

Arlington Asbestos Waste Disposal Facility Expansion Project Description

**Submitted under:
Canadian Environmental Assessment Act, 2012**

**Proponent
Arlington Heights C&D Limited**

Date: November 20, 2017

Project Description Prepared by:



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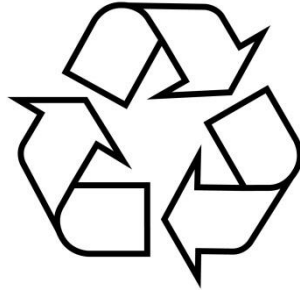


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1.0 General Information and Contacts

1.1 Nature of Designated Project and Proposed Location

Arlington Heights C&D Limited (the Proponent) has operated an asbestos disposal facility at Arlington Road West, Annapolis County, Nova Scotia since 2012. The Arlington Asbestos Waste Disposal site is one of a limited number of approved locations for the safe disposal of asbestos waste in Nova Scotia. So as to allow for the continued operation of the facility and the safe disposal of asbestos waste, the Proponent is seeking consent to expand the facility to provide capacity for an additional 12 year's operations.

The Project Area is situated on the north-facing slope of the Annapolis Valley's North Mountain, on lands owned by the Proponent. The Project Area is situated adjacent to an existing industrial activity (a construction demolition and debris disposal facility) in a rural setting of Annapolis County. The proposed site for the expansion to allow for the continued operations is composed of fallow field, mixed wood forest, and abandoned farmland habitats that total 4.19 ha.

The proposed project consists of the receiving and disposal of bagged asbestos waste, followed by progressive reclamation of filled disposal cells. The proposed project is intended to allow for the continuation of asbestos disposal operations at the Arlington Heights C & D Limited facility. The disposal rate is anticipated to remain approximately constant at the current rate of roughly 350 truckloads a year. A project timeline of 12 years is anticipated, but may vary considerably with demand for provincially approved disposal facilities. The progressive reclamation of operational areas over the life of the project will limit the disturbed operational area to approximately one hectare at any point in time.

1.2 Proponent Information

The name of the designated project is the Arlington Asbestos Waste Disposal Facility Expansion. The proponent information is as follows:

Name of Proponent:	Arlington Heights C&D Limited
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1.3 Consultation with Other Parties Including Aboriginal Groups

Consultations have been undertaken with Aboriginal Groups within Nova Scotia, members of the public and various government agencies during the development of the plans for the expansion of the Arlington Asbestos Waste Disposal Facility. These consultations are described in greater detail at Sections 6 and 7.

1.4 Regulatory Requirements of Other Jurisdictions

The Arlington Asbestos Waste Disposal site currently operates pursuant to the Nova Scotia Environment Act (Industrial Approval 2005-04532-T01) (Appendix 1). The proposed expansion of the facility was recently the subject of a provincial Environmental Assessment review, with approval received from the Minister of Environment on July 24, 2017 (Appendix 2).

1.5 Presence of Environmental Study

There have been no regional studies carried out in the area of the designated project, as confirmed with the Canadian Environmental Assessment Agency (CEAA) (E. Gregus, pers. comm, September 26, 2017).

2.0 Project Information

2.1 General Description

Arlington Heights C&D Limited (AHCD) wishes to continue the construction, operation and reclamation of an Asbestos Disposal Facility established at Arlington West, Annapolis County, Nova Scotia in 2012. The past, current and future operations are proposed to cover six cells, defined herein as *Phase #* cells, through a phased expansion and reclamation process totalling 6.25 ha, defined herein as the *Project Area*. The proposed expansion, within the Project Area, has an area of 4.19 ha. The Project Area is situated within the six interconnected proponent-owned properties that form the project Study Area of 57 ha. The asbestos disposal facility is located immediately adjacent to an industrial construction and demolition debris disposal site owned and operated by the proponent on the same properties since 2004.

The designated project is not a component of a larger project not listed in the *Regulations Designating Physical Activities*.

2.2 Relevant Provisions in the Schedule to the *Regulations Designating Physical Activities*

Paragraph 30 of the *Regulations Designating Physical Activities* applies to the proposed project, specifically:

The expansion of an existing facility used exclusively for the treatment, incineration, disposal or recycling of hazardous waste that would result in an increase in hazardous waste input capacity of 50% or more.

2.3 Components Associated with the Designated Project

2.3.1 Physical Works Associated with the Designated Project

The Designated Project consists of the continued construction, operation, expansion, reclamation and decommissioning of an asbestos disposal facility. The physical components of the Project include:

- Primary access road from Arlington Road, with lockable steel closure gate,
- Site office,
- Weigh scale,
- Secondary access road(s) to individual proposed cells to allow trucks to unload waste asbestos at the active disposal cell,
- Constructed site drainage system and sediment catches to direct surface water around individual cells and minimize the potential of sediment transport from the site,
- Phased constructed, capped, and reclaimed cells as the project proceeds,
- Groundwater monitoring wells,
- Active and completed asbestos disposal area signage, and

- Proposed berm and hedgerow to establish a visible, sound, and dust barrier to Arlington Road.

The proposed activities to be undertaken at the site include, but are not limited to:

- i. Installing earthen sedimentation traps covered in geotextiles, and stabilized with clean stone and seeding,
- ii. Constructing drainage ditches to move surface water away from the expansion asbestos cells into the sedimentation traps, and along preferred drainage paths,
- iii. Grubbing of some or all of an individual Phase cell surface area, and placing grubbing's either in an area for future reclamation use or over the surface of a previously completed Phase cell as part of the progressive reclamation,
- iv. Excavation of an area of immediate need within an individual Phase cell to an approximate depth of 4-5m, and placing spoils adjacent to the excavation to be available for immediate cover of disposed asbestos waste,
- v. Receiving, weighing and placing approved asbestos abatement waste material into the recently excavated area of need,
- vi. Covering the waste material within twenty-four hours with a minimum of 25 cm of soil.
- vii. Completing an area of immediate disposal when a height of 2-3m above grade has been reached through the process outlined in v and vi above,
- viii. Completing progressive reclamation of part or all of one Phase cell by placing mineral soil and a topping of salvaged grubbing's across the surface until a total cover not less than 125 cm is achieved, and immediately mulching and seeding the reclaimed surface,
- ix. Completing progressive reclamation of part or all of a disposal cell such that no more than 10,000 m² (1 ha) of active disposal area exists across the entire operation at one time. This equates to the average surface area of one Phase cell for the proposed operation, and
- x. Decommissioning of all infrastructure associated with the project once reclamation is completed and all operations have ceased.

2.3.2 Anticipated Production Capacity of the Designated Project

The site has operated as an approved disposal facility for asbestos waste since 2012, in accordance with the terms of its Industrial Approval, issued by Nova Scotia Environment. Table 1 reports the historic receipts of asbestos waste and their approximate tonnage since opening of the facility.

Disposal of asbestos waste to date have utilized Cells 1, 2a and 2b at the site, with a combined surface area of 2.06 ha. At the time of writing, Cell 2a and 2b (1.3 ha) are currently being used for the on-going disposal of asbestos waste (Table 2). It is anticipated that the Cell 2 will be fully utilized by the end of calendar year 2017.

The proposed expansion of the Arlington Heights Asbestos Waste Disposal facility incorporates disposal cells 3, 4, 5 and 6, with a total area of 4.19 ha (Figure 1). The recent Nova Scotia Environment approval, following the Environmental Assessment process, has indicated that a

maximum of 3000 metric tonnes of asbestos waste may be disposed annually at the site (Appendix 2). This value equates to approximately 425 tandem truck loads per year.

Table 1: Past asbestos disposal rates and estimated tonnage at AHCD (2012 to 2016).

Year	Number of Loads (one load equals 40 cubic yard tandem dump trailer*)	Approximate Annual Tonnage Disposed (metric tonne)
2012	146	1022
2013	256	1790
2014	336	2350
2015	425	2975
2016	712	4984
Average	375	2624

*Estimated 3-10 mt depending on packing density.

Table 2: Current and predicted area, volume and period of use for the six cell Phases for the Arlington Asbestos Waste Disposal Facility. Cells included within the CEAA Designated Project are highlighted in green.

Phase	Cell	Area (m²)	Est. Volume * (m ³)	Est. Capacity (# of loads**)	Est. Years of Use***
1	Completed cell	7600	57,000	740+	(2012 to 2015)
2a	Current cell	8500	63,750	925	(2015 to 2017)
2b	Current cell	4500	33,750	450	(2016 to 2017)
	Currently Approved Totals	20,600	154,500	2115	2012 to 2017 (6 years)
3	Northeast proposed cell	11,400	85,500	1220	3.3
4	Southeast proposed cell	10,500	78,750	1125	3.0
5	Northwest proposed cell	9200	69,000	985	2.6
6	Southwest proposed cell	10,800	81,000	1155	3.1
	Designated Project Proposed Totals	41,900	314,250	4485	12 years

Notes

* Assumes 4.5m deep hole and another 3m above grade before cap, for a total depth of 7.5m (25ft).

** Assumes 70m³ of cell volume utilized per 35m³ truck load based on data to date (Phases 1 and 2 volumes divided by number of loads). This accounts for addition of daily cover material rather than just disposed waste volume.

*** Assumes 375 loads per year (2012 to 2016 average).



Figure 1: Proposed Arlington Heights asbestos disposal facility site layout indicating the Phased cell locations and well locations. All features currently exist at the site unless otherwise noted. (Based on 2017 drone imagery).

2.3.3 Production Capacity with respect to the Thresholds of the Regulations Designating Physical Activities

Over the six-year period of 2012 to 2017, the Arlington Asbestos Waste Disposal Facility will have utilized cells 1, 2a and 2b, covering an area of 2.06 ha and having received and disposed of approximately 2115 loads of waste. The expansion proposal, with the full utilization of the cells 3, 4, 5 and 6, would extend operations of the facility for an additional 12 years, with the receipt of an additional +/-**4485** loads of waste (Table 3). The expansion proposed by the Designated Project exceeds the 50% increase in hazardous waste input capacity described at Paragraph 30 of the *Regulations Designated Physical Activities* in terms of area coverage, number of loads received and years of operations.

Table 3: Comparison of currently approved and proposed phases to determine changes in production capacity with respect to thresholds.

Cell Phases	Description	Area (m ²)	Est. Volume * (m ³)	Est. Capacity (# of loads**)	Est. Years of Use***
1, 2a, 2b	Currently Approved Project	20,600	154,500	2115	2012 to 2017 (6 years)
3, 4, 5, 6	Designated Project Proposed	41,900	314,250	4485	12 years
	Change (%)	+103%	+103%	+112%	+100%

2.3.4 Physical Activities Incidental to the Designated Project

Immediately adjacent to the Designated Project is the Arlington Heights Construction and Demolition (AHCD) disposal site, which has been in operation for over 10 years, accepting locally generated construction and demolition waste for disposal. The provincially-regulated AHCD site is coterminous with the Designated Project, shares common infrastructure (access road, site office, scales) and has the same corporate ownership.

2.4 Emissions, Discharges and Waste

2.4.1 Atmospheric Contaminant Emissions

Operations involve the movement, and exposure of mineral soils and disposal material. These operations provide the opportunity for airborne dust. The current Industrial Approval issued by Nova Scotia Environment stipulates that particulate emissions beyond the Study Area property boundaries should not exceed:

Annual geometric mean: 70 microgram/cubic meter; or

Daily average: (24 hr) 120 microgram/cubic meter

Currently, the impact of airborne dusts from operations on human, wildlife, and plant community receptors are mitigated through a number of actions required as terms and conditions of the Industrial Approval for the site. The Asbestos Waste Management Regulations outline containment of wastes during transport to and within the site prior to disposal. Trucks transporting waste onto the AHCD properties for disposal are inspected at weigh-in to ensure the waste is properly contained. Waste asbestos is covered within 24 hours to ensure material cannot become mobile through wind and water. Monthly inspections of the asbestos disposal site are required to ensure that disposed asbestos waste remains encapsulated within each cell. Furthermore, access road dust is suppressed through the application of water as required.

During asbestos disposal operations, a number of internal combustion engines will be used to power equipment within the disposal area. These include an excavator and trucks disposing of asbestos waste. All major pieces of equipment utilize diesel as the fuel source. One to three diesel engines would typically be operating simultaneously during typical disposal operations producing airborne emissions.

Implementation of the proposed project will result in greenhouse gas emissions, through direct emissions from the operation of onsite equipment as well as land use changes associated with the construction of the asbestos disposal cells¹. The spatial boundaries for the GHG emission analysis included the footprint of the four planned asbestos disposal cells. The analysis incorporated all project phases: construction of the individual cells, placed of asbestos waste in the cells, regular covering of asbestos waste, capping and decommissioning of each cell, as well as associated road construction. The temporal boundaries for the GHG emission analysis were for a period of 12 years, the anticipated lifespan of the proposed project (Table 4).

Table 4: Anticipated greenhouse gases emission associated with the proposed project for the period of 2017 to 2029 (12 years). All values reported as Mt (Mega tonnes) CO₂ eq.

Arlington Asbestos Waste Disposal Facility Expansion Projected Total Emissions	Nova Scotia GHG Emissions Target (2020)²	Canadian Projected GHG Emissions (2020)³
0.000388	182	731
Project percentage	$2.13 \times 10^{-4} \%$	$5.31 \times 10^{-5} \%$

¹ NSE. 2011. *Guide to Considering Climate Change in Environmental Assessments in Nova Scotia*. Nova Scotia Department of Environment. February 2011. 18pp.

² Nova Scotia: Environment profile. 2017. Environment and Climate Change Canada. Date accessed: November 2, 2017. <https://www.canada.ca/en/environment-climate-change/briefing/nova-scotia-environment-profile.html>

³ Canada's 2016 greenhouse gas emissions reference case. 2017. Environment and Climate Change Canada. Date accessed: November 2, 2017. <https://www.canada.ca/en/environment-climate-change/services/climate-change/publications/2016-greenhouse-gas-emissions-case.html>

Emissions from mobile sources (diesel excavator) make up the majority (95%) of the anticipated project emissions. It is anticipated that all phases of the proposed expansion, encompassing the construction, operation and decommissioning of disposal cells #3, 4, 5, and 6, will result in GHG emissions of 388 tonnes CO₂ equivalent (0.000388 Mt CO₂ eq). Post-decommissioning, vegetation growth across the top of the disposal cells will likely result in limited, but not quantified, sequestration of atmospheric carbon dioxide.

2.4.2 Sources and Locations of Liquid Discharges

The sole type of liquid discharges from the site are surface water, draining into several unnamed, intermittent drainages flowing to the north and eventually the Bay of Fundy. As waste asbestos will be covered within 24 hours of placement to ensure containment, the primary potential contaminant in the surface water would be suspended sediments. A number of measures will be employed to minimize the amount of surface water entering and leaving the site, and limit the mobilization of sediments. These include:

- Industry-standard sediment and erosion control measures will be employed to control onsite runoff as necessary, and the progressive reclamation plan will minimize the area of exposed soils to further reduce the potential for sediment transfer.
- Sediment traps will be installed at the downslope end of constructed drainages and upslope of any receiving watercourse, and both the sediment traps and drainages will be seeded and mulched at the time of construction. The sediment traps and vegetated drainages will intercept surface sheet flow that will run off the active operational areas, allowing the heavier fraction of sediment to be captured in the sediment traps rather than moving downslope to ultimate receiving areas. This will minimize the risk of sediment or contaminant delivery from the Project Area to surface water resources of the Study Area.
- Final Phase 3-6 cells are to be land formed to slope westward toward existing and proposed drainage paths. This will limit or eliminate the potential for surface discharge and associated potential for sediment and contaminant delivery from the Project Area toward the un-named tributary to Granville Line Brook.
- Drainage paths will be constructed around disposal cells prior to final grubbing and used to ensure surface runoff is directed away from the asbestos disposal cells and exposed mineral surfaces. This approach will also allow drainages to become vegetated and stabilized prior to use.

2.4.3 Types of Waste and Plans for Disposal

The core activity of the Designated Project is the safe disposal of asbestos waste by burial. Beyond this activity, there are no other anticipated requirements for the disposal of wastes arising from the project.

2.5 Construction, Operation, Decommissioning and Abandonment Phases

2.5.1 Anticipated Scheduling, Duration and Staging of Key Project Phases

The Designated Project will entail the continued operation of an asbestos waste management site accepting only waste meeting NSE's Asbestos Waste Management Regulations made under Section 84 of the Environment Act S.N.S. 1994-95, c. 1 Order in Council 95-292 (April 11, 1995), N.S. Reg. 53/95. More specifically it will include all activities associated with the ongoing acceptance of waste asbestos, disposal, and site reclamation and monitoring in a Phased approach across the proposed site. Asbestos waste, collected via the regulated abatement process by approved contractors, will be received at the facility at an anticipated rate of 350 truckloads per year. The actual amount disposed at the site will vary based on the demand established by annual abatement activities within the Province of Nova Scotia.

