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

## 1.0 Introduction and Background

Edgewood Environmental Services (EES) was subcontracted by Envirosphere Consultants Ltd. to complete a general wildlife assessment to support regulatory submissions for the expansion of an aggregate pit on the Old Truro Road, near New Annan, Colchester County, Nova Scotia, UTM coordinates 20T 476717 E 5047455 N (Figure 1). The quarry is owned and operated by Dexter Construction Ltd.

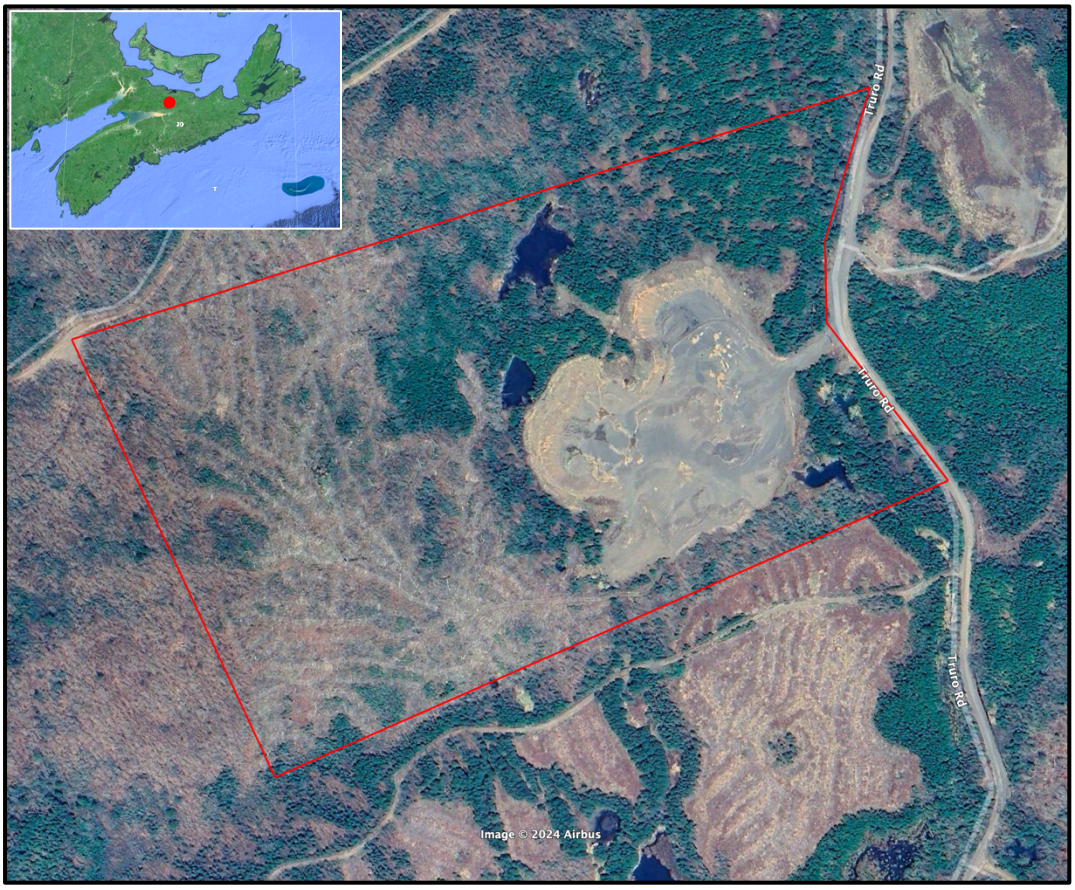


Figure 1. Google Earth image (18 May 2023) of the study area (outlined in red) for the proposed New Annan quarry expansion.

In Nova Scotia, developers of pits and quarries are required to submit an environmental assessment for developments that exceed 4 ha in size. Included within the formal environmental registration document is information on Valued Environmental Components (VECs) and potential mitigation options. One specific VEC addressed here is non-avian "wildlife",

which for the purposes of this report refers to mammals and herpetofauna. Other faunal groups are addressed separately.

Various legislation in Nova Scotia protects wildlife, and biodiversity in general. The Nova Scotia Wildlife Act (1989), Species at Risk Act (1998), and Biodiversity Act (2021) protect species and habitats within the province from adverse impacts. The results of this survey will be used (in part) to address possible mitigation strategies for wildlife in general that may arise as a result of the quarry development, and specifically for any species at risk or species of conservation concern.

Potential impacts on all biodiversity are noteworthy; however, potential impacts on "species at risk" (SAR) or "species of conservation concern" (SCC) take priority because of their conservation status and potential vulnerability to human activities. In Nova Scotia, the responsibility for conservation of SAR/SCC is jointly shared by the Nova Scotia Department of Natural Resources and Renewables (NSNRR) under the provincial Endangered Species Act (NSESA), and by Environment and Climate Change Canada (ECCC) under the federal Species at Risk Act (SARA). Both jurisdictions maintain a listing of species prioritized by level of threat. The conservation status for a species is informed in part by population data supplied by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), the Atlantic Canada Conservation Data Center (ACCDC), and the General Status of Wild Species in Canada.

ACCDC records (Data Report 7961) for the area surrounding the New Annan quarry property indicate that the only known mammalian, or herpetofauna species at risk or conservation concern within a 5 km radius is the provincially endangered Mainland moose (*Alces alces*). There are two separate records of moose 4.6 km from the quarry site. ACCDC records further show that the closest records for any of the three nationally endangered bat species, little brown myotis (*Myotis lucifugus*), northern myotis (*Myotis septentrionalis*), and tricolored (*Perimyotis subflavus*) are 17.3 km from the survey site. Similarly, ACCDC records also indicate that three freshwater turtle species of conservation concern (wood turtle, *Glyptemys insculpta*; snapping turtle, *Chelydra serpentina,* and eastern painted turtle, *Chrysemys picta picta* have been recorded between 10.0, 18.6, and 44.4 km respectively from this site.

