

Report To: LVM Maritime Testing Limited Maritime Testing

For: Proposed Asbestos Disposal Site on PID 008774651 Near New Glasgow, Nova Scotia

On: Habitats and Vertebrate Wildlife

November 1, 2012

John Wile, Consulting Wildlife Biologist

239 Pumping Station Road, Amherst N.S. B4H 3Y3

Phone: 902 667 4268

e-mail: wile2@eastlink.ca

Introduction

The consultant was asked to conduct an assessment of habitats and vertebrate wildlife found on a property containing a proposed Asbestos Disposal Site located just to the east of the town of New Glasgow Nova Scotia. Existing data bases including: Atlantic Canada Conservation Data Centre (ACDC) and The Maritime Breeding Bird Atlas (MBBA) were consulted. A site visit was made on October 30, 2012 to assess representative habitats and to associate the habitats with vertebrate wildlife species that might potentially use them. The results of the site visit and data review are included in this report as well as comments on the relative importance of the property's habitat value to vertebrate wildlife.

General Description of the Property and Surrounding Landscapes

The property is situated within the 52,856 ha Natural Landscape 42: Pictou River Hills, characterized by low rolling hills, mixed Acadian forest types and large river systems that drain into the Northumberland Strait. (NS Department of Environment Natural Landscapes Report). The actual proposed asbestos disposal site is a 1 ha section of the 60 ha property identified as PID 00874651, which is cut over woodland dominated by regenerating Gray Birch (*Betula populifolia*) and large areas of land cleared completely of trees and roots. Adjacent to this property to the west is an existing landfill disposal area and to the north is the Trans Canada Highway # 104. So this is a very busy industrial area that has been greatly disturbed by human infrastructure and activity. No significant or managed areas exist within a 5 km radius of the study site.

PID 00874651 is situated on gently sloped land and while two drainage systems (Shale Brook and McLellans Brook) skirt the property, no streams or wetlands appear to be located on the property near the Proposed Asbestos Disposal site. Some very small patches of sedge a few metres square are present indicating poor drainage or a high water table in these small areas. Given the recent forest cutting and land clearing activity on the property and its proximity to industrial activity, wildlife habitats are far from pristine and natural.

Review of the ACCDC information:

The Atlantic Canada Conservation Data Centre's 100 km radius search of the wetland revealed 4934 records of 104 vertebrate species. The search of ACCDC data base targeted the less common species either with COSEWIC or Provincial listing or with a provincial "S" rank of 3 or less and so does not include many of the more common vertebrate species that could be present on the property. The 100 km search included many natural landscapes dissimilar to this including marine and coastal habitats associated with the Atlantic Ocean, the Upper Bay of Fundy and remote inland forested wilderness areas. 33 vertebrate species have various levels of COSEWIC status rankings: Endangered 6, Threatened 11, Species of Concern 7, Data Deficient 1 (Eastern Cougar), Not at Risk 8. Six species are ranked Provincially as Endangered, one as Threatened and one as Vulnerable. 12 vertebrate species have a provincial rarity rank of S1. COSEWIC listings deal with the national status of species and can often differ from the status applied at the provincial level.

The following is a discussion by major vertebrate groups and comments on the likely hood of their presence on the property based on habitat suitability.

Birds: The majority (88) of the 104 vertebrate species listed in the search are birds. Of these, 22 species have COSEWIC listing status: Endangered - 4, Not AT RISK - 6, SPECIES OF CONCERN - 5, and THREATENED - 7. Of the 22 COSEWIC listed bird species, 5 are Provincially endangered and 4 ranked as S1. The remaining birds with no COSEWIC listings are listed Provincially with various S2-S3 rankings.

A lack of wetlands on the property precludes their being wetland dependent birds present. This eliminates the waterfowl, water birds and shorebirds listed in the ACCDC review. Only those bird species that prefer young regenerating forests and disturbed areas would be found here during breeding season, although some bird species of concern may be seen here by chance during migration. The following is a discussion of the species that could potentially be present in or near the property based on habitat preference and the fact that they have been seen nearby occasionally in the past, as per the ACCDC records. Further information on the species gathered from the Maritime Breeding Bird Atlas was used to help determine the likely hood of the species using the property as breeding habitat.

