



**APPENDIX A. FIGURES**



Prepared For:

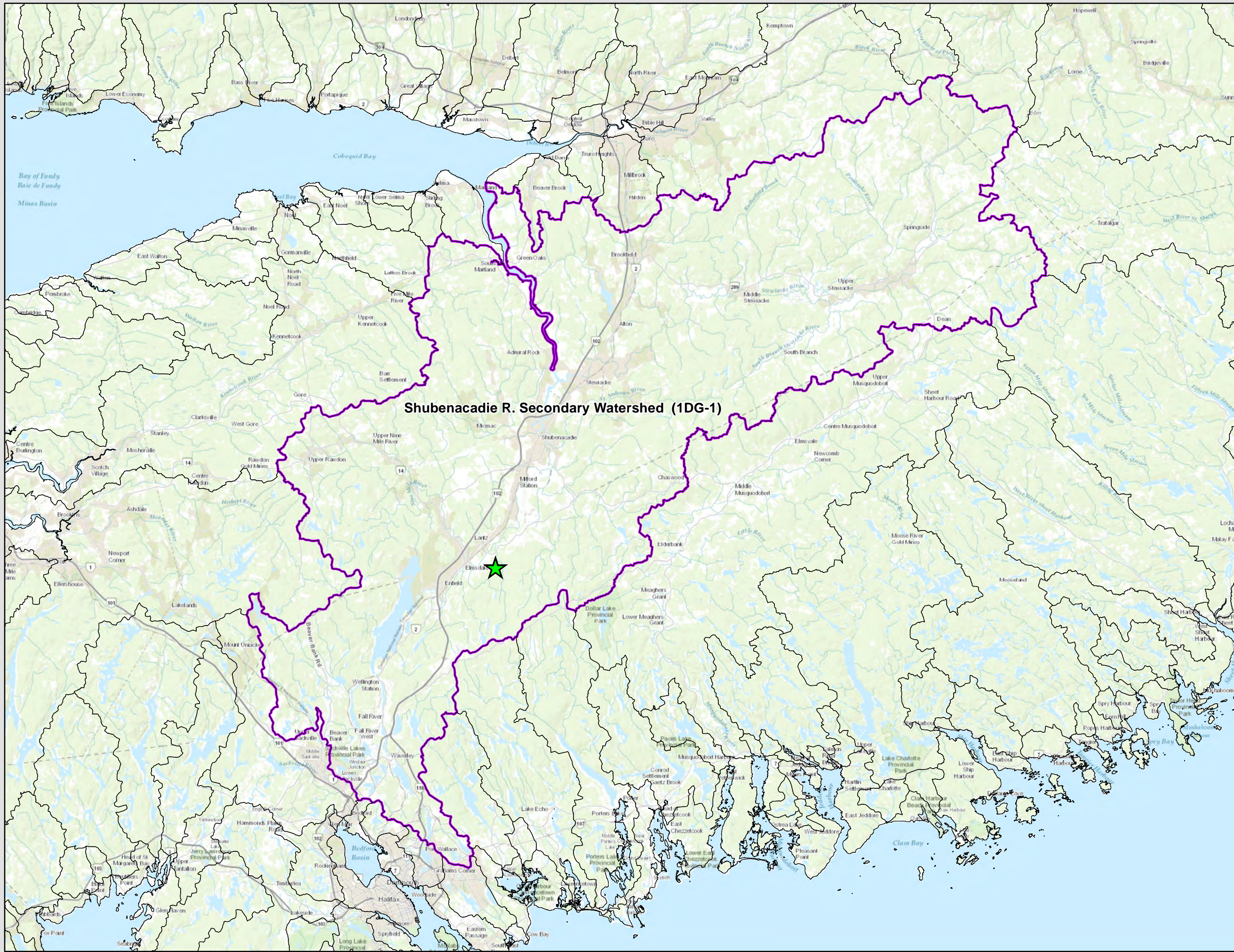


### FIGURE 1

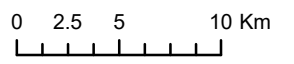
### Project Location

### Lantz Quarry Expansion Project

- Secondary Watersheds
- 1DG-1 Shubenacadie River
- Secondary Watershed
- Project Location



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



1:370,000 Scale when printed @ 11" x 17"

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**FIGURE 2A**

**Study Areas**

**Lantz Quarry Expansion Project**

-  Mapped Watercourses (NSTDB)
-  5m Contour line (NSTDB)
-  Mapped Wetlands (NSTDB)
-  Study Area



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



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**FIGURE 2B**

**Study Areas**

**Lantz Quarry Expansion Project**

-  Mapped Watercourses (NSTDB)
-  5m Contour line (NSTDB)
-  Mapped Wetlands (NSTDB)
-  Aquatic Study Area



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



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**FIGURE 3**

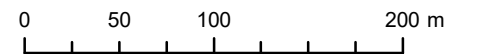
**Proposed Project Footprint**

**Lantz Quarry Expansion Project**

-  Settling Pond
-  Mapped Watercourses (NSTDB)
-  Existing NSECC Approved Quarry
-  Laydown Area
-  Quarry Expansion Area
-  Study Area



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



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Project # 21-453  
 Date: 2022-09-19



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# FIGURE 4

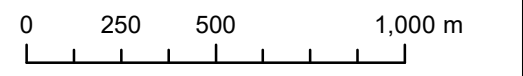
## Desktop Review

### Lantz Quarry Expansion Project

- Wildlife - ACCDC Observation
- Insect - ACCDC Observation
- Lichen - ACCDC Observation
- Plant - ACCDC Observation
- Buildings
- Abandoned Mine Site Opening
- 5m Contour line (NSTDB)
- Atlantic Salmon - Inner Bay of Fundy population - ACCDC Observation
- NSE Wetland of Special Significance
- Wood Turtle SMP 200m Buffer
- NSDNR Significant Species and Habitat Database
- Pipeline Corridor
- Mapped Watercourse (NSTDB)
- Mapped Wetland (NSTDB)
- Mapped Waterbody (NSTDB)
- Study Area



