Appendix B

Summary of 2011, 2012 and 2013 Passerine Migration Surveys – Henvey Inlet Wind Energy Centre Study Area

Henvey Inlet Wind LP

Henvey Inlet Wind

Summary of 2011, 2012 and 2013 Passerine Migration Surveys – Henvey Inlet Wind Energy Centre Study Area

Prepared by:

AECOM
105 Commerce Valley Drive West, Floor 7 905 886 7022 tel
Markham, ON, Canada L3T 7W3 905 886 9494 fax
www.aecom.com

Project Number:

60341251

Date:

September 2015

Statement of Qualifications and Limitations

The attached Report (the "Report") has been prepared by AECOM Canada Ltd. ("Consultant") for the benefit of the client ("Client") in accordance with the agreement between Consultant and Client, including the scope of work detailed therein (the "Agreement").

The information, data, recommendations and conclusions contained in the Report (collectively, the "Information"):

- is subject to the scope, schedule, and other constraints and limitations in the Agreement and the qualifications contained in the Report (the "Limitations");
- represents Consultant's professional judgement in light of the Limitations and industry standards for the preparation of similar reports;
- may be based on information provided to Consultant which has not been independently verified;
- has not been updated since the date of issuance of the Report and its accuracy is limited to the time period and circumstances in which it was collected, processed, made or issued;
- must be read as a whole and sections thereof should not be read out of such context;
- was prepared for the specific purposes described in the Report and the Agreement; and
- in the case of subsurface, environmental or geotechnical conditions, may be based on limited testing and on the assumption that such conditions are uniform and not variable either geographically or over time.

Consultant shall be entitled to rely upon the accuracy and completeness of information that was provided to it and has no obligation to update such information. Consultant accepts no responsibility for any events or circumstances that may have occurred since the date on which the Report was prepared and, in the case of subsurface, environmental or geotechnical conditions, is not responsible for any variability in such conditions, geographically or over time.

Consultant agrees that the Report represents its professional judgement as described above and that the Information has been prepared for the specific purpose and use described in the Report and the Agreement, but Consultant makes no other representations, or any guarantees or warranties whatsoever, whether express or implied, with respect to the Report, the Information or any part thereof.

Without in any way limiting the generality of the foregoing, any estimates or opinions regarding probable construction costs or construction schedule provided by Consultant represent Consultant's professional judgement in light of its experience and the knowledge and information available to it at the time of preparation. Since Consultant has no control over market or economic conditions, prices for construction labour, equipment or materials or bidding procedures, Consultant, its directors, officers and employees are not able to, nor do they, make any representations, warranties or guarantees whatsoever, whether express or implied, with respect to such estimates or opinions, or their variance from actual construction costs or schedules, and accept no responsibility for any loss or damage arising therefrom or in any way related thereto. Persons relying on such estimates or opinions do so at their own risk.

Except (1) as agreed to in writing by Consultant and Client; (2) as required by-law; or (3) to the extent used by governmental reviewing agencies for the purpose of obtaining permits or approvals, the Report and the Information may be used and relied upon only by Client.

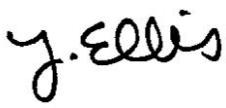
Consultant accepts no responsibility, and denies any liability whatsoever, to parties other than Client who may obtain access to the Report or the Information for any injury, loss or damage suffered by such parties arising from their use of, reliance upon, or decisions or actions based on the Report or any of the Information ("improper use of the Report"), except to the extent those parties have obtained the prior written consent of Consultant to use and rely upon the Report and the Information. Any injury, loss or damages arising from improper use of the Report shall be borne by the party making such use.

This Statement of Qualifications and Limitations is attached to and forms part of the Report and any use of the Report is subject to the terms hereof.

AECOM: 2012-01-06
© 2009-2012 AECOM Canada Ltd. All Rights Reserved.

AECOM Signatures

Report Prepared By:



Julie Ellis, B.Sc. (Hons)
Terrestrial Biologist



Heather Kime, H.B.Sc.
Terrestrial Ecologist

Report Reviewed By:



Jill deMan, H.B.Sc
Terrestrial and Wetland Ecologist



Jessica MacKay Ward, Ph.D.
Senior Ecologist

Table of Contents

Statement of Qualifications and Limitations

page

1. Introduction 1

2. Methods 3

2.1 Work Plan 3
2.1.1 2011 and 2012 Passerine Migration Surveys 3
2.1.2 2013 Passerine Migration Survey 3

3. Results 5

3.1 Study Area 5
3.1.1 2011 and 2012 Passerine Migration Surveys 5
3.1.2 2013 Passerine Migration Surveys 5
3.2 Results 8
3.2.1 2011 Spring Passerine Migration Survey 8
3.2.2 2011 Fall Passerine Migration Survey 8
3.2.3 2011 Fall Nocturnal Migration Survey 9
3.2.4 2012 Spring Passerine Migration Survey 10
3.2.5 2012 Spring Nocturnal Migration Surveys 11
3.2.6 2013 Spring Passerine Migration Survey 11
3.2.7 2013 Fall Passerine Migration Survey 12

4. Summary 13

5. Assumptions and Clarifications 14

6. References 15

List of Figures

Figure 3-1: 2011-2012 LGL Spring and Fall Passerine Migration Transects 6
Figure 3-2: 2013 Spring / Fall Passerine Migration Transects 7

List of Tables

Table 3-1: Summary of 2011 Fall Migration Survey Occurrences 8
Table 3-2: Summary of Spring 2012 Survey Occurrences 10
Table 3-3: Summary of Spring 2013 Survey Occurrences 11
Table 3-4: Summary of 2013 Fall Survey Occurrences 12

Appendices

Appendix A. Field Notes and Documentation
Appendix B. Work Plans
Appendix C. Results of 2011, 2012 and 2013 Field Studies

1. Introduction

In 2011 and 2012, LGL Limited (LGL) collected field data to determine baseline conditions within the Henvey Inlet Wind Energy Centre (HIWEC) study area. The data collected by LGL included:

- Raptor Migration;
- Passerine Migration;
- Breeding Birds;
- Herpetological Surveys; and
- Bat Acoustic Monitoring.

In 2013, Stantec Consulting Ltd. (Stantec) continued field data collection within the HIWEC study area. The data collected by Stantec included:

- Raptor Migration;
- Passerine Migration;
- Waterfowl Migration;
- Breeding Birds;
- Herpetological Surveys;
- Bat Acoustic Monitoring;
- Ecosite Classification and Rare Flora;
- Herpetological Incidental Observations; and
- Other Incidental Wildlife Observations.

This report has been prepared by AECOM to summarize the 2011, 2012 and 2013 ***Passerine Migration*** survey field data for the HIWEC study area. This is based on raw field data and GIS collected by LGL and Stantec during the 2011, 2012 and 2013 seasons. This information was provided to AECOM by Stantec in October 2014 and by WSP for the LGL data in May 2015. The following provides the work plans written by LGL and Stantec which outline data collection methods as well as AECOM's summary and analysis of the data collected, and assumptions made concerning the data.

LGL provided AECOM with the following documents that were used to produce this report:

2011
- An Excel spreadsheet summarizing field results entitled "*2011 Fall 2012 Spring IR camera obs.xlsx*"; and
- An Excel spreadsheet summarizing field results entitled "*2011 Spring & Fall Migration transect obs.xlsx*".

2012
- An Excel spreadsheet summarizing field results entitled "*2011 Fall 2012 Spring IR camera obs.xlsx*"; and
- An Excel spreadsheet summarizing field results entitled "*2012 Spring Migration transect obs.xlsx*".

Stantec provided AECOM with the following documents that were used to produce this report:

2013
- Scanned handwritten field notes entitled "*60824_migratoryspringpasserine.pdf*";
- Scanned handwritten field notes entitled "*60824_migratorybirdfallpasserines.pdf*"; and
- An excel spreadsheet indicating all survey locations entitled "*All survey locations_UTM_MC_07112013.xlsx*".

Copies of the above files are provided in **Appendix A**[1].

LGL also provided AECOM with a series of unanalyzed WAV format acoustic recordings of nocturnal flight calls. These recordings were made at five (5) locations within the HIWEC study area from September 5, 2011 to October 21, 2011; however exact locations of where the devices were deployed were not provided. AECOM has reviewed the WAV files and determined that the only information that can be ascertained from analysis of these files would be a count of flight calls emitted by birds as they passed by the recording devices. Flight calls limit species identification to only large groups, for example Warbler / Sparrow and Thrush. No height information could be determined from these recording. Furthermore, the infrared (IR) camera survey results and flight calls heard by LGL field staff in fall 2011 alone demonstrated the presence of migrating passerines in parts of the HIWEC study area (as reported herein). Considering the results of the IR camera survey, the effort required to analyze these recording, the lack of locational information and the relatively small amount of information that could be determined, AECOM has not proceeded with analysis of the acoustic recordings. Should locations be determined, this information could be analyzed in the future to assist with recommendations relating to operational mitigation.

1. *Records of Species At Risk considered to be restricted are not being made public due to the threat of poaching experienced by these species. These records will be provided under a separate cover to the Ministry of Natural Resources and Forestry (MNRF) and / or Environment Canada – Canadian Wildlife Service (EC-CWS) for permitting purposes.*

2. Methods

2.1 Work Plan

The following sections provide a description of work plan methods written by LGL and Stantec for the ***Passerine Migration*** surveys. This description is taken directly from LGL's *Work plan for the Nigig Power Wind Farm Project Background Ecological Studies* (LGL, 2011) and Stantec's *Terrestrial Survey Work Program* (Stantec, 2013).

Complete copies of LGL's *Work plan for the Nigig Power Wind Farm Project Background Ecological Studies* (LGL, 2011) and Stantec's *Terrestrial Survey Work Program* (Stantec, 2013) are provided in **Appendix B**[2].

2.1.1 2011 and 2012 Passerine Migration Surveys

*"**Passerines (nocturnal migrants)** – visual and passive IR surveys will be used to monitor the movement of passerines during the Fall Migration period in 2011 and Spring Migration in 2012. The survey will utilize a number of locations situated along an east-west transect, accessible by boat along Henvey Inlet.*

***Passerines (stopover sites)** – regular stopover counts will be undertaken along a series of transects which will be surveyed weekly during the migration period. All birds encountered will be recorded (species & number).*

Monitored Species / Behaviour	Sampling Method	Timing and Frequency
Nocturnal Migrants	*Thermal infrared camera will be used to observe nocturnal migrants.* *A number of acoustic monitoring units will be spaced along the inlet to record night migrating birds.*	*IR – 2 weeks in September* *Acoustic – September to October*
Stopover sites (passerines)	*A series of transects will be set up across the study area and surveyed weekly for migrants*	*Mid-August to October; 2 to 3 times per week"*

2.1.2 2013 Passerine Migration Survey

*"**Spring passerine migration (Eight surveys, early April to late May)***
Natural habitat located in close proximity to the Georgian Bay shoreline provides stopover habitat for migrating passerine birds. Eight weekly surveys are proposed in April and May. Monitoring will consist of ten, 500 m long transects distributed throughout the Project Location. Transects will be placed in different habitat types (i.e., woodland, rock barren and wetland). Given the variable nature of vegetation communities within the Project Location, it is likely most 500 m transects will include more than one habitat type. A description of the habitat along each of the 10 transects will be recorded.

Surveys will be conducted in the morning, between dawn and approximately 10:00 am. A tally of all species observed will be recorded on each transect. These surveys will include characterizing the abundance and diversity of passerines within the Project Location.

2. *Records of Species At Risk considered to be restricted are not being made public due to the threat of poaching experienced by these species. These records will be provided under a separate cover to the Ministry of Natural Resources and Forestry (MNRF) and / or Environment Canada – Canadian Wildlife Service (EC-CWS) for permitting purposes.*

Fall passerine migration (Eight surveys, end of August to mid-October)
Natural habitat located in close proximity to shorelines provides stopover habitat for migrating birds. Eight weekly surveys are proposed between the end of August and mid-October. Monitoring will consist of ten, 500 m long transects distributed throughout the Project Location. The same transects will be used as in the Spring Passerine Migration surveys.

Survey will be conducted in the morning, between dawn and approximately 10:00 am. A tally of all species observed will be recorded on each transect. These surveys will include characterizing the abundance and diversity of passerines within the Project Location."

3. Results

3.1 Study Area

3.1.1 2011 and 2012 Passerine Migration Surveys

Based on the field data provided, the 2011 spring passerine migration surveys were conducted along nine (9) transects (numbered 1 to 9) in the vicinity of the HIWEC study area (**Figure 3-1**). Three (3) transects were located along the north shoreline of Henvey Inlet, three (3) were located along the south shoreline of Henvey Inlet, two (2) were located along Bekanon Road, and one (1) was located on an island near the mouth of Henvey Inlet.

Based on the field data provided, the 2011 fall passerine migration surveys were conducted along at least 20 transects within the HIWEC study area (**Figure 3-1**). The same nine (9) transects from the 2011 spring survey were again surveyed in the fall of 2011. In addition, six (6) new transects were surveyed along the north shoreline of Henvey Inlet (numbered 10 to 12, and 16 to 18), and four (4) new transects were surveyed along the south shoreline of Henvey Inlet (numbered 19 to 22). One (1) survey was conducted in a boat in Henvey Inlet; location information was not provided for this survey therefore it was not mapped. One (1) survey was conducted at an unknown location as the field data provided did not specify the location.

Based on the field data provided, the 2011 fall nocturnal migration surveys were conducted at two stations within the HIWEC study area, identified as Bekanon Road Landing and Little Bear Rock (**Figure 3-1**).

Based on the field data provided, the 2012 spring passerine migration surveys were conducted along at least 20 transects within the HIWEC study area (**Figure 3-1**). Ten (10) of the transects from the 2011 fall survey were again surveyed in the spring of 2012, including transects 1 to 7, and 10 to 12. In addition, nine (9) new transects were surveyed on the south side of Henvey Inlet (numbered 13 to 15, 25, F1 to F3, and J1 to J2). One (1) survey was conducted along all of Transect ‘B’; location information was not provided for this survey therefore it was not mapped. One (1) survey was conducted at an unknown location as the field data provided did not specify the location.

3.1.2 2013 Passerine Migration Surveys

Based on the field data provided, the 2013 spring passerine migration surveys were conducted at 18 transects within the HIWEC study area (**Figure 3-2**). Eight (8) transects were generally located along Henvey Inlet (numbered 2 to 5, 9, and 11 to 13), two (2) were on the north shoreline (11 and 12) and six (6) on the south shoreline (2 to 5, 9 and 13). Two (2) transects were located close to Highway 69 (numbered 6 and 7). One (1) transect was located along Bekanon Road (numbered 1). Three (3) transects were located close to the Key River shoreline in the northwest portion of the HIWEC study area (numbered 15, 16 and 18). One (1) transect was located near the Georgian Bay shoreline in the southwest portion of HIWEC study area (numbered 17). UTM co-ordinates were not provided for three (3) transects (8, 10 and 14); therefore, the locations of these transects could not be mapped. Transect 18 was surveyed along different lengths during one of the visits in the spring of 2013 and Transect 1 was surveyed along different lengths during two of the visits in the spring of 2013 (**Figure 3-2**).

Based on the field data provided, the 2013 fall passerine migration surveys were conducted at 10 transects within the HIWEC study area (**Figure 3-2**). Eight (8) transects were generally located along Henvey Inlet, two (2) on then north shoreline and six (6) on the south shoreline. Two (2) transects were located close to Highway 69. One (1) transect was located along Bekanon Road. Three (3) transects were located close to the Key River shoreline in the northwest portion of the HIWEC study area. One (1) transect was located near the Georgian Bay shoreline in the southwest portion of HIWEC study area. UTM co-ordinates were not provided for two (2) transects (10 and 14); therefore, the locations of these transects could not be mapped.

Figure 3-1: 2011-2012 LGL Spring and Fall Passerine Migration Transects

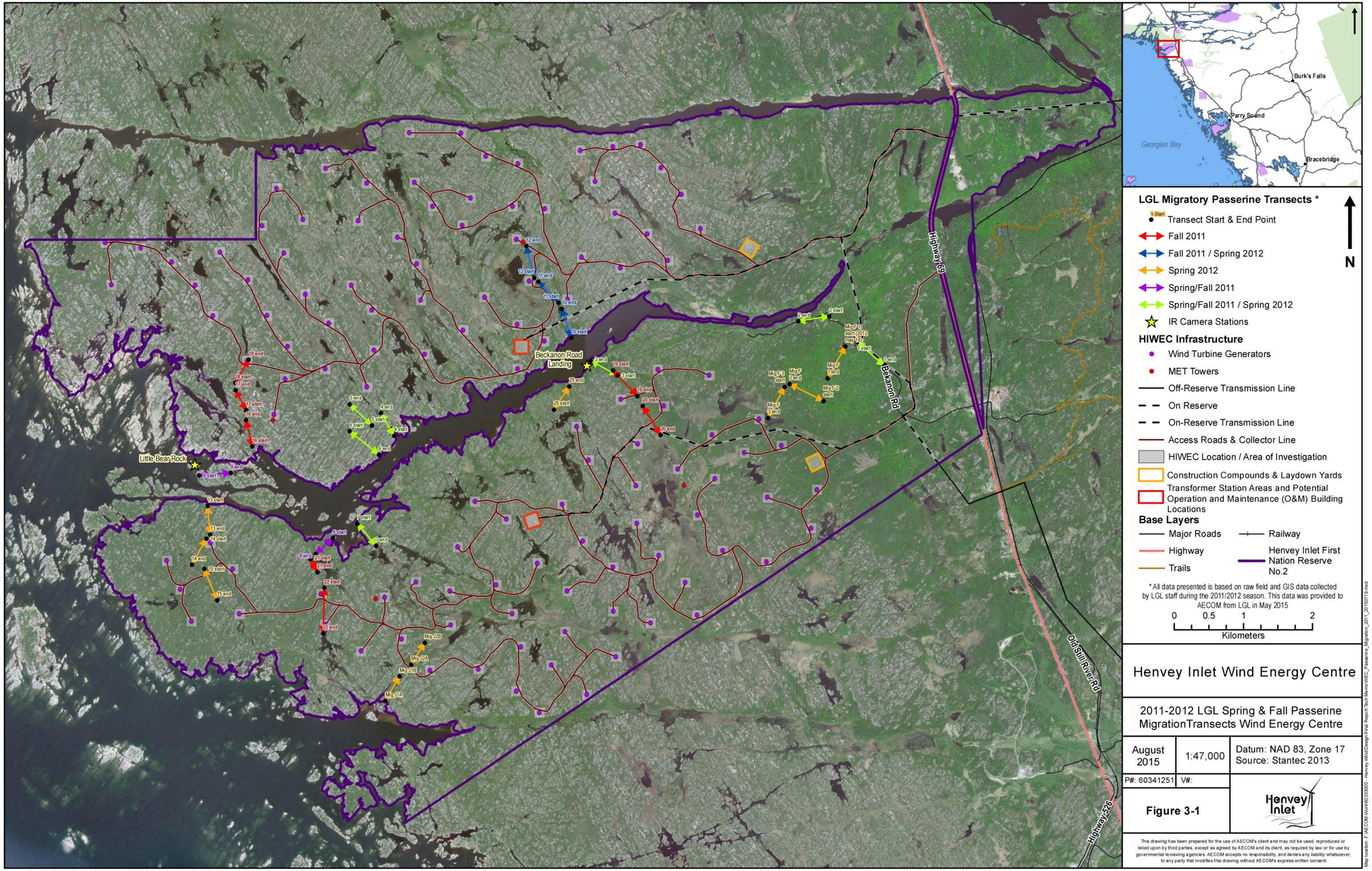
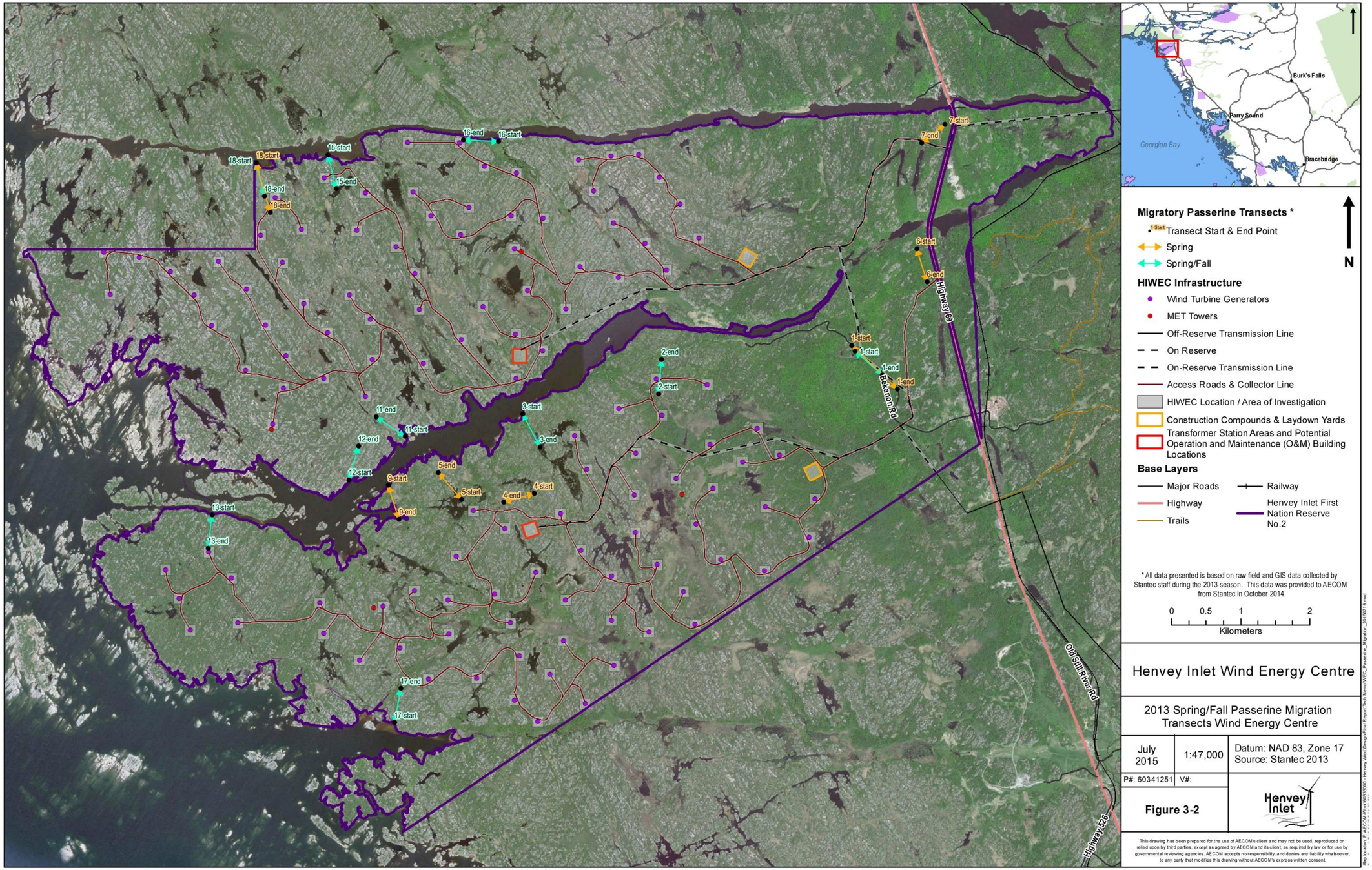


Figure 3-2: 2013 Spring / Fall Passerine Migration Transects



3.2 Results

3.2.1 2011 Spring Passerine Migration Survey

Based on the data provided for the 2011 spring passerine migration surveys, nine (9) transects were each surveyed on two (2) occasions between May 10 and 23, 2011. The locations of these transects are shown on **Figure 3-1**. Tabulated results from these surveys were provided by LGL, rather than handwritten field notes. The date, time, weather conditions and transect number were recorded for each survey, and it is assumed that all migratory passerines observed were recorded along with other bird species observed. The passerine migration data for the 2011 spring surveys are provided in **Appendix A**.

