

Kempton COMFIT Wind Project: Environmental Assessment
Affinity Wind LP

Appendix E

Public Consultation Materials



August 25, 2011

Mr. Reuben Burge
President/General Manager
RMSEnergy Dalhousie Mountain Lp
796 Dan Fraser Road
Westville, NS
BOK 2A0

Dear Reuben:

This letter is to confirm the formation of a Nova Scotia SPCA committee tasked to investigate possible sustainable fund development solutions through wind energy initiatives within the province of Nova Scotia. Members of this committee include:

1. Reuben Burge, President/General Manager RMS Energy Dalhousie Mountain Lp
2. Charl du Plooy, Treasurer, Provincial Board of Directors, Nova Scotia SPCA
3. Kristin Williams, Executive Director, Nova Scotia SPCA

The terms of reference for this committee include:

- **Goals:** Identify opportunities for sustainable funding through wind energy initiatives in Nova Scotia.
- **Scope / Jurisdiction:** Identify and pursue such initiatives in a way that best represents the interests of the Society and respects its strategic imperatives, mission and mandate.
- **Restrictions:** The resulting enterprise must remain subordinate to the Society's charitable purpose.
- **Governance:** The committee is accountable to the Nova Scotia SPCA and is led by the Executive Director.

Reuben, you are specifically tasked with carrying out the exploratory and formation work necessary to see if such a project is possible and to ensure its shared benefit for all stakeholders. In this role, you will be representing the Nova Scotia SPCA and reporting to the committee.

Best regards,

A handwritten signature in black ink, appearing to read "K. Williams", with a long horizontal flourish extending to the right.

Kristin Williams
Executive Director
Nova Scotia SPCA
kwilliams@spcans.ca
www.spcans.ca
(902) 835-4798

CC: Charl du Plooy (Treasurer, Provincial Board of Directors, Nova Scotia SPCA), Andrea Carew (President, Provincial Board of Directors, Nova Scotia SPCA).

Nova Scotia Society for the Prevention of Cruelty (to Animals) Provincial Office

Provincial Office Mailing Address:

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P.O. Box 38073 STN Burnside
Dartmouth, NS B3B 1X2

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P.O Box 914
408 Industrial Ave.
Truro, N.S.
B2N 5G7



Phone: 893-7968

Reuben Burge
1383 Mount Tom
Salt Springs, NS
B0K 1P0

April 6, 2013

Dear Mr. Burge;

On behalf of the Colchester Chapter SPCA, I would like to thank you for thinking of our shelter as being a potential recipient of proceeds from the wind turbines being established. Your kind support enables us to care for many animals in need in Colchester County. (Several hundred animals passed through the shelter in 2012).

Without the help of persons such as you, the shelter would not exist. Without a shelter the number of abused or neglected animals in our area would be far higher. We can't help all of the animals, but at least we can provide a warm place to sleep, good food and medical care to those which we can fit within our walls. All pets deserve a chance to have a happy, safe existence.

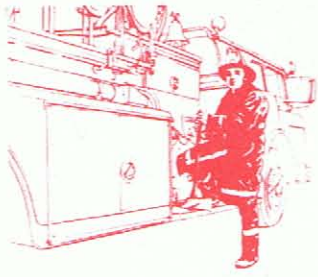
Please feel free to visit the animals at our shelter, located at 408 Industrial Ave. in Truro. We are open to the public 11 am to 3 pm, Tuesday through Sunday. Or perhaps you might be interested in attending a General Meeting to find out more about the work of the SPCA. Our monthly general meetings are held in the Truro Super Store Community Room at 7pm on the 1st Monday of the month.

Once again, thank you for your generosity.

Sincerely,

A handwritten signature in cursive script that reads "Jennifer Tucker-Johnston".

Jennifer Tucker-Johnston
Secretary
Colchester SPCA



VALLEY - KEMPTOWN & DISTRICT FIRE BRIGADE

P. O. BOX 1224, TRURO, N.S. B2N 5N2

To whom it may concern:

On behalf of the Valley- Kemptown and District Fire Brigade please accept this letter of support for the Affinity Renewables wind turbine development application which is being proposed for East Mountain, Colchester County.

Affinity Renewables have a proven track record in developing and operating wind power projects such as their Dalhousie Mountain project. We believe that this company has demonstrated that they value, involve and respect the communities where they plan their wind projects. In particular, the proposed East Mountain project promises to provide direct support back into the community in several ways. As a major partner, the project will support the Nova Scotia Society for the Prevention of Cruelty to Animals. Additionally, Affinity Renewables is proposing support for local community groups through an annual community fundraising account. This initiative will provide support directly back into our local community for the benefit of its residents and represents a unique way for businesses like Affinity Renewables to give back to the communities where they operate.

Our Fire Brigade would be pleased to work with Affinity Renewables in bringing additional benefit back to our Community and look forward to the approval and development of their East Mountain Wind project.

Sincerely;

A handwritten signature in blue ink that reads "Nigel Leggett". The signature is written in a cursive style.

Nigel Leggett

Fire Chief

FIRE
The Name

PREVENTION
The Game



Municipality of the County of Colchester
Community Development Department
PO Box 697 Truro NS B2N 5E7 Tel:902-897-3170 Fax:902-895-9983

February 17, 2012

To whom it may concern:

**Re: Affinity Renewables, Large Scale Wind Turbine Developments
Greenfield, East Mountain and Dean**

This letter shall confirm that I as the Development Officer for the Municipality of Colchester met with Lisa Fulton of Affinity Renewables on November 24, 2011. The purpose of the meeting was to discuss the Municipal setback requirements from property lines, roads, and houses for large-scale wind turbines as provided for in the Wind Turbine Development Bylaw.

From the discussions on three projects proposed for Colchester County (Greenfield, East Mountain, and Dean) and the information provided, the location of the turbines will meet the setback distances as set out in the bylaw. Each project is planned in a manner which will exceed the minimum setback of 700 meters from a turbine to a house (dwelling).

From the meeting, it is evident that the development team at Affinity Renewables are aware and understand the requirements set out in the bylaw and the necessary paperwork required to obtain a license to construct wind turbines in Colchester County.

Please contact me at 897-3170 if you have any questions.

Sincerely,

Colin Forsyth
Development Officer

KAREN CASEY, MLA

COLCHESTER NORTH

30 Duke Street, Constituency Office
Truro, Nova Scotia B2N 2A1

Phone 902-893-2180
Fax 902-893-3064

February 27, 2012

To Whom It May Concern:

As the MLA for Colchester North, which includes the property development area of East Mountain, please accept this letter of support for Affinity Renewables Wind Turbine Development application.

Affinity Renewables is 51% owned by a not for profit organization, namely Nova Scotia Society for the Prevention of Cruelty to Animals. This partnership demonstrates the value that Affinity Renewables places on the community and the importance of working with both individuals and organizations within the communities where the wind turbine development is proposed.

Affinity Renewables have established credibility in other communities where they have development projects. They do this by personally contacting communities to ensure that all available information is shared and understood by those who may be impacted by the development. The partnership with SPCA will allow this not for profit organization to earn an annual income by selling power to NSP. In addition, Affinity Renewables will establish an annual community fundraising account. This account will be managed by the local fire department, with the funds going to support the fire department, as well as other local community groups identified by the fire department as being eligible.

I am impressed by the success of earlier projects by Affinity and I recognize that the scope of their application is within their means to manage and finance. Affinity Renewables are well aware of Municipal By-laws and set back requirements and this has been confirmed by the Development Officer with the Municipality of the County of Colchester. I strongly support Affinity's participation in the COMFIT program. They are good corporate citizens who value the move towards wind energy through wind power. Their financial backing is strong. They have proven through the Dalhousie Project to be efficient and effective. I look forward to having Affinity work within my constituency on the East Mountain Project.

Yours truly,

Karen Casey, MLA
Colchester North

Cobequid Eco-Trails Society
Cobequid Eco Trails
3361 Highway 2
Economy, NS
B0M 1J0



Date: March 9th, 2011

Affinity Renewables Small Wind Project

I am writing on behalf of Cobequid Eco-Trails Society to support the proposed wind farm development under the COMFIT program. CETS has had a very positive experience working with this company in the past. The proposed project has engaged local community minded not-for-profits at the early stage of the planning process that has not been the case with other wind farm developers in the region.

Cobequid Eco-Trails Currently manage 32km of Wilderness Trail near the proposed site. If the project is approved we look forward to working with Affinity Renewables Small Wind Project.

Sincerely,

Garnet McLaughlin (Chairperson)

Kempton COMFIT Wind Project: Environmental Assessment
Affinity Wind LP

Appendix F

Vascular Plant Survey



*Atlantic Canada Conservation Data Centre
Centre de données sur la conservation du Canada Atlantique*

A vascular plant inventory of the Kemptown COMFIT site, Colchester County, Nova Scotia, with notes on breeding birds



Regeneration in area subject to a natural blow-down event about 10 years ago at proposed turbine site K02.

October 22, 2013

Conducted by Sean Blaney,
Atlantic Canada Conservation Data Centre
for RMSenergy Ltd.

Methods

AC CDC botanist Sean Blaney conducted two hours and five minutes of fieldwork on foot at the Kemptown Community Feed-in Tariff (COMFIT) project site in Colchester County, Nova Scotia on June 27, 2013, walking 3.36 km. GPS tracks of site coverage are mapped in Figure 1. Site planning was in an early stage, with turbine sites and road locations not yet finalized, so Reuben Burge of RMS Energy accompanied Sean Blaney to direct field survey toward the areas most suited to final turbine and road construction. Independent biologist Ross Hall was also with the group and contributed to the bird and plant species lists.

I documented full lists of vascular plant and bird species observed while on site with locations documented for the first observation of each species. For provincially rare species (those ranked S3S4 or lower by AC CDC, see Appendix 1), I recorded location by GPS and noted abundance, extent of occurrence and habitat. Breeding evidence for birds was recorded using the categories of the Maritimes Breeding Bird Atlas. I also documented plant communities present within the turbine construction footprints.

Results and Discussion

I. Vascular Plant Species

I recorded 142 vascular plant taxa (118 native, 24 exotic; Table 1), two of which are of some conservation significance (Table 3, mapped in Figure 1). Dudley's Rush (*Juncus dudleyi*, S2? – Sensitive; see Appendix 1 for definitions) was present in a small numbers in a disturbed seepy forest opening within a clearcut. Pickering's Reed-Grass (*Calamagrostis pickeringii*) was present in a large, dense patch 5m x 3m in a moist, peaty clearing under a powerline. Although widespread on the Atlantic side of Nova Scotia and provincially secure (S4S5 – Secure), this occurrence represents the only Nova Scotia record from within the area draining into the Northumberland Strait. Both the above rare plant locations were within areas of potential impact by access road construction.

Dudley's Rush is associated primarily with regions having calcareous (basic) soils in Nova Scotia. AC CDC fieldwork of the past five years has increased the number of known occurrences from around eight to about 20 including some rivers where it occurs extensively, and some sites where it is taking advantage of anthropogenic disturbance. Its provincial S-rank is likely to be revised to S3 with the next rank revisions, though change of the General Status rank is less clearly warranted. The species is not considered rare in New Brunswick.

Further visits to the site would yield additional species to those recorded, but based on the nature and condition of the plant communities present, it is not likely that many additional provincially rare plant species would be found in the project footprint.

II. Breeding Birds

I recorded 11 species of breeding birds (Table 2) through incidental observations during plant fieldwork. The late afternoon fieldwork meant that bird activity was minimal and only a small proportion of the species actually breeding on the site were documented.

Only one bird species of conservation significance was noted. A single calling Yellow-bellied Flycatcher (S3S4 – Sensitive, Table 3, mapped in Figure 1) was heard in suitable breeding habitat between proposed turbine locations K02 and K03, potentially within an area affected by future road construction. This species is still fairly common in Nova Scotia but is of concern because of major population declines. It has no legal conservation status.

III. Plant Communities

Notes on plant communities at the proposed turbine construction sites are given in Table 4 and photographs of the proposed turbine sites are given in Figures 2 to 4. None of the plant communities documented within the turbine or road construction footprints are considered provincially rare (AC CDC data, S. Blaney, pers. obs.). Most of the proposed project footprint is within forest that is under 20 years old, or has been cut recently enough that it is not accurately classified as forest at present.

The only forest community within the potential project footprint in more mature condition is the Red Spruce and Black Spruce-dominated stand between turbines K02 and K03, which is easily visible in Figure 1 amid the very young regeneration through the remainder of the project area. Avoidance of this forest, or if that is not feasible, placement of the access road as near to the stand's north end (near the powerline) as possible would reduce forest fragmentation effects on this remnant patch of mature forest.

Table 1. Vascular plants recorded in the Kemptown COMFIT project footprint, with Nova Scotia S-ranks and General Status (GS) ranks (defined in Appendix 1). Taxonomy follows Kartesz (1999) – *Synthesis of the North American Flora*, CD-ROM.

Species / Family	Common Name	S-rank	GS Rank	ID Notes
Equisetaceae	Horsetail Family			
<i>Equisetum arvense</i>	Field Horsetail	S5	Secure	
<i>Equisetum sylvaticum</i>	Woodland Horsetail	S5	Secure	
Osmundaceae	Flowering Fern Family			
<i>Osmunda cinnamomea</i>	Cinnamon Fern	S5	Secure	
Dennstaedtiaceae	Bracken Fern Family			
<i>Dennstaedtia punctilobula</i>	Eastern Hay-Scented Fern	S5	Secure	
<i>Pteridium aquilinum</i> var. <i>latiusculum</i>	Bracken Fern	S5	Secure	
Thelypteridaceae	Marsh-Fern Family			
<i>Thelypteris noveboracensis</i>	New York Fern	S5	Secure	
Dryopteridaceae	Wood-Fern Family			
<i>Dryopteris carthusiana</i>	Spinulose Wood Fern	S5	Secure	
<i>Dryopteris cristata</i>	Crested Wood Fern	S5	Secure	
<i>Dryopteris x triploidea</i>	a Hybrid Wood-fern	SNA	Not Assessed	ID to sp. probable, not confirmed
<i>Onoclea sensibilis</i>	Sensitive Fern	S5	Secure	
Pinaceae	Pine Family			
<i>Abies balsamea</i>	Balsam Fir	S5	Secure	
<i>Picea glauca</i>	White Spruce	S5	Secure	
<i>Picea mariana</i>	Black Spruce	S5	Secure	
<i>Picea rubens</i>	Red Spruce	S5	Secure	
<i>Pinus strobus</i>	Eastern White Pine	S5	Secure	
Ranunculaceae	Buttercup Family			
<i>Coptis trifolia</i>	Goldthread	S5	Secure	
Betulaceae	Birch Family			
<i>Betula papyrifera</i> var. <i>papyrifera</i>	Heart-leaved Birch	S5	Secure	
<i>Betula populifolia</i>	Gray Birch	S5	Secure	
Clusiaceae	St. John's-wort Family			
<i>Hypericum canadense</i>	Canada St John's-wort	S5	Secure	
<i>Hypericum perforatum</i>	Common St. John's-wort	SNA	Exotic	
Droseraceae	Sundew Family			
<i>Drosera rotundifolia</i>	Round-leaved Sundew	S5	Secure	
Cucurbitaceae	Violet Family			
<i>Echinocystis lobata</i>	Wild Cucumber	SNA	Exotic	
Salicaceae	Willow Family			
<i>Populus grandidentata</i>	Large-toothed Aspen	S5	Secure	
<i>Populus tremuloides</i>	Trembling Aspen	S5	Secure	
<i>Salix bebbiana</i>	Bebb's Willow	S5	Secure	
<i>Salix discolor</i>	Pussy Willow	S5	Secure	
<i>Salix eriocephala</i>	Cottony Willow	S5	Secure	
<i>Salix humilis</i>	Upland Willow	S5	Secure	
Ericaceae	Heath Family			
<i>Chamaedaphne calyculata</i>	Leatherleaf	S5	Secure	
<i>Epigaea repens</i>	Trailing Arbutus	S5	Secure	
<i>Gaultheria hispidula</i>	Creeping Snowberry	S5	Secure	
<i>Gaultheria procumbens</i>	Eastern Teaberry	S5	Secure	
<i>Kalmia angustifolia</i>	Sheep Laurel	S5	Secure	
<i>Ledum groenlandicum</i>	Common Labrador Tea	S5	Secure	
<i>Rhododendron canadense</i>	Rhodora	S5	Secure	