Disposal cells will be prepared, opened, filled and closed in a sequential manner matching the demand for asbestos disposal services. The Designated Project will provide sufficient capacity for an additional 12 years of operations at the site.

2.5.2 Main Activities of Each Phase

Site Preparation and Construction

In order to minimize sight lines between Arlington Road and the proposed future asbestos disposal cells, a berm and hedgerow will be established south of Phase 6 cell. The berm will be constructed of native soils and grubbing's, and will be planted with spruce seedlings and/or tree transplants from the developed Project Area. Early establishment of the hedgerow will maximize the visual barrier to Arlington Road, provide future reduction in sound and dust propagation from the site, and provide additional edge and mixed wood habitat for birds and mammals.

Erosion and sedimentation controls will be implemented and will remain in place throughout the duration of the Project. Maintenance on the erosion and sedimentation control devices will continue until the disturbed areas are stabilized and covered with vegetation. Drainage ditches will be constructed around the disposal cells prior to final grubbing of each Phase cell to move surface water northwestward and westward into the sedimentation traps.

It has been noted that a perched water table exists across the site, where water sits within the topsoil/root mat above the relatively impermeable silty clays that underlie the site⁶. This site condition highlights the appropriateness of ditching and directing surface water as part of the site management, as surface sheet flow will tend to follow the contour of the land rather than recharge to groundwater across the site. It is proposed that as the asbestos cells are phased into construction, that surface drainage ditches are constructed such that they direct flows westward and south along the existing operational drainages. This approach will confine surface flow discharges from the Project to the existing pathways, and away from the seasonal tributary to Granville Line Brook located 235+m to the northwest. Similarly, the finished slope of the

proposed Phase 3 through 6 cells should be toward the existing drainage pathways, as shown in Figure 1.

Soils at the site were assessed by MGI Ltd as part of the 2004 C & D development proposal⁴. The typical profile consisted of a 30 cm topsoil layer, underlain by a silty clay extending to 2.5-3.3 m to bedrock. The silty clay has a low hydraulic conductivity, with a tested permeability of 1.5×10^{-8} cm/s underlain by a clayey silt with permeability of 5.0×10^{-8} cm/s. During installation of monitoring wells, MGI Ltd. documented the clay interval across the site, and completed one borehole and six test pits to further confirm consistency of soil conditions. The area between the existing asbestos disposal area and the proposed future Phases had the thickest clay interval, exceeding 10m in depth down to bedrock⁵. The clay layer extended to bedrock in all well locations. This clay layer will be excavated to form individual cells for the various proposed Phases of the asbestos disposal facility.

Operation and Maintenance

Operations will follow the Asbestos Waste Management Regulations and the facilities' Industrial Approval Terms and Conditions. The hours of operation of the facility are Monday to Friday 7:30 am to 5:00 pm and Saturday from 8:00 am to 12:00 pm. There are generally no planned shutdowns except for statutory holidays. A lockable gate exists at the entrance to the facility. Facility signage is located at the main entrance adjacent to Arlington Road that provides a contact number and describes the operations and types of materials received. Further signage is erected at each Phase cell as it is developed to indicate both active and reclaimed asbestos disposal areas.

Operationally, a client will bring a truckload of waste asbestos to the AHCD Limited for disposal, with prior notification of arrival. The truck is weighed in at the scale, and the site manager confirms acceptance of the asbestos waste. The truck transports the waste to the edge of the active cell for disposal, and is then weighed empty out of the facility at the scale.

As AHCD staff are aware of arriving waste, a portion of the active cell is prepped prior to arrival. This preparation involves excavation of an area of need to a depth of ~4.5 m into the clay area. Delivered waste is placed in the cell with an excavator. The asbestos waste is then covered with the previously excavated clay material within 24 hours of reception, to a depth of not less than 25 cm. The site is inspected daily to ensure that all material is covered within the specified time. Material continues to be received, placed, and covered in the active area until a height of 3 m above the original grade is achieved and the cell is fully utilized.

Decommissioning and Reclamation

A progressive reclamation of the asbestos disposal site will be utilized. A "spent" cell is one that is fully utilized, or filled to the specified height and covered with the minimum 25 cm of mineral soil as described in the preceding section. As an area of discontinued use, part or all of a Phase

⁴ Harris, C.T. 2004. *Proposed Construction & Demolition Debris Disposal Site for Melbourne R. Poole & Valarie F. Poole at Arlington West, Annapolis County, NS*. September 10, 2005.

⁵ MGI Ltd. 2004. *Geotechnical and Hydrogeological Assessment – Monitor Well and Test Pit Program, Arlington West Construction and Demolition Waste Disposal Facility, Arlington West, Nova Scotia*. Letter Report. 16 pages + attachments.

cell will be reclaimed with a layer of mineral soils and a topping of salvaged grubbing's/topsoil atop the cell surface until a total cover not less than 125 cm is achieved. The surface will then be immediately seeded and mulched with hay.

Using the Phase cell areas in Figure 1 as a reference for sequencing, progressive reclamation of part or all of one Phase cell is intended such that no more than 10,000m² of spent but unreclaimed area exists across the entire operation. This equates to the average surface area of one Phase cell for the proposed operation.

The asbestos disposal facility Project Area will be fully reclaimed within 12 months of abandonment. The site will be marked permanently with a sign indicating it is an Asbestos Disposal Site, and monitored as specified in the Industrial Approval to ensure the final cover remains intact.

3.0 Project Location

3.1 Designated Project's Location

The Project Area is approximately 8 km north of the Town of Bridgetown within the community of Arlington West, Annapolis County (Figure 2), Nova Scotia. The currently operating asbestos disposal facility is immediately adjacent to the proponent's existing construction and demolition debris disposal site. The asbestos disposal facility is proposed to progressively expand into adjacent Mixed Wood forest and old farm field habitats (Figures 3 and 4).

The site is located at: 1481 Arlington Road, at UTM 20T 319602 4975656 (NAD83). Terrestrial habitat boundaries are shown at Figure 5, with watershed boundaries and watercourses at Figure 6. Site photographs, showing the disposal operations and general landscape are included at Appendix 3.

3.2 Land and Water Use

The Municipality of the County of Annapolis is the government agency that plays a lead role in land use planning at the site of the Designated Project. The Designated Project is zoned as "General Development" with respect to the County of Annapolis Land Use By-law⁶.

The area referred to herein as the *Study Area* for this assessment, generally includes the six property parcels owned by the proponent (Figure 4) as listed in Table 5, totalling approximately 57 hectares.

Table 5: Arlington Heights C&D Limited Study Area properties for the proposed asbestos disposal facility.

NS Property Identification Number (PID)	Owner	Approx. Size (ha)
05127873	Arlington Heights C&D Limited	11
05127881	Arlington Heights C&D Limited	2.4
05127899	Arlington Heights C&D Limited	16.6
05127269	Arlington Heights C&D Limited	4
05127907	Arlington Heights C&D Limited	10
05128160	Arlington Heights C&D Limited	13

There are no applicable land use, water use, resource management or conservation plans applicable to or near the project site.

⁶ Annapolis County, 2011. County of Annapolis Land Use Bylaw. <https://annapoliscounty.ca/community-development/41-zoning-development-control-unlisted/287-county-of-annapolis-land-use-by-law> Accessed September 19, 2017.

The number of permanent, seasonal and temporary residences in the vicinity of the proposed asbestos disposal facility were examined, with their respective distances to the centre of the proposed new cells shown at Table 6. A total of 62 permanent, seasonal and temporary residences were identified as occurring within 2000 m of the proposed project, with the majority of these occurring >1500 m from the site. The seasonal residences noted occurred as cabins at Rumsey Lake.

Table 6: Distances from the proposed asbestos disposal cells to permanent, seasonal and temporary residences.

Distance from the proposed expansion (m)	Number of Permanent Residences	Number of Seasonal Residences	Number of Temporary Residences
0 to 250	0	0	0
251 to 500	3	0	0
501 to 750	2	0	0
751 to 1000	0	0	0
1001 to 1250	3	0	0
1251 to 1500	5	0	0
1501 to 1750	18	13	0
1751 to 2000	8	10	0
Totals	39	23	0

The Designated project will not require access to, use, occupation of, or the exploration, development, and production of lands and resources currently used for traditional purposes by Aboriginal peoples.

Three special management areas are located within a 5 km radius of the Project Area. Approximately 1.8 km to the west of the current operation, there is the St. Croix Cove Nature Conservancy of Canada management area. Described by ACCDC as partly field, and part forest types ranging from spruce forest to hardwood forest. A brook running down the middle of property holds potential for uncommon flora species. Comprised of basalt bedrock, the site has the most fertile soil types in the area. The NSDNR designated Level 1 Fundy Shore SES, is a noted waterfowl area along the Bay of Fundy Shoreline, extending some 43 kilometers from Parkers Cove to Port George. This coastal habitat is 2.2 km to the northwest of the proposed project at its closest. Lastly, Valley View Provincial Park lies 4.5 km to the southwest of the existing operation. The Park offers seasonal overnight camping with limited facilities and hook-up amenities. It is not expected that the proposed asbestos disposal facility might in any way have an adverse impact on these three management areas.

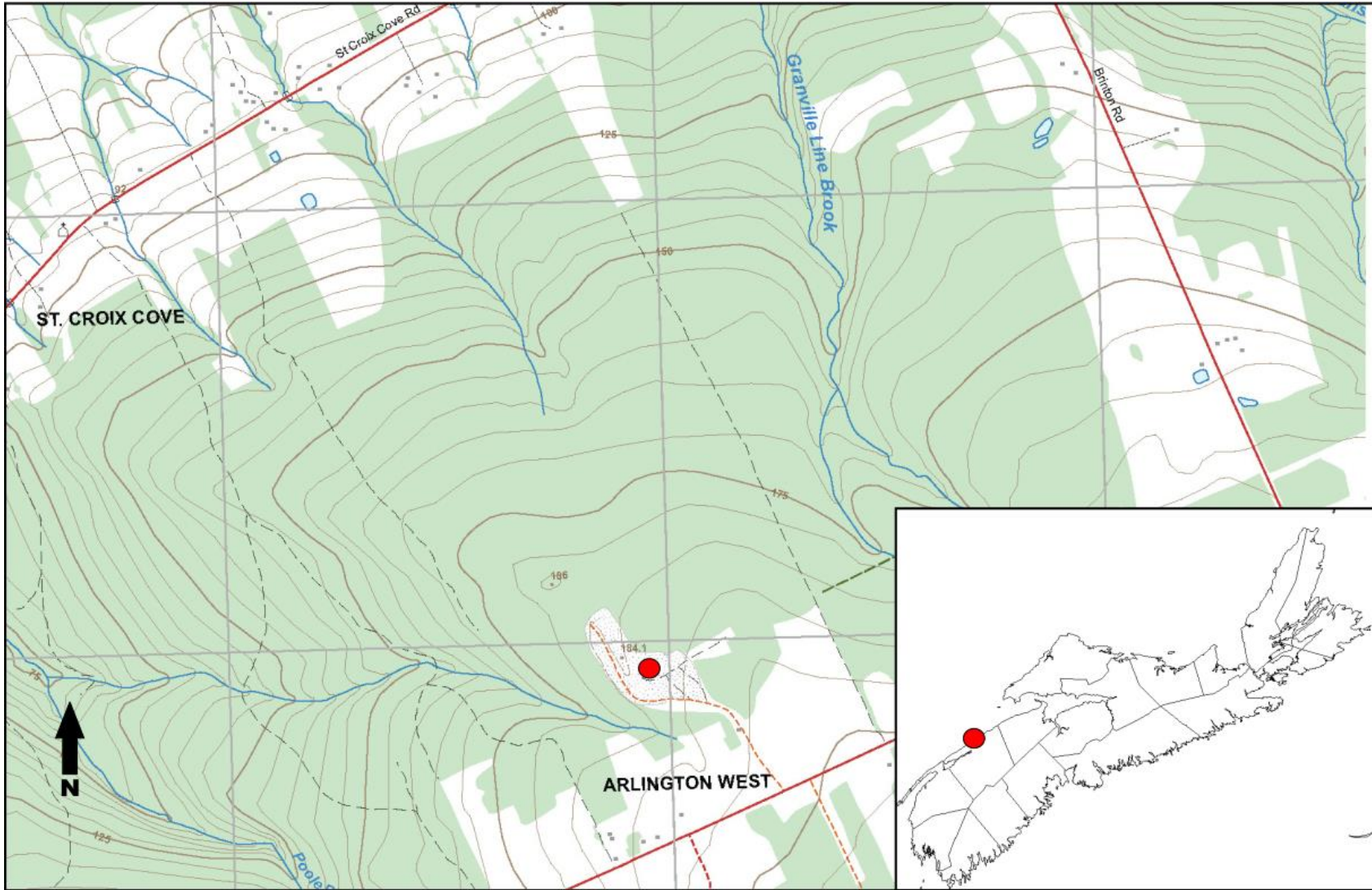


Figure 2: Location of the proposed Arlington Asbestos Waste Disposal Facility Expansion, located in Arlington West, Annapolis County, Nova Scotia and indicated by the red dot.

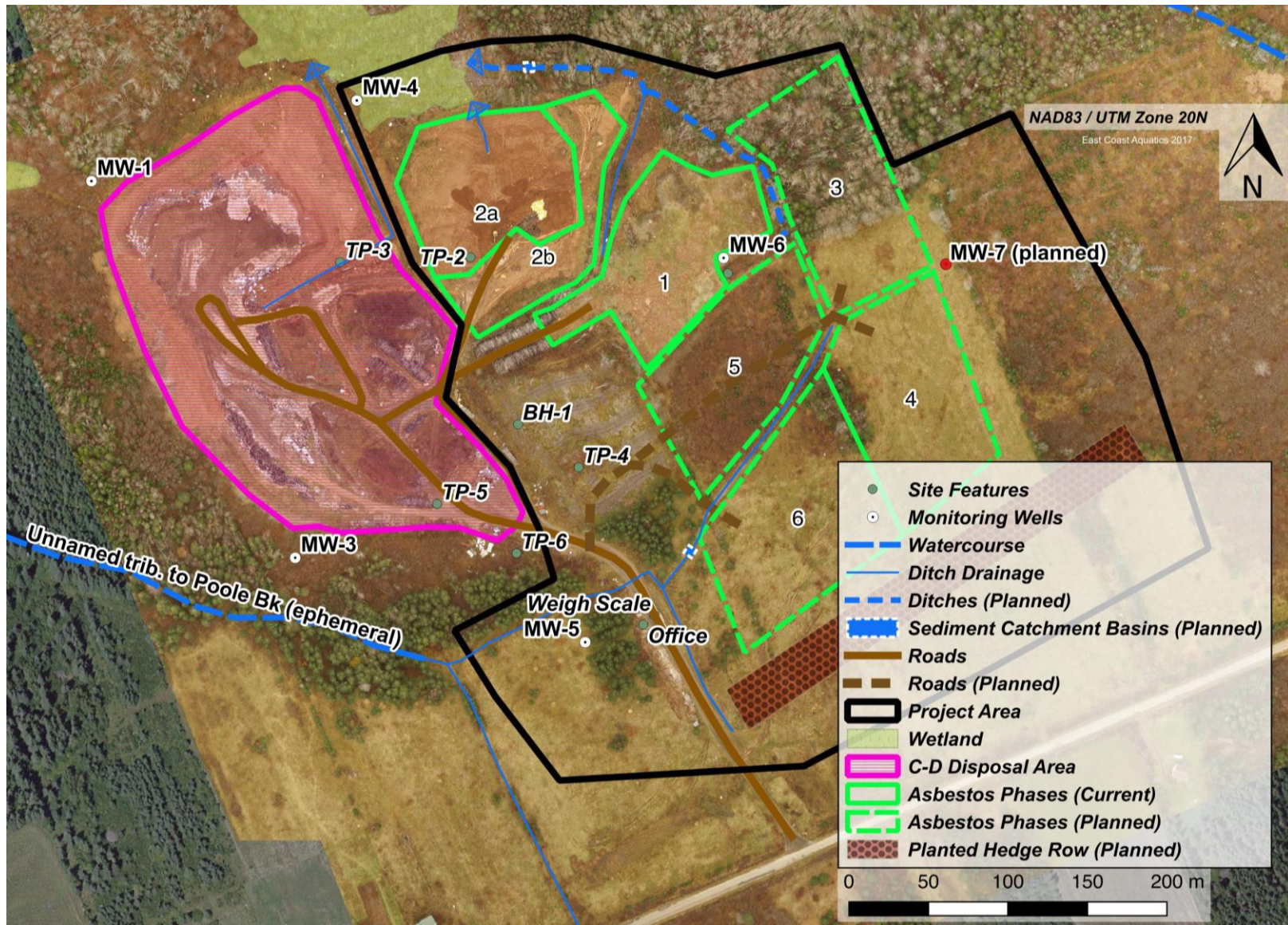


Figure 3: Site overview based on 2017 drone imagery shows the Project Area, including current and planned asbestos disposal cells, and overall boundary of asbestos disposal operations.