The results of the 2011 spring passerine migration surveys are summarized in **Table C-1** in **Appendix C**. A total of 886 passerines were observed, representing 58 species. The most common species observed were Nashville Warbler (*Vermivora ruficapilla*), White-throated Sparrow (*Zonotrichia albicollis*) and Yellow-rumped Warbler (*Setophaga coronata*) with 89, 75 and 73 individuals observed, respectively.

One (1) passerine Federal Species At Risk, Canada Warbler (*Wilsonia canadensis*), and two (2) passerine Species of Conservation Concern, Eastern Wood-Pewee (*Contopus virens*) and Wood Thrush (*Hylocichla mustelina*), were observed during the 2011 spring passerine migration surveys. In addition, one (1) Federal Species at Risk, Whip-poor-will (*Caprimulgus vociferus*), and two (2) Species of Conservation Concern, Bald Eagle (*Haliaeetus leucocephalus*) and Caspian Tern (*Sterna caspia*), were observed incidentally during the surveys.

3.2.2 2011 Fall Passerine Migration Survey

Based on the data provided for the 2011 fall passerine migration surveys, a total of 64 surveys were conducted over at least 20 transects between September 5 and October 27, 2011. Each transect was surveyed either once or on multiple occasions. A summary of the number of surveys conducted at each transect is provided in **Table 3-1**. The locations of these transects are shown on **Figure 3-1**. Tabulated results from these surveys were provided by LGL, rather than handwritten field notes. The date, time, weather conditions and transect number were generally recorded for each survey, and it is assumed that all migratory passerines observed were recorded along with other bird species observed. The passerine migration data for the 2011 fall surveys are provided in **Appendix A**.

Table 3-1: Summary of 2011 Fall Migration Survey Occurrences

Transect	Number of Surveys
1	7
2	7
3	7
4	3
5	3
6	2
7	4
8	4
9	6
10	4
11	4
12	3
16	1
17	1
18	1

Transect	Number of Surveys
19	2
20	1
21	1
22	1
Duck Survey in Boat	1
Unknown / Not Recorded	1
Total	**64**

The results of the 2011 fall passerine migration surveys are summarized in **Table C-2** in **Appendix C**. A total of 1,440 passerines were observed, representing 50 species and four (4) categories of unidentified species (unknown blackbird, unknown passerine, unknown sparrow and unknown thrush). The most common species observed were American Robin (*Turdus migratorius*), Black-capped Chickadee (*Poecile atricapillus*) and Blue Jay (*Cyanocitta cristata*) with 185, 163 and 141 individuals observed, respectively.

One (1) passerine Federal Species At Risk, Rusty Blackbird (*Euphagus carolinus*), was observed during the 2011 fall passerine migration surveys. In addition, one (1) Federal Species at Risk, Whip-poor-will, and two (2) Species of Conservation Concern, Bald Eagle and Long-tailed Duck (*Clangula hyemalis*), were observed incidentally during the surveys.

3.2.3 2011 Fall Nocturnal Migration Survey

Based on correspondence with Sarah Richer (a Biologist who conducted surveys on behalf of LGL in 2011), IR camera observations and acoustic records were made simultaneously with LGL staff noting flight calls heard during the fall 2011 nocturnal migration surveys. Tabulated results were provided by LGL, rather than handwritten field notes. The observer, date, time, and general survey location were recorded for each survey and it is assumed that all nocturnally migrating passerines observed were recorded.

Based on the data provided for the 2011 fall nocturnal migration surveys, a total of seven (7) surveys, ranging from 30 minutes to one (1) hour in duration were conducted between September 25 and 29, 2011. A total of five (5) surveys were conducted at the Bekanon Road Landing. An additional two (2) surveys were conducted at Little Bear Rock. The locations of these survey stations are shown on **Figure 3-1**. The nocturnal migration data for the 2011 fall surveys are provided in **Appendix A**.

Based on the data provided for the 2011 fall nocturnal migration surveys, a total of 79 low height passes, 264 medium height passes and 179 high height passes were observed during the five (5) surveys conducted at the Bekanon Road Landing. During the two (2) surveys conducted at the Little Bear Rock, a total of two (2) low height passes, four (4) medium height passes and four (4) high height passes were recorded.

Flight calls heard by LGL field staff while conducting the IR camera surveys were also recorded for six (6) of the seven (7) 2011 fall nocturnal migration surveys. During four (4) of the surveys conducted at the Bekanon Road Landing, the presence of 529 birds was recorded. This includes 470 birds determined to be either sparrows or warblers, 57 thrushes, one (1) Great Blue Heron (*Ardea herodias*) and one (1) American Robin. During the two (2) surveys conducted at Little Bear Rock, the presence of 192 birds was recorded. This includes 179 birds determined to be either sparrows or warblers, 12 thrushes and one (1) unidentified bird.

3.2.4 2012 Spring Passerine Migration Survey

Based on the data provided for the 2012 spring passerine migration surveys, a total of 24 surveys were conducted over at least 20 transects between April 30 and May 24, 2012. Each transect was surveyed either once or twice. A summary of the number of surveys conducted at each transect is provided in **Table 3-2**. The locations of these transects, where UTM co-ordinates were provided by LGL, are shown on **Figure 3-1**. Tabulated results from these surveys were provided by LGL, rather than handwritten field notes. The date, time, weather conditions and transect number were recorded for each survey, and it is assumed that all migratory passerines observed were recorded along with other bird species observed. The passerine migration data for the 2012 spring surveys are provided in **Appendix A**.

Table 3-2: Summary of Spring 2012 Survey Occurrences

Transect	Number of Surveys
1	2
2	1
3	2
4	1
5	1
6	1
7	1
10	2
11	1
12	1
13	1
14	1
15	1
25	1
F1	1
F2	1
F3	1
J1	1
J2	1
All Transect ‘B’	1
Unknown / Not Recorded	1
Total	**24**

The results of the 2012 spring passerine migration surveys are summarized in **Table C-3** in **Appendix C**. A total of 774 passerines were observed, representing 50 species. The most common species observed were White-throated Sparrow, Magnolia Warbler (*Setophaga magnolia*) and Yellow-rumped Warbler with 92, 69 and 66 individuals observed, respectively.

One (1) passerine Federal Species At Risk, Canada Warbler, and one (1) passerine Species of Conservation Concern, Eastern Wood-pewee, were observed during the 2012 spring passerine migration surveys. In addition, one (1) Federal Species at Risk, Chimney Swift (*Chaetura pelagica*), and one (1) Species of Conservation Concern, Bald Eagle, were observed incidentally during the surveys.

3.2.5 2012 Spring Nocturnal Migration Surveys

Based on the data provided for the 2012 spring nocturnal migration surveys, a total of three (3) surveys, each one (1) hour in duration, were conducted between May 16 and 21, 2012. All of these were conducted at the Bekanon Road Landing (**Figure 3-1**). Tabulated results were provided by LGL, rather than handwritten field notes. The observer, date, time, and survey location were recorded for each survey and it is assumed that all nocturnally migrating passerines observed were recorded. The nocturnal migration data for the 2012 spring surveys are provided in **Appendix A**.

Based on the data provided for the 2012 spring nocturnal migration surveys, a total of six (6) low height passes, four (4) medium height passes and two (2) high height passes were recorded during the three (3) surveys.

Flight calls heard by LGL field staff while conducting the surveys were also recorded for one (1) of the three (3) 2012 spring nocturnal migration surveys. The presence of three (3) birds was recorded, including two (2) determined to be either sparrows or warblers and one (1) bird determined to be a thrush.

3.2.6 2013 Spring Passerine Migration Survey

Based on the field notes provided for the 2013 spring passerine migration surveys, a total of 74 surveys were conducted over 18 transects between April 10 and May 30, 2012. Each transect was surveyed between one (1) and eight (8) times. A summary of the number of surveys conducted at each transect is provided in **Table 3-3**. The locations of these transects, where UTM co-ordinates were provided by Stantec, are shown on **Figure 3-1**. The passerine migration data for the 2013 spring surveys are provided in **Appendix A**.

Table 3-3: Summary of Spring 2013 Survey Occurrences

Transect	Number of Surveys
1	8
2	8
3	8
4	2
5	2
6	2
7	2
8	2
9	1
10	2
11	5
12	5
13	5
14	1
15	7
16	6
17	4
18	5
Total	**75**

In general, Stantec field staff recorded the 2013 spring passerine migration survey data in the following manner. Date and weather conditions were recorded. When a migratory passerine was observed the following information was recorded on the field sheets: four (4) letter species code, behaviour, use of woodlot or flyover, and the number of individuals observed. Other wildlife observations were also recorded as incidental wildlife observations.

The results of the 2013 spring passerine migration surveys are summarized in **Table C-4** in **Appendix C**. A total of 2619 passerines were observed representing 73 species. The most common species observed were White-throated Sparrow, Yellow-rumped Warbler and American Robin with 264, 222 and 144 individuals observed, respectively.

One (1) passerine Federal Species at Risk, Canada Warbler, and two (2) passerine Species of Conservation Concern, Eastern Wood-pewee and Wood Thrush (*Hylocichla mustelina*), were observed during the 2013 spring passerine migration surveys. In addition, one (1) Federal Species at Risk, Common Nighthawk (*Chordeiles minor*), and two (2) Species of Conservation Concern, Bald Eagle and Caspian Tern, were observed incidentally during the surveys.

3.2.7 2013 Fall Passerine Migration Survey

Based on the field notes provided for the 2013 fall passerine migration surveys, a total of 78 surveys were conducted over 10 transects between August 22 and October 11, 2013. Each transect was surveyed between five (5) and nine (9) times. A summary of the number of surveys conducted at each transect is provided in **Table 3-4**. The locations of these transects are shown on **Figure 3-1**. The passerine migration data for the 2013 fall surveys are provided in **Appendix A**.

Table 3-4: Summary of 2013 Fall Survey Occurrences

Transect	Number of Surveys
1	8
2	8
3	8
11	8
12	8
13	8
15	8
16	8
17	5
18	9
Total	**78**

In general, Stantec field staff recorded the 2013 fall passerine migration survey data in the following manner. Date and weather conditions were recorded. When a migratory passerine was observed the following information was recorded on the field sheets: four (4) letter species code, behaviour, use of woodlot or flyover, and the number of individuals observed. Other wildlife observations were also recorded as incidental wildlife observations.

The results of the 2013 fall passerine migration surveys are summarized in **Table C-5** in **Appendix C**. A total of 3192 passerines were observed, representing 62 species. The most common species observed were Blue Jay (*Cyanocitta cristata*), Ruby-crowned Kinglet (*Regulus calendula*) and White-throated Sparrow with 472, 270 and 269 individuals observed, respectively.

Two (2) passerine Federal Species at Risk, Canada Warbler and Olive-sided Flycatcher (*Contopus cooperi*), and two (2) passerine Species of Conservation Concern, Eastern Wood-pewee and Rusty Blackbird (*Euphagus carolinus*), were observed during the 2013 spring passerine migration surveys. In addition, one (1) Species of Conservation Concern, Bald Eagle, was observed incidentally during the surveys.

4. Summary

LGL conducted the following raptor migration surveys in 2011 and 2012 within the HIWEC study area:

- In the spring of 2011, a total of nine (9) transects were each surveyed on two (2) occasions between May 10 and 23, 2011. One (1) passerine Federal Species at Risk (Canada Warbler), and two (2) passerine Species of Conservation Concern (Eastern Wood-Pewee and Wood Thrush), were observed. In addition, one (1) Federal Species at Risk (Whip-poor-will), and two (2) Species of Conservation Concern (Bald Eagle and Caspian Tern), were observed incidentally.
- In the fall of 2011, a total of 64 passerine migration surveys were conducted on at least 20 transects between September 5 and October 27, 2011. One (1) passerine Federal Species at Risk (Rusty Blackbird) was observed. In addition, one (1) Federal Species at Risk (Whip-poor-will) and two (2) Species of Conservation Concern (Bald Eagle and Long-tailed Duck), were observed incidentally.
- In the fall of 2011, a total of seven (7) nocturnal migration surveys were conducted at two (2) stations between September 25 and 29, 2011. Most of the birds detected were medium height passes of either sparrows or warblers.
- In the spring of 2012, a total of 24 passerine migration surveys were conducted over at least 20 transects between April 30 and May 24, 2012. One (1) passerine Federal Species at Risk (Canada Warbler) and one (1) passerine Species of Conservation Concern (Eastern Wood-pewee) were observed. In addition, one (1) Federal Species at Risk (Chimney Swift), and one (1) Species of Conservation Concern (Bald Eagle) were observed incidentally.
- In the spring of 2012, a total of three (3) nocturnal migration surveys were conducted at two (2) stations between May 16 and 21, 2011. Most of the birds detected were low height passes of either sparrows or warblers.

Stantec conducted the following raptor migration surveys in 2013 within the HIWEC study area:

- In the spring of 2013, a total of 74 passerine migration surveys were conducted over 18 transects between April 10 and May 30, 2012. One (1) passerine Federal Species at Risk (Canada Warbler) and two (2) passerine Species of Conservation Concern (Eastern Wood-pewee and Wood Thrush), were observed. In addition, one (1) Federal Species at Risk (Common Nighthawk), and two (2) Species of Conservation Concern (Bald Eagle and Caspian Tern), were observed incidentally.
- In the fall of 2013, a total of 78 surveys were conducted over 10 transects between August 22 and October 11, 2013. Two (2) passerine Federal Species at Risk (Canada Warbler and Olive-sided Flycatcher), and two (2) passerine Species of Conservation Concern (Eastern Wood-pewee and Rusty Blackbird), were observed during the 2013 spring passerine migration surveys. In addition, one (1) Species of Conservation Concern (Bald Eagle) was observed incidentally.

5. Assumptions and Clarifications

The following are assumptions and clarifications made and/or required by AECOM based on the field notes provided by LGL in May 2015:

- Myrtle Warbler (*Dendroica coronata*) was recorded on some field data sheets; however, the currently accepted name for this species is Yellow-rumped Warbler (*Setophaga coronata*). Therefore records of Myrtle Warbler are described herein as Yellow-rumped Warbler.
- The common name Slate-colored Junco was recorded on some field data sheets; however, the currently accepted name for this species is Dark-eyed Junco (*Junco hyemalis*). Therefore records of Slate-colored Junco are described herein as Dark-eyed Junco.

The following are assumptions and clarifications made and/or required by AECOM based on the field notes provided by Stantec in October 2014:

Myrtle Warbler (*Dendroica coronata*) was recorded on some field data sheets; however, the currently accepted name for this species is Yellow-rumped Warbler (*Setophaga coronata*). Therefore records of Myrtle Warbler are described herein as Yellow-rumped Warbler. Stantec provided AECOM with comments that confirmed this assumption on February 26, 2015.

The common name Slate-colored Junco was recorded on some field data sheets; however, the currently accepted name for this species is Dark-eyed Junco (*Junco hyemalis*). Therefore records of Slate-colored Junco are described herein as Dark-eyed Junco. Stantec provided AECOM with comments that confirmed this assumption on February 26, 2015.

- Willow Flycatcher (*Empidonax traillii*) was recorded on some field data sheets; it is unclear if these records were confirmed as Willow Flycatcher (*Empidonax traillii*) or Alder Flycatcher (*Empidonax alnorum*), given the species similarity. Stantec provided AECOM with comments February 26, 2015, which indicated observations of Willow Flycatcher were confirmed by vocalizations.
- Habitat descriptions are missing for several transects. On February 26, 2015, Stantec provided AECOM with comments that confirmed this information was unavailable and could not be provided.
- A small number of four (4) letter bird codes were included in the spring and fall passerine migration surveys which AECOM was unable to match to known bird codes. On February 26, 2015, Stantec provided AECOM with comments that confirmed the unknown bird codes with the exception of the code “SOWA”; this has been described as Species Code Undetermined in **Appendix C**.

6. References

LGL, 2011:
Work plan for the Nigig Power Wind Farm Project Background Ecological Studies. Prepared for Genivar on behalf of Nigig Power Corporation, 17 p.

Stantec Consulting Ltd., 2013:
2013 Terrestrial Survey Work Program. Prepared for Nigig Power Corp., 25 p.

Appendix A

Field Notes and Documentation

Observer(s)	Day	Month	Year	Survey Point	Start Time	End Time	Direction	Low	Medium	High	Weather/Notes
ARD/SR	25	9	2011	Beckanon Road Landing	22:13	23:13	NW	1	0	0	Unlimited ceiling; temp 16 C, wind beaufort 2 from East, 10% cloud cover+L7
							N	2	1	0	camera pointed towards west
							NE	0	0	0	
							E	0	0	0	
							SE	0	2	0	
							S	12	26	25	
							SW	31	179	104	
							W	4	18	10	
ARD/SR, Tony Solomon	26	9	2011	Beckanon Road Landing	23:08	23:38	NW	2	0	0	Wind from NE, 16 C, beaufort 3 17 km/hr; 95 % cloud cover at landing
							N	0	0	0	
							NE	0	0	0	
							E	0	0	0	
							SE	1	3	0	
							S	0	4	1	
							SW	0	0	0	
							W	0	0	0	
ARD/SR, Tony Solomon	26	9	2011	Little Bear Rock	0:22	0:52	NW	0	0	0	80% cloud cover
							N	0	0	0	
							NE	0	1	0	
							E	0	0	0	
							SE	0	0	0	
							S	0	1	2	
							SW	0	0	2	
							W	0	0	0	
ARD/SR, Tony Solomon	27	9	2011	Little Bear Rock	22:15	23:15	NW	0	0	0	21 C down to 17 C, 80% cloud cover, wind SE 6 km/hr; 88% humidity; ceiling 200 ft
							N	0	0	0	
							NE	1	0	0	
							E	0	1	0	
							SE	1	0	0	possible TUVU
							S	0	1	0	
							SW	0	0	0	
							W	0	0	0	

Observer(s)	Day	Month	Year	Survey Point	Start Time	End Time	Direction	Low	Medium	High	Weather/Notes
ARD/SR, Tony Solomon	27	9	2011	Beckanon Road Landing	0:15	1:15	NW	0	0	0	wind & weather conditions unchanged from prior station;
							N	1	0	0	Possible bats; 1 from North, low; 1 from south, medium; one from SE, low
							NE	0	0	0	cloud cover 50% in sky, though 90-100% in camera FOV; camera 45 degrees, facing west
							E	0	3	2	
							SE	2	7	14	
							S	3	5	4	
							SW	1	0	1	
							W	0	0	0	
ARD/SR	28	9	2011	Beckanon Road Landing	21:50	22:50	NW	0	0	0	wind 0, 16 C, 50% cloud cover, 90% on screen
							N	3	0	0	
							NE	1	2	0	
							E	2	1	1	
							SE	1	5	3	
							S	9	6	10	
							SW	3	1	3	
							W	0	1	1	
ARD/SR	29	9	2011	Beckanon Road Landing	22:30	23:15	NW	0	0	0	13 C, wind 0; night cut short due to angry bear roar across inlet & possible bear activity adjacent to landing
							N	0	0	0	
							NE	0	0	0	
							E	0	0	0	
							SE	0	0	0	
							S	0	0	0	
							SW	0	0	0	
							W	0	0	0	

Observer(s)	Day	Month	Year	Survey Point	Start Time	End Time	Direction	Low	Medium	High	Weather/Notes
ARD/SR	16	5	2012	Beckanon Road Landing	10:40	11:40	NW				Wind W, 8 km/hr, 0% cloud cover temp 2 C
							N	2			
							NE				
							E				
							SE				
							S				
							SW				
							W			1	
ARD/SR	21	5	2012	Beckanon Road Landing	22:30	23:30	NW				Wind E Beaufort 4, 100% cloud cover temp 15 C
							N	1	1		
							NE				
							E				
							SE	1			
							S		1	1	
							SW				
							W	1	1		
ARD/SR	17	5	2012	Beckanon Road Landing	10:22	11:22	NW				Wind SW Beaufort 1, 25% cloud cover temp 4 C
							N				
							NE		1		
							E	1			
							SE				
							S				
							SW				
							W				

Year	Month	Day	Location	Conditions	time	sparrow/warblers	thrush	other
2011	9	26	Landing	wind NE 17 km/hr, 16 C	11:20-11:25	18		
					11:25-11:30	15		
2011	9	26	Little Bear Rock	wind NE 17 km/hr, 16 C	12:28-12:33	25	1	
					12:34-12:39	6		
					12:39-12:44	10	1	
2011	9	27	Little Bear Rock	wind SE 6 km/hr, 21 C	10:33-10:38	30		TRUS?
					10:38-10:43	15		
					10:58-11:03	28	10	
					11:03	65		
2011	9	27	Beckanon Landing	wind SE 6 km/hr, 21 C	0:15			GBHE
					0:24	14		
					0:29	30		
					0:50	34	1	AMRO
					0:55	45	2	
					1:00	38	1	
					1:05	54	3	
					1:10	24	3	
2011	9	28	Beckanon Landing	wind 0 km/hr, 16 C	9:55-10:00	22		
					10:00-10:05	31	4	
					10:05-10:10	34	5	
					10:10-10:15	18		
					10:15-10:20	19	1	
					10:20-10:25	20	1	
					10:25-10:30	32	25	
					10:30-10:35	4	6	
					10:35-10:40	1	2	
					10:40-10:45	12	3	
2011	9	29	Beckanon Landing	wind 0 km/hr, 13 C	10:31-10:41			
					10:41-10:51			
					10:55-11:01	5		
2012	5	21	Beckanon Landing	wind E, beaufort 4, 15 C	10:30-11:00	1	1	
				100 km/hr	11:00-12:30	1		

