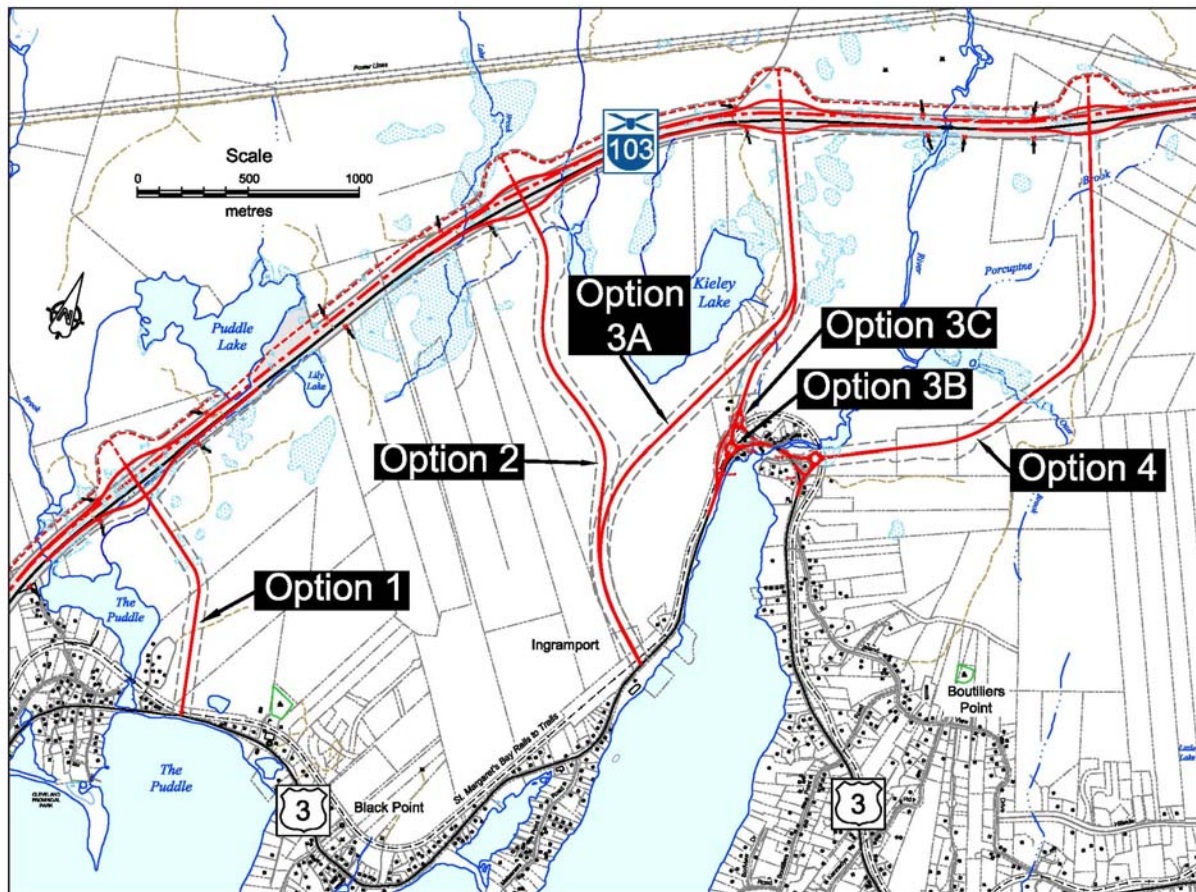


**HIGHWAY 103**  
**ST.MARGARET'S BAY**  
**INTERCHANGE AND CONNECTOR**  
  
**RECOMMENDATION REPORT**

August 2011



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# Highway 103 St Margaret's Bay Interchange and Connector Recommendation Report

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## 1.0 Introduction

Highway 103 is classified as a Major Arterial highway with a posted speed of 100 km/hr. It is also designated a controlled access highway under the Public Highways Act but has approximately 47 driveways accessing private property along its length. There are also at-grade intersections at Mill Lake/Little Indian Lake, Vinegar Lake Rd and Sawyer Lake Rd that are used year round by vehicles making all turning movements. The Mill Lake/Little Indian Lake access as well as several other accesses are used by Bowater Mersey to transfer wood to market.

The 21 km section of Highway 103 between Exit 5 at Upper Tantallon and Exit 6 at Hubbards has average annual daily traffic (AADT) volumes of 9550 (2009) and a combined collision rate (property damage only/major injury/fatality) of 34.7 per Hundred Million Vehicle Kilometres (HMKV). An AADT of 10,000 vehicles per day is the major trigger for beginning the planning process to twin the highway (add more capacity by constructing two more lanes and improving safety by dividing the lanes with a median).

When the highway is twinned, it will be reclassified to a Freeway standard with a posted speed of 110 km/hr and the existing land accesses will be eliminated for safety reasons. The only access permitted to a Freeway is by grade separated interchanges which are designed so that vehicles using the interchange ramps have minimal effect on the traffic using the Freeway. The properties are then given access by constructing parallel gravel access roads at the edge of the right-of-way along the highway as needed. These roads have a 6.0 metre wide gravel top and are only provided minimal summer maintenance with no snow and ice control. The Department's options with respect to properties adjacent to a Freeway are to ensure that the property has reasonable access, or purchase the entire property.

The proposed St Margaret's Bay Interchange is required to provide safe access to properties on the north side of Highway 103 whose current accesses off Highway 103 will be eliminated with the twinning. The twinning cannot proceed without the construction of an interchange. To minimize the length of the access roads, the location of the interchange should be somewhere in the middle third of the section of highway between Exits 5 and 6.

Due to the cost of this twinning project, it has been split into three, more manageable, components:

- St Margaret's Bay Interchange (and possibly Connector), at \$10-12 million
- Upper Tantallon to St Margaret's Bay Interchange (103 Phase 3A) Twinning, 10.8 km at \$48.3 million
- St Margaret's Bay Interchange to Hubbards (103 Phase 3B) Twinning, 11.8 km at \$43 million.

The St Margaret's Bay Interchange (and possibly Connector), is included in the Department's Five Year Construction Plan with a start date of 2014.

Highway 103 is part of the National Highway System Feeder Route and is therefore eligible for Federal funding. Currently, under the Federal Building Canada Plan, the project would qualify for funding under the Provincial-Territorial Base Fund. However, no funding, Provincial or Federal has been formally allocated or approved for the project.

## **2.0 Background**

The environmental assessment (EA) study of the twinning project between Exits 5 and 6 was initiated in the summer of 2009 and included the interchange locations.

Six (6) connector options have been considered and each has undergone an environmental screening (see Figures 1 to 6). The results of environmental investigations will help define the best interchange location and connector option and determine what measures need to be taken to eliminate, minimize, or compensate for any predicted environmental impacts. When a final connector location is chosen, an EA study will be undertaken.

A traffic study of the interchange and connector options (including the effect of a connector on Trunk 3) and benefit/cost ratios of each option have been completed. Preliminary cost estimates and stakeholder meetings have been performed. If approved, the detailed design and land purchase will follow leading to a tender ready date in 2014.

An interchange is necessary to provide access to land north of Highway 103 which will lose all current at-grade access when the highway is twinned. To be most effective and minimize the lengths of parallel access roads, the interchange should be located as close to the midway point between Exits 5 and 6 as possible.

The advantages of a connector road relate to the fact that Exits 5 and 6 are 21 km apart, if traveling on Hwy 103. Along Tk 3 this distance is greater as the road follows the coastline. A connector road will enhance the safety of those using Hwy 103 and Tk 3 as well as those living in the communities along Tk 3. Here are some of the ways that safety and emergency response are enhanced by constructing the interchange and connector road:

- Emergency response time will be reduced for fire, police and ambulances traveling to incidents on Hwy 103, Tk 3 and the communities along Tk 3. Minutes could mean the difference between life and death or have a profound influence on the resulting severity of an incident.
- Ambulance trips to a Halifax hospital from incidences on Tk 3 and in the communities along Tk3 will be faster with a Connector. Any emergency response

person or medical professional can talk at length about the importance of getting people to a hospital ASAP after a traumatic incident.

- Evacuation of the coastal communities along Tk 3 in case of a catastrophic event would be much faster with a Connector in place. Community isolation may have certain advantages until disaster strikes and then it may not seem like an advantage if the proper facilities are not in place.
- Leaving Hwy 103 between Exits 5 and 6 in case of a personal emergency would be possible with a Connector whereas now, a motorist must drive upwards of 20 km, depending on how close they are to Exit 5 or 6, in order to get help.

Disruption in traffic flow resulting from an incident on Hwy 103 and/or Tk 3, such as construction, a collision resulting in road closure, or a road or bridge washout, would be greatly improved with a connector. This was quite evident this past winter when a bridge on Tk 3 washed out resulting in Tk 3 being closed. This resulted in young children at a nearby school, on the west side of the bridge, taking hours longer to get home. On top of that, if there would have been a call for emergency response on the western side of that bridge failure, Exit 6 would have been the closest access to Tk 3 from Hwy 103 and the result could have been disastrous. Both the interchange and connector will improve highway and public safety.

The connector is optional, with respect to the twinning, but offers many advantages to the safety of the motoring public on both Highway 103 and Trunk 3 as well as the public safety of the communities along Trunk 3, that it would make very good common sense to construct it at the same time as the interchange.

