

**LEGEND**

- Bedrock Sample
- Blasted Rock Sample
- Overburden Sample
- Pit Outline

Coordinate System: NAD 1983 UTM Zone 20N  
 Projection: Transverse Mercator  
 Datum: North American 1983  
 Units: Meter

1:45,000



DATE SAVED: Nov 08, 2018

DRAWN BY: GM

REVIEWED: JO

VERSION: 1

CLIENT:



ATLANTIC GOLD



PROJECT:

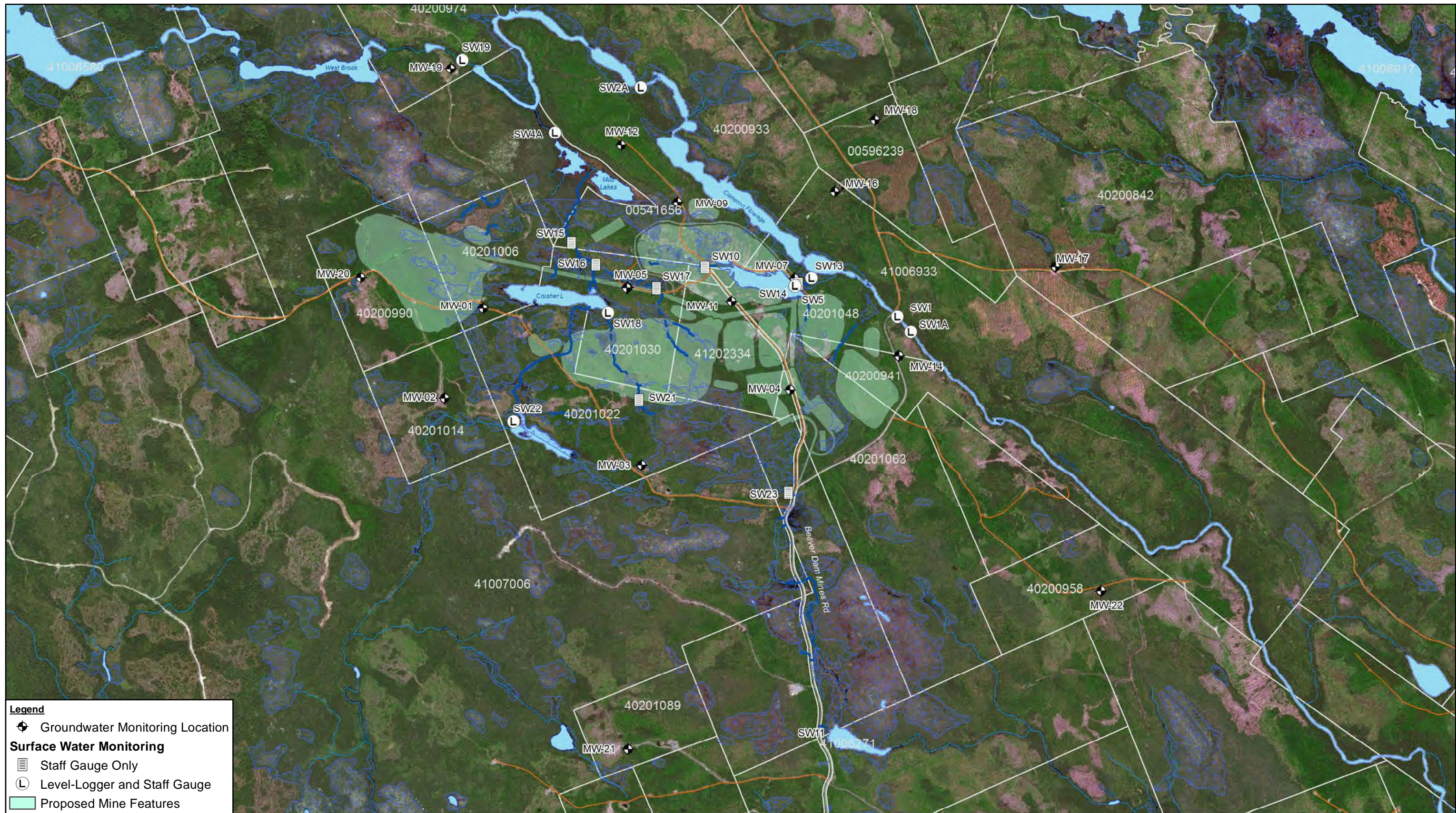
**Beaver Dam Phase II  
 Geochemical Assessment**

TITLE:

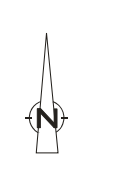
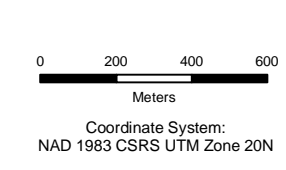
Beaver Dam Haul  
 Road Sample Locations

PROJECT #: A458-2

FIGURE: 6.5-7



Source: GHD, Leading Edge Geomatics (Aerial 2015); Service Nova Scotia/ Service Layer Credits: © 2019 Microsoft Corporation © 2019 DigitalGlobe ©CNES (2019) Distribution Airbus DS

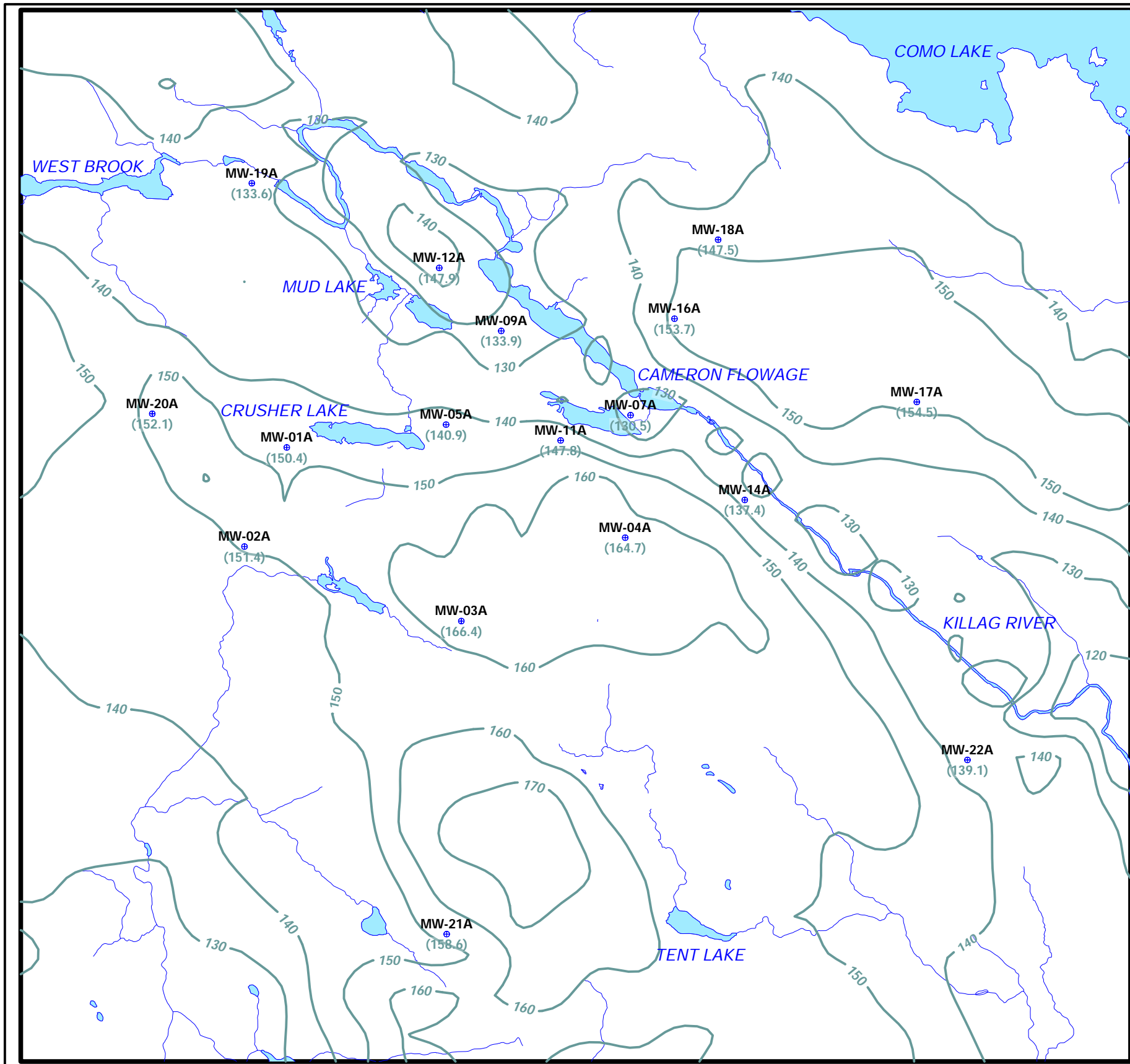






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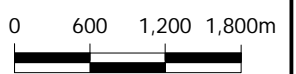
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MONITORING LOCATIONS

FIGURE 6.6-1



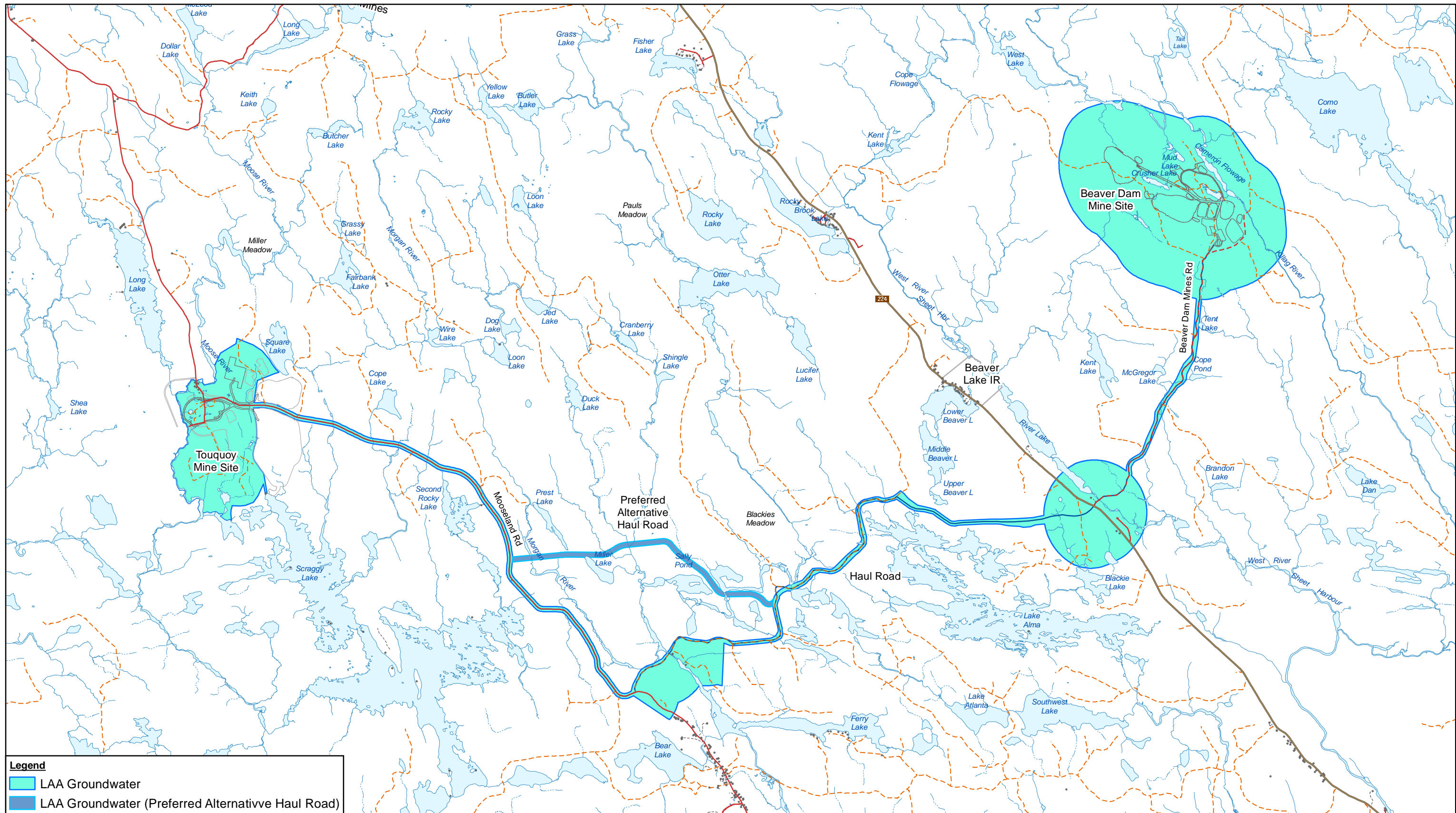
- LEGEND**
-  SURFACE WATER BODY
  -  WATER LEVEL MONITORING LOCATION
  -  (154.5) OVERBURDEN GROUNDWATER ELEVATION MEASURED ON JULY 18, 2018 (m AMSL)
  -  — 140 — OBSERVED OVERBURDEN GROUNDWATER ELEVATION CONTOURS - JULY 18, 2018 (m AMSL)



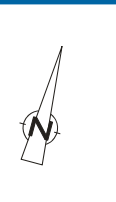
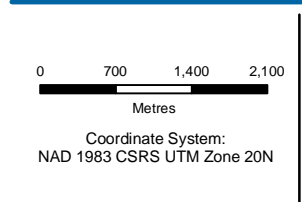
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 BEAVER DAM MINE  
 OBSERVED OVERBURDEN GROUNDWATER ELEVATION  
 CONTOURS - JULY 18, 2018

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FIGURE 6.6-4



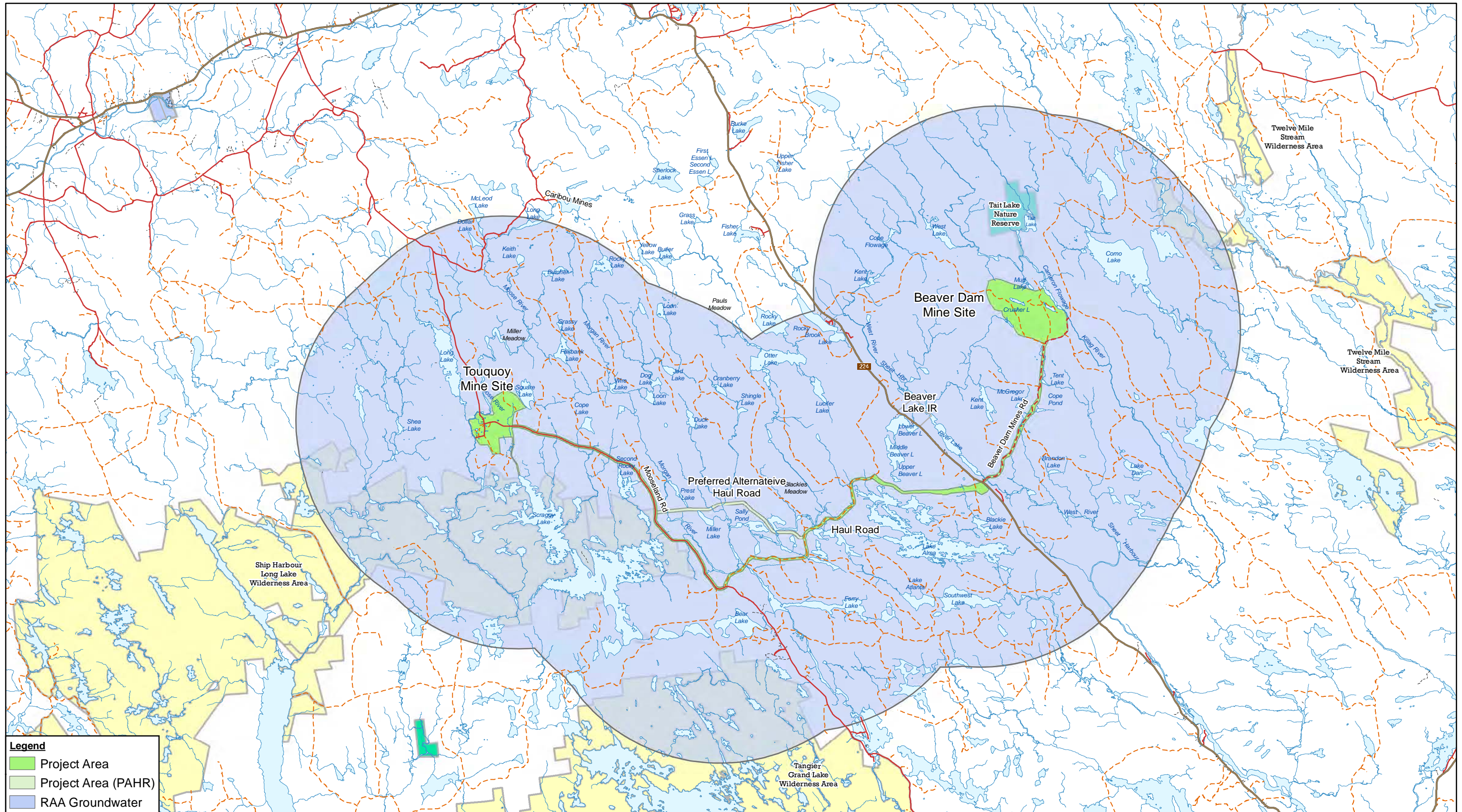
Source: Service Nova Scotia



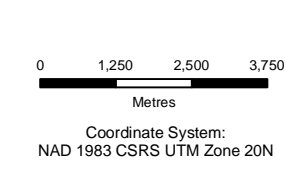
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LOCAL ASSESSMENT AREA  
GROUNDWATER