Species / Family	Common Name	S-rank	GS Rank	ID Notes
<i>Vaccinium angustifolium</i>	Late Lowbush Blueberry	S5	Secure	
<i>Vaccinium myrtilloides</i>	Velvet-leaved Blueberry	S5	Secure	
<i>Vaccinium oxycoccos</i>	Small Cranberry	S5	Secure	
<i>Vaccinium vitis-idaea</i>	Mountain Cranberry	S5	Secure	
Primulaceae	Primrose Family			
<i>Lysimachia terrestris</i>	Swamp Yellow Loosestrife	S5	Secure	
<i>Trientalis borealis</i>	Northern Starflower	S5	Secure	
Rosaceae	Rose Family			
<i>Amelanchier bartramiana</i>	Bartram's Serviceberry	S5	Secure	
<i>Amelanchier x neglecta</i>	Running Serviceberry	SNA	Not Assessed	ID to sp. probable, not confirmed
<i>Fragaria virginiana</i>	Wild Strawberry	S5	Secure	
<i>Potentilla simplex</i>	Old Field Cinquefoil	S5	Secure	
<i>Prunus pensylvanica</i>	Pin Cherry	S5	Secure	
<i>Rubus hispidus</i>	Bristly Dewberry	S5	Secure	
<i>Rubus idaeus ssp. strigosus</i>	Red Raspberry	S5	Secure	
<i>Rubus setosus</i>	Bristly Blackberry	S4?	Secure	
<i>Sorbus americana</i>	American Mountain Ash	S5	Secure	
<i>Spiraea alba var. latifolia</i>	White Meadowsweet	S5	Secure	
<i>Spiraea tomentosa</i>	Steeplebush	S5	Secure	
Fabaceae	Bean Family			
<i>Trifolium arvense</i>	Rabbit's-foot Clover	SNA	Exotic	
<i>Trifolium hybridum</i>	Alsike Clover	SNA	Exotic	
<i>Trifolium repens</i>	White Clover	SNA	Exotic	
<i>Vicia cracca</i>	Tufted Vetch	SNA	Exotic	
Onagraceae	Evening-Primrose Family			
<i>Chamerion angustifolium</i>	Fireweed	S5	Secure	
<i>Epilobium leptophyllum</i>	Bog Willowherb	S5	Secure	
Cornaceae	Dogwood Family			
<i>Cornus canadensis</i>	Bunchberry	S5	Secure	
Aquifoliaceae	Holly Family			
<i>Nemopanthus mucronatus</i>	Mountain Holly	S5	Secure	
Rhamnaceae	Buckthorn Family			
<i>Fragula alnus</i>	Glossy Buckthorn	SNA	Exotic	
Aceraceae	Maple Family			
<i>Acer rubrum</i>	Red Maple	S5	Secure	
Oxalidaceae	Wood-Sorrel Family			
<i>Oxalis montana</i>	Common Wood Sorrel	S5	Secure	
Araliaceae	Sarsaparilla Family			
<i>Aralia hispida</i>	Bristly Sarsaparilla	S5	Secure	
<i>Aralia nudicaulis</i>	Wild Sarsaparilla	S5	Secure	
Lamiaceae	Mint Family			
<i>Prunella vulgaris</i>	Common Self-heal	S5	Secure	
Plantaginaceae	Plantain Family			
<i>Plantago major</i>	Common Plantain	SNA	Exotic	
Scrophulariaceae	Snapdragon Family			
<i>Veronica officinalis</i>	Common Speedwell	S5	Exotic	
Rubiaceae	Bedstraw Family			
<i>Galium palustre</i>	Common Marsh Bedstraw	S5	Secure	
Caprifoliaceae	Honeysuckle Family			
<i>Diervilla lonicera</i>	Northern Bush Honeysuckle	S5	Secure	
<i>Linnaea borealis ssp. americana</i>	Twinsflower	S5	Secure	
<i>Lonicera villosa</i>	Mountain Fly Honeysuckle	S4S5	Secure	
<i>Viburnum nudum var. cassinoides</i>	Northern Wild Raisin	S5	Secure	

Species / Family	Common Name	S-rank	GS Rank	ID Notes
Asteraceae	Aster Family			
<i>Anaphalis margaritacea</i>	Pearly Everlasting	S5	Secure	
<i>Centaurea nigra</i>	Black Knapweed	SNA	Exotic	
<i>Doellingeria umbellata</i>	Hairy Flat-top White Aster	S5	Secure	
<i>Eupatorium perfoliatum</i>	Common Boneset	S5	Secure	
<i>Euthamia graminifolia</i>	Grass-leaved Goldenrod	S5	Secure	
<i>Hieracium caespitosum</i>	Field Hawkweed	SNA	Exotic	
<i>Hieracium lachenalii</i>	Common Hawkweed	SNA	Exotic	
<i>Hieracium pilosella</i>	Mouse-ear Hawkweed	SNA	Exotic	
<i>Lactuca canadensis</i>	Canada Lettuce	S5	Secure	
<i>Leontodon autumnalis</i>	Fall Dandelion	SNA	Exotic	
<i>Leucanthemum vulgare</i>	Oxeye Daisy	SNA	Exotic	
<i>Packera schweinitziana</i>	Schweinitz's Groundsel	S4	Secure	
<i>Prenanthes trifoliolata</i>	Three-leaved Rattlesnakeroot	S5	Secure	
<i>Solidago canadensis</i>	Canada Goldenrod	S5	Secure	
<i>Solidago puberula</i>	Downy Goldenrod	S5	Secure	
<i>Solidago rugosa</i>	Rough-stemmed Goldenrod	S5	Secure	
<i>Solidago uliginosa</i>	Northern Bog Goldenrod	S5	Secure	
<i>Symphotrichum puniceum</i>	Purple-stemmed Aster	S5	Secure	
<i>Taraxacum officinale</i>	Common Dandelion	SNA	Exotic	
<i>Tussilago farfara</i>	Coltsfoot	SNA	Exotic	
Juncaceae	Rush Family			
<i>Juncus dudleyi</i>	Dudley's Rush	S2?	Sensitive	
<i>Juncus effusus</i>	Soft Rush	S5	Secure	
<i>Juncus filiformis</i>	Thread Rush	S5	Secure	
<i>Juncus sp.</i>	Rush sp.			probably <i>J. brevicaudatus</i> or <i>J. articulatus</i> [both S5 – Secure]
Cyperaceae	Sedge Family			
<i>Carex canescens</i>	Silvery Sedge	S5	Secure	
<i>Carex debilis var. rudgei</i>	White-edged Sedge	S5	Secure	
<i>Carex echinata</i>	Star Sedge	S5	Secure	
<i>Carex gracillima</i>	Graceful Sedge	S4S5	Secure	
<i>Carex gynandra</i>	Nodding Sedge	S5	Secure	
<i>Carex intumescens</i>	Bladder Sedge	S5	Secure	
<i>Carex lurida</i>	Sallow Sedge	S5	Secure	
<i>Carex novae-angliae</i>	New England Sedge	S5	Secure	
<i>Carex pauciflora</i>	Few-Flowered Sedge	S4S5	Secure	
<i>Carex scoparia</i>	Broom Sedge	S5	Secure	
<i>Carex stipata</i>	Awl-fruited Sedge	S5	Secure	
<i>Carex trisperma var. trisperma</i>	Three-seeded Sedge	S5	Secure	
<i>Eleocharis tenuis</i>	Slender Spikerush	S5	Secure	
<i>Eriophorum angustifolium</i>	Narrow-leaved Cottongrass	S5	Secure	
<i>Eriophorum vaginatum var. spissum</i>	Tussock Cottongrass	S5	Secure	
<i>Eriophorum virginicum</i>	Tawny Cottongrass	S5	Secure	
<i>Scirpus cyperinus</i>	Common Woolly Bulrush	S5	Secure	
<i>Scirpus hattorianus</i>	Mosquito Bulrush	S5	Secure	
Poaceae	Grass Family			
<i>Agrostis capillaris</i>	Colonial Bent Grass	SNA	Exotic	
<i>Alopecurus pratensis</i>	Meadow Foxtail	SNA	Exotic	
<i>Anthoxanthum odoratum</i>	Large Sweet Vernal Grass	SNA	Exotic	
<i>Brachyelytrum septentrionale</i>	Northern Shorthusk	S5	Secure	
<i>Calamagrostis canadensis</i>	Bluejoint Reed Grass	S5	Secure	

Species / Family	Common Name	S-rank	GS Rank	ID Notes
<i>Calamagrostis pickeringii</i>	Pickering's Reed Grass	S4S5	Secure	
<i>Danthonia compressa</i>	Flattened Oat Grass	S5	Secure	
<i>Danthonia spicata</i>	Poverty Oat Grass	S5	Secure	
<i>Dichanthelium boreale</i>	Northern Panic Grass	S5	Secure	
<i>Festuca filiformis</i>	Hair Fescue	SNA	Exotic	
<i>Glyceria canadensis</i>	Canada Manna Grass	S5	Secure	
<i>Glyceria melicaria</i>	Slender Manna Grass	S4	Secure	
<i>Glyceria striata</i>	Fowl Manna Grass	S5	Secure	
<i>Leersia oryzoides</i>	Rice Cut Grass	S5	Secure	
<i>Phleum pratense</i>	Common Timothy	SNA	Exotic	
<i>Poa compressa</i>	Canada Blue Grass	SNA	Exotic	
Sparganiaceae	Bur-reed Family			
<i>Sparganium sp.</i>	Bur-reed sp.			
Typhaceae	Cat-tail Family			
<i>Typha angustifolia</i>	Narrow-Leaved Cattail	S5	Secure	
<i>Typha latifolia</i>	Broad-leaved Cattail	S5	Secure	
Liliaceae	Lily Family			
<i>Clintonia borealis</i>	Yellow Bluebead Lily	S5	Secure	
<i>Maianthemum canadense</i>	Wild Lily-of-The-Valley	S5	Secure	
<i>Trillium undulatum</i>	Painted Trillium	S5	Secure	
Iridaceae	Iris Family			
<i>Sisyrinchium montanum</i>	Mountain Blue-eyed-grass	S5	Secure	
Orchidaceae	Orchid Family			
<i>Calopogon tuberosus</i>	Tuberous Grass Pink	S4	Secure	
<i>Cypripedium acaule</i>	Pink Lady's-Slipper	S5	Secure	
<i>Platanthera clavellata</i>	Club Spur Orchid	S5	Secure	
<i>Platanthera lacera</i>	Ragged Fringed Orchid	S4S5	Secure	ID to sp. probable, not confirmed

Table 2. List of birds recorded incidentally by Sean Blaney on June 27, 2013 at the Kempton COMFIT site, with breeding evidence recorded following the methods of the Maritimes Breeding Bird Atlas. Breeding evidence with codes are: H = adult in suitable nesting habitat; S = singing male in suitable nesting habitat. Shaded species are of conservation concern with details of occurrence given in Table 3 and location mapped in Figure 1.

Species	Common Name	Breeding Evidence	S-rank	GS Rank
<i>Carpodacus purpureus</i>	Purple Finch	POSSIBLE - S	S4S5	Secure
<i>Corvus corax</i>	Common Raven	POSSIBLE - H	S5	Secure
<i>Dendroica coronata</i>	Yellow-rumped Warbler	POSSIBLE - S	S5B	Secure
<i>Dendroica palmarum</i>	Palm Warbler	POSSIBLE - S	S5B	Secure
<i>Empidonax aliorum</i>	Alder Flycatcher	POSSIBLE - S	S5B	Secure
<i>Empidonax flaviventris</i>	Yellow-bellied Flycatcher	POSSIBLE - S	S3S4B	Sensitive
<i>Geothlypis trichas</i>	Common Yellowthroat	POSSIBLE - S	S5B	Secure
<i>Seiurus aurocapilla</i>	Ovenbird	POSSIBLE - S	S5B	Secure
<i>Turdus migratorius</i>	American Robin	POSSIBLE - H	S5B	Secure
<i>Vermivora ruficapilla</i>	Nashville Warbler	POSSIBLE - S	S5B	Secure
<i>Vireo olivaceus</i>	Red-eyed Vireo	POSSIBLE - S	S5B	Secure
<i>Zonotrichia albicollis</i>	White-throated Sparrow	POSSIBLE - S	S5B	Secure

Table 3. Species of conservation concern recorded in the Kemptown COMFIT site, June 27, 2013 with provincial status, location of observation and description the occurrence and potential construction impacts. Specimen of Dudley's Rush and Pickering's Reed-Greass were collected and will be deposited at the E.C. Smith Herbarium at Acadia University.

Common Name	Species	S-rank	GS Rank	Latitude	Longitude	Location Uncertainty (m)	Description
Dudley's Rush	<i>Juncus dudleyi</i>	S2?	Sensitive	45.446082	-63.116673	10	A few stems in seepy forest opening in streambed within regenerating clearcut. Potentially within zone of impact from main access road.
Pickering's Reed Grass	<i>Calamagrostis pickeringii</i>	S4S5	Secure	45.450660	-63.114206	10	Dense patch, 5m x 3m in moist, peaty powerline clearing. Note that although not provincially rare, the occurrence of this species represents the only Nova Scotia record within the area draining into the Northumberland Strait. Potentially within zone of impact from access road.
Yellow-bellied Flycatcher	<i>Empidonax flaviventris</i>	S3S4B	Sensitive	45.450010	-63.113462	25	Singing male in suitable nesting habitat (Red Spruce-Black Spruce, moist to wet forest). Potentially within zone of impact from access road to Turbine K02.

Table 4. Locations, site community descriptions and dominant understory flora of proposed turbine locations at the Kemptown COMFIT site.