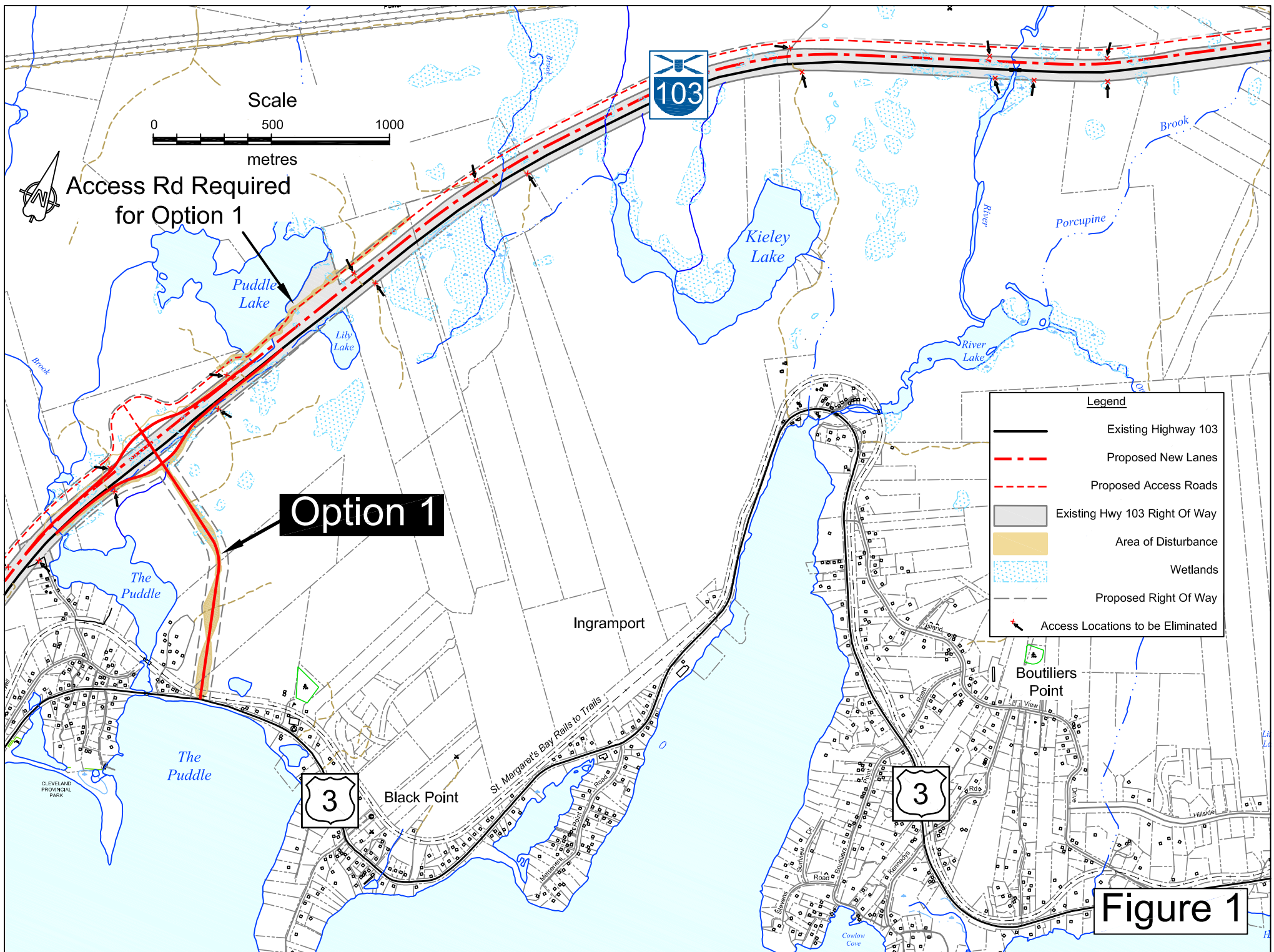
## **2.01 Functional Design**

See Appendix 'A' for the standard drawing of the connector road design. The proposed connector would be a Minor Arterial "Type B" Standard, having 3.5 meter wide lanes with 2.0 meter wide usable shoulders. A portion of the usable shoulders may be of sufficient paved width to accommodate bike use. Preliminary design includes a provision to maintain local connectivity with Rails to Trails.

## **2.02 Engineering Studies Conducted**

Information was collected to ensure the best location, design and route was considered. Conestoga Rovers and Associates conducted an environmental screening for each connector option. A traffic study and benefit/cost analysis was conducted by Genivar Consultants Limited. A study of the socio-economic impact of a connector on communities along St. Margaret's Bay Road (Trunk 3) was also completed. Findings from these studies have been incorporated into this report.







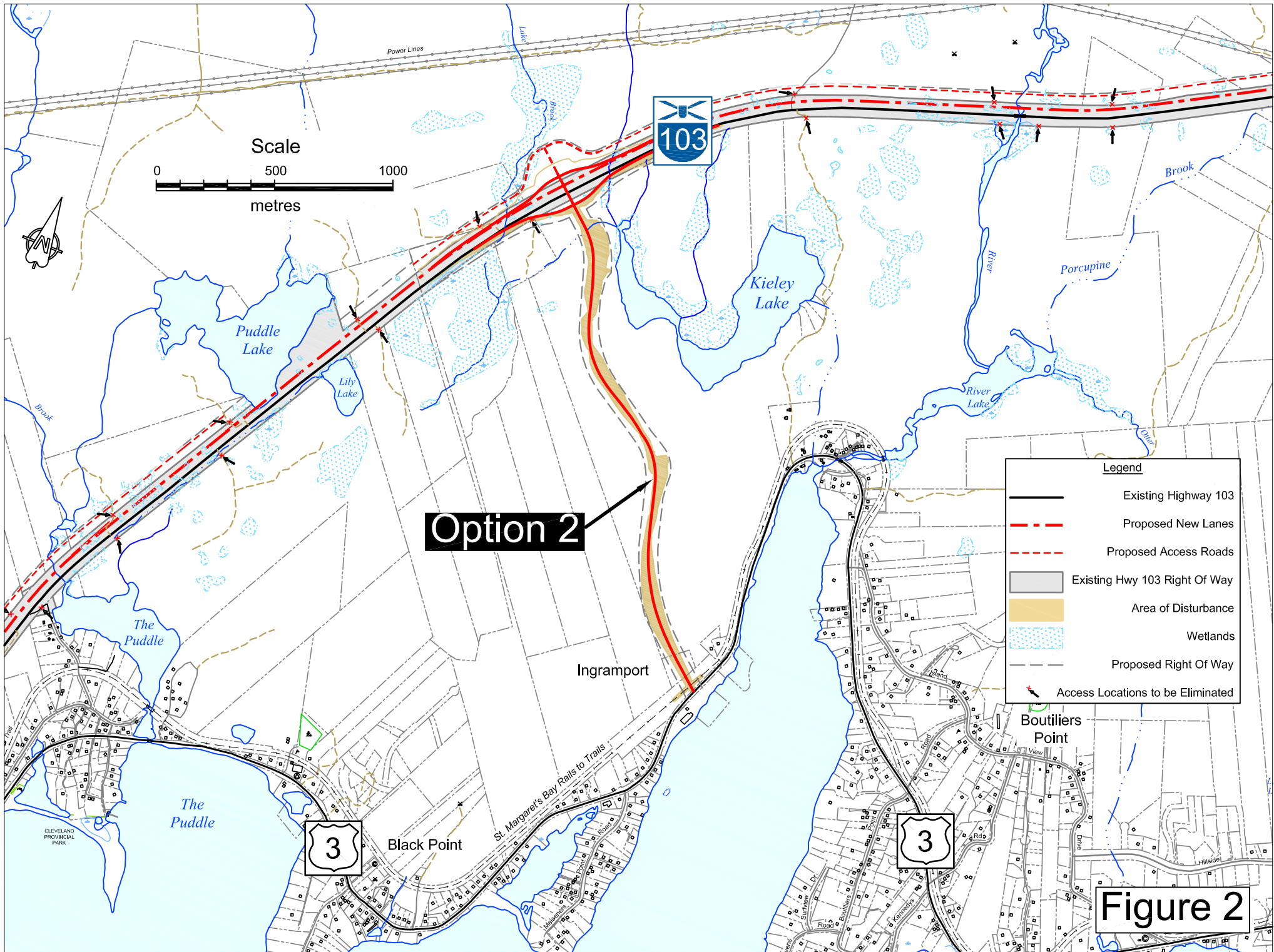
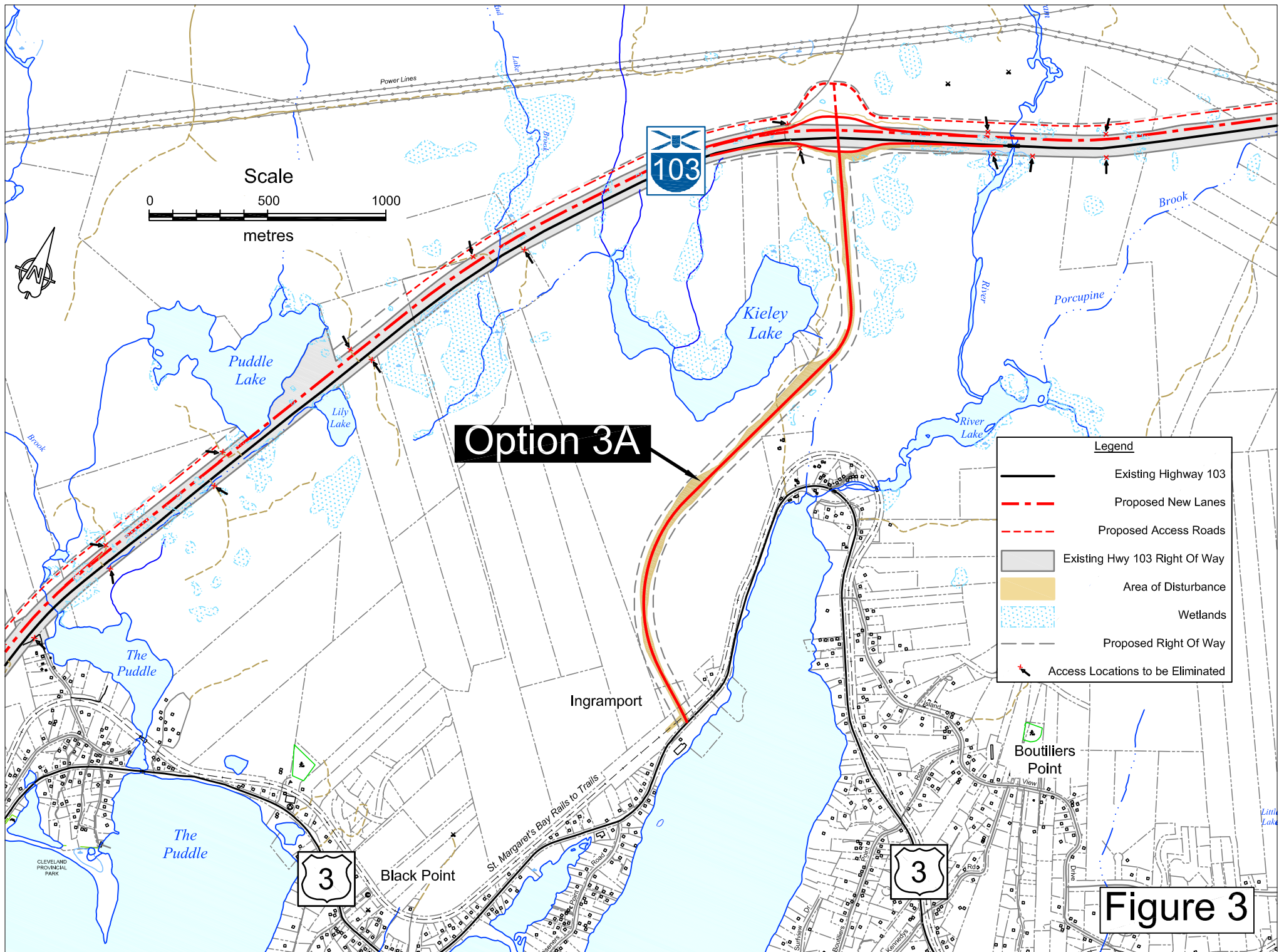
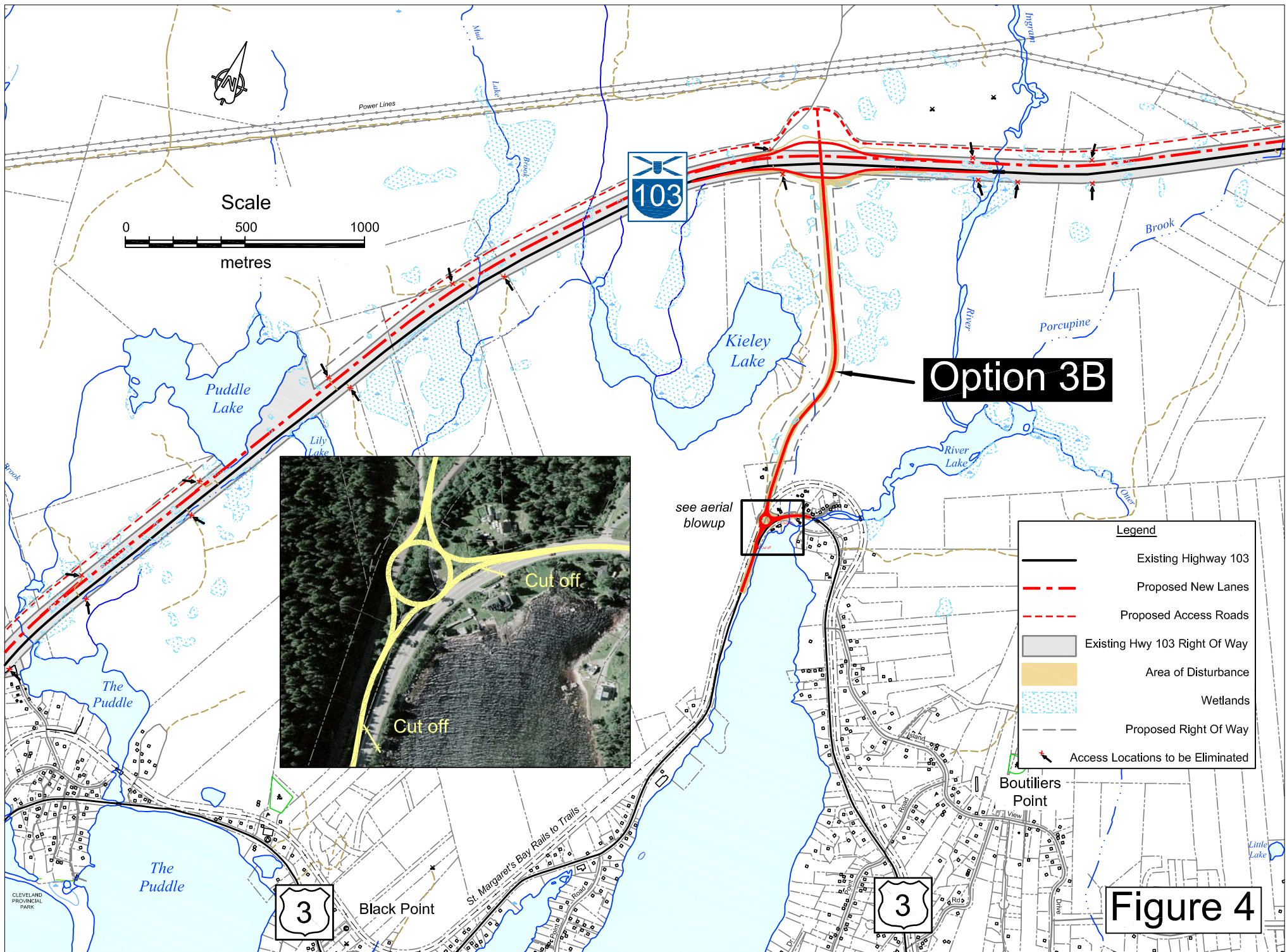