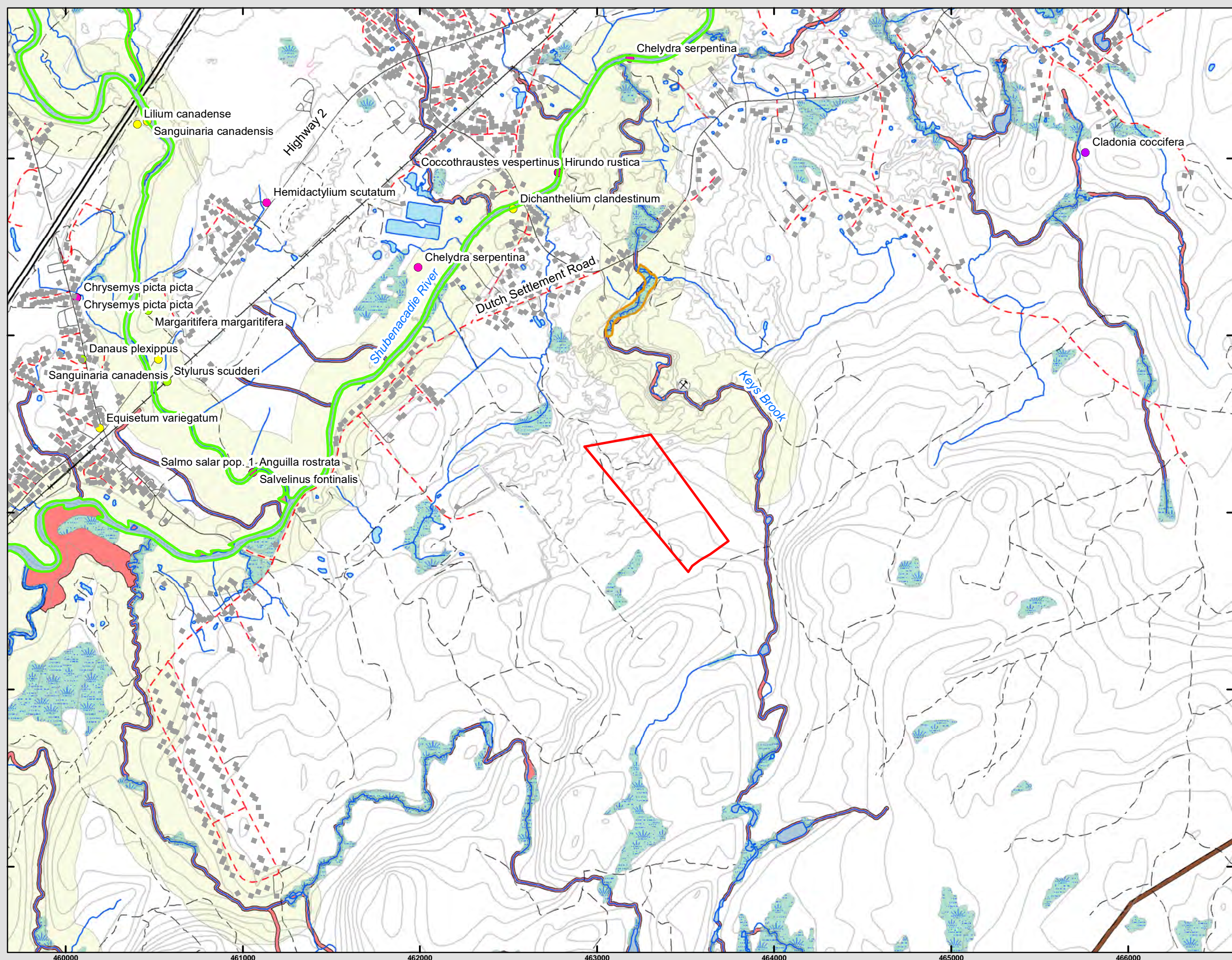
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







Dexter Construction Company Limited

**FIGURE 5**


**Land Use**

**Lantz Quarry Expansion Project**

- Cover Type**
-  Access Road
  -  Clearcut
  -  Mixed Forest Stand
  -  Existing Quarry
  -  Softwood Forest
  -  Wetland
  -  Approximate Boundary of Study Area



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



0 25 50 100 m

1:4,000      Scale when printed @ 11" x 17"

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 Reviewed By: JB      Date: 2022-09-08



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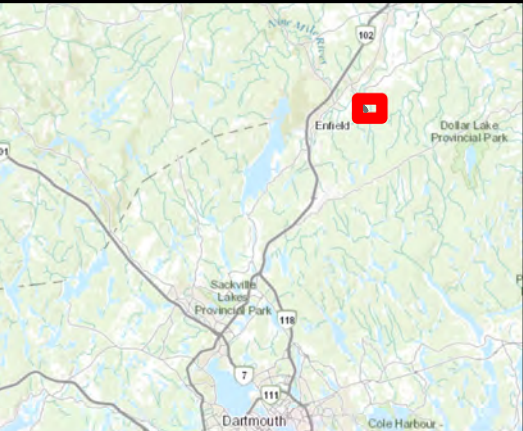
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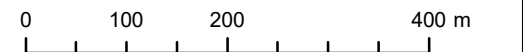
### FIGURE 6

## Avian Survey Locations Lantz Quarry Expansion Project

- Avian Point Count Locations
  - Common Nighthawk Survey Locations
  - Owl Survey Locations
  - Breeding Bird Area Search Transects
  - Mapped Watercourses (NSTDB)
  - Roads
- Cover Type**
- Mixedwood
  - Softwood
  - Wetland
  - Clearcut
  - Existing Quarry
  - Access Road
  - Study Area



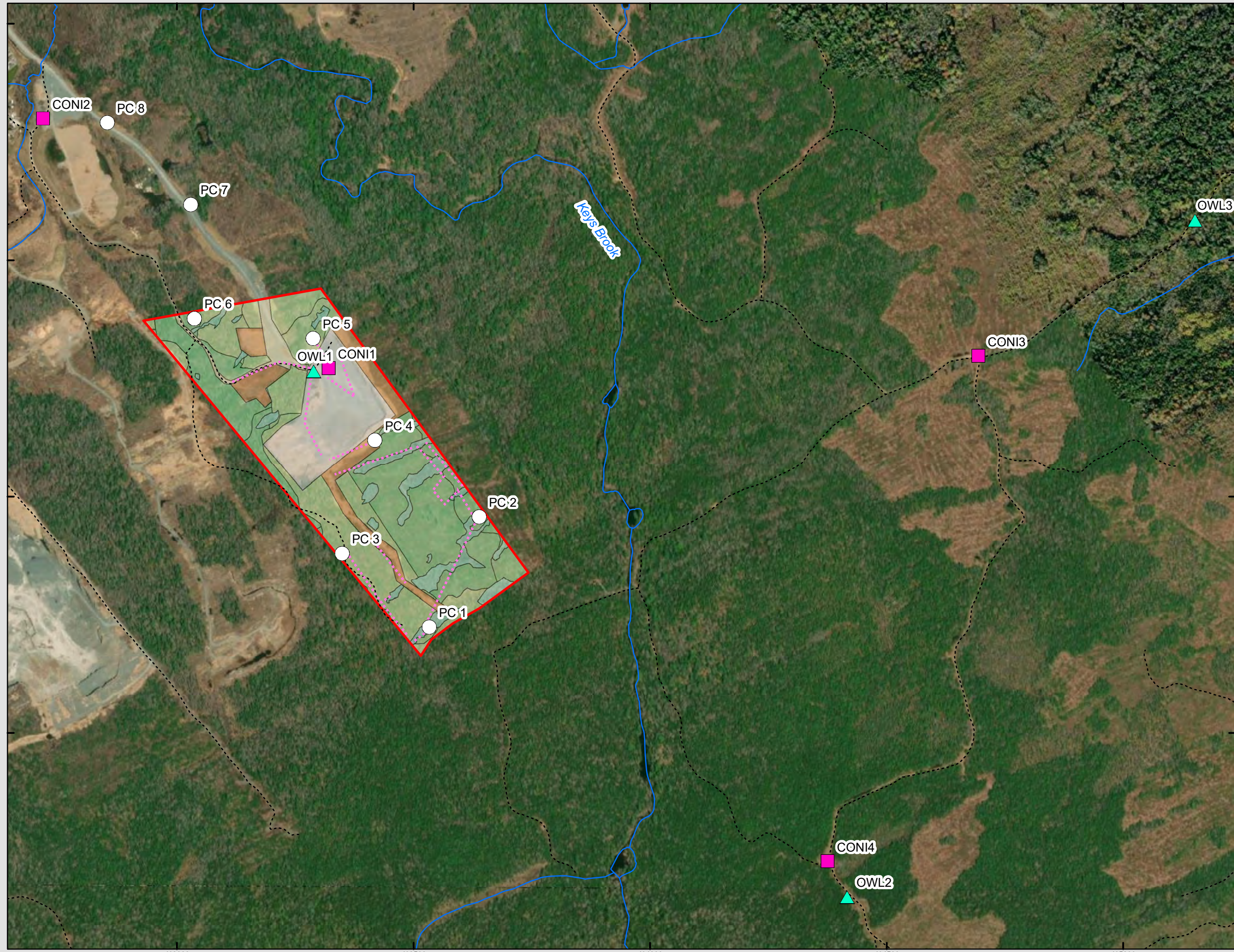
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 Datum: North American 1983 CSRS  
 Units: Meter



