

Figure 2. Fall photo of wetland near the north boundary line (20T 0476764 5047554).



Figure 3. The same wetland as above (20T 0476764 5047554). Photo taken in late Spring.

A second pond and its associated wetland (marsh) (Figs. 4 & 5), also occurring north of the quarry pit (20T 0476700 5047474), is southwest of the previous wetland and closer to the quarry than the previous wetland. This is a smaller wetland than the previous. Vascular plant species observed along the shoreline and/or within the pond include Blue Joint Reed Grass (*Calamagrostis canadensis*), Red Maple (*Acer rubrum*), Royal Fern (*Osmunda regalis*), Sensitive Fern (*Onoclea sensibilis*), Canada Manna Grass (*Glyceria canadensis*), Northern Water Horehound (*Lycopus uniflorus*), New York Fern (*Amauropelta noveboracensis*), Mad-dog Skullcap (*Scutellaria lateriflora*) and Rough-Stemmed Goldenrod (*Solidago rugosa*).

Additional species observed within this habitat during the Spring survey include Fringed Sedge (*Carex crinita*), Northern Long Sedge (*Carex folliculata*), Old Field Cinquefoil (*Potentilla simplex* var. *calvescens*), Black Sedge (*Carex arctata*), Fringed Black Knotweed (*Falopia cilinodis*), Evergreen Wood Fern (*Dryopteris intermedia*), Mountain Wood Fern (*Dryopteris camplyoptera*) and Harlequin Blue Flag (*Iris versicolor*).



Figure 4. Wetland (20T 0476700 5047474) southwest of the previous wetland (Fall survey).



Figure 5. The same wetland as in Fig. 4. Photo taken in the Spring.

The third pond surveyed (Figs. 6 & 7), is located near the southeast corner of the quarry pit (20T 0476885 5047318). Vascular plant species observed here include Northern Water Horehound (*Lycopus uniflorus*), Swamp Yellow Loosestrife (*Lysimachia terrestris*), Woolly Bulrush (*Scirpus cyperinus*), Canada Manna Grass (*Glyceria canadensis*), American Water Horehound (*Lycopus americanus*), Mad-dog Skullcap (*Scutellaria lateriflora*), White Meadowsweet (*Spiraea alba* var. *latifolia*), White Turtlehead (*Chelone glabra*) and Fowl Blue Grass (*Poa palustris*).

Additional species observed here during the Fall survey include Fringed Sedge (*Carex crinita*), Northern Long Sedge (*Carex folliculata*), White Meadowsweet (*Spiraea alba var. latifolia*), Harlequin Blue Flag (*Iris versicolor*), Sensitive Fern (*Onoclea sensibilis*), Rough Goldenrod (*Solidago rugosa*) and New York Fern (*Parathelypteris noveboracensis*).



Figure 6. Wetland 3, located adjacent to the southeast corner of the quarry pit (20T 0476885 5047318). Photo taken in the Fall.



Figure 7. Wetland 3. Photo taken in the Spring.

The fourth wetland (Fig. 8 & 9) surveyed is the smallest of the wetlands present within the survey area. This pond occurs east of the quarry pit and south of the entrance road to the quarry (20T 0476958 5047374). It is somewhat choked with aquatic vegetation. Tree species around the pond edges include Balsam Fir (*Abies balsamea*), Red Maple (*Acer rubrum*) and Paper Birch (*Betula papyrifera*). The dominant herbaceous species within the pond is Bitter Dock (*Rumex obtusifolius*), a non-native vascular plant. Other wetland species present include Bluejoint Reed Grass (*Calamagrostis canadensis*), Sensitive Fern (*Onoclea sensibilis*), Creeping Buttercup (*Ranunculus repens*), Rough Goldenrod (*Solidago rugosa*), Swamp Yellow Loosestrife (*Lysimachia terrestris*), Common Water Parsnip (*Sium sauve*) and Fowl Manna Grass (*Glyceria striata*).

