

COMMUNITY LIAISON COMMITTEE

HIGHWAY 102 CONNECTOR ROAD PROJECT

7 November 2022

Agenda

- Review action items from Minutes of previous meeting
- Project Update
- Issues and Concerns

Action Items from CLC Meeting No. 2

- Pre-blast survey
- Monthly status reports
- Emergency contact information
- ATV usage

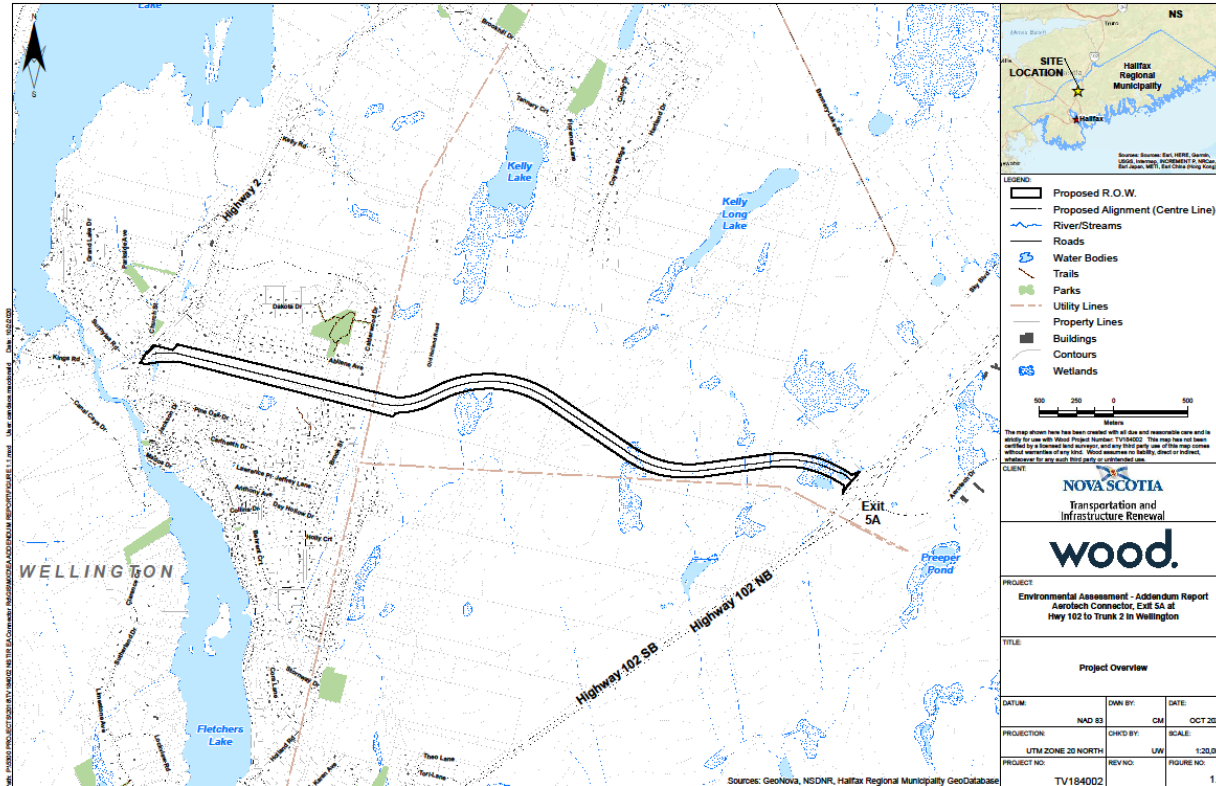
Project Update

- Environmental Approvals
- Layout/Design
- Schedule
- Monitoring

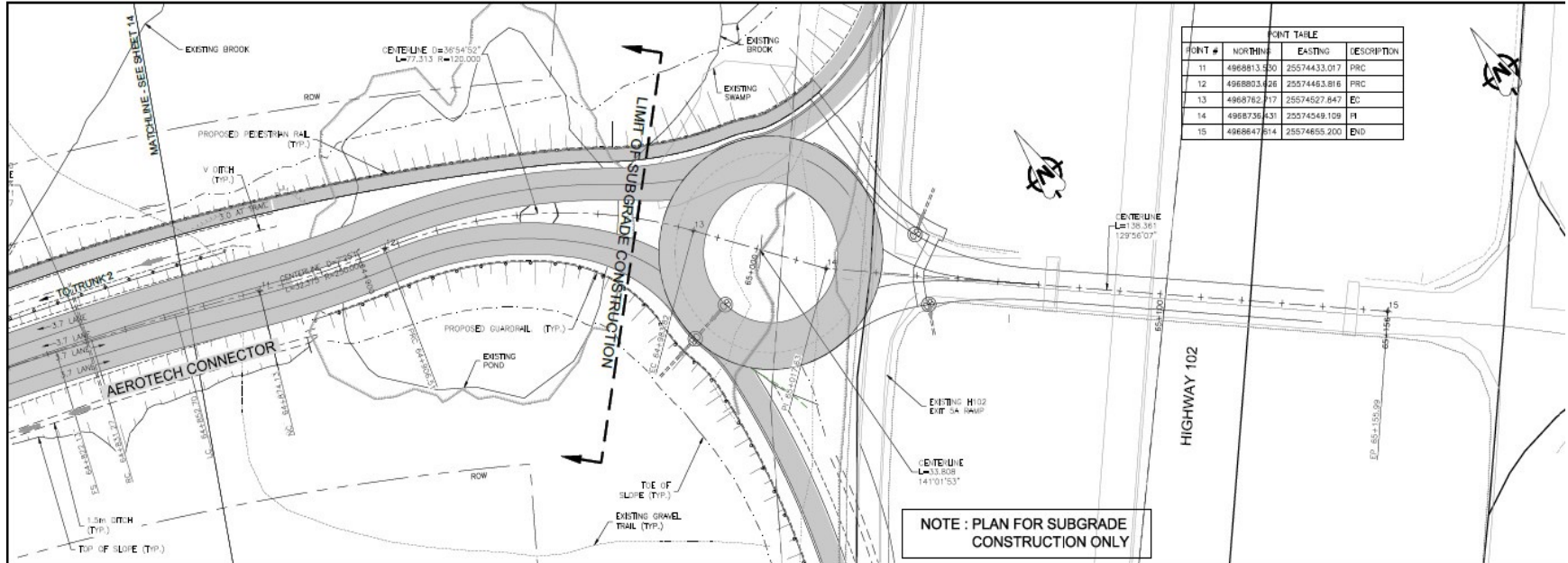
Environmental Approvals

- Groundwater Monitoring Plan
 - Submitted to NSE and approved March 2022
- Surface Water Management Plan
 - Submitted to NSE and approved March 2022
- Wildlife Management Plan
 - Submitted to DNR and approved March 2022
- Wildlife Crossing Plan
 - Submitted to DNR and approved
- Sulphide Bearing Materials Management Plan
- Erosion and Sedimentation Control Plan