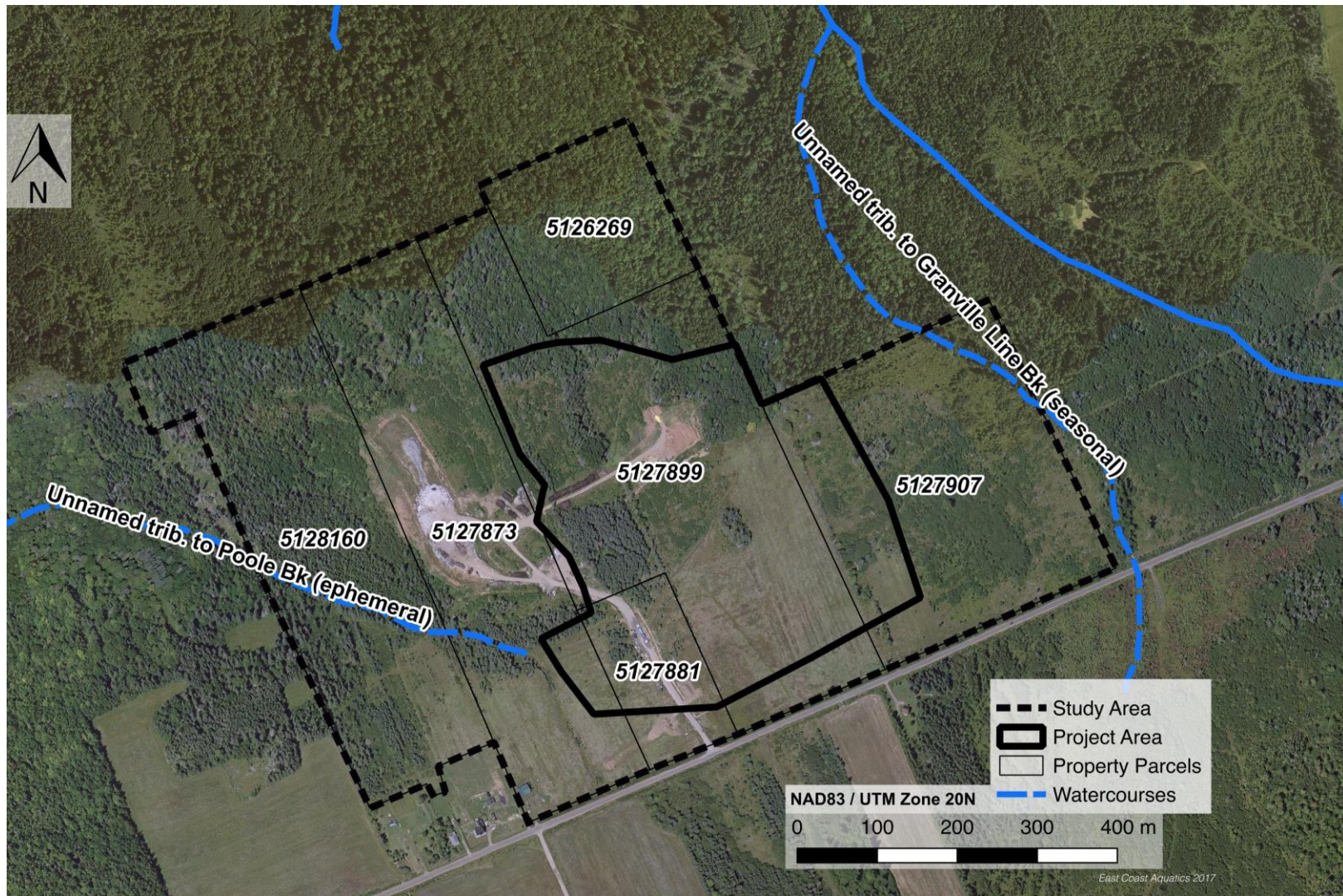


Figure 4: Arlington Heights asbestos disposal facility Study Area, study area properties and PID numbers, and the asbestos disposal Project Area footprint. Figure based on 2012 imagery when the C&D site was relatively new and the existing asbestos disposal area was being established.

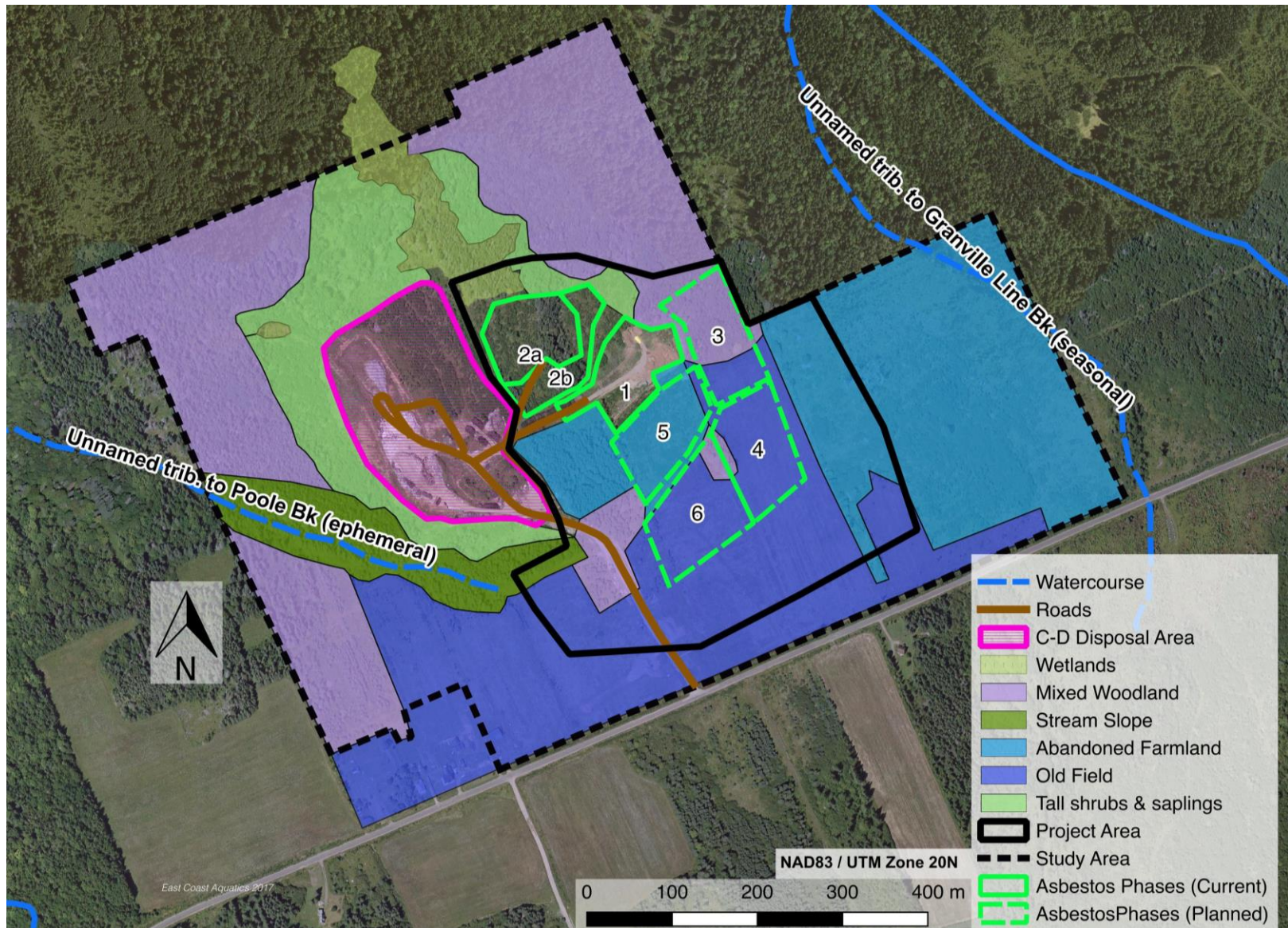


Figure 5: Study Area habitat map indicating primary vegetation communities and watercourses relative to current and proposed operational areas.

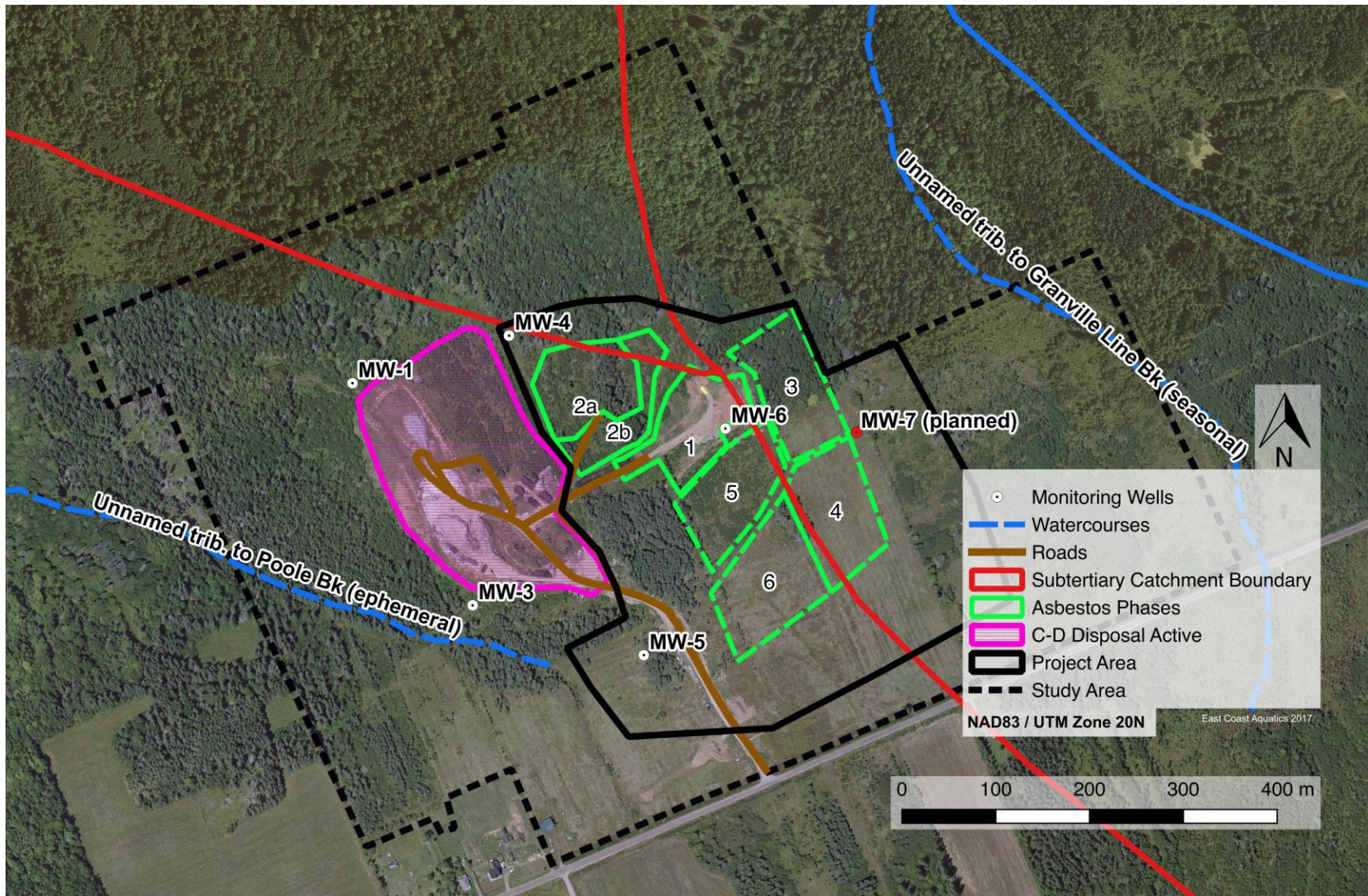


Figure 6: Watershed boundaries and watercourses relative to the Designated Project.

4.0 Federal Involvement

4.1 Financial Support from Federal Authorities

The Proponent anticipates receiving no financial support from Federal authorities for the proposed expansion.

4.2 Federal Lands Used Under Designated Project

No Federal lands will be used for the purpose of the designated project.

4.3 List Federal Permits, Licences or Other Required Authorizations

No other Federal permits, licenses or authorizations will be required for the proposed expansion of the Arlington Asbestos Waste Disposal Facility.

5.0 Environmental Effects

5.1 Physical and Biological Setting

The Project Area is located on the north-facing slope of the Annapolis Valley's North Mountain within the Fundy Shore Ecoregion and North Mountain Eco district⁷ within Annapolis County. The Project Area lies in a rural area with the community of Hampton approximately 4.8 km west and the community of Port Lorne 3.8 km northeast of the site.

The footprint of the disposal cells is a relatively flat peneplain located on a ridge at the junction of three small watersheds. As shown in Figure 4, the unnamed seasonal tributary to Granville Line Brook is approximately 235 m northeast of proposed Phase 3 cell. The unnamed ephemeral tributary to Poole Brook is the closest flowing watercourse located 185 m west of proposed Phase 6 cell. A treed bog wetland, mapped as part of this EA process, is located to the north of the completed portion of the Phase 2 cell. The Study Area is underlain by bedrock of vertical columnar basalt that is typically topped with 4 to 10 m of silty clay. The ground surface is a root mat/topsoil of approximately 30 cm⁸.

The vegetation survey was conducted by botanist Tom Neily in August 2016. Mr. Neily is an experienced field botanist, who has worked extensively throughout Atlantic Canada. His experience includes wetland classifications, vascular plant surveys, evaluation of rare and endangered flora, and identification of lichens. The Study Area vegetation was categorized as seven separate communities: tall shrub/sapling, stream slope, abandoned farmland, mixed woods, operational areas, wet ditches/excavated drainages, and old field. These areas are mapped in Figure 5, and photos are presented in Appendix 3. Each community was assessed by the botanist to establish a community plant inventory, and to search for species at risk, species of conservation concern, and invasive/exotic species.

Eighty-eight (88) plant species were inventoried over the Study Area. No Species At Risk, or species of conservation concern were encountered. Twenty exotic species (Atlantic Canada Conservation Data Center (ACCDC) "SE" ranking) were identified, of which 19 were found in the old field and abandoned farmland habitats. All other species had an "S5" ranking by the ACCDC, which is defined as... "Demonstrably widespread, abundant, and secure throughout its range in the province, and essentially ineradicable under present conditions".

Much of the existing Project Area over which the proposed asbestos disposal cells are to be constructed is former agricultural land. A small portion is mixed wood forest, and another small portion is very new regeneration (<2 years) contiguous with the existing operational area. Including the currently completed disposal cell areas and the future proposed cells, 6.25 ha of asbestos disposal area will be established if the facility is fully utilized. Of the proposed and current cells, Phase 1 and 2 cells (33% of total proposed area) are in previously grubbed and cleared areas of the C & D operations. Part of Phase 3 cell (12% of total proposed area) will be

⁷ NSDNR. 2017. Ecological Land Classification. <https://data.novascotia.ca/Lands-Forests-and-Wildlife/Ecological-Land-Classification-ELC-2007/w3bw-e6yc/data>. Website visited January 11, 2017.

⁸ MGI Ltd. 2004. *Geotechnical and Hydrogeological Assessment – Monitor Well and Test Pit Program, Arlington West Construction and Demolition Waste Disposal Facility, Arlington West, Nova Scotia*. MGI File: 20977A. October 18, 2004. 16pgs + attachments.

established in a mixed forest habitat area. The remainder of Phase 3, and all of Phase 4 and 6 cells, will be in old field (40% of total proposed area). Phase 5 will be created in a recently cleared operational area (15% of total proposed area).

Tall Shrub/Sapling

The tall shrub/sapling plant community of the study area lies predominantly north and west of the existing C & D disposal cell as shown in Figure 5. The area was cleared in 2004 as part of the establishment of the C&D operation, but lies outside of the actual operational footprint. As such it has dense regeneration growth. None of this habitat falls within the proposed Project Area of the asbestos disposal facility. Characteristic shrub and sapling species included: Balsam Fir (*Abies balsamea*), Red Maple (*Acer rubrum*) and Grey Birch (*Betula populifolia*). Characteristic herbaceous species included: Black Starthistle (*Centaurea nigra*), Fireweed (*Chamerion angustifolium*), Wild Carrot (*Daucus carota*), Parasol White-Top (*Doellingeria umbellata*) and Brittle-Stem Hempnettle (*Galeopsis tetrahit*).