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 Drawn By: LP Project # 21-453  
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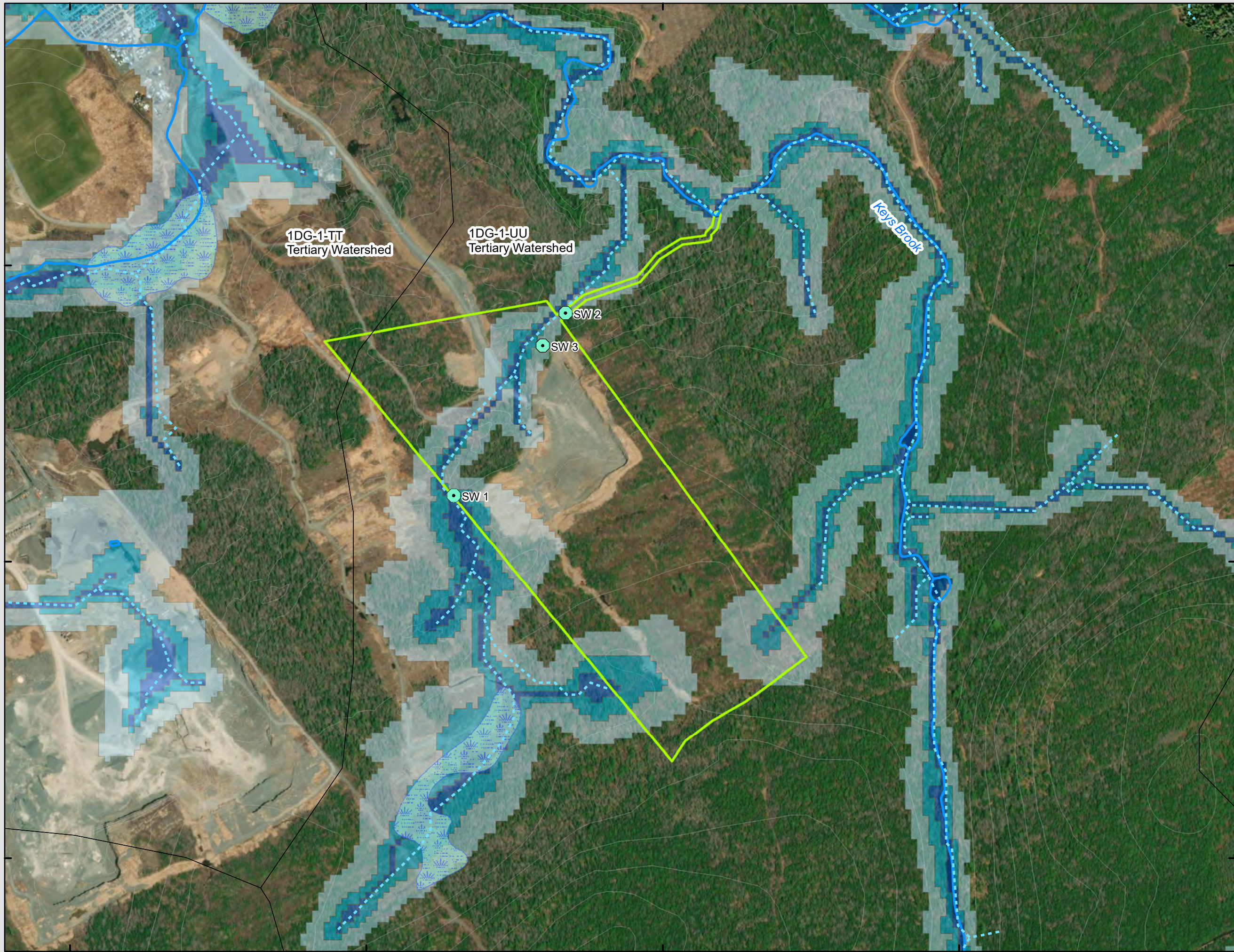
Prepared For:



### FIGURE 7

## Desktop Hydrology Review

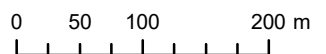
### Lantz Quarry Expansion Project



- Surface Water Sample Locations
  - Flow Accumulation
  - Mapped Watercourses (NSTDB)
  - Tertiary Watersheds
  - Mapped Wetlands (NSTDB)
  - 5 m Contour Line (NSTDB)
  - Aquatic Study Area
- Depth to Water (m)**
- 0 - 0.10m
  - 0.11 - 0.50m
  - 0.51 - 2.00m



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



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### FIGURE 8

## Fish Survey Results

# Lantz Quarry Expansion Project

● Water Quality Sample Locations

### Reach

--- Reach 1

--- Reach 2

--- Reach 3

--- Reach 4

--- Reach 5

■ Electrofishing Location

— Field Delineated Watercourse

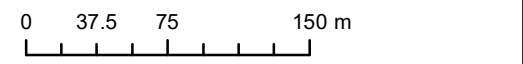
▨ Field Delineated Wetland

□ Aquatic Study Area

Fish caught:  
3 Brook Trout



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



1:4,000 Scale when printed @ 11" x 17"