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FIGURE 6.6-7



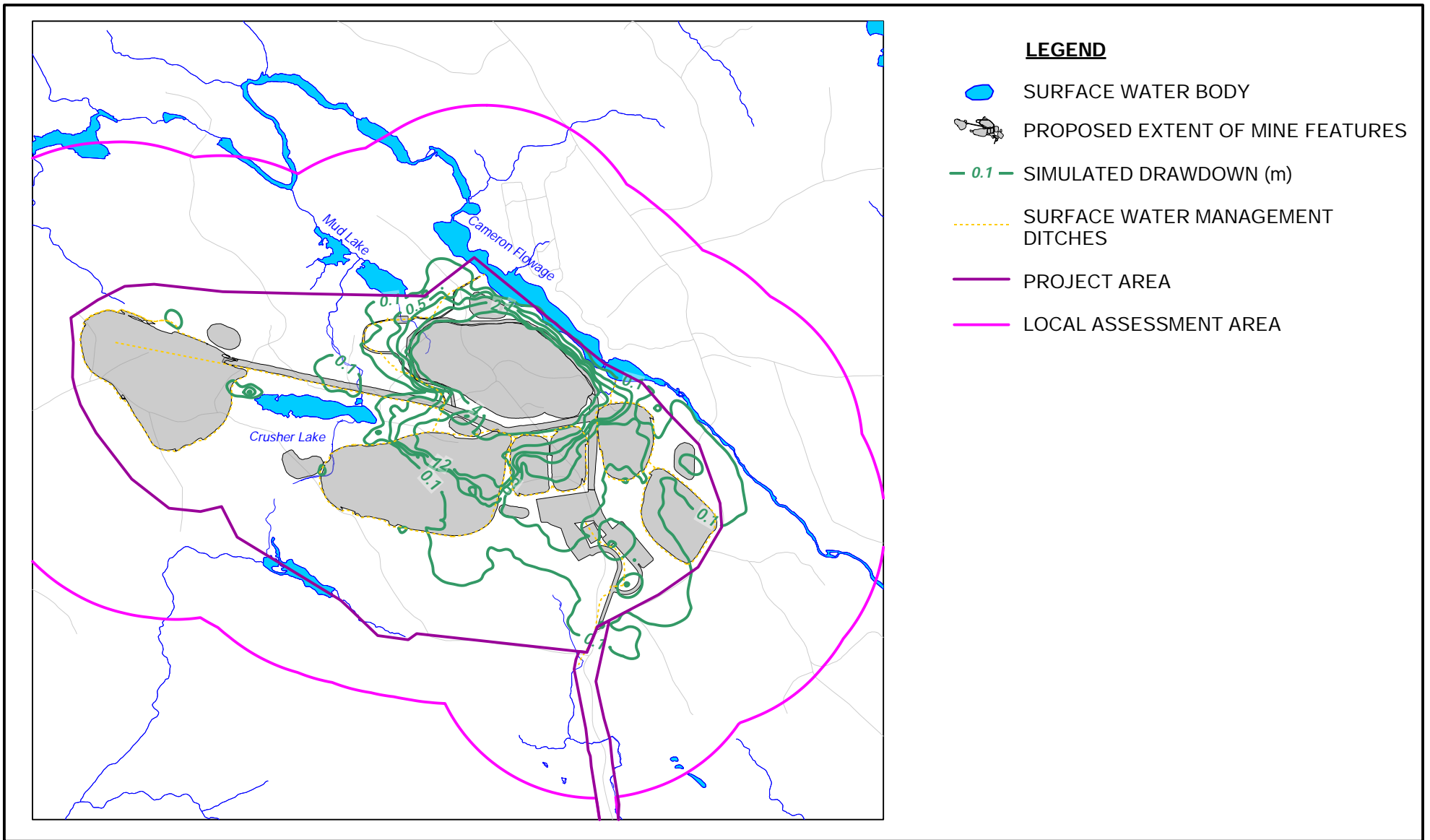
Source: Service Nova Scotia



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REGIONAL ASSESSMENT AREA  
GROUNDWATER

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FIGURE 6.6-8



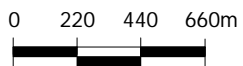
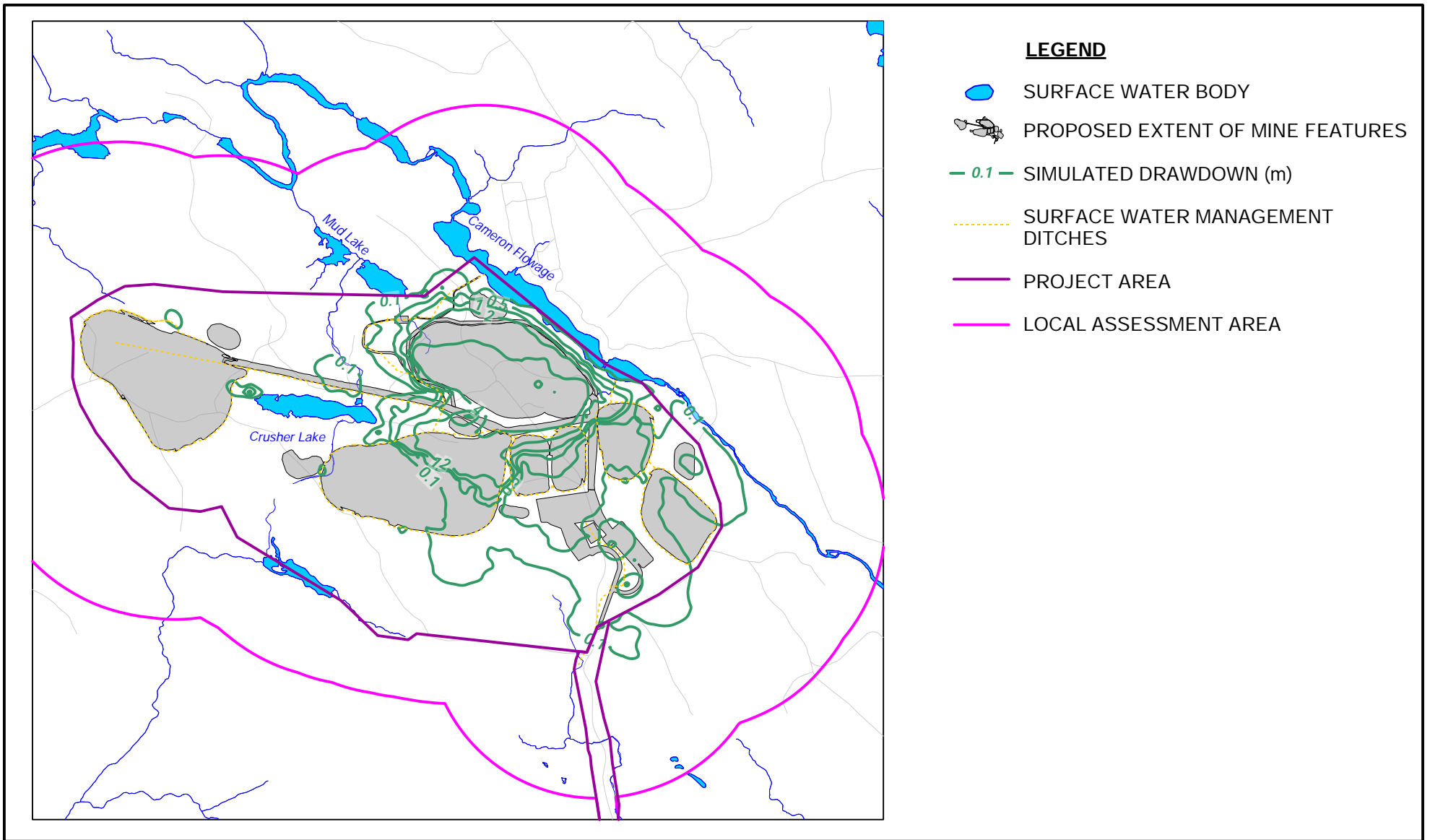
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 BEAVER DAM MINE

SIMULATED DRAWDOWN EOM - BASE CASE CONDITION

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FIGURE 6.6-9



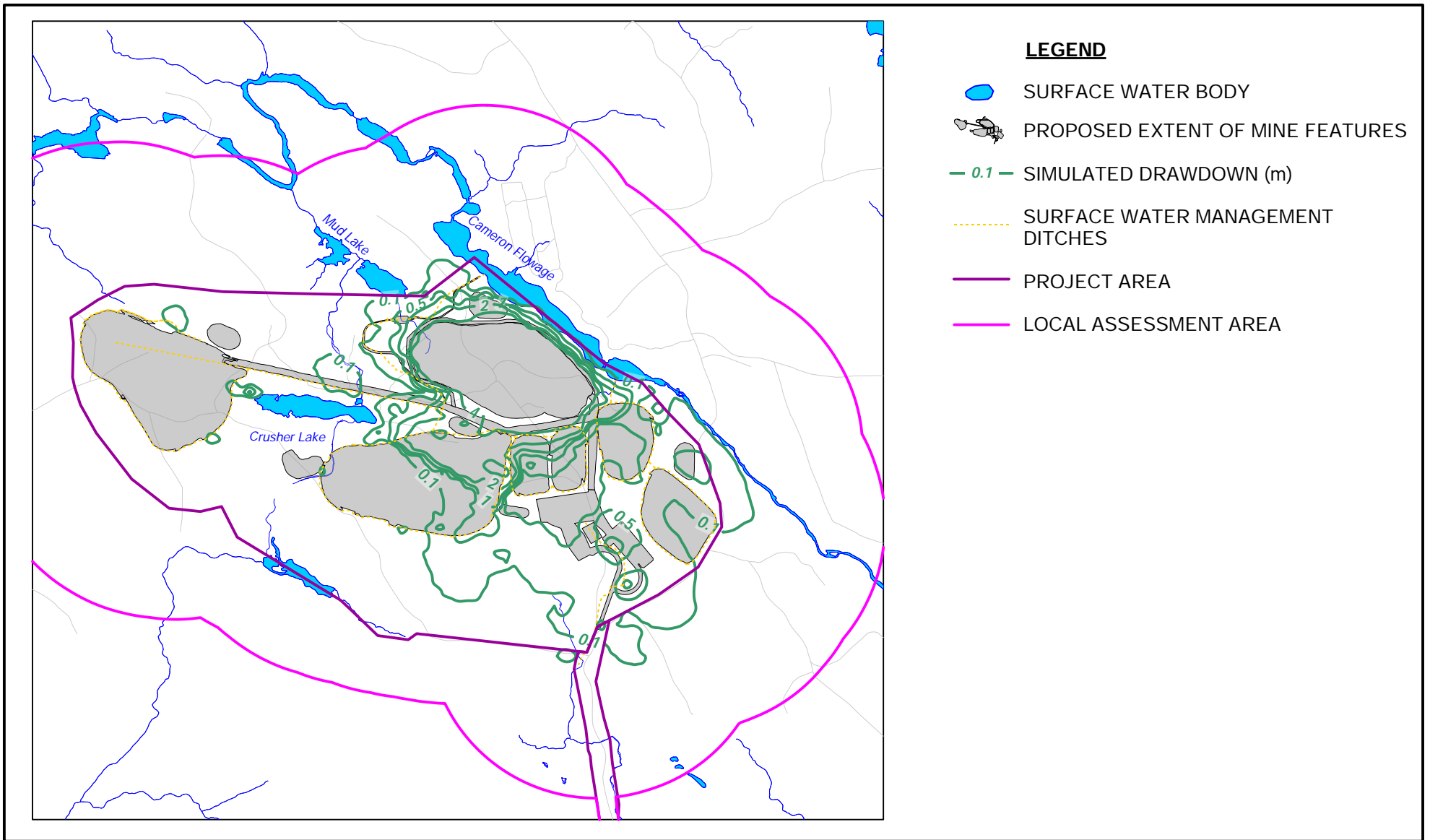
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SIMULATED DRAWDOWN PC - BASE CASE CONDITION

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FIGURE 6.6-10



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 BEAVER DAM MINE

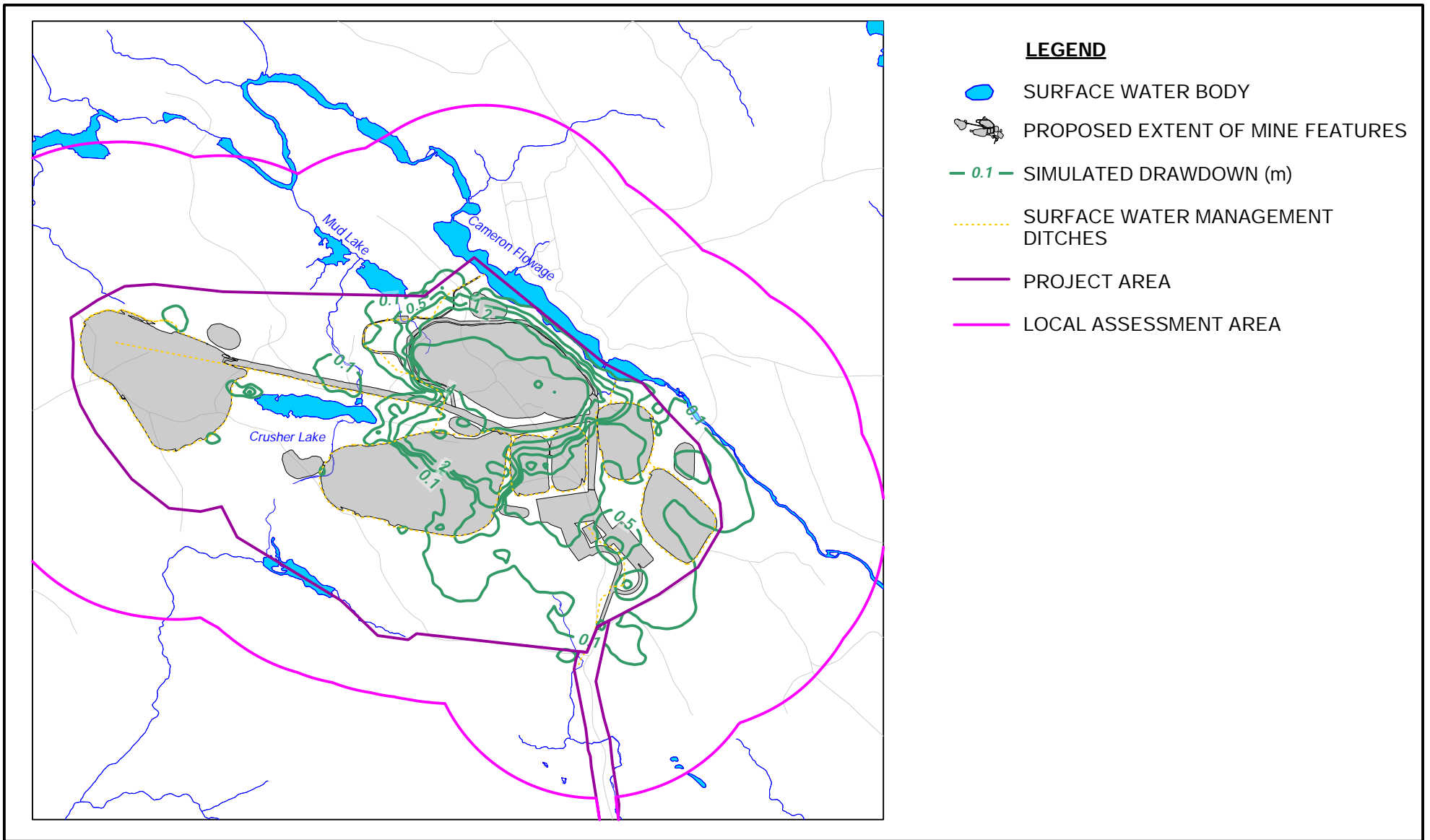
SIMULATED DRAWDOWN EOM - WET CONDITION

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FIGURE 6.6-11





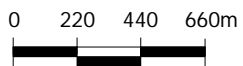
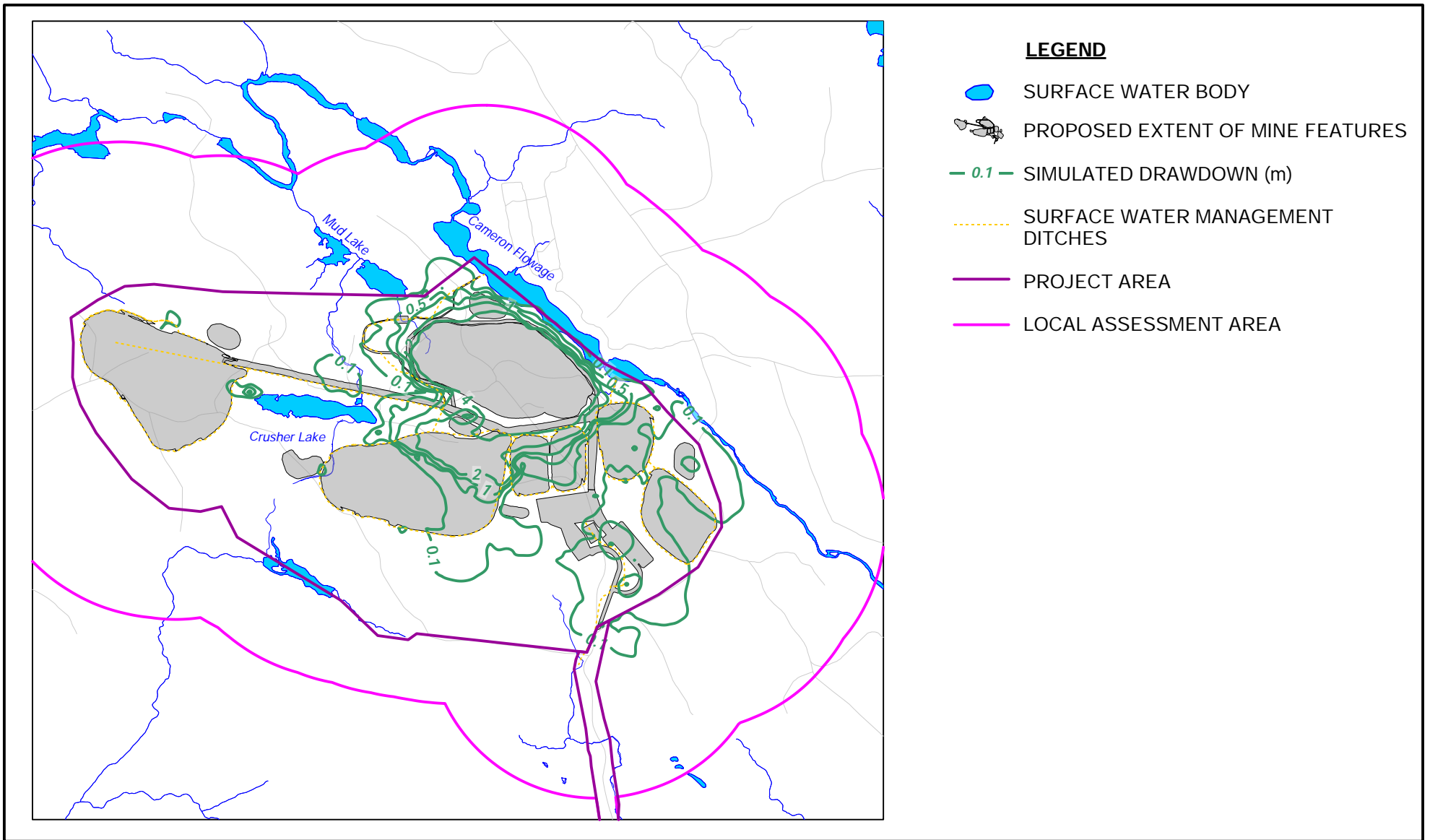
ATLANTIC GOLD CORPORATION  
 MARINETTE, NOVA SCOTIA  
 BEAVER DAM MINE