Additional species observed here during the Fall survey include Tall Meadow-rue (*Thalictrum pubescens*), Swamp Gooseberry (*Ribes hirtellum*), Awl-fruited Sedge (*Carex stipata*), Rough Bedstraw (*Galium asprellum*), Common Marsh bedstraw (*Galium palustre*) and brownish Sedge (*Carex brunnescens*).



Figure 8. Small wetland (pond and marsh) situated east of the quarry pit and south of the entrance road to the quarry (20T 0476958 5047374). The dominant herbaceous plant in the pond (and in photo) is Bitter Dock (*Rumex obtusifolius*). Photo taken in the Fall.



Figure 9. Another section of the same wetland shown in Figure 8. Photo taken in the Spring

<u>Species of Conservation Concern in Wetlands:</u> There were no species of conservation concern observed within any of these wetland habitats during these surveys *with the following exceptions*: Rosy Sedge (*Carex rosea*) was observed in Wetland 3 and Blunt Broom Sedge (*Carex tribuloides*) was observed in Wetland 4. Both observations were made during the Fall survey. Both species are listed as an S3/vulnerable /yellow species (Nova Scotia General Status Ranks and S3/vulnerable (Atlantic Conservation Data Centre).

Woodlands

<u>Woodland Types:</u> Woodlands present within the survey area consist of mixed stands (Fig. 10), occasional, small, primarily coniferous stands (Fig. 11) and a deciduous stand (Fig. 12).

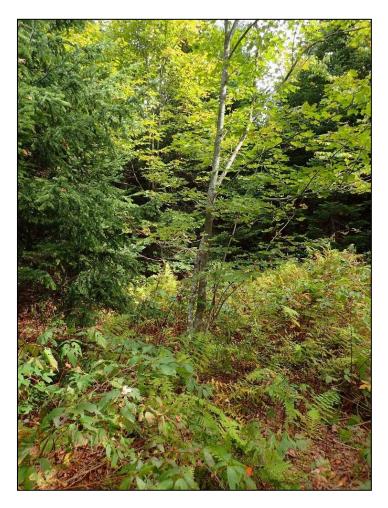


Figure 10. Open, mixed woodland, north of the quarry pit (20T 0476809, 5047577).

Mixed Woodland

Vascular plant species observed within mixed woodland occurring north of the quarry pit (20T 0476809, 5047577) (Fig. 10) include Red and Sugar Maple (*Acer rubrum*, *A. saccharum*), White and Yellow Birch (*Betula papyrifera*, *B. alleghaniensis*), Red Spruce (*Picea rubens*), Balsam Fir (*Abies balsamea*), Beaked Hazelnut (*Corylus cornuta*), Alternate-leaved Dogwood (*Cornus alternifolia*), Red Elderberry (*Sambucus racemosa*), Eastern Hay-scented Fern (*Dennstaedtia punctilobula*), Black Sedge (*Carex arctata*), Hairy Flat-topped White Aster (*Doellingeria umbellata*) and Rough Goldenrod (*Solidago rugosa*).

Additional vascular plant species observed in mixed woods immediately west of the quarry pit (20T 0476686 5047423) include Whorled Wood Aster (*Oclemena acuminata*), Calico Aster (*Symphyotrichum lateriflorum*), Bunchberry (*Cornus canadensis*), Yellow Bluebead Lily (*Clintonia borealis*), Dwarf Red Raspberry (*Rubus pubescens*), Tall Meadow-rue (*Thalictrum pubescens*), Wild Sarsaparilla (*Aralia nudicaulis*), Lady Fern (*Athyrium filixfemina*), Zigzag Goldenrod (*Solidago flexicaulis*), Canada Fly Honeysuckle (*Lonicera canadensis*), Northern Beech Fern (*Phegopteris connectilis*), Intermediate Wood Fern (*Dryopteris intermedia*), European Mountain Ash (*Sorbus aucuparia*), etc.