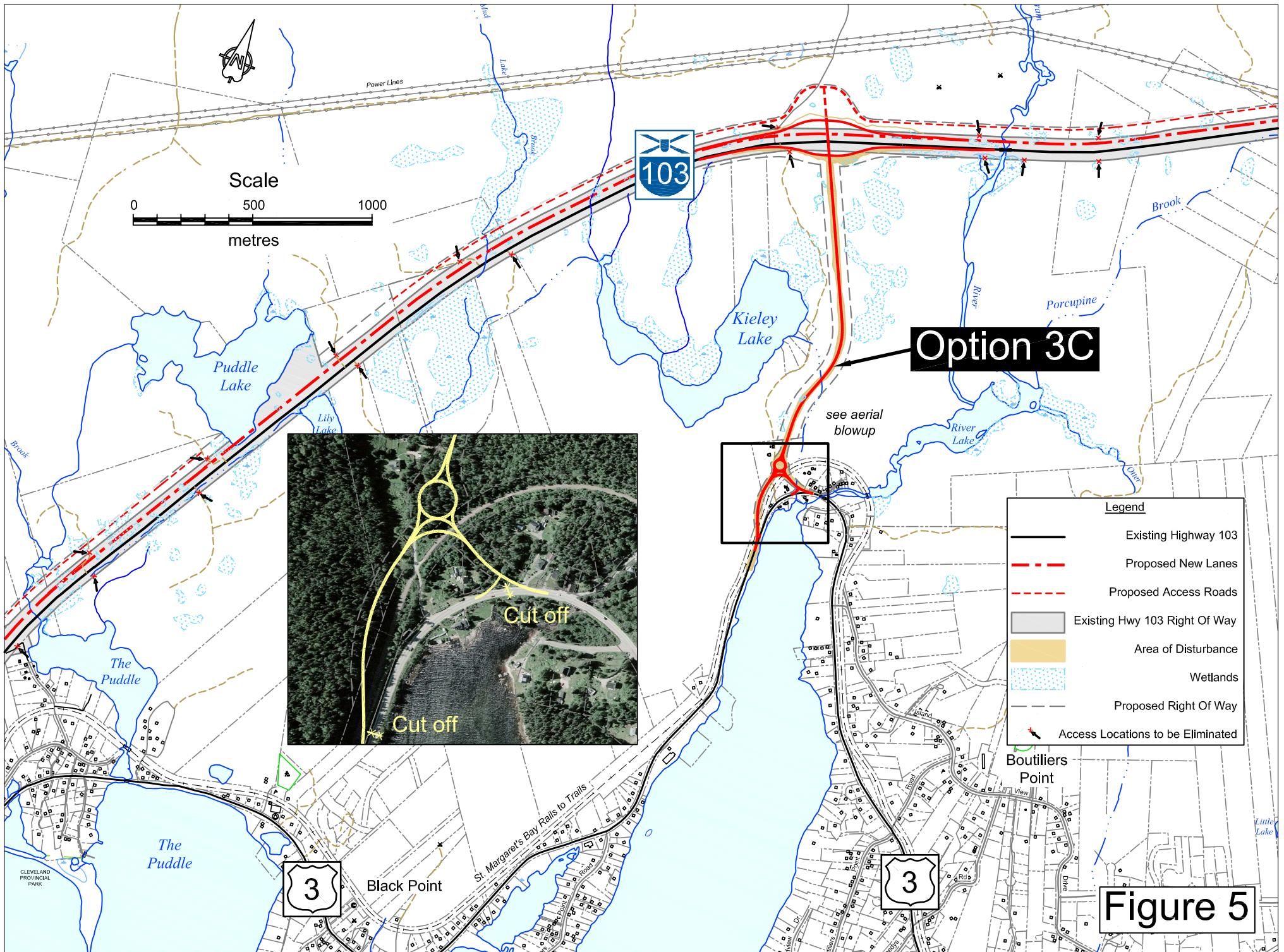
Figure 2



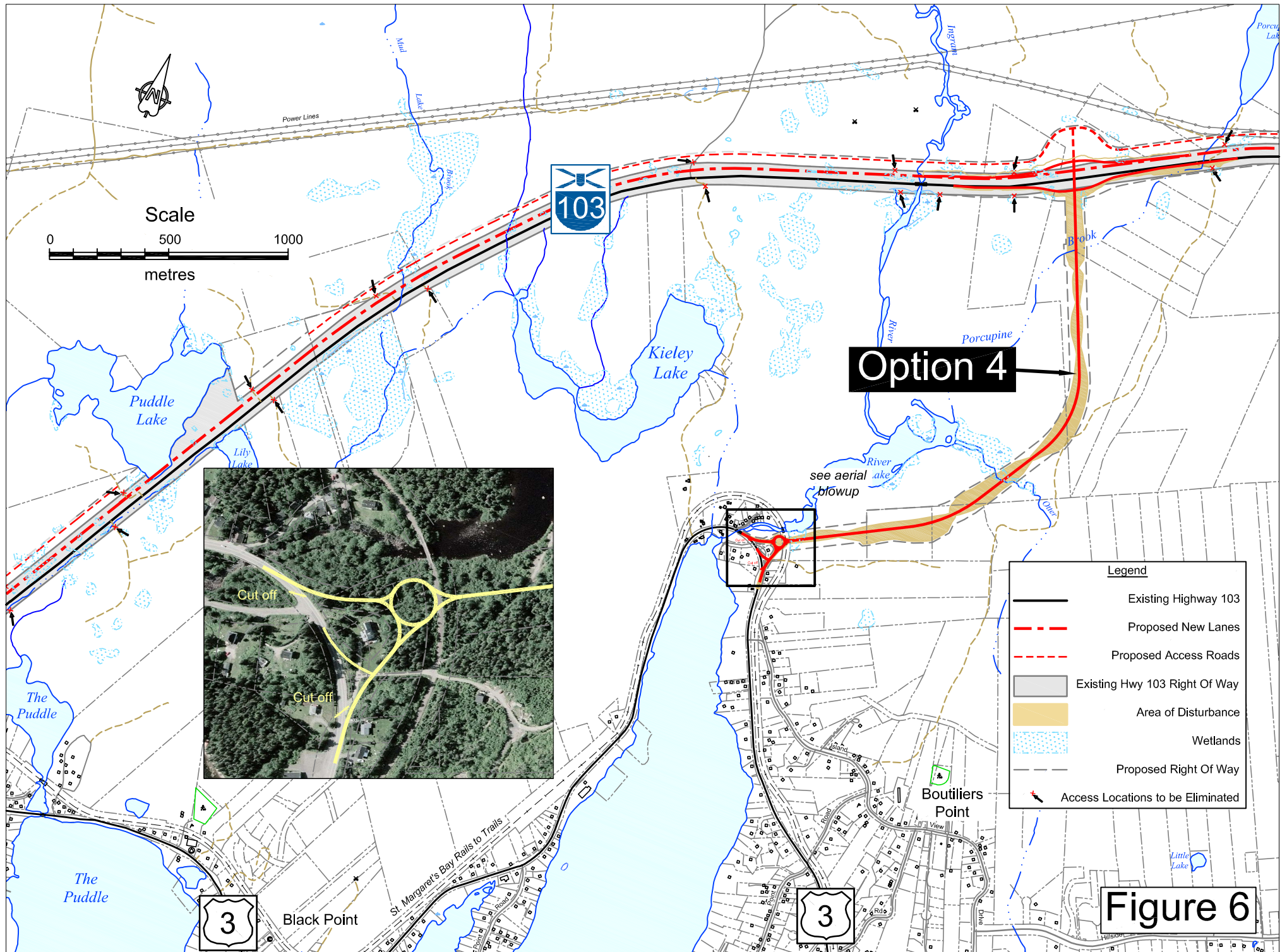












## **2.03 Aboriginal Consultation**

Aboriginal consultation on the Highway 103 Twinning Exit 5 to 6 project began on April 30, 2008 and will continue throughout the planning/design/ construction phases of the project. A Mi'Kmaq Ecological Knowledge Study (MEKS) of Highway 103, including areas of all connector options, was completed in November 2010. Conclusions and Recommendations from that report are included in Appendix 'B'. The area of River Lake, near Ingramport was identified as being of high archeological potential.

A specific land claim, shown in Figure 3 of Appendix 'B' encompasses sections of four connector options: 3A, 3B, 3C and 4. Negotiations between Federal Authorities and Nova Scotia Mi'kmaw representatives are on-going.

## **2.04 Stakeholder Meetings**

Public consultation has been ongoing since 2007 with 47 individual meetings with landowners and stakeholder groups. Individual stakeholder meetings have involved over 100 different members of the community. A list of stakeholder meetings to date is shown in Appendix 'C'. Stakeholders include home owners, local businesses, politicians and special interest groups. In most cases, meetings were initiated by the stakeholder. Meeting locations included the TIR office and the homes, offices and workplaces of individual stakeholders.

## **2.05 Public Meeting**

The Honourable Denise Peterson-Rafuse, MLA, Minister of Community Services and Minister of Seniors, held a public meeting on June 9, 2010, to discuss TIR plans for an interchange and connector road in the Black Point/Ingramport/Boutilier's Point area. The meeting was in response to a large number of public inquiries received regarding the proposed project. Approximately 270 people attended the meeting. Minutes of the meeting are included in Appendix 'D'.