SIMULATED DRAWDOWN PC - WET CONDITION

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FIGURE 6-12



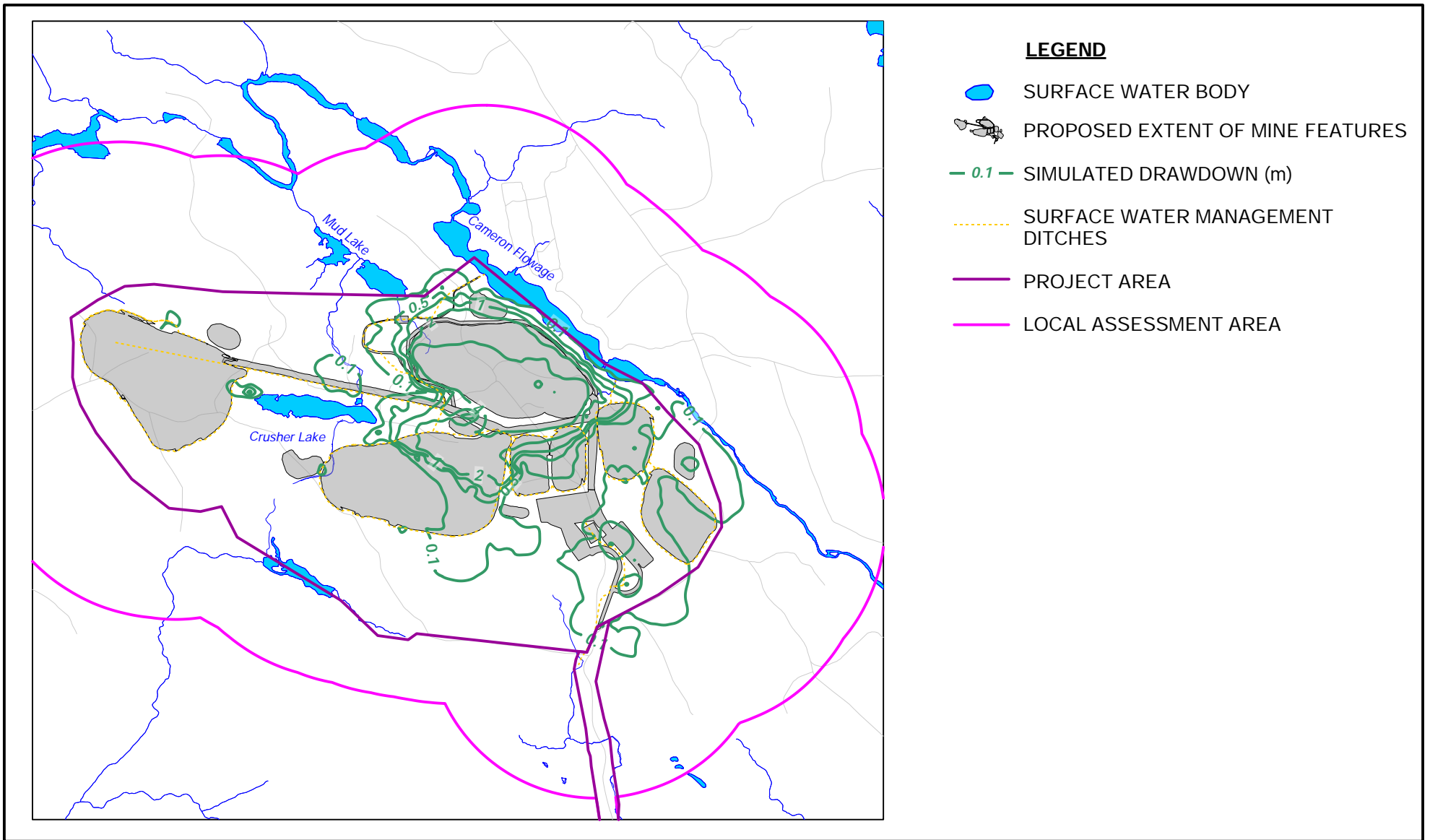
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 MARINETTE, NOVA SCOTIA  
 BEAVER DAM MINE

SIMULATED DRAWDOWN EOM - DRY CONDITION

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FIGURE 6.6-13



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 MARINETTE, NOVA SCOTIA  
 BEAVER DAM MINE

SIMULATED DRAWDOWN PC - DRY CONDITION

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FIGURE 6.6-14







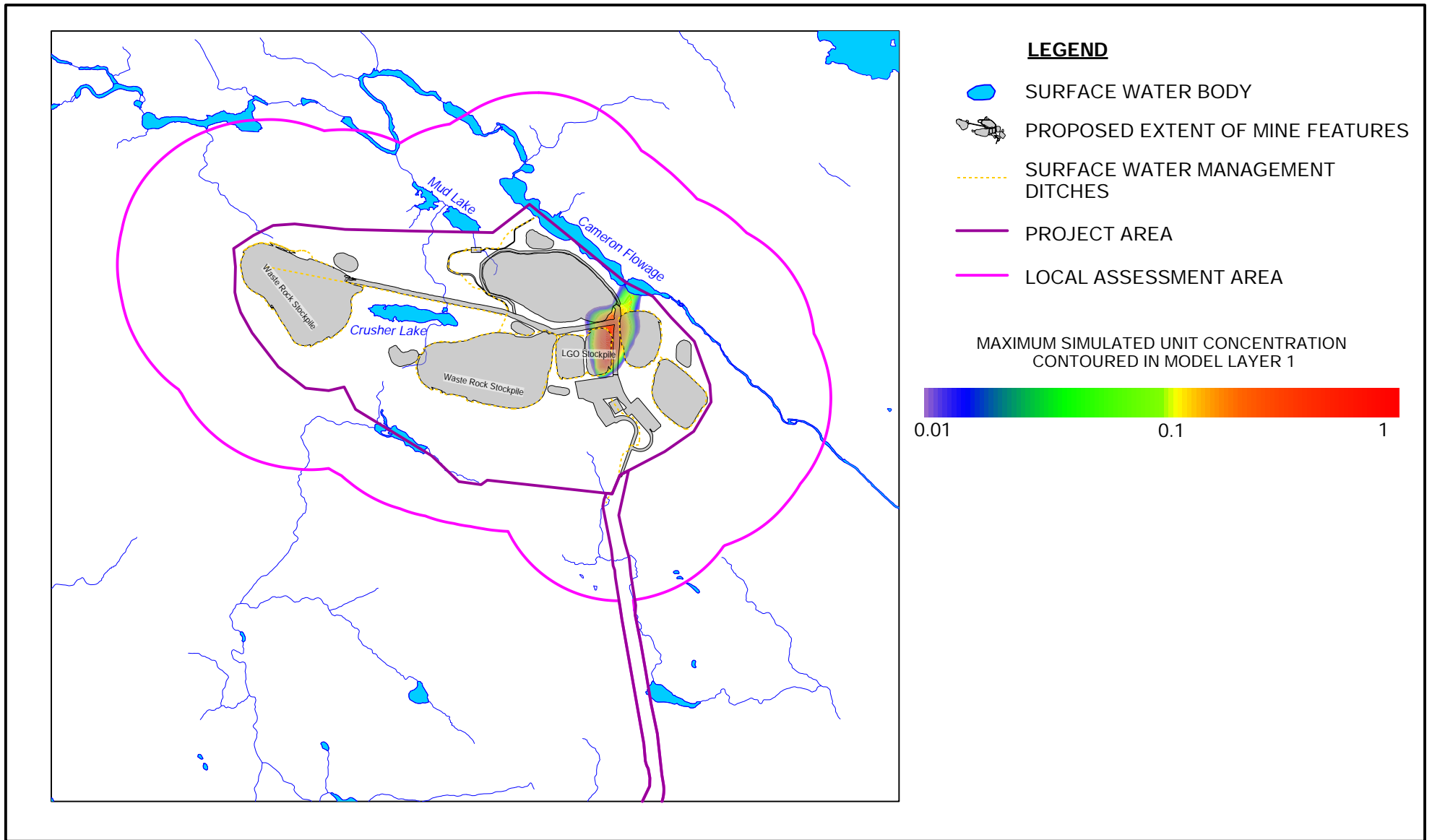












0 300 600 900m



ATLANTIC GOLD CORPORATION  
MARINETTE, NOVA SCOTIA  
BEAVER DAM MINE

SIMULATED CONCENTRATION  
LGO STOCKPILES (PC - DRY CONDITION)

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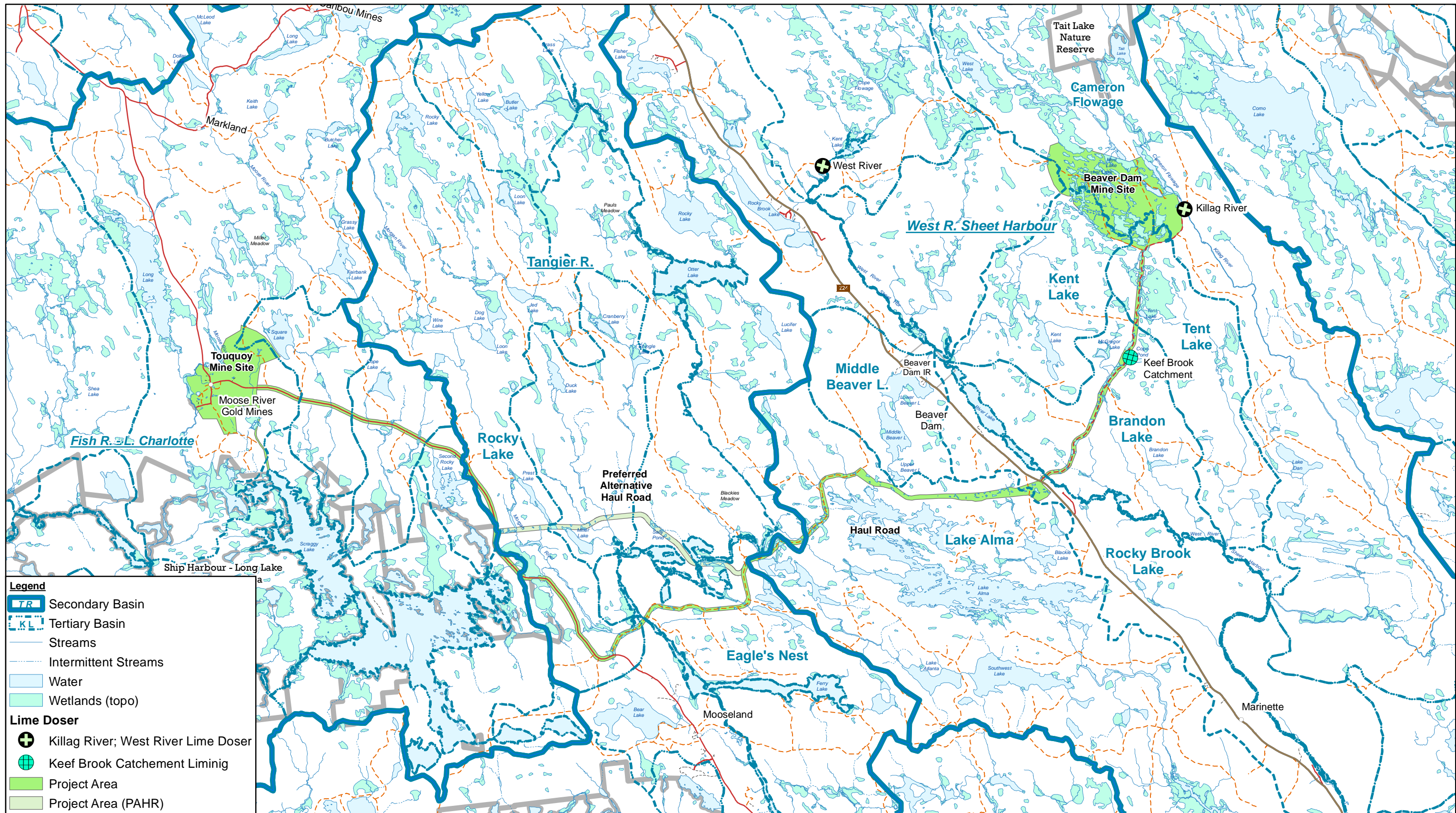
FIGURE 6.6-21



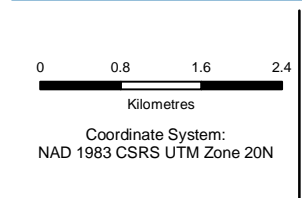








Source: Service Nova Scotia, NS Salmon Association, NS Environment



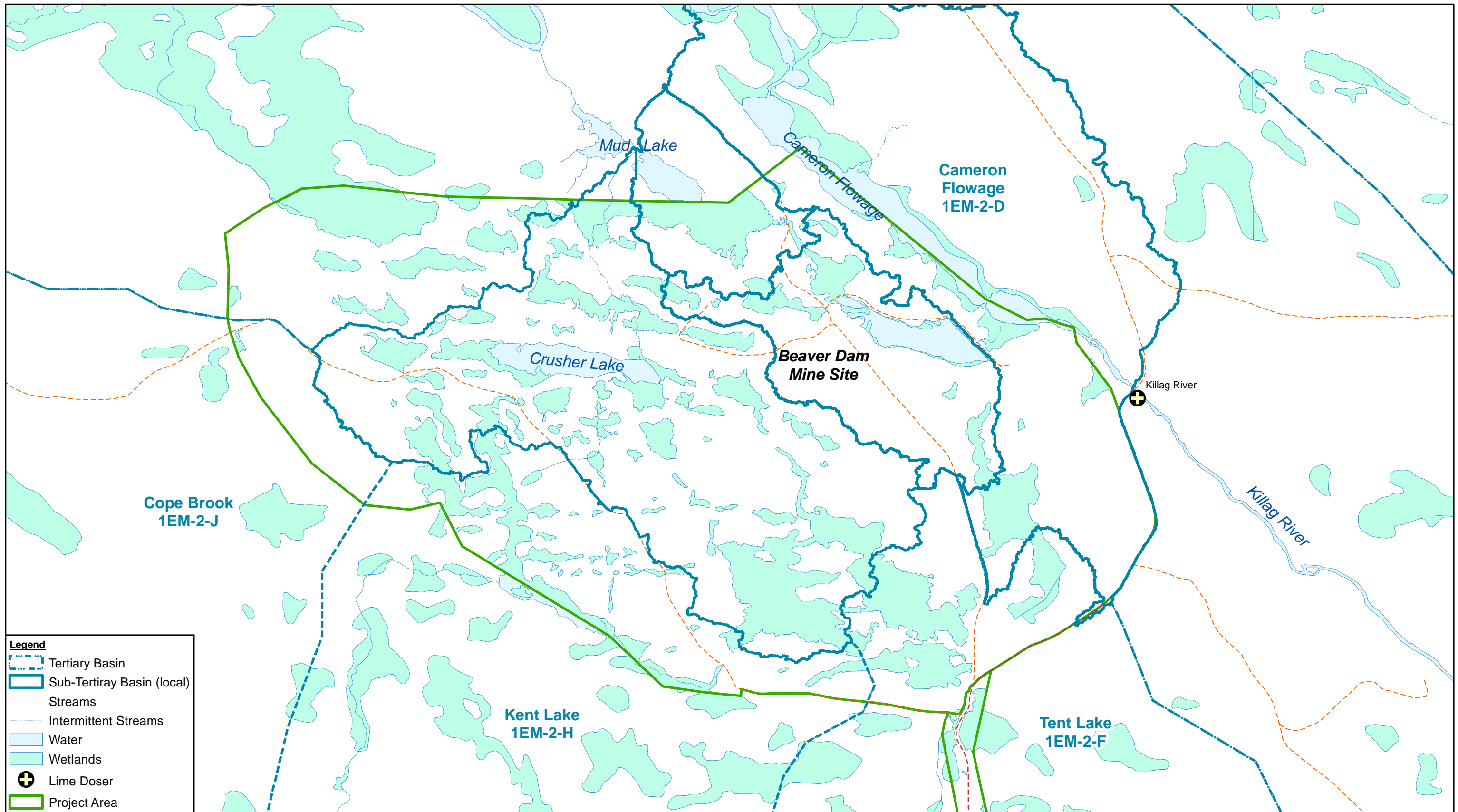
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ENVIRONMENTAL IMPACT STATEMENT - BEAVER DAM MINE

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REGIONAL CATCHMENT AREAS

FIGURE 6.7-1





**Legend**

- Tertiary Basin (dashed blue line)
- Sub-Tertiary Basin (local) (solid blue line)
- Streams (solid blue line)
- Intermittent Streams (dashed blue line)
- Water (light blue fill)
- Wetlands (light green fill)
- Lime Doser (black cross-in-circle symbol)
- Project Area (thick green line)

Source: Service Nova Scotia

0 120 240 360  
Metres

Coordinate System:  
NAD 1983 CSRS UTM Zone 20N

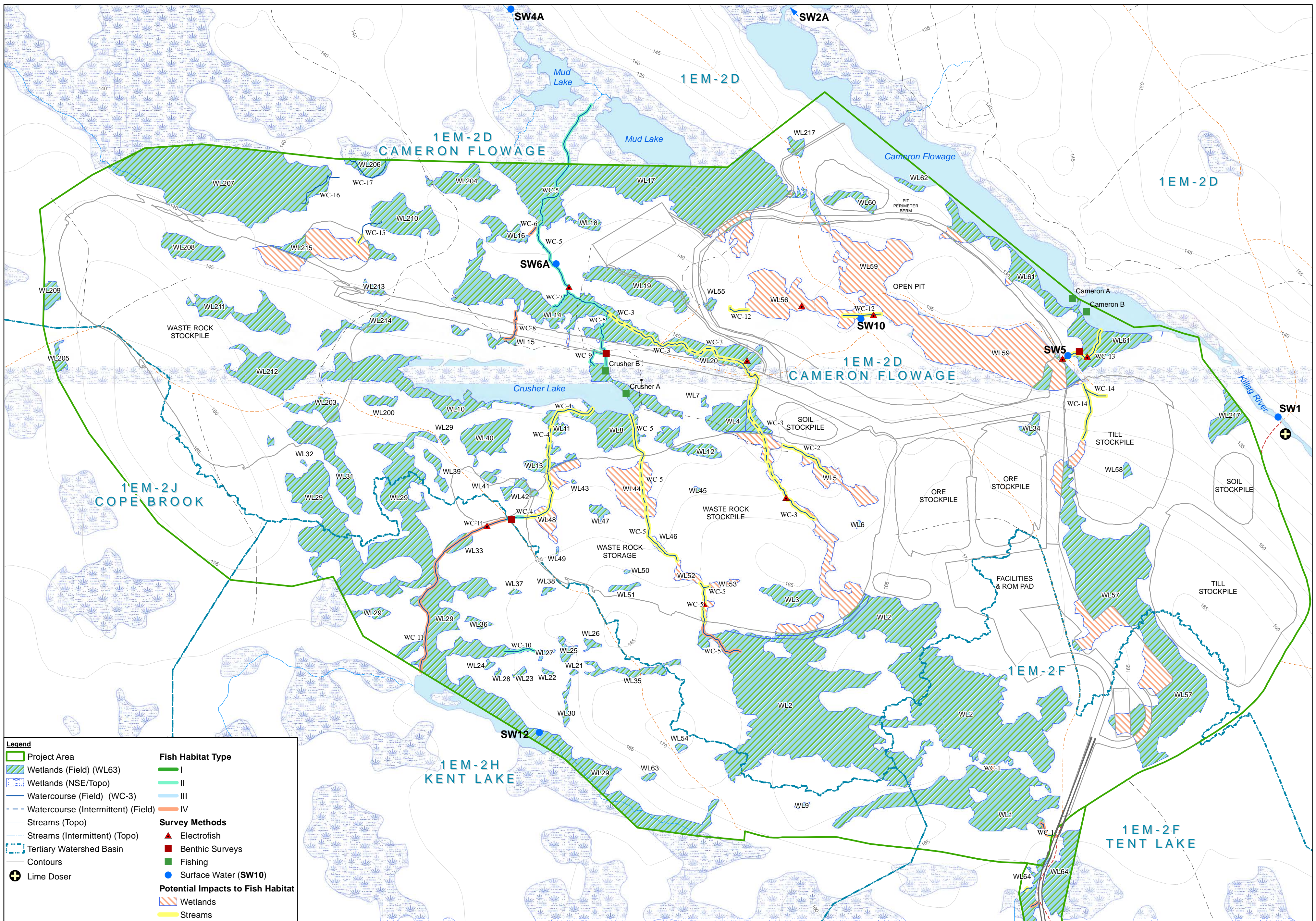


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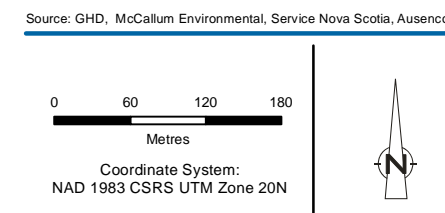
BEAVER DAM MINE SITE CATCHMENT AREAS