Additional species observed in these areas during the Spring survey include Beech (*Fagus grandifolia*), Wild lily-of-the-valley (*Maianthemum canadense*), Common Winterberry (*Ilex verticillata*), Bluebead Lily (*Clintonia borealis*) and Flat-top White Aster (*Doellingeria umbellata*).



Figure 11. Coniferous stand north of the quarry pit (20T 0476779 5047563).

Coniferous Woodland

Vascular plant species observed in both Spring and Fall surveys within small coniferous stands (Fig. 10) north of the quarry pit (20T 0476779 5047563), include Balsam Fir (*Abies balsamea*), Red Spruce (*Picea rubens*), Red Maple (*Acer rubrum*), Bunchberry (*Cornus canadensis*) and Evergreen Woodfern (*Dryopteris intermedia*).



Figure 12. Deciduous woodland located immediately south of the quarry pit.

Deciduous Woodland

The relatively undisturbed woodland (Figure 12) occurring immediately south of the quarry pit is primarily deciduous (20T 0476818 5047291). Tree species present include Sugar Maple (*Acer saccharum*), Red Maple (*Acer rubrum*), Mountain Maple (*Acer spicatum*), White Birch (*Betula papyrifera*) and Yellow Birch (*Betula alleghaniensis*). Shrubs occurring here include Hazelnut (*Corylus cornuta*), Alternate-leaved Dogwood (*Cornus alternifolia*), Red Raspberry (*Rubus idaeus ssp. strigosus*) and Canada Fly Honeysuckle (*Lonicera canadensis*), Herbaceous species present include Meadow-rue (*Thalictrum pubescens*), Rough Goldenrod (*Solidago rugosa*), Zigzag Goldenrod (*Solidago flexicaulis*), Fowl Manna Grass (*Glyceria striata*), Wild Sarsaparilla (*Aralia nudicaulis*), Lady Fern (*Athyrium filix-femina*), Bunchberry (*Cornus canadensis*), Beech Fern (*Phegopteris connectilis*) and Rose Twisted Stalk (*Streptopus lanceolatus*). Additional species observed in this habitat during the Spring survey include Trout Lily (*Erythronium americanum*), Brownish Sedge (*Carex brunnescens*) and Fringed Sedge (*Carex crinita*).

<u>Species of conservation concern in Woodland Habitats:</u> There were no species of conservation concern observed within any of these woodland habitats during this survey.

Quarry Pit

A very limited survey was conducted within the quarry pit (Figure 13). This a highly disturbed area and many of the vascular plant species present are non-native. Plant species observed here include Sticky Ragwort (Senecio viscosus), Pearly Everlasting (Anaphalis margaritacea), Poverty Oat Grass (Danthonia spicata), Common Speedwell (Veronica officinalis), White Clover (Trifolium repens), Rabbit's-foot Clover (Trifolium arvense), Colt's Foot (Tussilago farfara), Tall White Aster (Doellingeria umbellata), Red Elderberry (Sambucus racemosa), a morning glory (Calystegia sp.), Wild Raspberry (Rubus idaeus ssp. strigosus). Additional species observed during the Spring survey included Ox-Eye Daisy (Leucanthemum vulgare) and Common St. John's-Wort (Hypericum perforatum).

There were no species of conservation concern observed within the quarry pit during these surveys.



Figure 13. The north edge of the quarry pit.

Discussion

No species listed under either federal species-at-risk legislation or provincial species-at-risk legislation were observed on the quarry property during these surveys.

All vascular plant species observed and recorded during these surveys fall into the Nova Scotia general status rank categories of **YELLOW**, **LIGHT GREEN**, **GREEN** and **EXOTIC** with YELLOW indicating a plant that is vulnerable, LIGHT GREEN indicating a species that is at a fairly low risk of extirpation within the province, GREEN indicating a plant with a secure conservation status within the province and EXOTIC meaning a species that is non-native to Nova Scotia.