Turbine #	Latitude	Longitude	Site Description	Dominant Understory Species
K01	45.447678	-63.117919	Cleared meteorological tower area (all vegetation cut to ground level) and adjacent ~15 year old black spruce - white spruce plantation with gray birch, red maple, balsam fir, trembling aspen; one corner of potential turbine footprint has slightly more mature hardwood forest; an old garbage dump is also within one portion of the tower footprint	<i>Carex debilis</i> var. <i>rudgei</i> ; <i>Doellingeria umbellata</i> ; <i>Danthonia spicata</i> ; <i>Chamerion angustifolium</i> ; <i>Rubus canadensis</i> ; <i>Euthamia graminifolia</i>
K02	45.449836	-63.114732	Proposed turbine location is centred on property line, which divides habitats. W half: ~15 year old fairly open, heathy black spruce plantation with balsam fir, red maple, yellow birch; E half: ~10 year old red maple-dominated regenerating blowdown (Hurricane Juan?)	W half: <i>Pteridium aquilinum</i> var. <i>latiusculum</i> ; <i>Cornus canadensis</i> ; <i>Kalmia angustifolia</i> ; <i>Vaccinium angustifolium</i> ; <i>Vaccinium myrtilloides</i> ; <i>Nemopanthus mucronatus</i> ; <i>Viburnum nudum</i> var. <i>cassinoides</i> E half: <i>Rubus idaeus</i> ssp. <i>strigosus</i> ; <i>Nemopanthus mucronatus</i>
K03	45.449514	-63.109800	~20 year old black spruce plantation with balsam fir, red maple, white birch, yellow birch	<i>Rubus setosus</i> ; <i>Nemopanthus mucronatus</i> ; <i>Viburnum nudum</i> var. <i>cassinoides</i> ; <i>Pteridium aquilinum</i> var. <i>latiusculum</i> ; <i>Osmunda cinnamomea</i> ; <i>Vaccinium angustifolium</i>



Figure 1. GPS tracks (blue line) of area covered by Sean Blaney on June 27, 2013 at the proposed Kemptown COMFIT site, Colchester County, Nova Scotia. Red dots K01, K02 and K03 are proposed turbine locations, as determined in the field by Reuben Burge. Rare species locations are: JUNCdudl = Dudley’s Rush (*Juncus dudleyi*, S2? – Sensitive), CALApick = Pickering’s Reed-Grass (*Calamagrostis pickeringii*, S4S5 – Secure, but not otherwise known in the Northumberland Strait Lowlands of Nova Scotia) and YBFL = Yellow-bellied Flycatcher (S3S4 – Sensitive).



Figure 2. Proposed turbine site K01, showing cleared area for meteorological tower (note guy wires), young plantation forest (rear left) and older, more natural hardwood stand (rear right).



Figure 3. Proposed turbine site K02, looking east across property boundary (marked by blazed trunk) into densely regenerating mixed forest blowdown.



Figure 4. Two views of proposed turbine site K03 in young, open black spruce plantation.

Appendix 1. Definitions of Atlantic Canada Conservation Data Centre (AC CDC) provincial ranks (S-ranks) and Nova Scotia Department of Natural Resources General Status Ranks. Both sets of ranks were developed through the consensus of the Nova Scotia Flora Ranking Committee, cooperatively led by Nova Scotia Department of Natural Resources and AC CDC. The ranks reflect the best understanding of plant status at the time of ranking, but are subject to revision as new information becomes available.

Definitions of provincial (subnational) ranks (S-ranks):

- S1 Extremely rare throughout its range in the province (typically 5 or fewer occurrences or very few remaining individuals). May be especially vulnerable to extirpation.
- S2 Rare throughout its range in the province (usually 6 to 20 occurrences or few remaining individuals). May be vulnerable to extirpation due to rarity or other factors.
- S Uncommon throughout its range in the province (usually 21 to 100 occurrences), or found only in a restricted range, even if abundant in at some locations.
- S4 Usually widespread, fairly common throughout its range in the province (usually 100+ occurrences), and apparently secure, but the element is of long-term concern.
- S5 Demonstrably widespread, abundant, and secure throughout its range in the province, and essentially ineradicable under present conditions (100+ occurrences).
- S#S# Numeric range rank: A range between two consecutive numeric ranks. Denotes range of uncertainty about the exact rarity of the Element (e.g., S1S2).
- SNA Conservation status not applicable: The taxon is exotic, its occurrence in the jurisdiction is not confirmed, or it is a hybrid without conservation value.
- ? Is used as a qualifier indicating uncertainty: for numeric ranks, denotes inexactness, e.g., SE? denotes uncertainty of exotic status. (The ? qualifies the character immediately preceding it in the SRANK).

Definitions of National General Status Ranks (from *Wild Species: the General Status Program in Canada*, Lisa Twolan and Simon Nadeau, 2004, Canadian Wildlife Service, Ottawa)

- *Extirpated*: species that have disappeared from (or are no longer present in) a given geographic area but which occur in other areas
- *Extinct*: species that are extirpated worldwide (i.e., they no longer exist anywhere)
- *At Risk*: species for which a formal detailed risk assessment (COSEWIC assessment or provincial or territorial equivalent) has been completed, and which have been determined to be at risk of extirpation or extinction (i.e., Endangered) or are likely to become at risk of extirpation or extinction if limiting factors are not reversed (i.e., Threatened)
- *May Be At Risk*: species that may be at risk of extirpation or extinction and are, therefore, candidates for a detailed risk assessment by COSEWIC or the provincial or territorial equivalent

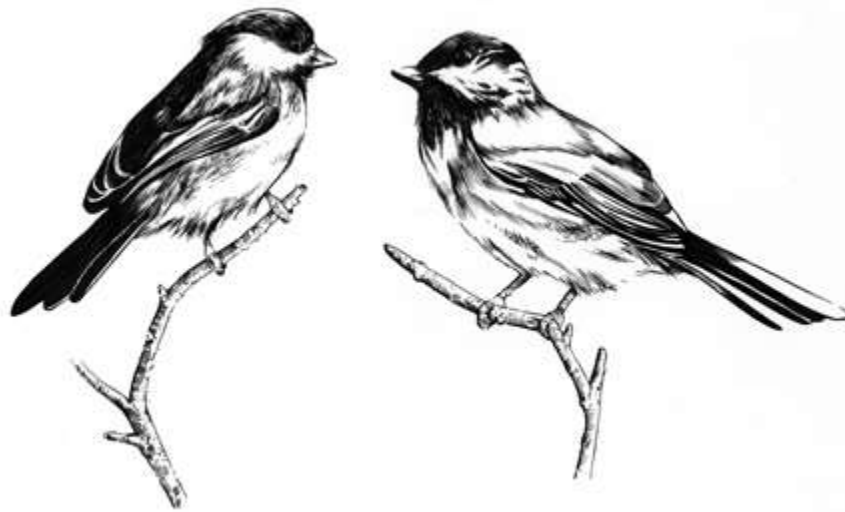
- *Sensitive*: species that are believed to not be at risk of extirpation or extinction but which may require special attention or protection to prevent them from becoming at risk
- *Secure*: species that are believed to not belong in the categories At Risk, May Be At Risk, Extirpated, Extinct, Accidental, or Exotic. This category includes some species that show a declining trend in numbers in Canada but which remain relatively widespread or abundant.
- *Undetermined*: species for which insufficient data, information, or knowledge is available with which to reliably evaluate their general status
- *Not Assessed*: species that are known or believed to be present in the geographic area in Canada to which the general status rank applies but which have not yet been assessed
- *Exotic*: species that have been moved beyond their natural range as a result of human activity. In the *Wild Species 2005* report, exotic species have been purposefully excluded from all other categories.
- *Accidental*: species occurring infrequently and unpredictably outside their usual range

Kempton COMFIT Wind Project: Environmental Assessment
Affinity Wind LP

Appendix G

Breeding Bird Survey

**KEMPTOWN, NOVA SCOTIA WIND FARM
BREEDING BIRD SURVEY**



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September, 2013

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INTRODUCTION

Wind is one of the fastest growing renewable energy sources in the world. It offsets emissions from fossil fuel plants, and encourages a cleaner way of living. Various concerns have been raised on wind turbine effects on wildlife and the environment, particularly on avian and bat species (Canadian Wind Energy Association, 2008). With these concerns in mind, the Nova Scotia Environment Act states that an environmental assessment must be conducted prior to the construction of a wind farm. These types of assessments will cover various elements, such as; wildlife, ecology, botany, and geology.

This report focuses on the avian portion of an environmental study being executed on the Kemptown wind project site in Colchester County, Nova Scotia. This assessment will provide baseline information regarding population estimates of birds, and help to ensure the proposed turbines are not being built in bird migration routes. It will also ensure that there are no endangered or threatened species in the area, and that the Kemptown location is not a common breeding site.

The avian study which was conducted used the area point count method to record species, and numbers of species found throughout the duration of the study. This avian study was conducted over a 52 week period. Area point counts are used to find population abundance as well as species composition within a specific area.

METHODS

The monitoring protocols established in this document were designed using information from two documents published by the Canadian Wildlife Service:

Environment Canada (2006) Recommended Protocols for Monitoring Impacts of Wind Turbines on Birds.

Environment Canada (2006) Wind turbines and birds: A Guidance Document for Environmental Assessment.

On 22 April 2012, Wildlife Technicians began work at the Kemptown survey location in Colchester County, Nova Scotia. Technicians set up an area point count for avian species in the area. This point count survey was part of an environmental assessment being conducted which will be used to determine the population estimate of avian species found in the area, and will also help to determine if three wind turbines will be erected at the Kemptown location.

The survey locations were given to the technicians prior to the set-up of the point count. The coordinates for the three potential sites, as of April 2012, were as follows (All coordinates are UTM zone 20T): Turbine 1 – 0490712E 5032569N, Turbine 2 – 0490903E 5032880N, Turbine 3 -0490612E 5032939N.

Using each of the survey locations as center points, 100 (m) was measured in each cardinal direction, north (0°), east (90°), south (180°) and west (270°). Using these new locations as a center points, four additional points were established 50 (m) away in each cardinal direction and marked with flagging tape. The area within these four points was the monitoring area for each turbine. A total of four points per turbine were established and monitored (Figure 1).

For the following 52 weeks, bird populations were monitored once a week, monitoring would begin 30 minutes before sunrise and would last for approximately 3 – 4 hours. Monitoring would not take place during rainy days, or days with high wind speeds as birds are not active during these types of weather conditions. A total of five minutes was spent monitoring at each point location. During the five minutes, any birds seen or heard within the monitoring location were recorded on tally sheets. Recording would include species of bird, number of birds, and location.

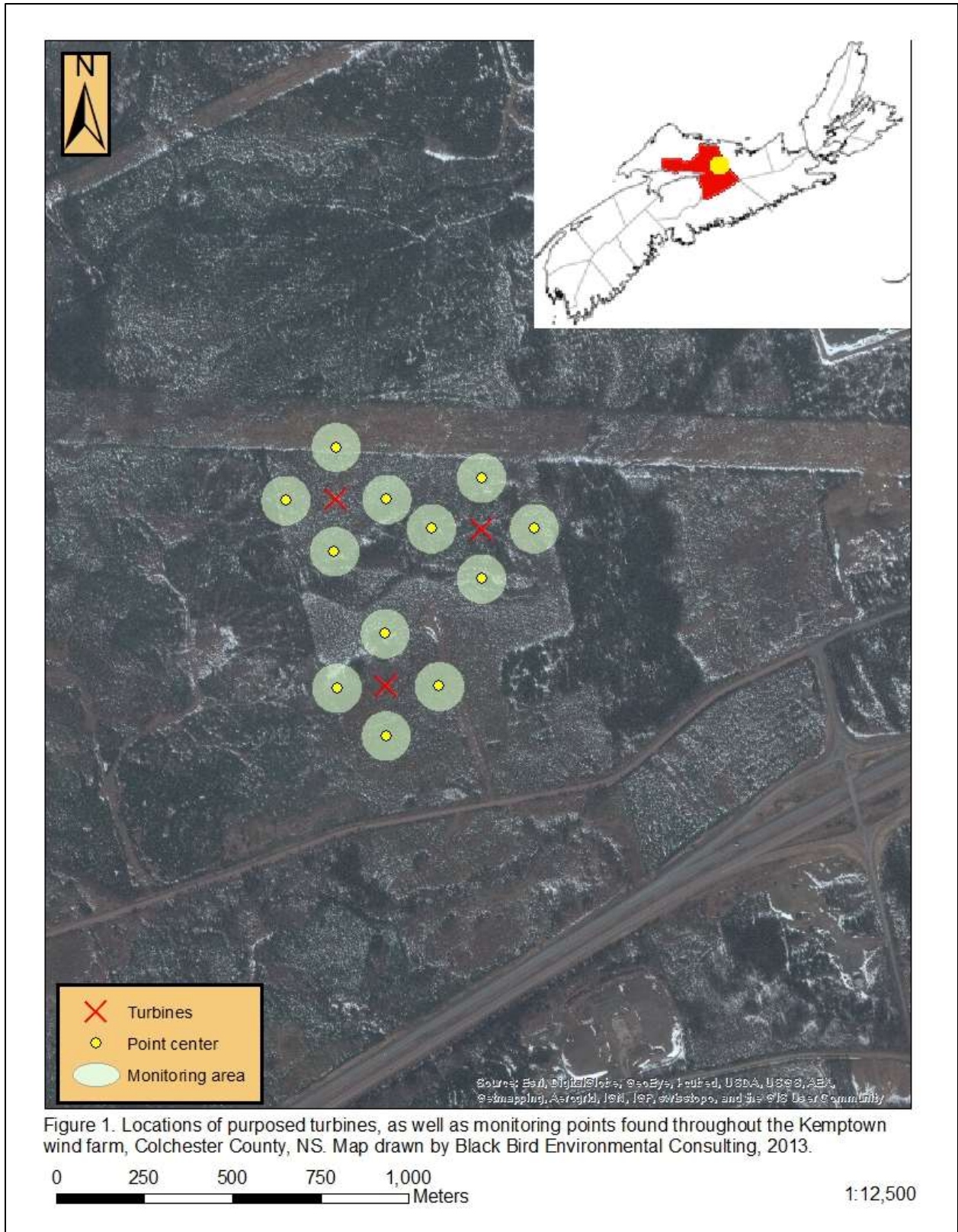


Figure 1. Locations of purposed turbines, as well as monitoring points found throughout the Kemptown wind farm, Colchester County, NS. Map drawn by Black Bird Environmental Consulting, 2013.

RESULTS

Throughout the study of the Kemptown survey location, a total of 39 different bird species were recorded. Within these species, four species were listed as below S5 (Table 1). The Killdeer, Eastern Wood Pewee and Yellow-bellied Flycatcher are listed sub-nationally as S3S4B, while the Boreal Chickadee is listed as S3. All other recorded species are listed by the ACCDC as S5. For a complete list of species and their Sub-national ranks (S-Ranks) found through the duration of the study, refer to Table 2. (Atlantic Canada Conservation Data Centre, 2010).

Table 1. Uncommon species sub-national and global ranks as defined by the Atlantic Canada Conservation Data Centre found throughout the Kemptown survey location, Colchester County, Nova Scotia, data collected by Black Bird Environmental Consulting, April - March, 2012-13.

UNCOMMON SPECIES			
Common Name	Scientific Name	Global Rank	Sub-National Ranks
Killdeer	<i>Charadrius vociferus</i>	Sensitive	S3S4B
Eastern Wood Pewee	<i>Contopus virens</i>	G5	S3S4B
Boreal Chickadee	<i>Poecile hudsonica</i>	G5	S3
Yellow Bellied Flycatcher	<i>Empidonax flaviventris</i>	G5	S3S4B

* **S3B** - Uncommon, or found only in a restricted range, even if abundant at some locations (21 to 100 occurrences), Breeding (Migratory species).

* **S4B** - Usually widespread, fairly common, and apparently secure with many occurrences, but of longer-term concern (100+ occurrences), Breeding (Migratory species).

* **G5** - Very common, secure under present conditions.

Table 2. Complete list of bird species observed during the 52 week study of the Kemptown wind project location, Colchester County, Nova Scotia, data collected by Black Bird Environmental Consulting, April - May 2012-2013.