## **2.06 Open House**

An Open House for twinning of Highway 103, Upper Tantallon to Hubbards, was held on March 10, 2011 at the Black Point Fire Hall. Approximately 250 people attended. Public response to the Open House event was very positive. Comments received regarding connector options were few in number. General concerns involved potential damage to the environment and the cost of the project. Connector Options 1 and 3B generated the most comments. Comments opposing Option 1 include beach goers parking near the intersection of the connector and St. Margaret's Bay Road. Comments opposing Option 3B include the displacement of homes.

Option 1 was perceived as the best option for emergency response (EHS, fire, police) due to its' close proximity to the Black Point Fire Hall. However, given that Boutilier's Point has the highest concentration of residents, Options 3B, 3C and 4 would be more favourable in this regard. Also, in the event of a fire, equipment from other stations is

often required. In such cases the proximity of a connector road to the Black Point Fire Hall would not be advantageous.

Open House comments regarding the interchange and connector road are included in Appendix 'E'. A preferred option is not apparent based on comments provided at the Open House.

## **2.07 Public Response to the Interchange and Connector Project**

Public awareness of the proposed interchange and connector road was heightened by a lobbying effort through the use of newspaper articles, door to door flyers, and e-mails to local residents. A summary of public response is shown in Table 2.07:

**Table 2.07**  
**Community Response (from e-mails/phone calls to TIR)**

<b>Time Frame</b>	<b>Support for the Project</b>	<b>Opposition to the Project</b>
Before June 9 <sup>th</sup> Public Meeting (Feb-June 2010)	21	34
After June 9 <sup>th</sup> to April 27, 2011	14	4

After the June 9, 2010, public meeting, although the lobbying effort continued, the number of responses dropped significantly and responses in support far outnumbered responses in opposition. Opposition appears to be isolated to a small group of Ingramport residents.

Response from focus groups and the Open House has been supportive of an interchange and connector road generally by a 2:1 ratio. This is further demonstrated by an article and comments from a cbc.ca internet article titled "Highway 103 plan targets historic home: opponent" dated March 10, 2011.

## **2.08 FOIPOP Requests**

Under the Freedom of Information and Protection of Privacy Act several requests were received for information “related to Boutilier's Point Interchange Structure, Ramps, and Connector to Trunk 3 (St. Margaret's Bay Connector) including any draft or final environmental reviews or assessments, requests for proposals to conduct an environmental assessment, safety analyses and planning documents.” So far, the department has received the same request on the following dates:

- March 3, 2010
- May 17, 2010
- August 3, 2010
- September 24, 2010
- November 17, 2010
- January 25, 2011
- February 18, 2011

Select materials released from these FOIPOP requests have been posted on the internet under the “Protect The Bay” campaign.

## **2.09 Ombudsman Complaint**

In September 2010 the Office of the Ombudsman received a complaint from a resident of Ingramport regarding the TIR planning process for the connector options. The Office of the Ombudsman issued a letter to the complainant asking them to indicate by December 16, 2010 whether they wanted to pursue the complaint further. As of March 8, 2011, no reply had been received.

### 3.0 Evaluation

#### 3.01 Interchange Location

An interchange is required to provide reasonable access to adjacent properties north of Highway 103 whose access will be eliminated with the twinning. To minimize travel distances on parallel access roads (and minimize environmental impacts) the best interchange location would be halfway between Puddle Lake and Little Indian Lake (roughly the midway point between Exits 5 and 6). The distance from Highway 103 to St.Margaret's Bay Road was also taken into consideration when choosing interchange locations to minimize the length of the corresponding connector road. Table 3.01 summarizes the characteristics of each interchange location:

**Table 3.01  
Interchange Location**

Item	Interchange 1	Interchange 2	Interchange 3			Interchange 4
	Option 1	Option 2	Option 3A	Option 3B	Option 3C	Option 4
Distance to Exit 5, near Upper Tantallon (km)	13.6	11.5	10	10	10	7.3
Distance to Exit 6, near Hubbards (km)	7.7	9.8	11.3	11.3	11.3	14
Location with respect to midway point between Exits 5 and 6 (km)	fourth closest	second closest	closest	closest	closest	third closest
Length of Connector (km)	1.2	2.3	2.9	1.5	1.5	2.4
Provision of Reasonable Access to Highway 103 for all Adjacent Properties	No	Somewhat reasonable	Yes	Yes	Yes	Yes

Interchange 3, being located closest to the midway point between Puddle Lake and Little Indian Lake, would provide the most reasonable access to properties on the north side of Highway 103 and the distance to St.Margaret's Bay Road is comparatively

short. Option 1 would provide the least reasonable access because property owners next to Little Indian Lake would travel almost nine kilometres along a gravel road to get to their property. Option 4 would require the longest connector road of 2.4 kilometres.

### 3.02 Impacted Properties

The impact of the connector road on properties has been identified as a major concern. An important consideration in connector road location was the avoidance of existing homes. Staff attempted to avoid homes and at the same time fulfill TIR operational requirements, minimizing impact to the environment and maximizing benefits for communities along St.Margaret's Bay Road.

Options 1, 2 and 3A do not directly impact any homes and offer the least impact to adjacent properties. Options 3B, 3C and 4 will impact residents near the proposed routes (see Figure 3.02). Option 3B involves the displacement of one home at Civic 7747. Option 3C affects the greatest number of residential properties: displaces one home at Civic 7709 (encroachment on septic field), relocates St.Margaret's Bay Road from in front of Civic 7727 to the rear and brings the roadway approximately 40 metres closer to Civic 7715 (potential noise and sight problems). Option 4 may exacerbate flooding near St.Margaret's Bay Road where drainage problems currently exist. Option 3C would involve crossing the recreational trail twice while all other options cross once.

**Table 3.02**  
**Impacted Properties**

Item	Option 1	Option 2	Option 3A	Option 3B	Option 3C	Option 4
Comments	- no homes impacted  - additional access road with 12% grade	- no homes impacted	- no homes impacted	- one home displaced	- one home displaced and directly impacts 3 residential properties - crosses rails to trails twice	- no homes displaced but directly impacts 1 residential property -exacerbates current drainage issues
Septic Fields Impacted	0	0	0	1	1	0
Homes within 50 meters of road centerline	0	0	0	4	6	4

### 3.03 Environmental Impacts

As part of the planning process, TIR conducted an Environmental Assessment of the Highway 103 Twinning project which included the interchange locations. A preliminary environmental screening of all possible connector road options was also conducted. The screening was conducted to identify any environmental issues that may restrict the location of a connector road or require specific mitigation measures to be incorporated into the design.

An Environmental Assessment of the twinning and interchange locations was performed by Stantec Consulting Limited. The environmental screening of the connector options was performed by Conestoga-Rovers & Associates.

Feedback from the environmental studies was collected. The following major constraints have been identified:

- a large number of wetlands (bio-diversification)
- rare plants
- lakes and streams (aquatic species)

Table 3.03 summarizes the environmental impacts for all connector options.

The strategy for minimizing the negative impact on wetlands, rare plants and bodies of water has been to avoid as much as possible.

**Table 3.03**  
**Environmental Impact**

Item	Option 1	Option 2	Option 3A	Option 3B	Option 3C	Option 4
Length (km)	1.2	2.3	2.9	1.5	1.5	2.4
Area of Disturbance for Connector <sup>1</sup> (ha)	7.5	13.1	10.9	5.1	5.1	13.6
Wetland Area to be compensated (m <sup>2</sup> )	14858	7390	1276	565	565	2000
Lake Infilling (m <sup>2</sup> )	3850	0	0	0	0	0
Plant Species at Risk	2	1	0	0	0	0

<sup>1</sup> For Option 1, includes additional parallel access road

Although Option 1 is the shortest, it's location west of Puddle Lake means the access



road would have to be extended through the lake (see Figure 1). This results in Option 1 having the largest area of lake and wetland disturbance. Options 3B and 3C have the smallest area of wetland disturbance and no lake infilling. Options 3B and 3C would displace the least amount of trees and vegetation. Compensation for destruction of wetlands and lake infilling impact construction costs, as shown in Section 3.04.

### 3.04 Preliminary Construction Cost Estimates

Construction costs were estimated using unit costs based on historical data from similar TIR projects. Whenever possible, worst case scenarios were used. Wetland compensation was based on the cost of creating new wetlands, using a 1 to 1 ratio (ie. one unit area of wetland compensation for one unit area of wetland destroyed). Compensation for lake infilling was based on the Federal Government guidelines of Hazard Alteration Disruption or Destruction (HADD) for fish habitat (a ratio of 3 to 1, a typical practice, was assumed). Table 3.04 summarizes the construction costs for each connector alternative.

**Table 3.04**  
**Preliminary Construction Cost Estimates (Connector Road only)**

Item	Option 1	Option 2	Option 3A	Option 3B	Option 3C	Option 4
Construction, Labour and Materials	\$2,234,986	\$3,053,700	\$3,627,712	\$3,065,730	\$3,054,730	\$4,858,960
Wetland Compensation	\$297,160	\$147,800	\$25,520	\$11,300	\$11,300	\$40,000
Lake Infilling & Access Road Extension	\$312,400	0	0	0	0	0
Lake Infilling Compensation	\$115,500	0	0	0	0	0
Transplanting Rare Plants	\$100,000	\$60,000	0	0	0	0
<b>Total Construction Cost</b>	<b>\$3,060,046</b>	<b>\$3,261,500</b>	<b>\$3,653,232</b>	<b>\$3,077,030</b>	<b>\$3,066,030</b>	<b>\$4,898,960</b>

The total construction costs of Option 1, Option 3B and Option 3C are very similar. However, Option 1 has a relatively high environmental impact cost. A structure to accommodate the multi-use trail will be required for each option. Option 3C will require

two structures because the trail crosses St.Margaret's Bay Road at two locations.

### 3.05 Traffic Study

A traffic study was completed in November 2010 by Genivar Consultants. With the introduction of a connector road option, traffic flow impacts were estimated for the year 2020. Trip diversions and estimates regarding backtracking were estimated by the consultant. Table 3.05 shows the Average Annual Daily Traffic (AADT) on each connector option.

**Table 3.05**  
**Traffic Study Summary**

Factor	Option 1	Option 2	Option 3A	Option 3B	Option 3C	Option 4
Average Annual Daily Traffic (2020)	1905	1950	1835	2430	2430	2430
Time Savings to Exit 5 (min)	7.5	5	5.3	5.5	5.5	5
Time Savings to Exit 6 (min)	3.2	3.8	2.5	4.6	4.6	3.5

Options 3B, 3C and 4 would attract the most traffic from residents near St.Margaret's Bay Road (22% more traffic than Option 1).

Time savings were calculated by comparing travel time by way of the existing roads and again by way of each Connector Option from the Trunk 3/Connector Option intersection to Exit 5 and Exit 6. As expected time savings for Options 3B and 3C are identical. Option 1 would provide the greatest time saving to Exit 5 while Options 3B and 3C would provide the greatest time savings to Exit 6.

Given that the greatest existing population of local residents are in the Boutillier's Point area and heavier traffic would be expected to Exit 5 than Exit 6, a greater number of motorists would enjoy time savings from Options 3B or 3C to Exit 5.

### 3.06 Benefit/Cost Analysis

A Benefit/Cost study was undertaken for each connector option by Genivar Consultants. User benefits and costs were identified and evaluated in financial terms in order to compare them. Benefits include such things as fewer collisions, lower maintenance costs, reduced vehicle operating costs, shorter travel times and reduced fuel

consumption for users (also reduces emissions). Costs include such things as construction costs, maintenance costs, land costs, collisions and travel time. By dividing the value of the benefits by the cost, a benefit/cost ratio was developed for each option. Table 3.06 summarizes the results.

