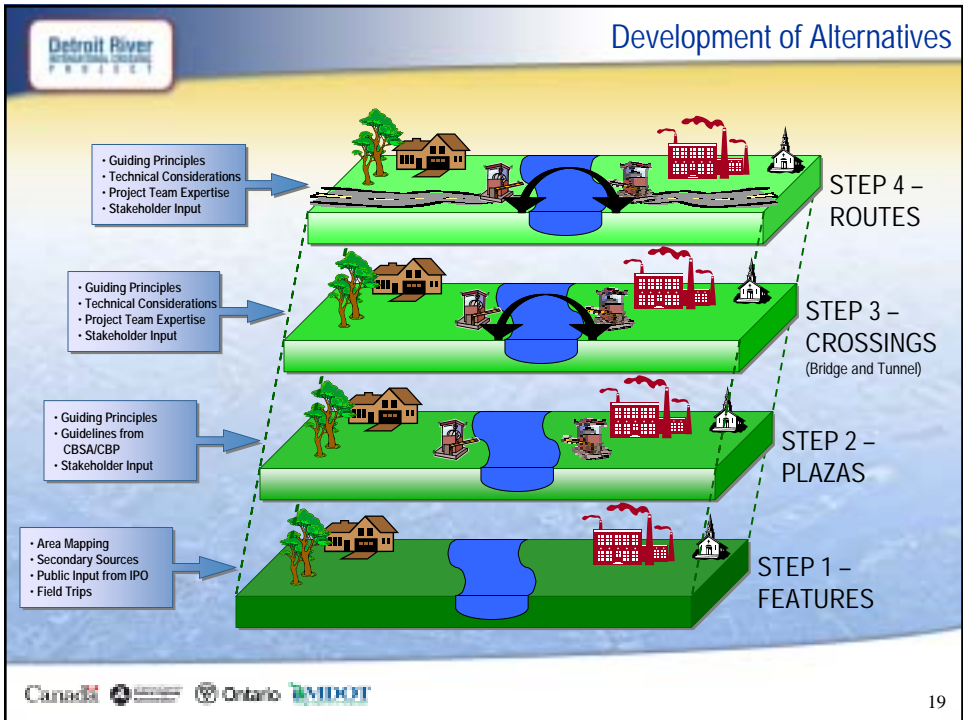
- Demand forecasts indicate that additional border crossing capacity will be required over the study horizon
- Capacity is still reached even under a highly pessimistic growth scenario that combines low trade and passenger car growth and high diversion to the Blue Water Bridge and to intermodal rail
- Multi-modal approach should be pursued with a new/expanded crossing

- Preliminary for Discussion Purposes Only

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**Discussion of Illustrative Alternatives**

Canada   Ontario  MMDOT



## Discussion of Evaluation Factors and Methods

## LGL Limited: Corporate Expertise

- 34+ years in business; ~ 100 professional staff
- Head office: King City, ON; offices across North America & overseas
- Participation in ~ 150 transportation projects
- Environmental planning, environmental assessment, natural sciences, environmental inspection & monitoring

**LGL's Detroit River  
International  
Crossing Team**

Lead Environmental Planner  
Planning Ecologist  
Botanists

Wildlife Biologists

Fisheries Biologists

Audrey Steele, M.E.S  
Grant Kauffman, M.E.S.  
Leslie Collins, M.Sc.  
Anthony Goodban, M.E.S.  
Wayne King, B.Sc.  
Robert Nisbet, B.A.  
Judson Venier, M.Sc.  
Dana Couture, M.Sc.

## Legislative Requirements

- Federal Legislation, Regulations & Policies
  - *Canadian Environmental Assessment Act*
  - *Species at Risk Act*
  - *Fisheries Act*
  - *Migratory Birds Convention Act*
  - Federal Policy on Wetland Conservation
- Provincial Legislation, Regulations & Policies
  - *Environmental Assessment Act*
  - *Endangered Species Act*
  - *Fish & Wildlife Conservation Act*
  - *Ontario Water Resources Act*
  - *Planning Act*
  - Provincial Policy Statement
- Municipal Official Plans
- MTO Policies, Directives & Guidelines
  - Environmental Reference for Highway Design

## Regulatory Agencies

- Federal Agencies
  - Canadian Environmental Assessment Agency
  - Environmental Protection Service
  - Environmental Conservation Service
  - Department of Fisheries and Oceans
- Provincial Agencies
  - Ministry of the Environment
  - Ministry of Natural Resources
- Local Agency
  - Essex Region Conservation Authority