	May 10 2011						May 11 2011						May 12 2011						May 16 2011					
	Transect 7		Transect 8		Transect 9		Transect 1		Transect 2		Transect 3		Transect 4		Transect 5		Transect 6		Transect 1		Transect 2		Transect 3	
	6 C, clouds 80%, winds E, 10 km/h						10 C, clouds 40%, wind SE, 10 km/h						12 C, clouds 100%, winds W, 5 km/h						1 C, clouds 100%, winds NE 30 km/hr; 1st day in 3 days					
Start time	6:15		7:52		9:06		6:10		7:10		8:05		6:30		7:40		8:40		6:00		7:12		8:20	
End time	7:20		8:35		10:00		7:05		7:55		8:54		7:20		8:30		9:35		7:00		8:00		9:08	
Species	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes
American Crow							2																	
American Goldfinch	2		1				2		2		1		2										1	
American Kestrel																	1							
American Redstart											2				2		2						3	
American Robin	3		1				5	pair	3		4		5		1				2		1			
Bald Eagle					1	adult																		
Baltimore Oriole									1				3	all male										
Bay-breasted Warbler	2												1		3									
Belted Kingfisher			1				2	pair	1															
Black and White Warbler	2		5		2		4		4		4		4		3		4		3		2		4	
Black-capped Chickadee	1		2		3		2		5		3								4		3		3	
Black-throated Green Warbler			2		2		3		2		4		6		3		3		1		3			
Blackburnian Warbler	2						1				3		1								1		1	
Blackpoll Warbler	2																		1		1		1	
Blue Jay	9						1		2		2		6		1		2						1	
Broad-winged Hawk							1		2	pair	1	calling, circling												
Brown Creeper											1													
Brown Thrasher							1																	
Brown-headed Cowbird	2	pair																						
Bufflehead	6	1m,5f			3	all female																		
Canada Goose	2		2								1						2							
Canada Warbler																								
Caspian Tern	2								2															
Cedar Waxwing																					3			
Chestnut-sided Warbler			1								3								2		4			
Chipping Sparrow	4		3		2		1		1		1		4		4		4		3					
Common Grackle	7		2				2				1								1					
Common Loon					1																			
Common Merganser			3										4	2 p, m & f										
Common Raven	1										1		1											
Common Yellowthroat	2		3				1						3		3		4		2		1			
Double-crested Cormorant			1		3	x							1											
Downy Woodpecker	1						1																1	
Eastern Phoebe							1		1						1						2			
Eastern Towhee	1																						1	
Eastern Wood Pewee																			1					
Gray Catbird							2				1													
Great Blue Heron	1												1											
Hairy Woodpecker			1						1		1													
Hermit Thrush			1								2												2	
Herring Gull	w		1		1								2										1	
House Wren																								
Killdeer													1											
Least Flycatcher			1																					
Lincoln's Sparrow																								
Magnolia Warbler															2						1			
Mallard													2	males										
Myrtle Warbler	5		3		3		4		2		5		4		7		9		2		3		3	
Nashville Warbler			3				10		7		5		8		9		3		6		5		3	
Northern Flicker	2		2		1		1		1		2		1		1		1		1					
Northern Harrier													2	pair										
Northern Parula																					1		1	

	May 10 2011						May 11 2011						May 12 2011						May 16 2011					
	Transect 7		Transect 8		Transect 9		Transect 1		Transect 2		Transect 3		Transect 4		Transect 5		Transect 6		Transect 1		Transect 2		Transect 3	
	6 C, clouds 80%, winds E, 10 km/h						10 C, clouds 40%, wind SE, 10 km/h						12 C, clouds 100%, winds W, 5 km/h						1 C, clouds 100%, winds NE 30 km/hr; 1st day in 3 days					
Start time	6:15		7:52		9:06		6:10		7:10		8:05		6:30		7:40		8:40		6:00		7:12		8:20	
End time	7:20		8:35		10:00		7:05		7:55		8:54		7:20		8:30		9:35		7:00		8:00		9:08	
Species	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes
Northern Waterthrush																								
Ovenbird	2		1		1		4		5		4						1		3		1		3	
Palm Warbler	2		1										1											
Pileated Woodpecker	1								1		1						1							
Pine Grosbeak																								
Pine Warbler	2		4		3		1				1		4				3		1					
Purple Finch																			1		1			
Red-breasted Nuthatch			2		1		1		1										1		1		2	
Red-eyed Vireo													1								1		1	
Red-winged Blackbird	3		3										3											
Ring-billed Gull					1																			
Rose-breasted Grosbeak													1											
Ruby-crowned Kinglet	1																							
Ruby-throated Hummingbird																								
Ruffed Grouse	2		1				1		1		1		1		2		1		1		2		1	
Sandhill Crane	2		1				1						3						2					
Slate-coloured Junco													2											
Song Sparrow	2				2		1		1		1		4						3		5			
Spotted Sandpiper					1		4																	
Swainson's Thrush																							4	
Swamp Sparrow													1											
Tennessee Warbler													1				1							
Turkey Vulture																								
Unknown Accipiter sp									1	flyover														
Unknown Scaup sp					2																			
Veery											1						2						1	
Whippoorwill																								
White-crowned Sparrow			6								3				2									
White-throated Sparrow	3		3		5		1		2		4		10		4		7		2		4		2	
Wilson's Snipe	1	winnowing															1							
Wilson's Warbler			2																		1			
Winter Wren	1		1						2		1		1								1			
Wood Duck			1	male																				
Wood Thrush									2		1													
Yellow Warbler																					1		1	
Yellow-bellied Flycatcher									2												1			
Yellow-bellied Sapsucker	1	male	1				1		2	pair	1		1								1			

	May 18 2011						May 23 2011						
	Transect 7		Transect 8		Transect 9		Transect 4		Transect 5		Transect 6		
	14 C, clouds 100%,winds NE 5 km/h						14 C, clouds 80%, wind SW 15 km/h						
Start time	6:30		8:03		9:12		6:15		7:45		8:55		
End time	7:18		8:56		10:00		7:15		8:39		9:45		
Species	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Totals
American Crow													2
American Goldfinch													11
American Kestrel													1
American Redstart	1		1		1				1				13
American Robin	1		1		1				4				32
Bald Eagle													1
Baltimore Oriole													4
Bay-breasted Warbler							2						8
Belted Kingfisher	1												5
Black and White Warbler	2		3		3		4		2		6		61
Black-capped Chickadee	1		2								2		31
Black-throated Green Warbler	3		5		2		3		2		7		51
Blackburnian Warbler							1		1				11
Blackpoll Warbler			1						1				7
Blue Jay			8		2		4						38
Broad-winged Hawk													4
Brown Creeper													1
Brown Thrasher	1		1				1						4
Brown-headed Cowbird													2
Bufflehead			2	females									11
Canada Goose	3	pair											10
Canada Warbler							1				2		3
Caspian Tern	2												6
Cedar Waxwing													3
Chestnut-sided Warbler	2		3										15
Chipping Sparrow	2		4		1		3		6		2		45
Common Grackle													13
Common Loon							1		1		3	flying west	6
Common Merganser									1	male			8
Common Raven	4						1						8
Common Yellowthroat	4		2		4		5		8		12		54
Double-crested Cormorant	1				2						1		9
Downy Woodpecker													3
Eastern Phoebe													5
Eastern Towhee													2
Eastern Wood Pewee													1
Gray Catbird			1						1				5
Great Blue Heron													2
Hairy Woodpecker			1				2	pair	1				7
Hermit Thrush							1		3		6		15
Herring Gull	1		1				2						9
House Wren	1						1						2
Killdeer													1
Least Flycatcher			2										3
Lincoln's Sparrow											1		1
Magnolia Warbler	1												4
Mallard	3	all female					1	male					6
Myrtle Warbler	1		7		2		1		3		9		73
Nashville Warbler	2		8		4		6		6		4		89
Northern Flicker	1		1				2		1				18
Northern Harrier													2
Northern Parula													2

	May 18 2011						May 23 2011						
	Transect 7		Transect 8		Transect 9		Transect 4		Transect 5		Transect 6		
	14 C, clouds 100%,winds NE 5 km/h						14 C, clouds 80%, wind SW 15 km/h						
Start time	6:30		8:03		9:12		6:15		7:45		8:55		
End time	7:18		8:56		10:00		7:15		8:39		9:45		
Species	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Totals
Northern Waterthrush									1				1
Ovenbird	3		4		1						1		34
Palm Warbler													4
Pileated Woodpecker													4
Pine Grosbeak							1						1
Pine Warbler			1		3		1		3		1		28
Purple Finch							1						3
Red-breasted Nuthatch	2						2						13
Red-eyed Vireo			2										5
Red-winged Blackbird	3		3										15
Ring-billed Gull													1
Rose-breasted Grosbeak			1	male			1						3
Ruby-crowned Kinglet													1
Ruby-throated Hummingbird	1												1
Ruffed Grouse	1		2				2				1		20
Sandhill Crane	2						1						12
Slate-coloured Junco													2
Song Sparrow	2				3		5	AF, 1 egg	1				30
Spotted Sandpiper													5
Swainson's Thrush									1				5
Swamp Sparrow	1												2
Tennessee Warbler													2
Turkey Vulture	1				2				1				4
Unknown Accipiter sp													1
Unknown Scaup sp													2
Veery													4
Whippoorwill							2	s, before start					2
White-crowned Sparrow													11
White-throated Sparrow	7		2		5		2		7		5		75
Wilson's Snipe													2
Wilson's Warbler													3
Winter Wren							1						8
Wood Duck							1	female					2
Wood Thrush													3
Yellow Warbler	2		1		2		1		2				10
Yellow-bellied Flycatcher			1										4
Yellow-bellied Sapsucker	1		1	female									10

	September 5 2011						September 6 2011						September 7 2011					
	Transect 2		Transect 3		Transect 1		Transect 4		Transect 5		Transect		Transect 9		Transect 8		Transect 7	
	12 C, clouds 100%, winds N, 20 km/hr						15 C, clouds 100%, wind N, Beaufort 1											
Start time	7:28		8:15		By Andrew Davis		7:58		8:57		10:04		10:05		By Andrew Davis		By Andrew Davis	
End time	8:05		9:21				8:45		9:52		10:56		11:00					
Species	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes
American Crow	2						2						7					
American Goldfinch	2																	
American Kestrel																		
American Pipit																		
American Redstart			2						1									
American Robin			5						2		6		1					
Bald Eagle																		
Belted Kingfisher																		
Black and White Warbler			1						1									
Black Scoter																		
Black-billed Cuckoo																		
Black-capped Chickadee			3						2									
Black-throated Green Warbler			2															
Blue Jay			1				3		5	mobbing			17					
Blue-headed Vireo																		
Broad-winged Hawk			1	flyover														
Brown Creeper																		
Bufflehead																		
Canada Goose	7	flock, going S	30	one flock			3		2	flyover	2	flyover						
Cedar Waxwing																		
Chestnut-sided Warbler			2															
Chipping Sparrow																		
Common Grackle													150+	huge flock on ground moving SE				
Common Loon	1										1	flyover	2					
Common Merganser																		
Common Raven																		
Common Yellowthroat							3		4				1					
Cooper's Hawk																		
Double-crested Cormorant																		
Downy Woodpecker																		
Eastern Bluebird																		
Eastern Kingbird													1					
Eastern Towhee																		
Golden-crowned Kinglet																		
Gray Catbird																		
Gray Jay																		
Great Blue Heron																		
Greater Yellowlegs							3											
Hairy Woodpecker									1				1					
Hermit Thrush																		
Herring Gull													3					
Killdeer																		
Lincoln's Sparrow																		
Long-tailed Duck																		
Magnolia Warbler			2															
Mallard																		
Merlin									1	flying S								

	September 5 2011						September 6 2011						September 7 2011					
	Transect 2		Transect 3		Transect 1		Transect 4		Transect 5		Transect		Transect 9		Transect 8		Transect 7	
	12 C, clouds 100%, winds N, 20 km/hr						15 C, clouds 100%, wind N, Beaufort 1											
Myrtle Warbler									3									
Nashville Warbler																		
Northern Flicker							3		2		1		2					
Northern Harrier							1	adult female chasing GRYE										
Northern Shrike																		
Ovenbird			1															
Palm Warbler																		
Philidelphia Vireo																		
Pileated Woodpecker													1					
Pine Siskin																		
Pine Warbler																		
Purple Finch																		
Red Crossbill																		
Red-breasted Nuthatch																		
Red-eyed Vireo			1															
Red-tailed Hawk																		
Ring-billed Gull													4					
Ruby-crowned Kinglet																		
Ruffed Grouse																		
Rusty Blackbird																		
Sandhill Crane							2		3	flying W, spooked from ground			2	flushed from ground behind hawkwatch point				
Sharp-shinned Hawk													1	flying S				
Slate-coloured Junco																		
Song Sparrow							1				1		1					
Spruce Grouse																		
Swainson's Thrush	1										2							
Swamp Sparrow											1							
Turkey Vulture	2																	
Unknown Blackbird sp																		
Unknown Duck sp																		
Unknown Owl sp																		
Unknown passerine flyover	4																	
Unknown Sandpiper sp																		
Unknown Sparrow sp																		
Unknown Thrush sp																		
Veery																		
Whippoorwill													1+*					
White-crowned Sparrow																		
White-throated Sparrow													3					
White-winged Scoter																		
Wilson's Warbler			1	female														
Winter Wren																		
Wood Duck																		
Yellow-bellied Flycatcher																		
Yellow-bellied Sapsucker																		
* heard singing during previous night, according to 'Flash' Herbert																		
** observed after transects in marsh west of MET tower 2																		

	September 8 2011						September 14 2011						September 15 2011						September 16 2011					
	Transect 10		Transect 11		Transect 12		Transect 1		Transect 2		Transect 3		Transect 7		Transect 8		Transect 9		Transect 10		Transect 11		Transect 12	
	9 C, clouds 0 %, wind ? Beaufort 1						9 C, wind 5-10 km/hr, West; some mist						8 C, cloud 0%, wind 15/20 km/hr from NW,						4 C, cloud 0 %, wind W beaufort 2					
Start time	7:32		8:24		9:16		7:04		by Andrew Davis		7:50		7:54		9:20		by Andrew Davis		7:37		8:37		9:12	
End time	8:12		9:10		10:00		7:29		w Tony Solomon		8:16		8:59		10:04		& Tony Solomon		8:29		9:04		9:49	
Species	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes
American Crow	2						3				1		3											
American Goldfinch	1						1												1		1		2	
American Kestrel													1										3	
American Pipit																								
American Redstart	1												2											
American Robin			8		4		1				2		1						1				1	
Bald Eagle																								
Belted Kingfisher													1											
Black and White Warbler	3		1												1				1					
Black Scoter																								
Black-billed Cuckoo																					1			
Black-capped Chickadee	3		1				2						8		7				4		2		3	
Black-throated Green Warbler																					5			
Blue Jay	4		5				5				4		4		3				1		3			
Blue-headed Vireo															1									
Broad-winged Hawk																								
Brown Creeper																								
Bufflehead													1	flyover										
Canada Goose			14	flock flying S															1				14	flyover
Cedar Waxwing							2												1					
Chestnut-sided Warbler													1											
Chipping Sparrow							1																	
Common Grackle											1													
Common Loon							1	flyover																
Common Merganser																								
Common Raven																			1				1	
Common Yellowthroat	1		2		2								2		3				1					
Cooper's Hawk																								
Double-crested Cormorant			1										1											
Downy Woodpecker											1													
Eastern Bluebird																								
Eastern Kingbird																								
Eastern Towhee																								
Golden-crowned Kinglet																								
Gray Catbird																								
Gray Jay																								
Great Blue Heron																							1	flyover
Greater Yellowlegs																								
Hairy Woodpecker											1		1						1				1	
Hermit Thrush	3																							
Herring Gull																								
Killdeer																								
Lincoln's Sparrow																								
Long-tailed Duck																								
Magnolia Warbler	1																							
Mallard																								
Merlin															1	flying west								

	September 8 2011						September 14 2011						September 15 2011						September 16 2011					
	Transect 10		Transect 11		Transect 12		Transect 1		Transect 2		Transect 3		Transect 7		Transect 8		Transect 9		Transect 10		Transect 11		Transect 12	
	9 C, clouds 0 %, wind ? Beaufort 1						9 C, wind 5-10 km/hr, West; some mist						8 C, cloud 0%, wind 15/20 km/hr from NW,						4 C, cloud 0 %, wind W beaufort 2					
Myrtle Warbler			1										7		3				2					
Nashville Warbler																					2			
Northern Flicker	1		2		2						1				1				2		3		2	
Northern Harrier																								
Northern Shrike																								
Ovenbird															1									
Palm Warbler					4										3									
Philidelphia Vireo	1																							
Pileated Woodpecker											1													
Pine Siskin																								
Pine Warbler			1												4								1	
Purple Finch																								
Red Crossbill																								
Red-breasted Nuthatch											1													
Red-eyed Vireo																								
Red-tailed Hawk											1													
Ring-billed Gull																								
Ruby-crowned Kinglet																								
Ruffed Grouse													2	young of year										
Rusty Blackbird																								
Sandhill Crane					2**										1	calling far away								
Sharp-shinned Hawk			1																					
Slate-coloured Junco																								
Song Sparrow																								
Spruce Grouse																								
Swainson's Thrush	1																		1					
Swamp Sparrow																								
Turkey Vulture																								
Unknown Blackbird sp																								
Unknown Duck sp																								
Unknown Owl sp																								
Unknown passerine flyover							2												5					
Unknown Sandpiper sp																								
Unknown Sparrow sp			1																					
Unknown Thrush sp																								
Veery							1																	
Whippoorwill																								
White-crowned Sparrow																								
White-throated Sparrow	2		1		3																4			
White-winged Scoter																								
Wilson's Warbler																								
Winter Wren																								
Wood Duck																								
Yellow-bellied Flycatcher			1																					
Yellow-bellied Sapsucker	2										2		1								1			
* heard singing during previous night, according to 'Flash' Herbert																								
** observed after transects in marsh west of MET tower 2																								

	September 20 2011						September 21 2011						September 22 2011						September 26 2011					
	Transect 4		Transect 5		Transect 6		Transect 1		Transect 2		Transect 3		Transect 9		Transect 10		Transect 11		Transect 1		Transect 2		Transect 3	
	16 C, cloud 10%, wind Beaufort 0, fog						8 C, cloud 80%, wind 0						14 C, clouds 30%, wind W/SW beaufort 2 gusts 3						16 C, cloud 90%, wind 0 at start, 3 at end)					
Start time	8:13		8:55		9:51		7:52		8:51		9:56		by Andrew Davis		by Andrew		8:47		8:03		9:10		10:25	
End time	8:47		9:38		10:17		8:39		9:30		10:25		& Tony Solomon		& Tony		9:23		8:52		9:54		10:46	
Species	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes
American Crow	3																3							
American Goldfinch	3		2				2				9						1		1					
American Kestrel																	1	flying S						
American Pipit																			10					
American Redstart	1		1						1															
American Robin	5		4		2		1		7		1										3			
Bald Eagle																								
Belted Kingfisher	1																							
Black and White Warbler																								
Black Scoter																								
Black-billed Cuckoo																								
Black-capped Chickadee	1		4		1		5		7		2								6		6			
Black-throated Green Warbler									1														1	
Blue Jay	2		48		1				2								2		3		2			
Blue-headed Vireo	1						1														1			
Broad-winged Hawk																								
Brown Creeper																							1	
Bufflehead																								
Canada Goose					2														40	flying SW				
Cedar Waxwing							2																	
Chestnut-sided Warbler																								
Chipping Sparrow																								
Common Grackle	2	flyover					1																	
Common Loon																	1		1					
Common Merganser																								
Common Raven									1															
Common Yellowthroat	3		1				1		1										1					
Cooper's Hawk																								
Double-crested Cormorant																								
Downy Woodpecker																			1					
Eastern Bluebird					1																			
Eastern Kingbird																								
Eastern Towhee																								
Golden-crowned Kinglet																			5					
Gray Catbird																					1			
Gray Jay																								
Great Blue Heron																								
Greater Yellowlegs																								
Hairy Woodpecker	1																							
Hermit Thrush																					2			
Herring Gull																	2							
Killdeer																								
Lincoln's Sparrow																								
Long-tailed Duck																								
Magnolia Warbler																								
Mallard																	1							
Merlin																								

	September 20 2011						September 21 2011						September 22 2011						September 26 2011					
	Transect 4		Transect 5		Transect 6		Transect 1		Transect 2		Transect 3		Transect 9		Transect 10		Transect 11		Transect 1		Transect 2		Transect 3	
	16 C, cloud 10%, wind Beaufort 0, fog						8 C, cloud 80%, wind 0						14 C, clouds 30%, wind W/SW beaufort 2 gusts 3						16 C, cloud 90%, wind 0 at start, 3 at end)					
Myrtle Warbler			1				1												2		1			
Nashville Warbler																								
Northern Flicker	2		3				1				1						1		1					
Northern Harrier																								
Northern Shrike																								
Ovenbird																					1			
Palm Warbler			4				1																	
Philidelphia Vireo																								
Pileated Woodpecker	1		2														1							
Pine Siskin																								
Pine Warbler																								
Purple Finch																			3		1			
Red Crossbill																								
Red-breasted Nuthatch							3		3		1								2		3			
Red-eyed Vireo									5		1													
Red-tailed Hawk																								
Ring-billed Gull																								
Ruby-crowned Kinglet																			2		1			
Ruffed Grouse			1																					
Rusty Blackbird																								
Sandhill Crane					1	calling in distance																		
Sharp-shinned Hawk																								
Slate-coloured Junco																					1			
Song Sparrow																					2			
Spruce Grouse																								
Swainson's Thrush																								
Swamp Sparrow																			1					
Turkey Vulture																								
Unknown Blackbird sp																			7					
Unknown Duck sp																								
Unknown Owl sp																								
Unknown passerine flyover			7			3	5												58		3		3	
Unknown Sandpiper sp							1																	
Unknown Sparrow sp																								
Unknown Thrush sp																					1			
Veery																								
Whippoorwill																								
White-crowned Sparrow																								
White-throated Sparrow	8						4		8												5			
White-winged Scoter																								
Wilson's Warbler																								
Winter Wren																								
Wood Duck																								
Yellow-bellied Flycatcher																								
Yellow-bellied Sapsucker									1		1										1	young of year		
* heard singing during previous night, according to 'Flash' Herbert																								
** observed after transects in marsh west of MET tower 2																								