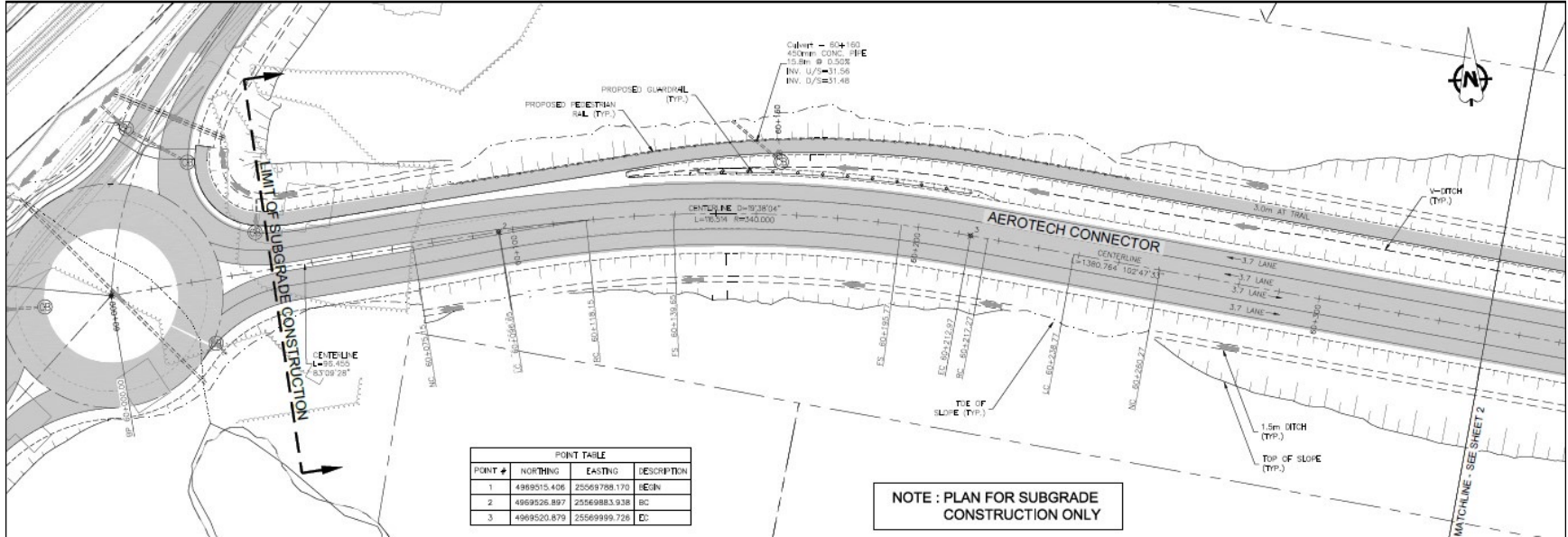
Road Layout/Design



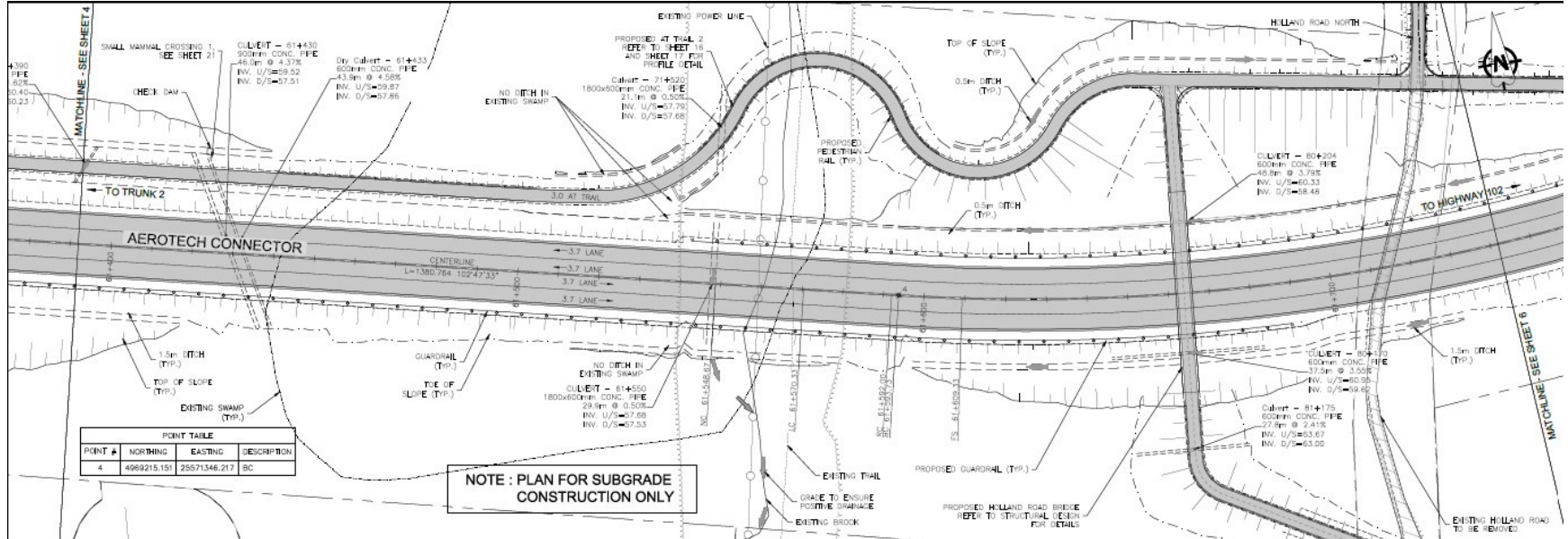
Highway 2 Roundabout



Trunk 2 Roundabout



AT Trail Crossing



Schedule

- Construction start June 2022
- Construction complete End 2023

Surface Water Resources

- **Planned watercourse crossing locations and diversions**
 - Cross-drainage culverts for all 15 watercourse crossings along the Connector
 - No watercourse diversions are required
- **Impacts to local drainage/wetland hydrology**
 - Culverts will preserve the minor local drainage features and their hydrological characteristics
- **Management of surface water runoff**
 - Surface water ditches at top of slope to intercept run off over open cut faces (ARD potential)
 - Surface water ditches at base of cut slopes and alongside of the Connector Road to collect run off from open cut faces
 - For the duration of the construction: run off monitoring; passive treatment prior to discharge, if necessary