**Table 1. Natural Heritage Investigation by Study Stage**

Study Stage <sup>1</sup>	Ecological Analysis Level <sup>2</sup>	Task 1 Define Area of Investigation	Task 2 Data Collection	Task 3 Data Analysis	Task 4 Evaluate Alternatives	Task 5 Conduct Impact Assessment	Task 6 Recommend Environmental Protection Measures
Stage 1 – Define Study Area	Ecodistrict - 1:250,000 scale	Preliminary Analysis Area	• Secondary source • Air photo interpretation	Identify designated/regulated natural heritage features to determine national, provincial, regional & local significance.	Avoid, where feasible, designated/regulated natural heritage features located within Preliminary Analysis Area.	Opportunities/Constraints Analysis	• Avoidance
Stage 2 – Illustrative Alternatives	Ecozone - 1:100,000 scale	Opportunity corridors	• Secondary source • Air photo interpretation • Windshield/ aerial surveys	Identify designated/regulated natural heritage features to determine national, provincial, regional & local significance.	Compare potential loss of designated/regulated natural heritage features located within opportunity corridors (number, extent, significance).	Opportunities/Constraints Analysis	• Avoidance
Stage 3 – Practical Alternatives	Ecosite - 1:10,000 scale	Alternative routes	• Secondary source • Air photo interpretation • Preliminary pedestrian surveys over a single season	Identify landscapes, ecosystems/communities & populations/species to determine national, provincial, regional & local significance.	Compare potential loss of terrestrial & aquatic landscapes, ecosystems/communities & populations/species located along alternative routes (extent, type, significance, sensitivity).	Generic Impacts	• Avoidance • Minimization • Generic mitigation
Stage 4 – Concept Design Alternatives	Ecoelement - 1:1,000 scale	Alternative concept designs rights-of-way & adjacent zones of influence	• Secondary source • Air photo interpretation • Detailed pedestrian surveys over multiple seasons	Identify landscapes, ecosystems/communities & populations/species to determine national, provincial, regional & local significance.	Compare potential loss of terrestrial & aquatic landscapes, ecosystems/communities & populations/species located within rights-of-way (extent, type, significance, sensitivity). Compare potential disruption to terrestrial & aquatic landscapes, ecosystems/communities & populations/species located within adjacent zones of influence (extent, type, significance, sensitivity).	Conceptual Site-Specific Impacts	• Avoidance • Minimization • Conceptual site-specific mitigation, compensation and monitoring

## SENES CONSULTANTS LIMITED

- 25 years of Experience
- Company Founders are Amongst the Earliest Practitioners of EIA in Canada
- Main Office in Richmond Hill
- Other Offices in Ottawa, Vancouver, Chile, India and Affiliates in Other Countries

## SENES CONSULTANTS LIMITED

### Major Areas of Expertise

- Environmental Assessment (including socio-economics and planning)
- Risk Assessment
- Air Quality
- Environmental Auditing
- Mining
- Waste Management

## SOCIAL IMPACT ASSESMENT

### SIA TEAM:

- Dr. Don Gorber – Overall Project Oversight (35+ years)
- Anneliese Grieve (EA and SIA) (15+ years)
- Phil Shantz, R.P.P. (EIA, SIA and Planning) (15 years)
- Gwen Brice (EIA and SIA) (15 years)
- All have been doing SIA since the late 1980s and early 1990s.

## SOCIAL IMPACT ASSESMENT

### SIA WORKPLAN OBJECTIVES

- Minimize the number of dislocational and disruptional effects on private properties and community residents.
- Minimize the number of dislocational and disruptional effects on social, recreational and cultural institutions and facilities.
- Minimize negative social impacts on municipalities with respect to population change and disruption of social services.
- Minimize the loss of visual and aesthetical features and values.
- Maximize compatibility with land use plans and minimize impact or enhance the social cohesion of existing neighbourhoods and communities.
- Minimize dislocational and disruptional effects on agricultural operations and rural way of life.

## SOCIAL IMPACT ASSESMENT

### SIA WORKPLAN ANALYSIS

- Analysis becomes increasingly detailed as we move from illustrative alternatives to practical alternatives to concept design.
- Analysis relies heavily on the 2001 Census, supplemented by other sources of information, interviews, field surveys.

## SOCIAL IMPACT ASSESMENT

### SIA LEGISLATIVE REQUIREMENTS

- None
- No formal guidelines for SIA in Transportation Projects.
- Good EA Practice and SIA Literature Offer Sources of Guidance.
- Workplan was developed through review of classical SIA literature and SIAs on other EAs in Ontario, specifically transportation projects.

## SOCIAL IMPACT ASSESMENT

### SIA Needs Public Input

- Public Input is important in the weighting exercise
- Public comment on the workplan would be great.
- Public knowledge is important throughout the exercise.



## Closing Remarks