COMPLETE SPECIES LIST			
Common Name	Scientific Name	Global Ranks	Sub-National Ranks
American Robin	<i>Turdus migratorius</i>	Secure	S5B*
Blue Jay	<i>Cyanocitta cristata</i>	G5	S5
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	G5	S4S5B*
Mourning Dove	<i>Zenaida macroura</i>	G5	S5
Herring Gull	<i>Larus argentatus</i>	G5	S4S5
Common Raven	<i>Corvus corax</i>	G5	S5
American crow	<i>Corvus brachyrhynchos</i>	G5	S5
European Starling	<i>Sturnus vulgaris</i>	G5	SNA*
white-throated Sparrow	<i>Zonotrichia albicollis</i>	G5	S5B
Song Sparrow	<i>Melospiza melodia</i>	G5	S5B
Killdeer	<i>Charadrius vociferus</i>	G5	S3S4B
Pileated Woodpecker	<i>Dryocopus pileatus</i>	G5	S5
Hairy Woodpecker	<i>Picoides villosus</i>	G5	S5
Northern Flicker	<i>Colaptes auratus</i>	G5	S5B
Yellow-bellied Sapsucker	<i>phyrapicus varius</i>	G5	S4S5B
Red-breasted Nuthatch	<i>Sitta canadensis</i>	G5	S4S5
American Goldfinch	<i>Carduelis tristis</i>	G5	S5
Swainson's Thrush	<i>Catharus ustulatus</i>	G5	S4S5

* **S3B** - Uncommon, or found only in a restricted range, even if abundant at some locations (21 to 100 occurrences), Breeding (Migratory species).

* **S4B** - Usually widespread, fairly common, and apparently secure with many occurrences, but of longer-term concern (100+ occurrences), Breeding (Migratory species).

* **S5B** - Widespread, abundant, and secure, under present conditions, Breeding (Migratory species).

* **G5** - Very common, secure under present conditions.

* **NA** - Not Applicable: A conservation status is not applicable because the species is either: a) exotic, b) not definitively known to occur in the province or c) a hybrid not considered to be conservation significance.

Table 3. Complete list of bird species observed during the 52 week study of the Kemptown survey location, Colchester County, Nova Scotia, data collected by Black Bird Environmental Consulting, April - March 2012-2013.

COMPLETE SPECIES LIST (CONTINUED)			
Common Name	Scientific Name	Global Ranks	Sub-National Ranks
Golden-crowned Kinglet	<i>Regulus satrapa</i>	Now ranked Sensitive	S4
Yellow-rumped Warbler	<i>Dendroica coronata</i>	G5	S5
Black-throated Green Warbler	<i>Dendroica virens</i>	G5	S4S5B
Black-and-White Warbler	<i>Mniotilta varia</i>	G5	S4S5B
Magnolia Warbler	<i>Setophaga magnolia</i>	G5	S4S5B
Ovenbird	<i>Seiurus aurocapillus</i>	G5	S5B
Winter Wren	<i>Troglodytes troglodytes</i>	G5	S5B
Black-capped Chickadee	<i>Poecile atricapilla</i>	G5	S5
Boreal Chickadee	<i>Poecile hudsonica</i>	G5	S3
Yellow Bellied Flycatcher	<i>Empidonax flaviventris</i>	G5	S3S4B
Alder Flycatcher	<i>Empidonax alnorum</i>	G5	S5B
Dark-eyed Junco	<i>Junco hyemalis</i>	G5	S4S5
Red-eyed Vireo	<i>Vireo olivaceus</i>	G5	S5B
Common Yellowthroat	<i>Geothlypis trichas</i>	G5	S5B
American Redstart	<i>Setophaga ruticilla</i>	G5	S5B
Northern Parula	<i>Parula americana</i>	G5	S5B
Ruby-throated Hummingbird	<i>Archilochus colubris</i>	G5	S5B
Ruffed Grouse	<i>Bonasa umbellus</i>	G5	S4S5B
American Woodcock	<i>Scolopax minor</i>	G5	S4S5B
Ring-necked Pheasant	<i>Phasianus colchicus</i>	G5	SNA
Bald eagle	<i>Haliaeetus leucocephalus</i>	G5	S4

* **S3B** - Uncommon, or found only in a restricted range, even if abundant at some locations (21 to 100 occurrences), Breeding (Migratory species).

* **S4B** - Usually widespread, fairly common, and apparently secure with many occurrences, but of longer-term concern (100+ occurrences), Breeding (Migratory species).

* **S5B** - Widespread, abundant, and secure, under present conditions, Breeding (Migratory species).

* **G5** - Very common, secure under present conditions.

* **NA** - Not Applicable: A conservation status is not applicable because the species is either: a) exotic, b) not definitively known to occur in the province or c) a hybrid not considered to be conservation significance.

Figure 2 shows the population trends throughout the duration of the study. The highest population count was found during the month of May with approximately 524 birds recorded. The population then drops slightly each month, with the largest drop in population from November at approximately 286 birds, to December at approximately 60 birds. The lowest population count was found during the month of March with approximately 10 birds recorded.

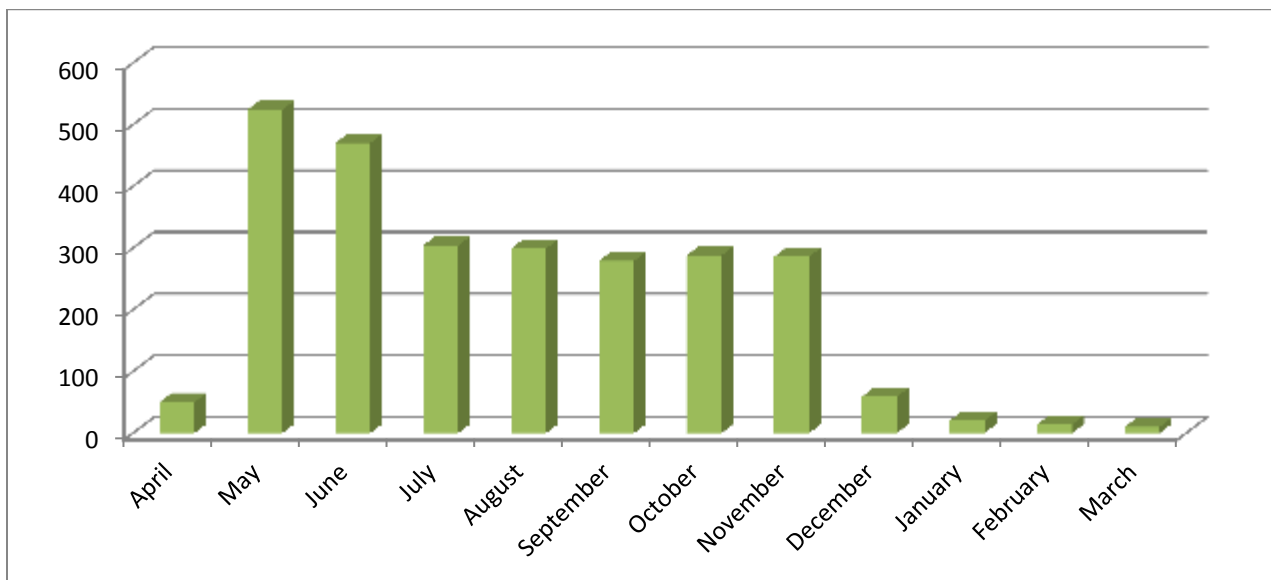


Figure 2. Total bird counts found during the study of the 52 week Kempton survey location, Colchester County, Nova Scotia, data collected by Black Bird Environmental Consulting, April – March 2012-2013.

Five different habitat types were observed within the Kemptown study area; immature mixedwood, mature hardwood, immature softwood, a treed bog area, and an open grass area (power line corridor). Total bird count percentages were highest in the openfield habitat type with approximately 32% of the total count found within this habitat. The lowest percentage of the bird count was found within the bog habitat with approximately 9% of the total birds recorded. The immature mixedwood habitat contained 26% of the population recorded, where the mature hardwood habitat contained 17%, and the immature softwood habitat contained 16%.

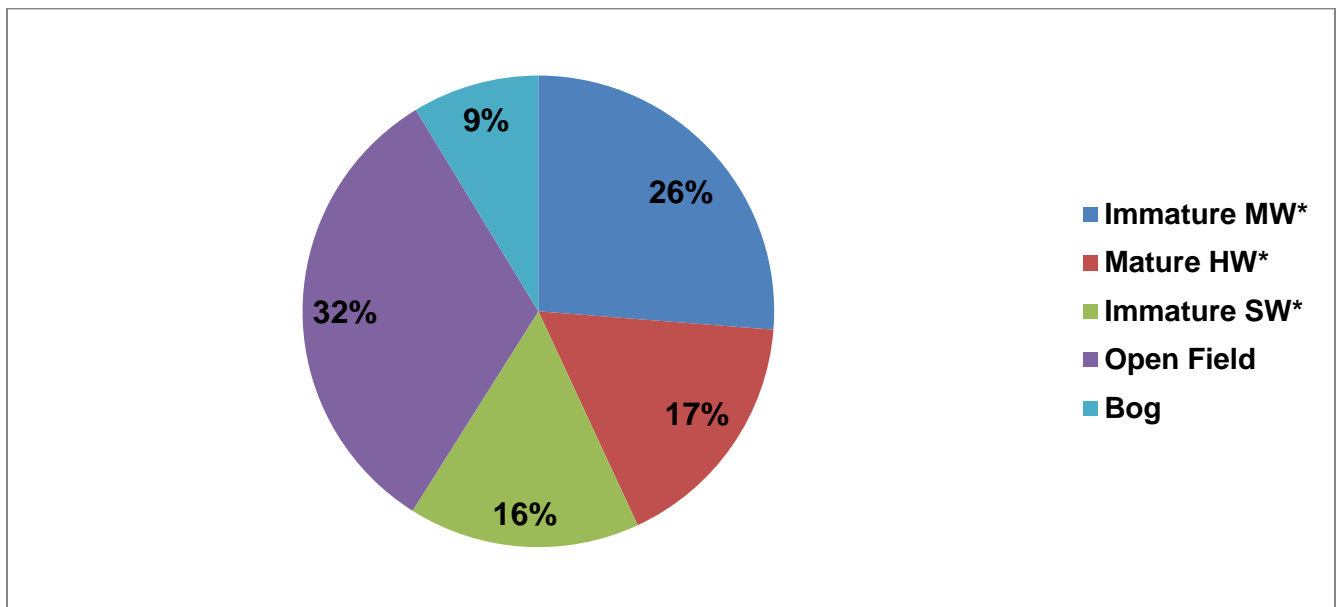


Figure 3. Percentage of total birds recorded throughout five habitat types found within the Kemptown survey location, Colchester County, Nova Scotia, data collected by Black Bird Environmental Consulting, April - March, 2012-2013.

- * HW- Hardwood
- * SW – Softwood
- * MW - Mixedwood

DISCUSSION

SPECIES OF CONCERN

During the study at the Kemptown survey location, 39 avian species were observed. With the exception of four species, all other species are considered secure by NSDNR. These had an S-Rank of S5 which is defined by the ACCDC as: Widespread, abundant, and secure, under present conditions. This is the highest possible S-Rank and therefore these species are not threatened by the construction of wind turbines on this site. The Eastern Wood Pewee (*Contopus virens*), Killdeer (*Charadrius vociferous*) and the Yellow-bellied Flycatcher (*Empidonax flaviventris*) have a NSDNR ranking as Sensitive: enhanced watch list but not yet at risk. Eastern Wood Pewee has a COSEWIC ranking as Special Concern but no rankings for the other two. All share an ACCDC S-Rank of S3S4B. S4: usually widespread, fairly common, and apparently secure with many occurrences, but of longer-term concern (100+ occurrences). S3: uncommon, or found only in a restricted range, even if abundant at some locations (21 to 100 occurrences). The eastern wood pewee breeds in about every type of wooded habitat, and will use both deciduous and coniferous forest. It is often associated with forest clearings and edges all of which are present throughout this study area. The killdeer can be found in open grasslands, wetlands, fields, croplands and pastures, and short-grass prairies. They are often found on sandbars, mudflats and pastures. The wet bog habitat found throughout this study area is where the killdeer was observed, but this area does not have the potential to be impacted by the roads or turbine lay out areas for the Project. Yellow-Bellied Flycatcher breeds in boreal

coniferous forests and nests in cool, moist forests, bogs and swamps, again not to be impacted by the Project. They winter in a variety of habitats from forests to semi-open habitats. The Boreal Chickadee (*Poecile hudsonica*) had an S-rank of S3. This species will use both young and mature forests, as long as they are nominated with evergreens. Their ability to use both mature and younger forests helps the Boreal Chickadees withstand the effects of logging and other effects within their range. Although these species are not at a critical level of risk, pressure on this species may push these ranks down and result in further diminishing these populations.

POPULATION TRENDS

The migration period of birds found throughout Atlantic Canada can extend over several months; however, population increases dramatically during May and June, this coincides with the breeding season of most native species. It is extremely difficult to predict the exact migration times of species. Many factors such as weather conditions or other environmental factors may push migration times ahead or behind slightly. There was a dramatic increase in population during the months of May and June, which are the core migration periods, as well as the breeding season of the majority of species found within Nova Scotia. This tells us that there is a breeding population of various species within the Kemptown study area. There was also a slow drop in population each month as the temperature dropped, and the winter weather moved in. This is typical behavior for birds at this time of year, as the colder weather moves in; the migratory species finish breeding and start migrating south for the winter months.

Throughout this location there was an abundant population of scavenger species such as American crow, and herring gull. The Colchester Balefill Facility is approximately one kilometer east of the Kemptown wind project location. With this landfill site in such close proximity, it is not uncommon to see high populations of these two bird species. For a complete list of species total counts, refer to Appendix 1.

HABITAT TYPES

The Kemptown survey location consists of five habitat types: power line corridor which consisted of grassy vegetation and other low lying shrubs; immature mixed-wood which consists of red maple (*Acer rubrum*), trembling aspen (*Populus Tremuloides*), red spruce (*Picea rubens*), Norway spruce (*Picea abies*) and balsam fir (*Abies balsamea*); mature hardwood which consists of sugar maple (*Acer saccharum*), red maple (*Acer rubrum*), white birch (*Betula papyrifera*), trembling aspen (*Populus tremuloides*), and large-tooth aspen (*Populus grandidentata*); and immature softwood which consists of red spruce (*Picea rubens*), white spruce (*Picea glauca*), Norway spruce (*Picea abies*) and balsam fir (*Abies balsamea*). The majority of the immature softwood habitats are plantations that had been pre-commercially thinned in the previous years. The treed bog habitat consists of black spruce (*Picea mariana*), eastern larch (*Larix laricina*) and various low lying ericaceous vegetation such as lambkill (*Kalmia angustifolia*) and Labrador tea (*Rhododendron groenlandicum*).

The majority of birds found throughout the five habitat types were found in the power line corridor at approximately 30%. This type of habitat attracts a variety of bird species for various reasons. As well, birds are more visible to the technician during the survey. There is an abundant food source. An open field habitat is home to millions of species of insects which are the most common food source of bird species found in Nova Scotia. The tall grassy vegetation found in this type of habitat can be used for nesting, nest building materials, and cover from predators. The majority of birds recorded in this habitat type were spotted along the edges of the grassed area, where it met wooded areas (edge effect). Many birds live along the edges of habitat types for several reasons. Birds are able to stay in the cover of wooded areas while nesting or hunting, but also have access to the large food source of the open field habitat. It is very common to see birds flying in and out of wooded areas into the power line corridor for food and nesting materials and then quickly retreating back to the cover of the wooded areas. Some birds however, field sparrows (*Spizella pusilla*) for example (a rare, non-resident species in Nova Scotia), live their life within the open fields and tend to stay out of wooded areas. They build their nests in the tall vegetation or in abandoned microtine burrows, and take advantage of the large amount of food within the open field.