Surface Water Monitoring - Construction

Objective	Location	Parameters	Duration and Frequency	Reporting
Establish pre-construction (baseline) and effects monitoring	<ul style="list-style-type: none"> Receiving watercourses and ponds: <ul style="list-style-type: none"> Watercourses 01-15 Ponds 1-3 	<ul style="list-style-type: none"> Field parameters SWA (including total metals) Dissolved metals Total suspended solids Acidity 	<ul style="list-style-type: none"> 3 times prior to construction (Fall, Winter, Spring) 	<ul style="list-style-type: none"> GWMP
Monitor the effectiveness of mitigation measures	<ul style="list-style-type: none"> Watercourses and ponds upstream and downstream of the ROW: <ul style="list-style-type: none"> Watercourses 01-15 Ponds 1-3 Drainage ditches located along the ROW / AT trail 	<ul style="list-style-type: none"> Field parameters (pH, conductivity, temperature, DO, ORP) Turbidity Standard water analysis (RCAP-MS) (includes total metals) Total suspended solids 	<ul style="list-style-type: none"> Event-based sampling (field parameters, turbidity, TSS) Monthly for duration of construction phase (field parameters, RCAP-MS) 	<ul style="list-style-type: none"> Results reported Quarterly Annual Monitoring Report
Monitor proper functioning of erosion and sediment control measures	<ul style="list-style-type: none"> Same as above plus: <ul style="list-style-type: none"> Sampling locations associated with erosion and sediment control features (e.g., outlet points of sedimentation ponds) additional locations detailed in Erosion and Sediment Control Plan (ESCP) 	<ul style="list-style-type: none"> Onset of rain events Time of sample collection Field parameters (pH, conductivity, temperature) Turbidity 	<ul style="list-style-type: none"> Event-based sampling (field parameters, turbidity) Weekly during clearing and construction (field parameters, turbidity) 	<ul style="list-style-type: none"> Results reported as collected Summary in Annual Monitoring Report
Monitor for compliance with provincial criteria (SBM)	<ul style="list-style-type: none"> Drainage ditches located along the ROW / AT trail Receiving watercourses Additional locations detailed in Sulphide Bearing Rock Management Plan (SBRMP) 	<ul style="list-style-type: none"> Field parameters (pH, conductivity, temperature, ORP, DO) Acidity Metals 	<ul style="list-style-type: none"> Precipitation events (field parameters) Monthly for duration of construction phase (metals) 	<ul style="list-style-type: none"> Results reported monthly Annual Monitoring Report