	September 27 2011						September 29 2011						October 3 2011					
	Transect 4		Transect 5		Transect 6		Transect 7		Transect 8		Transect 9		Transect 10		Transect 11		Transect 12	
	19 C, cloud 90%, wind NE beaufort 1						14 C, cloud 100%, wind W beaufort 1						10 C, cloud 80%, wind N/NE, beaufort 1 at start, 3 at end					
Start time	by Andrew Davis		by Andrew Davis		10:24		8:35		9:40		by Andrew Davis		8:28		8:57		9:41	
End time	& Tony Solomon		& Tony Solomon		10:51		9:10		10:33		& Tony Solomon		8:54		9:38		10:10	
Species	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes
American Crow					2								2					
American Goldfinch					1		2								10		12	
American Kestrel																		
American Pipit																		
American Redstart																		
American Robin					8								9		11			
Bald Eagle							1											
Belted Kingfisher																		
Black and White Warbler																		
Black Scoter																		
Black-billed Cuckoo																		
Black-capped Chickadee					2				4						2		2	
Black-throated Green Warbler							1											
Blue Jay					15	flying S											4	
Blue-headed Vireo									1									
Broad-winged Hawk																		
Brown Creeper															2			
Bufflehead																		
Canada Goose					52	flyover	2										15	
Cedar Waxwing									8									
Chestnut-sided Warbler																		
Chipping Sparrow																		
Common Grackle																		
Common Loon					1	far away												
Common Merganser																		
Common Raven																	2	
Common Yellowthroat					1		1											
Cooper's Hawk																		
Double-crested Cormorant																		
Downy Woodpecker																		
Eastern Bluebird																		
Eastern Kingbird																		
Eastern Towhee													1					
Golden-crowned Kinglet																		
Gray Catbird																		
Gray Jay																		
Great Blue Heron									1									
Greater Yellowlegs																		
Hairy Woodpecker													1	female	1			
Hermit Thrush																		
Herring Gull																		
Killdeer																	1	
Lincoln's Sparrow																		
Long-tailed Duck																		
Magnolia Warbler																		
Mallard																		
Merlin																		

	September 27 2011						September 29 2011						October 3 2011					
	Transect 4		Transect 5		Transect 6		Transect 7		Transect 8		Transect 9		Transect 10		Transect 11		Transect 12	
	19 C, cloud 90%, wind NE beaufort 1						14 C, cloud 100%, wind W beaufort 1						10 C, cloud 80%, wind N/NE, beaufort 1 at start, 3 at end					
Myrtle Warbler					1		1											
Nashville Warbler									1									
Northern Flicker					2													
Northern Harrier													1	male, flying S				
Northern Shrike																		
Ovenbird																		
Palm Warbler					2		1											
Philidelphia Vireo																		
Pileated Woodpecker																		
Pine Siskin																		
Pine Warbler					1		1											
Purple Finch																		
Red Crossbill																		
Red-breasted Nuthatch																		
Red-eyed Vireo																		
Red-tailed Hawk																		
Ring-billed Gull													1					
Ruby-crowned Kinglet									2						7			
Ruffed Grouse									1						1		1	
Rusty Blackbird															3			
Sandhill Crane																		
Sharp-shinned Hawk																		
Slate-coloured Junco							2											
Song Sparrow																		
Spruce Grouse																		
Swainson's Thrush																		
Swamp Sparrow																		
Turkey Vulture																		
Unknown Blackbird sp																		
Unknown Duck sp																		
Unknown Owl sp																		
Unknown passerine flyover					27								5		8			
Unknown Sandpiper sp																		
Unknown Sparrow sp																		
Unknown Thrush sp																		
Veery																		
Whippoorwill																		
White-crowned Sparrow							2											
White-throated Sparrow							12								1		4	
White-winged Scoter																		
Wilson's Warbler																		
Winter Wren																		
Wood Duck																		
Yellow-bellied Flycatcher																		
Yellow-bellied Sapsucker									1									
* heard singing during previous night, according to 'Flash' Herbert																		
** observed after transects in marsh west of MET tower 2																		

	October 4 2011						October 5 2011						October 6 2011						October 7 2011			
	Transect 7		Transect 8		Transect 9		Transect 1		Transect 2		Transect 3		Transect 16		Transect 17		Transect 18		Transect 19		Transect 20	
	15 C, cloud 10%, wind W, beaufort 1-2						8 C, clouds 0%, wind N/NE beaufort 1 at start, then 3						9 C, clouds 0%, wind S/SE beaufort 1						12 C, cloud 0%, wind S beaufort 1			
Start time	by Andrew Davis		by Andrew Davis		11:37		8:13		9:19		10:19		8:44		9:45		10:19		8:57		9:51	
End time	& Tony Solomon		& Tony Solomon		12:20		9:00		9:59		10:40								9:40		10:27	
Species	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes
American Crow					2																	
American Goldfinch																						
American Kestrel																						
American Pipit																						
American Redstart																						
American Robin					3		2						2				8		1			
Bald Eagle																						
Belted Kingfisher																						
Black and White Warbler																						
Black Scoter																						
Black-billed Cuckoo																						
Black-capped Chickadee					3		3		7				10				11					
Black-throated Green Warbler																						
Blue Jay							2		1						1		1					
Blue-headed Vireo							6															
Broad-winged Hawk																						
Brown Creeper																						
Bufflehead																						
Canada Goose															1							
Cedar Waxwing																						
Chestnut-sided Warbler																						
Chipping Sparrow																						
Common Grackle																						
Common Loon																						
Common Merganser																						
Common Raven																						
Common Yellowthroat																						
Cooper's Hawk																						
Double-crested Cormorant																						
Downy Woodpecker																						
Eastern Bluebird																						
Eastern Kingbird																						
Eastern Towhee																						
Golden-crowned Kinglet							8				3		2		5		2		1		2	
Gray Catbird																						
Gray Jay																						
Great Blue Heron																						
Greater Yellowlegs																						
Hairy Woodpecker									1		1								1			
Hermit Thrush																						
Herring Gull																						
Killdeer																						
Lincoln's Sparrow																						
Long-tailed Duck																						
Magnolia Warbler																						
Mallard													1									
Merlin																						

	October 4 2011						October 5 2011						October 6 2011						October 7 2011			
	Transect 7		Transect 8		Transect 9		Transect 1		Transect 2		Transect 3		Transect 16		Transect 17		Transect 18		Transect 19		Transect 20	
	15 C, cloud 10%, wind W, beaufort 1-2						8 C, clouds 0%, wind N/NE beaufort 1 at start, then 3						9 C, clouds 0%, wind S/SE beaufort 1						12 C, cloud 0%, wind S beaufort 1			
Myrtle Warbler					5												1					
Nashville Warbler																						
Northern Flicker							1						1								1	
Northern Harrier																						
Northern Shrike																						
Ovenbird																						
Palm Warbler																						
Philidelphia Vireo																						
Pileated Woodpecker					1	male																
Pine Siskin					7								2									
Pine Warbler					2																	
Purple Finch					1										1							
Red Crossbill							1															
Red-breasted Nuthatch							3						1						1			
Red-eyed Vireo																						
Red-tailed Hawk																						
Ring-billed Gull																						
Ruby-crowned Kinglet					3		6						5		3		6				1	
Ruffed Grouse					1																	
Rusty Blackbird																						
Sandhill Crane																						
Sharp-shinned Hawk																						
Slate-coloured Junco																	5					
Song Sparrow													2				1					
Spruce Grouse																						
Swainson's Thrush																						
Swamp Sparrow																						
Turkey Vulture									1						1							
Unknown Blackbird sp																						
Unknown Duck sp																						
Unknown Owl sp																			1			
Unknown passerine flyover							26		3										1			
Unknown Sandpiper sp																						
Unknown Sparrow sp																					1	
Unknown Thrush sp																						
Veery																						
Whippoorwill																						
White-crowned Sparrow									8		4						1					
White-throated Sparrow					3		1		2													
White-winged Scoter																						
Wilson's Warbler							1															
Winter Wren									1													
Wood Duck																						
Yellow-bellied Flycatcher																						
Yellow-bellied Sapsucker																						
* heard singing during previous night, according to 'Flash' Herbert																						
** observed after transects in marsh west of MET tower 2																						

	October 12 2011				October 14 2011						October 18 2011						October 25 2011			
	Transect 21		Transect 22		Transect 1		Transect 2		Transect 3		Transect 1		Transect 2		Transect 3		Transect 9		Duck Survey in boat	
	15 C, cloud 90%, wind S/SE, beaufort 0-1				14 C, cloud 100%, wind E/SE, beaufort 2-3						8 C, clouds 100%, wind NW beaufort 2, cloud burst rain									
Start time	9:23		10:37		by Andrew Davis		9:06		by Andrew Davis		11:13		10:10		9:00		9:30		10:05	
End time	10:18		11:22		& Tony Solomon		9:45		& Tony Solomon		11:35		11:02		9:37		10:03		11:05	
Species	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes
American Crow	15																			
American Goldfinch													9							
American Kestrel													1							
American Pipit																				
American Redstart																				
American Robin	64		8								1		12		1					
Bald Eagle																				
Belted Kingfisher																				
Black and White Warbler																				
Black Scoter																			2	
Black-billed Cuckoo																				
Black-capped Chickadee	4		6				3						18		6		2			
Black-throated Green Warbler																				
Blue Jay													2							
Blue-headed Vireo													1							
Broad-winged Hawk																				
Brown Creeper																				
Bufflehead																			1	
Canada Goose																				
Cedar Waxwing																				
Chestnut-sided Warbler																				
Chipping Sparrow																				
Common Grackle																				
Common Loon			2	heard far away															3	
Common Merganser																			2	female
Common Raven	1												1				2			
Common Yellowthroat																				
Cooper's Hawk			1																	
Double-crested Cormorant																				
Downy Woodpecker																				
Eastern Bluebird																				
Eastern Kingbird																				
Eastern Towhee																				
Golden-crowned Kinglet	3		7				3				1		37		34		5			
Gray Catbird																				
Gray Jay	2																			
Great Blue Heron																				
Greater Yellowlegs																				
Hairy Woodpecker			1								2	p	1		3		1			
Hermit Thrush																				
Herring Gull	7														2				1	
Killdeer																				
Lincoln's Sparrow													1							
Long-tailed Duck																			3	
Magnolia Warbler																				
Mallard																				
Merlin																				

	October 12 2011				October 14 2011						October 18 2011						October 25 2011			
	Transect 21		Transect 22		Transect 1		Transect 2		Transect 3		Transect 1		Transect 2		Transect 3		Transect 9		Duck Survey in boat	
	15 C, cloud 90%, wind S/SE, beaufort 0-1				14 C, cloud 100%, wind E/SE, beaufort 2-3						8 C, clouds 100%, wind NW beaufort 2, cloud burst rain									
Myrtle Warbler													5		25					
Nashville Warbler																				
Northern Flicker																	1			
Northern Harrier																				
Northern Shrike			1																	
Ovenbird																				
Palm Warbler																				
Philidelphia Vireo																				
Pileated Woodpecker															1					
Pine Siskin											13		7							
Pine Warbler																				
Purple Finch			1																	
Red Crossbill																				
Red-breasted Nuthatch											1		3							
Red-eyed Vireo																				
Red-tailed Hawk													2	1 dark morph	1					
Ring-billed Gull																				
Ruby-crowned Kinglet	2		1								4		15		7		1			
Ruffed Grouse													1	drumming	4	1 drumming				
Rusty Blackbird																				
Sandhill Crane																				
Sharp-shinned Hawk							1													
Slate-coloured Junco	4						9						28							
Song Sparrow																				
Spruce Grouse																				
Swainson's Thrush																				
Swamp Sparrow																				
Turkey Vulture																				
Unknown Blackbird sp																				
Unknown Duck sp			1																12	
Unknown Owl sp			1																	
Unknown passerine flyover											3									
Unknown Sandpiper sp																				
Unknown Sparrow sp																				
Unknown Thrush sp																				
Veery																				
Whippoorwill																				
White-crowned Sparrow	5						1				5		11		5					
White-throated Sparrow			1										1		5					
White-winged Scoter																			1	
Wilson's Warbler																				
Winter Wren													3		1					
Wood Duck																			1	
Yellow-bellied Flycatcher																				
Yellow-bellied Sapsucker																				
* heard singing during previous night, according to 'Flash' Herbert																				
** observed after transects in marsh west of MET tower 2																				

	October 27 2011		
	Transect 19		
	4 C, clouds 100%, winds NE beaufort 1		
Start time	9:27		
End time	10:18		
Species	Number	Notes	Totals
American Crow			47
American Goldfinch	7		67
American Kestrel			6
American Pipit			10
American Redstart			9
American Robin	50+		185
Bald Eagle			1
Belted Kingfisher			2
Black and White Warbler			8
Black Scoter			2
Black-billed Cuckoo			1
Black-capped Chickadee	13		163
Black-throated Green Warbler			10
Blue Jay			141
Blue-headed Vireo			12
Broad-winged Hawk			1
Brown Creeper			3
Bufflehead			2
Canada Goose			185
Cedar Waxwing			13
Chestnut-sided Warbler			3
Chipping Sparrow			1
Common Grackle			4
Common Loon			13
Common Merganser			2
Common Raven	3		12
Common Yellowthroat			28
Cooper's Hawk			1
Double-crested Cormorant			2
Downy Woodpecker	1		3
Eastern Bluebird			1
Eastern Kingbird			1
Eastern Towhee			1
Golden-crowned Kinglet			118
Gray Catbird			1
Gray Jay			2
Great Blue Heron			2
Greater Yellowlegs			3
Hairy Woodpecker	4		24
Hermit Thrush			5
Herring Gull			15
Killdeer			1
Lincoln's Sparrow			1
Long-tailed Duck			3
Magnolia Warbler			3
Mallard			2
Merlin			2

	October 27 2011 Transect 19 4 C, clouds 100%, winds NE beaufort 1		
Myrtle Warbler			59
Nashville Warbler			3
Northern Flicker			37
Northern Harrier			2
Northern Shrike			1
Ovenbird			3
Palm Warbler			15
Philidelphia Vireo			1
Pileated Woodpecker			8
Pine Siskin	1		30
Pine Warbler			10
Purple Finch			7
Red Crossbill	5		6
Red-breasted Nuthatch			22
Red-eyed Vireo			7
Red-tailed Hawk			4
Ring-billed Gull			5
Ruby-crowned Kinglet	1		67
Ruffed Grouse			12
Rusty Blackbird			3
Sandhill Crane			9
Sharp-shinned Hawk			3
Slate-coloured Junco			49
Song Sparrow			8
Spruce Grouse	1		1
Swainson's Thrush			5
Swamp Sparrow			2
Turkey Vulture			4
Unknown Blackbird sp			7
Unknown Duck sp			13
Unknown Owl sp			2
Unknown passerine flyover			163
Unknown Sandpiper sp			1
Unknown Sparrow sp			2
Unknown Thrush sp			1
Veery			1
Whippoorwill			1
White-crowned Sparrow			42
White-throated Sparrow	1		69
White-winged Scoter			1
Wilson's Warbler			2
Winter Wren			5
Wood Duck			1
Yellow-bellied Flycatcher			1
Yellow-bellied Sapsucker			10
* heard singing during previous night, according to 'Flash' Herbert			
** observed after transects in marsh west of MET tower 2			

	April 30 2012						May 2 2012						May 3 2012					
	Transect 1		Transect 2		Transect 3		Transect7		Transect 9				Transect10					
	3 C, clouds 100%, winds SE, winds 5-10 km/hr						12 C, clouds 10%, winds S/SE, Beaufort 2						10 C, clouds 100%, wind SE, Beaufort 1, thick fog					
Start time	8:15		8:53		9:50		9:25		conducted by		11:14		8:55					
End time	8:50		9:17		10:15		10:12		Andrew Davis		11:54		9:40					
Species	Number	Notes	Number	Notes	Number	Notes	Number	Notes			Number	Notes	Number	Notes	Number	Notes	Number	Notes
Accipiter sp																		
American Crow											2		1					
American Goldfinch	1				1													
American Kestrel																		
American Redstart																		
American Robin	1		1				4						2					
American Wigeon					2	by hawkwatch 3												
Bald Eagle							1	immature										
Baltimore Oriole																		
Black and White Warbler											2		1					
Bay-breasted Warbler																		
Black-backed Woodpecker																		
Black-capped Chickadee	3		2				2				2		4					
Blue-headed Vireo					2								11					
Belted Kingfisher	2	pair, m & f			2	pair, m & f												
Brown-headed Cowbird																		
Blackburnian Warbler																		
Blue Jay	1		1		1								1					
Blackpoll Warbler																		
Brown Creeper			1		1		2						2					
Brown Thrasher																		
Black-throated Blue Warbler																		
Black-throated Green Warbler											1		2					
Bufflehead					65	by hawkwatch 3					9							
Broad-winged Hawk					2													
Canada Goose					3		1				2	pair						
Canada Warbler																		
Caspian Tern																		
Cedar Waxwing																		
Chimney Swift																		
Chipping Sparrow											3		1					
Common Goldeneye					10	by hawkwatch 3												
Common Grackle					2		3											
Common Loon					1	flyover												
Common Merganser					3	by hawkwatch 3					1	female						
Common Raven			1	nest			2				1							
Common Tern					2						1							
Common Yellowthroat																		
Chestnut-sided Warbler																		
Double-crested Cormorant																		
Downy Woodpecker			1															
Eastern Kingbird																		
Eastern Phoebe			1		1													
Eastern Towhee																		
Eastern Wood Pewee																		
Golden-crowned Kinglet			1				1						1					
Great Blue Heron																		
Gray Catbird			1															
Great-crested Flycatcher																		
Hairy Woodpecker			2	p, m & f														
Herring Gull																		

	April 30 2012						May 2 2012						May 3 2012					
	Transect 1		Transect 2		Transect 3		Transect7		Transect 9				Transect10					
	3 C, clouds 100%, winds SE, winds 5-10 km/hr						12 C, clouds 10%, winds S/SE, Beaufort 2						10 C, clouds 100%, wind SE, Beaufort 1, thick fog					
Start time	8:15		8:53		9:50		9:25		conducted by		11:14		8:55					
End time	8:50		9:17		10:15		10:12		Andrew Davis		11:54		9:40					
Species	Number	Notes	Number	Notes	Number	Notes	Number	Notes			Number	Notes	Number	Notes	Number	Notes	Number	Notes
Hermit Thrush							3						9					
Hooded Merganser																		
House Wren																		
Killdeer																		
Least Flycatcher																		
Lincoln's Sparrow																		
Mallard					6	by hawkwatch 3	2	pair, m & f					1	female				
Magnolia Warbler																		
Merlin					1	female	1				1							
Myrtle Warbler	2		4				11				7			3				
Nashville Warbler																		
Northern Flicker	1				3		6											
Northern Goshawk																		
Northern Harrier																		
Northern Parula																		
Northern Waterthrush																		
Orange-crowned Warbler																		
Osprey																		
Ovenbird																		
Palm Warbler											3							
Pine Grosbeak																		
Pine Siskin																		
Pine Warbler	2						6				6		1					
Pileated Woodpecker	1		1		1		1											
Purple Finch	1										1							
Rose-breasted Grosbeak							1	male										
Ring-billed Gull																		
Ring-necked Duck					12	by hawkwatch 3												
Red-breasted Nuthatch			1		2						1		1					
Ruby-crowned Kinglet													3					
Red-eyed Vireo																		
Ruby-throated Hummingbird																		
Ruffed Grouse	1	drumming	2	both drumming	1	drumming												
Red-winged Blackbird							3											
Sandhill Crane							2	in distance to the west					1	low flyover				
Scaup sp					130	by hawkwatch 3					11							
Slate-coloured Junco																		
Song Sparrow							3				1		3					
Spotted Sandpiper																		
Swamp Sparrow																		
Swainson's Thrush	1		1															
Tennessee Warbler																		
Tree Swallow																		
Turkey Vulture					1													
Veery																		
White-crowned Sparrow																		
Whippoorwill																		
Wilson's Snipe																		
Wilson's Warbler																		
Winter Wren					1								1					

	April 30 2012						May 2 2012						May 3 2012					
	Transect 1		Transect 2		Transect 3		Transect7		Transect 9				Transect10					
	3 C, clouds 100%, winds SE, winds 5-10 km/hr						12 C, clouds 10%, winds S/SE, Beaufort 2						10 C, clouds 100%, wind SE, Beaufort 1, thick fog					
Start time	8:15		8:53		9:50		9:25		conducted by		11:14		8:55					
End time	8:50		9:17		10:15		10:12		Andrew Davis		11:54		9:40					
Species	Number	Notes	Number	Notes	Number	Notes	Number	Notes			Number	Notes	Number	Notes	Number	Notes	Number	Notes
Wood Duck																		
Wood Thrush																		
White-throated Sparrow	1	singing	6	all singing			12				2		11					
Yellow-bellied Flycatcher																		
Yellow-bellied Sapsucker	2	both drumming		2	2	pair, m & f	1						1					
Yellow Warbler																		