The *Olive-sided Flycatcher* (COSEWIC "T") has been observed 170 times within 5km of the site. The Maritimes Breeding Bird Atlas data summary for square 20NR34 which contains this property indicates 38 observations of this species during the first breeding bird survey, but none in the recently completed second set of surveys. While generally preferring more remote woodlands, they are sometimes heard singing on the edge of clear cut forests during breeding season and so can not be ruled out as potentially being present here in the spring. *Northern Goshawk* has received 38 observations recorded in the ACCDC as close as 4 km. This is a forest dwelling / nesting raptor and could be seen in the area, however no breeding records exist in the Maritime Breeding Bird Atlas for the 20NR34 survey square. Other non COSEWIC listed and provincially rare (S1-S3) forest bird species found in the ACCDC area search that may view this property as being a part of a larger forested landscape and therefore could be seasonally present are: *Scarlet Tanager*, *Eastern Phoebe*, *Brown Thrasher*, *Willow* and *Great Crested Flycatchers*. While some of these species tolerate being near human activity and were reported as being seen fairly close to the subject property, none were recorded within the survey square during the second Maritime Breeding Bird Atlas survey. Birds such as *Barn Swallow*, *Common Nighthawk* and *Chimney Swift* are recent additions to the species of concern list as their numbers are in serious decline, but have been observed many times close to the property. The Swallows and Nighthawks could quite likely be seen foraging for insects in air space above the property. The Common Nighthawk does prefer larger open areas with low growing vegetation such as recent clear cuts, abandoned fields or blueberry fields for nesting, so they would most likely not use this property for nesting purposes. Barn Swallows would more likely be present if there were a suitable nesting site nearby such as a barn. The *Gray Jay* and *Eastern Kingbird* were observed in the survey square during the first Maritime Breeding Birds Atlas, but not in the second. These species, once much more common in the region, could by chance be seen on the property. *Gray Catbird* (S3B) has been a confirmed breeder in square 20NR34 and could be found in or near the property, but prefers forest swamps as nesting habitat.

Mammals: 8 mammal species are identified in the data search: *Moose, Long-tailed Shrew, Hoary Bat, Eastern Pipistrelle, Little Brown Bat, Northern Long Eared Bat, Eastern Cougar and Harbour Porpoise*. Moose were observed 22 times as close as 15 kms away. They are of a remnant population of mainland moose found mainly in the remotest parts of the Cobequid Hills and would not likely be found using the subject property, given its fragmented and urban surroundings. Most records of the bats and shrews are few and come from a great distance from this site and would not be dependent on this property habitat for survival. *The Little Brown Bat* is a new addition to the species of concern lists because of a recent fungal infection that decimated the local populations. They are quite likely present in the area and could be seen foraging on insects, but would not be dependent on this property for roosting or breeding purposes.

Fish: 5 vertebrate fish species were listed in the ACCDC search - *American Eel, Atlantic Sturgeon, Stripped Bass, Atlantic Salmon inner Bay of Fundy population and Atlantic Salmon* are listed in the data search, but none would be present on this property.

Reptiles and Amphibians: 2 reptile/ amphibian species are listed: *The Four Toed Salamander* and the *Wood Turtle*. Of the 13 four toed salamander sightings, the closest is 52 kms away and based on habitat preference and occurrence would have a low probability of being found on this property. There have been 61 occurrences of *The Wood Turtle*, as close as 5 km or so of this area. They prefer large river floodplain habitats and are quite likely found in the nearby East River of Pictou floodplain habitats. They do sometimes move from larger watercourses in summer and follow smaller streams towards the headwaters and in so doing travel over land and can sometimes be found temporarily in unusual places. Given that this property does not contain a water course it would be unlikely to find Wood Turtles here.

Summary

PID 00874651 is a 60 ha cut over and highly disturbed forest property situated adjacent to an existing landfill area and busy highway just east of New Glasgow, Pictou County, N.S. . A proposed asbestos disposal site is planned to be placed on existing cut over and cleared forest. A site visit was made on October 30, 2012, not so much to actually identify species, but to determine the habitat features present both within the property and on the surrounding landscape. A review of the Atlantic Canada Conservation Data Centre's 100 km radius search of the site was used to help determine which species of concern, both provincially and federally, would have the possibility of being present on the site.

Given the location near an industrial area and busy highway and its high degree of disturbance due to recent clear cutting and clearing of the forest, the property would offer only limited habitat opportunities to wildlife. A lack of wetlands and a lack of connectivity to other large contiguous blocks of forest land also reduces the property's value to wildlife in its present state. Much of the surrounding landscape is either developed or otherwise fragmented by forestry and farming activities more or less isolating this property.