The least populated habitat type found within this study is the treed bog habitat. Although some species such as the Swamp sparrow (*Melospiza georgiana*) thrive in bog habitat, it is not ideal for most bird species. Due to the high acidity of the soils found throughout bog habitats there is a low amount of vegetation present. The lack of vegetation does not allow for adequate cover from weather or predators, and also does not provide good nesting materials. Although there are an abundance of insects found

throughout bogs, which are the primary food for most bird, most bird species will feed in these areas only.

SUPPLEMENTAL MONITORING

During the development process of the Project, the proposed locations of the turbines were spaced out to include the easterly property to the one which the 2012-13 survey took place. The developer request BlackBird Consulting complete another cycle of surveys for the highest month of bird activity to see whether any special species at risk or sensitive breeding habitat was located in the extended portion of the property.

During the month of June 2013, two additional monitoring sessions took place. The new survey location coordinates are: 491389E 5032930N. All of the same methods and monitoring procedures were used at the new site location. For a complete list of results found during the supplemental monitoring sessions refer to appendix 2.

CONCLUSION

If the wind turbine project continues as planned, a post monitoring period will commence immediately after construction. There will then be a correlation between the pre and post population assessments, which will help to determine whether there was an effect on population numbers in the study area and any necessary mitigation measure that may be required of the development.

After concluding this 52 week pre-assessment, it was found that there are two species of special concern (Sensitive) found in the area. As stated above, the eastern wood pewee and the killdeer both have a stable population (100+ occurrences) throughout Nova Scotia. This stability in population numbers indicates that it is not predicted that special precautions should be set into place. The access roads and turbine areas will not impact a great amount of actual disturbance, and should not be cleared during the months of May – August to avoid unnecessary impacts to the local avian population.

The Kemptown survey location is an adequate representation of a heavily harvested Acadian forests found throughout Nova Scotia. There are no habitat types or bird species unique in nature found throughout this study area. There are no threatened or endangered species found throughout the area. Based on the increased bird counts during the breeding months, it was found that there are breeding populations of birds found within the Kemptown area, however, as stated above, the habitat types are not unique, and therefore if birds need to relocate nesting grounds, there are suitable habitat types in close proximity.

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APPENDICES

Appendix 1. List of species and total counts found throughout the Kemptown wind farm study area, Colchester County, NS. Drawn by Black Bird Environmental Consulting, April 2012-March 2013.

TOTAL COUNT BY SPECIES			
Species	Total Count	Species	Total Count
American crow	356	Magnolia Warbler	39
Herring Gull	281	Northern Parula	38
Black-capped Chickadee	188	Red-breasted Nuthatch	35
Dark-eyed Junco	169	Red-eyed Vireo	34
Swainson's Thrush	167	Ruffed Grouse	34
white-throated Sparrow	151	Golden crowned kinglet	30
Blue Jay	120	Boreal Chickadee	10
American Robin	108	Common Raven	7
American Goldfinch	103	Yellow-bellied Sapsucker	7
Black-throated Green Warbler	91	American Woodcock	6
Common Yellowthroat	80	Hairy Woodpecker	6
Ovenbird	80	Pileated Woodpecker	4
Yellow Bellied Flycatcher	78	Red-winged Blackbird	4
Song Sparrow	69	Killdeer	3
Mourning Dove	64	Northern Flicker	3
Yellow-rumped Warbler	64	American Redstart	2
European Starling	60	Bald eagle	2
Alder Flycatcher	53	Ring-necked Pheasant	2
Winter Wren	49	Ruby-throated Hummingbird	1
Black-and-White Warbler	41		

Appendix 2. Two week supplemental study done on new Kemptown location, Colchester County, NS. Created by Black Bird Environmental Consulting, June 2013.

KEMPTOWN SUPPLEMENTAL RESULTS

Throughout the two week supplemental study done at the new Kemptown survey location, there was a total of 15 bird species recorded. All of these species had an S-Rank of S4S5 or higher. In comparison, in the supplemental survey there was no observance of the Eastern Wood Pee-wee (*Contopus virens*) and the Killdeer (*Charadrius vociferous*) (S3) as were recorded in the original survey. For a complete list of species recorded at supplemental location see table 1.

Table 1. Complete list of bird species observed during the 2 week supplemental study of the Kemptown survey location, Colchester County, Nova Scotia, data collected by Black Bird Environmental Consulting, April - March 2012-2013.

COMPLETE SPECIES LIST			
Common Name	Scientific Name	Global Ranks	Sub-National Ranks
American Robin	<i>Turdus migratorius</i>	G5	S5B*
American crow	<i>Corvus brachyrhynchos</i>	G5	S5
white-throated Sparrow	<i>Zonotrichia albicollis</i>	G5	S5B
Song Sparrow	<i>Melospiza melodia</i>	G5	S5B
American Goldfinch	<i>Carduelis tristis</i>	G5	S5
Swainson's Thrush	<i>Catharus ustulatus</i>	G5	S5
Yellow-rumped Warbler	<i>Dendroica coronata</i>	G5	S4S5B
Black-throated Green Warbler	<i>Dendroica virens</i>	G5	S4S5B
Ovenbird	<i>Seiurus aurocapillus</i>	G5	S5B
Black-capped Chickadee	<i>Poecile atricapilla</i>	G5	S5
Dark-eyed Junco	<i>Junco hyemalis</i>	G5	S4S5
Red-eyed Vireo	<i>Vireo olivaceus</i>	G5	S5B
Common Yellowthroat	<i>Geothlypis trichas</i>	G5	S5B
Northern Parula	<i>Parula americana</i>	G5	S5B
Ruffed Grouse	<i>Bonasa umbellus</i>	G5	S4S5B

During the two week supplemental study of the Kemptown survey location that took place throughout the month of June 2013, a total of 64 birds were recorded. In June 2012, 101 birds were recorded. There were 37 fewer birds recorded at the updated site location (figure 4).

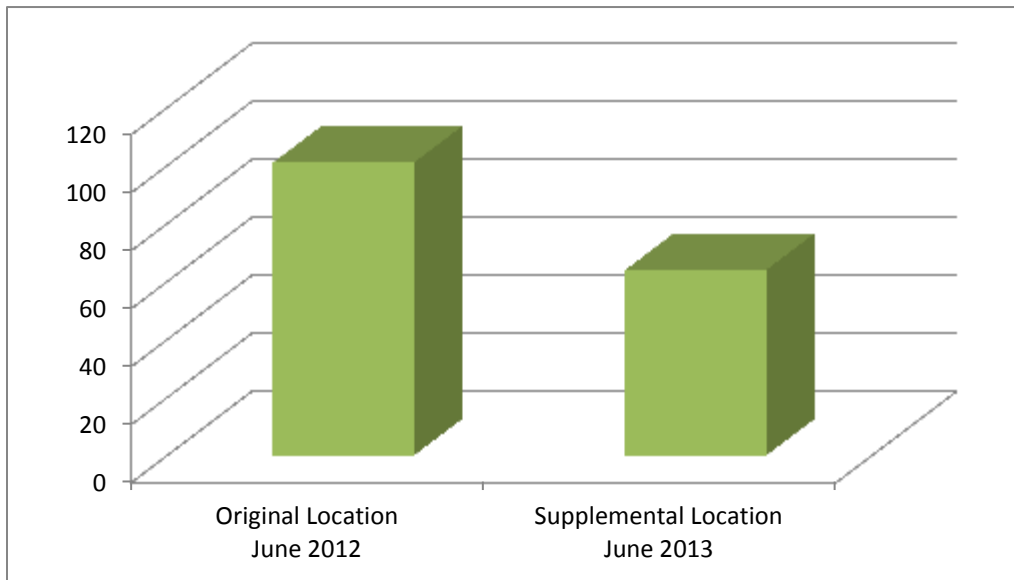


Figure 4. Comparison between mean bird totals found in June at the Kemptown original survey location and supplemental survey location during study, Kemptown, Colchester County, Nova Scotia, data collected by Black Bird Environmental Consulting.

During the two week supplemental study that took place throughout the month of June 2013, two habitat types were found at the supplemental Kemptown location. The two habitat types consisted of immature softwood, and immature mixedwood. 78 % of the total birds recorded were found in the immature softwood habitat type while 22 % of the total birds were found in the immature mixedwood field habitat type (figure 2).

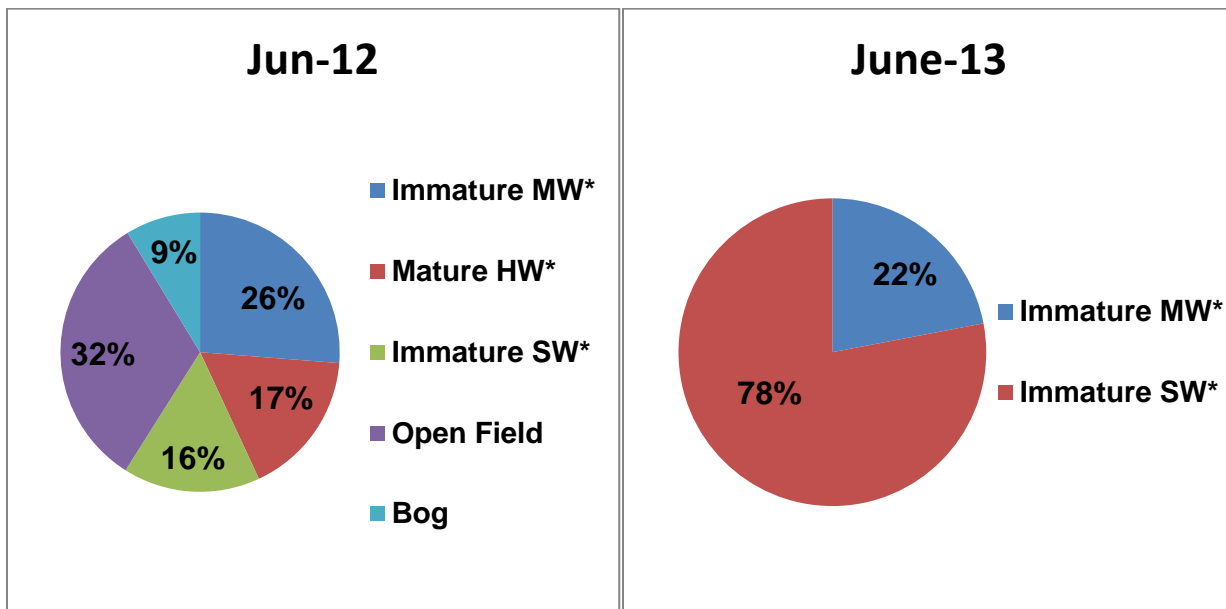


Figure 5. Comparison of percentage of total birds recorded throughout habitat types found within the Kemptown original survey location and the supplemental survey location, Colchester County, NS, data collected by Black Bird Environmental Consulting April – June 2012-2013.

MW : Mixedwood

HW: Hardwood

SW: Softwood

CONCLUSION

When comparing the previous and supplemental Kemptown locations, many factors indicate the supplemental location has potential to be the more desirable location (developer is choosing 3 out of 4) for turbine development. There were no species of concern as listed by the ACCDC found in the supplemental Kemptown location. When comparing this to the previous locations, three species were listed with S-ranks below S4 which is defined by the ACCDC as: usually widespread, fairly common, and apparently secure with many occurrences, but of longer-term concern (100+ occurrences). When comparing the original locations and the supplemental location, fewer birds were recorded in the supplemental location in June.

The habitat types at both of the locations are typical of a heavily harvested Acadian forest found throughout Nova Scotia. Although the supplemental location does not have as many habitat types, the types that are present are the same in nature of those found in the previous location.

It is recommended that the supplemental location be one of the locations used for turbine construction. Although no habitat impact would be the best case scenario, if access roads and turbine locations are constructed outside of the major migratory and breeding bird seasons, and are built with minimal new clearing, the development has a low potential to impact the avian population in the area.

Appendix 3. Tally sheets used throughout the Kemptown wind farm study area, Kemptown, Colchester County, NS. Created by Black Bird Environmental Consulting, April 2012-March 2013.

Date: April 6, 2012				
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky
	10	-4		clear
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
American Robin	<i>Turdus migratorius</i>	5	G5	S5B*
European Starling	<i>Sturnus vulgaris</i>	3	G5	SNA*
white-throated Sparrow	<i>Zonotrichia albicollis</i>	2	G5	S5B
Song Sparrow	<i>Melospiza melodia</i>	1	G5	S5B
Golden crowned kinglet	<i>Regulus satrapa</i>	1	G5	S4
Swainson's Thrush	<i>Catharus ustulatus</i>	2	G5	S4S5
	TOTAL	14		

Date: April 23, 2012				
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky
	10	1		clear
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
American Robin	<i>Turdus migratorius</i>	6	G5	S5B*
American crow	<i>Corvus brachyrhynchos</i>	5	G5	S5
European Starling	<i>Sturnus vulgaris</i>	6	G5	SNA*
white-throated Sparrow	<i>Zonotrichia albicollis</i>	2	G5	S5B
Song Sparrow	<i>Melospiza melodia</i>	3	G5	S5B
Golden crowned kinglet	<i>Regulus satrapa</i>	2	G5	S4
Swainson's Thrush	<i>Catharus ustulatus</i>	4	G5	S4S5
Black-capped Chickadee	<i>Poecile atricapilla</i>	7	G5	S5
Alder Flycatcher	<i>Empidonax alnorum</i>	1	G5	S5B
	TOTAL	36		

Date: April 13, 2012				
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky
	10	3		clear
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
American Robin	<i>Turdus migratorius</i>	7	G5	S5B*
Common Raven	<i>Corvus corax</i>	1	G5	S5
American crow	<i>Corvus brachyrhynchos</i>	4	G5	S5
European Starling	<i>Sturnus vulgaris</i>	6	G5	SNA*
white-throated Sparrow	<i>Zonotrichia albicollis</i>	7	G5	S5B
Song Sparrow	<i>Melospiza melodia</i>	1	G5	S5B
Pileated Woodpecker	<i>Dryocopus pileatus</i>	1	G5	S5
American Goldfinch	<i>Carduelis tristis</i>	9	G5	S5
Golden crowned kinglet	<i>Regulus satrapa</i>	2	G5	S4
Swainson's Thrush	<i>Catharus ustulatus</i>	4	G5	S4S5
Yellow-rumped Warbler	<i>Dendroica coronata</i>	8	G5	S5
Black-throated Green Warbler	<i>Dendroica virens</i>	8	G5	S4S5B
Black-and-White Warbler	<i>Mniotilta varia</i>	6	G5	S4S5B
Ovenbird	<i>Seiurus aurocapillus</i>	1	G5	S5B
Black-capped Chickadee	<i>Poecile atricapilla</i>	5	G5	S5
Yellow Bellied Sapsucker	<i>Phyrpicus varius</i>	1	G5	S4S5B
Dark-eyed Junco	<i>Junco hyemalis</i>	7	G5	S4S5
Red-eyed Vireo	<i>Vireo olivaceus</i>	1	G5	S5B
	TOTAL	79		