Stream Slope

The stream slope habitat plant community was inventoried along the Un-named Tributary to Poole Brook, located west of the proposed asbestos disposal Project Area. This community is a riparian buffer left undisturbed since the initiation of C&D operations in about 2004, although past land use activities associated with farming may well have influenced the community composition. None of this habitat falls within the proposed Project Area of the asbestos disposal facility, which lies 185+m to the eastward of the stream slope habitat. Characteristic shrub and tree species included: Red Maple (*Acer rubrum*), Speckled Alder (*Alnus incana*) and Yellow Birch (*Betula papyrifera*). Characteristic herbaceous species included: Wild Sarsaparilla (*Aralia nudicaulis*), Lady-Fern (*Athyrium filix-femina*), White Turtlehead (*Chelone glabra*), Parasol White-Top (*Doellingeria umbellata*) and Common Boneset (*Eupatorium perfoliatum*).

Abandoned Farmland

Abandoned farmlands are those areas that were at one time open field, but have been left unused for a significant period of time. Although these areas have a significant ground cover of herbs and grasses, there are also dense patches of woody shrub and sapling growth that have begun to colonize these sites. Wet pockets exist within the abandoned farmland where old access trails and drainage features exist. As shown in Figure 5, the proposed Phase 5 cell of the asbestos disposal facility, covering approximately 9200m², falls almost entirely within this habitat, although the majority of this plant community lies further east of the proposed project footprint. Characteristic plant species encountered included: Black Starthistle (*Centaurea nigra*), Creeping Thistle (*Cirsium arvense*), Dwarf Dogwood (*Cornus canadensis*), Eastern Hay-Scented Fern (*Dennstaedtia punctilobula*), Flat-Top Fragrant-Golden-Rod (*Euthamia graminifolia*), White Ash (*Fraxinus americana*) and Soft Rush (*Juncus effuses*).

Mixed Woods

The mixed woods habitat lies north and northwest of the current and proposed asbestos disposal Project Area. This forested area has mature trees and a relatively natural understory community. A small portion of this community, approximately 6000 m², is proposed to be removed for the establishment of the northern half of the Phase 3 cell, as shown in Figure 5. Common tree and shrub species observed included: Balsam Fir (*Abies balsamea*), Red Maple (*Acer rubrum*), White

Spruce (*Picea glauca*), American Beech (*Fagus grandifolia*), White Ash (*Fraxinus americana*) and Paper Birch (*Betula papyrifera*). The understory was comprised of: Wild Sarsaparilla (*Aralia nudicaulis*), Bladder Sedge (*Carex intumescens*), Eastern Hay-Scented Fern (*Dennstaedtia punctilobula*), Woodland Horsetail (*Equisetum sylvaticum*), Twinflower (*Linnaea borealis*), and Wild Lily-of-The-Valley (*Maianthemum canadense*).

Operational Areas

The area defined as operational area habitat includes both the existing C&D disposal area and Phase 1 and 2 asbestos disposal areas. It also includes the open cleared area available for future C&D expansion. Vegetation is quite sparse in this habitat as it was grubbed for operational use, and the remaining clay dominated mineral soils are slow to establish cover. Operations continue to shift across this habitat as drainage paths and access roads are moved to facilitate ongoing operational requirements. Small patches of shrub and sapling are established in the least used operational areas, but the community is predominantly sparse herbaceous growth. The remaining portions of the Phase 2 asbestos disposal facility cell, estimated at 4500m², falls within this habitat. The plant community in this area included: Pointed Broom Sedge (*Carex scoparia*), Wild Carrot (*Daucus carota*), Spinulose Shield Fern (*Dryopteris carthusiana*), Crested Shield-Fern (*Dryopteris cristata*), Hairy Willow-Herb (*Epilobium ciliatum*), Flat-Top Fragrant-Golden-Rod (*Euthamia graminifolia*) and Low Cudweed (*Gnaphalium uliginosum*).

Wet Ditch/Excavated Drainages

The wet ditch/excavated drainages habitats are densely vegetated with herbaceous growth. Some of these features were established in the early 2000's while other portions may have existed since times when land use at the Study Area was predominantly agricultural. They are all man made, and given that they do not have continuous mineral bottoms with a defined bank, none are considered watercourses. Gradients typically approach 0% slope. None of this habitat falls within the proposed future cells of the asbestos disposal facility, although surface water from current and future cells will be directed to utilize these existing drainages. Common plant species included: Pointed Broom Sedge (*Carex scoparia*), Flat-Top Fragrant-Golden-Rod (*Euthamia graminifolia*), Narrow-Paniced Rush (*Juncus brevicaudatus*), Soft Rush (*Juncus effusus*), Slender Rush (*Juncus tenuis*) and Swamp Loosestrife (*Lysimachia terrestris*).

Old Field

The Old Field plant community abuts the Arlington Road across the southern extent of the Study Area. It is dominated by grasses and herbs, weakly interspersed with woody-stemmed species. This area corresponds to lands that were last actively managed for agricultural operations. Of the communities inventoried within the Study Area, the Old Field habitat had the greatest diversity of plant species at 34. However, 16 of those species are considered introduced exotics by the Atlantic Canada Conservation Data Center, and likely reflect the historic use as agricultural lands and perhaps the proximity to the adjacent roadway that could facilitate introduction of species from passing vehicular traffic. Approximately 40% of the area of the proposed future Phases of the asbestos disposal facility will be established in Old Field habitat. This is the greatest habitat type area to be altered by the proposed Undertaking, and represents approximately 26,700 m² consisting of Phase 4 and 6 cells and part of Phase 3 cell. In total, this represents about 24% of the Old Field habitat existing on the project properties. The plant community of the Old Field habitat included: Gray Birch (*Betula populifolia*), Pointed Broom Sedge (*Carex scoparia*),

Creeping Thistle (*Cirsium arvense*), Wild carrot (*Daucus carota*), Parasol White-Top (*Doellingeria umbellata*), Barnyard Grass (*Echinochloa crus-galli*), Hairy Willow-Herb (*Epilobium ciliatum*), Canada Rush (*Juncus canadensis*), Soft Rush (*Juncus effusus*), Oxeye Daisy (*Leucanthemum vulgare*), Birds-Foot Trefoil (*Lotus corniculatus*), Purple Loosestrife (*Lythrum salicaria*) and Common Evening-Primrose (*Oenothera biennis*).

5.2 Potential Environmental Effects of Designated Project

Fish and Fish Habitat

The fish and fish habitat surveys were conducted by aquatic biologists Mike Parker and Andy Sharpe between August and November 2016, over multiple (>4) visits to the site. Parker and Sharpe cumulatively have more than 40 years of environmental science field experience, including habitat assessments, fish identified and water quality monitoring.

No watercourses travel through the current or proposed Project Area. Three small watersheds originate in the study area and flow northward to the Bay of Fundy. Baseline surface water samples were reported on three dates in 2004 from the un-named tributary to Poole Brook located 185+ m west of the proposed Undertaking, and included general chemistry, metal and phenol concentrations representative of conditions prior to the start of C & D operations⁹. Notable results were a neutral pH of 6.9, slightly elevated copper of 0.18 mg/L deemed to be reflective of natural conditions, and an October stream flow estimated at 2 L/min¹⁰.

Fish habitat within the study area is extremely limited, and no visual observations of fish were made during field studies of the available habitat. Long established excavated drainage pathways help drain the predominantly flat topography of the Study Area. These are typically heavily vegetated. The drainages from around the south and west side of the Designated Project are relatively flat with gradients around 0.5%, and they connect together to concentrate flow. The confluence of two primary ditched drainages in the south of the study area (see Figure 5) forms the beginning of the watercourse referred herein as the Un-named tributary to Poole Brook. The Un-named tributary to Poole Brook appears to be an ephemeral stream, flowing predominantly following moderately heavy rain events. The channel maintained shallow pockets of water during the drier period of 2016, but flow was discontinuous for meters between small wetted areas even by October. The channel was measured at approximately 0.5 m bankfull width and 0.20 m bankfull depth. The tributary joins Poole Brook, a known fish bearing stream, at a confluence approximately 1.4 km downstream of the Study Area. The tributary to Poole Brook has an average slope of 7 % and gradients to more than 10 % which would limit, but not prevent, fish migration. The habitat provides a good overland buffer to the Un-named tributary to Poole Brook, and habitat for a number of flora and fauna. Poole Brook itself flows from Rumsey Lake, a locally important recreational lake that is spring stocked with Rainbow trout (*Oncorhynchus*

⁹ Jacques Whitford. 2005. *Environmental Insurance Review Arlington Heights C&D Site*. Project No: NSD19602. 12 pages + Appendices.

¹⁰ Harris, C.T. 2004. *Proposed Construction & Demolition Debris Disposal Site for Melbourne R. Poole & Valarie F. Poole at Arlington West, Annapolis County, NS*. September 10, 2005.

mykiss)¹¹ and that supports Brook trout (*Salvelinus fontinalis*) and a number of other small-bodied species. However, the seasonal flows, steep gradients, and limited pool habitat could be expected to limit fish presence in the Un-named tributary to Poole Brook in the reaches within and adjacent to the Study Area to rare occasions during wet periods, if at all.

The Un-named tributary to Granville Line Brook lies 235+ m northwest of the proposed Undertaking at the eastern edge of the Study Area is likely a seasonal flow system based on 2016 observations. There is no direct connection of surface drainages and excavated ditches from the Study Area to the tributary. Surface sheet flow from the extreme eastern edge of the proposed project area might currently move toward the tributary through the heavily vegetated Abandoned Field habitat, but flat topography in the area makes it inconclusive without additional survey. Within the Study Area the tributary has a bankfull width of 2 m and a depth of 0.4 m. The channel is boulder controlled; with the moss covering on the 20-40 cm diameter boulders indicating a stable system. The tributary joins Granville Line Brook some 500 m downstream of the Study Area to the north. The entire system is characterized by gradients of 5 % and greater. There are no ponds or lakes along the Granville Line Brook system that might provide significant deep water and overwinter habitat. The small pools within the system may provide a limited amount of fish habitat depending on water levels and freezing characteristics of a given period.

The potential effects of the Designated Project on fish and fish habitat is limited due to the minimal area of water courses and fish habitat within the Study Area, and the vegetated distance between Project Area drainage features and these watercourses. Fish habitat in the closest watercourses is predicted to be minimal to non-existent given the ephemeral and seasonal nature of flows, and steep gradients connecting the watercourses to known fish bearing reaches.

The potential effects of the Designated Project on fish and fish habitat are therefore associated with transport of contaminants or sediments through drainage pathways on site to the watercourses and fish habitat that are further removed from the Project Area. Potential sources of sedimentation are the exposed mineral surfaces of the operation. Potential sources of surface water contamination are operational equipment, and trucks bringing disposal materials to the site.

In order to minimize these risks and the potential effects associated with sedimentation and contamination, a number of mitigation strategies are proposed.

- Final Phase 3-6 cells are to be land formed to slope westward toward existing and proposed drainage paths. This will limit or eliminate the potential for surface discharge and associated potential for sediment and contaminant delivery from the Project Area toward the Un-named tributary to Granville Line Brook.
- Sediment traps will be installed at the downslope end of constructed drainages and upslope of any receiving watercourse, and both the sediment traps and drainages will be seeded and mulched at the time of construction. The sediment traps and vegetated drainages will intercept surface sheet flow that will run off the active operational areas, allowing the heavier fraction of sediment to be captured in the sediment traps rather than

¹¹ NSIF. 2017. Hatchery Stocking Program. <https://novascotia.ca/fish/sportfishing/hatchery-stocking/>. Nova Scotia Department of Inland Fisheries. Website visited February 18, 2017.

moving downslope to ultimate receiving areas. This will minimize the risk of sediment or contaminant delivery from the Project Area to surface water resources of the Study Area.

- Industry-standard sediment and erosion control measures will be employed to control onsite runoff as necessary, and the progressive reclamation plan will minimize the area of exposed soils to further reduce the potential for sediment transfer.
- Drainage paths will be constructed around Phase cells prior to final grubbing and use to ensure surface runoff is directed away from the asbestos disposal cells and exposed mineral surfaces. This approach will also allow drainages to become vegetated and stabilized prior to use.
- Adherence to the existing Operations and Maintenance Manual, Industrial Approval, and Asbestos Waste Management Regulations will minimize contamination risks.

Based on the above analysis, it is unlikely that there will be any significant adverse environmental effects arising from the Designated Project on fish and fish habitat. It is acknowledged that climate change could lead to more severe rain events that would increase the risk associated with transport of sediment and contaminants. However, daily on site management and adaptability to a severe weather related risks are anticipated to negate any potential increase in risk of an adverse environmental effect to surface water resources for the proposed Undertaking. The significance of impacts should they occur are believed to be small, short term, direct, local, and reversible.

Marine Plants

The Designated Project is located approximately 2.3 km from salt water and the shore of the Bay of Fundy. The project and its components will have no direct effects on marine plants due to the physical separation. The potential effects of the Designated Project on marine plants are therefore associated with transport of contaminants or sediments through drainage pathways on site to the watercourses and subsequently the shore of the Bay of Fundy. Potential sources of sedimentation are the exposed mineral surfaces of the operation. Potential sources of surface water contamination are operational equipment, and trucks bringing disposal materials to the site.

As was noted above, a range of mitigation approaches will be utilized at the Designated Project to control the mobilization and offsite transport of sediments and contaminants. Through the implementation of these measures, it is unlikely that there will be any significant adverse environmental effects arising from the Designated Project on marine plants. It is acknowledged that climate change could lead to more severe rain events that would increase the risk associated with transport of sediment and contaminants. However, daily on site management and adaptability to a severe weather related risks are anticipated to negate any potential increase in risk of an adverse environmental effect to surface water resources for the proposed Undertaking. The significance of impacts should they occur are believed to be small, short term, direct, local, and reversible.

Migratory Birds

Two avian surveys of the Study Area were conducted in September 2016. The first survey was conducted by Dr. Sarah Gutowsky on September 17th, 2016. The second survey was conducted by Jacob Walker on September 30th, 2016. This timing was selected so that both resident and

migratory species might be detected. Both surveyors covered the seven various habitats described in Section 5.1.

As listed in Table 7, a total of fifty-two (52) individual species were identified during the two surveys. An estimate of 690+ and 480 individual birds were surveyed on September 17th and 30th respectively. The most abundant group of birds observed in the study area were 10 species of warblers, dominated by a migratory movement of Palm, Magnolia, Common Yellowthroat, Black-throated Green, and Yellow-rumped warblers. Sparrows were also abundant later in September with 117 individuals of 9 species being observed on the last day of the month. Blue Jays, Black-capped Chickadees, and American Goldfinch were noted to be abundant resident species. Observed abundance of the overall twenty most numerous species by date is presented in Figures 7 and 8. The observed abundance may not reflect actual abundance of individual species as a number of factors affect can observations. For example, bird species using open habitats are generally more easily observed and counted than birds in dense vegetation. Time of day and weather conditions also influence observations.

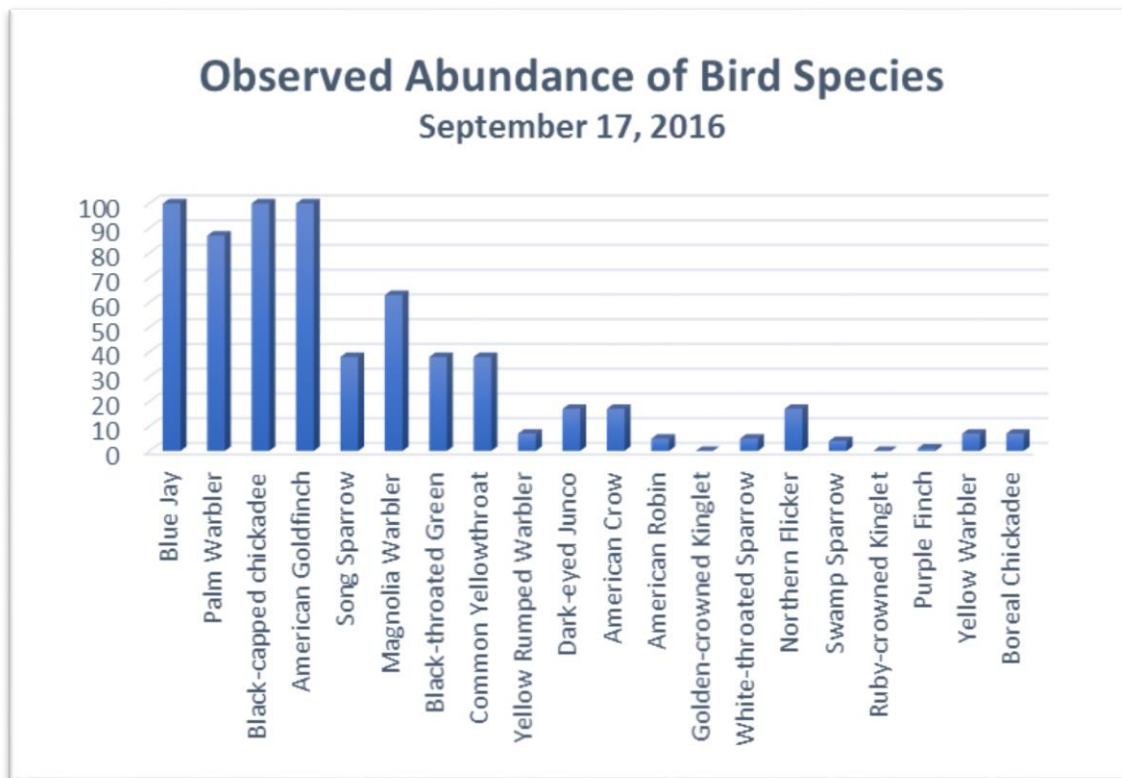


Figure 7: Observation estimates on September 17, 2016 for the top 20 most observed species during September bird inventories of the Study Area. Survey completed by Dr. Sarah Gutowsky.