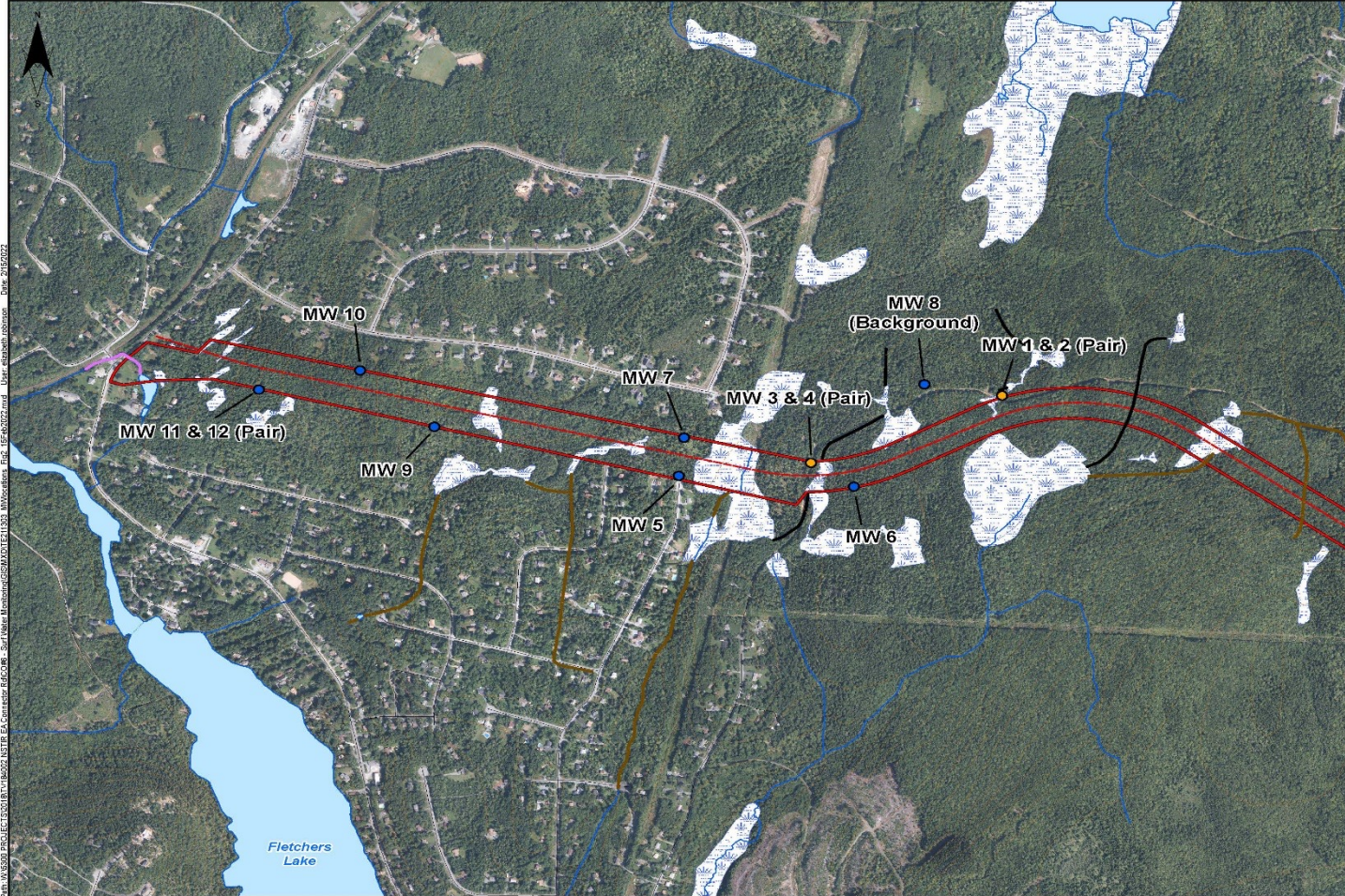
Surface Water Monitoring - Operation

Objective	Location	Parameters	Duration and Frequency	Reporting
Monitor the effectiveness of mitigation measures	<ul style="list-style-type: none"> Watercourses and ponds upstream and downstream of the ROW (Figure 2): <ul style="list-style-type: none"> Watercourses 01-15 Ponds 1-3 Drainage/collection ditches 	<ul style="list-style-type: none"> Field parameters (pH, conductivity, temperature, DO, ORP) Standard water analysis (RCAP-MS) (includes total metals) Dissolved metals Total suspended solids 	<ul style="list-style-type: none"> Year 1: Monthly Beyond Year 1: tbd, dependent on analytical outcomes 	<ul style="list-style-type: none"> Results reported Quarterly Annual Monitoring Report(s)
Monitor proper functioning of erosion and sediment control measures	<ul style="list-style-type: none"> Drainage/collection ditches Watercourses and ponds upstream and downstream of the ROW (Figure 2): <ul style="list-style-type: none"> Watercourses 01-15 Ponds 1-3 	<ul style="list-style-type: none"> Field parameters (pH, conductivity, temperature) Turbidity 	<ul style="list-style-type: none"> Year 1: monthly (field parameters, turbidity) Beyond Year 1: tbd, dependent on analytical outcomes 	<ul style="list-style-type: none"> Results reported as collected Summary in Annual Monitoring Report
Monitor for compliance with provincial criteria (SBM)	<ul style="list-style-type: none"> Drainage ditches located along the ROW / AT trail Receiving watercourses Additional locations detailed in SBRMP 	<ul style="list-style-type: none"> Field parameters (pH, conductivity, temperature, ORP, DO) Acidity Metals 	<ul style="list-style-type: none"> Precipitation events (field parameters) Monthly for duration of construction phase (metals) 	<ul style="list-style-type: none"> Year 1: Monthly Year 2-5: Quarterly Beyond year 5: tbd, dependent on outcomes, subject to NSECC approval

Groundwater Monitoring

Groundwater Monitoring during Construction and Operation

Medium/Subject	Objective	Location	Parameters	Duration and Frequency	Reporting
PRE- AND DURING CONSTRUCTION					