The Atlantic Canada Conservation Data Centre subnational status ranks all fall into the categories of S3, S4, S4S5, S5 or SNA, also indicating that nearly all species documented on this site during this survey, are not of conservation concern (S3 = Vulnerable - vulnerable in the province due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation, S4 = Apparently Secure - uncommon but not rare; some cause for long-term concern due to declines or other factors; S5 = Secure - common, widespread, and abundant in the province; SNA = Not Applicable - a conservation status rank is not applicable because the species is not a suitable target for conservation activities as for example, non-native (exotic) species.

Species listed in the APPENDIX not identified to species are not expected to be of conservation concern.

APPENDIX

List of all vascular plant species observed on the East Annan Quarry property during surveys conducted on October 3rd, 2023, and June 19th, 2024, including the habitats in which they were found and their status ranks. Both the Nova Scotia General Status Rank*and the Atlantic Canada Conservation Data Centre Subnational S-rank** are provided for each species. Habitats surveyed include mixed woodland (MW), coniferous woodland (CW), deciduous woodland (DW), ponds and associated wetlands (W) and disturbed areas i.e. the quarry pit (Q). (*Species marked with a double asterisk ** in the first column are additional species documented in the Spring survey.*)

Latin Name	Common Name	Nova Scotia General Status Rank*	ACCDC Subnational Status Rank**	Habitat(s)
Abies balsamea	Balsam Fir	S5/secure (green)	S5/secure	CW, DW, MW
Acer rubrum	Red Maple	S5/secure (green)	S5/secure	DW, MW, W
Acer saccharum	Sugar Maple	S5/secure (green)	S5/secure	DW, MW, W
Acer spicatum	Mountain Maple	S5/secure (green)	S5/secure	DW
Agrostis scabra	Rough Bent Grass	S5/secure (green)	S5/secure	Q, W
Alnus incana ssp. rugosa	Speckled Alder	S5/secure (green)	S5/secure	W
Amelanchier sp.**	a serviceberry	-	-	MW, W
Anaphalis margaritacea	Pearly Everlasting	S5/secure (green)	S5/secure	Q
Aralia nudicaulis	Wild Sarsaparilla	S5/secure (green)	S5/secure	DW, MW
Arisaema triphyllum**	Jack-in-the-Pulpit	S5/secure (green)	S5/secure	W
Athyrium filixfemina	Lady Fern	S5/secure (green)	S5/secure	DW
Betula alleghaniensis	Yellow Birch	S5/secure (green)	S5/secure	DW, MW
Betula papyrifera**	White Birch	S5/secure (green)	S5/secure	DW, MW, W
Bidens sp.	a beggarticks	-	-	W
Brachyelytrum aristosum	Northern Shorthusk	S5/secure (green)	S5/secure	DW
Calamagrostis canadensis	Bluejoint Reed Grass	S5/secure (green)	S5/secure	W
Calystegia sp.	a bindweed	non-native/exotic	exotic	Q
Carex arctata**	Black Sedge	S5/secure (green)	S5/secure	DW, MW
Carex brunnescens**	Brownish Sedge	S5/secure (green)	S5/secure	DW, W
Carex crinita**	Fringed Sedge	S5/secure (green)	S5/secure	W
Carex debilis var. rudgei**	White-edged Sedge	S5/secure (green)	S5/secure	DW