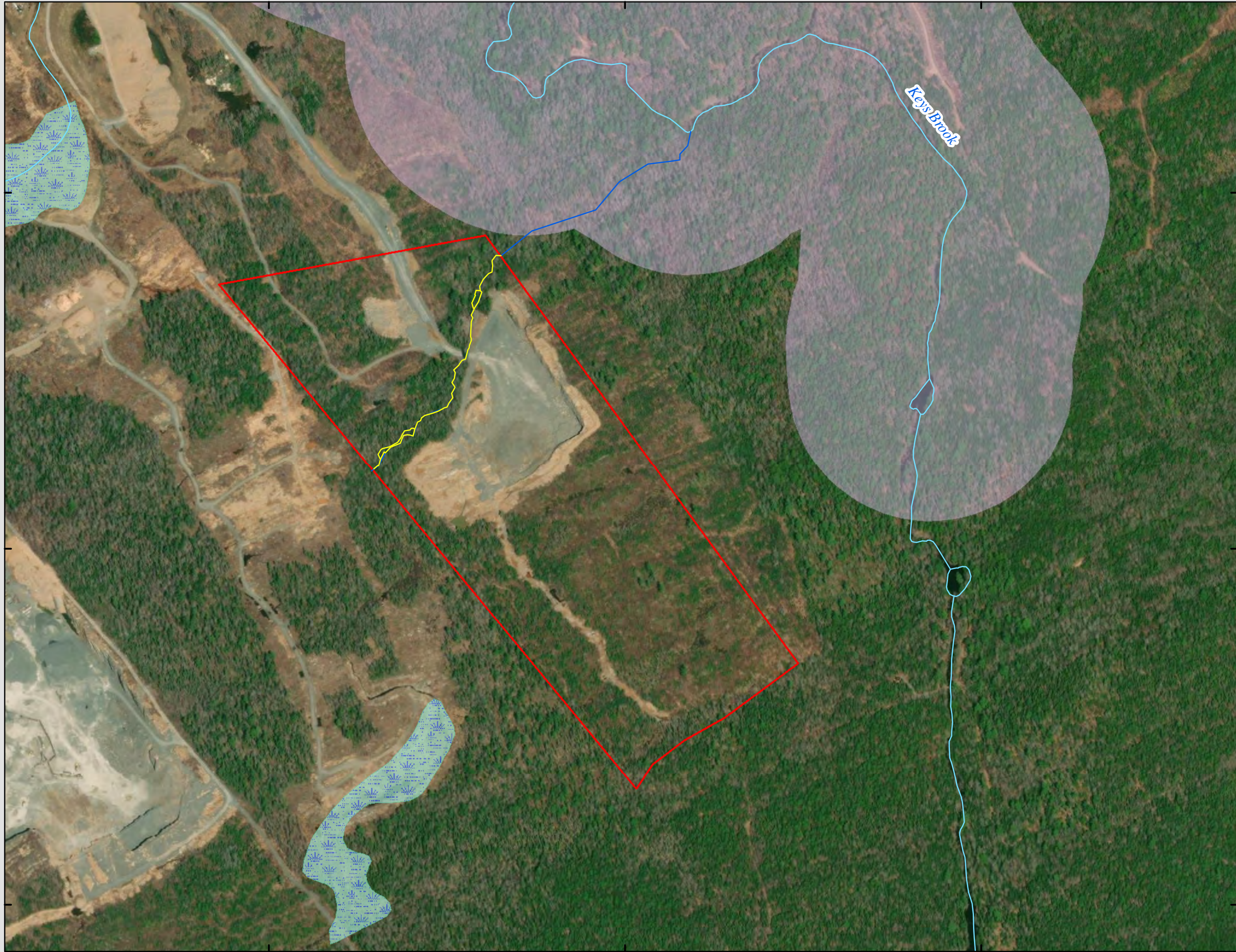
Drawn By: EH Project # 21-453  
Reviewed By: JB Date: 2022-09-08



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**FIGURE 9**

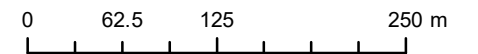
**Wood Turtle Survey**

**Lantz Quarry Expansion Project**

-  Mapped Watercourses (NSECC)
-  Field Identified Watercourses
-  Surveyed Reach (Wood Turtle)
-  Mapped Wetlands (NSECC)
-  Wood Turtle SMP 200m Buffer
-  Study Area



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



1:5,000

Scale when printed @ 11" x 17"

Drawn By: MD  
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Project # 21-453

Date: 2022-10-18



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**FIGURE 10**  
**Residential Receptors**  
**Lantz Quarry Expansion Project**

- Receptor 1 - 362 Highway 277
- Receptor 2 - 390 Highway 277
- ⬠ Water Wells (NSECC Well Logs Database)
- ⬠ Buildings (NSTDB)
- Mapped Watercourses (NSTDB)
- Quarry Site Access (Existing)
- ⬠ Quarry Expansion Area
- ⬠ Proposed Development Area Buffer (800m)
- ⬠ Lawdown Area
- ⬠ Existing NSECC Approved Quarry
- ⬠ Study Area



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



0 125 250 500 m

1:10,000 Scale when printed @ 11" x 17"

Drawn By: MD Project # 21-453  
 Reviewed By: JB Date: 2022-09-19











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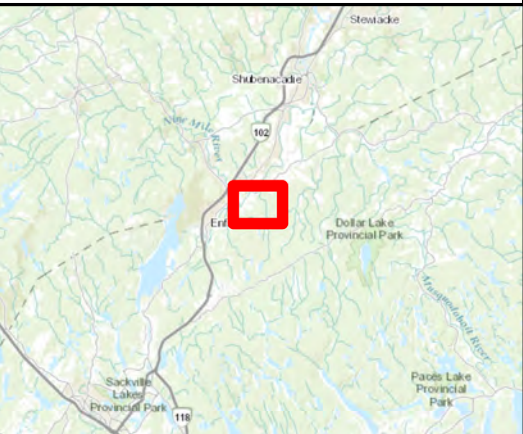


### FIGURE 11

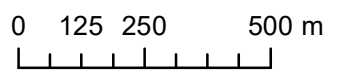
## Surficial Geology

# Lantz Quarry Expansion Project

-  Mapped Watercourse (NSTDB)
-  5m Contour Line (NSTDB)
-  Alluvial Deposits
-  Bedrock
-  Glaciolacustrine Deposits
-  Organic Deposits
-  Silty Till Plain
-  Study Area



