



**REGISTRATION PURSUANT TO SECTION 49
OF THE ENVIRONMENTAL PROTECTION ACT, 2002,**

FOR THE

**CONSTRUCTION OF THE NOEL'S POND BY-PASS
ROAD, ROUTE 460, NEAR STEPHENVILLE**

PROPONENT:

(I) Name of Corporate Body

Department of Transportation and Works
Government of Newfoundland & Labrador

(ii) Address

6th Floor, Confederation Building (West Block)
St. John's, NF
A1B 4J6

(iii) Chief Executive Officer

Brent Meade
Deputy Minister
729-3676

(iv) Principal Contacts for the Purpose of Environmental Assessment

Roger Pottle
Senior Environmental Planner
Highway Design and Construction Division
729-5379

THE UNDERTAKING:

(I) Name of the Undertaking

Construction of a By-Pass Road near Noel's Pond, Route 460, Stephenville.

(ii) Nature of the Undertaking

The construction of a by-pass road at Route 460 (Hansen Highway) near Noel's Pond, Stephenville for an approximate distance of 6 km.

(iii) Purpose / Rationale / Need for the Undertaking

The purpose of this construction is to by-pass a section of Route 460 near the community of Noel's Pond which has had a history of frequent flooding resulting in temporary closures of the road. This area is within the Stephenville Flood Risk Mapping Area.

The general benefits of the by-pass are:

- Allowing Route 460 to operate when flooding occurs within the community of Noel's Pond;
- Providing a safe, efficient and reliable road transportation route for area residents businesses and emergency vehicles;
- Improving the road standard thereby reducing the risk of highway accidents and improving highway safety;
- During flooding events at Noel's Pond, there would be less travel distance and reduced travel time for motorists travelling on Route 460.

Description of the Undertaking

(I) Geographic Location

The west end of the by-pass intersects with Route 490 at the southeast end of Noel's Pond and extends in an easterly direction to Route 460 at the southwest corner of Long Gull Pond. The by-pass road will be approximately 6 km long. The proposed by-pass road is shown on a

topographic map section (approx. scale 1:42,500) and a Google Earth Image, Appendix A.

(ii) Physical Features

The highway will be constructed to a Rural Local Undivided 80 km / hr. Standard (RLU 80 km/hr.). This is a much improved standard compared to the existing Route 460. A typical cross section drawing is appended in Appendix B. A 10 m wide top will be provided with a 7 m paved driving surface. The right-of- way width of an RLU 80 is 30 m and this would be completely cleared; however, due to the sparse tree growth, clearing will be minimal. The grubbing width will be 20 m.

The subgrade of the by-pass road will be constructed mostly in a fill situation. The fill will be obtained from road right-of- way rock cuts along the Long Gull Pond end of the project and from an adjacent cut to the west. Granular material for asphalt aggregates and paving purposes could come from either road cuts within the project or from an existing quarry site in the area. Blending sand for paving could come from an existing borrow source in the area.

The route in some road sections will skirt areas of wetland while in other road sections, the road subgrade will be constructed in the wetland. Where possible, horizontal alignment adjustment will be made in the field to minimize wetland impacts. Within the wetlands and where the subgrade is built, excavation of the organic material will be carried out and replaced with rock fill. Excavated organic material will be utilized to rehabilitate disturbed areas.

Drainage pipes will be installed within the subgrade to convey storm water flows and snow melt. In wetland areas, subgrade drainage pipes will be installed such that the existing surface water elevations and flows are maintained. All drainage pipes will be manufactured of high density polyethylene.

Several small brooks will be crossed. Grubbing activities around watercourses will be restricted until such time as the crossing structures are installed.

All water crossing sites will be examined in greater detail as soon as field conditions permit. Engineering field surveys and a fish /fish habitat assessment will determine if modifications to structures are necessary to allow for fish passage.

All stream crossing structures will be designed to withstand the 1:100 year flood event. Flood Risk Mapping for the area (Appendix C) will be used in the design of stream crossing and drainage structures.