Date: May 18, 2012				
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky
	12	10		clear
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
American Robin	<i>Turdus migratorius</i>	4	G5	S5B*
American crow	<i>Corvus brachyrhynchos</i>	7	G5	S5
European Starling	<i>Sturnus vulgaris</i>	6	G5	SNA*
white-throated Sparrow	<i>Zonotrichia albicollis</i>	2	G5	S5B
Song Sparrow	<i>Melospiza melodia</i>	1	G5	S5B
Northern Flicker	<i>Colaptes auratus</i>	4	G5	S5B
American Goldfinch	<i>Carduelis tristis</i>	2	G5	S5
Golden crowned kinglet	<i>Regulus satrapa</i>	6	G5	S4
Swainson's Thrush	<i>Catharus ustulatus</i>	5	G5	S4S5
Yellow-rumped Warbler	<i>Dendroica coronata</i>	9	G5	S5
Black-throated Green Warbler	<i>Dendroica virens</i>	4	G5	S4S5B
Black-and-White Warbler	<i>Mniotilta varia</i>	2	G5	S4S5B
Ovenbird	<i>Seiurus aurocapillus</i>	1	G5	S5B
Winter Wren	<i>Troglodytes troglodytes</i>	1	G5	S5B
Black-capped Chickadee	<i>Poecile atricapilla</i>	5	G5	S5
Yellow Bellied Flycatcher	<i>Empidonax flaviventris</i>	11	G5	S4S5
Alder Flycatcher	<i>Empidonax alnorum</i>	5	G5	S5B
Dark-eyed Junco	<i>Junco hyemalis</i>	8	G5	S4S5
Red-eyed Vireo	<i>Vireo olivaceus</i>	2	G5	S5B
Common Yellowthroat	<i>Parula americana</i>	6	G5	S5B
Northern Parula	<i>Geothlypis trichas</i>	1	G5	S5B
American Woodcock	<i>Scolopax minor</i>	2	G5	S5B
	TOTAL	94		

Date: May 21, 2012				
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky
	6	13		clear
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
American Robin	<i>Turdus migratorius</i>	3	G5	S5B*
American crow	<i>Corvus brachyrhynchos</i>	3	G5	S5
white-throated Sparrow	<i>Zonotrichia albicollis</i>	10	G5	S5B
Northern Flicker	<i>Colaptes auratus</i>	2	G5	S5B
American Goldfinch	<i>Carduelis tristis</i>	2	G5	S5
Golden crowned kinglet	<i>Regulus satrapa</i>	2	G5	S4
Swainson's Thrush	<i>Catharus ustulatus</i>	9	G5	S4S5
Yellow-rumped Warbler	<i>Dendroica coronata</i>	6	G5	S5
Black-throated Green Warbler	<i>Dendroica virens</i>	10	G5	S4S5B
Black-and-White Warbler	<i>Mniotilta varia</i>	2	G5	S4S5B
Ovenbird	<i>Seiurus aurocapillus</i>	3	G5	S5B
Black-capped Chickadee	<i>Poecile atricapilla</i>	2	G5	S5
Yellow Bellied Flycatcher	<i>Empidonax flaviventris</i>	15	G5	S4S5
Alder Flycatcher	<i>Empidonax alnorum</i>	7	G5	S5B
Dark-eyed Junco	<i>Junco hyemalis</i>	11	G5	S4S5
Red-eyed Vireo	<i>Vireo olivaceus</i>	2	G5	S5B
Common Yellowthroat	<i>Parula americana</i>	16	G5	S5B
Northern Parula	<i>Geothlypis trichas</i>	1	G5	S5B
	TOTAL	106		

Date: June 1, 2012				
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky
	13	12		clear
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
American Robin	<i>Turdus migratorius</i>	5	G5	S5B*
Blue Jay	<i>Cyanocitta cristata</i>	3	G5	S5
Mourning Dove	<i>Zenaida macroura</i>	2	G5	S5
American crow	<i>Corvus brachyrhynchos</i>	3	G5	S5
white-throated Sparrow	<i>Zonotrichia albicollis</i>	7	G5	S5B
American Goldfinch	<i>Carduelis tristis</i>	5	G5	S5
Golden crowned kinglet	<i>Regulus satrapa</i>	3	G5	S4
Swainson's Thrush	<i>Catharus ustulatus</i>	9	G5	S4S5
Yellow-rumped Warbler	<i>Dendroica coronata</i>	4	G5	S5
Black-throated Green Warbler	<i>Dendroica virens</i>	10	G5	S4S5B
Black-and-White Warbler	<i>Mniotilta varia</i>	4	G5	S4S5B
Ovenbird	<i>Seiurus aurocapillus</i>	6	G5	S5B
Winter Wren	<i>Troglodytes troglodytes</i>	1	G5	S5B
Black-capped Chickadee	<i>Poecile atricapilla</i>	3	G5	S5
Yellow Bellied Flycatcher	<i>Empidonax flaviventris</i>	10	G5	S4S5
Alder Flycatcher	<i>Empidonax alnorum</i>	7	G5	S5B
Dark-eyed Junco	<i>Junco hyemalis</i>	9	G5	S4S5
Red-eyed Vireo	<i>Vireo olivaceus</i>	2	G5	S5B
Common Yellowthroat	<i>Parula americana</i>	11	G5	S5B
Northern Parula	<i>Geothlypis trichas</i>	3	G5	S5B
American Woodcock	<i>Scolopax minor</i>	2	G5	S5B
	TOTAL	109		

Date: June 10, 2012				
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky
	10	15		clear
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
American Robin	<i>Turdus migratorius</i>	9	G5	S5B*
Blue Jay	<i>Cyanocitta cristata</i>	4	G5	S5
Mourning Dove	<i>Zenaida macroura</i>	3	G5	S5
American crow	<i>Corvus brachyrhynchos</i>	5	G5	S5
white-throated Sparrow	<i>Zonotrichia albicollis</i>	6	G5	S5B
Song Sparrow	<i>Melospiza melodia</i>	2	G5	S5B
American Goldfinch	<i>Carduelis tristis</i>	8	G5	S5
Golden crowned kinglet	<i>Regulus satrapa</i>	2	G5	S4
Swainson's Thrush	<i>Catharus ustulatus</i>	10	G5	S4S5
Yellow-rumped Warbler	<i>Dendroica coronata</i>	4	G5	S5
Black-throated Green Warbler	<i>Dendroica virens</i>	9	G5	S4S5B
Ovenbird	<i>Seiurus aurocapillus</i>	9	G5	S5B
Winter Wren	<i>Troglodytes troglodytes</i>	1	G5	S5B
Black-capped Chickadee	<i>Poecile atricapilla</i>	3	G5	S5
Yellow Bellied Flycatcher	<i>Empidonax flaviventris</i>	8	G5	S4S5
Alder Flycatcher	<i>Empidonax alnorum</i>	6	G5	S5B
Dark-eyed Junco	<i>Junco hyemalis</i>	9	G5	S4S5
Red-eyed Vireo	<i>Vireo olivaceus</i>	4	G5	S5B
Common Yellowthroat	<i>Parula americana</i>	9	G5	S5B
Northern Parula	<i>Geothlypis trichas</i>	3	G5	S5B
	TOTAL	114		

Date: June 15, 2012				
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky
	13	12		overcast
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
American Robin	<i>Turdus migratorius</i>	4	G5	S5B*
Blue Jay	<i>Cyanocitta cristata</i>	2	G5	S5
American crow	<i>Corvus brachyrhynchos</i>	7	G5	S5
white-throated Sparrow	<i>Zonotrichia albicollis</i>	12	G5	S5B
Song Sparrow	<i>Melospiza melodia</i>	3	G5	S5B
American Goldfinch	<i>Carduelis tristis</i>	5	G5	S5
Swainson's Thrush	<i>Catharus ustulatus</i>	15	G5	S4S5
Yellow-rumped Warbler	<i>Dendroica coronata</i>	2	G5	S5
Black-throated Green Warbler	<i>Dendroica virens</i>	3	G5	S4S5B
Black-and-White Warbler	<i>Mniotilta varia</i>	2	G5	S4S5B
Ovenbird	<i>Seiurus aurocapillus</i>	4	G5	S5B
Black-capped Chickadee	<i>Poecile atricapilla</i>	2	G5	S5
Dark-eyed Junco	<i>Junco hyemalis</i>	5	G5	S4S5
Red-eyed Vireo	<i>Vireo olivaceus</i>	2	G5	S5B
Common Yellowthroat	<i>Parula americana</i>	5	G5	S5B
American Redstart	<i>Setophaga ruticilla</i>	1	G5	S5B
Northern Parula	<i>Geothlypis trichas</i>	4	G5	S5B
Ruffed Grouse	<i>Bonasa umbellus</i>	2	G5	S4S5B
American Woodcock	<i>Scolopax minor</i>	1	G5	S5B
	TOTAL	81		

Date: July 1, 2012				
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky
	11	14		clear
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
American Robin	<i>Turdus migratorius</i>	2	G5	S5B*
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	1	G5	S4S5B*
Mourning Dove	<i>Zenaida macroura</i>	5	G5	S5
American crow	<i>Corvus brachyrhynchos</i>	9	G5	S5
white-throated Sparrow	<i>Zonotrichia albicollis</i>	11	G5	S5B
Red-breasted Nuthatch	<i>Sitta canadensis</i>	3	G5	S4S5
American Goldfinch	<i>Carduelis tristis</i>	3	G5	S5
Swainson's Thrush	<i>Catharus ustulatus</i>	16	G5	S4S5
Yellow-rumped Warbler	<i>Dendroica coronata</i>	5	G5	S5
Black-throated Green Warbler	<i>Dendroica virens</i>	2	G5	S4S5B
Black-and-White Warbler	<i>Mniotilta varia</i>	3	G5	S4S5B
Magnolia Warbler	<i>Setophaga magnolia</i>	8	G5	S5B
Ovenbird	<i>Seiurus aurocapillus</i>	1	G5	S5B
Black-capped Chickadee	<i>Poecile atricapilla</i>	2	G5	S5
Yellow Bellied Flycatcher	<i>Empidonax flaviventris</i>	6	G5	S4S5
Alder Flycatcher	<i>Empidonax alnorum</i>	1	G5	S5B
Dark-eyed Junco	<i>Junco hyemalis</i>	11	G5	S4S5
Red-eyed Vireo	<i>Vireo olivaceus</i>	2	G5	S5B
Common Yellowthroat	<i>Geothlypis trichas</i>	3	G5	S5B
	TOTAL	94		

Date: July 7, 2012				
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky
	6	15		clear
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
American Robin	<i>Turdus migratorius</i>	9	G5	S5B*
Blue Jay	<i>Cyanocitta cristata</i>	4	G5	S5
Mourning Dove	<i>Zenaida macroura</i>	5	G5	S5
American crow	<i>Corvus brachyrhynchos</i>	4	G5	S5
white-throated Sparrow	<i>Zonotrichia albicollis</i>	10	G5	S5B
Song Sparrow	<i>Melospiza melodia</i>	5	G5	S5B
American Goldfinch	<i>Carduelis tristis</i>	11	G5	S5
Golden crowned kinglet	<i>Regulus satrapa</i>	3	G5	S5
Swainson's Thrush	<i>Catharus ustulatus</i>	11	G5	S4
Yellow-rumped Warbler	<i>Dendroica coronata</i>	2	G5	S5
Black-throated Green Warbler	<i>Dendroica virens</i>	7	G5	S4S5B
Ovenbird	<i>Seiurus aurocapillus</i>	10	G5	S5B
Winter Wren	<i>Troglodytes troglodytes</i>	2	G5	S5B
Black-capped Chickadee	<i>Poecile atricapilla</i>	4	G5	S5
Yellow Bellied Flycatcher	<i>Empidonax flaviventris</i>	2	G5	S4S5
Alder Flycatcher	<i>Empidonax alnorum</i>	6	G5	S5B
Dark-eyed Junco	<i>Junco hyemalis</i>	9	G5	S4S5
Red-eyed Vireo	<i>Vireo olivaceus</i>	3	G5	S5B
Common Yellowthroat	<i>Geothlypis trichas</i>	3	G5	S5B
Northern Parula	<i>Parula americana</i>	4	G5	S5B
	TOTAL	114		

Date: July 14, 2012				
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky
	9	17		clear
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
American Robin	<i>Turdus migratorius</i>	3	G5	S5B*
Blue Jay	<i>Cyanocitta cristata</i>	5	G5	S5
Mourning Dove	<i>Zenaida macroura</i>	5	G5	S5
American crow	<i>Corvus brachyrhynchos</i>	4	G5	S5
white-throated Sparrow	<i>Zonotrichia albicollis</i>	8	G5	S5B
Song Sparrow	<i>Melospiza melodia</i>	4	G5	S5B
American Goldfinch	<i>Carduelis tristis</i>	9	G5	S5
Golden crowned kinglet	<i>Regulus satrapa</i>	4	G5	S5
Swainson's Thrush	<i>Catharus ustulatus</i>	8	G5	S4
Yellow-rumped Warbler	<i>Dendroica coronata</i>	3	G5	S5
Black-throated Green Warbler	<i>Dendroica virens</i>	8	G5	S4S5B
Ovenbird	<i>Seiurus aurocapillus</i>	5	G5	S5B
Winter Wren	<i>Troglodytes troglodytes</i>	3	G5	S5B
Black-capped Chickadee	<i>Poecile atricapilla</i>	5	G5	S5
Yellow Bellied Flycatcher	<i>Empidonax flaviventris</i>	3	G5	S4S5
Alder Flycatcher	<i>Empidonax alnorum</i>	6	G5	S5B
Dark-eyed Junco	<i>Junco hyemalis</i>	5	G5	S4S5
Red-eyed Vireo	<i>Vireo olivaceus</i>	6	G5	S5B
Common Yellowthroat	<i>Geothlypis trichas</i>	4	G5	S5B
Northern Parula	<i>Parula americana</i>	4	G5	S5B
	TOTAL	102		

Date: July 25, 2012				
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky
	5	14		clear
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
American Robin	<i>Turdus migratorius</i>	5	G5	S5B*
Blue Jay	<i>Cyanocitta cristata</i>	5	G5	S5
American crow	<i>Corvus brachyrhynchos</i>	4	G5	S5
white-throated Sparrow	<i>Zonotrichia albicollis</i>	14	G5	S5B
Song Sparrow	<i>Melospiza melodia</i>	10	G5	S5B
American Goldfinch	<i>Carduelis tristis</i>	9	G5	S5
Golden crowned kinglet	<i>Regulus satrapa</i>	3	G5	S5
Swainson's Thrush	<i>Catharus ustulatus</i>	11	G5	S4
Yellow-rumped Warbler	<i>Dendroica coronata</i>	6	G5	S5
Black-throated Green Warbler	<i>Dendroica virens</i>	3	G5	S4S5B
Black-and-White Warbler	<i>Mniotilta varia</i>	5	G5	S4S5B
Magnolia Warbler	<i>Setophaga magnolia</i>	2	G5	S5B
Ovenbird	<i>Seiurus aurocapillus</i>	4	G5	S5B
Winter Wren	<i>Troglodytes troglodytes</i>	5	G5	S5B
Black-capped Chickadee	<i>Poecile atricapilla</i>	6	G5	S5
Yellow Bellied Flycatcher	<i>Empidonax flaviventris</i>	2	G5	S4S5
Alder Flycatcher	<i>Empidonax alnorum</i>	3	G5	S5B
Dark-eyed Junco	<i>Junco hyemalis</i>	7	G5	S4S5
Red-eyed Vireo	<i>Vireo olivaceus</i>	4	G5	S5B
Common Yellowthroat	<i>Geothlypis trichas</i>	3	G5	S5B
American Redstart	<i>Setophaga ruticilla</i>	1	G5	S5B
Northern Parula	<i>Parula americana</i>	6	G5	S5B
Ruffed Grouse	<i>Bonasa umbellus</i>	1	G5	S4S5B
	TOTAL	119		