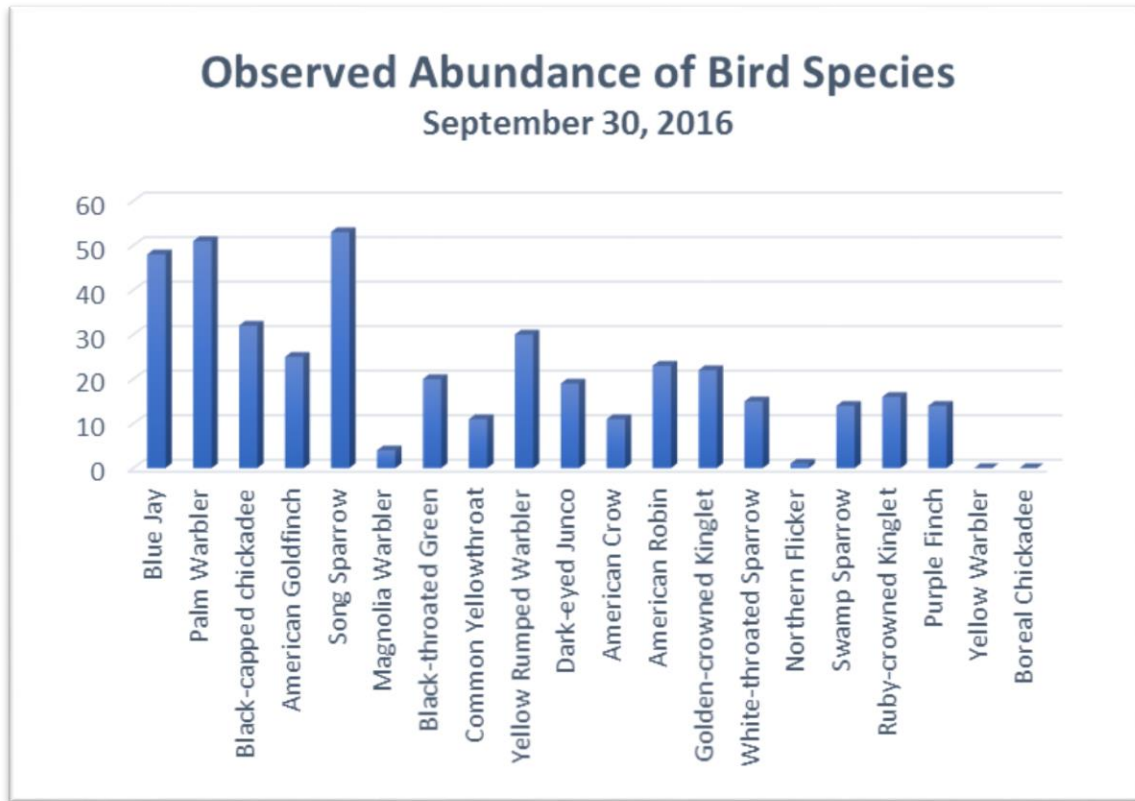


Figure 8: Observation estimates on September 30, 2016 for the top 20 most observed species during September bird inventories of the Study Area. Survey completed by Jacob Walker.

The sparrow abundance and diversity found within the Operational Area and the surrounding fields was as high. The area is expected to be important for seed eating birds between late-September and January. A list of species likely to breed in the fallow Old Field habitat and within the disposal site are shown in Table 7.

Overall, 45 species identified by the Migratory Birds Convention, 1994, were recorded through the September 2016 field surveys. One Species at Risk (Savannah Sparrow - SARA (Special Concern)) was observed during the field surveys. Two other Species at Risk (Bobolink – NSESA (Vulnerable), SARA (Threatened) and Common Nighthawk (NSESA (Vulnerable) SARA (Threatened) were suspected of occurring in the project area but not observed during the field surveys (Table 8).

The habitat provided by the disturbed ground in the disposal site itself and the surrounding fallow fields is not as common in the region as the forested areas. Few fields are left fallow and allowed to go to seed in the area (most are in crops or hayed multiple times during the season). This provides a valuable resource for seed-eating birds like sparrows during the fall migration.

Table 7: Inventory of avian species observed during September 2016 Study Area point count and general area survey of the Study Area.

Scientific Name	Common Name	Provincial Rank	Species at Risk	Migratory Species*
<i>Poecetes gramineus</i>	Vesper Sparrow	S2B		Y
<i>Carduelis pinus</i>	Pine Siskin	S2S3		Y
<i>Perisoreus canadensis</i>	Gray Jay	S3		
<i>Poecile hudsonica</i>	Boreal Chickadee	S3		Y
<i>Sitta canadensis</i>	Red-breasted Nuthatch	S3		Y
<i>Dumetella carolinensis</i>	Gray Catbird	S3B		Y
<i>Catharus fuscescens</i>	Veery	S3S4B		
<i>Catharus ustulatus</i>	Swainson's Thrush	S3S4B		Y
<i>Dendroica striata</i>	Blackpoll Warbler	S3S4B		Y
<i>Regulus calendula</i>	Ruby-crowned Kinglet	S3S4B		Y
<i>Sitta carolinensis</i>	White-breasted Nuthatch	S4		Y
<i>Dendroica fusca</i>	Blackburnian Warbler	S4B		Y
<i>Melospiza lincolni</i>	Lincoln's Sparrow	S4B		Y
<i>Spizella passerina</i>	Chipping Sparrow	S4B		Y
<i>Junco hyemalis</i>	Dark-eyed Junco	S4S5		Y
<i>Empidonax minimus</i>	Least Flycatcher	S4S5B		Y
<i>Passerculus sandwichensis</i>	Savannah Sparrow	S4S5B	SARA (Sp. Concern)	Y
<i>Sphyrapicus varius</i>	Yellow-bellied Sapsucker	S4S5B		Y
<i>Carpodacus purpureus</i>	Purple Finch	S4S5B,S3S4N		Y
<i>Bonasa umbellus</i>	Ruffed Grouse	S5		
<i>Carduelis tristis</i>	American Goldfinch	S5		Y
<i>Certhia americana</i>	Brown Creeper	S5		Y
<i>Corvus brachyrhynchos</i>	American Crow	S5		
<i>Corvus corax</i>	Common Raven	S5		
<i>Cyanocitta cristata</i>	Blue Jay	S5		
<i>Dryocopus pileatus</i>	Pileated Woodpecker	S5		Y
<i>Picoides pubescens</i>	Downy Woodpecker	S5		Y
<i>Picoides villosus</i>	Hairy Woodpecker	S5		Y
<i>Poecile atricapilla</i>	Black-capped Chickadee	S5		Y
<i>Regulus satrapa</i>	Golden-crowned Kinglet	S5		Y
<i>Bombycilla cedrorum</i>	Cedar Waxwing	S5B		Y
<i>Catharus guttatus</i>	Hermit Thrush	S5B		Y
<i>Colaptes auratus</i>	Northern Flicker	S5B		Y
<i>Dendroica coronata</i>	Yellow-rumped Warbler	S5B		Y
<i>Dendroica magnolia</i>	Magnolia Warbler	S5B		Y
<i>Dendroica palmarum</i>	Palm Warbler	S5B		Y
<i>Dendroica pensylvanica</i>	Chestnut-sided Warbler	S5B		Y

Table 7 cont.

Scientific Name	Common Name	Provincial Rank	Species at Risk	Migratory Species*
<i>Dendroica petechia</i>	Yellow Warbler	S5B		Y
<i>Dendroica virens</i>	Black-throated Green Warbler	S5B		Y
<i>Geothlypis trichas</i>	Common Yellowthroat	S5B		Y
<i>Melospiza georgiana</i>	Swamp Sparrow	S5B		Y
<i>Melospiza melodia</i>	Song Sparrow	S5B		Y
<i>Mniotilta varia</i>	Black-and-White Warbler	S5B		Y
<i>Parula americana</i>	Northern Parula	S5B		Y
<i>Vireo olivaceus</i>	Red-eyed Vireo	S5B		Y
<i>Vireo solitarius</i>	Blue-headed Vireo	S5B		Y
<i>Zonotrichia albicollis</i>	White-throated Sparrow	S5B		Y
<i>Turdus migratorius</i>	American Robin	S5B,S3N		Y
<i>Spizella arborea</i>	American Tree Sparrow	S5N		Y
<i>Dendroica discolor</i>	Prairie Warbler	SNA		Y
<i>Phasianus colchicus</i>	Ring-necked Pheasant	SNA		
<i>Zonotrichia leucophrys</i>	White-crowned Sparrow	SNA		Y

* with respect to the Migratory Birds Convention Act, 1994
SARA = Species at Risk Act

Table 8: Additional species that may be breeding in the Operational Area and the surrounding inactive agricultural fields, but not encountered during 2016 avian surveys.

Common Name	Scientific Name	Species at Risk	Common Name	Scientific Name	Species at Risk
Bobolink	<i>Dolichonyx oryzivorus</i>	NSESA (Vulnerable) SARA (Threatened)	Red-winged Blackbird	<i>Agelaius phoeniceus</i>	
Common Nighthawk	<i>Chordeiles minor</i>	NSESA (Threatened) SARA (Threatened)	Chestnut-sided Warbler	<i>Setophaga pensylvanica</i>	
European Starling	<i>Sturnus vulgaris</i>		Eastern Kingbird	<i>Tyrannus tyrannus</i>	

NSESA = Nova Scotia Endangered Species Act
SARA = Species at Risk Act

The major impact of the proposed expansion to avian fauna is through the direct loss of habitat, and conversion to new habitat types. The importance of this has to be considered not only for the absolute loss but as a part of the cumulative impact of many small developments and clear-cuts reducing the available habitats of the region. The seriousness of such losses will depend on

several factors, including a) the regional scarcity of the habitats in question, b) its importance to bird species present, c) the extent to which habitat can regenerate following asbestos disposal operations, and d) the successional stage of the ecosystem. These losses, of course, need to be weighed against the value to birds of new habitats created by the proposed Undertaking.

Migration in the Study Area appears to be typical of that for the North Mountain in general, and impacts would be proportional to regional habitat loss (or gain), since migrants over woodlands will stop in whatever feeding areas are available.

The removal of Mixed Wood forest, Old Field, and subsequent stripping of soil cover will have the most direct negative impact on bird species using these habitats for feeding or breeding/nesting. Conversion of Mixed Wood habitat is predicted to have a smaller impact on avian species than conversion of the Old Field habitat as the latter is a relatively more limited habitat type. Old Field habitat was observed to be a well used fall migration forage area, is predicted to be an important breeding and nesting habitat for grassland species, and was observed or predicted to support a number of bird Species at Risk and Species of Conservation Concern.

As proposed operations are the same as existing operations that have occurred for more than a decade, incremental impact to avian species from sound and human presence are predicted to be short term, site specific, and negligible. These impacts are also temporary to the life of the operation, and as such are reversible. An ongoing potential impact that could be expected to affect avian species in and around new operational areas during expansion is from the dust produced by heavy truck traffic and excavation spreading into habitats along the access roads. This impact can affect vegetation, and thereby avian habitat, and could affect young birds in nests close to operations. The nature of soils at the Project Area are not particularly prone to creating dust, and vehicle speeds are slow on the short access roads around the Project Area. Dust is also actively managed by applying water to driving surfaces as a suppressant as necessary. These actions significantly reduce the risk of dust impact on surrounding habitats and wildlife, making it negligible. This direct impact would also be considered short term, site specific, and reversible in the context of the project.

Several operational efforts will be made to minimize and mitigate alteration of avian habitat that could impact species observed or predicted to be using Mixed Wood and Old Field habitats.

- First, timing habitat disturbance to avoid the breeding season of most birds observed at the site (late May to late July) will minimize the direct impacts on nesting birds, nearly all of which are protected by the Migratory Birds Convention Act. Therefore, grubbing and clearing of all expansion areas will occur outside of the breeding season (May 1 to August 31).
- Second, although the direct impacts of habitat loss can not be fully mitigated, long-term recovery through progressive site reclamation and natural regeneration will help replace altered Mixed Wood and Old Field habitats. Ensuring the progressive reclamation of areas where asbestos disposal operations have been concluded will mitigate impacts by shortening the timeframe between alteration and replacement of grassland habitat of the Old Field, and will establish a net gain in area of fallow grass over the life of the

Undertaking. Adjacent Abandoned Farmland and Tall Shrub/Sapling habitats will be allowed to undergo natural succession toward mature Mixed Wood habitat. A proposed berm and hedgerow will have transplanted tree species that will replace a portion of the existing Mixed Wood habitat lost to expansion.

- The Old Field habitat that is part of the operational properties but not part of the proposed asbestos disposal facility will not be mowed during the nesting season, or any time other than periodically to limit the establishment of woody vegetation.
- Although noise and human presence are long term operational impacts that have existed for more than a decade and will not change, the proposed expansion and on-site transportation routing changes have the potential to reduced dust-related impacts within the geographic extent of the Project Area. Therefore, attention will be given to dust abatement to minimize this impact, especially during June and early July, when most young birds are in the nest.

Based on the avian assessment and implementation of the above mitigation measures, impacts on avian species are predicted to be negligible, short term, direct, site specific, and reversible. Therefore, it is not anticipated that the proposed development will result in any significant adverse environment impacts to observed avian fauna species.

As a condition of the recent provincial Environmental Assessment approval for the Designated Project (Appendix 2), the proponent will be undertaking additional breeding bird surveys in the spring and early summer 2018. These surveys will be completed based on input and guidance from Nova Scotia Department of Natural Resources (Wildlife Division).

Species at Risk and Species of Conservation Concern

A data report¹² for the Project Area was prepared by the Atlantic Canada Conservation Data Center (ACCDC) (Table 9). The 2016 field surveys were undertaken to both characterize the physical and biological features within the Study Area and ascertain the presence, or likelihood of presence, of Species at Risk (SAR) and species of conservation concern at the Study Area. SAR are those which are protected by either Federal or Provincial legislation because of their rarity. Species of conservation concern are those that are known or believed to be rare or uncommon at a Provincial scale, and therefore ranked as S1-S3 by the ACCDC.

The ACCDC data search indicated records of nine species at risk within 5 km of the project site, however none were detected during the 2016 field surveys of the Study Area (Table 9). Of those nine species, the Mixed Wood and Abandoned Farm habitats of the Study area might be expected to support the Bobolink, and Eastern Wood Pewee. The Canada Warbler, Peregrine Falcon, and Rusty Blackbird might be occasionally observed, but would be less dependant on the immediately available habitats. The remaining four species shown in Table 9 (Prototype Quillwort, Eastern White Cedar, Swallows) have specific habitat requirements that are not found in the Study Area. As was noted above, one additional species at risk (Savannah Sparrow *Passerculus sandwichensis princeps*) (COSEWIC-Special Concern) (SARA-Special Concern) was observed during the field surveys, likely as an autumn migrant.

¹² ACCDC.2016. *Data Report 5584: Arlington, NS*. Atlantic Canada Conservation Data Center. Prepared July 29, 2016 by J. Churchill, Data Manager. 26pp.

Table 9: Species at Risk found within 5km of the Project Area as documented in the ACCDC records.