The Department of Transportation and Works will consult with the Water Resources Division of the Department of Environment and Conservation (DOE&C) to ensure that the best available data is utilized to design stream crossing and drainage structures. For this purpose, Water Resources Division, DOE&C climate change data will be considered as part of any drainage structure analysis and design.

The Water Resources Division's Environmental Guidelines for work around watercourses will be used during the design and construction phases. These guidelines include:

Chapter	Title
3	Watercourse Crossings
4	Bridges
5	Culverts
6	Fording
7	Diversions, New Channels, and Major Alterations
9	Pipe Crossings
13	General Construction Practices

Stream crossing structures will be designed and constructed in consultation with Fisheries and Oceans Canada (DFO). An Assessment of Fish Habitat along upstream and downstream areas adjacent to significant stream crossings will be carried out. Stream crossing structures will be

designed and constructed to have minimal impact on fish and fish habitat and in accordance with:

- DFO's Guidelines for Protection of Freshwater Fish Habitat in Newfoundland and Labrador (1998);
- DFO Fact Sheets for environmental protection measures; and
- Fish passage guidelines and other applicable guidelines.

(iii) Construction

Road construction will be performed by contract forces over a two year period. Subgrade construction will be carried out over a one year period starting in 2014. Paving is planned for the 2015 construction season. The project will involve:

- (a) Engineering field surveys and environmental assessments;
- (b) Right-of-way clearing;
- (c) Grubbing / excavation;
- (d) Subgrade construction;
- (e) Stream crossing structures;
- (f) Clean-up and rehabilitation;
- (g) Grading and
- (h) Paving

The potential sources of pollution during construction would be limited to the possible siltation of watercourses/water bodies during grubbing/excavation operations. In addition, the potential exists for hydrocarbon spillage from temporary fuel storage facilities. Contractors will be advised of the environmental requirements for stream crossing work and for hydrocarbon spill reporting/clean-up and the necessity of strict compliance.

The potential for adverse environmental impacts during construction will be minimized. All construction activities will be undertaken in accordance with the environmental requirements of the Department of Transportation and Work's Specification Book for highway projects and in compliance with other environmental and related project documents. Where necessary, the results of environmental assessment field work as well as special mitigative measures will be incorporated into project contract documents.

(iv) Operation

The road is a permanent operation. Periodic summer maintenance will be necessary and will include such activities as grading, shouldering, ditch cleaning and repairs to guide rails and road signs. Winter maintenance will consist of snow clearing and the application of a sand/salt mixture for ice control.

(v) Occupations

The various types of occupations anticipated for this project include:

- (a) Civil Engineers;
- (b) Structural Engineers;
- (c) Engineering Technicians;
- (d) Environmental Planner
- (e) Environmental Scientist
- (f) Road Surveyors;
- (g) Heavy Equipment Operators;
- (h) Drillers and Blasters;
- (i) Electricians;
- (j) Carpenters;

(k) Heavy Equipment Mechanics;

(l) Labourers;

(m) Truck Drivers;

(vi) Project-Related Documents and Assessments

- An Environmental Protection Plan (EPP) will be prepared for the project and it will form part of the tender documents. The EPP will be a field usable document which will outline the environmental protection measures to be implemented during the construction phase. The EPP will clearly outline the location of any environmentally sensitive areas which are known and specify any restrictions on the timing of construction due to wildlife/fisheries/water resources/historic resources/aboriginal concerns, etc. Rehabilitation measures for disturbed areas of the project will be clearly outlined.
- A Contractor Environmental Mitigation Plan (CEMP) will be required from the contractor for department review and acceptance prior to the commencement of construction.
- Before construction begins, an Environmental Awareness Session will be held between the contractor and department officials to review and discuss the EPP and the CEMP.
- The need for a Historic Resources Assessment will be determined through consultation with the Cultural Heritage Division of the Department of Tourism, Culture and Recreation. If necessary, the appropriate assessment work will be undertaken. The EPP will outline reporting procedures and other mitigative actions to be taken in the event historical material is discovered during construction operations.
- A Fish and Fish Habitat Assessment will be carried out on the stream crossing sites for those watercourses which will be crossed during construction. The assessment will determine the presence of fish and the type of fish habitat which is present and if

modification to structures may be necessary to ensure fish passage.