Latin Name	Common Name	Nova Scotia General Status Rank*	ACCDC Subnational Status Rank**	Habitat(s)
Carex folliculata**	Northern Long Sedge	S5/secure (green)	S5/secure	DW, W
Carex intumescens	Bladder Sedge	S5/secure (green)	S5/secure	DW
Carex gracillima**	Graceful Sedge	S5/secure (green)	S5/secure	
Carex lurida	Sallow Sedge	S5/secure (green)	S5/secure	W
Carex novaeangliae**	New England Sedge	S5/secure (green)	S5/secure	DW
Carex rosea**	Rosy Sedge	S3/vulnerable (yellow)	S3/vulnerable	W
Carex stipata**	Awl-fruited Sedge	S5/secure (green)	S5/secure	W
Carex vesicaria**	Inflated Sedge	S3/apparently secure	S4/apparently secure	W
Circaea alpina	Small Enchanter's Nightshade	S5/secure (green)	S5/secure	MW
Carex tribuloides**	Blunt Broom Sedge	S3/vulnerable (yellow)	S3/vulnerable	W
Claytosmunda claytoniana**	Interrupted Fern	S5/secure (green)	S3/secure	DW, MW
Clintonia borealis	Yellow Bluebead Lily	S5/secure (green)	S5/secure	MW
Cornus alternifolia	Alternate leaved Dogwood	S5/secure (green)	S5/secure	DW, MW
Cornus canadensis	Bunchberry	S5/secure (green)	S5/secure	CW, DW, MW
Corylus cornuta	Beaked Hazelnut	S5/secure (green)	S5/secure	DW, MW, W
Cypripedium acaule	Pink Lady's Slipper	S5/secure (green)	S5/secure	MW
Dennstaedtia punctilobula	Hay-scented Fern	S5/secure (green)	S5/secure	MW
Doellingeria umbellata**	Tall White Aster	S5/secure (green)	S5/secure	MW, Q, W
Dryopteris carthusiana**	Spinulose Wood Fern	S5/secure (green)	S5/secure	MW, W
Dryopteris cristata	Crested Wood Fern	S5/secure (green)	S5/secure	MW, W
Dryopteris intermedia**	Intermediate Wood Fern	S5/secure (green)	S5/secure	CW, DW, MW, W
Dulichium arundinaceum	Three-way Sedge	S5/secure (green)	S5/secure	W
Erythronium americanum**	Yellow Trout Lily	S4S5 (light green to green)	S4S5(apparently secure to secure)	DW

Latin Name	Common Name	Nova Scotia General Status Rank*	ACCDC Subnational Status Rank**	Habitat(s)
Euthamia graminfolia	Grass-leaved Goldenrod	S5/secure (green)	S5/secure	W
Fallopia cilinodis**	Fringed Black Bindweed	S5/secure (green)	S5/secure	W
Fragaria virginiana	Wild Strawberry	S5/secure (green)	S5/secure	W
Frangula alnus**	Glossy Buckthorn	non-native/exotic	exotic	W
Galium asprellum**	Rough Bedstraw	S5/secure (green)	S5/secure	W
Galium palustre**	Marsh Bedstraw	S5/secure (green)	S5/secure	\mathbf{W}
Geum macrophyllum**	Large-leaved Avens	S5/secure (green)	S5/secure	W
Glyceria canadensis	Canada Manna Grass	S5/secure (green)	S5/secure	W
Glyceria striata	Fowl Manna Grass	S5/secure (green)	S5/secure	DW
Hamamelis virginiana	American Witch- hazel	S5/secure (green)	S5/secure	MW
Hypericum fraseri	Fraser's St. John's-Wort	S5/secure (green)	S5/secure	W
Hypericum perforatum**	St. John's-Wort	non-native/exotic	exotic	Q
Hypericum virginicum	Virginia St. John's-Wort	S5/secure (green)	S5/secure	W
Ilex mucronata	Mountain Holly	S5/secure (green)	S5/secure	W
Ilex verticillata	Common Winterberry	S5/secure (green)	S5/secure	W
Impatiens sp.**	a jewellweed	-	-	S, W
Iris versicolor**	Harlequin Blueflag	S5/secure (green)	S5/secure	W
Kalmia angustifolia	Sheep Laurel	S5/secure (green)	S5/secure	MW
Leucanthmum vulgare**	Ox-eye Daisy	non-native/exotic	exotic	Q
Lonicera canadensis	Canada Fly Honeysuckle	S5/secure (green)	S5/secure	DW
Lycopus americanus	American Water Horehound	S5/secure (green)	S5/secure	W
Lycopus uniflorus	Northern Water Horehound	S5/secure (green)	S5/secure	W