Groundwater	Baseline and to monitor the effectiveness of mitigation measures: <ul style="list-style-type: none"> • water quality 	<ul style="list-style-type: none"> • 12 permanent monitoring wells: 6 shallow/deep monitoring well pairs and 6 monitoring wells installed prior to start of construction 	<ul style="list-style-type: none"> • SWA plus total metals; • Total suspended solids; • Diss. metals, pH, acidity • Total coliforms (MPN) and E. Coli (MPN) • Water level 	<ul style="list-style-type: none"> • MW1 and 2; and MW 3 and 4 once prior to construction (completed 2020) • MW1 through MW12 once prior to construction and bi-annually during construction 	<ul style="list-style-type: none"> • Results presented in the Groundwater Monitoring Plan and in bi-annual monitoring reports
Drinking Water	Establish baseline conditions and to monitor the effectiveness of mitigation measures: <ul style="list-style-type: none"> • water quality • water yield 	<ul style="list-style-type: none"> • Drinking water supply wells within 500 metres of the centreline of the Connector Road 	<ul style="list-style-type: none"> • SWA plus metals (incl Li); • Total suspended solids; • Total coliforms (MPN) and E. Coli (MPN) 	<ul style="list-style-type: none"> • Once prior to construction • In response to complaint 	<ul style="list-style-type: none"> • Results detailed in the Baseline Well Survey Report and bi-annually (as needed)
OPERATION					
Groundwater	Monitor the effectiveness of mitigation measures	<ul style="list-style-type: none"> • 12 permanent monitoring wells 	<ul style="list-style-type: none"> • SWA plus total metals; • Total suspended solids; • Diss. metals, pH, acidity • Total coliforms (MPN) and E. Coli (MPN) • Water level 	<ul style="list-style-type: none"> • Every 2 years post-construction (or until monitoring results demonstrate no changes over background) 	<ul style="list-style-type: none"> • Every 2 years
Drinking Water	monitor the effectiveness of mitigation measures: <ul style="list-style-type: none"> • water quality • water yield 	<ul style="list-style-type: none"> • Drinking water supply wells within 500 metres of the centreline of the Connector Road 	<ul style="list-style-type: none"> • SWA plus metals (incl Li); • Total suspended solids; • Total coliforms (MPN) and E. Coli (MPN) 	<ul style="list-style-type: none"> • In response to complaint 	<ul style="list-style-type: none"> • As needed