- A Vegetation Assessment will be conducted along the proposed route to determine the presence of rare or special plants within or adjacent to the proposed right-of-way. The Wildlife Division, DOE&C will be consulted.
- The project area will be assessed for the presence of raptor and migratory bird nests. Consultation will take place with both the provincial Wildlife Division and with the Canadian Wildlife Service, Environment Canada.
- The flood risk mapping and related data in the Hydrotechnical Study of Stephenville, (DOE&C/Hatch, March 2009) will be used to design stream crossing and drainage structures for the project.

APPROVAL OF THE UNDERTAKING:

The following is a list of the permits, licences, approvals which may be necessary for this project:

MAJOR REGULATORY APPROVALS BY TYPE AND AGENCY

Type of Permit	Agency
1. Stream crossing approvals	DFO & DOE&C
2. Wood cutting permits	Dept. of Natural Resources
3. Fuel storage & handling	Government Service Centre
4. Solid waste disposal	Government Service Centre
5. Water supply/sewage disposal for construction camps (if applicable)	Government Service Centre
6. Borrow/quarry site approvals	Dept. of Natural Resources
7. Contractor stream crossing approval for temporary crossings	DFO & DOE&C

SCHEDULE:

The Department of Transportation and Works would like to complete the requirements of the Environmental Assessment Act and seek approval for the project no later than 2014 06 23. A tender call could take place in June of 2014 with subgrade construction starting shortly after. Paving would take place in 2015.

FUNDING:

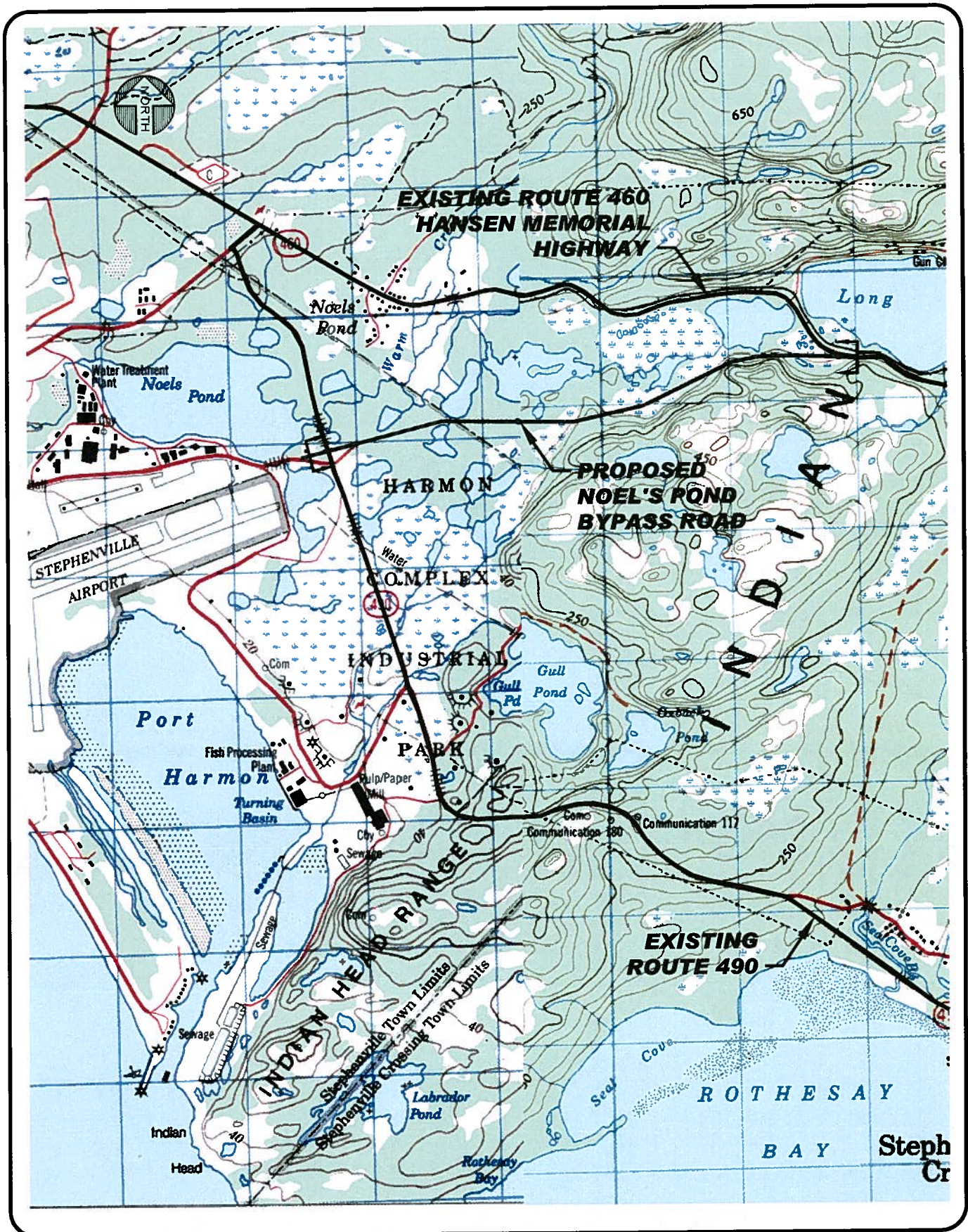
The project will be funded by the Government of Newfoundland and Labrador. The total estimated cost of the project is approximately \$6 million.