	May 7 2012						May 10 2012				May 11 2012						May 14 2012					
	Transect 1		Transect 2		Transect 3		Transect J1		Transect J2		Transect 4		Transect 5		Transect 6		Transect F1		Transect F2		Transect F3	
	11 C, clouds 5%, winds SE, Beaufort 1-2						9 C, clouds 0%, winds N/NE Beaufort				5 C, clouds 0%,winds SE, Beaufort 1						14 C, clouds 80%, wind SW 15 km/h					
Start time	7:38		conducted by		8:56		9:28		11:00		8:04		8:43		9:43		8:11		9:26		12:45	
End time	8:23		Andrew Davis		9:39		10:36		11:53		8:33		9:20		10:15		8:45		9:58		1:09	
Species	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes
Accipiter sp																						
American Crow							1															
American Goldfinch	1				1																	
American Kestrel																						
American Redstart																	1		1		3	
American Robin	4				1						1		3				1		1			
American Wigeon																						
Bald Eagle																						
Baltimore Oriole																						
Black and White Warbler	2				4		2		2		2		3		2		1				3	
Bay-breasted Warbler																						
Black-backed Woodpecker																						
Black-capped Chickadee	3						2						2		1		1		2			
Blue-headed Vireo					1						1		1				1					
Belted Kingfisher	1	male																				
Brown-headed Cowbird																						
Blackburnian Warbler																	3		2		2	
Blue Jay	2				3		2		1		2				3				1		1	
Blackpoll Warbler																						
Brown Creeper																			1			
Brown Thrasher											1											
Black-throated Blue Warbler	2				1												1		2		2	
Black-throated Green Warbler	3				2		2		3		2		3		3		3		3		4	
Bufflehead																						
Broad-winged Hawk					1				1													
Canada Goose											1		1	flyover								
Canada Warbler																						
Caspian Tern																						
Cedar Waxwing																						
Chimney Swift																						
Chipping Sparrow	3						1				3		2		2		1					
Common Goldeneye																						
Common Grackle							3										1					
Common Loon	1	flyover																				
Common Merganser																						
Common Raven							1								1						1	
Common Tern																						
Common Yellowthroat											2		1									
Chestnut-sided Warbler					1				1								1		1			
Double-crested Cormorant							1															
Downy Woodpecker					1																	
Eastern Kingbird																						
Eastern Phoebe					1												1					
Eastern Towhee																						
Eastern Wood Pewee																			1			
Golden-crowned Kinglet							2		1				1		2						1	
Great Blue Heron																						
Gray Catbird	1																					
Great-crested Flycatcher	1																2		1		2	
Hairy Woodpecker													1		1							
Herring Gull																						

	May 7 2012						May 10 2012				May 11 2012						May 14 2012					
	Transect 1		Transect 2		Transect 3		Transect J1		Transect J2		Transect 4		Transect 5		Transect 6		Transect F1		Transect F2		Transect F3	
	11 C, clouds 5%, winds SE, Beaufort 1-2						9 C, clouds 0%, winds N/NE Beaufort				5 C, clouds 0%,winds SE, Beaufort 1						14 C, clouds 80%, wind SW 15 km/h					
Start time	7:38		conducted by		8:56		9:28		11:00		8:04		8:43		9:43		8:11		9:26		12:45	
End time	8:23		Andrew Davis		9:39		10:36		11:53		8:33		9:20		10:15		8:45		9:58		1:09	
Species	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes
Hermit Thrush					1										1				1		2	
Hooded Merganser					1	male																
House Wren																						
Killdeer																						
Least Flycatcher																			2			
Lincoln's Sparrow															1							
Mallard																						
Magnolia Warbler	2				1		1		3		1		1								1	
Merlin																						
Myrtle Warbler	4				2		3		1		2		3		5		6					
Nashville Warbler	8				5		7		4		3		6		6		4				3	
Northern Flicker					1		1		1		1		1				2					
Northern Goshawk							1															
Northern Harrier							1	female			1	male										
Northern Parula																	1					
Northern Waterthrush																						
Orange-crowned Warbler							3						2									
Osprey							1															
Ovenbird	5				2		1		1		1						8		7		6	
Palm Warbler											1											
Pine Grosbeak																						
Pine Siskin											3						1					
Pine Warbler	2				1		3		1		2		1				1					
Pileated Woodpecker							1															
Purple Finch	1				1		1						2									
Rose-breasted Grosbeak	1				1												1					
Ring-billed Gull																						
Ring-necked Duck																						
Red-breasted Nuthatch	1				1												1		1			
Ruby-crowned Kinglet							1		1						2							
Red-eyed Vireo																	3		1		2	
Ruby-throated Hummingbird																						
Ruffed Grouse	1				1	drumming	1				1		1		1		1					
Red-winged Blackbird																						
Sandhill Crane											1	far away										
Scaup sp																						
Slate-coloured Junco																						
Song Sparrow	1						3				1				1							
Spotted Sandpiper																						
Swamp Sparrow																						
Swainson's Thrush					1																	
Tennessee Warbler																						
Tree Swallow																	1					
Turkey Vulture									3												1	flyover
Veery																						
White-crowned Sparrow																						
Whippoorwill																						
Wilson's Snipe																						
Wilson's Warbler																						
Winter Wren					1				1		1											

	May 7 2012						May 10 2012				May 11 2012						May 14 2012					
	Transect 1		Transect 2		Transect 3		Transect J1		Transect J2		Transect 4		Transect 5		Transect 6		Transect F1		Transect F2		Transect F3	
	11 C, clouds 5%, winds SE, Beaufort 1-2						9 C, clouds 0%, winds N/NE Beaufort				5 C, clouds 0%,winds SE, Beaufort 1						14 C, clouds 80%, wind SW 15 km/h					
Start time	7:38		conducted by		8:56		9:28		11:00		8:04		8:43		9:43		8:11		9:26		12:45	
End time	8:23		Andrew Davis		9:39		10:36		11:53		8:33		9:20		10:15		8:45		9:58		1:09	
Species	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes
Wood Duck																						
Wood Thrush																						
White-throated Sparrow	9				2		7				6		8		3						1	
Yellow-bellied Flycatcher																						
Yellow-bellied Sapsucker	2				3												1		2			
Yellow Warbler																						

	May 15 2012						May 16 2012						May 17 2011					
	Transect 10		Transect 11		Transect 12		Transect 13		Transect 14		Transect 15		Transect 25					
	13 C, clouds 10%, wind S, Beaufort 2						8 C, clouds 100%, wind NW, Beaufort 2 gusts of 3						14 C, clouds 80%, wind SW 15 km/h					
Start time	8:54		9:36		10:05		9:45		10:15		11:02		9:33					
End time	9:21		10:01		10:30		10:10		10:50		11:25		10:46					
Species	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes
Accipiter sp																		
American Crow									1									
American Goldfinch					1													
American Kestrel																		
American Redstart	1						1		1				5					
American Robin	2						1						2					
American Wigeon																		
Bald Eagle																		
Baltimore Oriole																		
Black and White Warbler	1		2		1		1		1				3					
Bay-breasted Warbler																		
Black-backed Woodpecker							1	female										
Black-capped Chickadee					1				4		4							
Blue-headed Vireo																		
Belted Kingfisher																		
Brown-headed Cowbird																		
Blackburnian Warbler									1									
Blue Jay			2						1		2		1					
Blackpoll Warbler																		
Brown Creeper	1								1		2							
Brown Thrasher			2		2													
Black-throated Blue Warbler																		
Black-throated Green Warbler	1		2				3		4		2		4					
Bufflehead																		
Broad-winged Hawk																		
Canada Goose																		
Canada Warbler																		
Caspian Tern																		
Cedar Waxwing																		
Chimney Swift													3					
Chipping Sparrow	1		2		1				1		2		1					
Common Goldeneye																		
Common Grackle					1													
Common Loon																		
Common Merganser													1					
Common Raven							1						1					
Common Tern																		
Common Yellowthroat	1		1		3				1		1		1					
Chestnut-sided Warbler			1		1													
Double-crested Cormorant																		
Downy Woodpecker													1					
Eastern Kingbird					2													
Eastern Phoebe													1					
Eastern Towhee																		
Eastern Wood Pewee																		
Golden-crowned Kinglet	2								1									
Great Blue Heron																		
Gray Catbird																		
Great-crested Flycatcher																		
Hairy Woodpecker	1																	
Herring Gull																		

	May 15 2012						May 16 2012						May 17 2011					
	Transect 10		Transect 11		Transect 12		Transect 13		Transect 14		Transect 15		Transect 25					
	13 C, clouds 10%, wind S, Beaufort 2						8 C, clouds 100%, wind NW, Beaufort 2 gusts of 3						14 C, clouds 80%, wind SW 15 km/h					
Start time	8:54		9:36		10:05		9:45		10:15		11:02		9:33					
End time	9:21		10:01		10:30		10:10		10:50		11:25		10:46					
Species	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes
Hermit Thrush	2																	
Hooded Merganser																		
House Wren																		
Killdeer																		
Least Flycatcher																		
Lincoln's Sparrow																		
Mallard	1																	
Magnolia Warbler	1		2		2				1		1		2					
Merlin																		
Myrtle Warbler	1				1		3		3		2		2					
Nashville Warbler	3		5		1		3		3		3		4					
Northern Flicker							1						2					
Northern Goshawk																		
Northern Harrier																		
Northern Parula	1																	
Northern Waterthrush																		
Orange-crowned Warbler																		
Osprey																		
Ovenbird	2		2				2		2		2		4					
Palm Warbler																		
Pine Grosbeak																		
Pine Siskin					2		3											
Pine Warbler	1								3									
Pileated Woodpecker													1					
Purple Finch					1								2					
Rose-breasted Grosbeak					1	female carcass												
Ring-billed Gull																		
Ring-necked Duck																		
Red-breasted Nuthatch													1					
Ruby-crowned Kinglet																		
Red-eyed Vireo													2					
Ruby-throated Hummingbird																		
Ruffed Grouse	1	drumming	1		1				2		1		2	1 drumming, 1 female at nest, 11 eggs				
Red-winged Blackbird																		
Sandhill Crane																		
Scaup sp																		
Slate-coloured Junco																		
Song Sparrow					2													
Spotted Sandpiper																		
Swamp Sparrow	1				2													
Swainson's Thrush																		
Tennessee Warbler																		
Tree Swallow																		
Turkey Vulture							2											
Veery																		
White-crowned Sparrow																		
Whippoorwill																		
Wilson's Snipe																		
Wilson's Warbler																		
Winter Wren	1		1						1				2					

	May 15 2012						May 16 2012						May 17 2011					
	Transect 10		Transect 11		Transect 12		Transect 13		Transect 14		Transect 15		Transect 25					
	13 C, clouds 10%, wind S, Beaufort 2						8 C, clouds 100%, wind NW, Beaufort 2 gusts of 3						14 C, clouds 80%, wind SW 15 km/h					
Start time	8:54		9:36		10:05		9:45		10:15		11:02		9:33					
End time	9:21		10:01		10:30		10:10		10:50		11:25		10:46					
Species	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes	Number	Notes
Wood Duck																		
Wood Thrush																		
White-throated Sparrow	2		3		5		2		2				10					
Yellow-bellied Flycatcher																		
Yellow-bellied Sapsucker	1												1					
Yellow Warbler																		

	May 24 2012					
	all Transect 'B'					
	19 C, clouds 70%, wind S Beaufort 3					
Start time	7:57					
End time	8:57					
Species	Number	Notes	Number	Notes	Number	Notes
Accipiter sp						
American Crow						
American Goldfinch						
American Kestrel						
American Redstart	1					
American Robin						
American Wigeon						
Bald Eagle						
Baltimore Oriole						
Black and White Warbler	1					
Bay-breasted Warbler						
Black-backed Woodpecker						
Black-capped Chickadee	1					
Blue-headed Vireo						
Belted Kingfisher						
Brown-headed Cowbird						
Blackburnian Warbler						
Blue Jay	1					
Blackpoll Warbler						
Brown Creeper	1					
Brown Thrasher						
Black-throated Blue Warbler						
Black-throated Green Warbler	1					
Bufflehead						
Broad-winged Hawk						
Canada Goose						
Canada Warbler	2					
Caspian Tern						
Cedar Waxwing						
Chimney Swift						
Chipping Sparrow						
Common Goldeneye						
Common Grackle						
Common Loon						
Common Merganser						
Common Raven						
Common Tern						
Common Yellowthroat	1					
Chestnut-sided Warbler						
Double-crested Cormorant						
Downy Woodpecker						
Eastern Kingbird						
Eastern Phoebe						
Eastern Towhee						
Eastern Wood Pewee						
Golden-crowned Kinglet						
Great Blue Heron						
Gray Catbird						
Great-crested Flycatcher						
Hairy Woodpecker						
Herring Gull						

	May 24 2012					
	all Transect 'B'					
	19 C, clouds 70%, wind S Beaufort 3					
Start time	7:57					
End time	8:57					
Species	Number	Notes	Number	Notes	Number	Notes
Hermit Thrush						
Hooded Merganser						
House Wren						
Killdeer						
Least Flycatcher						
Lincoln's Sparrow						
Mallard						
Magnolia Warbler						
Merlin						
Myrtle Warbler	1					
Nashville Warbler	1					
Northern Flicker						
Northern Goshawk						
Northern Harrier						
Northern Parula						
Northern Waterthrush						
Orange-crowned Warbler						
Osprey						
Ovenbird	2					
Palm Warbler						
Pine Grosbeak						
Pine Siskin						
Pine Warbler						
Pileated Woodpecker						
Purple Finch						
Rose-breasted Grosbeak						
Ring-billed Gull						
Ring-necked Duck						
Red-breasted Nuthatch	1					
Ruby-crowned Kinglet						
Red-eyed Vireo						
Ruby-throated Hummingbird						
Ruffed Grouse						
Red-winged Blackbird						
Sandhill Crane						
Scaup sp						
Slate-coloured Junco						
Song Sparrow						
Spotted Sandpiper						
Swamp Sparrow						
Swainson's Thrush						
Tennessee Warbler						
Tree Swallow						
Turkey Vulture						
Veery	1					
White-crowned Sparrow						
Whippoorwill						
Wilson's Snipe						
Wilson's Warbler						
Winter Wren						

	May 24 2012					
	all Transect 'B'					
	19 C, clouds 70%, wind S Beaufort 3					
Start time	7:57					
End time	8:57					
Species	Number	Notes	Number	Notes	Number	Notes
Wood Duck						
Wood Thrush						
White-throated Sparrow						
Yellow-bellied Flycatcher						
Yellow-bellied Sapsucker						
Yellow Warbler						

		Area A				First Visit	Second Visit
			Point Counts				
	Code	*Site*	*Zone*	*Easting*	*Northing*		
1	A1	PC201	17T	526702	5078127	4-Jun-13	24-Jun-13
2	A2	PC203	17T	526173	5078766	4-Jun-13	24-Jun-13
3	A3	PC204	17T	526055	5079242	4-Jun-13	24-Jun-13
4	A4	PC206	17T	525618	5079954	4-Jun-13	24-Jun-13
5	A5	PC207	17T	525194	5080508	4-Jun-13	24-Jun-13
6	A6	Marsh 1	17T	525860	5079203	4-Jun-13	24-Jun-13
7	A7	V1	17T	524660	5076679	16-Jun-13	26-Jun-13
8	A8	V2	17T	524778	5077164	16-Jun-13	26-Jun-13
9	A9	V3	17T	524635	5077455	16-Jun-13	26-Jun-13
10	A10	W01	17T	523585	5077154	7-Jun-13	21-Jun-13
11	A11	W02	17T	523365	5077772	7-Jun-13	21-Jun-13
12	A12	W03	17T	523059	5078254	7-Jun-13	21-Jun-13
13	A13	W04	17T	523133	5078765	7-Jun-13	21-Jun-13
14	A14	W05	17T	523320	5079223	7-Jun-13	21-Jun-13
15	A15	W06	17T	523693	5079796	7-Jun-13	21-Jun-13
		Area B					
			Point Counts				
		Site	***Zone***	***Easting***	***Northing***		
16	B1	PC216	17T	528618	5079111	7-Jun-13	20-Jun-13
17	B2	PC217	17T	528666	5079514	7-Jun-13	20-Jun-13
18	B3	PC218	17T	528361	5079267	7-Jun-13	20-Jun-13
19	B4	PC222	17T	528063	5079633	7-Jun-13	20-Jun-13
20	B5	PC233	17T	527935	5080068	7-Jun-13	20-Jun-13
21	B6	PC224	17T	527602	5080573	7-Jun-13	20-Jun-13
22	B7	PC225	17T	527283	5081020	7-Jun-13	20-Jun-13
23	B8	PC226	17T	527388	5080346	7-Jun-13	20-Jun-13
24	B9	PC232	17T	529216	5079462	8-Jun-13	25-Jun-13
25	B10	PC233	17T	528979	5079939	8-Jun-13	25-Jun-13
26	B11	PC234	17T	528937	5080074	8-Jun-13	25-Jun-13
27	B12	PC235	17T	528809	5080360	8-Jun-13	25-Jun-13
28	B13	PC236	17T	528682	5080494	8-Jun-13	25-Jun-13
29	B14	PC237	17T	528532	5080879	8-Jun-13	25-Jun-13
30	B15	PC238	17T	528438	5081043	8-Jun-13	25-Jun-13
31	B16	PC239	17T	528256	5081418	8-Jun-13	25-Jun-13
		Area C					
			Point Counts				
		Site	***Zone***	***Easting***	***Northing***		
32	C1	PC209 (forest)	17T	533565	5081897	6-Jun-13	18-Jun-13
33	C2	X1	17T	530013	5078948	6-Jun-13	20-Jun-13
34	C3	X2	17T	530558	5079625	6-Jun-13	20-Jun-13
35	C4	X3	17T	530764	5080346	6-Jun-13	20-Jun-13
36	C5	X4	17T	531110	5080754	6-Jun-13	20-Jun-13
		Area D					
			Point Counts				
		Site	***Zone***	***Easting***	***Northing***		

37	D1	PC210	17T	533332	5079992	6-Jun-13	18-Jun-13
38	D2	PC211	17T	532871	5078133	6-Jun-13	18-Jun-13
39	D3	PC212	17T	532092	5078861	6-Jun-13	18-Jun-13
40	D4	PC214	17T	529757	5078310	6-Jun-13	18-Jun-13
41	D5	D1 (?) T01	17T	529201	5077915	17-Jun-13	28-Jun-13
42	D6	D2 (?) T02	17T	529411	5077454	17-Jun-13	28-Jun-13
43	D7	D3 (?) T03	17T	529783	5077131	17-Jun-13	28-Jun-13
44	D8	D4 (?) T04	17T	529758	5076540	17-Jun-13	28-Jun-13
45	D9	D5 (?) T05	17T	530275	5076494	17-Jun-13	28-Jun-13
46	D10	D6 (?) T06	17T	530830	5076637	17-Jun-13	28-Jun-13
47	D11	D7 (?) T07	17T	530650	5077108	17-Jun-13	28-Jun-13
48	D12	Z1	17T	532946	5080021	4-Jun-13	18-Jun-13
49	D13	Z2	17T	532736	5079563	4-Jun-13	18-Jun-13
50	D14	Z3	17T	532482	5079124	4-Jun-13	18-Jun-13
51	D15	Z4	17T	532289	5078660	4-Jun-13	18-Jun-13
52	D16	Z5	17T	531989	5078254	4-Jun-13	18-Jun-13
53	D17	Z6	17T	531846	5077768	4-Jun-13	18-Jun-13
54	D18	Z7	17T	531934	5077271	4-Jun-13	18-Jun-13
55	D19	Z8	17T	532418	5077061	4-Jun-13	18-Jun-13
56	D20	Z9	17T	532493	5076815	4-Jun-13	18-Jun-13
57	D21	Z10	17T	532678	5076615	4-Jun-13	18-Jun-13
		Area E					
		Point Counts					
		Site	***Zone***	***Easting***	***Northing***		
58	E1	PC10 (swd-ash)	17T	524945	5075396	5-Jun-13	25-Jun-13
59	E2	PC11 (marsh/fom)	17T	525437	5075483	5-Jun-13	25-Jun-13
60	E3	PC12 (swt/fom)	17T	526475	5075295	5-Jun-13	25-Jun-13
61	E4	PC8 (jack pine/red maple)	17T	526691	5075204	5-Jun-13	
62	E5	PC9 (pine)	17T	527088	5075214	5-Jun-13	
63	E6	PC7 (mas/oa/swc)	17T	527537	5074800	5-Jun-13	
64	E7	PC15(fom/poplar,spruce)	17T	525853	5076584	6-Jun-13	27-Jun-13
65	E8	PC13 (jack pine)	17T	526185	5076403	6-Jun-13	27-Jun-13
66	E9	PC14 (swt)	17T	526451	5076545	6-Jun-13	27-Jun-13
67	E10	PC16 (lowland spruce forest)	17T	527005	5076650	6-Jun-13	27-Jun-13
68	E11	PC17 (pine barren)	17T	527537	5076352	6-Jun-13	27-Jun-13
69	E12	PC18 (pine barren)	17T	527765	5075981	6-Jun-13	27-Jun-13
70	E13	PC1 (fom-pin/maple/oak)	17T	528208	5077811	7-Jun-13	24-Jun-13
71	E14	PC2 (bog)	17T	529355	5075881	7-Jun-13	24-Jun-13
72	E15	PC5 (pine barren)	17T	528224	5077357	7-Jun-13	24-Jun-13
73	E16	PC6 (pine barren)	17T	528325	5076931	7-Jun-13	24-Jun-13
74	E17	PC3 (pine barren)	17T	528789	5076454	7-Jun-13	24-Jun-13
75	E18	PC4 (bog)	17T	529180	5076307	7-Jun-13	24-Jun-13
76	E19	U1	17T	526702	5073100	15-Jun-13	26-Jun-13
77	E20	U2	17T	526797	5073664	15-Jun-13	26-Jun-13
78	E21	U3	17T	526621	5074132	15-Jun-13	26-Jun-13
79	E22	U4	17T	526118	5074163	15-Jun-13	26-Jun-13
80	E23	U5	17T	525769	5073789	15-Jun-13	26-Jun-13
		Area F					

			Point Counts				
		Site	***Zone***	***Easting***	***Northing***		
81	F1	Y1	17T	523131	5076211	5-Jun-13	19-Jun-13
82	F2	Y2	17T	522657	5076058	5-Jun-13	19-Jun-13
83	F3	Y3	17T	522275	5075719	5-Jun-13	19-Jun-13
84	F4	Y4	17T	522185	5075226	5-Jun-13	19-Jun-13
85	F5	Y5	17T	522697	5075239	5-Jun-13	19-Jun-13
86	F6	Y6	17T	523055	5074843	5-Jun-13	19-Jun-13
87	F7	Y7	17T	523375	5074421	5-Jun-13	19-Jun-13
88	F8	Y8	17T	523625	5074854	5-Jun-13	19-Jun-13
89	F9	Y9	17T	523294	5075229	5-Jun-13	19-Jun-13