## 2.0. Study Area and Methodology

### 2.1 Study Area Description

The New Annan quarry property is approximately 24 ha in size, and located 3.2 km south of East New Annan, Colchester County, Nova Scotia, at a location locally known as Silica Mountain. Elevation ranges from 250 – 280 m above sea level. The quarry is easily accessible from the Old Truro Road. The survey area includes a mixture of recent cutover lands, patches of mature mixed-wood, and immature softwood, and three ponds (Figures 3A - N). The majority of the survey area has previously been harvested in 2022 (Google Earth). There is one watercourse that flows north from a drainage along a portion of the south-eastern boundary, and a small

pond, along the Old Truro Road. There are three ponds on the property, of which the two largest do not have defined inflow or outflow (Figures 3A, I, K).

### 2.2 Survey Methodology

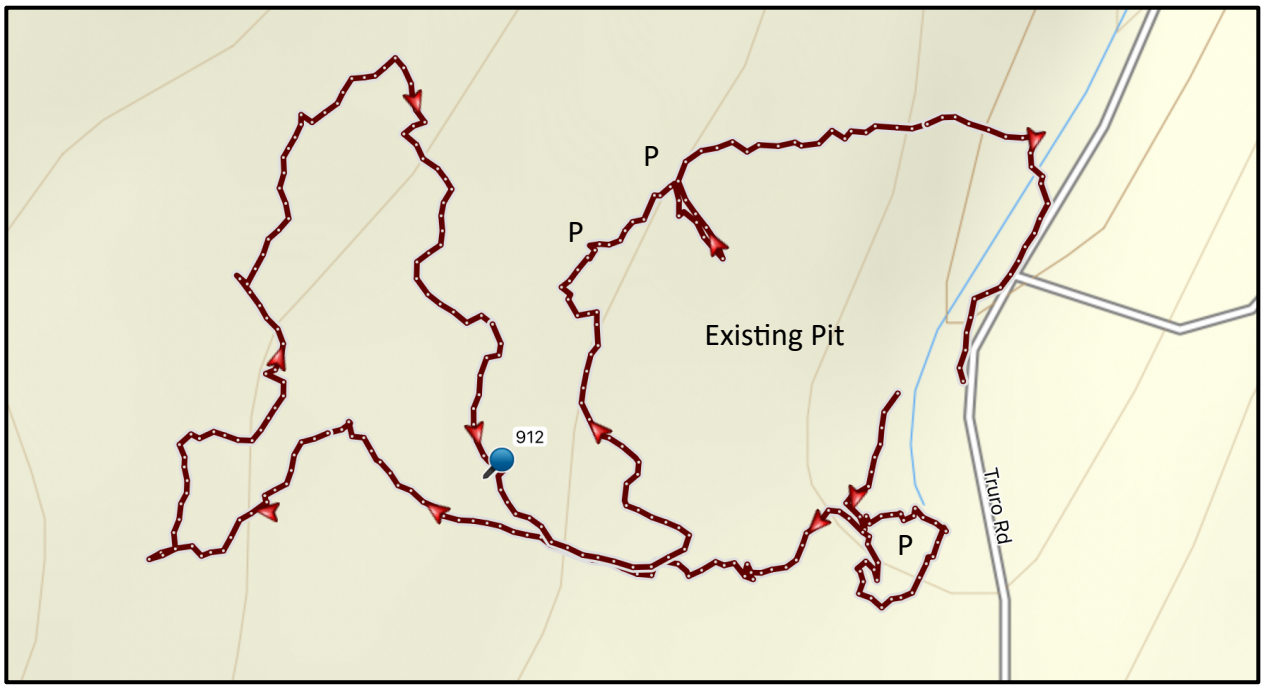


Figure 2. Approximate 4200 m walkover survey route completed on 22 May 2024. Pond locations are designated with a "P" to help orient the Garmin track route with the Google Earth image in Figure 1. Pin 912 was a locational marker and has no other significance.

A walkover survey for mammals and herpetofauna was conducted throughout, or adjacent to the survey area identified in red in Figure 1 prior to full leaf-out (Figure 2). The survey was conducted on-foot by a single observer and was designed to intersect major habitats or forest stand types within the designated study area, or follow existing trails within or adjacent to the study area (Figure 2). Because this was a reconnaissance survey, effort was not standardized. Observations within forest habitats were made along indeterminant survey routes. Evidence of species occurrence was confirmed by visual observation of individuals, skeletal parts, or egg masses; or indirect evidence, such as auditory calls, scat, tracks, dens, and foraging behaviours (grubbing, rock and log rolling, browse, seed middens). GPS waypoints for points of interest were recorded using a Garmin Oregon 750t® GPS, and all photos were recorded with an Apple iPhone 15®.

### 3.0. Results and Discussion

The general wildlife survey was completed on 22 May 2024 between 0930 hrs and 1230 hrs. Environmental conditions during the survey were overcast skies, winds < 10 km/hr from the east, and temperature was consistently around 18°C. The walkover survey distance was approximately 4200 m in length and traversed all habitat types present within the survey area (Figures 1, 2, 3).

### 3.1 General Habitat

The following series of photos illustrate the variety of habitat types located within or immediately adjacent to the survey area outlined in red in Figure 1. Figure 4 shows locations where images were taken.

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