May 8/14
Date



Brent Meade
Deputy Minister

APPENDIX A



TRANSPORTATION AND WORKS
HIGHWAY DESIGN DIVISION

Proposed Noel's Pond Bypass Road

DRAWN BY: JM

DATE: Rev April 7, 2014

Scale Approx 1:42,500

PROPOSED NOEL'S POND BYPASS ROAD

EXISTING ROUTE 460
HANSEN MEMORIAL HIGHWAY

LONG GULL POND

PROPOSED NOEL'S POND
BYPASS ROUTE

COMMUNITY OF
NOEL'S POND

NOEL'S POND

EXISTING ROUTE 490



Google earth

Image © 2013 DigitalGlobe

© 2013 Cnes/Spot Image

Imagery Date: 7/20/2003

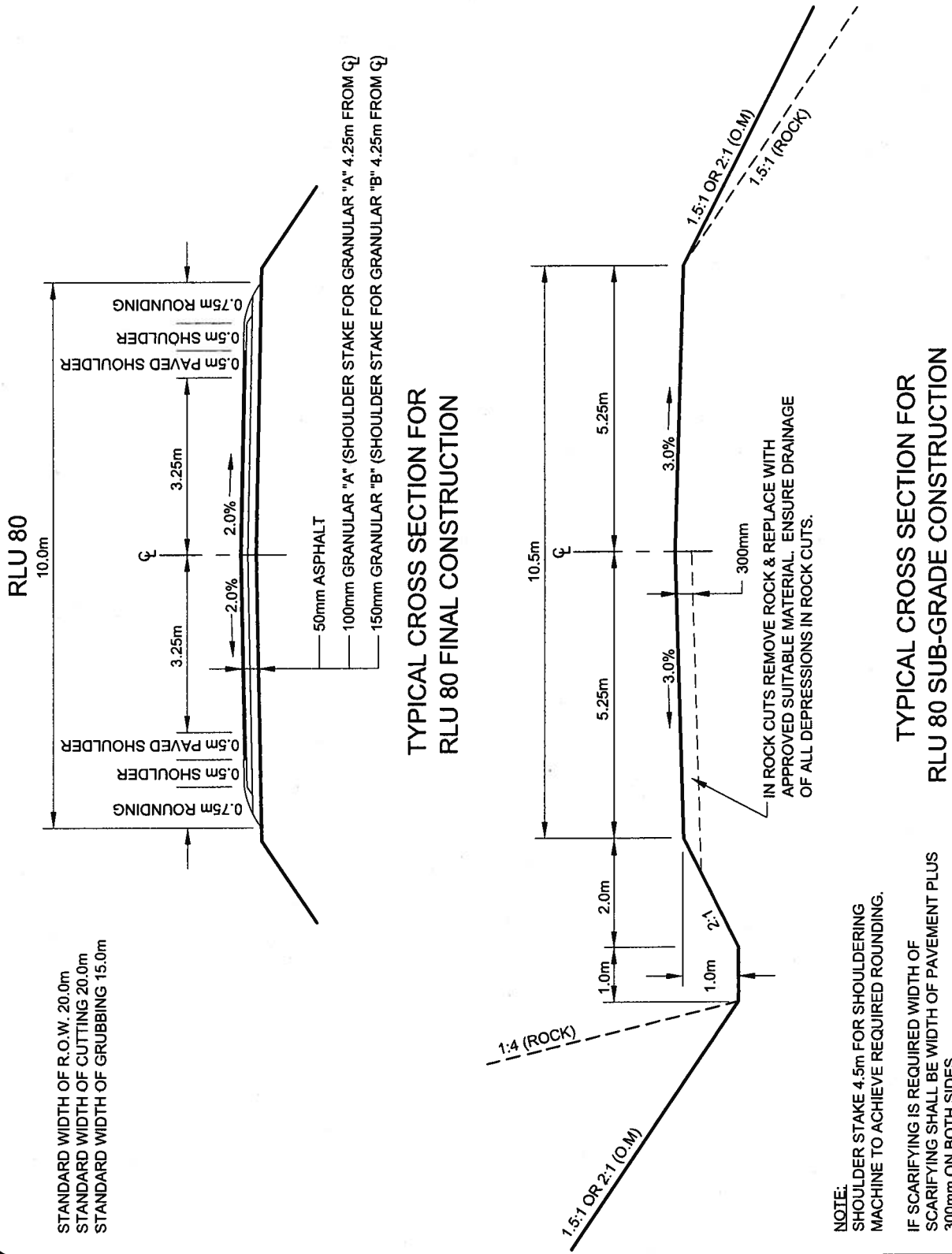
85 ft eye alt 16212 ft

48°33'33.29" N 58°29'18.62" W elev

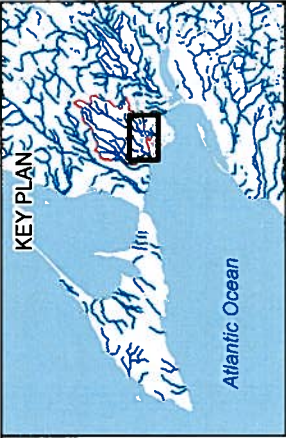
2003



APPENDIX B



APPENDIX C



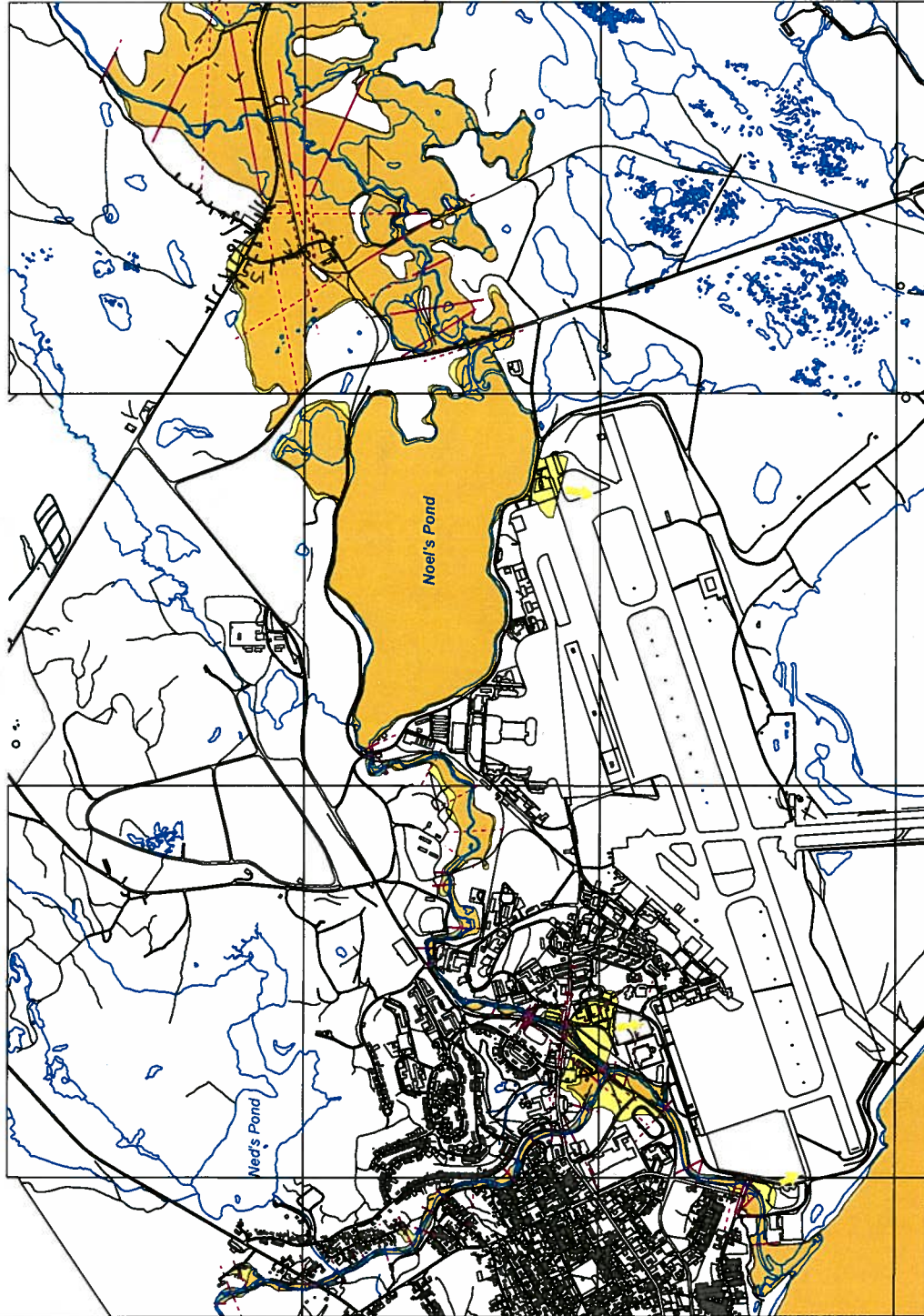
Legend

- Cross Sections (Surveyed)
- - - Cross Sections (Extended)
- Rivers
- Roads
- ↑ Potential Spill Location
- 1:20 AEP Floodline
- 1:100 AEP Floodline

Note:
 1) Cross sections upstream of Noel's Pond (except W32) are 1996 survey sections. All other sections were surveyed in 2008.