Common Name	Scientific Name	COSEWIC Status	SARA Status	NSESA Status	Provincial Rarity	Observed During Field Surveys
Prototype Quillwort	<i>Isoetes prototypus</i>	Special Concern	Special Concern	Vulnerable	S2	No
Eastern White Cedar	<i>Thuja occidentalis</i>	N/A	N/A	Vulnerable	S1	No
Bank Swallow	<i>Riparia</i>	Threatened	N/A	Endangered	S2S3B	No
Barn Swallow	<i>Hirundo rustica</i>	Threatened	N/A	Endangered	S3B	No
Canada Warbler	<i>Wilsonia canadensis</i>	Threatened	Threatened	Endangered	S3S4B	No
Peregrine Falcon	<i>Falco peregrinus pop.1</i>	Special Concern	Special Concern	Vulnerable	S1B, SNAM	No
Bobolink	<i>Dolichonyx oryzivorus</i>	Threatened	N/A	Vulnerable	S3S4B	No
Rusty Blackbird	<i>Euphagus carolinus</i>	Special Concern	Special Concern	Endangered	S2B	No
Eastern Wood-Pewee	<i>Contopus virens</i>	Special Concern	N/A	Vulnerable	S3S4B	No

Terrestrial Fauna

Incidental observations of four terrestrial fauna species were made during the field surveys of the study area: Raccoon (*Procyon lotor*), Snowshoe Hare (*Lepus americanus*), White Tailed Deer (*Odocoileus virginianus*) and Eastern Coyote (*Canis latrans*).

The lands surrounding the Study Area are typically forested private lands with a history of small clearcut type harvesting that provide a diversity of forest stage habitats from new regeneration to mature, with minimal fragmentation. Connectivity of forested habitat along the North mountain brow exists, as does connectivity to the south with the Annapolis Valley, allowing for species with larger home ranges to readily make use of the Study Area. Therefore, a wider range of mammals including bobcat, black bear, red squirrel and fox, for example, could be expected in and around the Study Area.

Small bodied mammals such as voles, shrews and mice would also be expected given the Old Field and Abandoned Farmland habitats present. No reptiles or amphibians were observed during site visits, but it is likely that the wetland and watercourse corridors (see Figure 5) provide habitat to a number of common herpetofauna. The lack of significant year-round open water

likely limits the presence of some otherwise common amphibian species, and no turtle species would be expected in the habitats in and around the Study Area.

Terrestrial fauna may be impacted due to the proposed habitat alteration, operational noise and human presence at the Project Area. The mammalian species noted occur in a wide diversity of habitats throughout Nova Scotia. While the proposed conversion of Mixed Wood and Old Field habitats may result in displacement from existing habitats, this impact would be short to medium term and reversible, given the reclamation activities proposed. All of the noted species are highly mobile and expected to temporarily vacate the existing habitats to immediately adjacent habitats as the areas are converted to operational disposal cells. Subsequent reclamation of disposal cells will provide similar habitat to the Old Field, and the Mixed Wood habitat that is abundant surrounding the Study Area making the long-term loss of these habitats negligible. The proposed expansion entails activities that are the same as those which have occurred for many years. Therefore, impacts to terrestrial fauna that may have been associated with noise and human presence have long been realized in and around the Study Area.

Therefore, based on these factors, although small scale localized shifts in mammalian habitat use may occur with operational expansion and reclamation activities, no long-term adverse impacts to mammalian species are anticipated from the proposed expansion.

5.3 Changes to the Environment on Federal Lands, Provinces or Outside Canada

There will be no changes to the environment on Federal lands or any other province. The Designated Project has recently been the subject of a provincial environmental assessment in Nova Scotia.

5.4 Effects on Aboriginal Peoples

The environmental effects of the Designated Project will be contained to the site boundaries. *In Situ Resources* (Laird Niven) was retained to conduct an archaeological impact assessment of the proposed asbestos disposal facility expansion, with the fieldwork carried out in November 2016 and September 2017.

Background studies indicated that the Study Area had a low potential for containing First Nation's or historic archaeological resources and this finding was confirmed by the archaeological fieldwork. A major criterion in the determination of First Nation and historic archeological potential is the presence of watercourses that could have served as transportation routes as well as sources of water and food (fish and fowl). There are no primary watercourses within the study area, although the small Un-named tributary to Poole Brook exists in the south west portion of the Study Area.

The cartographic evidence suggest the Study Area was settled, albeit sparsely so, some time between 1855 and 1878, when the east-west Arlington Road was constructed. The 1930 mapping of the area shows houses would have been built almost exclusively along the road. Although the south west portion of the Study Area along the Arlington Road held the highest probability of containing the remains of a historic structure, field surveys confirmed no potential features.

Through consultations held with regional and provincial Aboriginal Peoples agencies; there is no documented recent utilization of natural resources at the project site, nor interactions in terms of cultural heritage, socio-economic conditions or historic significance. There are no anticipated effects on Aboriginal Peoples resulting from the proposed expansion.

6.0 Proponent Engagement and Consultation with Aboriginal Peoples

6.1 Potentially Affected Aboriginal Groups

Aboriginal groups with a potential interest in the Designated Project have been identified based on the proximity of First Nations reserves as well as those individuals living off reserve. Aboriginal groups that may be interested in, or potentially affected by the Designated Project include:

- Bear River First Nations, Bear River (Reserve located 48 km to the southwest),
- Annapolis Valley First Nations, Cambridge Station (Reserve located 45 km to the east),
- Native Council of Nova Scotia (advocates for individuals living off-reserve), and
- Office of Aboriginal Affairs (provincial government agency providing a coordinating role in interactions with First Nations).

6.2 Consultation and Engagement Activities

In November 2016, information letters were sent to the Chief and Council of Annapolis Valley First Nation and Bear River First Nation, the Native Council of Nova Scotia and the Office of Aboriginal Affairs, (Appendix 4) as recommended by Nova Scotia environmental assessment guidance¹³. The purpose of this correspondence was to invite comments and establish a discussion concerning the Designated Project. The communication letters indicated ECA was inviting comment and concerns for the provincial EA Registration Document for a period of three months.

6.3 Comments by Aboriginal Groups

A written response from the Native Council of Nova Scotia (NCNS) was received, noting the NCNS Community's harvesting management regime to exercise its Treaty Rights to harvest and gather, fish, and fowl throughout the lands that encompass the Project Area. The NCNS further requested a meeting to learn more about the project and the proponent, and allow the proponent to learn more about the NCNS community and the impacts the project may have on them (Appendix 4). ECA staff met with Council representatives Joshua McNeely and Jessica Seeward of the Maritime Aboriginal Peoples Council on January 17, 2017 at the NCNS Truro Heights, Nova Scotia offices. Discussion centered on off reserve rights to resource use and how that use is managed by the Mi'kmaq, and the general priority to Mi'kmaq of protecting surface and ground water resources. No specific concerns with the proposed project existed according to Mr. McNeely.

No other comments or responses have been received from the other Aboriginal Groups consulted.

¹³ Office of Aboriginal Affairs. 2012. *Proponents' Guide: The role of proponents in Crown consultation with the Mi'kmaq of Nova Scotia*. November 2012. Second Revision. 12pp.

6.4 Consultation and Information Gathering Plan

In accordance with the terms of the recent provincial Environmental Assessment approval, the proponent will be establishing a Community Liaison Committee (CLC). The CLC will seek to “maintain good public relations, foster environmental stewardship and act as a vehicle for transparent and ongoing communications between the community, stakeholders and the proponent on matters pertaining to current and planned development in the community”¹⁴. The CLC will seek membership from First Nations, neighbouring property owners, local businesses, elected officials and community groups.

The proponent will seek to develop and maintain good relations with Aboriginal Groups within the local and regional community, fostering an open exchange of information on an on-going basis. Should any major changes to the project design be anticipated, these would be shared with Aboriginal Groups at an early stage to seek their input.

¹⁴ Nova Scotia Environment. 2010. Guide for the Formation and Operation of a Community Liaison Committee. August 11, 2010.

7.0 Consultation with the Public and Other Parties

7.1 Key Comments and Concerns

Published advertisements regarding the Designated Project were placed in provincial (Chronicle Herald) and regional (Annapolis County Spectator) newspapers. Copies of the Arlington Asbestos Disposal Facility Environmental Assessment document were made available public viewing in spring 2017 at the Bridgetown Public Library.

As an existing operation, AHCD receives and addresses, public concerns with the operation of the facility in a timely and on-going manner. Table 9 outlines the single concern received over their existing 13-year history of operation, and how that concern was and is managed. A written record of concerns is held on file by the company.

Table 10: Public concerns brought to the attention of AHCD Limited over their 13 years of operation, how the concerns were operationally mitigated and additional actions taken to address the concerns.

Public Concern	Regular Steps to Limit Concern	Additional Actions Taken to Address Concern
Noise being heard at a neighbouring house	<ul style="list-style-type: none">• Operations Limited to scheduled Daytime hours.• All equipment equipped with mufflers	<ul style="list-style-type: none">• Carried out conversations with neighbour.• Sound measures were conducted and confirmed within specifications.

Given the pre-existing nature of the operation, the record of past public concerns and steps to address those concerns, and the public notice and availability of the registration document, no further direct outreach communication was made to neighbouring landowners or the public as part of this EA process.

7.2 Ongoing or Proposed Consultation Activities

As was noted above at Section 6.4, the proponent will be establishing a Community Liaison Committee (CLC) for the Designated Project. The CLC will seek to serve as an advisory body to the proponent, with respect to the project plan and activities. The CLC will also seek to represent community interests and provide a means for the exchange of information concerning environmental effects of the project.

7.3 Consultations with Other Jurisdictions

No other consultations have occurred with other jurisdictions that have environmental assessment or regulatory decisions to make the respect to the project.

Appendix 1. Arlington Asbestos Disposal Site - Industrial Approval



APPROVAL

Province of Nova Scotia
Environment Act, S.N.S. 1994-95, c.1, s.1

APPROVAL HOLDER: Arlington Heights C & D Limited
SITE PID: 05127873, 05127899, 05127881
APPROVAL NO: 2005-045327-T01
EXPIRY DATE: August 1, 2017

Pursuant to Part V of the *Environment Act*, S.N.S. 1994-95, c.1, s.1, as amended from time to time, approval is granted to the Approval Holder subject to the Terms and Conditions attached to and forming part of this Approval, for the following activity:

Construction, operation and reclamation of a Asbestos Disposal Facility, and associated works, at or near Arlington West, Annapolis County in the Province of Nova Scotia.

<Original signed by>

Administrator:

Jennifer Loneragan

Effective Date

Nov 3rd 2015

The Minister has delegated his powers and responsibilities under the *Act* with respect to the Approval to the Administrator named above. Therefore any information or notifications required to be provided to the Minister under this Approval can be provided to the Administrator unless otherwise advised in writing.

TERMS AND CONDITIONS OF APPROVAL

Nova Scotia Environment

Approval Holder: Arlington Heights C & D Limited
Project: Asbestos Disposal Facility
Site: Arlington West, Annapolis County
PID # 05127873, 05127899, 05127881

Approval No: 2005-045327-T01

File No: 31000-30

Map Series: 21 A/14 (Bridgetown)

Grid Reference: E320100 N4975700

Reference Documents:

- Application dated October 5, 2015 and attachments;
- Contents of NSE file no. 31000-30-KEN-2005-045327;
- Contents of NSE file no. 31000-30-KEN-2005-045327-R01;
- Site Plan: Plan No 467-01, Construction & Demolition Debris Disposal Site, dated October 22, 2004 by C. T. Harris, P.Eng.;
- Authorization Letter: dated January 2, 2015 and signed by Valerie Poole.

1. Definitions

- a) "Abandonment" means cessation of operation for a period of twelve (12) months, unless authorized by the Minister.
- b) "Act" means the *Environment Act*, Chapter 1 of the Acts of 1994-1995, and includes, unless the context otherwise requires, all regulations made pursuant to the *Act*.
- c) "Administrator" means a person appointed by the Minister for the purpose of this *Act*, and includes an Acting Administrator.
- d) "Approval" means an approval issued pursuant to this *Act* with respect to an activity.

- e) "Associated Works" means any building, structure, machinery, equipment, storing facility, device, tank, system, stockpile, pollution abatement system or other related infrastructure.
- f) "Department" means the Department of Environment, and the contact for the Department for this Approval is:

Nova Scotia Environment
Compliance Division
Western Region, Kentville Office
136 Exhibition St. 2nd Floor
Kentville, NS B4N 4E5

Phone: (902) 679-6086
Fax: (902) 679-6186

- g) "Disturbed Area" means any area on the Site that has been stripped of vegetation and is susceptible to erosion.
- h) "Extension" means an increase in size, volume or other physical dimensions of an activity such that the increase may cause an adverse effect if not properly mitigated.
- i) "Facility" means the Asbestos Disposal Facility and associated works.
- j) "Grab sample" means an individual sample collected in less than 30 minutes and which is representative of the substance sampled.
- k) "Minister" means the Minister of Environment, and may include any person appointed as a designate of the Minister.
- l) "Modification" means a change to an activity that may cause an adverse effect if not properly mitigated and includes, but is not limited to, the expansion of the same process, addition of product lines and replacement of equipment with different technology other than that presently in use.
- m) "Reclamation" means work performed or to be performed in accordance with an authorization plan, and includes rehabilitation of a Site or Facility.
- n) "Site" means the lands where an activity or proposed activity will take place.
- o) "Standard" means a standard, policy, code, guideline, protocol or other rule in relation to a designated activity that, by reason of its establishment or adoption by regulation or as a condition of an Approval or certificate of

qualification, becomes a mandatory requirement for participation in that designated activity.

- p) "Trained Employee" means an employee trained in Workplace Hazardous Materials Information System "WHMIS", Transportation of Dangerous Goods "TDG" and terms and conditions of this Approval.
- q) "Water Resource" means all fresh and marine waters comprising all surface water, groundwater, and coastal water.
- r) "Watercourse" means the bed and shore of every river, stream, lake, creek, pond, spring, lagoon or other natural body of water, and the water therein, within the jurisdiction of the Province, whether it contains water or not, and all groundwater.
- s) "Wetland" means land commonly referred to as a march, swamp, fen or bog that either periodically or permanently has a water table at, near or above the land's surface or that is saturated with water, and sustains aquatic processes as indicated by the presence of poorly drained soils, hydrophytic vegetation and biological activities adapted to wet conditions.

Environmental Assessment Approval

- a) The Approval Holder shall conduct an Environmental Assessment of the site, in compliance with the *Environmental Assessment Regulations*.
- b) The Approval Holder shall obtain an Environmental Assessment Approval from the Department prior to **May 1, 2017**.
- c) The Department reserves the right to no longer renew this Approval if an Environmental Assessment Approval is not obtained prior to the expiry date.

Scope of Approval

- a) This Approval (the "Approval") relates to the Approval Holder and their application and supporting documentation, as listed in the reference documents above, to construct, operate and/or reclaim the Facility, situated at or near Arlington West, Annapolis County (the "Site").
- b) The Site and/or Facility shall not exceed the area as outlined in the application and supporting documentation.

- c) It is the Approval Holder's responsibility to ensure applicable legislation, approvals, and codes of practice are met for all other aspects of the operation of the Facility.

General Terms and Conditions

- a) The Approval Holder shall operate and reclaim the Facility in accordance with the following provisions:
 - i) the *Environment Act* S.N.S. 1994-1995, c.1, s.1, as amended from time to time;
 - ii) Regulations made pursuant to the above *Act*, as amended from time to time.
- b) No authority is granted by this Approval to enable the Approval Holder to operate the Facility on lands which are not in the control or ownership of the Approval Holder. It is the responsibility of the Approval Holder to ensure that such a contravention does not occur.
- c) If there is a discrepancy between the reference documents and the terms and conditions of this Approval, the terms and conditions of this Approval shall apply.
- d) Any request for renewal or extension of this Approval is to be made in writing, to the Department, at least ninety (90) days prior to the Approval expiry.
- e) The Minister may add, modify or delete conditions to this Approval at any time pursuant to Section 58 of the *Act*.
- f) This Approval is not transferable without the consent of the Minister.
- g)
 - (i) If the Minister determines that there has been non-compliance with any or all of the terms and conditions contained in this Approval, the Minister may cancel or suspend the Approval pursuant to subsections 58A(1) and 58A(2) of the *Act*, until such time as the Minister is satisfied that all terms and conditions have been met.
 - (ii) If the Minister cancels or suspends this Approval, the Approval Holder remains subject to the penalty provisions of the *Act* and regulations.
- h) The Approval Holder shall notify the Department prior to any proposed extensions or modifications of the Facility, including, but not limited to, the active area, operating area, process changes or waste disposal practices

which are not granted under this Approval. An amendment to this Approval may be required before implementing any change.