Latin Name	Common Name	Nova Scotia	ACCDC	Habitat(s)
		General Status	Subnational	
		Rank*	Status Rank**	
Lysimachia	Swamp Yellow	S5/secure (green)	S5/secure	W
terrestris	Loosestrife	_		
Maianthemum	Wild Lily-of-the-	S5/secure (green)	S5/secure	DW, MW
canadense	Valley			
Monotropa uniflora	Convulsionroot	S5/secure (green)	S5/secure	MW
Oclemena acuminata	Whorled	S5/secure (green)	S5/secure	DW, MW
	Wood Aster			
Onoclea sensibilis	Sensitive Fern	S5/secure (green)	S5/secure	W
Osmunda regalis	Royal fern	S5/secure (green)	S5/secure	W
Osmundastrum	Cinnamon Fern	S5/secure (green)	S5/secure	W
cinnamomeum				
Parathelypteris	New York Fern	S5/secure (green)	S5/secure	DW, W
novaboracensis				
Phegopteris	Northern Beech	S5/secure (green)	S5/secure	DW
connectilis	Fern			
Picea mariana	Black Spruce	S5/secure (green)	S5/secure	В
Picea rubens	Red Spruce	S5/secure (green)	S5/secure	CW, MW
Pinus strobus	White Pine	S5/secure (green)	S5/secure	MW
Poa palustris	Fowl Blue Grass	S5/secure (green)	S5/secure	W
Poa saltuensis**	Weak Blue Grass	S5/secure (green)	S5/secure	DW
Polygonum cilinode	Black Bindweed			
Polystichum	Christmas Fern	S5/secure (green)	S5/secure	CO, MW
acrostichoides		_		
Populus tremuloides	Trembling Aspen	S5/secure (green)	S5/secure	СО
Potentilla simplex	Old Field	S5/secure (green)	S5/secure	W
var. calvescens	Cinquefoil			
Prunus	Pin Cherry	S5/secure (green)	S5/secure	MW, W
pensylvanica**				
Prunus serotina**	Blackcherry	S5/secure (green)	S5/secure	W
Prunus virginiana**	Chokecherry	S5/secure (green)	S5/secure	DW, W
Pteridium aquilinum	Bracken Fern	S5/secure (green)	S5/secure	MW
Quercus rubra	Northern Red Oak	S5/secure (green)	S5/secure	MW
Ranunculus abortivus	Kidneyleaved	S4S5/apparently	S4/S5/apparently	DW
	Buttercup	secure (light green)	secure	
Ranunculus repens	Creeping	non-native/exotic	exotic	W
	Buttercup			
Ribes hirtellum**	Smooth	S5/secure (green)	S5/secure	W
	Gooseberry			
Ribes lacustre**	Bristly Black	S5/secure (green)	S5/secure	DW
	Currant			

Latin Name	Common Name	Nova Scotia General Status Rank*	ACCDC Subnational Status Rank**	Habitat(s)
*Rubus idaeus ssp. strigosus	Wild Raspberry	S5/secure (green)	S5/secure	DW, Q, W
Rubus pubescens	Dwarf Red Raspberry	S5/secure (green)	S5/secure	DW, MW
Rubus sp.	a blackberry	-	-	MW, Q
Rumex crispus**	Curled Dock	non-native/exotic	exotic	W
Rumex obtusifolious	Bitter Dock	non-native/exotic	exotic	W
Salix bebbiana**	Bebb's Willow	S5/secure (green)	S5/secure	W
Salix spp.	willows	-	-	W
Sambucus racemosa	Red Elderberry	S5/secure (green)	S5/secure	MW, Q
Scirpus cyperinus	Common Woolly Bulrush	S5/secure (green)	S5/secure	W
Scutellaria galericulata**	Marsh Skullcap	S5/secure (green)	S5/secure	W
Scutellaria lateriflora	Mad-dog Skullcap	S5/secure (green)	S5/secure	W
Senecio viscosus	Sticky Ragwort	non-native/exotic	exotic	Q
Sium suave	Common Water Parsnip	S5/secure (green)	S5/secure	W
Solidago flexicaulis	Zigzag Goldenrod	S5/secure (green)	S5/secure	DW
Solidago rugosa	Rough Goldenrod	S5/secure (green)	S5/secure	DW, MW, Q, W
Sorbus aucuparia	European Mountain Ash	non-native/exotic	exotic	MW
Sparganium sp.	a burreed	-	-	W
Spinulum annotinum	Stiff Clubmoss	S5/secure (green)	S5/secure	MW
Spiraea alba var. latifolia	White meadowsweet	S5/secure (green)	S5/secure	W
Spiranthes cernua	Nodding Ladies' Tresses	S4?/apparently secure	S4?/apparently secure	Q
Streptopus lanceolatus	Rose Twisted Stalk	S5/secure (green)	S5/secure	DW
Symphyotrichum cordifolium	Heart-leaved Aster	S4S5/apparently secure (light green)	S4S5	MW
Symphyotrichum lateriflorum	Calico Aster	S5/secure (green)	S5/secure	MW, W
Symphyotrichum puniceum**	Purple Stemmed Aster	S5/secure (green)	S5/secure	W
Taraxacum officinale	Common Dandelion	non-native/exotic	exotic	Q