**Table 3.06  
Benefit/Cost Analysis**

Factor	Option 1	Option 2	Option 3A	Option 3B	Option 3C	Option 4
Benefit/Cost Ratio	8.13	5.30	3.98	7.48	8.16	5.12
Emissions Reduction (kg Carbon Monoxide)	34000	30000	26000	36000	36000	35000

Significant user benefits from reduced travel time and collision costs for travel on a highway class of road provide a favourable Benefit/Cost Ratio for each option ranging from 3.98 to 8.16. The favourable Benefit/Cost Ratios indicate that any one of the connector options between St.Margaret's Bay Road and a new interchange on Highway 103 will produce good value on investment of public funds.

Option 3C has the highest ratio due to it's low cost and combined time savings to Exit 5 and Exit 6. Option 1 has the second highest ratio due to low construction cost. Option 3B has a slightly lower ratio due to the cost of displacing one house.

Emissions Reduction was calculated by comparing travel emission expended driving by way of the existing roads and again by way of each Connector Option from the Trunk 3/Connector Option intersection to Exit 5 and Exit 6. As expected emissions for Options 3B and 3C are identical. Options 3B and 3C would attract the highest traffic and have the greatest emission reduction.

### **3.07 Socio-Economic Impacts**

As requested at the June 9, 2010 Public Meeting, a study was conducted on the socio-economic impacts a connector would have on communities along St.Margaret's Bay Road. Community identity and community control are very important to local residents. For example, at the time of construction for the Canadian Tire in Tantallon (2005), the Halifax Regional Municipality had few By-Laws in place to control the many issues of this development. Local residents feared a loss of community identity. Since 2005, development proposals require a development agreement to guarantee community input.

The socio-economic analysis was part of Genivar's Benefit/Cost study. Based on response from four focus groups, residents expressed concern regarding how development appears, the effect on their community and the environment. Participants in the focus groups were generally supportive (2 to 1 ratio) of the proposed interchange and connector. Negative impacts to the community, particularly damage to the environment and potential destruction of homes, were the main community concerns.

### 3.08 Community Criteria

Attendees at the March 10, 2011, Open House were given a list of community criteria (concerns) and asked to identify the three most important areas of concern for them with respect to the project (twinning, interchange and connector). A summary of the survey, from 197 participants is shown in Table 3.08.

**Table 3.08  
Community Criteria Summary**

<b>No.</b>	<b>Criteria</b>	<b>Percentage of Participants Selecting the Criteria</b>
1	Improved Emergency Service Access	49%
2	Environmental Protection	37%
3	Protecting the character of the Community	30%
4	Preserving Homes	27%
5	Reduced Traffic on St.Margaret's Bay Road	24%
6	More Options for Access to Highway 103	21%
7	Enhancing Public Safety	19%
8	Reduced Travel Times	17%
9	Ensuring Responsible Development	16%
10	More Options for Emergency Evacuation	15%
11	Preserving St.Margaret's Bay Trail	13%
12	Ensuring Access for Landowners	10%
13	ATV Safety and Access	7%
14	Improve Business Opportunities	5%

Improved emergency service access was selected by almost half of all participants. The best means of improving emergency service (EHS, police, fire) to local residents would be the construction of a connector road. Environmental protection was also identified as a common concern (chosen by 37%). Options 3B and 3C would have the smallest impact on the physical environment and have the smallest areas of disturbance. However, protecting the character of the community (30%) and preserving homes (27%) scored high as well. Reduction of traffic on St.Margaret's Bay Road (24%) and more options for access to Highway 103 (21%) also scored high.

### **3.09 Intersection of St.Margaret's Bay Road & Connector**

The St.Margaret's Bay Road/Connector Road intersection impacts the safety, performance of St.Margaret's Bay Road with respect to increased traffic congestion and turning movements around the intersection. Sight distances for each option meet TIR standards.

Roundabouts were chosen for Options 3B, 3C and 4 to improve existing safety conditions on St.Margaret's Bay Road. According to the socio-economic study, local residents identified the sharp turn at Ingramport as "problematic". A roundabout would address this problem by forcing traffic from all directions to slow down before entering the roundabout. Design speed within the roundabout is 30 km/h.

An intersection on St.Margaret's Bay Road would increase traffic volumes at that location and introduces turning movements which require drivers to make decisions. This would be more pronounced at Options 1, 2 and 3A due to the nature of the T-intersection which requires traffic to come to a stop. Option 1 would be further disadvantaged by the presence of parked cars along St.Margaret's Bay Road during summer beach season. Options 3B, 3C and 4 would offer an improvement due to the free flow nature of traffic movement through a roundabout.

### 3.10 Evaluation of Connector Options

A summary of factors for all connector options is shown in Table 3.10.

**Table 3.10**  
**Evaluation Summary**

<b>Criteria</b>	<b>Best Option</b>	<b>Second Best Option</b>	<b>Third Best Option</b>	<b>Worst Option</b>
Best Interchange Location	3B,3C	3A	2	1, 4
Lowest Construction Cost	1	3C	3B	4
Shortest Length	1	3B, 3C	4	3A
Minimize Wetland Impact	3B, 3C	3A	4	1
Minimize Area of Disturbance	3B	3C	1	4
Minimize Impact on Existing Homes	1, 2, 3A	4	3B	3C
Highest Benefit/Cost Ratio	3C	1	3B	3A
Attract Highest Average Annual Daily Traffic	3B, 3C, 4	2	1	3A
Greatest Time Savings to Exit 5 (min)	1	3B, 3C	3A	2, 4
Greatest Time Savings to Exit 6 (min)	3B, 3C	2	4	3A
Greatest Emissions Reduction (kg Carbon Monoxide)	3B, 3C	4	1	3A
Safest Intersection of Connector & St.Margaret's Bay Road	3B, 3C, 4	2, 3A	1	1

The totals of the number of times each option was chosen as the best, second best and third best option are shown in Table 3.11. Also shown is the number of times each option was chosen to be the worst option.

**Table 3.11**  
**Summary of Number of Rankings for Each Option**

Ranking	Option 1	Option 2	Option 3A	Option 3B	Option 3C	Option 4
Best	4	1	1	7	7	2
2 <sup>nd</sup> Best	1	3	3	2	4	2
3 <sup>rd</sup> Best	4	1	1	3	0	3
Total	9	5	5	12	11	7
Worst	3	1	5	0	1	4

Reviewing Table 3.11, Options 2, 3A and 4 can be eliminated from consideration due to the low Total number of times they were ranked best, second best or third best compared to Options 1, 3B and 3C. This is also reinforced by the high number of times Options 3A and 4 were ranked worst.

Option 1 can also be eliminated from consideration. Despite the fact that it has the third highest Total number of times ranked best, second best or third best, it came second highest in the ranking of worst option.

Options 3B and 3C are very similar. Option 3C differs by negatively affecting more residential properties than 3B: the home at Civic 7709 would be displaced due to encroachment on it's septic field, homes at Civic 7727 and 7729 would front on St.Margaret's Bay Road from the back of their homes instead of the front, as it currently exists. These residential property owners anticipate a loss in the enjoyment of their lands as a result. Option 3B would displace one home at Civic 7747 but remain a reasonable distance from others.

## 4.0 Summary and Recommendation

The Department has the mandate to provide an efficient transportation system for the safe movement of people and goods with the least disruption to the environment. Option 1 would destroy over 25 times more wetland area than Options 3B or 3C and involve partial infilling of Puddle Lake due to the requirement of an additional property access road. Options 3B and 3C have the further advantage of minimizing the length of access roads through land purchases (i.e. purchasing lands north of Highway 103, between Puddle Lake and Interchange Option 3).

Although Option 3B displaces one home, it impacts fewer homes than Option 3C. From information collected at the Open House, Option 3C would also displace one home due to the destruction of the home's septic field.

Option 3B is the best option for the following reasons:

- of the top two Options, it impacts fewer homes
- fulfills property access requirements north of Highway 103
- has very similar construction cost to Options 1 and 3C
- has the greatest time savings to both Exits 5 and 6 which translates into the best emergency response times (ranked most important criteria by the community)
- has the least amount of impact to the environment (ranked second most important criteria by the community)
- improves existing safety conditions on Highway 103, St.Margaret's Bay Road and in the communities along St.Margaret's Bay Road
- would service the most people on St.Margaret's Bay Road.

Based on the analysis in this report, **staff recommends Option 3B be approved for environmental assessment, detailed design and land purchase** in preparation for eventual construction.



## **APPENDIX 'A'**

### **Functional Road Design**







## **APPENDIX 'B'**

### **Findings from MEKS: Highway 103, Exit 5 to Exit 6**



The study areas are shown in Figure 2. There is also a larger map inserted at the end.