Area MTO

			Point Counts				
		Site	***Zone***	***Easting***	***Northing***		
	TL01	TL01	17T	533352	5083133	10-Jun-13	30-Jun-13
	TL02	TL02	17T	533608	5080784	10-Jun-13	30-Jun-13
	TL03	TL03	17T	533598	5079442	10-Jun-13	30-Jun-13
	TL04	TL04	17T	534022	5078237	10-Jun-13	30-Jun-13
	TL05	TL05	17T	534484	5076512	10-Jun-13	30-Jun-13
	TL06	TL06	17T	534777	5075251	10-Jun-13	30-Jun-13
	TL07	TL07	17T	535302	5074024	10-Jun-13	30-Jun-13
	TL08	TL08	17T	535857	5072690	10-Jun-13	30-Jun-13
	TL09	TL09	17T	536392	5071361	10-Jun-13	30-Jun-13
	TL10	TL10	17T	537424	5070118	10-Jun-13	30-Jun-13
	TL11	TL11	17T	538725	5069753	10-Jun-13	30-Jun-13
	TL12	TL12	17T	539262	5068545	10-Jun-13	30-Jun-13
	TL13	TL13	17T	539804	5066946	10-Jun-13	30-Jun-13
	TL14	TL14	17T	540363	5065728	10-Jun-13	30-Jun-13
	TL15	TL15	17T	540917	5064486	10-Jun-13	30-Jun-13
	TL16	TL16	17T	541501	5063176	10-Jun-13	1-Jul-13
	TL17	TL17	17T	541923	5061938	10-Jun-13	1-Jul-13
	TL18	TL18	17T	542520	5060781	10-Jun-13	1-Jul-13
	TL19	TL19	17T	543198	5059275	12-Jun-13	1-Jul-13
	TL20	TL20	17T	544066	5058149	12-Jun-13	1-Jul-13
	TL21	TL21	17T	544941	5057268	12-Jun-13	1-Jul-13
	TL22	TL22	17T	545943	5056213	12-Jun-13	1-Jul-13
	TL23	TL23	17T	546861	5054959	12-Jun-13	1-Jul-13
	TL24	TL24	17T	547179	5053667	12-Jun-13	1-Jul-13
	TL25	TL25	17T	547588	5052527	12-Jun-13	1-Jul-13
	TL26	TL26	17T	548249	5051310	12-Jun-13	1-Jul-13
	TL27	TL27	17T	548537	5050090	12-Jun-13	1-Jul-13
	TL28	TL28	17T	549682	5048337	12-Jun-13	2-Jul-13
	TL29	TL29	17T	550511	5047371	12-Jun-13	2-Jul-13
	TL30	TL30	17T	551720	5046617	12-Jun-13	2-Jul-13
	TL31	TL31	17T	552831	5046119	12-Jun-13	2-Jul-13
	TL32	TL32	17T	554042	5045491	12-Jun-13	2-Jul-13
	TL33	TL33	17T	555293	5044758	12-Jun-13	2-Jul-13
	TL34	TL34	17T	556389	5043937	12-Jun-13	2-Jul-13
	TL35	TL35	17T	557486	5043000	12-Jun-13	2-Jul-13
	TL36	TL36	17T	558569	5041932	12-Jun-13	2-Jul-13
	TL37	TL37	17T	559620	5040841	12-Jun-13	2-Jul-13
	TL38	TL38	17T	560672	5039756	13-Jun-13	2-Jul-13
	TL39	TL39	17T	561721	5038694	13-Jun-13	3-Jul-13

TL40	TL40	17T	562680	5037847	13-Jun-13	3-Jul-13
TL41	TL41	17T	563686	5036949	13-Jun-13	3-Jul-13
TL42	TL42	17T	564664	5035972	13-Jun-13	3-Jul-13
TL43	TL43	17T	565706	5034882	13-Jun-13	3-Jul-13
TL44	TL44	17T	566384	5034183	13-Jun-13	3-Jul-13
TL45	TL45	17T	573208	5029393	13-Jun-13	3-Jul-13
TL46	TL46	17T	572989	5029419	13-Jun-13	3-Jul-13
TL47	TL47	17T	568664	5031923	13-Jun-13	3-Jul-13
TL48	TL48	17T	564173	5036499	13-Jun-13	3-Jul-13
TL49	TL49	17T	561024	5039420	13-Jun-13	3-Jul-13
TL50	TL50	17T	558024	5042490	13-Jun-13	3-Jul-13
TL51	TL51	17T	540651	5065085	13-Jun-13	4-Jul-13
TL52	TL52	17T	572659	5030346	14-Jun-13	4-Jul-13
TL53	TL53	17T	578307	5022423	14-Jun-13	4-Jul-13
TL54	TL54	17T	581614	5020363	14-Jun-13	4-Jul-13
TL55	TL55	17T	581561	5020624	14-Jun-13	4-Jul-13
TL56	TL56	17T	582693	5018280	14-Jun-13	4-Jul-13
TL57	TL57	17T	582226	5019032	14-Jun-13	4-Jul-13
TL58	TL58	17T	582508	5016960	14-Jun-13	4-Jul-13
TL59	TL59	17T	583330	5016881	14-Jun-13	4-Jul-13
TL60	TL60	17T	582287	5018595	14-Jun-13	4-Jul-13

FALL PASSERINES

WEEK 3, 5, 8 ?
No transect 17 (poor weather)

Week 8 two surveys of
Transect 18

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824 Project Name: Nisg

Date: Aug 22, 13 Field Personnel: B. Holden B. Miller

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	20°C	1	/	Rain	—

Start Time: 0700 End Time: 0734

Start Point UTM: End Point UTM:

Habitat: Woods Clearing Transect: 1

Feature #:

Species	Tally
BCCH	IIII
WTSP	III
BWHA	I
REVI	III
BCSA	II
PUFI	IIII
CEDU	IIII
RBGR	I
SOSP	II
COME	IIII
SUSP	I
TUVU	II
ALFL	II
NOFL	I
BAWW	I
RUGR	I
AMGO	II

Pg. 1 of 3

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Species	Habitat- Dry Woods, Tally
Transect 2	Start: 0817 End: 0844
RTHU -	1
AMRO -	III
NOFL -	1
BLJA -	IIII III
CEDW -	IIII
BCCH -	IIII IIII
BAWW -	II
BTNW -	1
CSWA -	II
REVI -	1
CORA -	1

Pg. 2 of 3

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

REV: 2011-05-03 / FORM 014

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 160960824 Project Name: Nisg

Date: Aug 22, 13 Field Personnel: B. Holden B. Miller

Weather Conditions:	TEMP (°C):	~~WIND:~~	CLOUD:	~~PPT:~~	~~PPT (in last 24 hrs):~~

Start Time: 0936 End Time: 1012

Start Point UTM: End Point UTM:

Habitat: Transect: 3

Feature #:

Species	Tally
BCJA	IIII
WISP	IIII
PWO	I
CHSP	III
BAVU	I
AMRE	IIII
DOWO	I
MYWA	I
MAWA	I
REVI	II
COYE	IIII IIII IIII I
BCBU	I
CSWA	I
EAWI	I
COYE	I

Pg. 3 of 3

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824 Project Name: Nigig

Date: Aug 23 2013 Field Personnel: B. Holden B. Miller

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	20-25	2	20-30	/	/

Start Time: ~~0558~~ 0604 End Time: 0624

Start Point UTM: End Point UTM:

Habitat: Transect: 13

Feature #:

Species	Tally
CEDW	- IIII IIII II
AMRO	- III
WTSP	- IIII
SWSP	- I
MYWA	- I
GCKI	- III
NOFL	- I
RUGR	- I
COME	- II
DOWO	- I

Pg. 1 of 2

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Species	Tally
Transect: 11	Start: 0711 End: 0735
Specs-Warbler	IIII
COYE -	II
HETH -	I
DIWO -	I
SOSP	I
BRTH -	I
NOPA -	I
REVI -	I

Page 2 of 4

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

REV: 2011-05-03 / FOI

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824 Project Name: Misg

Date: August 23 2013 Field Personnel: B Holden B. Miller

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	20 - 25	2	20-30	/	X

Start Time: 0812 **End Time:** 0837

Start Point UTM: **End Point UTM:**

Habitat: **Transect:** 12

Feature #:

Species	Tally
AMRE	11
MAWA	𝍸 1
MYWA	11
BTNW	1
RUGR	1
REVI	11
BWHA	1
AMRO	11
GBHE	1
NSFC	1
BBWA	1
PIWA	1

Pg. 3 of 4

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Field Personnel) **Signature:** (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Blanding's ITT 0526791 5073049

Added to Reptile list

Migratory Bird Survey Observation Form

Stantec

Project Number: 160960824 Project Name: B. Holden - B. Miller

Date: Aug 23 2013 Field Personnel: Nicky

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	23-25	2	30	/	/

Start Time: 0942 End Time: 1013

Start Point UTM: End Point UTM:

Habitat: Transect: Sandy Bay (17)

Feature #:

Species	Behaviour (foraging, mobbing, perched, migration, flying)	Using Woodlot (W) or Fly-over (FO)	Tally of Individuals	Transect Segment
CHSP -	HH II			
WTSP -	IIII			
RTHU -	I			
EATO -	I			
GCKI -	II			
RBNU -	I			
BLJA -	IIII			
COGR -	II			
COME -	II			
MAWA -	I			
AMCR -	II			
BTNW -	I			

Pg. 4 of 4

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

REV: 2011-05-03 / FORM

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 160960824 Project Name: N.J.J

Date: Aug 24 2013 Field Personnel: B. Holden / B. Miller

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	22-26	3	30-40	/	/

Start Time: 0711 **End Time:** 0734

Start Point UTM: **End Point UTM:**

Habitat: **Transect:** Key River - West (15)

Feature #:

Species	Tally
SPGR	11
CORA	1
LITSP	11
BCSA	1
MALL	1
BCCH	1111
CHSP	1

Pg. 1 of 3

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

REV: 2011-05-03 / FORM 014

Species	Tally
Transect:	
Key River Central	(18) Start: 0808 End: 0840
WTSP-	IIII
SOSP-	I
COYE-	IIII
BCCH-	~~HHH~~
CORW-	II
AMRO-	III
SWSP-	I
DCJA	~~HHH~~ II
NOFL-	I
CORA-	II
BHVI-	I
CANG-	III
MAWA-	II
MERL-	I
BTMW-	I

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

nal c:\users\nleava\appdata\local\microsoft\windows\temporary internet files\content.outlook\vo370vsn\form_014-a_migratory-passerine-survey_2-sided.docx

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Week 1

Migratory Bird Survey Observation Form

Project Number: 160960824 Project Name: Nisg

Date: Aug 24, 13 Field Personnel: B. Holden B. Miller

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
			✓	✓	✓

Start Time: 0914 End Time: 0947

Start Point UTM: End Point UTM:

Habitat: Transect: Key River East (16)

Feature #:

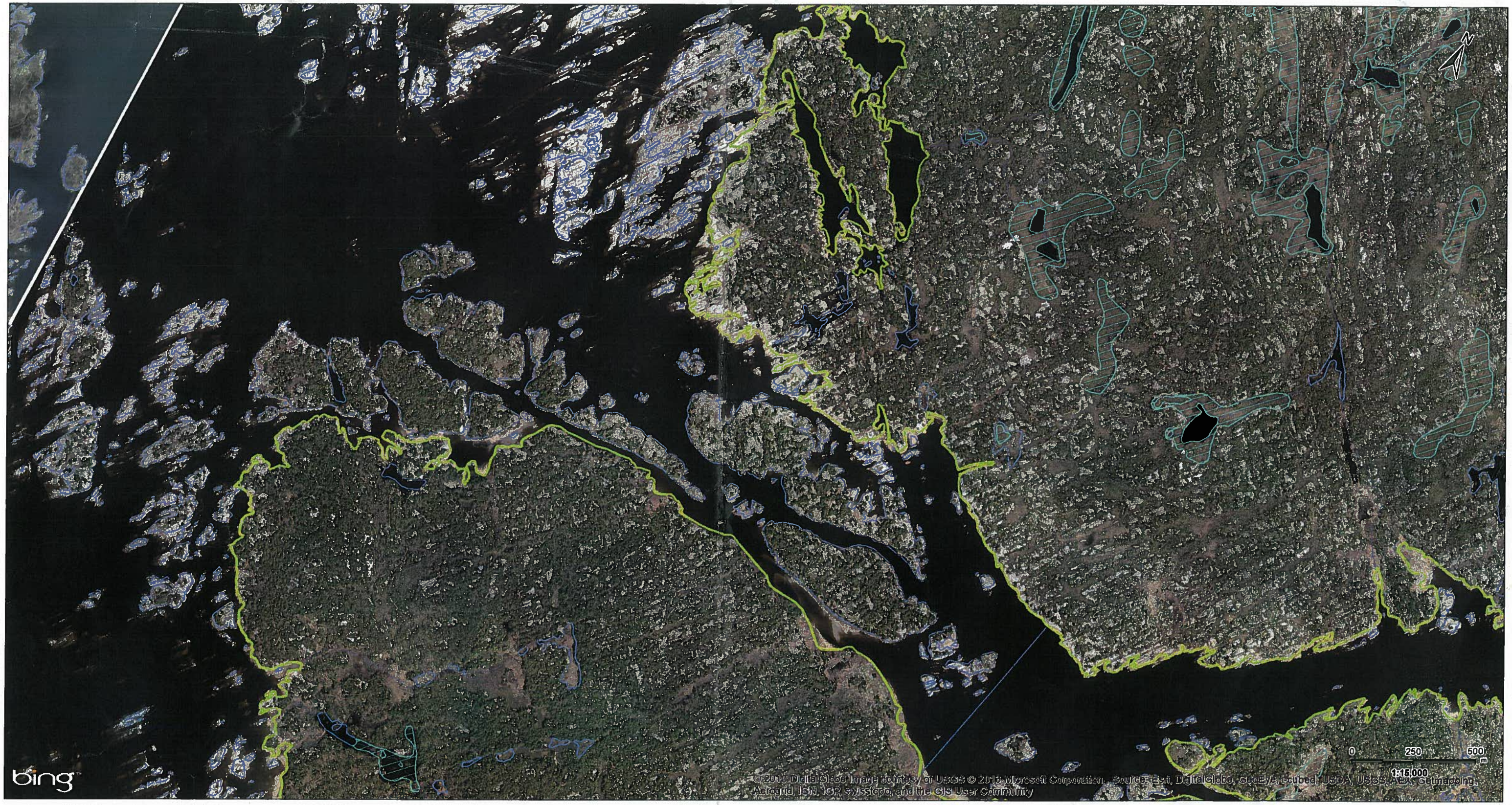
Species	Tally
REVI	1111
CHSP	1111
PWA	1
WTSP	111
MYWA	111
DOWO	1
MAWA	1
BCCH	1111
BCJA	11
AMCR	11
COYE	1111
AMRO	1
TRFL	1
COME	11
NUFL	1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

W:\active\60860770\drawing\MXD\Terrestrial\FieldWork\160960770_FieldMap_Tiled_20130611.mxd
Revised: 2013-06-11 By: carobertson



June 2013
Project No.

Stantec

Legend

- Proposed Transmission Line
- North Substation
- Route Marker

Existing Features

- City or Town
- Hydro Station
- Existing Transmission Line
- Highway
- Major Road
- Local Road
- Railway
- Trail
- Contours(5m)
- Watercourse
- Municipal Boundary - Upper
- Municipal Boundary - Lower

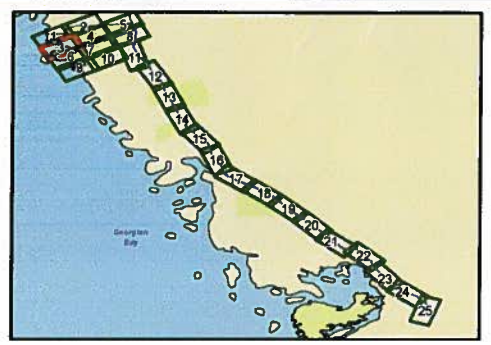
ANSI

- ANSI, Earth Science
- ANSI, Life Science
- Candidate ANSI, Earth Science
- Candidate ANSI, Life Science
- Aggregate Site
- Significant Ecological Area

Wintering Area

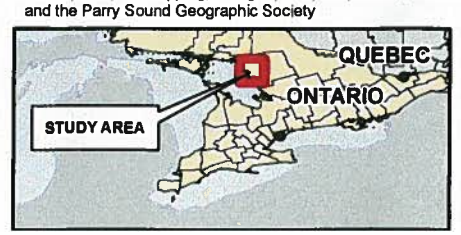
- Deer Wintering Area (Stratum 2)
- Deer Yard (Stratum 1)
- Moose Late Wintering Area
- Wetland, Provincially Significant
- Wetland, Locally Significant
- Wetland, Unevaluated
- Waterbody
- First Nations Reserve
- Conservation Reserve
- Forest Reserve
- Provincial Park

*Location of transmission line within the highway corridor is unknown at this time.



Notes

1. Coordinate System:NAD 1983 UTM Zone 17N
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2012.
3. Imagery Sources:Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, GIS User Community, and the Parry Sound Geographic Society



Client/Project
NIGIG POWER CORP.
HENVEY INLET WIND PROJECT

Figure No.
3

DRAFT

Title
Proposed Route - Field Map

Sun

1609608 24
Nigrg
Passenes WK 1
B. Holden
B. Miller

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Week 2

Migratory Bird Survey Observation Form

Project Number: 160960824 Project Name: Nigig

Date: Aug 20 13 Field Personnel: B. Holden

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	23°C	3-4	100	Rain	Rain

Start Time: 0654 End Time: 0717

Start Point UTM: End Point UTM:

Habitat: Transect: 1

Feature #:

Species	Tally
COYE	HHH II
WTSP	III
BCSA	II
CEDW	III
BCCH	IIII
NOFC	I
RBNU	III
OSFC	I
BWHA	I
TRFC	I
REVI	I
BAWU	I

Pg. 1 of 1

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Field Personnel)

Signature: (Project Manager)

Species	Tally
Transect 2	Start: 0737 End: 0809
BCSA	III
WTSP	I
CENU	II
COYE	II
CASP	II
REVI	III
Warbler sp.	II
AMRO	II
AMRE	I
CSWA	I
BTMW	I

Pg. 2 of 24

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

REV: 2011-05-03 / FORM 014

pal c:\users\pleave\appdata\local\microsoft\windows\temporary internet files\content.outlook\vo370vsn\form_014-a_migratory-passerine-survey_2-sided.docx

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 824 Project Name: NRI4

Date: Aug 26 13 Field Personnel: BH

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):

Start Time: 0836 End Time: 0909

Start Point UTM: End Point UTM:

Habitat: Transect: 3

Feature #:

Species	Tally
MALA	1111
AMRE	111
OVEN	1
BTNW	111
WTSP	1111
RUGR	11
CORA	1
REVI	11
CSWA	1
BLJA	1111
COGR	1111
TEWA	1
SOSP	1
BAWW	1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Species	Tally
Start Time: 0946	End Time: 1014 Transect: 13
Start Point UTM:	
End Point UTM:	
LTSP - 1111	
CATP - 1111	
AMCO - 11	
MYWA - 1111	
PUMA - 111	
RECA - 11	
SOSP - 111	
NOPA - 1	
AMRE - 11	
SWSP - 1	
MAWA - 111	
DOWO - 1	
MOPA - 1	
PUMA - 1	
COYE - 11	

Pg. 4 of 4

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 160960824 Project Name: N13B

Date: Aug 27, 13 Field Personnel: B. Holden B. Miller

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	20+	2-3	50	✓	Rain

Start Time: 0720 End Time: 0744

Start Point UTM: End Point UTM:

Habitat: Transect: Key River West (15)

Feature #:

Species	Tally
BCJA	𝍸 𝍸 𝍸 I
MYWA	𝍸
CHSP	𝍸 III
COYE	𝍸 I
RCKI	II
AMRE	II
COMY	𝍸 II
BRCR	I
AMRO	𝍸
HETH	I
DEWO	I
RUGR	I
NOFL	I

Pg. 1 of 3

Quality Control: This form is complete ☐ & legible ☐.

Signature: Signature:

(Field Personnel) (Project Manager)

Species	Tally
Start Time: 0825	End Time: 0850 Transect: Key River Central
Start Point UTM:	
End Point UTM:	
SLSP - III	
COYE - IIII	
SSHA - I	
PIWO - I	
SCSP - III	
MALL - IIII	
BAUL - I	
COHA - I	
BAEA - I	
TUVU IIII	
AMRE - III	
MYWA - IIII	
WTSP - II	
BBWO - I	
TRFL - I	

Pg. 2 of 3

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 824 Project Name: Nrg19

Date: Aug 27, 13 Field Personnel: BH BM

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):

Start Time: 0936 End Time: 1009

Start Point UTM: End Point UTM:

Habitat: Transect: Key River East.

Feature #:

Species	Behaviour (foraging, mobbing, perched, migration, flying)	Using Woodlot (W) or Fly-over (FO)	Tally of Individuals	Transect Segment
SACR	11			
COMU	𝍸 𝍸 1			
AMCR	11			
BOGU	11			
MALL	11			
BUSA	𝍸			
GBHE	1			
RUGR	1			
RWBL	111			
BREG	1			
AMGO	11			

Pg. 3 of 3

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 160960824 Project Name: Nigig

Date: Aug 28, 2013 Field Personnel: B. Holden B. Miller

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	23°C	3	50	✓	✓

Start Time: 0720 End Time: 0727

Start Point UTM: End Point UTM:

Habitat: Transect: 11

Feature #:

Species	Tally
SOSP	11
MALA	111
HAWO	1
BLSA	𝍸 111
AMRO	11
COMU	𝍸 1
LTSP	11
NOFL	11
BTNW	1
EVPE	1
REVI	1
HETH	1

Red Fox

Pg. 1 of 3

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Field Personnel)

Signature: (Project Manager)

Species	Tally
Start Time:	0802 End Time: 0835 Transect: 12
Start Point UTM:	
End Point UTM:	
AMRE - II	
RUBY - I	
HAWO - I	
MERL - I	
AMRE - II	
BUSA - III	
CORA - I	

Pg. 2 of 3

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 824 Project Name: Nig.4

Date: Aug 28, 13 Field Personnel: BH BM

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):

Start Time: 0946 End Time: 1014

Start Point UTM: End Point UTM:

Habitat: Transect: Sandy Bay (17)

Feature #:

Species	Behaviour (foraging, mobbing, perched, migration, flying)	Using Woodlot (W) or Fly-over (FO)	Tally of Individuals	Transect Segment
CANG – 11				
COLE – ~~HH~~ IIII				
SESP – ~~HH~~				
SUSP – 1				
SACR – 1				
AMRO – III				
TRES – 11				
OSPR – 1				
AMRO – 4				
CSWA – 1				
NAWA – 11				
MAWA – 11				
DNW – 1				
REVI – 11				
BCSA – 11				
PUWO – 1				

Pg. 3 of 3

Quality Control: This form is complete ☐ & legible ☐.