LEGEND:

- Proposed R.O.W.
- Baseline Monitoring Well Locations
- Additional Monitoring Well Locations
- Proposed Alignment (Centre Line)
- Roads
- River/Streams
- Water Bodies
- Wetland
- Contours

500 250 0
Meters

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Transportation and
Infrastructure Renewal

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PROJECT:

**Environmental Assessment
Aerotech Connector, Exit 5A at
Hwy 102 to Trunk 2 in Wellington
Cond. 7 & Groundwater Monitoring Plan**

TITLE:

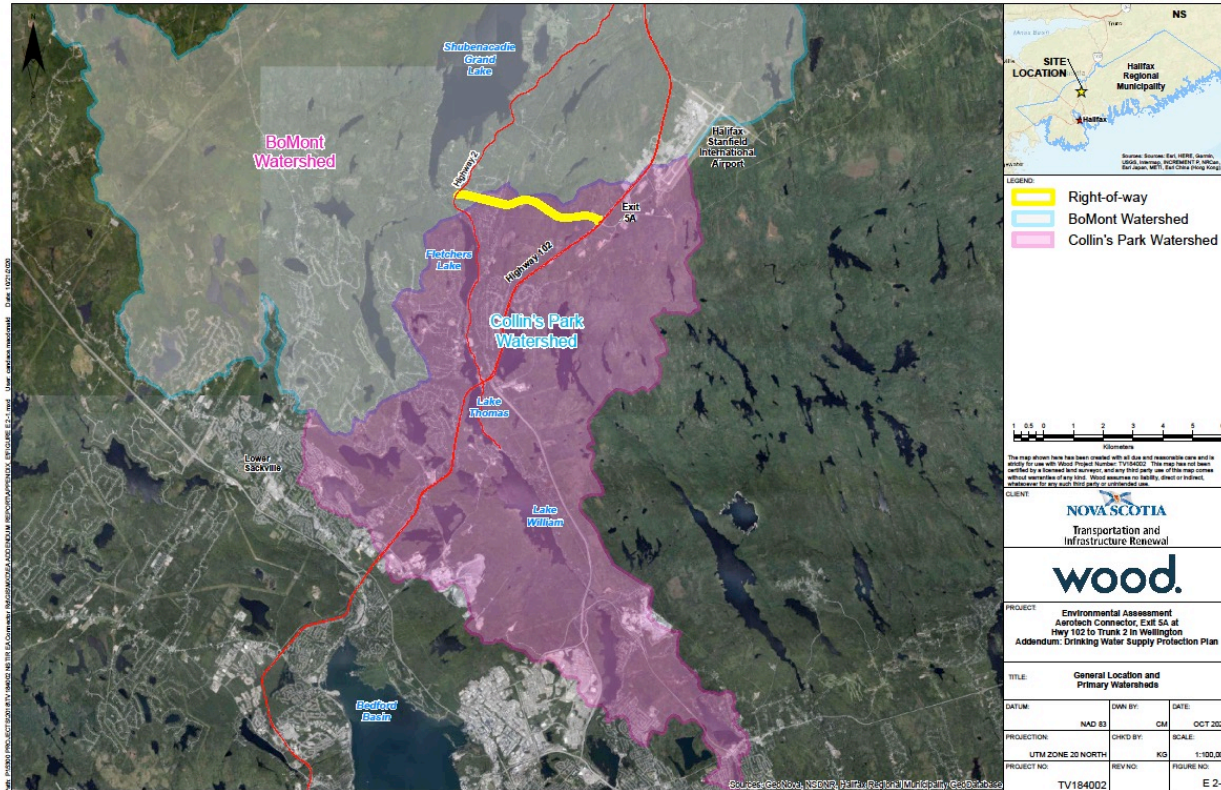
Construction Groundwater Monitoring Locations

DATUM:	NAD 83	DWN BY:	ER	DATE:	FEB 2022
PROJECTION:	UTM ZONE 20 NORTH	CHK'D BY:	KG	SCALE:	1:10,000
PROJECT NO.:	TE211303	REV NO.:		FIGURE NO.:	2

