

To: Environmental Assessment Branch

RE: Antigonish Environmental Assessment Report

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Please note that the attached report indicates that it is the "Final Draft Report". It is in fact the "Final Report".

Sorry for any confusion this may cause.

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**PROJECT NO.NSD16949**

**FINAL DRAFT REPORT TO**

**NOVA SCOTIA DEPARTMENT OF  
TRANSPORTATION AND PUBLIC WORKS**

**ON**

**ENVIRONMENTAL ASSESSMENT  
HIGHWAY 104 ANTIGONISII**

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**in association with**

**Atlantic Road & Traffic Management,  
&  
Hydro-Com Technologies Ltd.,**

**April 2005**

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## EXECUTIVE SUMMARY

Nova Scotia Department of Transportation and Public Works (NSTPW) proposes to construct and operate a 15 kilometre fully controlled access, four-lane divided highway from Addington Forks Road, west of the Town of Antigonish, to Taylor Road, east of the community of South River, Nova Scotia (the Project). Highway 104 is part of the National Highway System and is therefore eligible to be cost shared by the Federal and Provincial governments. Eligibility for federal funding is dependent upon approval of the proposed Project under the *Canadian Environmental Assessment Act*. As the Project is over 10 km in length, it also requires approval as a Class II Undertaking pursuant to the *Environmental Assessment Regulations* under the *Nova Scotia Environment Act*.

NSTPW has conducted a preliminary environmental screening, public consultation and a functional analysis of the proposed alignment as part of the preliminary planning for the Project. The Project has also undergone a detailed safety review, an independent peer review and a detailed assessment of environmental impacts at the South River crossing. These studies resulted in the selection of alignment options.

The assessment of the selected alignment considers biophysical and socioeconomic issues, focussing on issues of greatest concern known as Valued Environmental Components (VECs) and Valued Socioeconomic Components (VSCs) identified through a scoping process including consideration of the NSTPW Terms of Reference. Each of the following eight VECs and four VSCs selected for this assessment were evaluated for potential Project related effects:

### VECs

- Atmospheric Resources
- Groundwater Resources
- Fish and Fish Habitat
- Rare Herpetiles
- Rare Mammals and Critical Habitat
- Rare and Sensitive Birds
- Rare Plants and Plant Communities
- Wetlands

### VSCs

- Local Economy
- Land Use
- Archaeological and Heritage Resources
- Transportation Infrastructure

Mitigation and monitoring have been proposed to reduce or eliminate potentially adverse effects. The significance of residual environmental effects (*i.e.*, after mitigation has been applied) including cumulative effects was predicted for each VEC/VSC. In general, potential adverse effects on these VECs/VSCs will be short term and/or highly localized and can be effectively mitigated through technically and economically feasible methods recommended in this report. Potentially adverse residual effects are therefore predicted to be not significant for all VECs and VSCs.

Operation of the Project will provide safe, convenient, economic and efficient movement of persons and goods through the area, thereby having a positive effect on transportation infrastructure. Decreased traffic along the most existing uncontrolled access Highway 104 will contribute to a quieter, safer living environment for most residents.

In summary, this Project will provide a long term public benefit by reducing current traffic volumes on the existing uncontrolled access portion of Highway 104. It will also provide infrastructure to handle future traffic volumes and patterns, thereby improving public safety, without significant adverse environmental effects.

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## LIST OF ACRONYMS

AADT	Average Annual Daily Traffic
ACCDC	Atlantic Canada Conservation Data Centre
AEC	Atlantic Expressway Committee
ARDA	Antigonish Regional Development Authority
CEA Agency	Canadian Environmental Assessment Agency
<i>CEAA</i>	<i>Canadian Environmental Assessment Act</i>
<i>CEPA</i>	<i>Canadian Environmental Protection Act</i>
CLC	Community Liaison Committee
CMA	Calcium Magnesium Acetate
CO	Carbon Monoxide
COSEWIC	Committee on the Status of Endangered Wildlife in Canada
DFO	Department of Fisheries and Oceans Canada
EA	Environmental Assessment
ECM	Environmental Compliance Monitoring
EEM	Environmental Effects Monitoring
EPP	Environmental Protection Plan
<i>FCR</i>	<i>Federal Coordination Regulations</i>
FHWA	Federal Highway Administration
FWAL	Freshwater Aquatic Life (Guidelines)
HADD	Harmful Alteration, Disruption or Destruction
HMVK	Hundred Million Vehicle Kilometres
H <sub>2</sub> S	Hydrogen Sulphide
IT	Information Technology
JW	Jacques Whitford
JWEL	Jacques Whitford Environment Limited (pre 2004)
NEB	National Energy Board
NO <sub>x</sub>	Nitrous Oxides
NO <sub>2</sub>	Nitrogen Dioxide
NSDAF	Nova Scotia Department of Agriculture and Fisheries
NSDEL	Nova Scotia Department of Environment and Labour
NSDNR	Nova Scotia Department of Natural Resources
NSDOE	Nova Scotia Department of Environment
NSDOTC	Nova Scotia Department of Transportation and Communications
NSPI	Nova Scotia Power Inc.
NSTPW	Nova Scotia Department of Transportation and Public Works
O <sub>3</sub>	Ozone
PDO	Property Damage Only

POIs	Petroleum, Oils, or Lubricants
RA	Responsible Authority
Rcap-MS	Rapid Chemical Analysis Package-Metals Scan
RoW	Right of Way
RWIS	Road Weather Information System
<i>SARA</i>	<i>Species at Risk Act</i>
SO <sub>2</sub>	Sulphur Dioxide
SSHR	South Side Harbour Road
St. FX	Saint Francis Xavier (University)
TDS	Total Dissolved Solids
TSP	Total Suspended Particulates
TSS	Total Suspended Solids
VECs	Valued Environmental Components
vpd	Vehicles Per Day
VSCs	Valued Socioeconomic Components

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