Signature: R (Field Personnel)

Signature: (Project Manager)

W:\active\60980770\drawing\MXD\Terrestrial\Field\Work\160980770_FieldMap_Tiled_20130611.mxd
Revised: 2013-06-11 By: carobertson



Stantec

June 2013
Project No.

Legend

- Proposed Transmission Line
- North Substation
- Route Marker

Existing Features

- City or Town
- Hydro Station
- Existing Transmission Line
- Highway
- Major Road
- Local Road
- Railway
- Trail
- Contours(5m)
- Watercourse
- Municipal Boundary - Upper
- Municipal Boundary - Lower

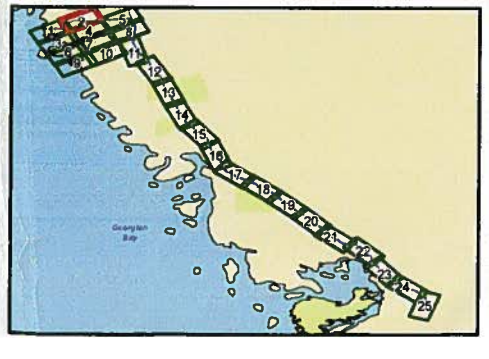
ANSI

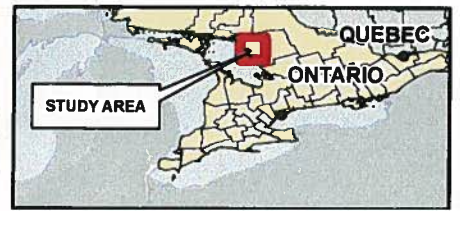
- ANSI, Earth Science
- ANSI, Life Science
- Candidate ANSI, Earth Science
- Candidate ANSI, Life Science
- Aggregate Site
- Significant Ecological Area

Wintering Area

- Deer Wintering Area (Stratum 2)
- Deer Yard (Stratum 1)
- Moose Late Wintering Area
- Wetland, Provincially Significant
- Wetland, Locally Significant
- Wetland, Unevaluated
- Waterbody
- First Nations Reserve
- Conservation Reserve
- Forest Reserve
- Provincial Park

*Location of transmission line within the highway corridor is unknown at this time.





Notes

1. Coordinate System:NAD 1983 UTM Zone 17N
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2012.
3. Imagery Sources:Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, GIS User Community, and the Parry Sound Geographic Society

Client/Project

NIGIG POWER CORP.
HENVEY INLET WIND PROJECT

Figure No.
2

DRAFT

Title

Proposed Route - Field Map

7

6

5 — LFR

4

level

2003

Sun

160960824

Nigig

Passennes - Wk 2

B. Holden

B. Miller

Fall 2013

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824 | Project Name: Ngiq / Henvey Inlet

Date: 4-Sept-2013 | Field Personnel: Sarah Richer, M. Straus

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	16°C	2	100%	0	0

Start Time: 07:11 | End Time: 07:55

Start Point UTM: 532337 5078609 | End Point UTM: 532727 5078264

Habitat: Alder Thicket, Poor Maple forest, sandbarrens | Transect: #1

Feature #: N/A

Species	Tally
AMRO	II
BCCH	IIII
BTNW	III
NOPA	I
SOSP	I
NAWA	II
RBNU	I
BLJA	II
Warbler sp.	III
PUFI	II
AMER	I
CEDN	17+1
WTSP	IIII IIII
Bird sp. (Passerine)	I
NOFL	I
BEKI	I
COYE	I
PIWA	I
BAWW	I
BLBW	I
RCKI	I

Signature: Madin. Straus (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

Species	Tally
AMRE	1

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824

Project Name: Nyjg / Henvey Inlet

Date: 4-Sept-2013

Field Personnel: Sarah Richer, M. Straus

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	16° C	1→3	100%	light rain	0

Start Time: 8:21 - Rain delay → 8:44 restart

End Time: 9:31

Start Point UTM: 529489 5077989

End Point UTM: 529536 5078489

Habitat:

Transect: 2

Feature #: N/A

Species	Tally
WTSP	III
PUFI	I
REVI	I
NAWA	III
BAWW	IIII
CSWA	II
BHVI	III
PIWA	I
BTNW	III 2♂, 1♀ II
RBNU	II
Warbler sp.	I
BBWA	I
BCCH	IIII II
BLJA	I
PIWO	I

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

REV: 2011-05-03 / FORM

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824

Project Name: Nggig / Henry Inlet

Date: Sept 4, 2013

Field Personnel: Sarah Richer, M. Straus

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	16°C	3	100%	none	0

Start Time: 10:15 527521

Start Point UTM: [redacted] 507 7705

End Time: 11:00 527725

End Point UTM: [redacted] 507 7228

Habitat: Poplar Forest, Beaver Pond

Transect: #3

Feature #: N/A

Species	Tally
MoDo	I
DCCO	I
HEGU	II
CAGO	I
SOSP	II
BLJA	I
WTSP	I
BCCH	III
CORA	II
TUVU	II

Pg. 1 of 1

Signature: M Straus (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

REV: 2011-05-03 / FORM 014a

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Nisg / Heavy Inlet
Date: 5-Sept-2013
Field Personnel: Sarah Richer ; M. Strauss

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	6°C	0	0	ϕ	ϕ

Start Time: 715
End Time: 800
Start Point UTM: 525466 · 5077663
End Point UTM: 525825 · 5077376
Habitat: Pine Rock Barren, MAM, alder thicket
Transect: # 11 (Flash's Cabin)
Feature #: N/A

Species	Tally
COLO	II
MALL	III
BWTE	I
HEGU	II
BAWW	III
PIWO	I
HAWO	I
BLJA	IIII
DCCO	II @ blade height
SOSP	I
COYE	IIII
CORA	I
WITSP	III
NOFL	III
~~WOOD~~	~~I~~
CANO	14 @ blade;
AMKE	I
SSHA	I
AMRO	I
RBNU	II
SACR	II

Pg. 1 of 1

Signature: M. Strauss (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824

Project Name: Niagara / Henvey Inlet

Date: Sept 5, 2013

Field Personnel: Sarah Richer, Melissa Strauss

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	16°C	2	2%	0	0

Start Time: 950

End Time: 10.45

Start Point UTM: 523029.5076241

End Point UTM: 522974 5075756

Habitat: Pine Rock Barren

Transect: 13

Feature #: ✓

Species	Tally
WOOD	@ blade height ~~IIII~~
BCCH	III
BLWA	I
BAWW	~~IIII~~
BTNW	I
WTSP	IIII
RBNU	III
Passerine sp.	I
GCKI	I
CEDW	II
CAGO	II
CORA	I
NOHA	8 or juv; 1 @ blade ht. heading east @ 1045

Pg. 1 of 1

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824

Project Name: Vista / Heavey Inlet

Date: Sept 5 2013 Thurs

Field Personnel: S Richero-M Straw

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	12	2-3 E/NE 1 inland	5%	None	None

Start Time: 830

End Time: 930

Start Point UTM: 525007. 5076746

End Point UTM: 525147. 5077237.

Habitat: Jack Pine rock barrens

Transect: 12

Feature #: N/A.

Species	Tally
BEKI	I
BLJA	III
WTSP	I
HAWO	I
NOFL	II
RBNU	I
BTNW	II
COYE	I

Pg. 1 of 1

Signature: Melissa Straw
(Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature:
(Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 160960824.
Project Name: Nisbis / Hennery Inlet
Date: 6-Sept-2013.
Field Personnel: Sarah Richer, M. Straus.

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	1	3 (5 open H_2O).	75%	0	0

Start Time: 8:14
End Time: 9:15
Start Point UTM:
End Point UTM:
Habitat: Jack Pine Rock Barren
Transect: # 18
Feature #: DIA - Key River.

Species	Tally
GBHE	1 in bay.
NOFL	III
AMKE	1 ♀ 3 ♀ juv (family)
SOSP	II
WTSP	1
BLJA	II
Passerine (LBJ) sp.	III
AMCR	1
CORA	1
BLJA	1
HAWO	1

Pg. 1 of 1

Signature: M Straus (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

* Massassauga observation → 17T 523879 5081036. beside wetland. WTDE

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824.

Project Name: Nigis / Henvey Inlet

Date: Sept 6, 2013

Field Personnel: Sarah

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	15°C	3-4	50%.	ø	ø

Start Time: 9:25

End Time: 10:20

Start Point UTM:

End Point UTM:

Habitat: Forest / burn mosaic

Transect: #15

Feature #:

Species	Tally
MALL	12
Duck Sp.	2+11
BLJA	1
BAWW	1
BCCH	11
BTNW	1
NAWA	1
WOOD	IIII
SOSP	1
BEKI	1
AMCR	1
CHSP	III
HAWO	1
AMKE	1
NOFL	IIII
WTSP	1

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Niagara Harvey Inlet
Date: Sept 6, 2013
Field Personnel: Sarah Richer, M. Straus.

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	15°C	4	100%, ~80	6	6

Start Time: 1035
End Time: 11:35
Start Point UTM:
End Point UTM:
Habitat: Poplar - Ash forest.
Transect: # 16
Feature #:

Species	Tally
CAGO.	8 + 6
BCCH	III
Black Duck	6+4
MALL	IIII
Passerine sp. (LBJ's)	III so elusive today!
TUVI	1
SOSP	1
Coyote	
BWTE	II
WOOD	III
WISN	1

Pg. 1 of ___

Signature: Melissa Straus. (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: ___ (Project Manager)

Mississauga siting @ 17T · 527117 · 5081654

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824

Project Name: Misi of Henvey

Date: Sept 11 2013 Wed

Field Personnel: S Reid & C Peterson

Weather Conditions:	TEMP (°C):	WIND: 2-3 Beaut 3	CLOUD:	PPT:	PPT (in last 24 hrs):
	18		100	None	Heavy Rain + Thunderstorms

Start Time: 9:30

End Time: 10:17.

Start Point UTM: 525669 5073239

End Point UTM: 525759 5073731

Habitat:

Transect: 17 (Sandy Bay)

Feature #:

Species	Tally
BLJA	||| |||
DCCO	24
Passerine sp	||
YBSA		
PIWO		
Warbler sp		
BCCH	||||
BAWW		
BTNW		
MODO		
AMCR		
SACR		(at blade height)
COLO	||
MERL		
YSFL (NOFL)	|||	

Pg. 1 of 1

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

REV: 2011-05-03 / FORM 014a

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Nisga Henvey Inlet
Date: Sept 12/13
Field Personnel: SRibler & C

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	18	0-1	100%	Steady rain- up to start time.	2/3 mm

Start Time: 7:37
End Time: 8:07
Start Point UTM: 523029 5076241
End Point UTM: 522974 5075756
Habitat:
Transect: 13
Feature #:

Species	Tally
COLO	II
BAEA	1 adult @ blade height
~~HEGU~~ HEGU	1
BLJA	III
CEDW	II
BAWW	III
NOFL	I
AMCR	IIII
BCCH	II
BTNW	III
WTSP	II
CHSP	I
RBNU	I
MYWA	III
~~passerine sp~~ passerine sp	I

Pg. 1 of 1

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

REV: 2011-05-03 / FORM 014a

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 1609 60024
Project Name: Nigig Henvey Inlet
Date: Sept 12/13
Field Personnel: CP / SR.

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	18	1-2	100%	Light rain intermittent	2-3 mm

Start Time: 8:48
End Time: 9:20
Start Point UTM: 525007 5076746
End Point UTM: 525147 5077237
Habitat:
Transect: 12
Feature #:

Species	Tally
CORA	IIII
COYE	III
RBNU	I
BLJA	~~HH~~ ~~HH~~ ~~HH~~ ~~HH~~ I
AMCR	I
NOFL	I
CEDW	~~HH~~ ~~HH~~ II
passerine sp.	~~HH~~ I
WTSP	III
HAWO	III
CHSP	II
SACR	I
~~YRWA~~ MYWA	II
AMRO	~~HH~~ ~~HH~~ ~~HH~~ III
~~EUST~~	~~HH~~
SOSP	II
RBGU	III

Pg. 1 of 1

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824

Project Name: Nigig/Hewey

Date: Sept 13 2013

Field Personnel: S Richer & C Patterson

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	4	2-3, occasional gusts of 4	100	—	2-3 mm

Start Time: 6:51

End Time: 7:27.

Start Point UTM: 532337 5078609

End Point UTM: 532727 5078264

Habitat:

Transect: 1

Feature #:

Species	Tally
NOFL	I
AMCR	II
WTSP	++++ II
BCCH	+++
CEDW	+++ I
HAWO	I
BLJA	+++ II
RBNU	I
~~BTNW~~ BTNW	I
CHSP	I
Warbler Sp	II
CORA	I
MYWA	IIII
SOSP	II

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824 Project Name: Nigig/Henvey

Date: Sept 13 2013 Fri. Field Personnel: SRicher/CPeterson

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	5	23, gusts of 4-5	100	—	2-3 mm

Start Time: 7:46 End Time: 8:25

Start Point UTM: 529405 5078046 End Point UTM: 529536 5078489

Habitat: Transect: 2

Feature #:

Species	Tally
CAGO	II
BLJA	IIII
~~Passerine sp~~	~~IIII~~
BCCH	++++ I
COYE	+++ I
WTSP	+++ +++ III
AMCR	III
SOSP	I
Passerine sp	III
BTNW	I

Pg. 1 of 1

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Field Personnel)

Signature: _____ (Project Manager)

REV: 2011-05-03 / FORM 014a

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Nigig / Henvey
Date: Sept 13/2013 Fri
Field Personnel: Patterson-Richer

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	7	N, B 3-4	100	—	2-3 mm

Start Time: 8:44
End Time: 9:21
Start Point UTM: 527521 5077205
End Point UTM: 527775 5077228
Habitat:
Transect: 3
Feature #:

Species	Tally
HAWO	II
TUVU	II
Passerine sp	III
AMCR	I
MYWA	𝍸 𝍸 𝍸 𝍸 I
BLJA	𝍸 I
BBWA	I
CENW	𝍸 I
RBNU	I
NAWA	IIII
AMRE	I
CAGO	I
WTSP	𝍸 III
SOSP	II
COYE	III
BAWW	II
WOWU	III
RUGR	I
AMRO	III

Pg. 1 of 2

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.
Signature: (Project Manager)

Proj# 160960824
Nigig/Henvey Inlet

Sept 13/2013 (Fri)
Temp 9°C

Wind B 2
Cloud 100%

Species	Tally
	Transect 11
	Start Pt 525825 5077376
	End Pt 525406 5077663
	Start time 9:42
	End time 10:07
CORA	I
MALL	II
COME	III
COYE	II
BLJA	++++ I
CAGO	I
WTSP	IIII
RBGU	II
HEGU	III
DCCO	III
NOFL	I
PIWO	II

Pg. 2 of 2

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

REV: 2011-05-03 / FORM 014a

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824

Project Name: Nigig Hervey Inlet

Date: Sept 14 2013 Saturday

Field Personnel: S Richer / E Paterson

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	5°C	0	0%	—	none.

Start Time: 8:31

End Time: 9:06

Start Point UTM: 523666 5081337

End Point UTM: 523790 5080850

Habitat:

Transect: 18

Feature #:

Species	Tally
BNTE	III
CAGO	++++ I
BLJA	++++ ++++ ++++
NOFL	IIII
AMKE	II
SACR	IIII
PIWO	I
BAOW	I being mobbed (BDOW)
AMCR	++++ III
CORA	~~++++ ++++~~ IIII
HAWO	II
~~SNEF~~ AMGO	+++ II
AMBL	++++
MALL	III
BCCH	IIII
AMRO	I
GCKI	I
COYE	I

Pea soup fog delayed departure time from dock

Pg. 1 of 1

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Naiq / Hewer Inlet
Date: Sept 14/13
Field Personnel: S Richer C Patterson

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	12C	0	0%	—	0

Start Time: 9:28
End Time: 10:00
Start Point UTM: 524705 5081448
End Point UTM: 524826 5080959
Habitat:
Transect: 15
Feature #:

Species	Tally
WODU	I
GBHE	I
NOFL	IIII
CEDW	III
GRJA	III 2 adults 1 young of year
HETH	III
BLJA	~~HH~~ ~~HH~~ ~~HH~~ II
AMCR	II
COYE	III
HAWO	I
PIWO	I
AMRO	I
RTHA	I
BEKI	I
WTSP	~~HH~~ IIII
NAWA	II
MYWA	II
RBNU	I

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Nigig Kenney Inlet
Date: Sept 14/13
Field Personnel: S Richer / C. Paterson

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	15	1	0%	0	0

Start Time: ~~10:00~~ 10:20
End Time: ~~11:05~~ 10:55
Start Point UTM: 527174 5081640
End Point UTM: 526669 5981665
Habitat:
Transect: 16.
Feature #:

Species	Tally
CORA	II
BLJA	++++
GBHE	II
~~Passerine sp~~	3
Accipiter Sp.	1
WISN ~~COSN~~	1
COYE	II
MALL	IIII
GCKI	II
TUVU	II
BCCH	+++ II
~~Passerine sp~~	1
AMBI - adult	1 flushed from wetland as we walked by
Passerine sp	+++ I
WTSP	IIII
RUGR	I
AMRO	II
DOWO	I
MYWA	+++ II

Pg. 1 of 1

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

REV: 2011-05-03 / FORM 014a

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Nig. Harvey Inlet
Date: Sept 17 2013
Field Personnel: SRiches / BMiller

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	4	0-1	~~100~~ 50	fog	fog

Start Time: 6:56
End Time: 7:32
Start Point UTM: 532337 5078609
End Point UTM: 532727 5078264
Habitat:
Transect: 1
Feature #:

Species	Tally
WTSP	++++ ||
RBNU	||
AMCR	|
BLJA	++++ ||
OVEN	|
YBSA	|
NOFL	|
HAWO	|
RCKI	++++ ||
RCCH	||
GCKI	++++ |||
WIWA	|
~~WI~~ SOSP	|
BRCR	||
BBCU	|
SACR	|| (in distance)
NAWA	||
BAWW	|
BTNW	||

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 160960824 Project Name: Nisg̱is/Henvey Inlet

Date: Sept 17 2013 Field Personnel: S Richard B Miller

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	5	0-1	0	front/fog	fog

Start Time: 7:50 **End Time:** 8:28

Start Point UTM: 529405 5078046 **End Point UTM:** 529536 5078489

Habitat: **Transect:** 2

Feature #:

Species	Tally	
WTSP	HH	Paw Prints! Mama bear + a yearling cubs
SACR	II (in distance)	
NAWA	I	
VEER	I	
BBWA or BLPW	I	BTNW ♀ - 1
BLJA	IIII	
AMCR	I	
CAWA	I	
OCWA	I	
NOFL	I	
RCKI	HH	
GCKI	II	
NOWA	I	
RBNU	I	
YBSA	I	
HAWO	I	
BCCH	I	
~~BT~~ pine	HH I	
RUBL	II	
OVEN	II	
AMRO	I	

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

REV: 2011-05-03 / FORM 014

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 160960824 Project Name: Niagara/Henvey Inlet

Date: Sept 17 2013 Field Personnel: SRicher/BMiller

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	8	0-1	90	—	fog

Start Time: 8:59 **End Time:** 9:39

Start Point UTM: 527521 5077705 **End Point UTM:** 527775 5077228

Habitat: **Transect:** 3

Feature #:

Species	Tally
COLO	III on Inlet; 2adult+1 fledged young
COVE	III
RBNU	I
HAWO	I
BLJA	++++ II
NOFL	I
BCCH	II
WTSP	III
SOSP	++++
AMGO	I
RNDU	I on pond @ end
CAGO	++++ ++++ IIII on inlet
AMCR	I

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Prj #160960824 Nigig/Henvey Inlet Date: Sept 17 2015

SAicher
+BMiller

Transect 11 Time start 10:08
Time end 10:50
~11°C, wind B1-2, cloud 50%
no precipitation

Species	Tally
RLHA	++++
HEGU	I
BTNW	II
BAEA	I adult, well above blade height
MYWA	++++
WTSP	++++ IIII
NOFL	II
MALL	18
MALL/AMBL hybrids	-3
HAWO	I
RCKI	II
COYE	++++ III
BHVI	II
LISP	I
AMCR	II
RUGR	I
BRTH	II
SOSP	++++ IIII
SWSP	IIII

Start UTM
525825
5077376

End UTM
525406
5077663

Pg. 1 of 1

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

REV: 2011-05-03 / FORM 014

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 160960824 Project Name: Nigig/Henvey

Date: Sept 18 2013 Wed Field Personnel: SRicher / BMiller

Weather Conditions:	TEMP (°C):	WIND: SW	CLOUD:	PPT:	PPT (in last 24 hrs):
	6	0-1	50	fog	fog

Start Time: 7:24 End Time: 8:01

Start Point UTM: 525007 5076746 End Point UTM: 525147 5077237

Habitat: Transect: 12

Feature #:

Species	Tally
SACR	II minimum; in distance
BLJA	++++ ++++ ++++ II
COYE	II
RBNU	I
NOFL	IIII
PIWO	I
WTSP	++++
SOSP	III
BCCH	++++ I
COLO	I flyover
AMCR	I
CORA	II
AMRO	I
HAWO	III
RTHW	I
OVEN	I
CHSP	I
GRHE	I, flyover

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 160960824 Project Name: Nigig / Henvey

Date: Sept 18 2012 Wed Field Personnel: S Richer & S Miller

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	12	2 SW	50	None	fog

Start Time: 8:38 End Time: 9:02

Start Point UTM: 523029 5076241 End Point UTM: 522974 5075756

Habitat: Transect: 13

Feature #:

Species	Tally
CORA	II
AMCR	I
AMRO	III
RTHW	III
MYWA	I
BRCR	II
BLJA	++++ ++++ I
NOFL	++++ I
CHSP	III
WTSP	+++ IIII
RBCH	II
RBNU	I
VEER	I
GRJA	II
COYE	III

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

REV: 2011-05-03 / FORM 014

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Nisg/Heavy Lake
Date: Sept 19 2013 Thurs
Field Personnel: SRicher/RMiller

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	15	0-1	50	None	light rain

Start Time: 7:53
End Time: 8:29
Start Point UTM: 527174 5081640
End Point UTM: 526669 5081665
Habitat:
Transect: 16
Feature #:

Species	Tally
WTSP	IIII
AMCR	II
NOFL	II
BLJA	+++ II
EATO	I
RCCH	III
RUFI	I
WISN	IIII
RBNU	I
AMGO	I
WOWU	I
PIWO	I
COYE	+++ I
SOSP	I
AMRL	IIII
MALL	II

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 160960824 Project Name: Niag/Henvey Inlet

Date: Sept 19 2013 Thurs Field Personnel: SRicher/RMiller

Weather Conditions:	TEMP (°C):	WIND: SW	CLOUD:	PPT:	PPT (in last 24 hrs):
	17	1-2	90	~~Atone~~ Spitting	Light rain

Start Time: 8:53 End Time: 9:18

Start Point UTM: 524705 5081448 End Point UTM: 524826 5080959

Habitat: Transect: 15

Feature #:

Species	Tally
BEKI	II one at ~~Bet~~ Key River, one @ pond at end
AMCR	I
BLSA	++++ ++++ I
WODU	I
CAGO	II
CORA	II
WTSP	I
COVE	II
CHSP	I
BCCH	+++ I
GCKI	II
NOFL	II

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824 Project Name: Nigig/Heavey Inlet

Date: Sept 19 2013 Thurs Field Personnel: SRicher

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	15	2 SW	100	intermittent spitting	light rain

Start Time: 9:45 End Time: 10:16

Start Point UTM: 523667 5081337 End Point UTM: 523790 5080850

Habitat: Transect: 18

Feature #:

Species	Tally
BLJA	++++ ||
AMCR	||||
CEDW	++++ ++++ ||
RCCH	|
NOFL	||
CORA	||
MERL	| flying south, below blade height
WTSP	|||
RUGR	|
Sparrow sp	||
OVEN	|

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

REV: 2011-05-03 / FORM 014

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Nigig / Henvey
Date: Sept 24 2013 Tues
Field Personnel: SRicher & CPaterson

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	0°C	0	0%	no.	none.