- i) Extensions or modifications to the Facility may be subject to the *Environmental Assessment Regulations*. Written approval from the Minister may be required before implementing any change.
- j) Pursuant to Section 60 of the *Act*, the Approval Holder shall submit to the Minister any new and relevant information respecting any adverse effect that actually results, or may potentially result, from any activity to which the Approval relates and that comes to the attention of the Approval Holder after the issuance of the Approval.
- k) The Approval Holder shall immediately notify the Department of any incidents of non-compliance with this Approval.
- l) The Approval Holder shall bear all expenses incurred in carrying out the environmental monitoring required under the terms and conditions of this Approval.
- m) Unless specified otherwise in this Approval, all samples required to be collected by this Approval shall be collected, preserved and analysed, by qualified personnel, in accordance with recognized industry standards and procedures.
- n) Unless written authorization is received otherwise from the Minister, all samples required by this Approval shall be analysed by a laboratory that meets the requirements of the Department's "Policy on Acceptable Certification of Laboratories" as amended from time to time.
- o) The Approval Holder shall ensure that this Approval, or a copy, is kept on Site at all times and that personnel directly involved in the Facility operation are made fully aware of the terms and conditions which pertain to this Approval.
- p) Upon any changes to the Registry of Joint Stock Companies information, the Approval Holder shall provide a copy to the Department.

5. **Surface Water**

- a) The Site shall be developed and maintained to prevent surface water contaminants from being discharged into a watercourse, wetland, water resource, or beyond the property boundary, in excess of the following criteria:

- i) **Total Suspended Solids: Clear Flows (Normal Background Conditions)**
 - (1) Maximum increase of 25 mg/l from background levels for any short term exposure (24 hour or less);
 - (2) Maximum average increase of 5 mg/l from background levels for longer term exposure (inputs lasting between 24 hours and 30 days);
 - ii) **Total Suspended Solids: High Flow (Spring Freshets and Storm Events)**
 - (1) Maximum increase of 25 mg/l from background levels at any time when background levels are between 25 mg/l and 250 mg/l;
 - (2) Maximum increase of 10% over background levels when background is >250 mg/l;
 - iii) **pH (Outfall)**
 - (1) Maximum 5 to 9 in grab sample;
 - (2) Maximum 6 to 9 as a Monthly Arithmetic Mean;
- b) The Approval Holder shall ensure surface water is monitored at the following locations and frequency:
- i) **Monitoring Locations**
 - (1) upon Department request;
 - ii) **Monitoring Frequency**
 - (1) upon Department request;
- c) The Approval Holder shall submit surface water monitoring results to the Department, upon request.
- d) Erosion and sedimentation control devices shall be installed prior to construction at the Site and shall remain in place and be maintained until disturbed areas are stabilized.
- e) The Department reserves the right to require modifications including, but not limited to, monitoring locations, monitoring frequency, contaminants of concern, and surface water criteria.
- f) No authority is granted by this Approval to enable the Approval Holder to discharge surface water onto adjoining lands without the authorization of the affected landowner(s). It is the responsibility of the Approval Holder to ensure authorizations are current and valid.

- g) The Approval Holder shall immediately contact the Department should sulphide bearing material be encountered on the Site and shall include planned remedial measures in conformance with the *Sulphide Bearing Material Disposal Regulations*.

6. **Designated Disposal Area**

- a) The Approval Holder shall limit the disposal of asbestos to "Cell 3" as indicated on Construction & Demolition Debris Disposal Site, Site Plan, Plan No. 467-01, dated October 22, 2004 by C. T. Harris, P.Eng. until an Environmental Assessment Approval has been issued.
- b) The asbestos waste shall be placed in an area that is designated as an asbestos disposal area. The area shall be separate from any other waste disposal area.
- c) Only asbestos waste shall be placed in the designated asbestos disposal area.
- d) The designated asbestos disposal area shall be clearly marked.
- e) A copy of the site plan indicating the asbestos waste disposal area shall be recorded by the Approval Holder in the Registry of Deeds where the site is located. A copy of the registration is to be submitted to the Department within 90 days of receiving the approval.

7. **Operating Requirements**

- a) The Approval Holder shall ensure that legible signage is posted at the entrance to the Facility that includes, but is not limited to, information pertaining to the days and hours of operation, the list of acceptable/unacceptable waste, and emergency contact numbers.
- b) The area designated for asbestos waste disposal must be secured from unauthorized access. The asbestos disposal area and the surrounding fence enclosure shall remain locked when the Facility is not in use or operation.
- c) The Facility shall not accept waste that is not packaged in accordance with *Asbestos Waste Management Regulations*.
- d) Construction and operation of the asbestos waste disposal area must conform to the *Asbestos Waste Management Regulations*.

8. **Designated Area Cover Limits**

- a) The Approval Holder shall cover the asbestos waste within twenty four (24) hours of burial in the designated asbestos waste disposal area.
- b) The depth of cover material shall be a minimum of twenty five (25) centimetres.
- c) The Approval Holder shall use natural soil or rock as the cover material. The use of any other material as daily cover will require the written approval of the Department.
- d) Upon abandonment or discontinuance of use of the designated asbestos waste disposal area, the Approval Holder shall apply a final cover material having a depth of not less than one hundred twenty five (125) centimetres.

9. **Staffing**

- a) Only trained employees shall be involved in the asbestos waste storage, handling and transfer operations.
- b) The Approval Holder shall ensure that employees are properly trained to carry out the routine functions in a safe and effective manner and that staff are trained in the specific type of material being handled.
- c) The Facility shall have sufficient trained staff on duty at any given time to ensure the safe handling of the asbestos waste. At least one person with the appropriate training must be at the Facility whenever it is in operation.
- d) The Approval Holder shall keep records of the qualifications of individual employees and documentation of any special training. The training certification/records are to be made available to the Department upon request.

10. **Facility Inspection**

- a) The Approval Holder shall inspect the actively used portion of the designated asbestos waste disposal area to ensure that the daily cover has been applied after each day that disposal occurs.
- b) Upon abandonment or discontinuance of use of the designated asbestos waste disposal area, the Approval Holder shall inspect the area on a monthly basis to ensure that the final cover is intact.

- c) The Approval Holder shall undertake any repairs that may be required to maintain the cover limits specified in this Approval.

11. Transportation and Disposal of Waste Dangerous Goods

- a) The transportation of the waste dangerous goods shall meet the requirements of the Transportation of Dangerous Goods (Canada) Regulations, including packaging, labelling and manifesting. It is the responsibility of the Approval Holder to ensure compliance with this Regulation.

12. Particulate Emissions (Dust)

- a) Particulate emissions shall not contribute to an ambient concentration of total suspended particulate matter that exceed the following limits (in micrograms per cubic metre of air) at or beyond the Site property boundaries:

Annual Geometric Mean 70 $\mu\text{g}/\text{m}^3$;

Daily Average (24 hr.) 120 $\mu\text{g}/\text{m}^3$.

- b) The use of used oil as a dust suppressant is prohibited.
- c) Monitoring of ambient total suspended particulate matter shall be conducted at the request of the Department. The location of the monitoring station(s) for total suspended particulate matter will be established by a qualified person retained by the Approval Holder and submitted to the Department for approval. This may include point(s) beyond the property boundary of the Site.
- d) When requested, ambient total suspended particulate matter shall be measured by the EPA standard; EPA/625/R-96/010a; Sampling of Ambient Air for Total Suspended Particulate Matter (SPM) and PM_{10} shall be done using a High Volume (HV) Sampler.
- e) No visible emissions shall result from the asbestos waste transport or disposal operations. The Approval Holder must assure that asbestos fibres or dust will not become airborne.

13. Sound Levels

- a) Sound levels measured at the Site property boundaries shall not exceed the following equivalent sound levels (Leq):

- i) 65 dBA 0700-1900 hours;
 - ii) 60 dBA 1900-2300 hours;
 - iii) 55 dBA 2300-0700 hours.
- b) Monitoring of sound levels shall be conducted at the request of the Department. The location of the monitoring station(s) for sound will be established by a qualified person retained by the Approval Holder and submitted to the Department for approval. This may include point(s) beyond the property boundary of the Site.

14. Spills or Releases

- a) Spills or releases shall be reported in accordance with the *Act* and the *Environmental Emergency Regulations*.
- b) Spills or releases shall be cleaned up immediately in accordance with the *Act* and the *Contaminated Sites Regulations*.

15. Operating Records

- a) The Approval Holder shall maintain, on Site, an operating report of all Facility operations. The report shall include the following items:
 - i) quantity and source of asbestos waste received at the Facility;
 - ii) name of the client and/or generator of the asbestos waste;
 - iii) date when the asbestos waste material was received and/or delivered to the Facility;
 - iv) details of any incidents or spills at the Facility;
 - v) any registered complaints and measures taken to resolve the complaints;
 - vi) any changes in procedure;
 - vii) site inspection dates and results;
 - viii) facility maintenance repairs;
 - ix) any other information requested by the Department.
- b) The records required under item (a) above shall be kept for a minimum of two years and shall be made available to the Department upon request.

16. **Contingency Plan**

- a) The Approval Holder shall develop and maintain a contingency plan to address potential discharges of dangerous and waste dangerous goods, fires or other emergency situations. The contingency plan shall be in accordance with the Environmental Assessment Approval, when received, and the Department's Contingency Planning Guidelines.
- b) The Approval Holder shall ensure that the contingency plan is reviewed on an annual basis and updated as required. The Approval Holder shall document the updates and how the plan was communicated to staff.
- c) A copy of the contingency plan is to be maintained on site at all times and shall be made available to the Department upon request.
- d) All employees shall be apprised of the contingency plan.

17. **Reclamation**

- a) The Approval Holder shall submit a reclamation plan to the Department for review at least ninety (90) days prior to the scheduled abandonment/closure date for the Facility.
- b) The Approval Holder shall reclaim the Site within twelve (12) months of abandonment unless an alternate time frame is approved, in writing, by the Department.
- c) The Facility shall be reclaimed in accordance with the reclamation plan and to the satisfaction of the Department.
- d) The designated waste disposal area shall be marked with a permanent sign which states that this is an Asbestos Disposal Site.
- e) The Approval Holder shall maintain the final cover material at a depth of one hundred twenty five (125) centimetres.
- f) The Approval Holder shall inspect the designated asbestos disposal area on a monthly basis.
- g) On or before **February 1** of each year, the Approval Holder shall submit a report to the Department certifying that for the previous year, the markers as specified above are still in place and that the daily cover has a depth of at least one hundred twenty five (125) centimetres.

Appendix 2. Nova Scotia Environment Assessment - Approval



Environment
Office of the Minister

PO Box 442, Halifax, Nova Scotia, Canada B3J 2P8 • www.novascotia.ca/nse

Our File number:
10700-40-52144

JUL 24 2017

Valerie Poole
President
Arlington Heights C&D Limited
General Delivery 8281 Shore Road W.
Hampton NS B0S 1L0

Dear Ms. Poole:

**Re: Environmental Assessment – Arlington Heights C&D Limited
Asbestos Waste Disposal Facility Project, Hampton, Annapolis County, NS**

The environmental assessment of the proposed Asbestos Waste Disposal Facility Project in Hampton, Annapolis County, Nova Scotia has been completed.

This is to advise that I have approved the above project in accordance with Section 40 of the Nova Scotia *Environment Act*, S.N.S., 1994-95 and subsection 13(1)(b) of the Environmental Assessment Regulations, N.S. Reg. 348/2008, made under the Act. Following a review of the information provided by Arlington Heights C&D Limited, and the information provided during the government and public consultation of the environmental assessment, I am satisfied that any adverse effects or significant environmental effects of the undertaking can be adequately mitigated through compliance with the attached terms and conditions.

This approval is subject to any other approvals required by statute or regulation, including but not limited to, approval under Part V of the *Environment Act* (Approvals and Certificates section).

If you have any questions regarding the approval of this project, please contact Helen MacPhail, Supervisor, Environmental Assessment Branch, at (902) 483-2696 or via email at Helen.MacPhail@novascotia.ca.

^{Sincerely,}
<Original signed by>

Iain Rankin, MLA
Minister of Environment

Encl.
c: Helen MacPhail

Environmental Assessment Approval

Approval Date: JUL 24 2017

Asbestos Waste Disposal Facility Project

Arlington Heights C&D Limited

Hampton, Annapolis County, Nova Scotia

The Asbestos Waste Disposal Facility Project (the "Undertaking"), proposed by: Arlington Heights C&D Limited (the "Approval Holder") in Hampton, Annapolis County, Nova Scotia is approved pursuant to Section 40 of the *Environment Act* and Section 13(1)(b) of the Environmental Assessment Regulations. This Approval is subject to the following conditions and obtaining all other necessary approvals, permits or authorizations required by municipal, provincial and federal acts, regulations and by-laws before commencing work on the Undertaking. It is the responsibility of the Approval Holder to ensure that all such approvals, permits or authorizations are obtained before commencing work on the Undertaking.

This Environmental Assessment Approval is based upon the review of the conceptual design, environmental baseline information, impact predictions, and mitigation presented in the Registration Document.

Terms and Conditions for Environmental Assessment Approval

1.0 General Approval

- 1.1 The Environmental Assessment Approval for the Undertaking is limited to the Undertaking as described in the Environmental Assessment Registration Document. Any proposal by the Approval Holder for expansion, modification or relocation of any aspect of the Undertaking from that proposed in the Registration Document must be submitted to the Environmental Assessment Branch for review and may require an environmental assessment (EA).
- 1.2 The Approval Holder must, within two years of the date of issuance of this Approval, commence work on the Undertaking unless granted a written extension by the Minister. The Approval Holder must notify Nova Scotia Environment (NSE) of the commencement date of the Undertaking, at a

minimum 30 days prior to the commencement.

- 1.3 The Approval Holder must not transfer, sell, lease, assign or otherwise dispose of this Approval without the written consent of the Minister. The sale of a controlling interest of a business or a transfer of an approval from a parent company to a subsidiary or an affiliate is deemed to be a transfer requiring consent.
- 1.4 The Approval Holder must implement all mitigation and commitments in the Registration Document, unless approved otherwise by NSE.

2.0 Facility Operation

- 2.1 As part of the application to amend the Part V Approval under the Environment Act, the Approval Holder must submit for review and comment, an Environmental Management Plan (EMP) to be implemented and updated in a phased approach for site development, construction and facility operations. The EMP shall include:
 - a) environmental management roles and responsibilities
 - b) environmental protection plans including but not limited to erosion and sedimentation control
 - c) all monitoring and inspection requirements and parameters
 - d) training and education requirements
 - e) communication and reporting protocols
 - f) process and schedule for plan updating
- 2.2 As part of the application to amend the Part V Approval under the Environment Act, the Approval Holder must submit to NSE for review and approval written assurance that all transporters of asbestos waste are required to comply with the requirements set forth in the Asbestos Waste Management Regulations.
- 2.3 The Approval Holder must update and revise the EMP as required by NSE throughout the life of the Undertaking.
- 2.4 The Approval Holder must weigh and maintain accurate records of all asbestos waste accepted at the site. These records must be made

available to NSE upon request.

- 2.5 The Approval Holder must limit asbestos waste disposal to no more than 3000 metric tonnes per year, unless otherwise approved by NSE.
- 2.6 The Approval Holder must develop a plan in consultation with Nova Scotia Transportation and Infrastructure Renewal (TIR) to address issues related to trucking and traffic on Arlington Road West. The plan must consider the adequacy of the road infrastructure, including rehabilitation and strengthening requirements. The plan must satisfy TIR and must be provided to NSE within 6 months of this Approval.
- 2.7 There will be no increase in the approved asbestos disposal volume until Arlington Road West has been rehabilitated and strengthened to the satisfaction of TIR.

3.0 Flora and Fauna

- 3.1 Prior to commencement of the Undertaking, the Approval Holder must complete a bird survey during the breeding bird period (April to August) and submit the results to Nova Scotia Department of Natural Resources (DNR), Wildlife Division and NSE. Based on the results of the survey, the Proponent must make necessary modifications to mitigation measures, design and/or operations in consultation with DNR and as required by NSE.
- 3.2 Clearing, grubbing and construction work must be conducted outside of the breeding/nesting/fledging season for most bird species (April 15th to August 15th), unless otherwise approved by NSE.
- 3.3 If soils from offsite are required for the Undertaking, prior to soils being brought to site, the Approval Holder must develop and implement an invasive plant species management program to the satisfaction of DNR. The Approval Holder must notify NSE when the invasive plant species management program has been accepted by DNR.

4.0 Wetlands and Water Resources

- 4.1 The Approval Holder must not undertake any Undertaking related activities within 30 metres of a watercourse and/or wetland, unless otherwise approved by NSE. No development or removal of vegetation within this 30 metre buffer is permitted unless otherwise approved by NSE.

- 4.2 If avoidance of wetlands is not possible during the development of the Undertaking, any loss of wetland habitat through direct infilling or indirectly through alteration of wetland hydrology will require a wetland evaluation and application for alteration under the Activities Designation Regulations.
- 4.3 All discharges from the site must meet NSE requirements.
- 4.4 As part of the application to amend the Part V Approval under the Environment Act, the Approval Holder must address groundwater and surface water monitoring to the satisfaction of NSE.