OUTSIDE EXTENTS OF COMMUNITY MAPPING



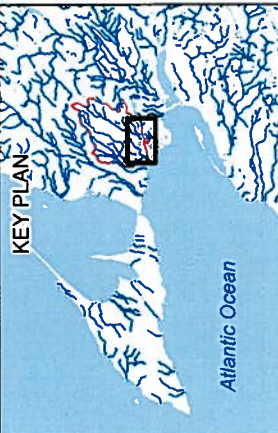
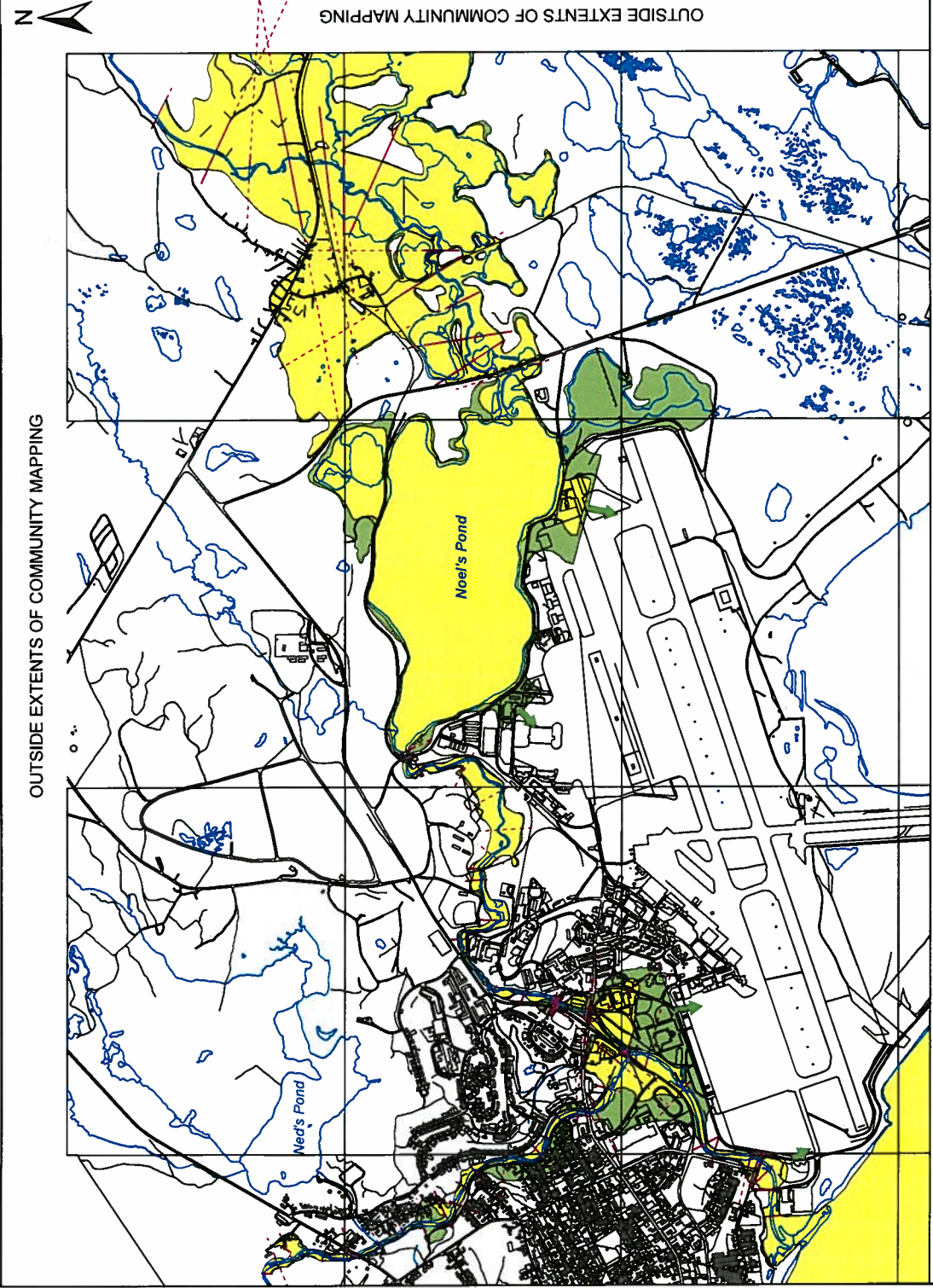
OUTSIDE EXTENTS OF COMMUNITY MAPPING

HYDROTECHNICAL STUDY OF STEPHENVILLE - GOVERNMENT OF NEWFOUNDLAND AND LABRADOR

Flood Risk Mapping - Blanche Brook and Warm Creek

March 2009

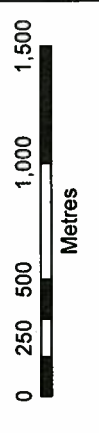
Overview Map



Legend

- Cross Sections (Surveyed)
- - - Cross Sections (Extended)
- Rivers
- Roads
- ↑ Potential Spill Location
- Yellow 1:100 AEP Floodline
- Green HadCM3 1:100 AEP Climate Change Floodline

Note:
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