FIGURE 6.7-2



**Legend**

Project Area	<b>Fish Habitat Type</b>
Wetlands (Field) (WL63)	I
Wetlands (NSE/Topo)	II
Watercourse (Field) (WC-3)	III
Watercourse (Intermittent) (Field)	IV
Streams (Topo)	<b>Survey Methods</b>
Streams (Intermittent) (Topo)	Electrofish
Tertiary Watershed Basin	Benthic Surveys
Contours	Fishing
Lime Doser	Surface Water (SW10)
	<b>Potential Impacts to Fish Habitat</b>
	Wetlands
	Streams

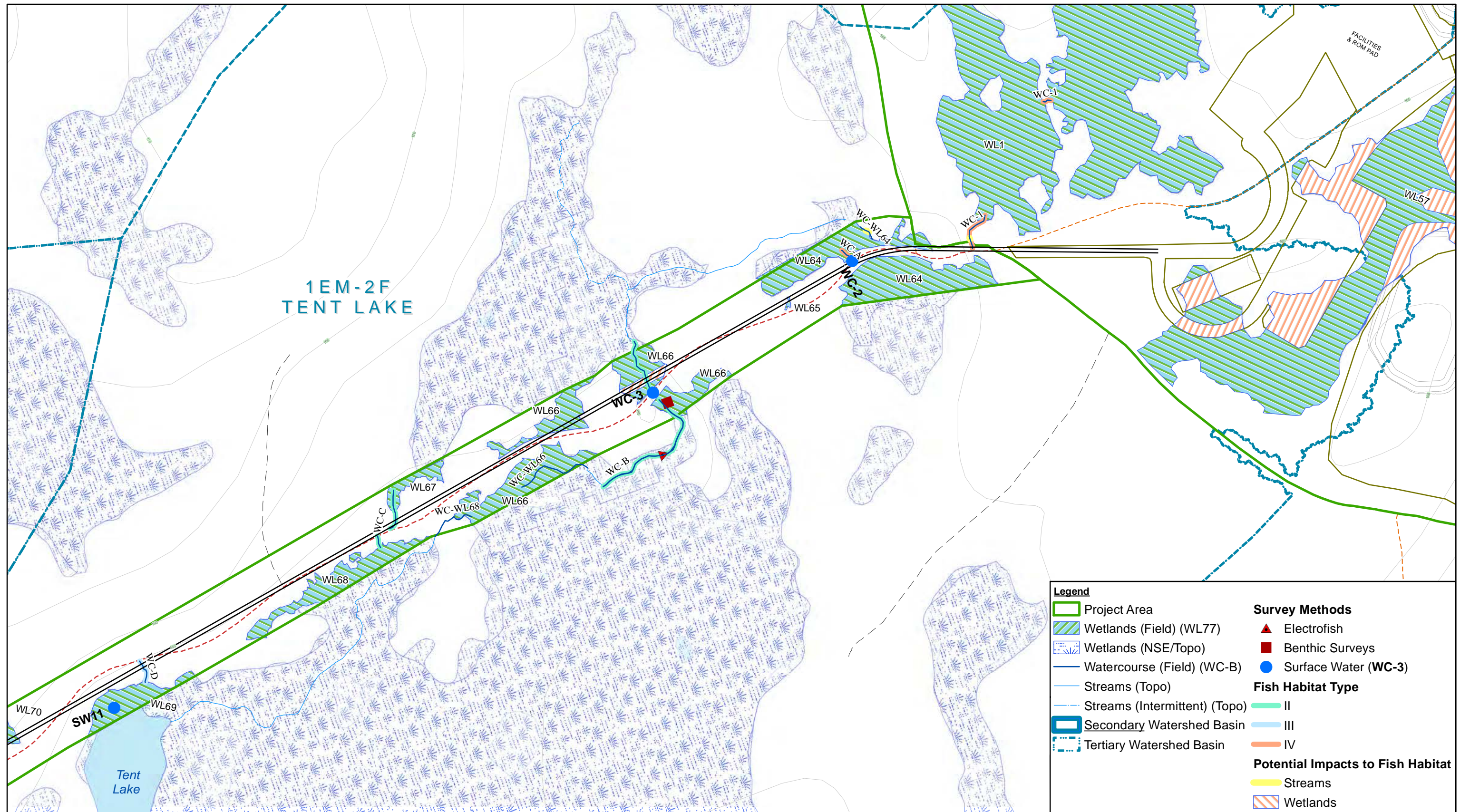


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 ENVIRONMENTAL IMPACT STATEMENT - BEAVER DAM MINE  
 AQUATIC METHODS  
 BEAVER DAM MINE SITEA

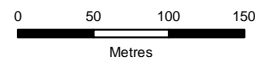
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FIGURE 6.7-3

GIS File: I:\GIS\_DATA\Projects\6-chars\08-08-088664 Atlantic BD\088664(004)\Revised2019\088664(004)\GIS-DA029.mxd



Source: GHD, McCallum Environmental, Service Nova Scotia, Ausenco



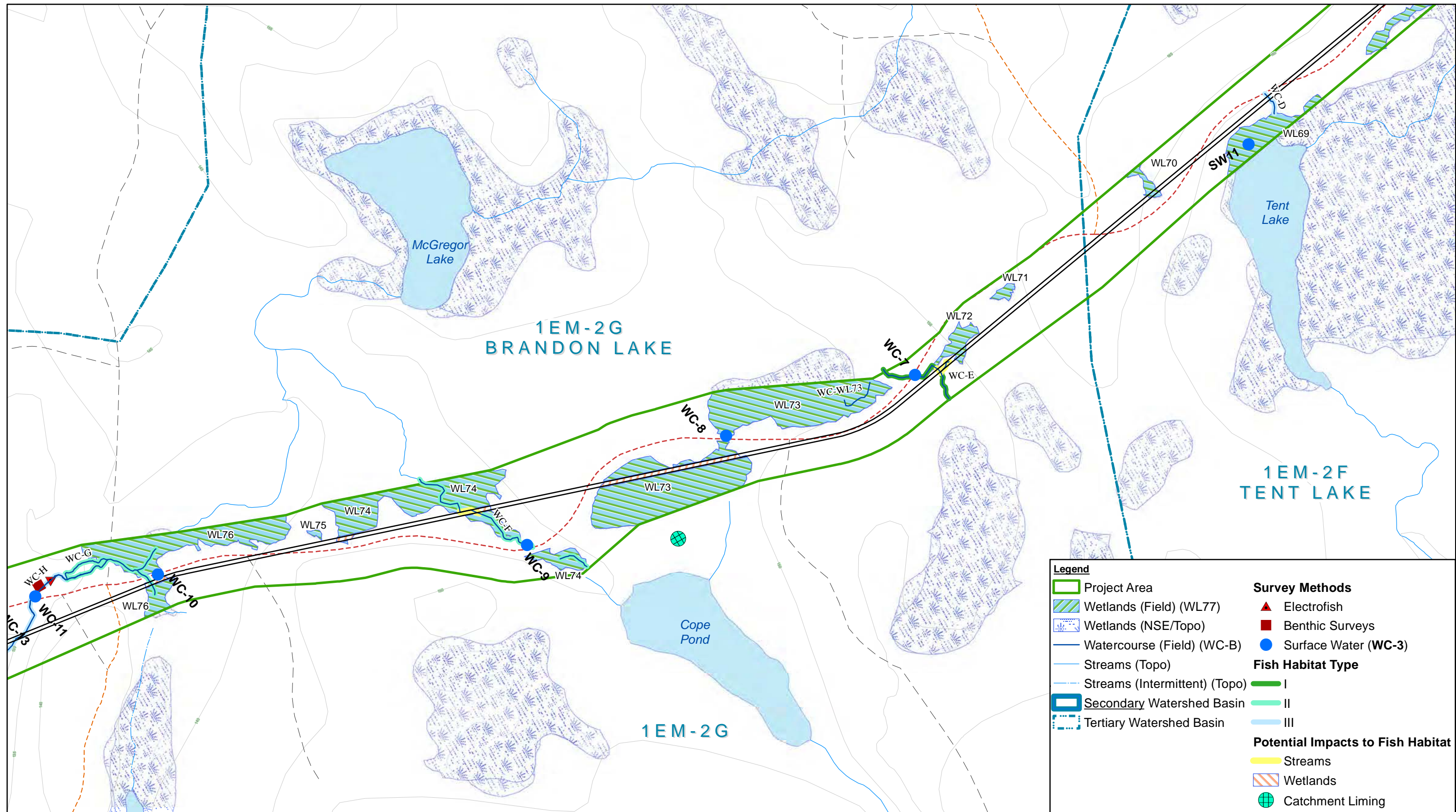
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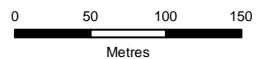
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AQUATIC METHODS  
HAUL ROAD

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FIGURE 6.7-3A



Source: GHD, McCallum Environmental, Service Nova Scotia, Ausenco



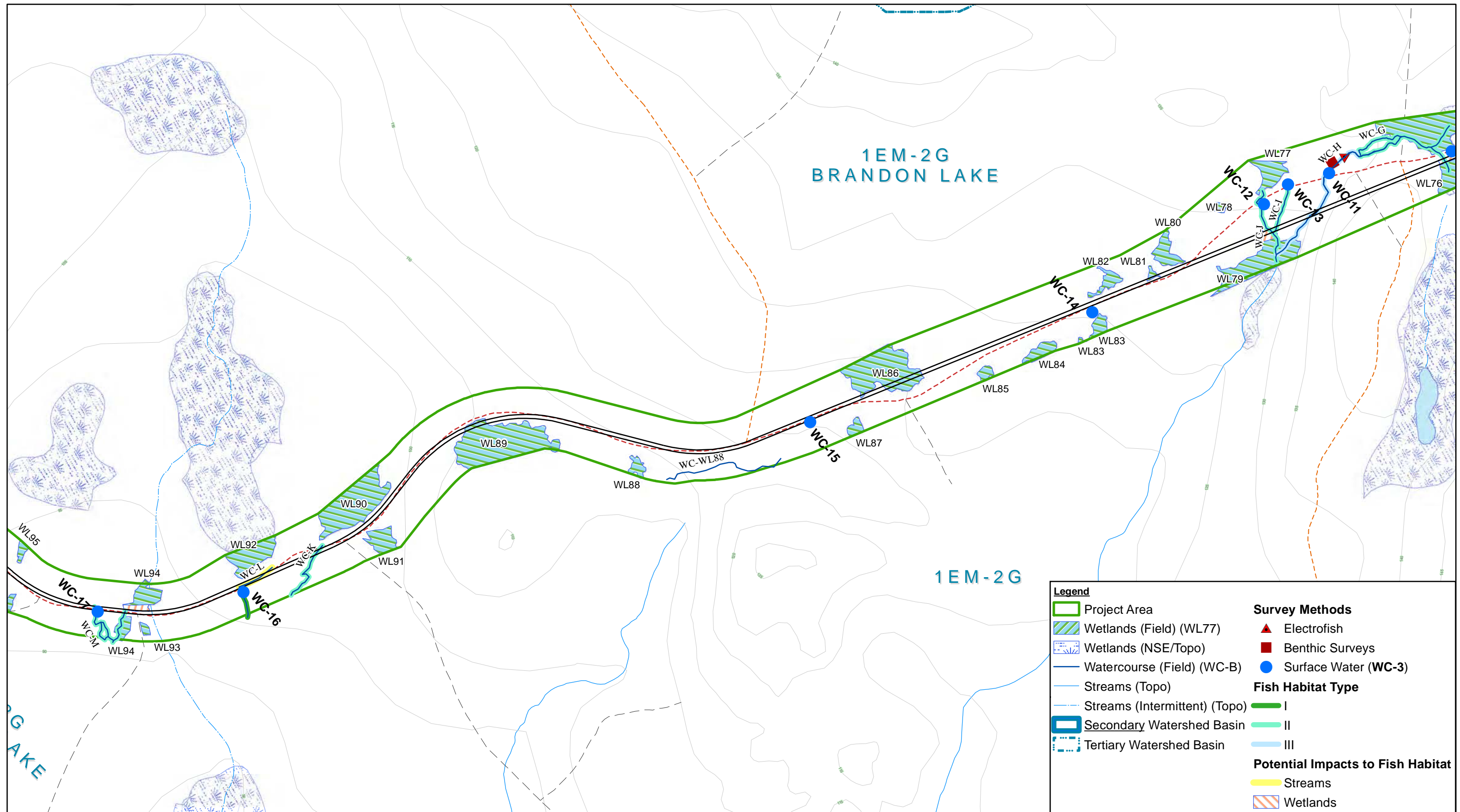
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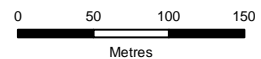
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ENVIRONMENTAL IMPACT STATEMENT - BEAVER DAM MINE  
AQUATIC METHODS  
HAUL ROAD

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FIGURE 6.7-3B



Source: GHD, McCallum Environmental, Service Nova Scotia, Ausenco



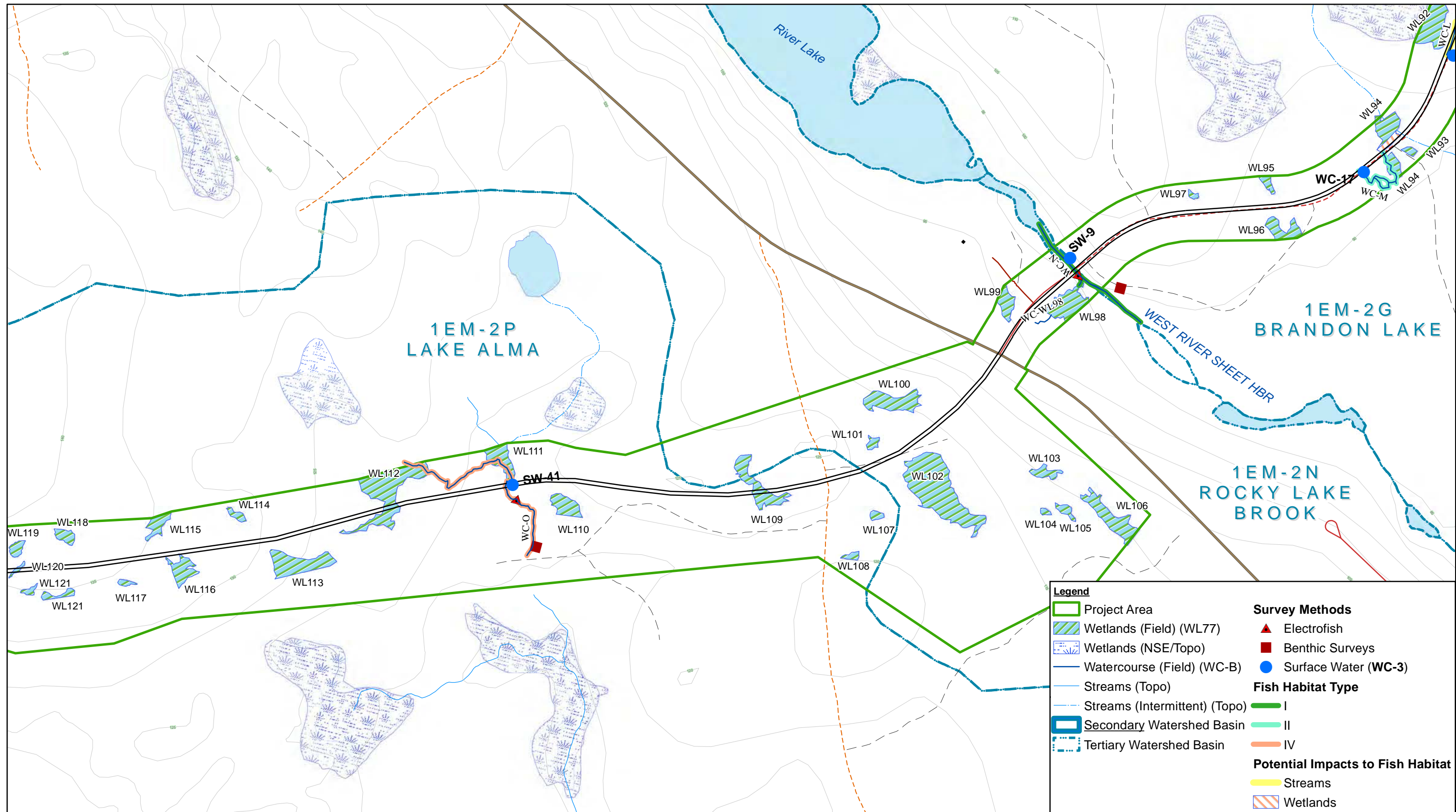
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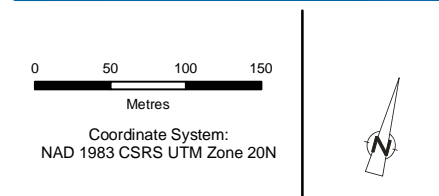
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AQUATIC METHODS  
HAUL ROAD