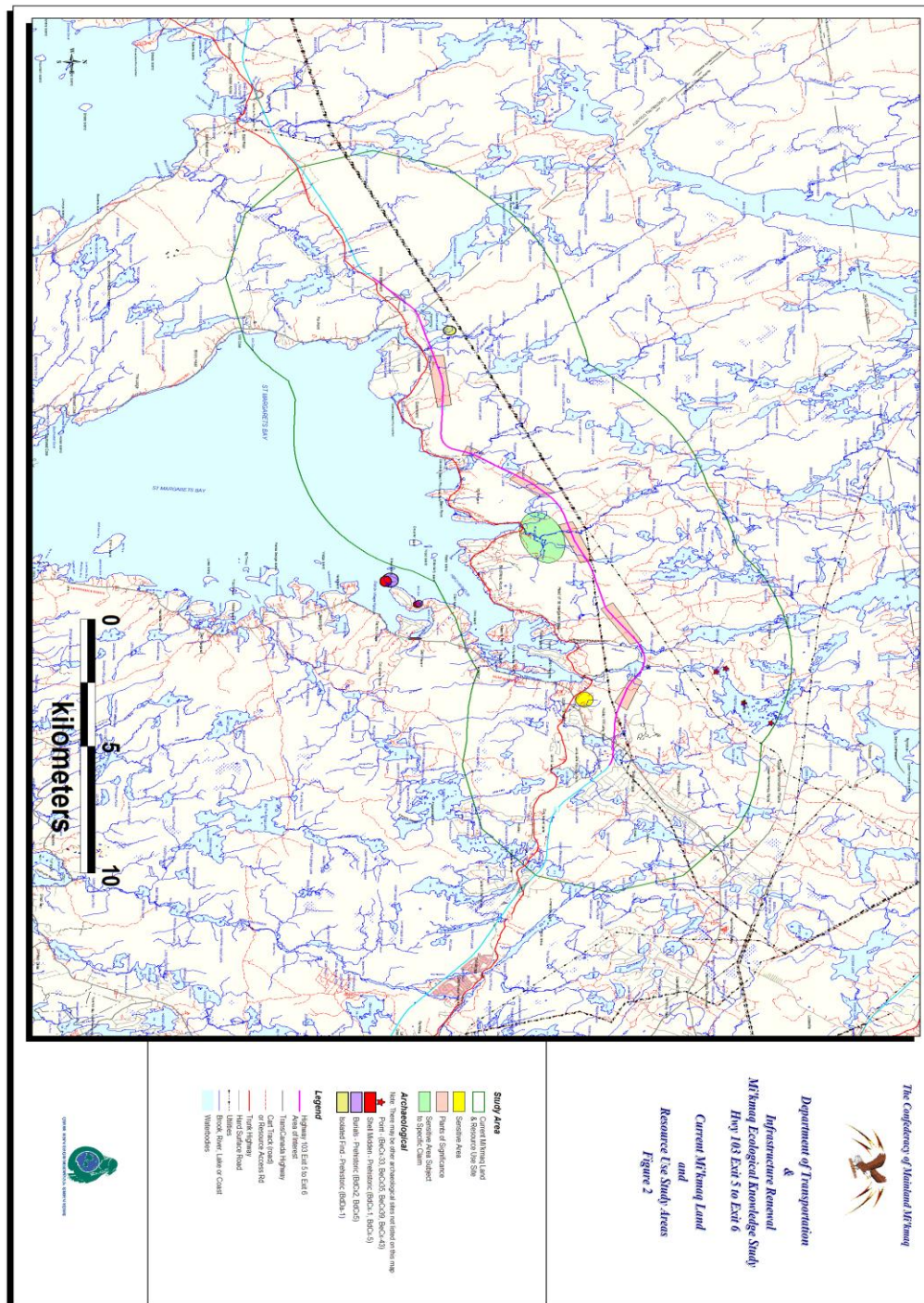
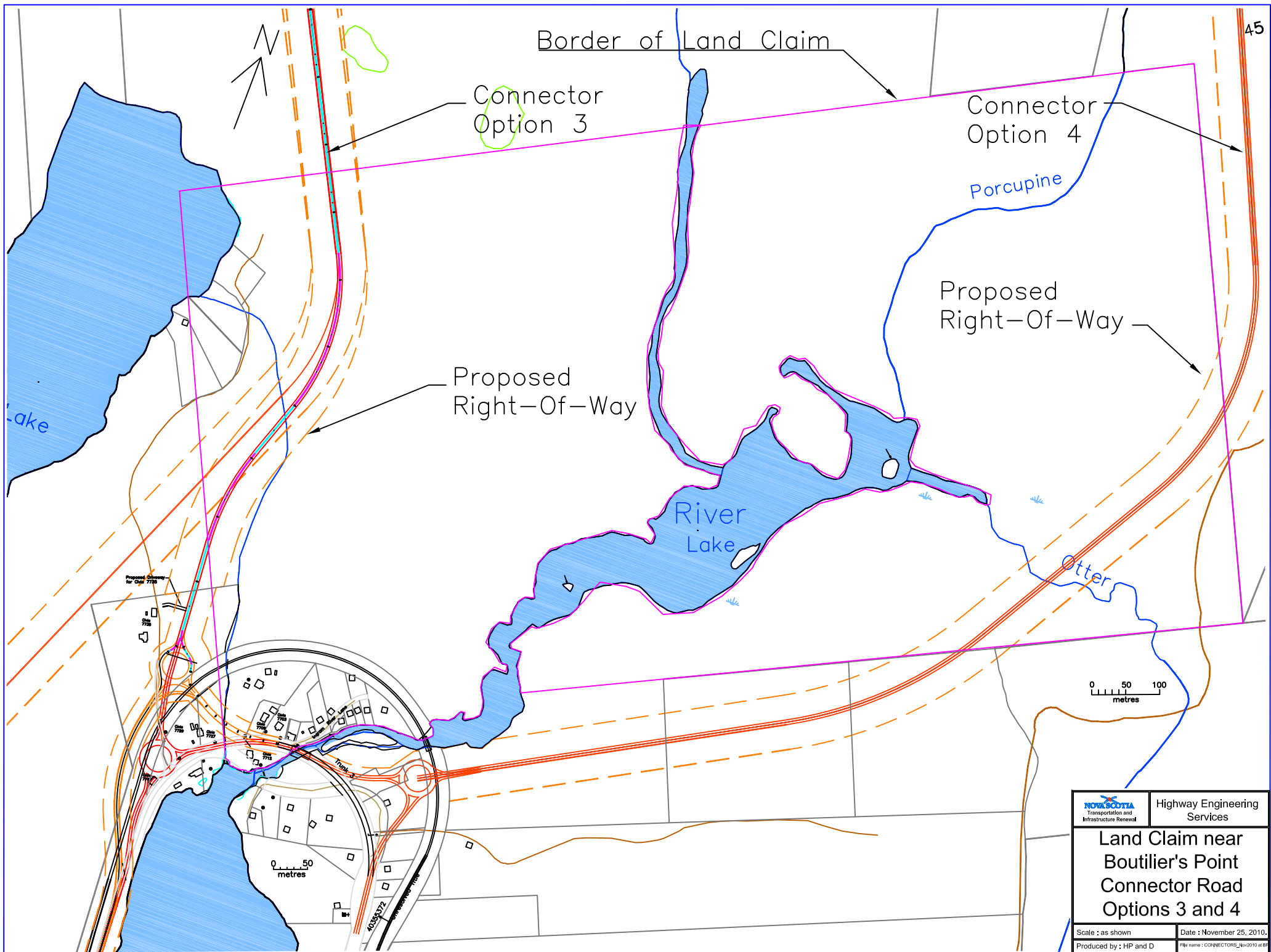


Figure 2





## 8.0 CONCLUSIONS AND RECOMMENDATIONS

8.01 In the event that Mi'kmaw archaeological deposits are encountered during construction or operation of the Project, all work should be halted and immediate contact should be made with David Christianson at the Nova Scotia Museum and with Dr. Donald M. Julien at The Confederacy of Mainland Mi'kmaq.

8.01 There is one land claim registered with the Specific Claims branch of Indian and Northern Affairs Canada in Ottawa for Mi'kmaq communities in Nova Scotia, within the project area. However, that does not suggest that any other Mi'kmaw claimants for this area may not submit land claims in the future. For more information, on the specific land claim, please contact Mary Jane Stevens, the Confederacy of Mainland Mi'kmaq Specific Land Claims Research manager.

8.02 The information regarding the potential burial site marked in figure 2 is limited. Should this sensitive area need to be disturbed during project construction or operation, further research regarding this site is recommended.



## **APPENDIX ‘C’**

### **Stakeholder Meetings**



## Highway 103 Twinning, Upper Tantallon to Hubbards

### Schedule of Stakeholder Meetings

<b>Mtg No.</b>	<b>Date</b>	<b>Stakeholder</b>	<b>Discussion</b>	<b>No. Stakeholders</b>
1	June 11, 2007	Business Operator	- discussion about Mill Lake at-grade interchange with Manager of Operations	1
2	December 10, 2007	SMBSA & SMBRTA	AO and PC met with St.Margaret's Bay Stewardship Assoc. & St.Margaret's Bay Rails to Trails Assoc. to discuss proposed twinning & connector road near Boutilier's Pt. (see minutes)	3
3	May 29, 2008	home owner	- AO and PC met landowner, at his home near Boutilliers Point to discuss access to his property near Vinegar Lake	1
4	June 26, 2008	home owner	- AO and PC met with landowners re development (proposed house)	2
5	July 29, 2008	Staff of Physical Activity Sport & Recreation	- AO & PC met with Ted Scrutton, Steve Vines and Jody Conrad re trails and recreational activities in and around this project.	0
6	November 7, 2008	Business Operator	- AO and PC discuss impact of twinning on hydro dam by Mill Lake	1
7	November 28, 2008	Justice Dept.	- staff met to discuss access issues re sale of land abutting Highway 103 corridor	4
8	July 7, 2009	Business Operator	- AO and DC met business operator proposing a quarry on north side just east of proposed interchange near Ingramport woods road	1
9	November 25, 2009	Business Operator	- staff met with business operator to discuss proposed twinning near Mill Lake	2
10	November 26, 2009	SMATVA	TIR staff met with Safety Minded ATV Association (SMATVA) and the All Terrain Vehicle Association of Nova Scotia (ATVANS). Existing ATV travel patterns and ATV crossing 103 were discussed.	1
11	December 10, 2009	St.Margaret's Snowmobile/ATV Club	TIR staff met with St.Margaret's Snowmobile/ATV Club. Existing ATV travel patterns and ATV crossing 103 were discussed.	2
12	December 11, 2009	home owners	AO and PC discussed proposed twinning and the access for property owner in Queensland.	2
13	January 29, 2010	home owner	AO and DC discussed possible realignment of Hwy 103 travel lanes in front of Sawler Lake & access to	2

			adjacent properties.	
14	February 5, 2010	home owners	AO and DC discussed proposed connector road with (2) Ingramport property owners.	3
15	February 22, 2010	Councilor, Peter Lund, District 23	AO and PC discussed proposed twinning, connector road Vinegar Lake Road issues.	1
16	February 23, 2010	Vinegar Lake home owners	AO, PC and BW met with several home and property owners to discuss proposed twinning and proposed access to Vinegar Lake Road.	13
17	March 9, 2010	home owner	AO and PC discuss proposed Ingramport interchange & connector road with interested land purchaser.	2
18	March 18, 2010	home owners	PC discussed 3 proposed locations for interchange and connector road near Ingramport/Boutilier's Point.	2
19	March 18, 2010	home owners	PC discussed proposed twinning with residents who recently purchased a house and were wondering if we were going to require property from them.	2
20	April 6, 2010	Business Operator	Business Operator & AO discussed proposed interchange near Boutilier's Point.	1
21	April 15, 2010	home owner	AO and DC met with home owner St.Margaret's Bay Road at their workplace to discuss proposed connector road near their home and possible effect of construction process.	1
22	April 15, 2010	home owner	AO and DC met with home owners. Discussed proposed connector road near Boutilier's Point and access to their property.	2
23	April 29, 2010	HRM	AO and PC discussed proposed connector road options with Manager, Regional Transportation Planning, HRM,	1
24	May 10, 2010	home owners	Staff met with home owners near St.Margaret's Bay Road to discuss proposed connector road options and possible impact on their property.	2
25	May 12, 2010	RCMP, Tantallon	AO and PC met with RCMP staff to discuss proposed twinning & connector road options.	3
26	May 12, 2010	EHS, Tantallon	Staff met with Supervisor, EHS Operations to discuss proposed twinning & connector road options.	1
27	May 12, 2010	Fire Dept, Black Point	AO and PC met with fire fighters to discuss proposed twinning & connector road options.	2
28	June 4, 2010	Business Operator	AO and PC met with business operator, to discuss interchange options near Boutilier's Point and access.	1

29	June 9, 2010	Community Meeting	MLA community meeting at Black Point Fire Hall, Ministry and staff (see minutes)	275
30	June 16, 2010	home owner	AO and GC met with local home owner and given tour of the area.	1
31	July 19, 2010	Business Operator	Presentation given to AO, MC, PC and BW re proposed cost sharing for interchange.	1
32	July 20, 2010	home owners	AO and SM met with home owners re Boutilier's Point connector and possible effect on their property.	2
33	July 27, 2010	Terrain Group (Genivar)	Terrain Group discussed their progress with Boutilier's Point Traffic Study	
34	August 16, 2010	Business Operator	AO, PC and SC met with business operator	1
35	August 24, 2010	property owner	AO and SC met with woodlot owner for tour of Vinegar Lake Road, Old Rock Road, Muskrat Lake Road and Mill Lake Road	1
36	September 30, 2010	SMATV Group	AO, SC, MP, KB, PC met with Safety Minded ATV Group, to discuss effect of proposed twinning on ATV users trying to cross Highway 103. Last meeting: November 26, 2009.	3
37	October 1, 2010	HRM Councillor and SMSA	AO, SC, IM, PC met with Peter Lund, HRM Councillor, & St.Margaret's Bay Stewardship Assoc., to discuss proposed twinning & connector road.	2
38	November 10, 2010	home owners	AO, PC, SM met with re update on proposed connector road options. Staff displayed cross sections for Option 3C and plan with limits of disturbance.	2
39	December 21, 2010	SMATV Group	AO met on-site with members of Safety Minded ATV Group to discuss ATV crossing under Ingram River Bridge and Tote Road	3
40	February 24, 2011	home owner	AO, PC met with owner of property off highway corridor to discuss twinning	1
41	March 3, 2011	home owner	AO and consultant met with home owners off St.Margaret's Bay Road to discuss status of connector road options	2
42	March 8, 2011	Office of the Ombudsman	AO and PC with Office of the Ombudsman to discuss complaint by local resident and role of the Office of the Ombudsman,	
43	March 10, 2011	Open House	Staff & consultants (Genivar, Stantec, CRA and Lura Associates) host open house at Black Point Fire Hall	247
44	March 15, 2011	home owners	AO and PC met with property owners re proposed access road near Vinegar Lake Road	2
45	March 29,	Business	AO and PC discussed access issues with Business	1

	2011	Operator	Operator	
46	March 30, 2011	HRM Councillor	AO and PC discussed drainage issues re connector Option 4 and drainage issues @ St.Margaret's Bay	1
47	April 5, 2011	St.Margaret's Bay Rails to Trails	AO and KD discussed trail requirements with Bill Wiggins, Chair, St.Margaret's Bay Rails to Trails	1

**Abbreviations:**

AO = Adam Osborne, Highway Planning Engineer  
DC = Dwayne Cross, Sr. Highway Planning Engineer  
KD = Ken Donnelly, Lura Consulting Associates  
PC = Phil Corkum, Manager, Highway Planning & Design  
GC = Greg Connors, Highway Planning Engineer  
BW = Brian Ward, Area Manager  
MC = Mike Coady, Construction Manager  
SC = Sylvie Colomb, Environmental Analyst  
IM = Ian MacCallum, Environmental Analyst  
SM = Steve MacKenzie, Manager, Acquisition & Disposal



## **APPENDIX 'D'**

### **Minutes from June 9, 2010 Public Meeting**



Highway 103 Twinning -Exit 5 at Upper Tantallon to Exit 6 at Hubbards  
Phase 1: Boutilier's Point Interchange and Connector  
Public Meeting  
Minutes - June 9, 2010.