5.0 Public and Aboriginal Consultation

- 5.1 At the request of NSE, the Approval Holder shall submit to NSE for review and approval a public communication and compliant response plan.
- 5.2 The Approval Holder must form a Community Liaison Committee (CLC) prior to commencement of the Undertaking. The NSE's Guidelines for the Formation of a Community Liaison Committee should be used for guidance. The Approval Holder must operate the CLC for the duration of the Undertaking or until released in writing by NSE.

6.0 Archaeological and Heritage Resources

- 6.1 Prior to commencement of the Undertaking, the Approval Holder must address outstanding archaeological concerns associated with the archaeology report to the satisfaction of Nova Scotia Department of Communities, Culture and Heritage (CCH). The Approval Holder must notify NSE when the revised archaeology report has been accepted by CCH. Based on the result of the report, the Approval Holder must make necessary modifications to mitigation measures, design and/or operations in consultation with CCH and as required by NSE.
- 6.2 The Approval Holder must cease work and contact the Special Places Coordinator, CCH immediately upon discovery of an archaeological site or artifact unearthed during any phase of the Project. If the find is of certain or suspected Mi'kmaq origin, the Approval Holder must also contact the appropriate Mi'kmaq representatives as advised by CCH.

7.0 Contingency Plans

- 7.1 The Approval Holder, as part of the EMP, must submit for review and comment, an Emergency Response Plan which is consistent with or exceeds the requirements of NSE's Contingency Planning Guidelines. The

Plan shall be implemented to address spills, fire and environmental emergencies throughout site development, construction and operation of the Undertaking and must be developed in consultation with local emergency service providers.

- 7.2 The Approval Holder, as part of the application to amend the Part V Approval under the Environment Act, must submit to NSE for review and comment details a contingency plan that meets NSE's Contingency Planning Guidelines and addresses (including but not limited to):
- a) accidental occurrences, and includes the location of spill equipment kept on-site and emergency phone numbers
 - b) training to be delivered to staff, including contractors
 - c) procedures for responding to incidents occurring during times when the facility is not staffed (e.g., evenings, weekends, holidays)
 - d) impacts to watercourses and water resources and domestic water supplies
 - e) releases of dangerous goods or waste dangerous goods
 - f) potential fire at the facility (to be reviewed and approved by the local fire and emergency service providers)
 - g) petroleum and hazardous material spills and surface water control structure failure
 - h) such other information as required by NSE
- 7.3 Contingency plans must be updated/ revised to reflect the progressive development of the waste dangerous goods facility (asbestos). This is to take place over the lifetime of the Undertaking, at a schedule acceptable to NSE, and revised as approved by NSE.
- 7.4 Hazardous materials or petroleum products that are to be stored on the site must be stored in a manner that is approved by NSE.
- 7.5 Refueling must not be conducted within 100 metres of any surface water resource, unless otherwise approved by NSE.
- 7.6 The Approval Holder must provide a copy of the site plan with details outline in Section 20(1) of the Asbestos Waste Management Regulations.

- 7.7 The contingency plan must list the NSE 24-hour environmental emergency reporting number (1-800-565-1633).
- 7.8 The contingency plan must include that Nova Scotia's Emergency Spill Regulations require that an unauthorized release of 50 kg of asbestos waste is reportable unless alternate reporting requirements have been described in the approval. A lesser amount may also be considered reportable if it has the potential to cause an adverse effect.
- 7.9 The contingency plan must be kept on site at all times and made available to NSE upon request.

8.0 Site Reclamation

- 8.1 The Approval Holder must submit a cell reclamation plan to NSE for review and approval at least 90 days prior to scheduled abandonment/closure for the facility.

<Original signed by>

Iain Rankin, MLA
Minister of Environment

Appendix 3. Site Photos

HABITATS



Photo 1: Tributary to Poole Brook, October 04, 2016, demonstrates minimal flow and cobble substrate. The ephemeral watercourse is located southwest of the proposed Project site.



Photo 2: Tributary to Granville Line Brook located east of the proposed Project Site. Moss covered boulders demonstrate the stable nature of this seasonal watercourse.



Photo 3: Old field habitat. View southeastward from proposed Phase 6 cell toward Arlington Road.



Photo 4: Tall shrub/sapling habitat north of C&D site operations.



Photo 5: Abandoned farmland east of the proposed Project Site within the Study Area, near the tributary to Granville Line Brook.



Photo 6: Mixed Woods habitat at a portion of the proposed Phase 3 cell and extending north of the proposed Project Site.



Photo 7: Wet ditch/drainage habitat between proposed Phase 5 and Phase 6 cells.



Photo 8 Current operational area offers minimal vegetation cover.



Photo 9: View south toward the active Phase 2 cell from within the treed wetland habitat. Partially logged, the wetland extends northwestward downslope toward the Bay of Fundy.



Photo 16: Site road junction between C & D site and asbestos disposal area.



Photo 17: Active C&D disposal area, with edge of Phase 2 asbestos disposal visible in extreme right edge of photo.



Photo 18: On site office and scale house.



Photo 19: Truck on the scales at the scale house prior to entering the operation.



Photo 20: Groundwater monitoring well 6 south of Phase 1 cell and north of proposed Phase 5 cell

Appendix 4. First Nations Correspondence



Habitat Assessment ⇨ Rehabilitation / Restoration Prescriptions ⇨ In Stream / Riparian Works ⇨ Effectiveness Monitoring

November 7, 2016

Office of Aboriginal Affairs
5251 Duke Street, 5th Floor
P.O. Box 1617
Halifax, NS
B3J 2Y3

RE: Arlington Heights Asbestos Disposal Site – Environmental Assessment Registration

I am writing to you concerning plans to undertake an Environmental Assessment Registration with Nova Scotia Environment for the continued operation of the Arlington Heights Asbestos Disposal Site, located in the community of Arlington West, Annapolis County. Please see the attached sheet for a diagram showing the location of the site, situated at 1481 Arlington Road, approximately 8 km north of the Bridgetown. The approximate UTM coordinates of the site are: 20T 319602 4975656.

The Arlington Heights Asbestos Disposal Site has been active for approximately 10 years, with ongoing operations requiring the completion of an Environmental Assessment. Operations at the site are governed by the Asbestos Waste Management Regulations. Future activities at the site are anticipated to be contained within the existing site footprint.

Over the next three months, East Coast Aquatics Inc. will be gathering the necessary information to allow for the preparation of the Environmental Assessment registration document for the asbestos disposal operation. The document “Proponents’ Guide: The role of proponents in crown consultation with the Mi’kmaq of Nova Scotia” (November 2012) is being used to provide guidance in this process. We will shortly be writing to the closest First Nation bands (Annapolis Valley First Nation and Bear River First Nation) as well as the Native Council of Nova Scotia. The purpose of this correspondence will be to engage the communities in the environmental assessment process and seek their input. This letter seeks to advise the Office of Aboriginal Affairs of these efforts. Any further input or guidance on this process would be most welcome.

Yours sincerely,

Andy Sharpe
Projects Manager

P.O. Box 129 Bridgetown, Nova Scotia
B0S 1C0

(902) 665-4682
www.eastcoastaquatics.ca



November 7, 2016

Native Council of Nova Scotia
P.O. Box 1320
Truro, NS
B2N 5N2

RE: Arlington Heights Asbestos Disposal Site – Environmental Assessment Registration

I am writing to you concerning plans to undertake an Environmental Assessment Registration with Nova Scotia Environment for the continued operation of the Arlington Heights Asbestos Disposal Site, located in the community of Arlington West, Annapolis County. Please see the attached sheet for a diagram showing the location of the site, situated at 1481 Arlington Road, approximately 8 km north of the Bridgetown. The approximate UTM coordinates of the site are: 20T 319602 4975656.

The Arlington Heights Asbestos Disposal Site has been active for approximately 10 years, with ongoing operations requiring the completion of an Environmental Assessment. Operations at the site are governed by the Asbestos Waste Management Regulations. Future activities at the site are anticipated to be contained within the existing site footprint.

Over the next three months, East Coast Aquatics Inc. will be gathering the necessary information to allow for the preparation of the Environmental Assessment registration document for the asbestos disposal operation. Issues to be addressed will include: local species at risk, surface and groundwater resources, archaeological and heritage resources, wetlands, and air quality. The potential effects of the asbestos disposal activities will be addressed in the registration document. We welcome you to provide any information or concerns you may have regarding the area and the proposed operations directly to East Coast Aquatics Inc. at the address listed below.

Yours sincerely,

Andy Sharpe
Projects Manager



November 7, 2016

Chief and Council
Bear River First Nation
P.O. Box 210
Bear River, NS
B0S 1B0

RE: Arlington Heights Asbestos Disposal Site – Environmental Assessment Registration

I am writing to you concerning plans to undertake an Environmental Assessment Registration with Nova Scotia Environment for the continued operation of the Arlington Heights Asbestos Disposal Site, located in the community of Arlington West, Annapolis County. Please see the attached sheet for a diagram showing the location of the site, situated at 1481 Arlington Road, approximately 8 km north of the Bridgetown. The approximate UTM coordinates of the site are: 20T 319602 4975656.

The Arlington Heights Asbestos Disposal Site has been active for approximately 10 years, with ongoing operations requiring the completion of an Environmental Assessment. Operations at the site are governed by the Asbestos Waste Management Regulations. Future activities at the site are anticipated to be contained within the existing site footprint.

Over the next three months, East Coast Aquatics Inc. will be gathering the necessary information to allow for the preparation of the Environmental Assessment registration document for the asbestos disposal operation. Issues to be addressed will include: local species at risk, surface and groundwater resources, archaeological and heritage resources, wetlands, and air quality. The potential effects of the asbestos disposal activities will be addressed in the registration document. We welcome you to provide any information or concerns you may have regarding the area and the proposed operations directly to East Coast Aquatics Inc. at the address listed below.

Yours sincerely,

Andy Sharpe
Projects Manager



November 7, 2016

Chief and Council
Annapolis Valley First Nation
P.O. Box 89
Cambridge Station, Kings County, NS
B0P 1G0

RE: Arlington Heights Asbestos Disposal Site – Environmental Assessment Registration

I am writing to you concerning plans to undertake an Environmental Assessment Registration with Nova Scotia Environment for the continued operation of the Arlington Heights Asbestos Disposal Site, located in the community of Arlington West, Annapolis County. Please see the attached sheet for a diagram showing the location of the site, situated at 1481 Arlington Road, approximately 8 km north of the Bridgetown. The approximate UTM coordinates of the site are: 20T 319602 4975656.

The Arlington Heights Asbestos Disposal Site has been active for approximately 10 years, with ongoing operations requiring the completion of an Environmental Assessment. Operations at the site are governed by the Asbestos Waste Management Regulations. Future activities at the site are anticipated to be contained within the existing site footprint.

Over the next three months, East Coast Aquatics Inc. will be gathering the necessary information to allow for the preparation of the Environmental Assessment registration document for the asbestos disposal operation. Issues to be addressed will include: local species at risk, surface and groundwater resources, archaeological and heritage resources, wetlands, and air quality. The potential effects of the asbestos disposal activities will be addressed in the registration document. We welcome you to provide any information or concerns you may have regarding the area and the proposed operations directly to East Coast Aquatics Inc. at the address listed below.

Yours sincerely,

Andy Sharpe
Projects Manager



Native Council of Nova Scotia

The Self-Governing Authority for Mi'kmaq/Aboriginal Peoples residing Off-Reserve in Nova Scotia throughout traditional Mi'kmaq Territory

"Going Forward to a Better Future"

P.O. Box 1320
Truro, Nova Scotia
B2N 5N2

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Fax: 1-902-895-0024
Toll Free: 1-800-565-4372
chiefconrad@eastlink.ca
www.ncns.ca

Aboriginal/Treaty Rights
Negotiations Facilitating
Directorate

NCNS Citizenship
Information Office

Education & Student
Services

Rural & Native
Housing Group

Aboriginal Peoples
Training & Employment
Commission (APTEC)

Netukulimkew'e'l
Commission

Wenjikwom Housing
Commission

Social Assistance
Recipient Support for
Employment & Training
(SARSET)

Micmac Language
Program

Native Social
Counselling Agency

Child Help Initiative
Program (CHIP)

E'pit Nuji Ilmuet
Program (Prenatal)

Aboriginal Homelessness
Program

Parenting Journey
Program

Youth Outreach Program

Mi'Kma'ki Environments
Resource Developments
Secretariat (MERDS)

January 25, 2017

Mr. Andy Sharpe
Projects Manager
East Coast Aquatics
P.O. Box 129
Bridgetown, NS B0S 1C0

RE: Arlington Heights Asbestos Disposal Site – Environmental Assessment Registration

Dear Mr. Sharpe:

Thank you for attending our offices on Tuesday, January 17, 2017 at 172 Truro Height Road, Truro Heights, Nova Scotia with Mike Parker, to present Joshua McNeely, Executive Director of IKANAWTIKET, and myself of the Native Council of Nova Scotia (NCNS) Mi'Kmaq Environments Resource Developments Secretariat (MERDS) to share more detailed information about the Arlington Heights Asbestos Disposal Site located in Arlington, Nova Scotia.

Thank you for informing the NCNS that the deposited asbestos will be immediately entrained in clay cells at the top of the North Mountain, which has little significant drainage, and that ground water monitoring will be conducted at 7 well sites within the project area.

Also, thank you for the details regarding the lifespan of the existing site, as the facilities lifespan is based on the volume and type of asbestos deposited. As noted during the meeting, over the last several years the site has received approximately 350 truckloads of asbestos annually for a total of nearly 1000 bags, and the proponent has proposed to double this capacity.

The NCNS looks forward to reviewing Environmental Assessment document which was noted to be submitted to Nova Scotia Environment by March 2017.

NCNS Response to Arlington Heights Asbestos Disposal Site Jan 25, 2017

Page 1

The Native Council of Nova Scotia Community of Off-reserve Status and Non-Status Indian / Mi'Kmaq /Aboriginal Peoples supports projects, works, activities and undertakings which do not significantly alter, destroy, impact or affect the sustainable natural life ecosystems, or natural eco-scapes. That is hills, mountains, wetlands, meadows, woodlands, shores, beaches, coasts, brooks, streams, rivers, lakes, bays, inland waters, and the near shore, mid-shore and off-shore waters with their multitude of *in-situ* biodiversity, and the natural life within those ecosystems and eco-scapes. Our NCNS Community has continued access and use for the equitable sharing of benefits arising therefrom. Works, activities, projects, and undertakings must serve a beneficial purpose towards progress in general and demonstrate the sustainable use of the natural wealth of Mother Earth, through the rule of law and respect for the Constitutional Treaty Rights, Aboriginal Rights, and Other Rights of the Native Council of Nova Scotia Community continuing throughout our Traditional Ancestral Homeland in that part now known as the Province of Nova Scotia.

Feel free to contact me toll free at 1 855-858-7240, or long distance at 902-895-2982, or email at jseward@mapcorg.ca, or fax at 902-895-3844.

Progress through consultation, accommodation
and participatory involvement and partnerships
<Original signed by>

Jessica Seward
MERDS

JS:jh

Cc: Grace Conrad, Chief and President, NCNS
Roger Hunka, Director, MAPC
Joshua McNeely, Executive Director, IKANAWTIKET
Tim Martin, Commissioner, Netukulimkewe'l Commission
Justin Martin, Prefect, Netukulimkewe'l Commission
Mike Parker, President/Senior Biologist, East Coast Aquatics

Appendix 5. Public Notice of Project

NOTICE

Registration of Undertaking for
Environmental Assessment
ENVIRONMENT ACT

This is to advise that Arlington Heights C&D Limited registered an Asbestos Waste Disposal Facility for environmental assessment, in accordance with Part IV of the Environment Act.

The purpose of this proposed Undertaking is for the continued operation of the existing asbestos disposal facility at 1481 Arlington Road West, Annapolis County. The project is scheduled to begin on May 1, 2017.

Copies of the environmental assessment registration information may be examined at the following locations:

- Location 1, Bridgetown, NS
- Location 2, Bridgetown, NS
- Nova Scotia Environment, 136 Exhibition Street, Kentville NS
- Nova Scotia Environment Library, 1903 Barrington Street, Suite 2085, Halifax NS
- EA website: <http://www.gov.ns.ca/nse/ea>

The public is invited to submit written comments to:

Environmental Assessment Branch

Nova Scotia Environment

P.O. Box 442, Halifax, Nova Scotia B3J 2P8

On or before (DATE, 2017) or contact the Department at (902) 424-3960, fax (902) 424-6925, or e-mail at EA@gov.ns.ca.