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



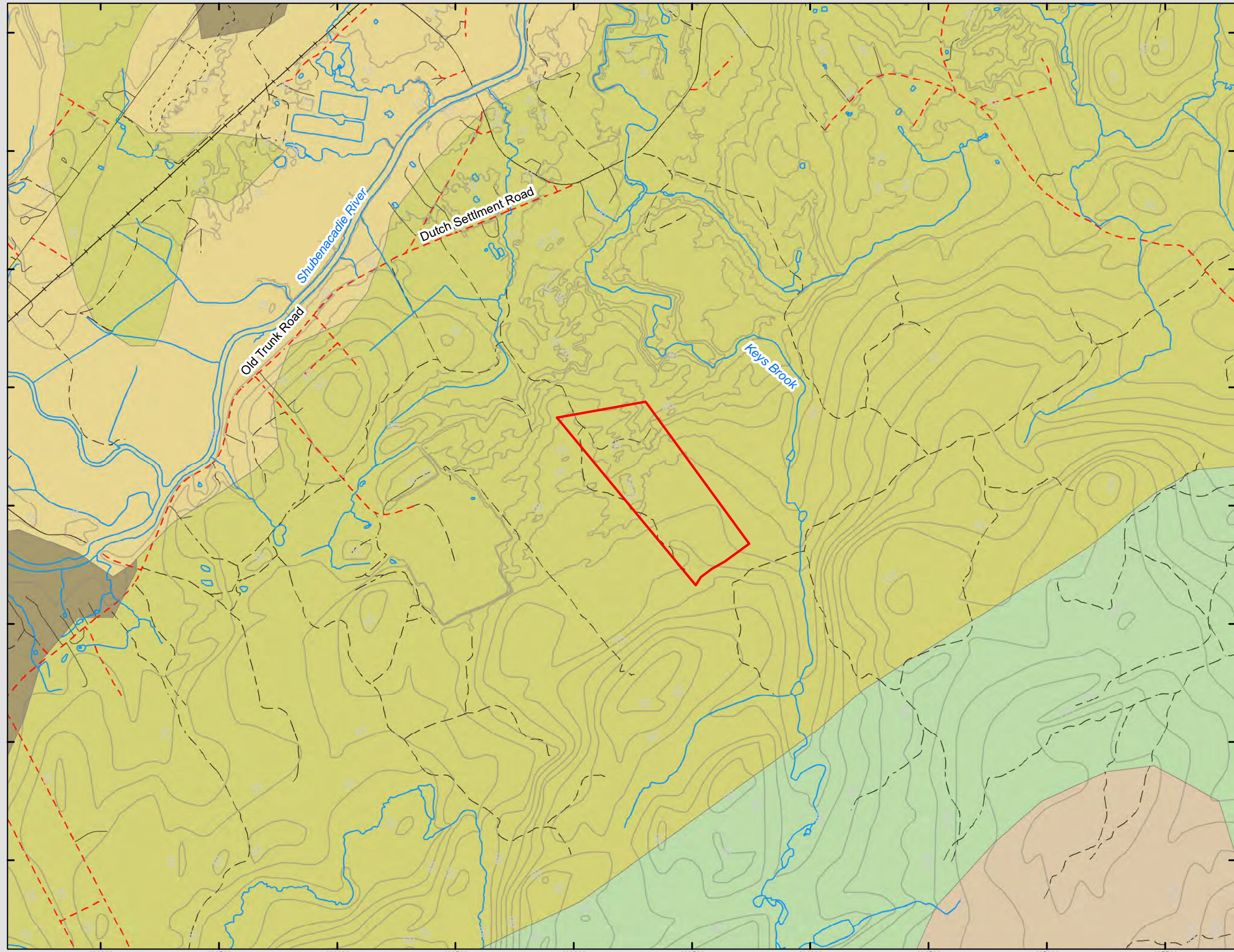
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Reviewed By: JB

Project # 21-453  
Date: 2022-09-19



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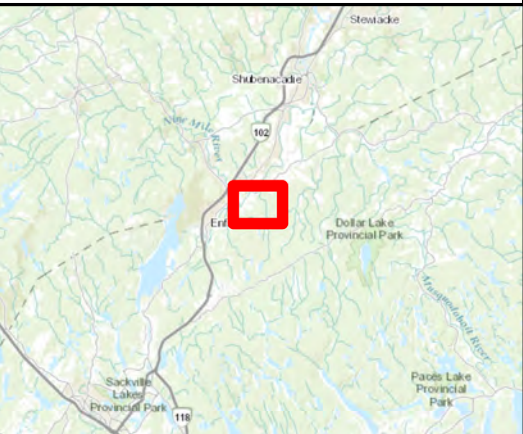


### FIGURE 12

## Bedrock Geology

# Lantz Quarry Expansion Project

-  Study Area
-  Mapped Watercourse (NSTDB)
-  Goldenville Formation
-  White Quarry, Stewiacke, Carrolls Corner, Macumber and Gays River Formations



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



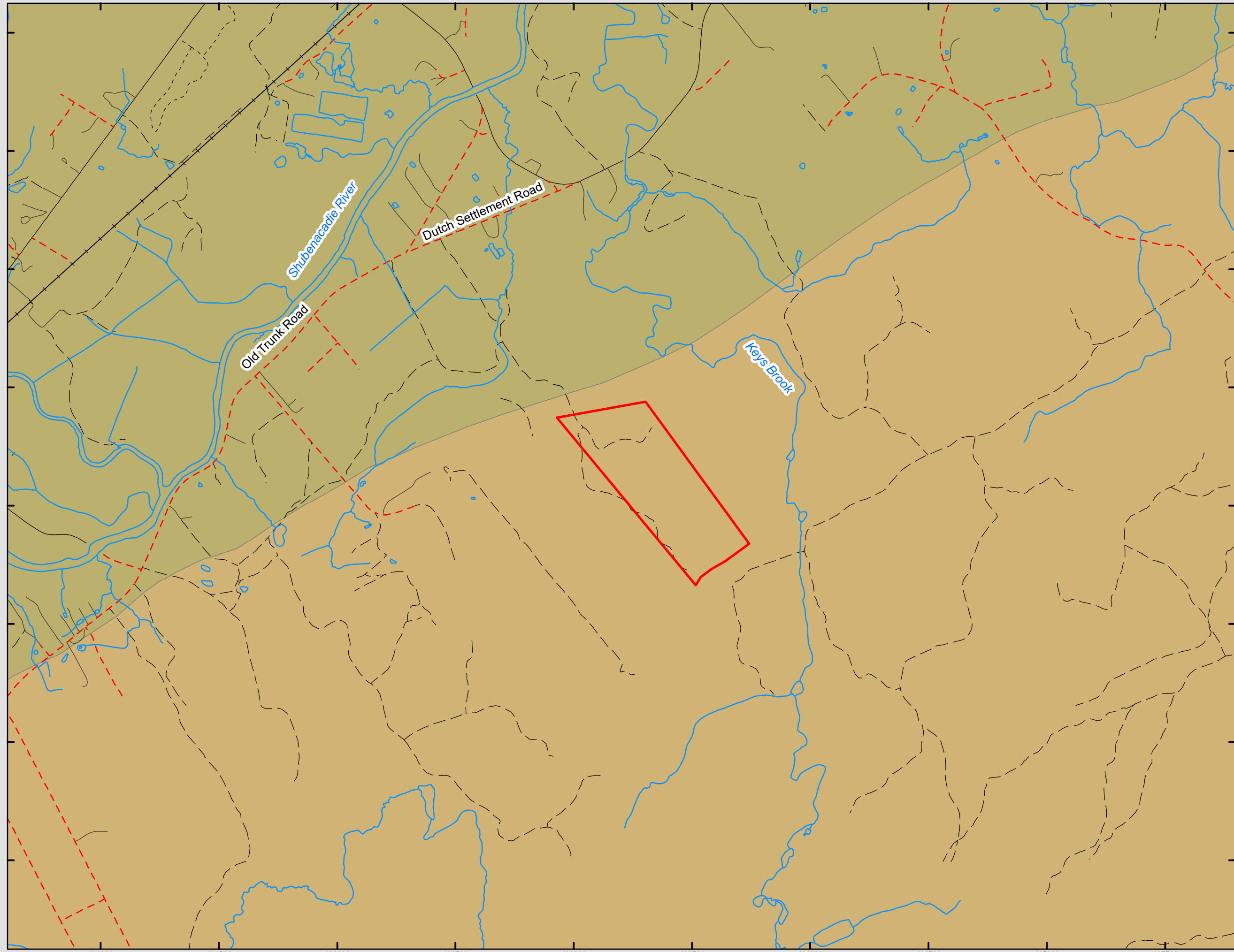
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 Reviewed By: JB Date: 2022-09-19