Latin Name	Common Name	Nova Scotia General Status Rank*	ACCDC Subnational Status Rank**	Habitat(s)
Thalictrum pubescens**	Tall Meadowrue	S5/secure (green)	S5/secure	DW, W
Thelypteris palustris**	Eastern Marsh Fern	S5/secure (green)	S5/secure	W
Trifolium repens	White Clover	non-native/exotic	exotic	Q
Trillium cernuum**	Nodding Trillium	S4/apparently secure (light green)	S4/apparently secure	DW
Tsuga canadensis	Eastern Hemlock	S4/apparently secure (light green)	S4/apparently secure	MW
Tussilago farfara**	Colt's-foot	non-native/exotic	exotic	Q
Vaccinium angustifolium	Late Lowbush Blueberry	S5/secure (green)	S5/secure	MW
Vaccinium myrtilloides	Velvet-leaved Blueberry	S5/secure (green)	S5/secure	MW
Veronica officinalis**	Common Speedwell	non-native/exotic	exotic	Q
Veronica scutellata**	Marsh Speedwell	S5/secure (green)	S5/secure	W
Viburnum. cassinoides**	Northern Wild Raisin	S5/secure (green)	S5/secure	W
Viburnum lantanoides	Hobblebush	S5/secure (green)	S4/apparently secure	MW
Viola sp.	a violet	-	-	W

^{*}The Nova Scotia general status ranks used in this report are based on the ranks used in the 2020 Wild Species of Canada Report (available at https://www.wildspecies.ca/); S5 = Secure/green (at very low or no risk of extirpation in the jurisdiction due to a very extensive range, abundant populations or occurrences, with little to no concern from declines or threats; S4 = Apparently secure/light green (at a fairly low risk of extirpation in the jurisdiction due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors; S3 = Vulnerable/yellow (at moderate risk of extirpation in the jurisdiction due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors; S2 = Imperilled/orange (at high risk of extirpation in the jurisdiction due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors); NA = not applicable (nonnative/exotic).

^{**}ACCDC: Atlantic Canada Conservation Data Centre explanation of status ranks used in this report (http://accdc.com/en/rank-definitions.html): S5 = Secure (common, widespread, and abundant in the province); S4 = Apparently Secure (uncommon but not rare; some cause for long-term concern due to declines or other factors); S3 = Vulnerable (Vulnerable in the province due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making

it vulnerable to extirpation.); **S2 = Imperiled** (imperiled in the province because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or state/province. **SNA = Not Applicable** - a conservation status rank is not applicable because the species is not a suitable target for conservation activities, e.g., a non-native species.

APPENDIX C MAMMAL AND WILDLIFE SURVEY



A GENERAL WILDLIFE ASSESSMENT FOR DEXTER CONSTRUCTION'S NEW ANNAN QUARRY, COLCHESTER COUNTY, NS