While a few common species of vertebrate wildlife were observed on October 30, 2012 including Black-capped Chickadee, American Crow, Snowshoe Hare (scat) and White-tailed Deer (tracks), the timing of the site visit was too late in the fall season to expect much more. The habitat would be very suitable for Ruffed Grouse and American Woodcock, although none were seen on this particular day. Some of the more common song bird species that would be expected to use this as breeding habitat during spring and summer include American Redstart, Yellow-rumped Warbler, Magnolia Warbler, Common Yellowthroat, and Yellow Warbler. Small mammals including Red Squirrel, Short-tailed Shrew, Red-backed Vole, Short-tailed Weasel could be present any time of the year, along with the Snowshoe Hare. Amphibians such as American Toad and Spring Peepers may use some of the small depressions created by heavy equipment as vernal breeding pools and the common snakes species could be present. No fish would be found on the property.

In terms of impact of converting this property to an asbestos disposal site, there would be direct impact in the loss of 1 ha of cut over regenerating forested habitat to the above mentioned species that are or likely could be present. With access roads etc. a slightly larger area may be converted. While a few of the species of concern that are mentioned above could potentially use this property as habitat, they could find similar habitat nearby. There does not seem to be any great landscape connectivity value to the property for wide ranging terrestrial species such as Moose, Lynx or Black Bear. Coyotes and Red Fox may use the property as a part of a larger home range.

Images taken on October 30, 2012



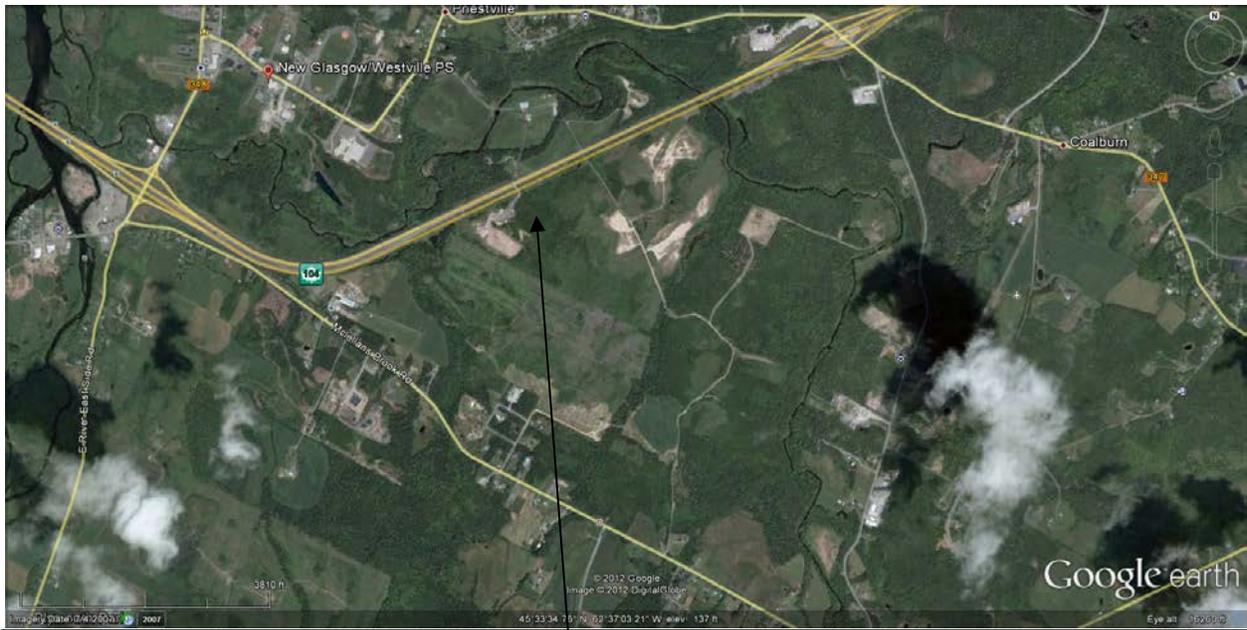
Young regenerating hardwood forest on Potential Asbestos Disposal Site



Looking west through proposed disposal site - cut over and disturbed forest habitats



South west corner of proposed disposal site near existing landfill area (subject area has trees)



Location of proposed Asbestos Disposal Site on PID 00874651