Date: July 31, 2012				
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky
	15	17		clear
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
American Robin	<i>Turdus migratorius</i>	2	G5	S5B*
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	1	G5	S4S5B*
Mourning Dove	<i>Zenaida macroura</i>	5	G5	S5
American crow	<i>Corvus brachyrhynchos</i>	9	G5	S5
white-throated Sparrow	<i>Zonotrichia albicollis</i>	11	G5	S5B
Red-breasted Nuthatch	<i>Sitta canadensis</i>	3	G5	S4S5
American Goldfinch	<i>Carduelis tristis</i>	3	G5	S5
Swainson's Thrush	<i>Catharus ustulatus</i>	16	G5	S4S5
Yellow-rumped Warbler	<i>Dendroica coronata</i>	5	G5	S5
Black-throated Green Warbler	<i>Dendroica virens</i>	2	G5	S4S5B
Black-and-White Warbler	<i>Mniotilta varia</i>	3	G5	S4S5B
Magnolia Warbler	<i>Setophaga magnolia</i>	8	G5	S5B
Ovenbird	<i>Seiurus aurocapillus</i>	1	G5	S5B
Black-capped Chickadee	<i>Poecile atricapilla</i>	2	G5	S5
Yellow Bellied Flycatcher	<i>Empidonax flaviventris</i>	6	G5	S4S5
Alder Flycatcher	<i>Empidonax alnorum</i>	1	G5	S5B
Dark-eyed Junco	<i>Junco hyemalis</i>	11	G5	S4S5
Red-eyed Vireo	<i>Vireo olivaceus</i>	2	G5	S5B
Common Yellowthroat	<i>Geothlypis trichas</i>	3	G5	S5B
Ruffed Grouse	<i>Bonasa umbellus</i>	1	G5	S4S5B
	TOTAL	95		

Date: August 3, 2012				
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky
	8	16		clear
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
American Robin	<i>Turdus migratorius</i>	6	G5	S5B*
Blue Jay	<i>Cyanocitta cristata</i>	3	G5	S5
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	2	G5	S4S5B*
Mourning Dove	<i>Zenaida macroura</i>	3	G5	S5
white-throated Sparrow	<i>Zonotrichia albicollis</i>	9	G5	S5B
Song Sparrow	<i>Melospiza melodia</i>	5	G5	S5B
Killdeer	<i>Charadrius vociferus</i>	1	G5	S3S4B
Yellow-bellied Sapsucker	<i>phyrapicus varius</i>	2	G5	S4S5B
Red-breasted Nuthatch	<i>Sitta canadensis</i>	2	G5	S4S5
American Goldfinch	<i>Carduelis tristis</i>	7	G5	S5
Golden crowned kinglet	<i>Regulus satrapa</i>	1	G5	S5
Swainson's Thrush	<i>Catharus ustulatus</i>	9	G5	S4
Yellow-rumped Warbler	<i>Dendroica coronata</i>	4	G5	S5
Black-throated Green Warbler	<i>Dendroica virens</i>	5	G5	S4S5B
Black-and-White Warbler	<i>Mniotilta varia</i>	4	G5	S4S5B
Magnolia Warbler	<i>Setophaga magnolia</i>	5	G5	S5B
Ovenbird	<i>Seiurus aurocapillus</i>	9	G5	S5B
Winter Wren	<i>Troglodytes troglodytes</i>	3	G5	S5B
Black-capped Chickadee	<i>Poecile atricapilla</i>	4	G5	S5
Yellow Bellied Flycatcher	<i>Empidonax flaviventris</i>	4	G5	S4S5
Alder Flycatcher	<i>Empidonax alnorum</i>	3	G5	S5B
Dark-eyed Junco	<i>Junco hyemalis</i>	4	G5	S4S5
Red-eyed Vireo	<i>Vireo olivaceus</i>	1	G5	S5B
Common Yellowthroat	<i>Geothlypis trichas</i>	2	G5	S5B
Northern Parula	<i>Parula americana</i>	3	G5	S5B

	TOTAL	101		
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Date: August 11, 2012				
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky
	12	14		clear
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
American Robin	<i>Turdus migratorius</i>	3	G5	S5B*
Mourning Dove	<i>Zenaida macroura</i>	4	G5	S5
Herring Gull	<i>Larus argentatus</i>	2	G5	S4S5
American crow	<i>Corvus brachyrhynchos</i>	3	G5	S5
European Starling	<i>Sturnus vulgaris</i>	4	G5	SNA*
white-throated Sparrow	<i>Zonotrichia albicollis</i>	9	G5	S5B
Song Sparrow	<i>Melospiza melodia</i>	6	G5	S5B
Killdeer	<i>Charadrius vociferus</i>	1	G5	S3S4B
Yellow-bellied Sapsucker	<i>phyrapicus varius</i>	1	G5	S4S5B
Red-breasted Nuthatch	<i>Sitta canadensis</i>	2	G5	S4S5
American Goldfinch	<i>Carduelis tristis</i>	6	G5	S5
Golden crowned kinglet	<i>Regulus satrapa</i>	1	G5	S5
Swainson's Thrush	<i>Catharus ustulatus</i>	10	G5	S4
Yellow-rumped Warbler	<i>Dendroica coronata</i>	4	G5	S5
Black-throated Green Warbler	<i>Dendroica virens</i>	4	G5	S4S5B
Black-and-White Warbler	<i>Mniotilta varia</i>	3	G5	S4S5B
Magnolia Warbler	<i>Setophaga magnolia</i>	6	G5	S5B
Ovenbird	<i>Seiurus aurocapillus</i>	6	G5	S5B
Winter Wren	<i>Troglodytes troglodytes</i>	4	G5	S5B
Black-capped Chickadee	<i>Poecile atricapilla</i>	3	G5	S5
Yellow Bellied Flycatcher	<i>Empidonax flaviventris</i>	3	G5	S4S5
Alder Flycatcher	<i>Empidonax alnorum</i>	2	G5	S5B

Dark-eyed Junco	<i>Junco hyemalis</i>	2	G5	S4S5
Northern Parula	<i>Parula americana</i>	2	G5	S5B
Ruffed Grouse	<i>Bonasa umbellus</i>	1	G5	S4S5B
Bald eagle	<i>Haliaeetus leucocephalus</i>	1	G5	S4
	TOTAL	93		

Date: August 18, 2012				
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky
	19	9		overcast
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
American Robin	<i>Turdus migratorius</i>	4	G5	S5B*
Blue Jay	<i>Cyanocitta cristata</i>	6	G5	S5
Mourning Dove	<i>Zenaida macroura</i>	3	G5	S5
American crow	<i>Corvus brachyrhynchos</i>	1	G5	S5
white-throated Sparrow	<i>Zonotrichia albicollis</i>	7	G5	S5B
Song Sparrow	<i>Melospiza melodia</i>	4	G5	S5B
Yellow-bellied Sapsucker	<i>phyrapicus varius</i>	2	G5	S4S5B
Red-breasted Nuthatch	<i>Sitta canadensis</i>	4	G5	S4S5
American Goldfinch	<i>Carduelis tristis</i>	5	G5	S5
Golden crowned kinglet	<i>Regulus satrapa</i>	2	G5	S5
Swainson's Thrush	<i>Catharus ustulatus</i>	6	G5	S4
Yellow-rumped Warbler	<i>Dendroica coronata</i>	2	G5	S5
Black-throated Green Warbler	<i>Dendroica virens</i>	5	G5	S4S5B
Black-and-White Warbler	<i>Mniotilta varia</i>	2	G5	S4S5B
Magnolia Warbler	<i>Setophaga magnolia</i>	4	G5	S5B
Ovenbird	<i>Seiurus aurocapillus</i>	8	G5	S5B
Winter Wren	<i>Troglodytes troglodytes</i>	5	G5	S5B
Black-capped Chickadee	<i>Poecile atricapilla</i>	2	G5	S5

Yellow Bellied Flycatcher	<i>Empidonax flaviventris</i>	3	G5	S4S5
Alder Flycatcher	<i>Empidonax alnorum</i>	2	G5	S5B
Dark-eyed Junco	<i>Junco hyemalis</i>	5	G5	S4S5
Red-eyed Vireo	<i>Vireo olivaceus</i>	1	G5	S5B
Common Yellowthroat	<i>Geothlypis trichas</i>	2	G5	S5B
Northern Parula	<i>Parula americana</i>	3	G5	S5B
Ruby-throated Hummingbird	<i>Archilochus colubris</i>	1	G5	S5B
Ruffed Grouse	<i>Bonasa umbellus</i>	1	G5	S4S5B
American Woodcock	<i>Scolopax minor</i>	1	G5	S5B
Ring-necked Pheasant	<i>Phasianus colchicus</i>	1	G5	SNA
	TOTAL	92		

Date: August 25, 2012				
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky
	17	23		clear
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
American Robin	<i>Turdus migratorius</i>	2	G5	S5B*
Blue Jay	<i>Cyanocitta cristata</i>	7	G5	S5
Mourning Dove	<i>Zenaidura macroura</i>	4	G5	S5
Herring Gull	<i>Larus argentatus</i>	1	G5	S4S5
American crow	<i>Corvus brachyrhynchos</i>	2	G5	S5
European Starling	<i>Sturnus vulgaris</i>	6	G5	SNA*
white-throated Sparrow	<i>Zonotrichia albicollis</i>	6	G5	S5B
Song Sparrow	<i>Melospiza melodia</i>	4	G5	S5B
Killdeer	<i>Charadrius vociferus</i>	1	G5	S3S4B
Yellow-bellied Sapsucker	<i>phyrapicus varius</i>	1	G5	S4S5B
Red-breasted Nuthatch	<i>Sitta canadensis</i>	3	G5	S4S5
American Goldfinch	<i>Carduelis tristis</i>	8	G5	S5

Golden crowned kinglet	<i>Regulus satrapa</i>	1	G5	S5
Swainson's Thrush	<i>Catharus ustulatus</i>	9	G5	S4
Yellow-rumped Warbler	<i>Dendroica coronata</i>	3	G5	S5
Black-throated Green Warbler	<i>Dendroica virens</i>	4	G5	S4S5B
Black-and-White Warbler	<i>Mniotilta varia</i>	2	G5	S4S5B
Magnolia Warbler	<i>Setophaga magnolia</i>	4	G5	S5B
Ovenbird	<i>Seiurus aurocapillus</i>	7	G5	S5B
Winter Wren	<i>Troglodytes troglodytes</i>	4	G5	S5B
Black-capped Chickadee	<i>Poecile atricapilla</i>	5	G5	S5
Yellow Bellied Flycatcher	<i>Empidonax flaviventris</i>	2	G5	S4S5
Alder Flycatcher	<i>Empidonax alnorum</i>	2	G5	S5B
Dark-eyed Junco	<i>Junco hyemalis</i>	6	G5	S4S5
Red-eyed Vireo	<i>Vireo olivaceus</i>	1	G5	S5B
Common Yellowthroat	<i>Geothlypis trichas</i>	1	G5	S5B
Northern Parula	<i>Parula americana</i>	2	G5	S5B
Ruffed Grouse	<i>Bonasa umbellus</i>	1	G5	S4S5B
Ring-necked Pheasant	<i>Phasianus colchicus</i>	1	G5	SNA
	TOTAL	100		

Date: August 31, 2012				
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky
	15	16		clear
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
American Robin	<i>Turdus migratorius</i>	3	G5	S5B*
Blue Jay	<i>Cyanocitta cristata</i>	9	G5	S5
Mourning Dove	<i>Zenaida macroura</i>	5	G5	S5
Herring Gull	<i>Larus argentatus</i>	1	G5	S4S5
American crow	<i>Corvus brachyrhynchos</i>	1	G5	S5

European Starling	<i>Sturnus vulgaris</i>	7	G5	SNA*
white-throated Sparrow	<i>Zonotrichia albicollis</i>	3	G5	S5B
Song Sparrow	<i>Melospiza melodia</i>	5	G5	S5B
Yellow-bellied Sapsucker	<i>phyrapicus varius</i>	1	G5	S4S5B
Red-breasted Nuthatch	<i>Sitta canadensis</i>	2	G5	S4S5
American Goldfinch	<i>Carduelis tristis</i>	9	G5	S5
Golden crowned kinglet	<i>Regulus satrapa</i>	1	G5	S5
Swainson's Thrush	<i>Catharus ustulatus</i>	3	G5	S4
Yellow-rumped Warbler	<i>Dendroica coronata</i>	1	G5	S5
Black-throated Green Warbler	<i>Dendroica virens</i>	2	G5	S4S5B
Black-and-White Warbler	<i>Mniotilta varia</i>	1	G5	S4S5B
Magnolia Warbler	<i>Setophaga magnolia</i>	2	G5	S5B
Ovenbird	<i>Seiurus aurocapillus</i>	4	G5	S5B
Winter Wren	<i>Troglodytes troglodytes</i>	2	G5	S5B
Black-capped Chickadee	<i>Poecile atricapilla</i>	6	G5	S5
Yellow Bellied Flycatcher	<i>Empidonax flaviventris</i>	2	G5	S4S5
Alder Flycatcher	<i>Empidonax alnorum</i>	1	G5	S5B
Dark-eyed Junco	<i>Junco hyemalis</i>	6	G5	S4S5
Red-eyed Vireo	<i>Vireo olivaceus</i>	1	G5	S5B
Common Yellowthroat	<i>Geothlypis trichas</i>	1	G5	S5B
Northern Parula	<i>Parula americana</i>	2	G5	S5B
Ruffed Grouse	<i>Bonasa umbellus</i>	2	G5	S4S5B
Bald eagle	<i>Haliaeetus leucocephalus</i>	1	G5	S4
	TOTAL	84		

Date: September 5, 2012				
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky
	18	15		overcast
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
American Robin	<i>Turdus migratorius</i>	6	G5	S5B*
Blue Jay	<i>Cyanocitta cristata</i>	5	G5	S5
Mourning Dove	<i>Zenaida macroura</i>	5	G5	S5
Herring Gull	<i>Larus argentatus</i>	9	G5	S4S5
American crow	<i>Corvus brachyrhynchos</i>	6	G5	S5
European Starling	<i>Sturnus vulgaris</i>	8	G5	SNA*
white-throated Sparrow	<i>Zonotrichia albicollis</i>	4	G5	S5B
Song Sparrow	<i>Melospiza melodia</i>	3	G5	S5B
Swainson's Thrush	<i>Catharus ustulatus</i>	3	G5	S4
Winter Wren	<i>Troglodytes troglodytes</i>	6	G5	S5B
Black-capped Chickadee	<i>Poecile atricapilla</i>	5	G5	S5
Dark-eyed Junco	<i>Junco hyemalis</i>	3	G5	S4S5
Common Yellowthroat	<i>Geothlypis trichas</i>	3	G5	S5B
Ruffed Grouse	<i>Bonasa umbellus</i>	4	G5	S4S5B
	TOTAL	70		

Date: September 14, 2012				
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky
	14	16		clear
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
American Robin	<i>Turdus migratorius</i>	7	G5	S5B*
Blue Jay	<i>Cyanocitta cristata</i>	7	G5	S5
Mourning Dove	<i>Zenaida macroura</i>	4	G5	S5
Herring Gull	<i>Larus argentatus</i>	8	G5	S4S5

American crow	<i>Corvus brachyrhynchos</i>	9	G5	S5
European Starling	<i>Sturnus vulgaris</i>	5	G5	SNA*
white-throated Sparrow	<i>Zonotrichia albicollis</i>	2	G5	S5B
Song Sparrow	<i>Melospiza melodia</i>	1	G5	S5B
Swainson's Thrush	<i>Catharus ustulatus</i>	2	G5	S4
Winter Wren	<i>Troglodytes troglodytes</i>	7	G5	S5B
Black-capped Chickadee	<i>Poecile atricapilla</i>	3	G5	S5
Dark-eyed Junco	<i>Junco hyemalis</i>	6	G5	S4S5
Common Yellowthroat	<i>Geothlypis trichas</i>	5	G5	S5B
Ruffed Grouse	<i>Bonasa umbellus</i>	5	G5	S4S5B
TOTAL		71		