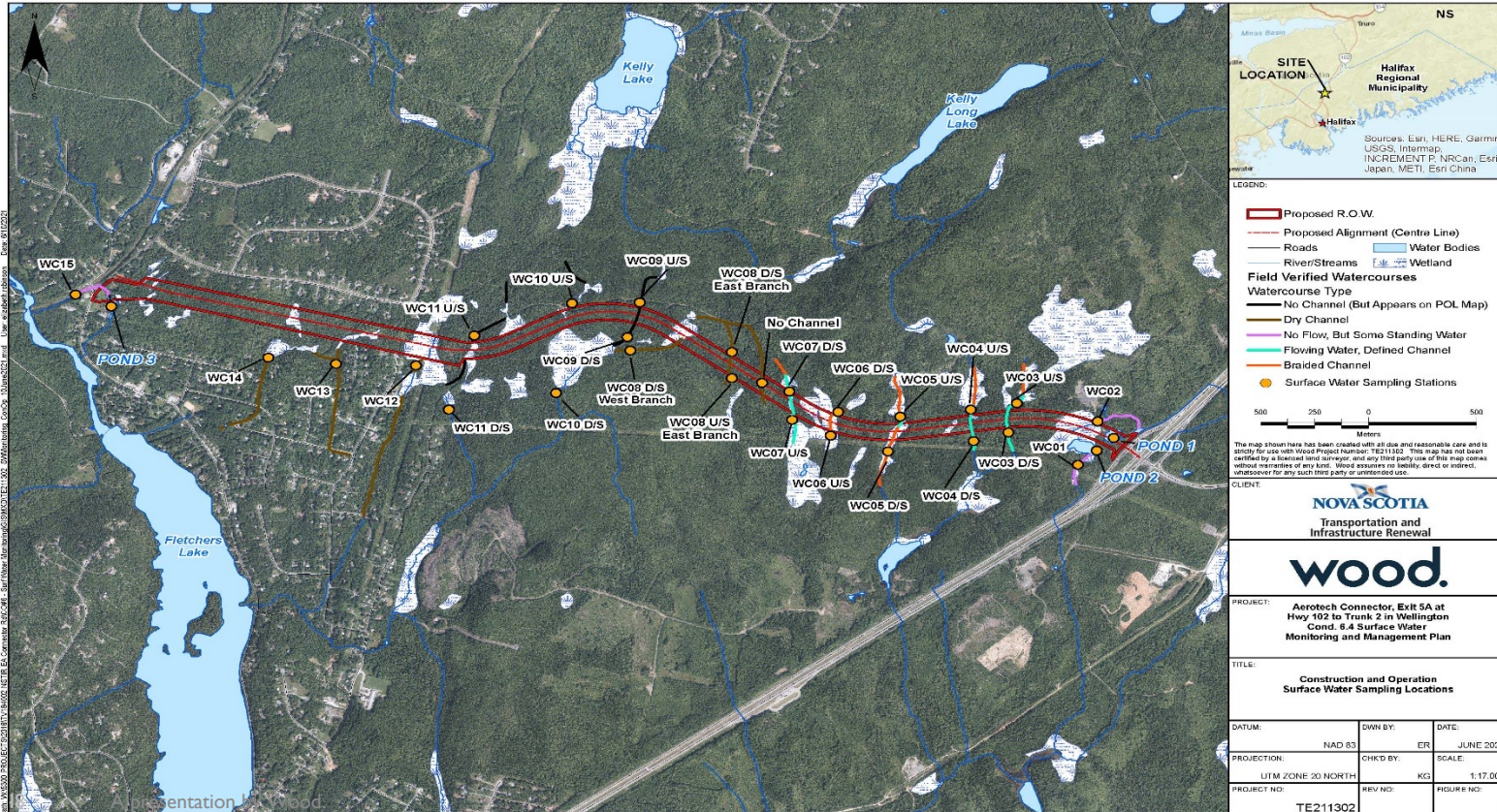
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Discussion – Issues and Concerns

Watershed



Surface Water Baseline Sampling



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 Date: 01/20/2021



LEGEND:

- ▭ Proposed R.O.W.
- Proposed Alignment (Centre Line)
- Roads
- ▭ Water Bodies
- River/Streams
- ▭ Wetland

Field Verified Watercourses

Watercourse Type

- No Channel (But Appears on POL Map)
- Dry Channel
- No Flow, But Some Standing Water
- Flowing Water, Defined Channel
- Braided Channel