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FIGURE 6.7-3C



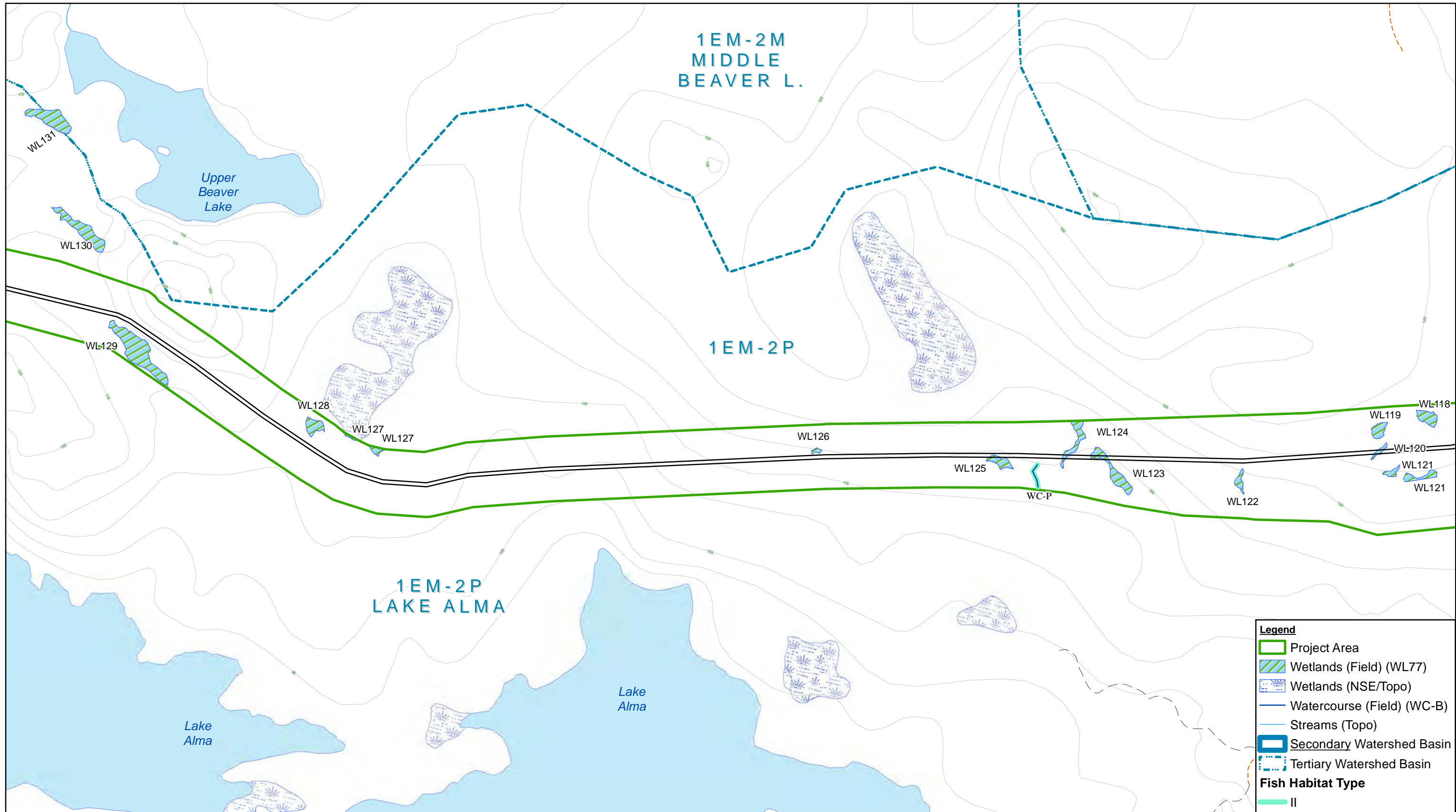
Source: GHD, McCallum Environmental, Service Nova Scotia, Ausenco



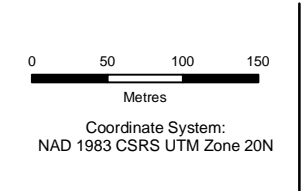
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 AQUATIC METHODS  
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FIGURE 6.7-3D



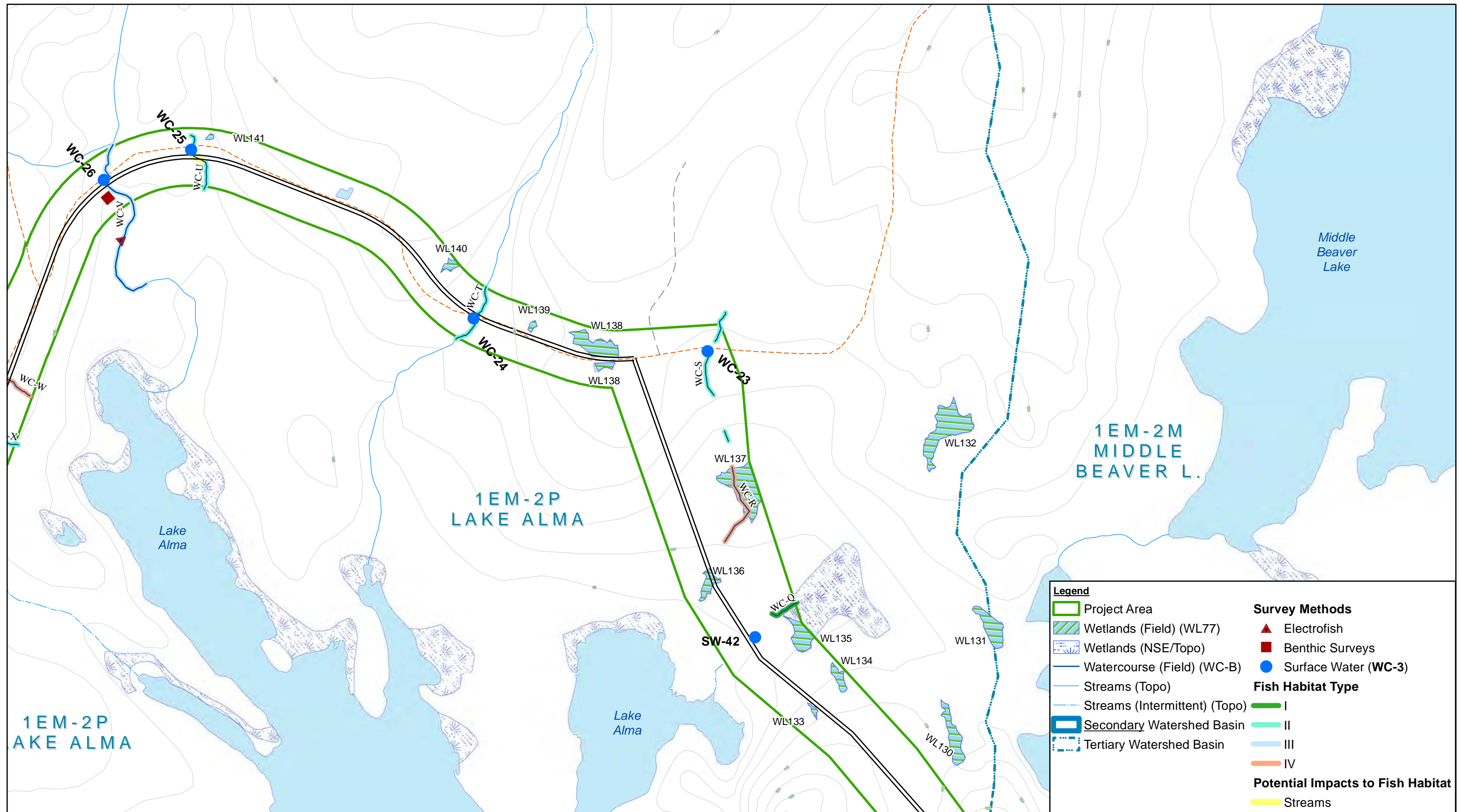
Source: GHD, McCallum Environmental, Service Nova Scotia, Ausenco



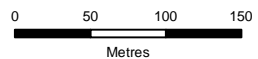
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 AQUATIC METHODS  
 HAUL ROAD

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FIGURE 6.7-3E



Source: GHD, McCallum Environmental, Service Nova Scotia, Ausenco



Coordinate System:  
NAD 1983 CSRS UTM Zone 20N



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ENVIRONMENTAL IMPACT STATEMENT - BEAVER DAM MINE  
AQUATIC METHODS  
HAUL ROAD

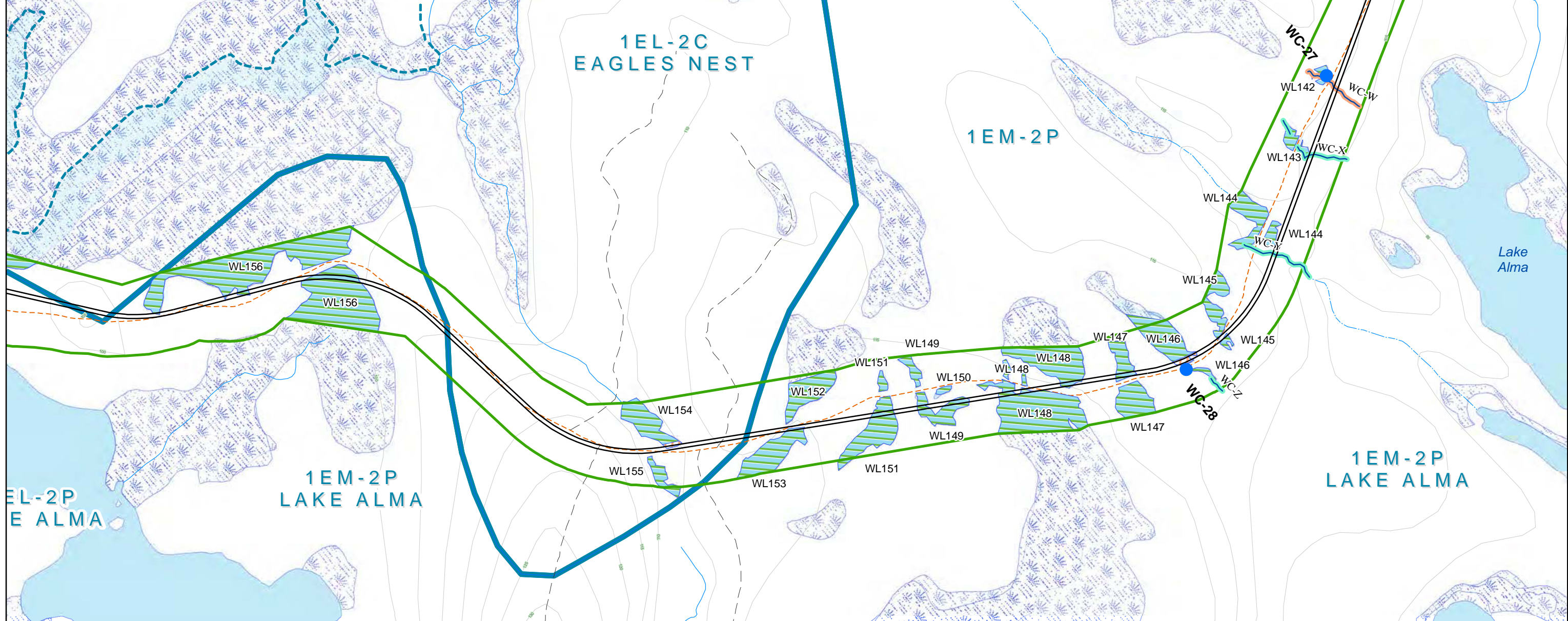
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FIGURE 6.7-3F



**Legend**

Project Area	<b>Survey Methods</b>
Wetlands (Field) (WL77)	Electrofish
Wetlands (NSE/Topo)	Benthic Surveys
Watercourse (Field) (WC-B)	Surface Water (WC-3)
Streams (Topo)	<b>Fish Habitat Type</b>
Streams (Intermittent) (Topo)	II
Secondary Watershed Basin	III
Tertiary Watershed Basin	IV
	<b>Potential Impacts to Fish Habitat</b>
	Streams
	Wetlands



Source: GHD, McCallum Environmental, Service Nova Scotia, Ausenco

0 50 100 150  
Metres

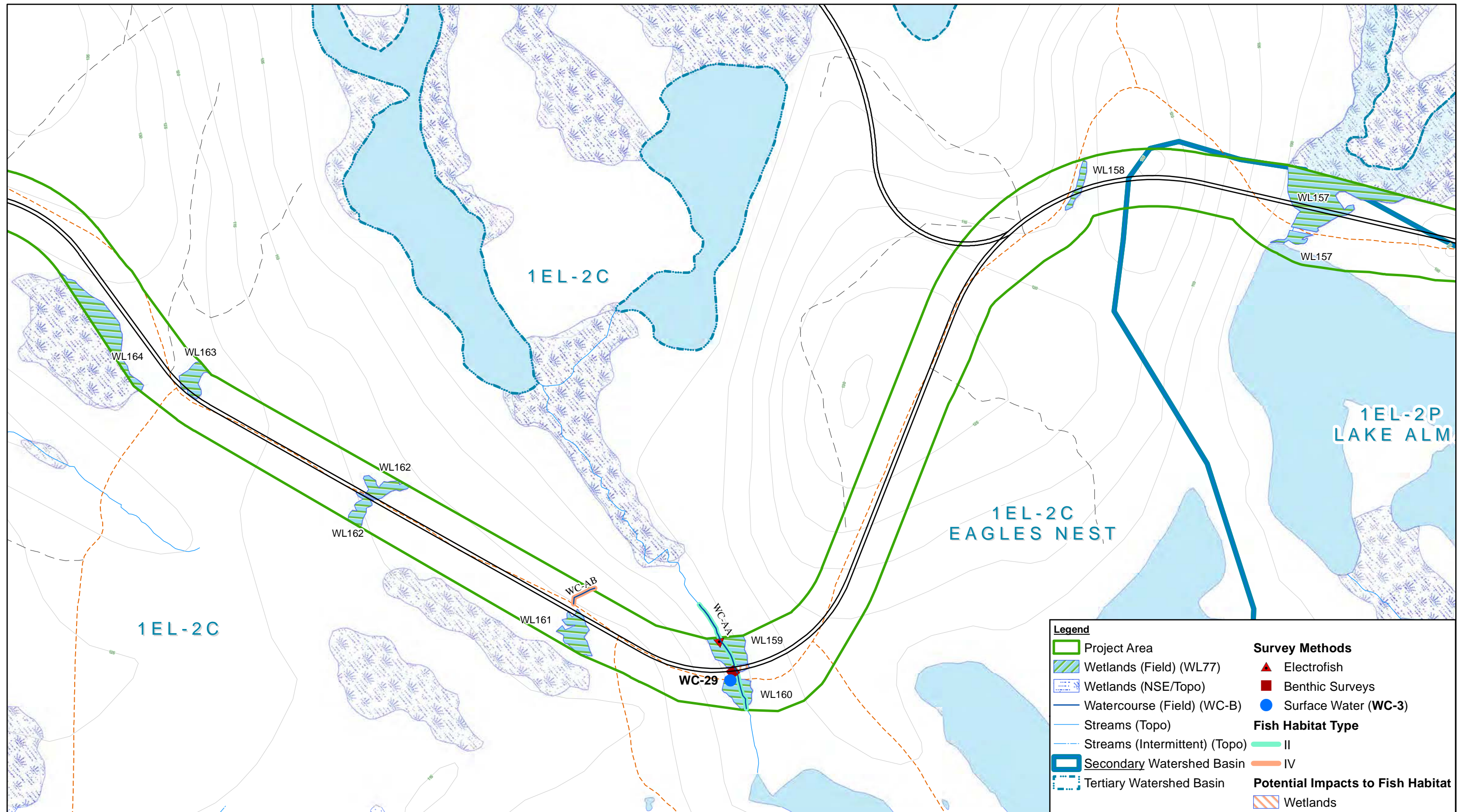
Coordinate System:  
NAD 1983 CSRS UTM Zone 20N



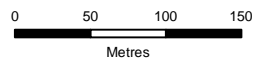
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ENVIRONMENTAL IMPACT STATEMENT - BEAVER DAM MINE  
AQUATIC METHODS  
HAUL ROAD

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FIGURE 6.7-3G



Source: GHD, McCallum Environmental, Service Nova Scotia, Ausenco



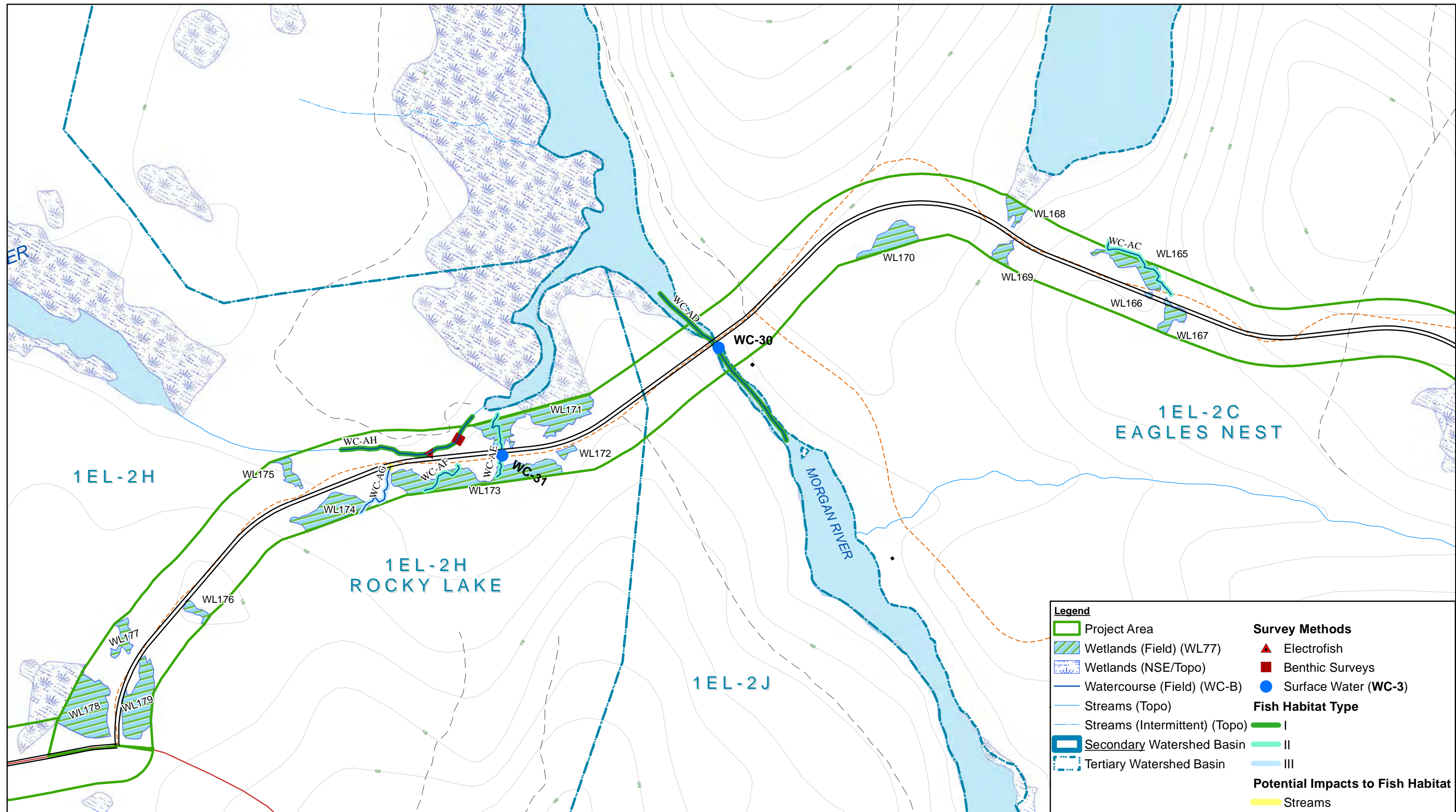
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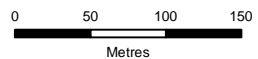
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AQUATIC METHODS  
HAUL ROAD