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**FIGURE 13**

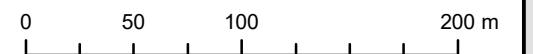
**Habitat Points and Wetland  
Vegetation Communities**

**Lantz Quarry Expansion  
Project**

- Habitat Points
- RS1
- PG4
- WC1
- WC2
- WC6
- WC7
- WD2
- WD5
- WD6
- Study Area



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



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Scale when printed @ 11" x 17"

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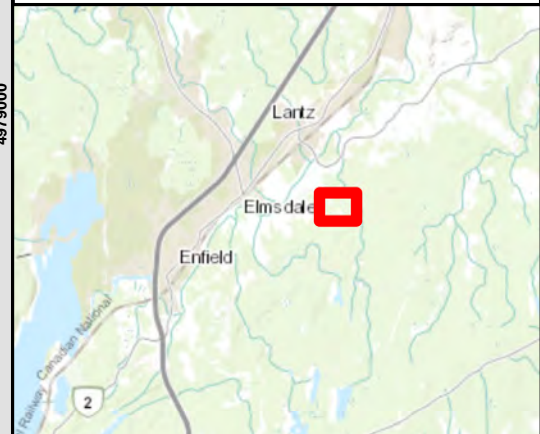


**FIGURE 14**

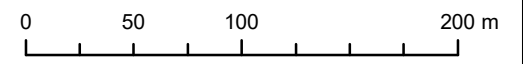
**Vascular Plant Survey Results**

**Lantz Quarry Expansion Project**

-  Bicknell's crane's-bill (ACDC S3)
-  Botany Survey Tracks
-  Field Delineated Watercourse
-  Field Delineated Wetlands
-  Laydown Area
-  Existing NSECC Approved Quarry
-  Quarry Expansion Area
-  Study Area



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



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Scale when printed @ 11" x 17"

Drawn By: LP  
 Reviewed By: JB

Project # 21-453  
 Date: 2022-09-19



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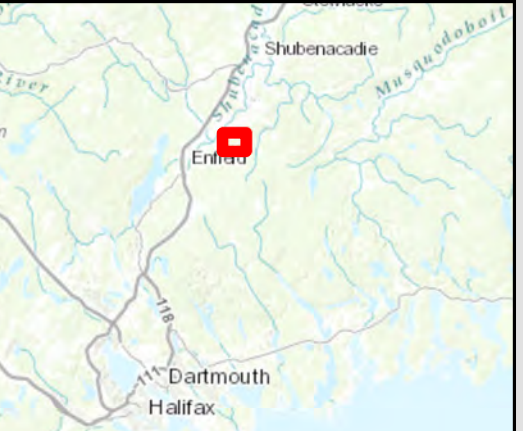
**FIGURE 15**

**Priority Avian Species - Observations**

**Lantz Quarry Expansion Project**

**Species**

- Canada Warbler
- Common Nighthawk
- Eastern Wood Pewee
- Killdeer
- Breeding Bird Area Search Transects
- Avian Point Count Locations
- Common Nighthawk Survey Locations
- Owl Survey Locations
- Study Area



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



0 125 250 500 m

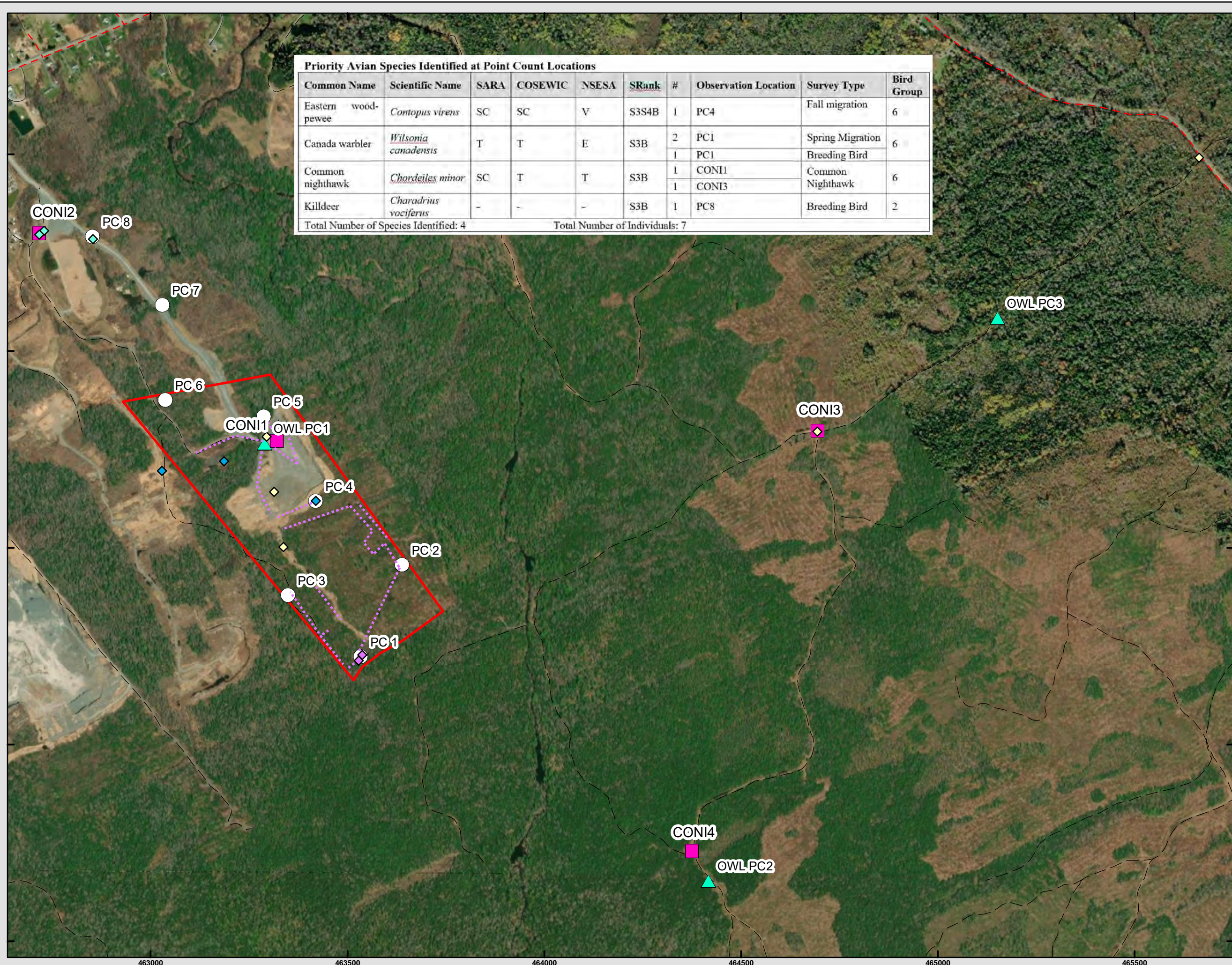
1:9,000 Scale when printed @ 11" x 17"