● Surface Water Sampling Stations

500 250 0 500
Meters

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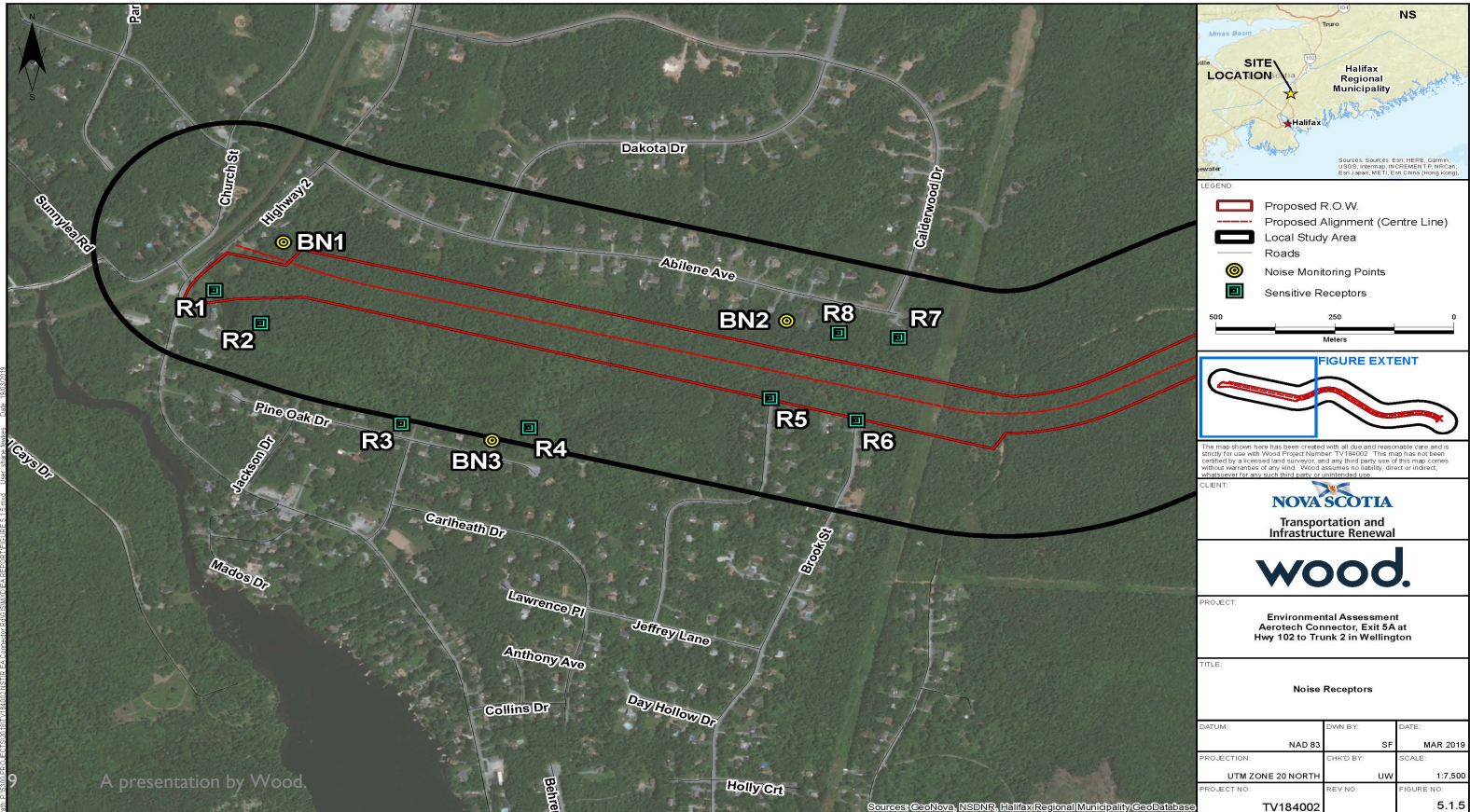
wood.

PROJECT:
**Aerotech Connector, Exit 5A at Hwy 102 to Trunk 2 in Wellington
Cond. 8.4 Surface Water
Monitoring and Management Plan**

TITLE:
**Construction and Operation
Surface Water Sampling Locations**

DATUM:	DWN BY:	DATE:
NAD 83	ER	JUNE 2021
PROJECTION:	CHKD BY:	SCALE:
UTM ZONE 20 NORTH	KG	1:17,000
PROJECT NO:	REV NO:	FIGURE NO:
TE211302		2

Noise



A presentation by Wood.

Sources: GeoNova, NSDNR, Halifax Regional Municipality, GeoDatabase

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PROJECT:
Environmental Assessment
Aerotech Connector, Exit 5A at
Hwy 102 to Trunk 2 in Wallington

TITLE:
Noise Receptors

DATUM:	NAD 83	DWN BY:	SF	DATE:	MAR 2019
PROJECTION:	UTM ZONE 20 NORTH	CHKD BY:	UW	SCALE:	1:7,500
PROJECT NO:	TV184002	REV NO:		FIGURE NO:	5.1.5