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FIGURE 6.7-3H



Source: GHD, McCallum Environmental, Service Nova Scotia, Ausenco



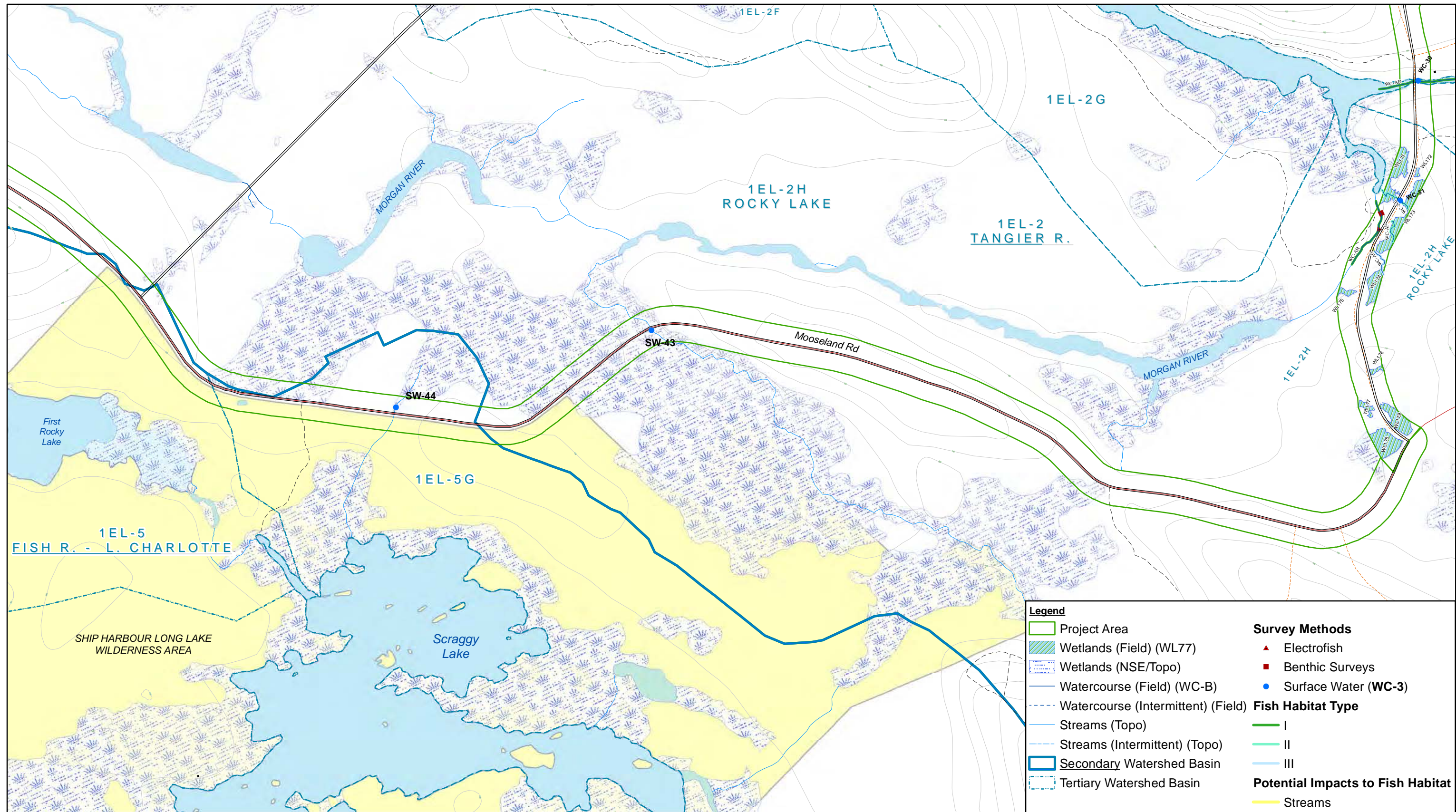
Coordinate System:  
NAD 1983 CSRS UTM Zone 20N



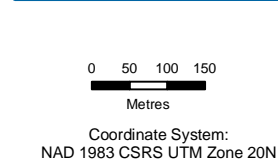
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AQUATIC METHODS  
HAUL ROAD

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FIGURE 6.7-3I



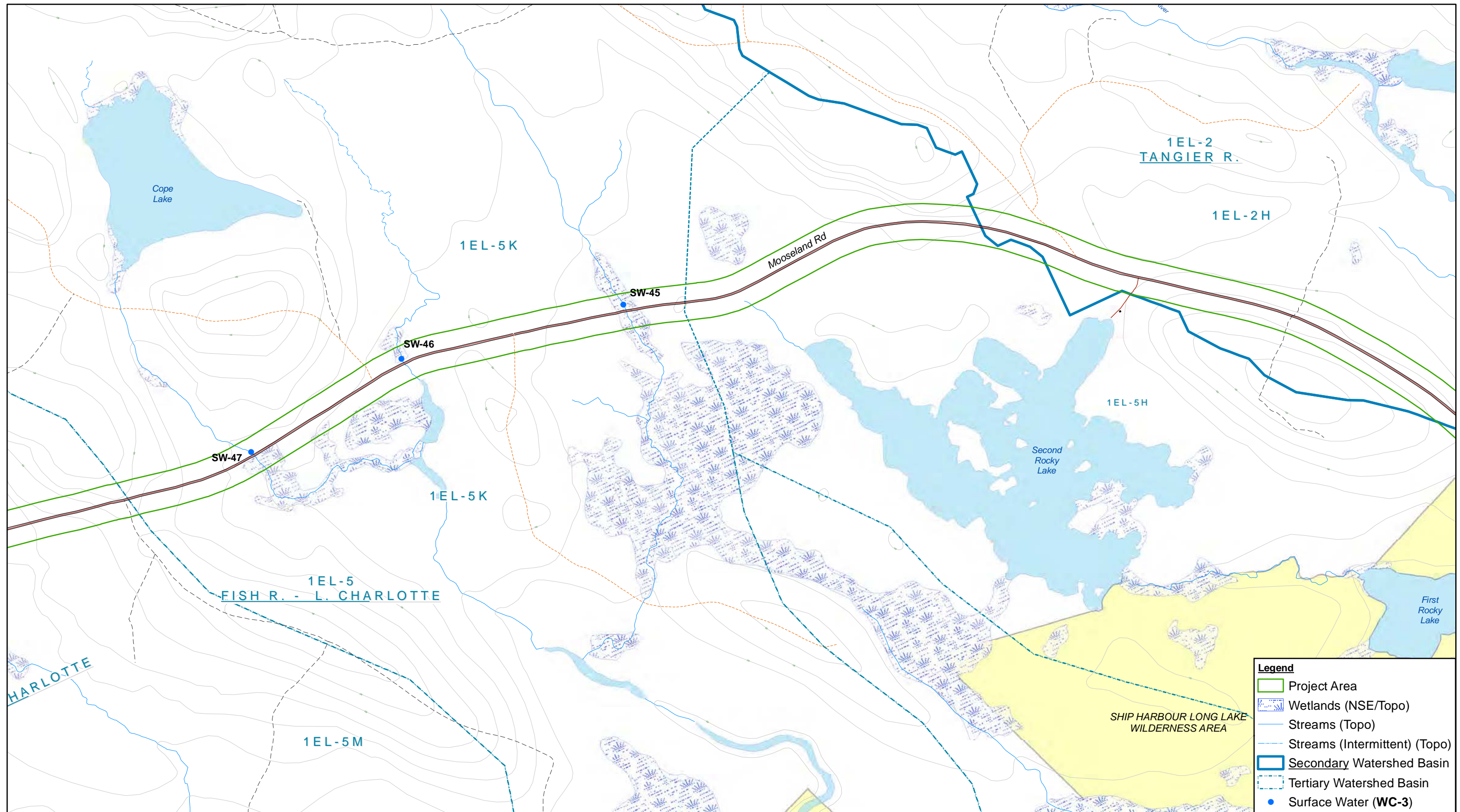
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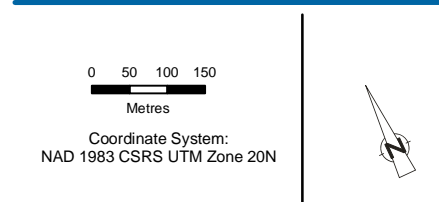
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AQUATIC METHODS  
HAUL ROAD

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FIGURE 6.7-3J



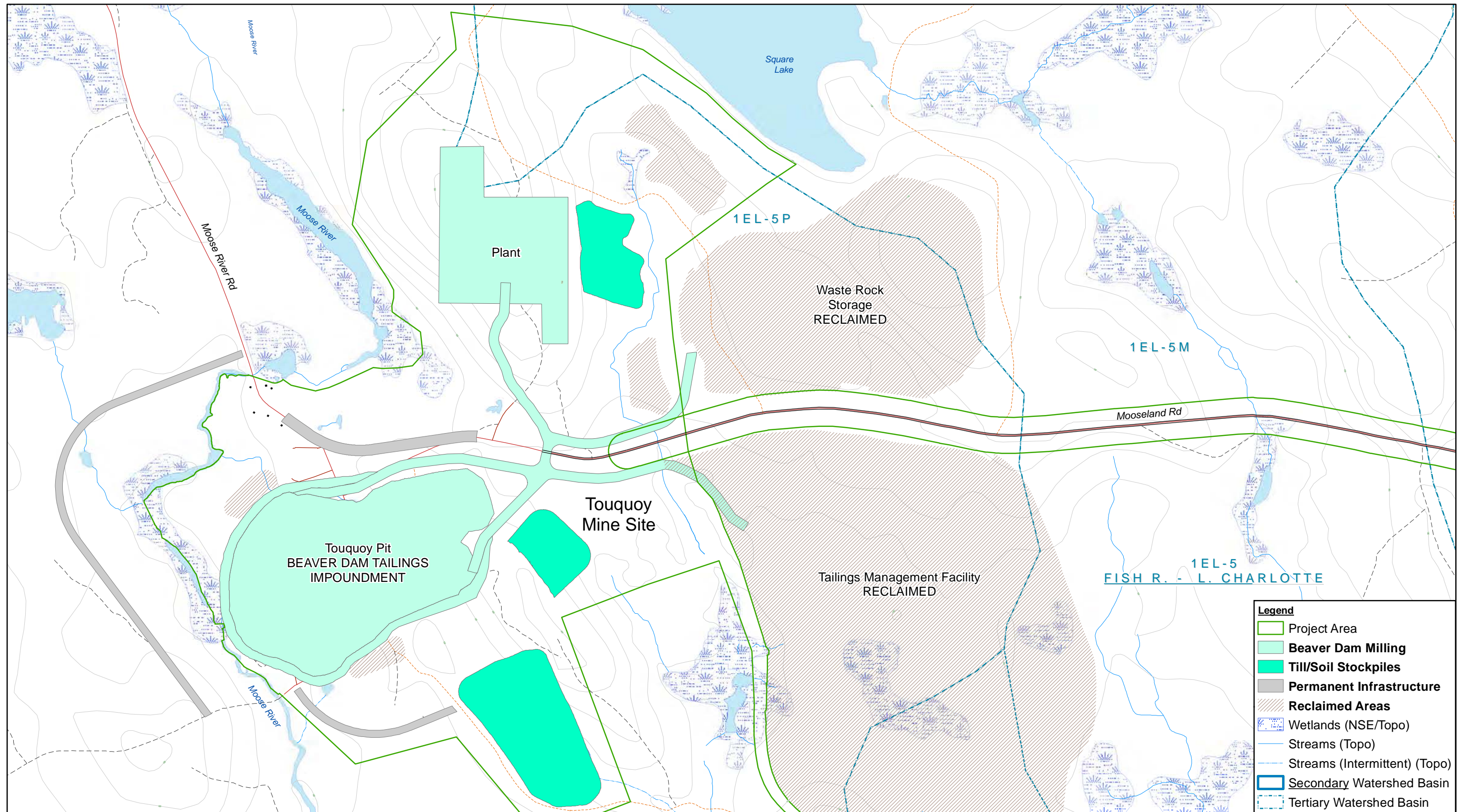
Source: GHD, McCallum Environmental, Service Nova Scotia, Ausenco



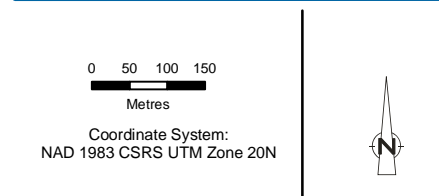
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AQUATIC METHODS  
HAUL ROAD

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FIGURE 6.7-3K



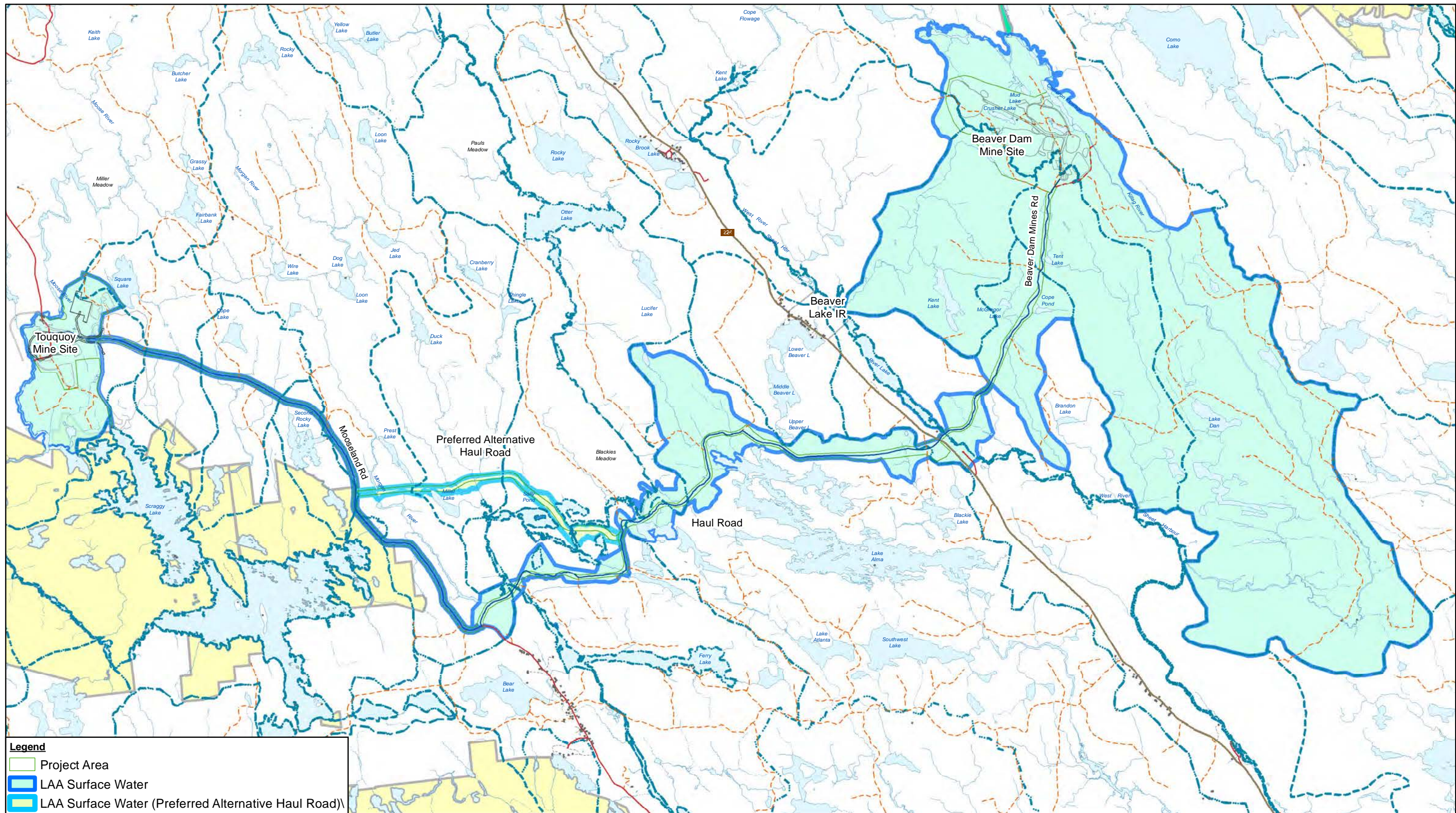
Source: GHD, McCallum Environmental, Service Nova Scotia, Ausenco



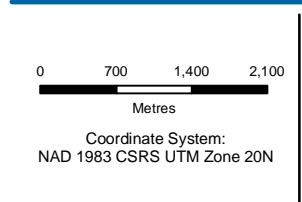
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FIGURE 6.7-3L



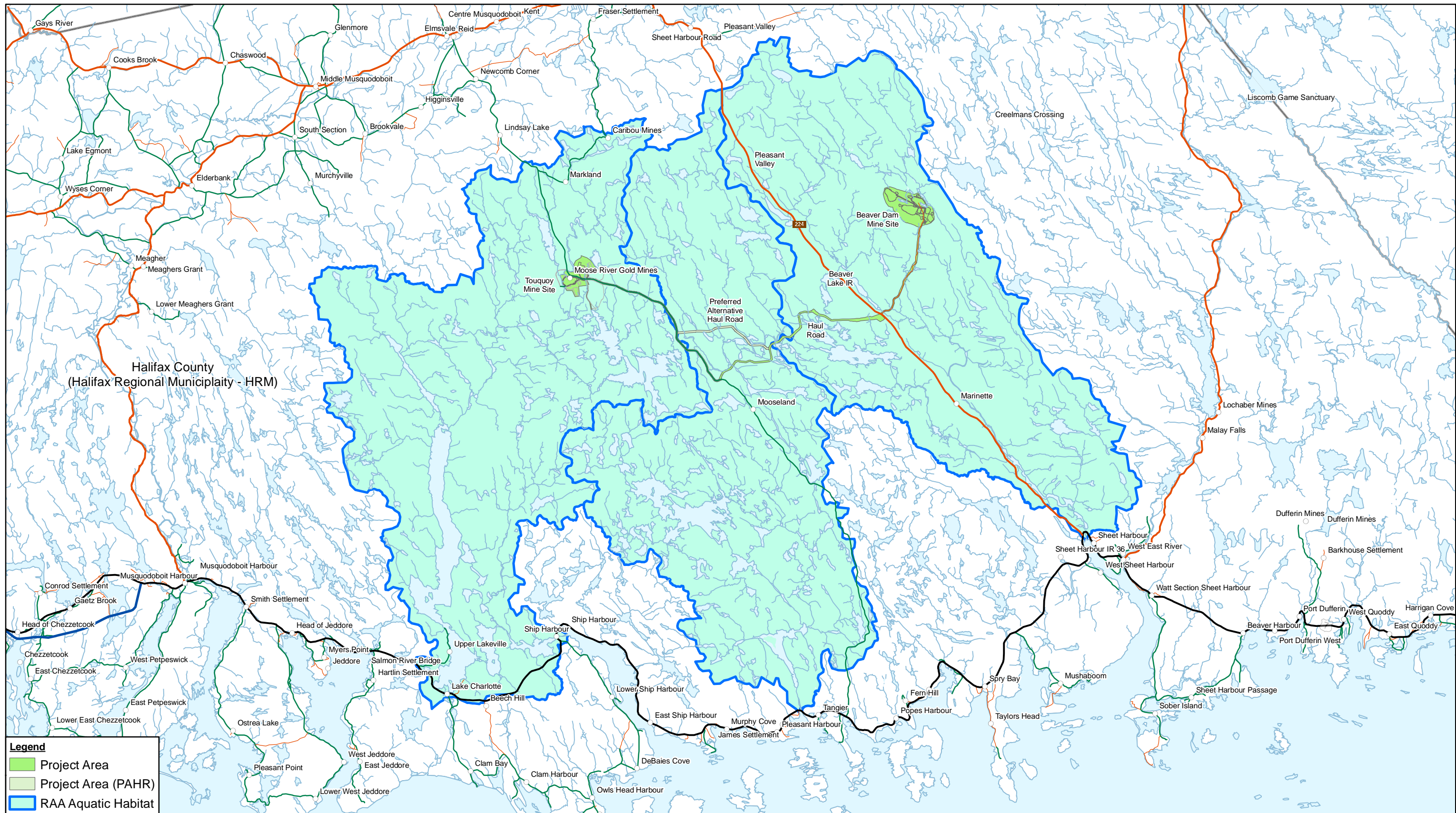
Source: Service Nvoa Scotia



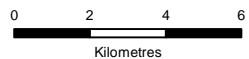
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ENVIRONMENTAL IMPACT STATEMENT - BEAVER DAM MINE  
LOCAL ASSESSMENT AREA  
AQUATIC HABITAT