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Priority Avian Species Identified at Point Count Locations									
Common Name	Scientific Name	SARA	COSEWIC	NSESA	SRank	#	Observation Location	Survey Type	Bird Group
Eastern wood-pewee	<i>Contopus virens</i>	SC	SC	V	S3S4B	1	PC4	Fall migration	6
Canada warbler	<i>Wilsonia canadensis</i>	T	T	E	S3B	2	PC1	Spring Migration	6
						1	PC1	Breeding Bird	
Common nighthawk	<i>Chordeiles minor</i>	SC	T	T	S3B	1	CON11	Common Nighthawk	6
						1	CON13		
Killdeer	<i>Charadrius vociferus</i>	-	-	-	S3B	1	PC8	Breeding Bird	2
Total Number of Species Identified: 4					Total Number of Individuals: 7				





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### FIGURE 16

## Aquatic Field Findings Lantz Quarry Expansion Project

- Field Delineated Watercourse
  - NSTDB Mapped Watercourse
  - Potential Wetland Of Special Significance
  - Field Delineated Wetland
  - Wetland Proposed for Direct Alteration
  - NSECC Mapped Wetland
  - Laydown Area
  - Quarry Expansion Area
  - Existing NSECC Approved Quarry
  - Aquatic Study Area
- Wetland Areas = Total Area Delineated/Area Proposed for Direct Alteration



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



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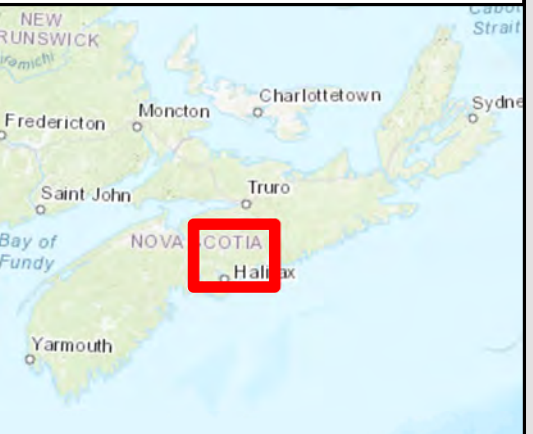
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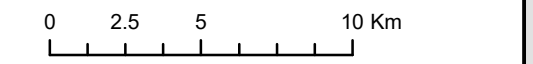
**FIGURE 17**

**First Nations Communities**  
**Lantz Quarry Expansion Project**

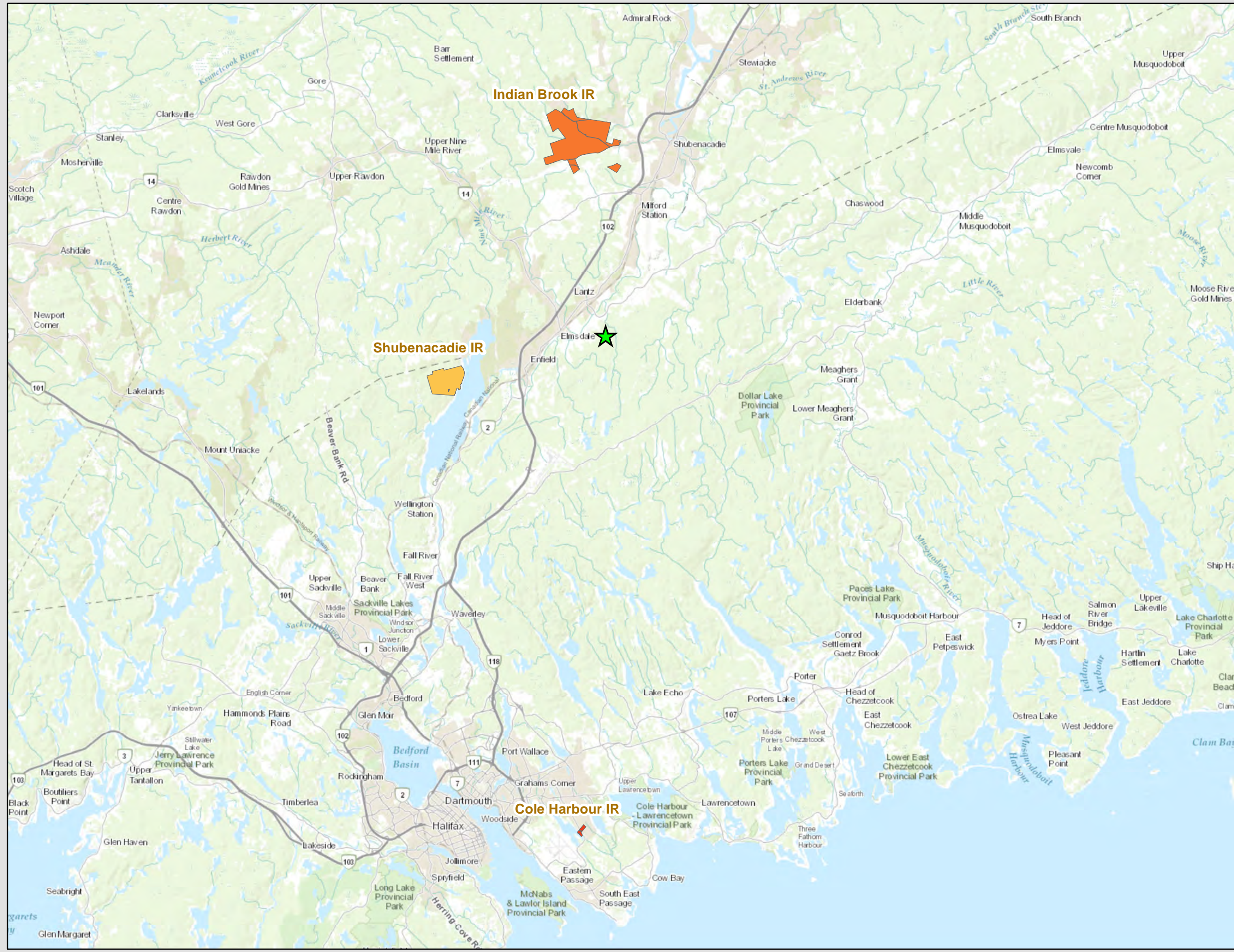
-  Cole Harbour
-  Indian Brook
-  Shubenacadie
-  Project Location