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ATTENDING: Bill Estabrooks, Minister, Transportation & Infrastructure Renewal  
Denise Peterson-Rafuse, MLA, Tantallon-Chester  
Ken Donnelly (facilitator), Lura Associates Ltd.  
Phil Corkum, Manager, Highway Planning & Design  
Adam Osborne, Highway Planning Engineer  
Cathy MacIsaac, Director of Communications & Public Affairs  
Ian MacCallum, Environmental Analyst  
Sylvie Colomb, Environmental Analyst  
Mike Croft, Manager, Traffic Engineering  
Alok Wadhawan, Traffic Engineer  
Richard MacPherson, Highway Planning Technician  
Jason Rae, Highway Design Engineer  
Brian Ward, Area Manager  
approx. 270 stakeholders/interested parties

DATE: June 9, 2010

TIME: 7:00 P.M.

PLACE: Black Point Fire Hall, 8579 St.Margaret's Bay Road, Black Point

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*Meeting commenced about 7:05 P.M.*

Issue	Discussion
Opening Remarks	<p>Ken stated guidelines of conduct for the meeting and introduced Denise Peterson-Rafuse, MLA, who introduced Bill Estabrooks, Minister of TIR.</p> <p>Minister Estabrooks stated: I'm the decision maker. And there has been no decision made. I live in the community and I am Minister of Transportation. I've lost too many friends on that highway, I want Highway 103 from Exits 5 to 6 twinned. There are some differences of opinion between neighbours but please be respectful.</p>
Presentation:	<p>Phil Corkum:</p> <ul style="list-style-type: none"><li>-described info so far re access to properties along Highway 103, environmental impact, info yet to gather before Fall 2010.</li><li>- case of Fire responding to an accident on Highway 103</li><li>- connectivity of roads, connector options and their impact</li></ul>
Ingramport Resident	<p>Question      I was picked-up by EHS and drivers on Route 3 "don't respect the siren". We need connector. When will we have a connector.</p>

	Minister E.: Plans for twinning includes connector. Question: Can we have twinning without connector? Minister E.: Twinning can happen with or without a connector. Resident: "We've been trying for 17 years to get a bypass/emergency connector to the 103. We need a faster exit to the 103.
Boutilier's Point Resident	Questions: When did consultations start? This is a done deal? You didn't ask if we wanted it. Phil: Consultation meetings began in early 2007 with local residents and local special interests groups. No funding is in place. Much planning to take place before any decisions are made to build. "It is all about public safety"
Queensland Resident	Question: Obviously, Option 1 is the cheapest. How much weight would environmental impact be for Option 1? Ian MacC: More study of wetlands required to determine potential impact. Question: Why an interchange when it opposes HRM development plan: Phil: HRM plan is a working document. The interchange does not necessarily go against HRM's vision. Benefit Cost Analysis>User based only. Amount of economic growth can encourage or facilitate development or it can also be controlled by zoning. The plan is to be flexible and reviewed every 5 years.
Queensland Resident	Question: Why not build connector on Hillside Drive? It's already there. Phil: Too much impact on residential area: some homes would have to be bought-out and substantial sections of property acquired to bring the road up to connector road standard. Question: There are other connectors, like road from Dartmouth to Bedford, road from airport to residential area. Phil: That's not really the best option. TIR avoids homes if possible.
Boutilier's Point Resident	Question: What is the population of this area? Phil: I don't know. We are concerned with traffic volumes and traffic safety. Answer: (from woman in attendance) about 1300 residents total for Boutilier's Pt., Ingramport and Black Point. Question: Of the 4 options, what are the distances, general area of each option and how does Option 4 stack up? Phil: We don't have all the information available right now. More information will be available by fall 2010, including a traffic flow report.
Boutilier's Point Resident	Question: Does proposed development of land north of Islandview Drive influence need for connector? Phil: Development is not a consideration. Question: If Option 3 or 4 is chosen would access be granted off that road? Phil: One access would be granted (i.e. an intersection for access to either side of connector road).
Ingramport Resident	Question: Option 3B and 3C are your favourites. Do you have any more details re the roundabout locations? Phil: We do not have any more details. The impact boundary might

	<p>Question: change. We could affect more than one home. We have no favourite option. Still waiting for more information. Roundabouts would solve any potential speeding issues on this curve.</p> <p>Phil: How and when will you get more details. Right now, we are gathering more information. We'll have consultant studies ready by the fall and meeting with local residents with possible 3D renderings. We may need to have more public meetings. In the meantime we will speak with any individuals requiring further information.</p>
Boutilier's Point Resident	<p>Question: When would you pick an option if you did (built) something (connector)?</p> <p>Phil: We hope to have all information by end of this summer and then give a recommendation on what to build.</p> <p>Question: Will you choose the Kennedy Road option?</p> <p>Phil: No. We're not considering that option anymore.</p>
Bedford Resident	<p>Question: Comparing spending choices, the interchange doesn't make the cut. Put the money towards health care. You don't need an interchange to access properties north of Highway 103 because you're building gravel roads.</p> <p>Phil: If anyone has a better idea than an interchange to allow access to the north side please let us know. Gravel roads are a means of getting a land owner to their land but after twinning the only means of accessing the highway will be at an interchange.</p>
A commuter to Burnside	<p>Question: Why not spend \$10 million on public transportation?</p> <p>Phil: You can spend more on public transit but cars will not go away. And you still have trucks that require a safe means of transporting goods.</p> <p>Question: Why not spend \$\$ on other projects besides roads?</p> <p>Phil: That would not be possible. Money budgeted for transportation is for transportation projects.</p>
Black Point Resident	<p>Question: We not use the \$10 million to hire more EHS staff?</p> <p>Phil: We still need to provide access to properties on the north side of Highway 103.</p>
Boutilier's Point Resident	<p>Question: How will you accommodate the intersection of the connector with the rails to trails?</p> <p>Phil: The treatment would be consistent with other side streets that currently cross the path of rails to trails. Accommodations will be made.</p>
Hubbards Resident	<p>Question: I read Jeff Ruben's book, "Your World is About to get a Whole Lot Smaller". Ministers: will you help create more sustainable future? Will you make the right decisions?</p> <p>Minister E.: This is the reason for this meeting. Thank you for offering this information. Give me the book. I'll read it. I respect your decisions and look forward to reading the book.</p>
Boutilier's Point Resident	<p>Question: Traffic data this time of year would not be a true picture of normal daily traffic. Would you consider paved shoulders for bikes, baby carriages?</p> <p>Phil: Yes. We will consider building paved shoulders. The consultants are forced to look at the entire year, not just a particular season.</p> <p>Question: Will you consider another option about 2 km east of Option 4 to hook-up with an existing side street?</p>

	Phil:	TIR does not using existing streets as part of the connector because, according to our standards, only one access is allowed off the connector. All existing driveways would be eliminated and parallel access roads provided.
Black Point Resident	Question:  Minister PR:	Option 2 and 3A would enhance the development proposal from Trinity Developments which contradicts the interests of this community. If one of these connectors is chosen will some compensation be given to the community (perhaps a park on the Trinity Dev. land)? James, we've talked about this before. You and I can talk about this more at a later time.
Boutilier's Point Resident	Question: Phil: Question: Phil:	Where did this idea come from? It came from the Highway Planning office. What can I do to not make this connector road happen? I think you're doing it now. Keep asking the tough questions and keep coming up with other suggestions and ideas.
Boutilier's Point Resident	Question:  Phil:	If Option 3A is chosen, blasting through mountain, where would we get drinking water? How would you ensure pollution would not reach our ocean and waterways. Water testing would take place before and after completion. Through careful planning and construction we can control environmental damage and work the project to avoid run off to lakes and streams from the highway.
EHS Member, Hubbards		I am a member of EHS. The office at Hubbards is a 3 <sup>rd</sup> priority post - there is no full-time staff there. We travel up and down Route 3 on a constant basis responding to many vehicle accidents. The connector road would reduce response times by 10 to 15 minutes. If someone suffered a heart attack in Boutilier's Point, mid-afternoon on a weekday our travel time from Tantallon to Boutilier's Point to Halifax would reduce from 35 minutes to 20 minutes. The connector would improve public safety by getting us off Route 3 and improve EHS responses.
Local business owner	Question: Phil:	Did you consider effect on businesses? Twinning & route location based on high traffic demand and highway safety.
Blandford Resident	Question:  Phil:	We don't want connector. Do you include in design consideration for bikes, walking space. Option 3 tends to favour Bowater. We spend a lot of money, ours, on Bowater. We could give some consideration of wider shoulders to accommodate pedestrians. We refer to it as active transportation and we give serious consideration to widening shoulders with consideration for paving to come later.
Queensland Resident	Question: Phil:	I was involved with the formation of the Otter Lake Landfill. Does the connector road design take into account the landfill? Not a consideration and Otter Lake is not at the end of it's life cycle.
Queensland Resident	Question	I propose an Option 1A on my land by Queensland beach, where a commercial project is proposed. This would be easy access for tourists and enhance EHS and Fire response.

	Phil:	Location is too close to Exit 6, about 4 kilometres. There would still be some 16 kilometres to Exit 5. This does not fulfill the department's requirements.
Fire Chief, Fire Services, Black Point		Development is a municipal issue. When there is a fire in Boutilier's Point, right now 2 fire stations can respond. With the connector 3 stations could respond. The connector would reduce our response times. The connector would save lives.
Tantallon Resident		The Bay is not being protected. Government has not supported the protection of St.Margaret's Bay. The next landfill will be at location of new interchange. We need a full cost/benefit analysis for cultural, spiritual impact and a study on bike lanes for Route 3.  Minister E.: You make some great points and we have spoken many times in the past. But a landfill site? Give your head a shake! I can guarantee that during my time as minister, and my lifetime, the next landfill will be NO where near the area between Otter Lake and the county line. Minister PR: There appears to be a split re the connector. This tells me more discussion is needed. Remember that nothing is final. No decisions have been made at this time.
Woman, Accountant	Question	You take into environmental cost. What about community cost, interests of tourists? I want a more community-based analysis such as GPI index.
	Phil:	We will look into this.
Queensland Resident	Question	What will connector bring into our community? I see Option 3B and 3C include a roundabout. There are left-turn issues for the other options. Can you consider roundabouts there?
	Phil:	We can look at roundabouts for the other options. We are still early in the planning process.
Boutilier's Point Resident	Question	Why do we need a connector now? Does a decision have to be made this November?
	Phil	Present traffic volumes on Highway 103 are high. Capacity of the highway is an issue so more lanes are needed.
	Minister PR:	With every death on this section of highway there is extra pressure to twin. We must also consider demands for an interchange.
Boutilier's Point Resident	Question	Will you build sidewalks with new road?
	Phil:	We would build wider shoulders.
	Denise	Thanks everyone for coming, your comments are most welcome. Thank you for being respectful.
Next Meeting		Minister PR confirmed another public meeting would take place regarding the connector road.