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FIGURE 6.7-12



Source: Service Nova Scotia, AGC, GHD, MEL



Coordinate System:  
NAD 1983 CSRS UTM Zone 20N

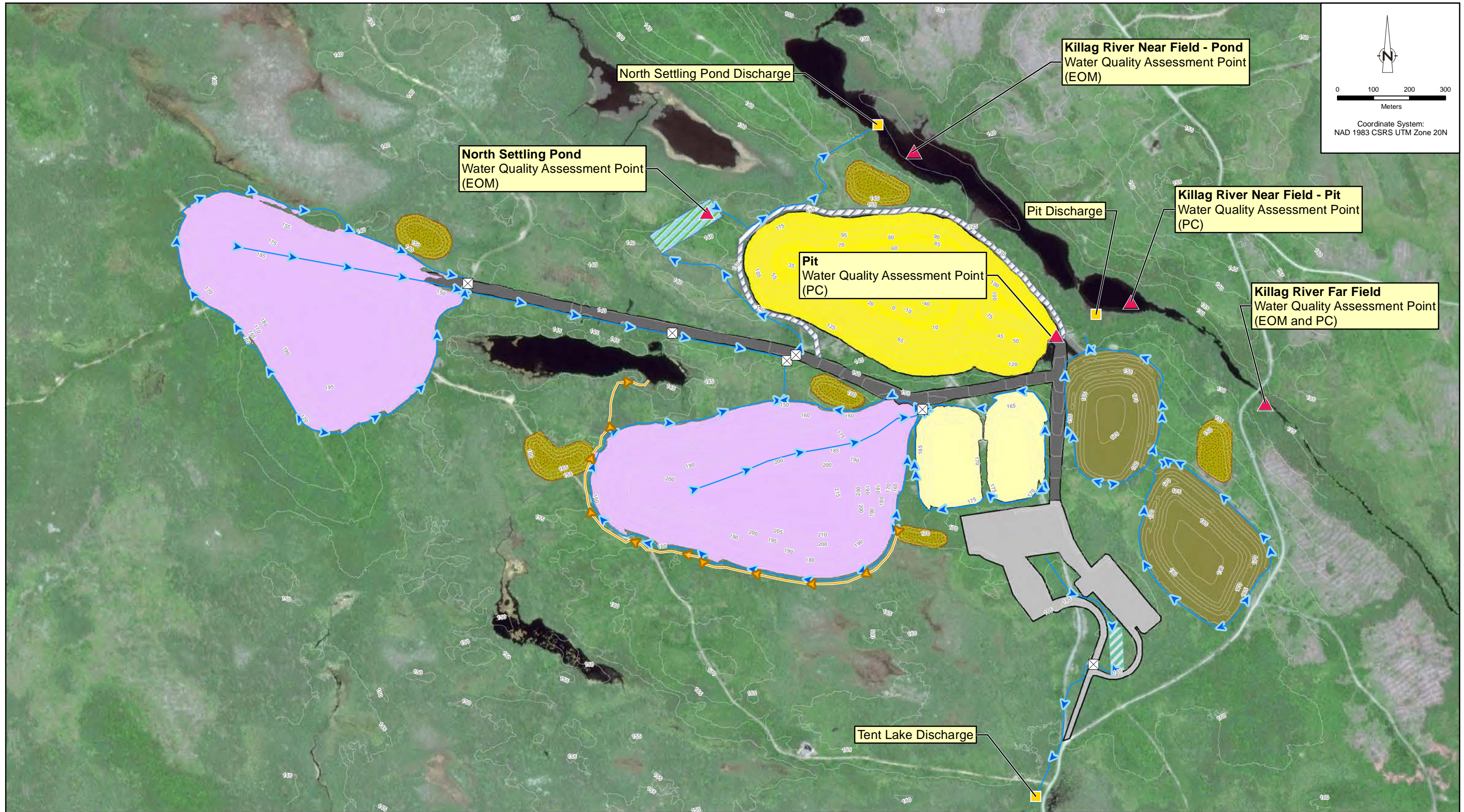


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REGIONAL ASSESSMENT AREA  
AQUATIC HABITAT

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FIGURE 6.7-13





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 Imagery: Image ©2019 DigitalGlobe, ©2019 Google, Imagery date: 18/6/2012

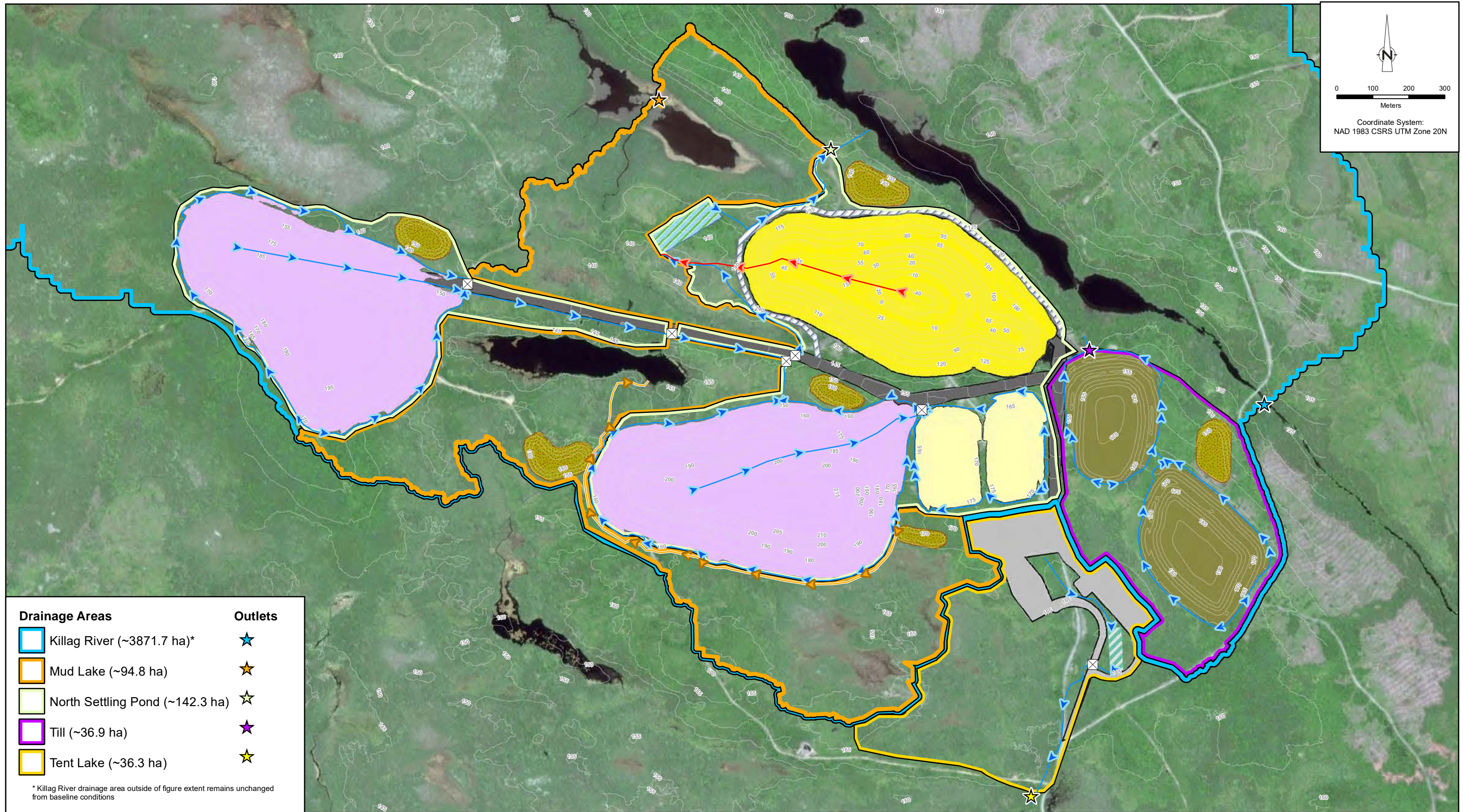
- |                 |                      |                         |                                |
|-----------------|----------------------|-------------------------|--------------------------------|
| Stockpile Ditch | Berm                 | Haul Road               | Culvert                        |
| SWM Ditch       | Soil Stockpile       | Low Grade Ore Stockpile | Discharge Point                |
| Contours (5m)   | Settling Pond        | Crusher Pad             | Water Quality Assessment Point |
| Collection Pond | Till Stockpile       |                         | EOM = End of Mine              |
| Open Pit        | Waste Rock Stockpile |                         | PC = Post Closure              |



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 BEAVER DAM MINE  
 SURFACE WATER MANAGEMENT PLAN  
 PREDICTIVE WATER QUALITY ASSESSMENT  
 MINE DISCHARGE AND WATER QUALITY ASSESSMENT POINTS

088664-27  
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FIGURE  
 6.7-14



0 100 200 300  
Meters  
Coordinate System:  
NAD 1983 CSRS UTM Zone 20N

**Drainage Areas**

- Killag River (~3871.7 ha)\*
- Mud Lake (~94.8 ha)
- North Settling Pond (~142.3 ha)
- Till (~36.9 ha)
- Tent Lake (~36.3 ha)

**Outlets**

- ★
- ★
- ☆
- ★
- ★

\* Killag River drainage area outside of figure extent remains unchanged from baseline conditions

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Imagery: Image ©2019 DigitalGlobe, ©2019 Google, Imagery date: 18/6/2012

**NOTES:**  
1. Mud Lake and Tent Lake Contributing Areas derived from LIDAR measurements supplied by Leading Edge Geomatics, 2015.  
2. Killag River Contributing Area derived from a combination of LIDAR measurements, Nova Scotia Department of Natural Resources (Forestry Division) hydrologically-corrected 20m DEM, and interpretations from satellite imagery and topographic maps.

<span style="color: red;">→</span> Pumping Path	<span style="border: 1px dashed gray; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> Berm	<span style="background-color: gray; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> Haul Road
<span style="color: blue;">→</span> Stockpile Ditch	<span style="background-color: brown; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> Soil Stockpile	<span style="background-color: yellow; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> Low Grade Ore Stockpile
<span style="color: orange;">→</span> SWM Ditch	<span style="background-color: lightblue; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> Settling Pond	<span style="background-color: gray; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> Crusher Pad
<span style="color: gray;">—</span> Contours (5m)	<span style="background-color: lightgreen; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> Collection Pond	<span style="background-color: brown; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> Till Stockpile
<span style="border: 1px solid gray; display: inline-block; width: 10px; height: 10px; margin-right: 5px;"></span> Culvert	<span style="background-color: yellow; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> Open Pit	<span style="background-color: purple; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> Waste Rock Stockpile

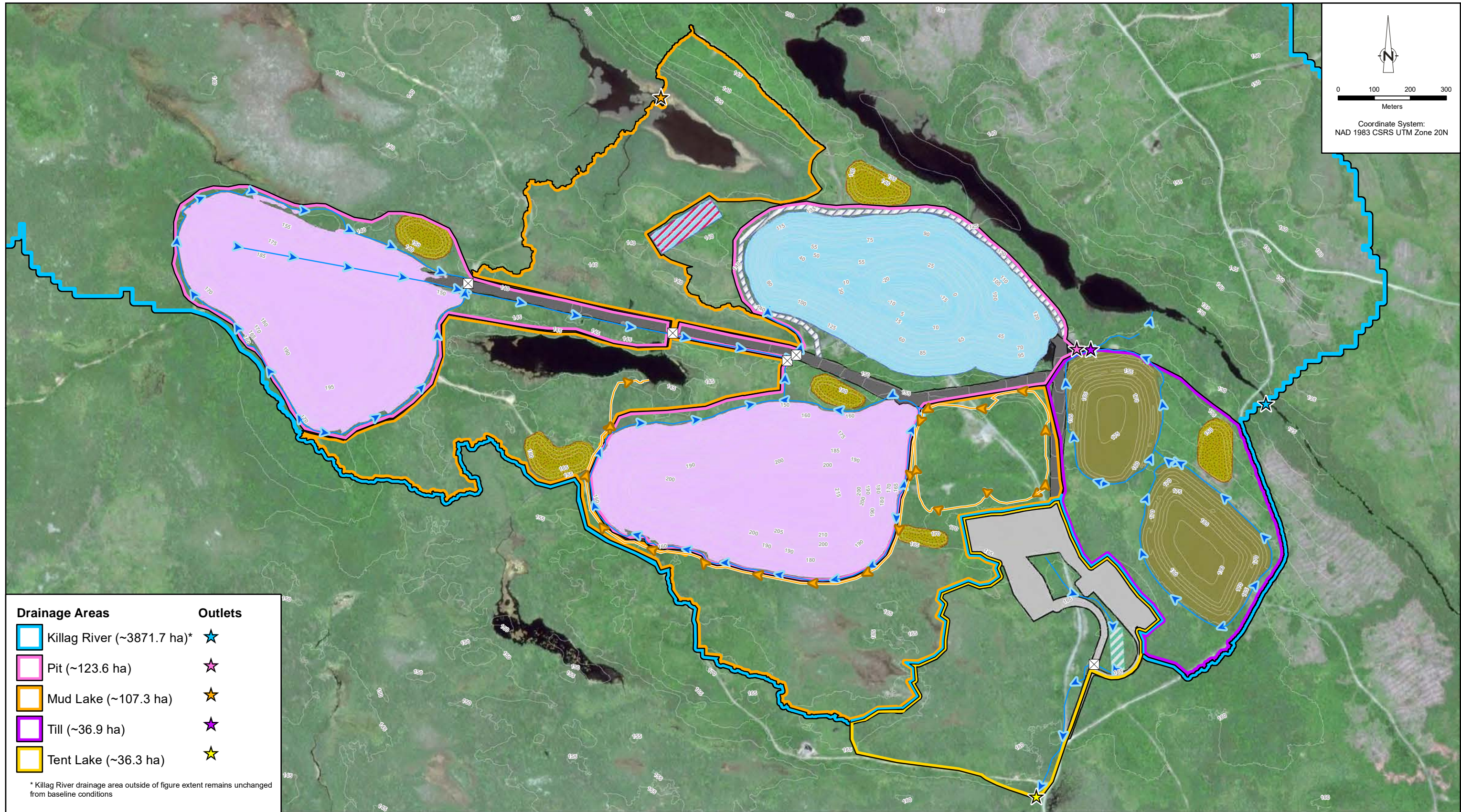


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BEAVER DAM MINE  
SURFACE WATER MANAGEMENT PLAN  
WATER BALANCE ANALYSIS

CONTRIBUTING DRAINAGE AREAS – EOM CONDITIONS

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FIGURE 6.7-15



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**NOTES:**  
 1. Mud Lake and Tent Lake Contributing Areas derived from LiDAR measurements supplied by Leading Edge Geomatics, 2015.  
 2. Killag River Contributing Area derived from a combination of LiDAR measurements, Nova Scotia Department of Natural Resources (Forestry Division) hydrologically-corrected 20m DEM, and interpretations from satellite imagery and topographic maps.

- Stockpile Ditch
- SWM Ditch
- Contours (5m)
- Berm
- Soil Stockpile
- Decommissioned Settling Pond
- Collection Pond
- Pit Lake
- Haul Road
- Crusher Pad
- Till Stockpile
- Waste Rock Stockpile
- Culvert








ATLANTIC MINING NS CORP  
 BEAVER DAM MINE  
 SURFACE WATER MANAGEMENT PLAN  
 WATER BALANCE ANALYSIS

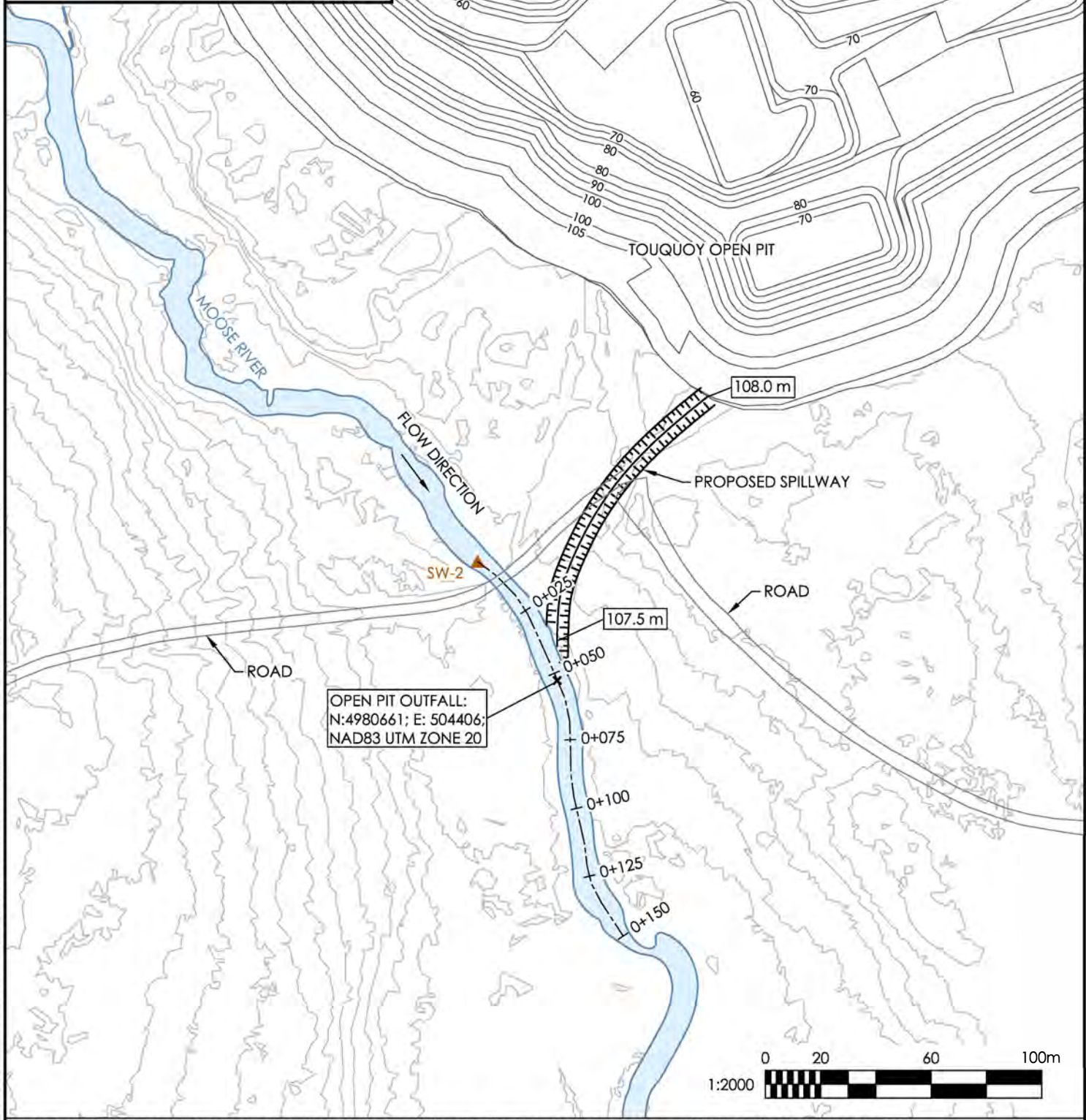
CONTRIBUTING DRAINAGE AREAS – PC CONDITIONS

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FIGURE 6.7-16

LEGEND

-  SURFACE WATER SAMPLING POINT
-  RIVER CENTERLINE AND STATIONING (m) FROM SW2
-  CONTOUR, m (LIDAR, 2010)
-  EXISTING WATERCOURSE
-  FIELD IDENTIFIED WATERCOURSE




THIS DRAWING ILLUSTRATES SUPPORTING INFORMATION SPECIFIC TO A STANTEC CONSULTING LTD. REPORT AND MUST NOT BE USED FOR OTHER PURPOSES.