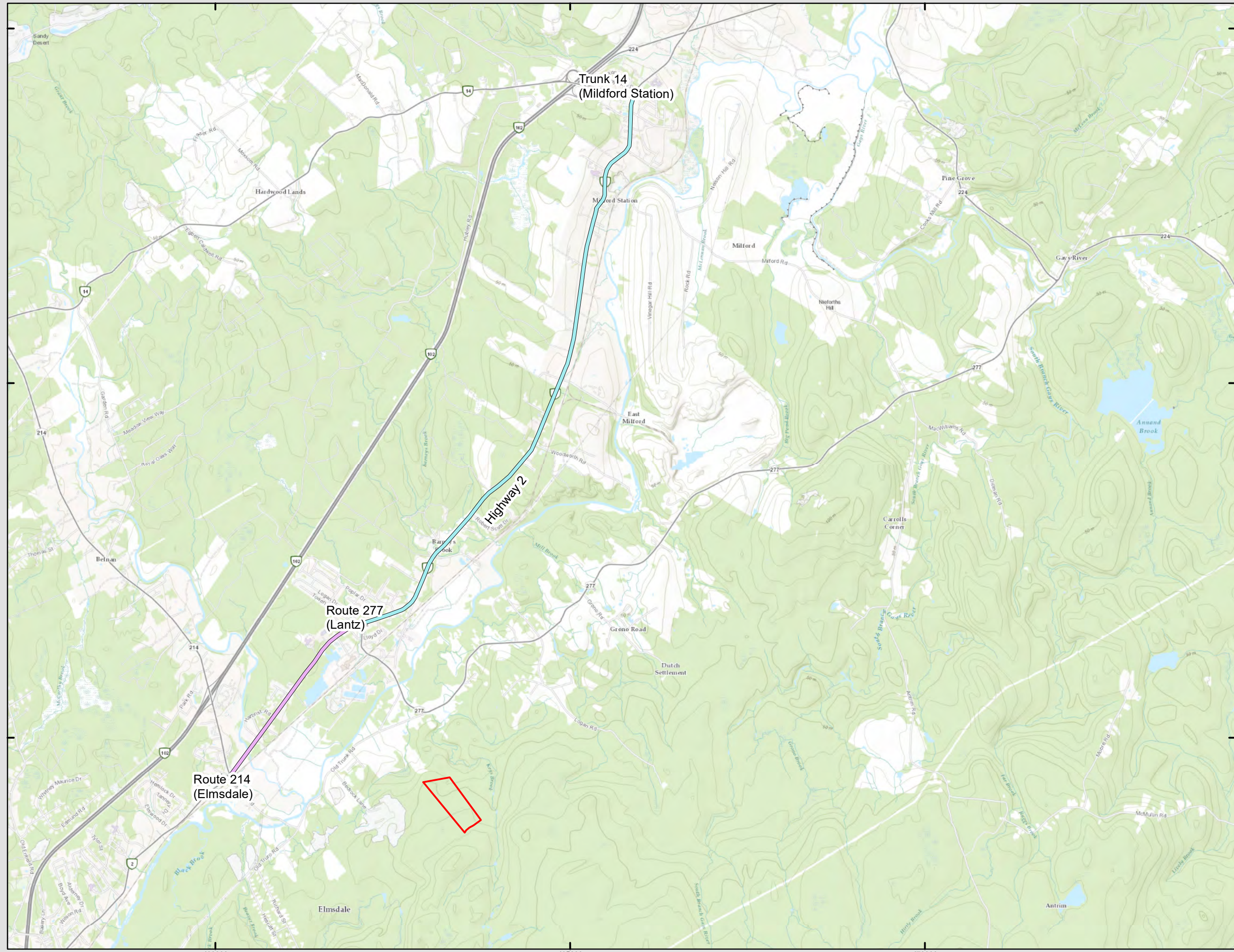
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Drawn By: MD Project # 21-453  
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**FIGURE 18**

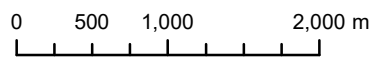
**Traffic Counts**

**Lantz Quarry Expansion Project**

- Study Area
- Traffic Count Routes**
- Highway 2 from Route 214 to Route 277
- Highway 2 from Route 277 to Trunk 14



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



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 Project # 21-453  
 Drawn By: MD  
 Reviewed By: JB  
 Date: 2022-10-18



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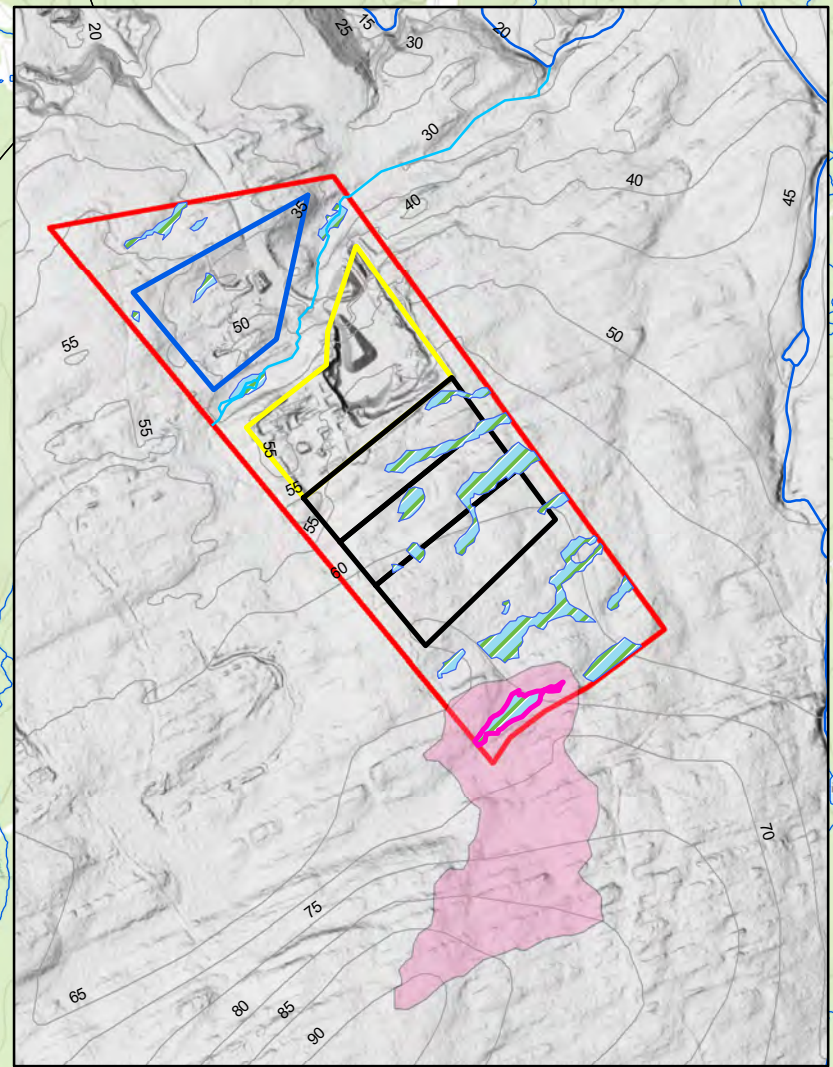
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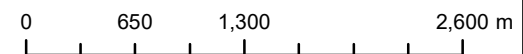
### FIGURE 19

## Tertiary Watershed and WSS Local Catchment Area Lantz Quarry Expansion Project

-  NSTDB Mapped Watercourse
-  Field Delineated Watercourse
-  Potential Wetland Of Special Significance
-  Field Delineated Wetland
-  Laydown Area
-  Quarry Expansion Area
-  WL1 (WSS) LCA
-  Study Area
-  Project Tertiary Watershed (1DG-1-UU)
-  NS Tertiary Watersheds



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 Projection: Transverse Mercator  
 Datum: North American 1983 CSRS  
 Units: Meter



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 Reviewed By: JB Date: 2022-09-13



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