Date: September 22, 2012				
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky
	16	14		overcast
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
American Robin	<i>Turdus migratorius</i>	5	G5	S5B*
Blue Jay	<i>Cyanocitta cristata</i>	8	G5	S5
Mourning Dove	<i>Zenaida macroura</i>	5	G5	S5
Herring Gull	<i>Larus argentatus</i>	31	G5	S4S5
American crow	<i>Corvus brachyrhynchos</i>	18	G5	S5
European Starling	<i>Sturnus vulgaris</i>	8	G5	SNA*
white-throated Sparrow	<i>Zonotrichia albicollis</i>	1	G5	S5B
Song Sparrow	<i>Melospiza melodia</i>	5	G5	S5B
Swainson's Thrush	<i>Catharus ustulatus</i>	4	G5	S4
Black-capped Chickadee	<i>Poecile atricapilla</i>	4	G5	S5
Dark-eyed Junco	<i>Junco hyemalis</i>	4	G5	S4S5
Common Yellowthroat	<i>Geothlypis trichas</i>	2	G5	S5B

Ruffed Grouse	<i>Bonasa umbellus</i>	3	G5	S4S5B
	TOTAL	98		

Date: September 29, 2012				
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky
	12	16		clear
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
American Robin	<i>Turdus migratorius</i>	2	G5	S5B*
Blue Jay	<i>Cyanocitta cristata</i>	4	G5	S5
Mourning Dove	<i>Zenaida macroura</i>	5	G5	S5
Herring Gull	<i>Larus argentatus</i>	15	G5	S4S5
American crow	<i>Corvus brachyrhynchos</i>	12	G5	S5
white-throated Sparrow	<i>Zonotrichia albicollis</i>	3	G5	S5B
Song Sparrow	<i>Melospiza melodia</i>	4	G5	S5B
Black-capped Chickadee	<i>Poecile atricapilla</i>	5	G5	S5
Dark-eyed Junco	<i>Junco hyemalis</i>	5	G5	S4S5
Common Yellowthroat	<i>Geothlypis trichas</i>	1	G5	S5B
Ruffed Grouse	<i>Bonasa umbellus</i>	4	G5	S4S5B
	TOTAL	60		

Date: October 3, 2012				
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky
	11	11		overcast
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
American Robin	<i>Turdus migratorius</i>	3	G5	S5B*
Blue Jay	<i>Cyanocitta cristata</i>	5	G5	S5
Herring Gull	<i>Larus argentatus</i>	12	G5	S4S5
American crow	<i>Corvus brachyrhynchos</i>	16	G5	S5
white-throated Sparrow	<i>Zonotrichia albicollis</i>	1	G5	S5B
Song Sparrow	<i>Melospiza melodia</i>	1	G5	S5B
Red-breasted Nuthatch	<i>Sitta canadensis</i>	1	G5	S4S5
Black-capped Chickadee	<i>Poecile atricapilla</i>	8	G5	S5
Ruffed Grouse	<i>Bonasa umbellus</i>	1	G5	S4S5B
	TOTAL	48		

Date: October 9, 2012				
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky
	9	10		clear
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
Herring Gull	<i>Larus argentatus</i>	14	G5	S4S5
Common Raven	<i>Corvus corax</i>	4	G5	S5
American crow	<i>Corvus brachyrhynchos</i>	13	G5	S5
Pileated Woodpecker	<i>Dryocopus pileatus</i>	1	G5	S5
Winter Wren	<i>Troglodytes troglodytes</i>	1	G5	S5B
Black-capped Chickadee	<i>Poecile atricapilla</i>	10	G5	S5
Dark-eyed Junco	<i>Junco hyemalis</i>	1	G5	S4S5
Ruffed Grouse	<i>Bonasa umbellus</i>	2	G5	S4S5B
	TOTAL	46		

Date: October 17, 2012				
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky
	5	9		clear
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
American Robin	<i>Turdus migratorius</i>	2	G5	S5B*
Blue Jay	<i>Cyanocitta cristata</i>	6	G5	S5
Herring Gull	<i>Larus argentatus</i>	10	G5	S4S5
American crow	<i>Corvus brachyrhynchos</i>	20	G5	S5
Pileated Woodpecker	<i>Dryocopus pileatus</i>	1	G5	S5
Hairy Woodpecker	<i>Picoides villosus</i>	2	G5	S5
Red-breasted Nuthatch	<i>Sitta canadensis</i>	3	G5	S4S5
Winter Wren	<i>Troglodytes troglodytes</i>	3	G5	S5B
Black-capped Chickadee	<i>Poecile atricapilla</i>	13	G5	S5
Boreal Chickadee	<i>Poecile hudsonicus</i>	1	G5	S3
Dark-eyed Junco	<i>Junco hyemalis</i>	3	G5	S4S5
Ruffed Grouse	<i>Bonasa umbellus</i>	1	G5	S4S5B
	TOTAL	65		

Date: October 23, 2012				
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky
	10	7		overcast
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
Blue Jay	<i>Cyanocitta cristata</i>	3	G5	S5
Herring Gull	<i>Larus argentatus</i>	25	G5	S4S5
American crow	<i>Corvus brachyrhynchos</i>	30	G5	S5
Red-breasted Nuthatch	<i>Sitta canadensis</i>	1	G5	S4S5
Winter Wren	<i>Troglodytes troglodytes</i>	1	G5	S5B
Black-capped Chickadee	<i>Poecile atricapilla</i>	9	G5	S5
Boreal Chickadee	<i>Poecile hudsonicus</i>	2	G5	S3
Dark-eyed Junco	<i>Junco hyemalis</i>	2	G5	S4S5
	TOTAL	73		

Date: October 27, 2012				
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky
	12	4		clear
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
Blue Jay	<i>Cyanocitta cristata</i>	5	G5	S5
Herring Gull	<i>Larus argentatus</i>	14	G5	S4S5
American crow	<i>Corvus brachyrhynchos</i>	24	G5	S5
Red-breasted Nuthatch	<i>Sitta canadensis</i>	2	G5	S4S5
Black-capped Chickadee	<i>Poecile atricapilla</i>	8	G5	S5
Dark-eyed Junco	<i>Junco hyemalis</i>	3	G5	S4S5
	TOTAL	56		

Date: November 2, 2012				
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky
		12	4	
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
Blue Jay	<i>Cyanocitta cristata</i>	4	G5	S5
Herring Gull	<i>Larus argentatus</i>	24	G5	S4S5
American crow	<i>Corvus brachyrhynchos</i>	37	G5	S5
Red-breasted Nuthatch	<i>Sitta canadensis</i>	1	G5	S4S5
Black-capped Chickadee	<i>Poecile atricapilla</i>	11	G5	S5
Dark-eyed Junco	<i>Junco hyemalis</i>	1	G5	S4S5
Ruffed Grouse	<i>Bonasa umbellus</i>	1	G5	S4S5B
	TOTAL	79		

Date: November 10, 2012				
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky
		12	10	
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
Blue Jay	<i>Cyanocitta cristata</i>	5	G5	S5
Herring Gull	<i>Larus argentatus</i>	18	G5	S4S5
American crow	<i>Corvus brachyrhynchos</i>	22	G5	S5
Hairy Woodpecker	<i>Picoides villosus</i>	2	G5	S5
Black-capped Chickadee	<i>Poecile atricapilla</i>	10	G5	S5
Boreal Chickadee	<i>Poecile hudsonicus</i>	3	G5	S3
Dark-eyed Junco	<i>Junco hyemalis</i>	3	G5	S4S5
	TOTAL	63		

Date: November 18, 2012				
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky
	11	1		overcast
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
Blue Jay	<i>Cyanocitta cristata</i>	4	G5	S5
Mourning Dove	<i>Zenaida macroura</i>	1	G5	S5
Herring Gull	<i>Larus argentatus</i>	12	G5	S4S5
American crow	<i>Corvus brachyrhynchos</i>	18	G5	S5
Red-breasted Nuthatch	<i>Sitta canadensis</i>	3	G5	S4S5
Black-capped Chickadee	<i>Poecile atricapilla</i>	6	G5	S5
Boreal Chickadee	<i>Poecile hudsonicus</i>	1	G5	S3
Dark-eyed Junco	<i>Junco hyemalis</i>	5	G5	S4S5
Ruffed Grouse	<i>Bonasa umbellus</i>	1	G5	S4S5B
	TOTAL	51		

Date: November 23, 2012				
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky
	8	-1		flurries
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
Blue Jay	<i>Cyanocitta cristata</i>	3	G5	S5
Herring Gull	<i>Larus argentatus</i>	16	G5	S4S5
Common Raven	<i>Corvus corax</i>	2	G5	S5
American crow	<i>Corvus brachyrhynchos</i>	19	G5	S5
Pileated Woodpecker	<i>Dryocopus pileatus</i>	1	G5	S5
Hairy Woodpecker	<i>Picoides villosus</i>	2	G5	S5
Red-breasted Nuthatch	<i>Sitta canadensis</i>	4	G5	S4S5
Black-capped Chickadee	<i>Poecile atricapilla</i>	7	G5	S5
Boreal Chickadee	<i>Poecile hudsonicus</i>	2	G5	S3
Dark-eyed Junco	<i>Junco hyemalis</i>	6	G5	S4S5
	TOTAL	62		

Date: November 27, 2012				
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky
	18	1		clear
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
Blue Jay	<i>Cyanocitta cristata</i>	1	G5	S5
Herring Gull	<i>Larus argentatus</i>	9	G5	S4S5
American crow	<i>Corvus brachyrhynchos</i>	10	G5	S5
Red-breasted Nuthatch	<i>Sitta canadensis</i>	1	G5	S4S5
Black-capped Chickadee	<i>Poecile atricapilla</i>	5	G5	S5
Boreal Chickadee	<i>Poecile hudsonicus</i>	1	G5	S3
Dark-eyed Junco	<i>Junco hyemalis</i>	4	G5	S4S5
	TOTAL	31		

Date: December 8, 2012				
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky
	6	-8		clear
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
Blue Jay	<i>Cyanocitta cristata</i>	2	G5	S5
Herring Gull	<i>Larus argentatus</i>	18	G5	S4S5
American crow	<i>Corvus brachyrhynchos</i>	2	G5	S5
Black-capped Chickadee	<i>Poecile atricapilla</i>	3	G5	S5
Dark-eyed Junco	<i>Junco hyemalis</i>	2	G5	S4S5
	TOTAL	27		

Date: December 30, 2012				
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky
		10	-3	
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
Blue Jay	<i>Cyanocitta cristata</i>	2	G5	S5
Herring Gull	<i>Larus argentatus</i>	13	G5	S4S5
American crow	<i>Corvus brachyrhynchos</i>	9	G5	S5
Black-capped Chickadee	<i>Poecile atricapilla</i>	2	G5	S5
Dark-eyed Junco	<i>Junco hyemalis</i>	4	G5	S4S5
Ruffed Grouse	<i>Bonasa umbellus</i>	2	G5	S4S5B
	TOTAL	32		

Date: January 19, 2013				
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky
		13	-3	
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
Blue Jay	<i>Cyanocitta cristata</i>	1	G5	S5
Herring Gull	<i>Larus argentatus</i>	8	G5	S4S5
American crow	<i>Corvus brachyrhynchos</i>	6	G5	S5
Black-capped Chickadee	<i>Poecile atricapilla</i>	2	G5	S5
Dark-eyed Junco	<i>Junco hyemalis</i>	2	G5	S4S5
Ruffed Grouse	<i>Bonasa umbellus</i>	1	G5	S4S5B
	TOTAL	20		

Date: February 16, 2013				
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky
	11	-4		clear
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
Blue Jay	<i>Cyanocitta cristata</i>	1	G5	S5
Herring Gull	<i>Larus argentatus</i>	6	G5	S4S5
American crow	<i>Corvus brachyrhynchos</i>	4	G5	S5
Black-capped Chickadee	<i>Poecile atricapilla</i>	3	G5	S5
	TOTAL	14		

Date: March 10, 2013				
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky
	13	-1		clear
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
Blue Jay	<i>Cyanocitta cristata</i>	2	G5	S5
Herring Gull	<i>Larus argentatus</i>	7	G5	S4S5
American crow	<i>Corvus brachyrhynchos</i>	6	G5	S5
Black-capped Chickadee	<i>Poecile atricapilla</i>	5	G5	S5
	TOTAL	20		

Date: March 24, 2013				
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky
	10	14		overcast
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
Blue Jay	<i>Cyanocitta cristata</i>	4	G5	S5
Herring Gull	<i>Larus argentatus</i>	8	G5	S4S5
American crow	<i>Corvus brachyrhynchos</i>	7	G5	S5
Black-capped Chickadee	<i>Poecile atricapilla</i>	7	G5	S5
	TOTAL	26		

Date: June 8, 2013				
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky
	14	16		overcast
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
American Robin	<i>Turdus migratorius</i>	2	G5	S5B*
American crow	<i>Corvus brachyrhynchos</i>	5	G5	S5
white-throated Sparrow	<i>Zonotrichia albicollis</i>	9	G5	S5B
Song Sparrow	<i>Melospiza melodia</i>	3	G5	S5B
American Goldfinch	<i>Carduelis tristis</i>	6	G5	S5
Swainson's Thrush	<i>Catharus ustulatus</i>	10	G5	S5
Yellow-rumped Warbler	<i>Dendroica coronata</i>	2	G5	S4S5B
Black-throated Green Warbler	<i>Dendroica virens</i>	5	G5	S4S5B
Ovenbird	<i>Seiurus aurocapillus</i>	6	G5	S5B
Black-capped Chickadee	<i>Poecile atricapilla</i>	2	G5	S5
Dark-eyed Junco	<i>Junco hyemalis</i>	3	G5	S4S5
Red-eyed Vireo	<i>Vireo olivaceus</i>	2	G5	S5B
Common Yellowthroat	<i>Geothlypis trichas</i>	5	G5	S5B
Northern Parula	<i>Parula americana</i>	1	G5	S5B
Ruffed Grouse	<i>Bonasa umbellus</i>	1	G5	S4S5B
	TOTAL	62		

Date: June 22, 2013				
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky
	10	14		clear
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
American Robin	<i>Turdus migratorius</i>	4	G5	S5B*
American crow	<i>Corvus brachyrhynchos</i>	6	G5	S5
white-throated Sparrow	<i>Zonotrichia albicollis</i>	11	G5	S5B
Song Sparrow	<i>Melospiza melodia</i>	5	G5	S5B
American Goldfinch	<i>Carduelis tristis</i>	7	G5	S5
Swainson's Thrush	<i>Catharus ustulatus</i>	10	G5	S5
Yellow-rumped Warbler	<i>Dendroica coronata</i>	3	G5	S4S5B
Black-throated Green Warbler	<i>Dendroica virens</i>	5	G5	S4S5B
Ovenbird	<i>Seiurus aurocapillus</i>	4	G5	S5B
Black-capped Chickadee	<i>Poecile atricapilla</i>	4	G5	S5
Dark-eyed Junco	<i>Junco hyemalis</i>	2	G5	S4S5
Red-eyed Vireo	<i>Vireo olivaceus</i>	3	G5	S5B
Common Yellowthroat	<i>Geothlypis trichas</i>	2	G5	S5B
Northern Parula	<i>Parula americana</i>	1	G5	S5B
Ruffed Grouse	<i>Bonasa umbellus</i>	0	G5	S4S5B
	TOTAL	67		