*Meeting adjourned about 9:15 P.M.*

Note: Minister E. Minister Estabrooks

Minister PR: Minister Peterson-Rafuse





## **APPENDIX ‘E’**

### **Comments from Open House**



# Highway 103 Twinning: Upper Tantallon to Hubbards

## Open House Comment Form Summary

March 22, 2011

### 1. Satisfaction with the Open House Format

The people who attended the Open House for the 103 Twinning Project were overwhelmingly pleased with the format (76%), stating that the meeting was ‘informative’, ‘well-done’ and ‘well-organized’. From the comment forms, participants stated that they especially liked the:

- Graphics and visual presentation of information;
- Experts and staff on-hand – they were helpful, well-informed, responsive and professional;
- Presentation – it was well laid out and interesting, factual and unbiased;
- Time people had to look through the information and ask questions;
- 3D models;
- Booth style displays;
- Detail that was considered in each of the options;
- Absence of individuals dominating the meeting, as can occur in Town Hall meetings; and
- Positive ‘low-key’ atmosphere.

Participants suggested the meeting could be improved by providing:

- Handouts for participants to take home and consider further with details of each proposed connector option (e.g. # of water crossings, # houses, # properties impacted);
- Refreshments such as water, juice, etc.;
- Ways to view participant comments publicly; and
- More time for discussion

### Responses to Question #1, ‘What did you think about the Highway 103 Open House’?

Participants	No.
... <u>pleased</u> with the format of the Open House	85
... <u>somewhat pleased</u> with the format of the Open House	8
... <u>not pleased</u> with the format of the Open House	5
No comment	14
<b>TOTAL</b>	<b>112</b>

Participants who expressed that they were only somewhat pleased or not pleased with the format of the Open House provided the following reasons:

- All of their questions could not be answered;
- The information (e.g. tables) was somewhat confusing;
- There was a lot of information which could be difficult for some people to process;
- The information on plant species at risk was unclear;
- It didn't address the topics they wanted to hear more about (i.e. alternatives to the project);
- There was not enough opportunity for people to voice their opinions;
- The community should have been able to vote if they wanted a connector; and
- The open house only provided information from one point of view.

## **2. Specific Issues Related to the Project**

In the second question on the Comment Form, participants were asked to outline any comments, suggestions, concerns or issues regarding the Highway 103 Twinning project that they would like to draw to the attention of the project staff. The variety of issues that were raised, and number of participants commenting on that issue is documented in the table below. Where a specific suggestion was noted to address these concerns, the suggestion has been included in the right column.

**Responses to Question #2: ‘Are there any concerns, issues or suggestions regarding the project that you would like to draw to our attention’?**

<b>Theme</b>	<b>Concerns/Issues Highlighted by Participants</b>	<b>No. of People</b>	<b>Specific Suggestions Provided</b>	<b>No. of People</b>
<b>Access</b>	Year-round access on gravel roads parallel to the 103 (E.g. Mill Lake to Sawler Lake) for residents and emergency vehicle access	3	Dept of Transportation needs to ensure winter plowing of access roads parallel to 103 (e.g. Mill Lake to Sawler Lake)	3
	Access from 103 to South properties	2		
	Access to rail bed and ATV trails	1		
	Impact on homes by turning Old Rock Road (a private road) into an access road. May remove walk-up access to land on North side of 103	1		
	Access roads won’t be used – Hubbards residents are closer to Exit 6; Boutiliers Point/Head of St. Margaret’s Bay residents won’t double back	1		
<b>Private Property</b>	Impact on Simms Settlement – damage to land, wells, foundation and impact of noise	2		
	Proximity of highway to driveways of houses near Exit 2; impact of blasting during construction	1	Move connector road another 100 m towards Hubbards near Exit 2	1
	Disruption to homes in Ingramport	1		
	Lighting requirements will diminish value and enjoyment of adjacent properties	1		
<b>Environment</b>	Impact on water ways, fish species, and natural habitats from construction and ATVs going under road at River Lake bridge	7	Ensure minimal environmental impact	5
	Impact of narrow median on wildlife crossings	1		
	Increased carbon dioxide emissions and fuel consumption from increasing the speed limit	2		

Theme	Concerns/Issues Highlighted by Participants	No. of People	Specific Suggestions Provided	No. of People
	Impact on the water table has not been considered	1		
<b>Safety</b>	Proposed narrow median is in a section of road where visibility is obscured by turns and hills	2	Make a wide as opposed to narrow median	1
	No evaluation of storm impacts and emergency evacuation options, e.g.: – at Head of the Bay side of the Ingramport River – between Schooner Cover and Queensland Beach (where road close to ocean)	2		
	Steep downslope toward Bay Rd. would make dangerous conditions in rain, snow and ice	1		
<b>Local Economy</b>	Tourist or commuter traffic will bypass businesses between Head of St. Margaret's Bay and the Connector creating an economic dead zone	1		
<b>Traffic</b>	Traffic will increase coming from Halifax to Hubbards and area; bottlenecking will occur during tourist season	3		
	Increased traffic from connector road combined with proposed Destiny Development	1		
<b>Roundabout</b>	Roundabout in option 4 will: <ul style="list-style-type: none"> <li>• Destroy wildlife habitat</li> <li>• Decrease safety of people using rails-to-trails who have to cross it</li> <li>• Reduce property values of homes nearby</li> <li>• Decrease driver safety in winter on slippery roads so close to water</li> </ul>	1		

Theme	Concerns/Issues Highlighted by Participants	No. of People	Specific Suggestions Provided	No. of People
<b>Project and Consultation Process</b>	Not everyone in the community has been consulted or had an opportunity to voice their opinion	4	Have one more session that allows participation as a group People not from the area and not affected by the project should not be involved	1 1
	Individuals are speaking on behalf of the community	3		
	It is not clear how the decision will be made – weight of factors such as safety, cost, public input etc.	3		
	Meeting did not include a “straw vote” on what people think is the best option	1		
	Landowners whose land may be affected or who may be affected by potential expropriation (e.g. in Queensland) were not consulted one-on-one	3		
	There were no environmental representatives at the Open House	1		
<b>Project Rationale</b>	Cost of the project is high - resources are better spent elsewhere	8	Invest money in public transportation, improvements to Highway 3, public education and driver safety, increased police presence	6
	Cost-benefit analysis is un-convincing	1		
	Emergency response rationale is unconvincing - emergency services are nearby (exit 5 & 6), and safety will be resolved with twinning	3	Build an emergency vehicles only access road up by Black Point Firehall Remote control gating, emergency U-turn or simple overpass	1 1
	Traffic volume statistics used to justify the project are misleading; when broken down volumes are less than 90 per hour.	1		

Participants also provided the following general and specific suggestions regarding the project (the number of participants who included this on their comment form is included in brackets):

**General Suggestions:**

- Don't eliminate or move houses (5)
- Be cost-effective (1)
- Minimize destruction of private property (3)
- Make sure the cost/benefit study makes human considerations (1)
- Choose the option that best fits the aesthetics and environmental aspects of the area (1)

**Specific Suggestions:**

- Provide a better video that shows the impact on existing housing – e.g. as traffic comes off ramp into the community (2)
- Look at ATV access at exit 6 from rail bed up to null(?) Lake road (1)
- Provide commuter/carpool parking near interchange (2)
- Take Options 3B, 3C and 4 off the table (1)
- Graphics should show efforts for night lighting on roundabouts & how rails to trails will be handled (1)
- Make the stats and results of the focus groups publicly available (1)
- Hold mediation sessions with people who may be impacted; discuss compensation for perceived or real loss (1)

Information provided by participants to help with the decision-making process included:

- Puddle Beach, next to Option 1, is known as the “kids beach” and they often dart around the cars lining the road, making it a dangerous situation
- There is already a fish ladder at Dory(?) Lake
- House on Ingramport River at the bottom of proposed Option 2/3A - round house
- Option 2 has high elevated area after coming off Highway
- Maps did not show all wetlands and watercourses in at least Option 1 and 4

<b>Number of participants who wrote on their comment forms:</b>	
<b>I support the project / feel it is overdue / hope it goes ahead</b>	<b>I feel the project is unnecessary</b>
24	13

<b>Specific Feature of Project</b>	<b>Number of People Who Wrote that they...</b>	
	<b>Approve</b>	<b>Disapprove</b>
Tunnel at Big Rock Road/Vinegar Lake Rd	2	-
Connector Road (in general)	14	7
Roundabout	3	2



<b>OPTION</b>	<b># COMMENTS</b>	<b>Comments for</b>	<b>Comments against</b>
Option 1	11	<ul style="list-style-type: none"> <li>• Shortest route</li> <li>• Least environmental impact</li> <li>• Cheaper</li> <li>• Best access</li> <li>• No homes affected</li> <li>• Best option for fire department and emergency response team</li> </ul>	<ul style="list-style-type: none"> <li>• Too much armour stone</li> <li>• Too close to Hubbards</li> <li>• May interfere with beachgoers and parking along side of road</li> <li>• Too close to exit 5</li> <li>• Too close to beaches and homes</li> <li>• Most environmentally sensitive – two lakes, wetland and several watercourses will be affected</li> </ul>
Option 2	6	<ul style="list-style-type: none"> <li>• Most sensible</li> <li>• Least public disruption</li> <li>• No homes affected</li> </ul>	<ul style="list-style-type: none"> <li>• Too much cut and fill</li> <li>• A lot of bedrock will have to be blasted, near a blind corner in the road</li> </ul>
Option 3A	3	<ul style="list-style-type: none"> <li>• No homes affected</li> </ul>	
Option 3B	8	<ul style="list-style-type: none"> <li>• Midway between exit 5 &amp; 6</li> <li>• Short</li> <li>• Little environmental damage</li> <li>• Only a temporary cottage will be affected</li> </ul>	<ul style="list-style-type: none"> <li>• High cost and impact on environment</li> <li>• Loss of homes</li> </ul>
Option 3C	4		<ul style="list-style-type: none"> <li>• High cost and impact on environment</li> <li>• Loss of homes</li> </ul>
Option 4	2	<ul style="list-style-type: none"> <li>• Best midway point between interchanges</li> <li>• Best option for joining old road</li> <li>• Only option that provides a way out for residents if a storm washes out the bridge</li> </ul>	<ul style="list-style-type: none"> <li>• Too long</li> <li>• High cost and impact on environment</li> <li>• Impacts to Ingramport River</li> <li>• Loss of homes</li> </ul>

### 3. Additional Questions from Participants

When do you start?

What is the decision making process?

How will the feedback from today's meeting be integrated into the decision-making process?

What is the decision time frame? (When will the option be decided upon?)

Has there been any consideration of social and economic impacts (e.g. loss of business to crossroads area?)

What environmental considerations have been considered besides wetlands (e.g. saltation, increased traffic, effect of run-off, redefinition of communities)?