**LOCATION OF OPEN PIT OUTFALL**  
BEAVER DAM GOLD PROJECT  
NOVA SCOTIA

Job No.:	121619250
Scale:	1 : 2000
Date:	16-JAN-2019
Dwn. By:	JL
App'd By:	RJ

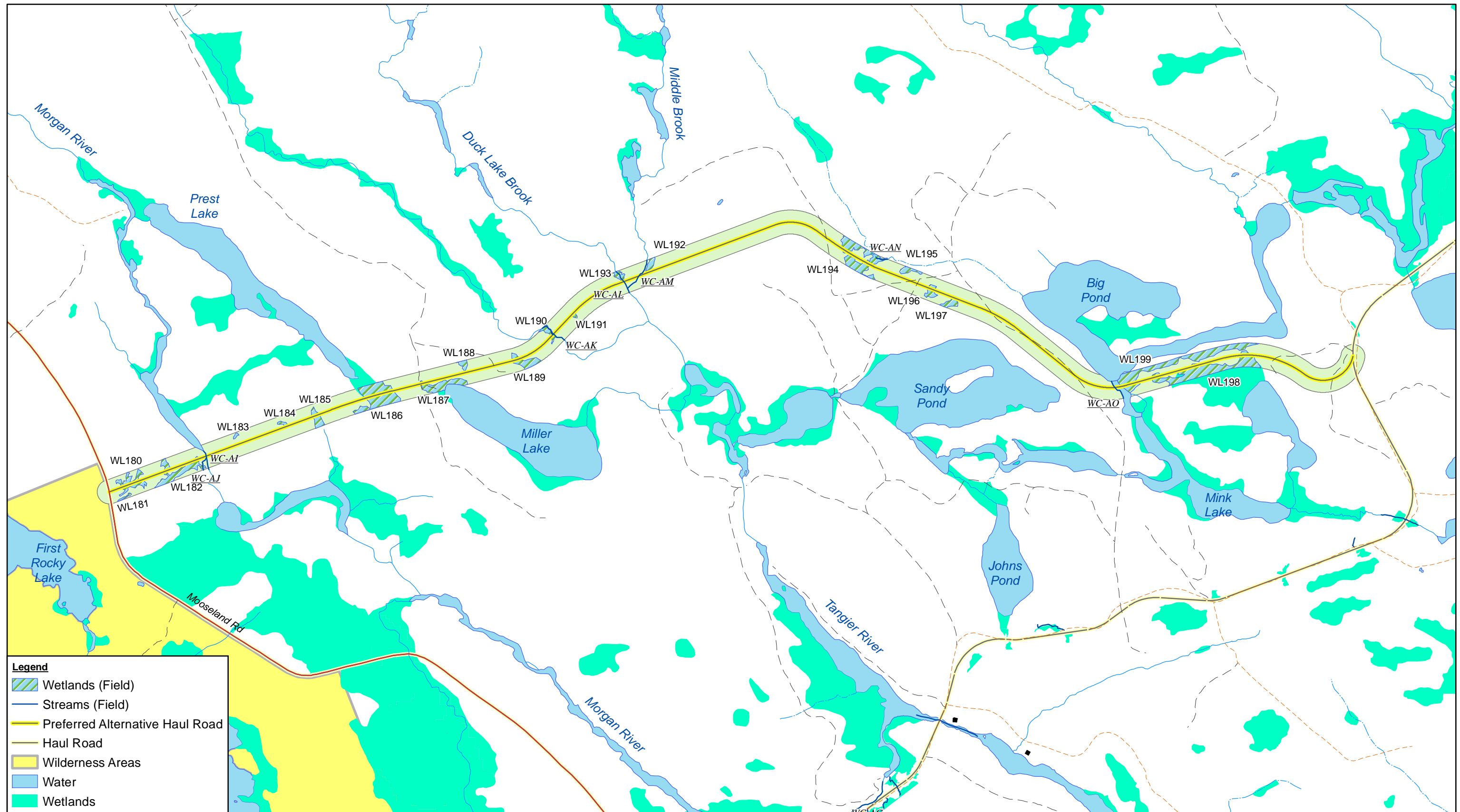
Fig. No.: **6.7-17**



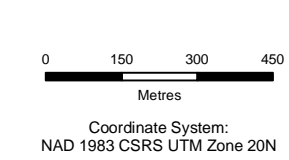
**Stantec**

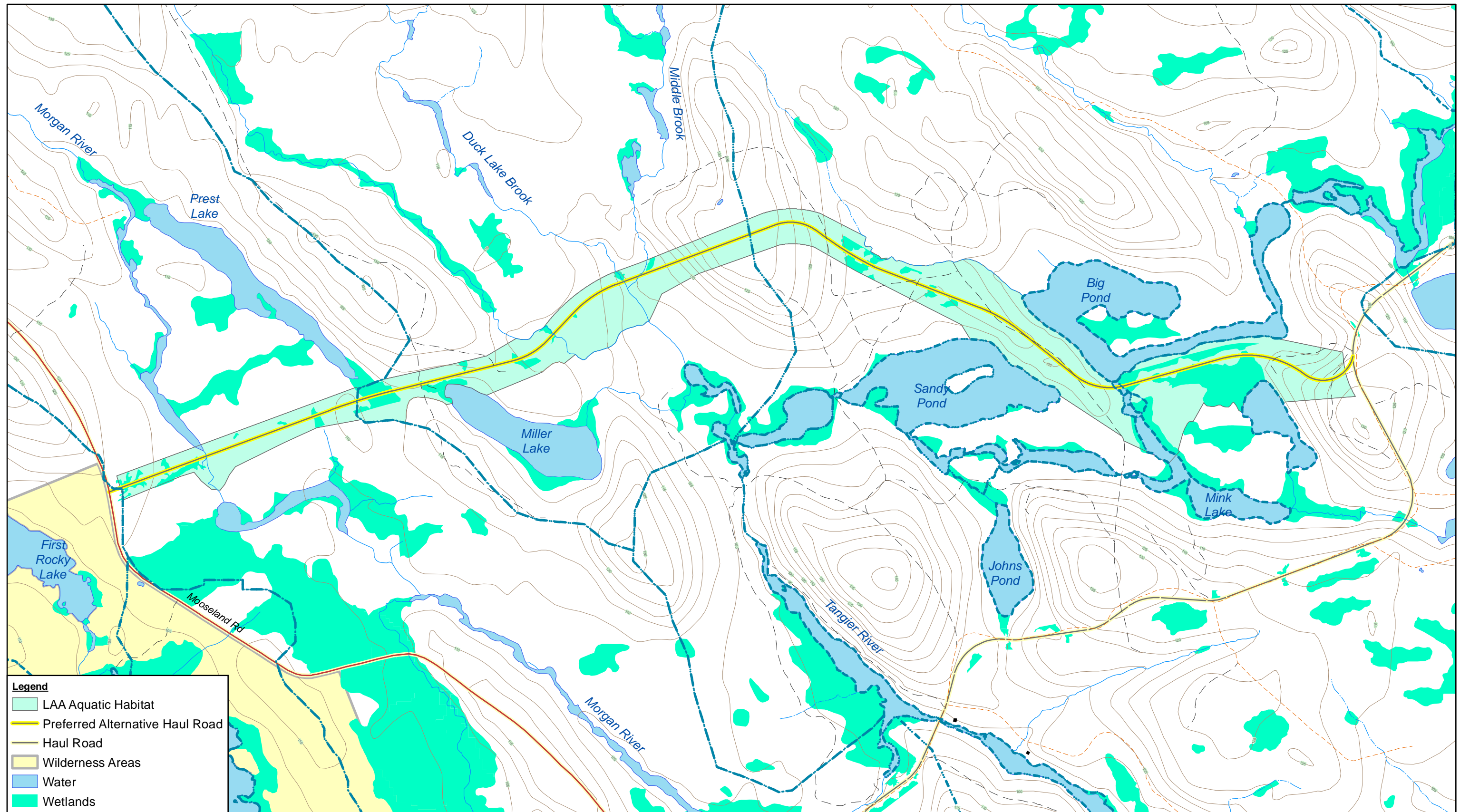
Client: ATLANTIC MINING NOVA SCOTIA CORPORATION

V:\1216\active\121619250\1\_geotechnical\3\_drawings\_logs\4000\_BEAVER-DAM\4\_Sheet\_Files\121619250\_4000\_LOC\_FIG-2.dwg



Source: Service Nova Scotia (Water, Wetlands, Roads), NS Environment (Protected Areas), Atlantic Gold (Route)





**Legend**

- LAA Aquatic Habitat
- Preferred Alternative Haul Road
- Haul Road
- Wilderness Areas
- Water
- Wetlands

Source: Service Nova Scotia (Water, Wetlands, Roads), NS Environment (Protected Areas), Atlantic Gold (Route)

0 150 300 450  
Metres

Coordinate System:  
NAD 1983 CSRS UTM Zone 20N

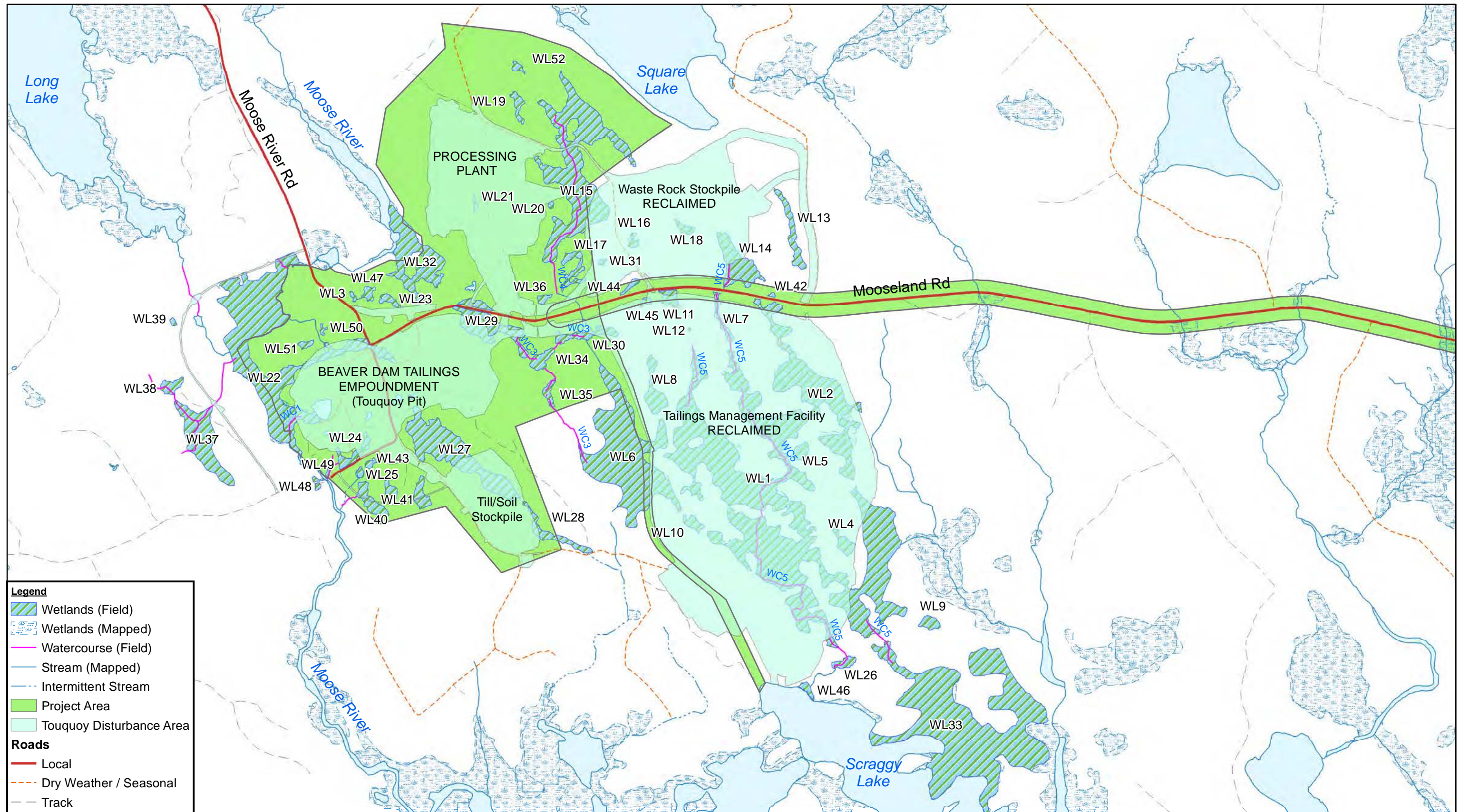


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MARINETTE, HALIFAX CO., NOVA SCOTIA  
ENVIRONMENTAL IMPACT STATEMENT - BEAVER DAM MINE  
LOCAL ASSESSMENT AREA: WETLANDS & FISH AND  
FISH HABITAT - PREFERRED ALTERNATIVE HAUL ROAD

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FIGURE 6.8-2





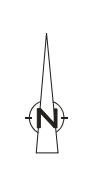
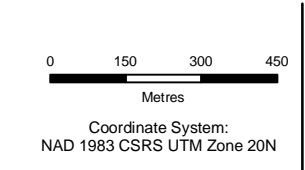
**Legend**

- Wetlands (Field)
- Wetlands (Mapped)
- Watercourse (Field)
- Stream (Mapped)
- Intermittent Stream
- Project Area
- Touquoy Disturbance Area

**Roads**

- Local
- Dry Weather / Seasonal
- Track

Source: Atlantic Gold, Service Nova Scotia, NS Natural Resources, NS Environment

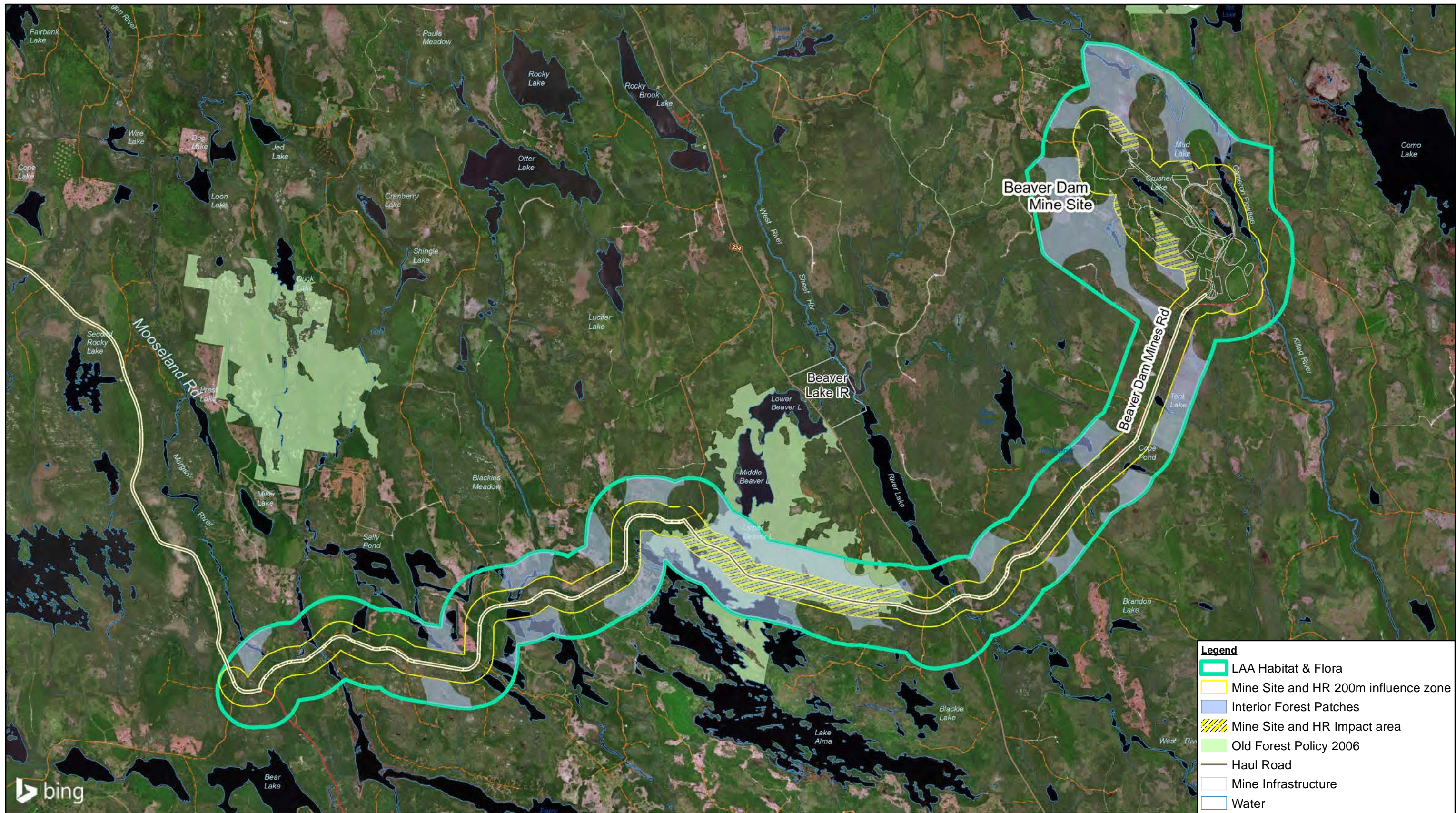


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 ENVIRONMENTAL IMPACT STATEMENT - BEAVER DAM MINE  
**TOUQUOY MINE  
 WETLANDS**

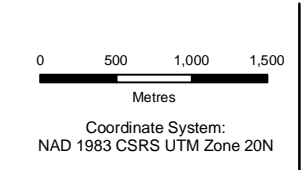
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**FIGURE 6.8-4**





Source: Service Nova Scotia  
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 ENVIRONMENTAL IMPACT STATEMENT - BEAVER DAM MINE

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INTERIOR FOREST AND MATURE FOREST HABITAT

FIGURE 6.10-4