Start Time: 7:05
End Time: 7:58
Start Point UTM: 532337 5078609
End Point UTM: 532727 5078264
Habitat:
Transect: #1
Feature #:

Species	Tally
BLJA	𝍸 𝍸 𝍸

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 160960824

Project Name: Nigig / Henvey

Date: Tues. Sept 24 / 2013

Field Personnel: S Richer / C Patterson

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	0°C	Ø	0%		none

Start Time: 8:16

End Time: 8:50

Start Point UTM: 529405 5078046

End Point UTM: 529536 5078489

Habitat:

Transect: #2

Feature #:

Species	Tally
AMCR	IIII
BLJA	~~HH~~ ~~HH~~ ~~HH~~ ~~HH~~ ~~HH~~ ~~HH~~ ~~HH~~ IIII
RCKI	~~HH~~ ~~HH~~ ~~HH~~ III
WTSP	~~HH~~ II
GCKI	~~HH~~ ~~HH~~ ~~HH~~ II
~~AFT~~ ATSP	II
WCSP	~~HH~~ ~~HH~~ ~~HH~~ II
BCCH	II
RBNU	I
NAWA	II
NOFL	I
CAGO	IIII
PIWO	I
~~BBWA~~ BLPW	II
BTNW ~~BLPW~~	I
COLO	I
MYWA	I
BLPW/BBWA	I

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: N1G1G / HENLEY
Date: Sept 24/13
Field Personnel: S Richer / C Paterson

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	16°C	0	0%	no	none

Start Time: 9:26
End Time: 10:09
Start Point UTM: 527521 5077705
End Point UTM: 527775 5077228
Habitat:
Transect: #3
Feature #:

Species	Tally
RBGU	II
AMGO	++++ III
AMCR	II
BLJA	++++ IIII
BCCH	+++
HAWO	II
COYE	IIII
MYWA	++++ IIII
WTSP	+++ IIII
SOSP	+++ I
HETH	II
RCKI	+++ II
CAGO	+++ II
~~DUCK SP~~ WODU	~~+++~~ +++II
RBNU	I
GCKI	III

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Nigig / Henvey
Date: Sept 24/13
Field Personnel: S Reher / C Paterson

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	12°C	1	0%	no	none.

Start Time: 10:35
End Time: 11:16
Start Point UTM: 525825 5077376
End Point UTM: 525406 5077663
Habitat:
Transect: #11
Feature #:

Species	Tally
HAWO	III
COYE	III
RCKI	I
BLJA	III
TUVU	II
NOFL	II
RCKI	IIII
AMGO	II
SOSP	++++ III
MYWA	++++ III
WCSP	III
WTSP	++++ ++++ II
BTNW	I
GRJA	III
BRTH	II
BCCH	I
HETH	I
SWSP	II

Pg. 1 of 1

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824

Project Name: Nigig / Henvey

Date: SEPT 25 2013

Field Personnel: S Richer / C Patterson

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
FOGGY in Morning	~1°C	0 → 1 NE	0%	no (fog)	none.

Start Time: 8:03 Delay due to Fog

End Time: 8:43

Start Point UTM: 523029 5076241

End Point UTM: 522974 5075758

Habitat:

Transect: #13

Feature #:

Species	Tally
SACR	IIII 2 adults + 2 fledged young of year
BLJA	++++ III
AMCR	II
COLO	1. calling from Inlet
CHSP	II
OVEN	II
PIWO	I
MYWA	++++ ++++ ++++ I
RBNU	III
GCKI	++++ ++++ II
BCCH	++++ I
RUGR	++++ I
AMRO	++++ ++++ III
RCKI	++++ ++++ ++++ IIII
WTSP	++++ ++++ ++++
AMGO	++++ IIII
CORA	II
~~BTNW~~ BTNW	* II
BHVI	III
HETH	III
HAWO	II

Pg. 1 of 1

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824.

Project Name: Ngiq / Henvey.

Date: Sept 25/13.

Field Personnel: Sucher Clatworthy

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	~10 °C	1	0%	no	none

Start Time: 9:15.

End Time: 9:51

Start Point UTM: 525007 5076746

End Point UTM: 525147 5077237

Habitat:

Transect: #12.

Feature #:

Species	Tally
BLJA	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸
BCCH	𝍸 III
CORA	II
PIWO	I
AMRO	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 III
MYWA	𝍸 𝍸 𝍸 III
HAWO	III
REVI	II
HETH	II
BHVI	II
~~[illegible]~~	~~[illegible]~~
NOFL	III
BBWA	III
NOHA	I Adult Female just above tree tops (below blade height)
CAGO	𝍸 III
TUVU	I

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Naig / Henvey.
Date: Sept 25/13.
Field Personnel: Slicher. C Paterson

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	15°C	0	0%	no	none

Start Time: 10:33.
End Time: 11:20
Start Point UTM: 525669 5073239
End Point UTM: 525759 5073231
Habitat:
Transect: 17
Feature #:

Species	Tally
AMGO	𝍸 III
BLJA	𝍸 𝍸 I
~~Ruddy Duck sp.~~	~~𝍸 𝍸 𝍸 III~~
~~Sparrow sp.~~	II.
MALL	𝍸 𝍸 𝍸 III
OCWA	𝍸 I
BCCH	𝍸 I
COVE	II
HAWO	II
RBNU	II
WTSP	II
AMCR	III
MYWA	IIII
PUFI	I
GCKI	𝍸
SWTH	II
RCKI	IIII
TUVU	I
PAWA	𝍸 𝍸 I
~~Unknown~~	~~X~~

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Niagara Henvey Inlet
Date: Sept 26/13
Field Personnel: S Richer C Paterson

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	5°C	0	0%	no	

Start Time: 8:10
End Time: 8:59
Start Point UTM: 527174 5081640
End Point UTM: 526669 5081665
Habitat:
Transect: #16
Feature #:

Species	Tally
RBNU	1
BCCH	IIII
HETH	III
CORA	~~HHT~~ II
GBHE	II
NOFL	IIII
HAWO	I
HOME	III 1 male 2 female
Duck species unknown	I
BHVI	III
OWL sp.	I heard a single "hoot"
BLJA	~~HHT HHT HHT~~ I
AMGO	IIII
AMRO	~~HHT HHT HHT~~ II
PIWO	I
GCKI	~~HHT~~ III
COYE	II
RCKI	~~HHT~~ II
RUBL	III
BRCR	I
SOSP	II

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Species	Tally
	by road down gravel east end - 4 MALL/MALL?
	- 6 GBHE along ATV
	- 4 CORM + 10 AMRO/MAGC in NE log jam
	+ 12 more puddle duck up - flooding to Bonaparte
	9 CAGO in Mi'Adzi Key

Pg. ___ of ___

Signature: _____
(Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____
(Project Manager)

REV: 2011-05-03 / FORM 014a

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Henrey / Niagara
Date: Sept 26/13
Field Personnel: Sheehan / C Patterson

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	12°C	0	0%	ne	none

Start Time: 9:25
End Time: 10:05
Start Point UTM: 524705 5051448
End Point UTM: [illegible]
Habitat:
Transect: #15 524826 5050959
Feature #:

Species	Tally	
HAWO	1	WODU II
SCJO	IIII	PIWO I
BLJA	++++ ++++ ++++	[illegible] ++++ AMPI
AMCR	I	[illegible]
RBNU	II	[illegible]
MYWA	II	WCSP IIII
BHVI	IIII	
[illegible]	I	
GRJA	II	
[illegible] YRSA	I	
CORA	I	
RUBL	III	
AMGO	II	
COYE	I	
WTSP	++++ ++++ I	
GCKI	++++ II	
NOFL	I	
BCCH	I	
AMRO	IIII	
RCKI	++++ III	
SWSP	I	

Pg. 1 of 1

Signature: [signature] (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

REV: 2011-05-03 / FORM 014a

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Nigig / Henvey
Date: Sept 26/13
Field Personnel: S Richer C Paterson

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	18°c	0	0%	no	none.

Start Time: 10:52.
End Time: 11:30
Start Point UTM: 523667 5081337
End Point UTM: 523790 5080850
Habitat:
Transect: #18
Feature #:

Species	Tally
GBHE	III
HAWO	II
RCKI	++++ I
TOVU	I
MYWA	++++ IIII
BLJA	II
CHSP	II
AMKE	I
PAWA	++++ I
NOFL	II
WCSP	++++ II
AMCR	I
CORA	II
NOHA	I flying NWerly - foraging ; female
WTSP	++++ ++++ II

Pg. 1 of 1

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Nigig/Henvey Inlet
Date: Oct 2/2013
Field Personnel: S Richer / J Ball

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	14	1	0	NONE	NONE

Start Time: 7:20
End Time: 8:05
Start Point UTM: 532337 5078609
End Point UTM: 532727 5078264
Habitat:
Transect: ~~#~~ 1
Feature #:

Species	Tally	Species	Tally
WTSP	III	COYE	I
NOFL	II	RCKI	~~IIII IIII IIIIII~~
RCKI	~~IIII IIII IIII IIII~~	~~WTSP~~	~~II~~
GCKI	~~IIII IIII IIII~~ III	~~NOFL~~	~~I~~
BCCH	~~IIII~~ IIII		
RBNU	III		
woodpecker sp.	I		
YRWA	~~IIII~~ III		
AMRO	~~IIII IIII~~		
PAWA	~~IIII~~ I		
BHVI	II		
BLPW	I		
DOWO	I		
NAWA	II		
BBWO	I		
AMCR	I		
PIWO	I		
BLJA	I		
BRCR	I		
RUGR	I		
HAWO	I		

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Nigig / Henvey Inlet
Date: Oct 2 2013 Wed
Field Personnel: S Richer / J Ball

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	17°C	B 1-2	0	None	None

Start Time: 8:21
End Time: 9:08
Start Point UTM: 529405 5078046
End Point UTM: 529586 5078489
Habitat:
Transect: 2
Feature #:

Species	Tally
AMCR	I
BCCH	II
PIWO	I
COYE	II
CAGO	I flock >100m
COGR	~~HH HH HH HH~~ flyover of ~100
BLJA	I
RBNU	I
AMRO	III
WTSP	III
PAWA	II
YRWA	II
RCKI	II

Incidental observation - roadkilled Red-bellied snake (on Beckanon): UTM 17T 529572 (NAD83) 5078220

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

REV: 2011-05-03 / FORM 014a

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Nigig/Henvey Inlet
Date: Oct 2 2013 Wed
Field Personnel: SRicher/JRoll

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	17	3 gusts to 4	0	NONE	NONE

Start Time: 9:36
End Time: 10:22
Start Point UTM: 527521 5077705
End Point UTM: 527725 5077228
Habitat:
Transect: 3
Feature #:

Species	Tally
GCKI	III
RCKI	IIII
AMRO	I
YRWA	IIII.
BCCH	I
BRCR	I
WODU	I (male, adult)
SOSP	HHH II
WTSP	II
HAWO	I
AMGO	I

Incidental observations
2 river otters, both this year's juveniles

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.
Signature: (Project Manager)

REV: 2011-05-03 / FORM 014a

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Nigig / Henvey
Date: Oct 2/2013
Field Personnel: J. Ball, S. Richer

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	18	3 gusts to 4	0	NONE	NONE

Start Time: 10:53
End Time: 11:29
Start Point UTM: 525825 5077376
End Point UTM: 525406 5077663
Habitat:
Transect: ~~4~~ 11
Feature #:

Species	Tally
BCCH	1
TUVU	III
MALL	II
~~XXXX~~ AMGL	II
AMCR	1
SOSP	~~HH~~ ~~HH~~ II
BLJA	1
NOFL	1
RBNU	1
WTSP	1

Pg. 1 of 1

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824

Project Name: Nigig/Henvey Inlet

Date: Oct 3 2013 Thurs

Field Personnel: SRibber/JBall

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	9	0	50	NONE	NONE

Start Time: 8:05

End Time: 8:49

Start Point UTM: 523666 5081337

End Point UTM: 523790 5080850

Habitat:

Transect: 18

Feature #:

Species		Tally	
WCSP	IIII	Passerine sp	II
AMCR	I	COYE	I
AMRO	III	AMPI	III
BADO Barred Owl	I		
GBHE	I		
DEJU	I		
BLJA	IIII III		
NOFL	II		
RUGR	II		
MALL	I		
PIWO	I		
AMGO	III		
RBKI	II		
YRWA	III		
WTSP	II		
COGR	I		
BHVI	I		
HETH	I		
SOSP	II		
BRCR	I		
RBNU	I		

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

REV: 2011-05-03 / FORM 014a

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Nigig/Henvey Inlet
Date: Oct 3 2013 Thurs
Field Personnel: SRicher/JBall

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	13	0	10	NONE	NONE

Start Time: 9:19
End Time: 9:58
Start Point UTM: 524705 5081448
End Point UTM: 524826 5080859
Habitat:
Transect: 15
Feature #:

Species	Tally		
SOSP	IIII	BEKI	1
COGO	II	CORA	1
SACR	I	HOME	2 both female, on water in pond @ end of transect
HETH	I		
AMCR	I		
BCCH	II		
RCKI	+++ II		
AMRO	+++ III		
BHVI	II		
~~PIWA~~ NAWA	I		
BLJA	I		
CAGO	I		
COGR	III		
AMGO	IIII		
COYE	I		
HAWO	II		
WTSP	II		
RBNU	I		
GRJA	I		
~~Warbler sp.~~			
BAWW	I		

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

REV: 2011-05-03 / FORM 014a

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824

Project Name: Niagara Meuvey Culvert

Date: Oct 3 2013 Thurs

Field Personnel: SRicher / TBall

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	14	0	0	NONE	NONE

Start Time: 10:23

End Time: 11:09

Start Point UTM: 526669 5081665

End Point UTM: 527174 5081640

Habitat:

Transect: 16

Feature #:

Species	Tally
RUGR	I
HAWO	II
HETH	III
RBNU	I
AMRO	II
WCSP	II
GCKI	I
CORA	I
SOSP	I
SWTH	I
WTSP	I
RCKI	IIII
AMPI	II
~~MNWR~~ WIWR	I
COYE	I
BCCH	II
SACR	I
DEJU	II
SWSP	I
WI~~SE~~SN	I

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Nigig/Henvey
Date: Oct. 4 2013 Fri
Field Personnel: SRiche/JRall

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	10	2-3 (from East)	100	very light rain (intermittent)	RAIN

Start Time: 7:46
End Time: 8:26
Start Point UTM: 525007 5076746
End Point UTM: 525147 5077227
Habitat:
Transect: 12
Feature #:

Species	Tally
WCSP	++++ |||
WTSP	|
GCKI	|||
OCWA	||||
HETH	|
PAWA	|||
AMCR	|
AMPI	|||
CORA	|

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Nigig/Henvey Inlet
Date: Oct 4/2013
Field Personnel: S. Richer, J. Ball

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	11	2-3 (from East)	100	very light rain (intermittent)	RAIN

Start Time: 8:54
End Time: 9:42
Start Point UTM: 523029 5076241
End Point UTM: 522974 5075258
Habitat:
Transect: 13
Feature #:

Species	Tally
SOSP	1
GCKI	~~HH HH~~ ~~HH HH~~ ~~HH~~ II
WTSP	~~HH~~ III
RCKI	~~HH HH HH HH~~ ~~HH~~
DEJU	~~HH~~ I
AMCR	1
HAWO	1
AMRO	~~HH HH HH~~ (flyover) with 5 HETH (see below
HETH	~~HH~~ (flyovover with 15 robins above)
AMRO	III
PAWA	III
BCCH	~~HH~~ I
YRWA	IIII
BRCR	1
CORA	1
AMPI	II
CAGO	50

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Nigig/Henvey Inlet
Date: Oct 4/2013
Field Personnel: S. Richer, J. Ball

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	12	2-3 (from East)	100	very light rain (intermittent)	RAIN

Start Time: 10:40
End Time: 11:35
Start Point UTM: 525669 5073239
End Point UTM: 525759 5073231
Habitat:
Transect: ~~18~~ 17
Feature #:

Species	Tally
SOSP	11
AMCR	1
PIWO	1
RCKI	++++ 1
GCKI	11
RBNU	1
FOSP	1
BCCH	1
HAWO	11
BLJA	111
Blackpoll warbler	1
YRWA	1
WTSP	1
CAGO	27
RUGR	1
CHSP	111
AMGO	1

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.
Signature: (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Mink / Hewey Inlet
Date: October 8 2013 Tue
Field Personnel: SRicher - CPeterson

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	+2	NE @ 1	5%	NO	heavy rain ~15mm

Start Time: 8:14
End Time: 9:00
Start Point UTM: 523667 5081337
End Point UTM: 523790 5080870
Habitat:
Transect: 18
Feature #:

Species	Tally	Tally
AMCR	++++ ++++ ++++ ++++ ++++	HAWO 1
~~SPGR~~ SPGR	1 (female)	[illegible]
RBNU	1	RUGR 1
AMPI	1	
BLJA	++++ ||||	
GCKI	++++ ||	
EAPH	1	
AMRO	++++ ||	
COYE	1	
BCCH	|||	
WCSP	||||	
RCKI	++++ ||	
SOSP	1	
MERL	1	
MYWA	|||	
~~HETH~~	||	
SWTH	1	
~~BAWW~~ BANW	1	
CHSP	||	
PAWA	||	
CORA	1	

Pg. 1 of 1

Signature: [signature] (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

REV: 2011-05-03 / FORM 014a

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Henvey Inlet
Date: Oct 8/13
Field Personnel: S Richer / C Paterson

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	8°C	0	0%	0	[redacted] heavy rain

Start Time: 10:20
End Time: 10:51
Start Point UTM: 529405 5078096
End Point UTM: 529536 5078489
Habitat:
Transect: 2
Feature #:

Species	Tally
RCKI	++++ |
GCKI	++++ |
SCJU	++++ ||
WTSP	|||
AMRO	++++ |
RBNU	||
MYWA	++++ |
BHVI	|
WCSP	||||
DOWO	|
BRCR	|
BLJA	||
COYE	|

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.
Signature: (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Henvey Inlet / Nagog
Date: 8 Oct 9/13
Field Personnel: S Ruether / C Paterson

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	5°C	SW Beau 0-1	5%	no	none

Start Time: 7:34
End Time: 8:16.
Start Point UTM: 525825 5077376
End Point UTM: 525406 5077663
Habitat:
Transect: 11
Feature #:

Species	Tally
AMRI	IIII
COLO	II
BLJA	II
WOOD	III
SOSP	++++ II
MALL	1 female
MYWA	II
WTSP	+++ I
RCKI	++++ I
AMCR	+++ II
GCKI	I
AMRO	I
HAWO	II
SWTH	I
HETH	II
SWSP	III
~~AMCR~~	~~III~~
COME	I
TUVU	I

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

REV: 2011-05-03 / FORM

wholly ephab

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Nigig / Henvey Inlet
Date: Oct 9 2013 Wed
Field Personnel: SRicher / CPaterson

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	~12	SW B.2-3	trace cirrus	none	none

Start Time: 8:45 am
End Time: 9:15 am
Start Point UTM: 525007 5076746
End Point UTM: 525147 5077287
Habitat:
Transect: 12
Feature #:

Species	Tally
RCKI	IIII
AMCR	HH HH HH HH HH HH HH (24 in. single flock) I flying NE
~~DUCK SPLESC~~	HH HH HH II
GROUSE SP	II
HAWO	I
WTSP	IIII
SOSP	I
AMRO	III
BCSA	II
BRCR	I

Pg. 1 of 1

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

REV: 2011-05-03 / FORM (

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Nigig / Kenney Inlet
Date: OCT 9/13
Field Personnel: S Richer / C Paterson

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	10°C	SW Beau. 2/3	0-5%	none	none

Start Time: 9:40
End Time: 10:07
Start Point UTM: 523029 5076241
End Point UTM: 522974 5075256
Habitat:
Transect: 13
Feature #:

Species	Tally
GCKI	IIII
SCJU	HHT II
HAWO	I
RCKI	IIII
BRCR	II
AMCR	HHT I (one group)
HETH	II
BCCH	I
HOME	I
RBNU	I

Pg. 1 of 1

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Henvey Inlet
Date: Oct 10 2013
Field Personnel: S Richer & C Paterson

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	~6°C	Beaufort 0-1 South	0	none	none

Start Time: 8:17
End Time: 8:55
Start Point UTM: 523667 5081327
End Point UTM: 523790 5080850
Habitat:
Transect: 18
Feature #:

Species	Tally
SOSP	III
MALL	III
BLJA	II
AMCR	III
GBHE	II
NOFL	II
RBNU	I
RCKI	III
BRCR	I
GCKI	IIII
CAGO	II
HAWO	I
AMRO	I
~~[illegible]~~ SWSP	II
HETH	I
BCCH	I

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.
Signature: (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824

Project Name: Henry / Nigig

Date: OCT 10/13.

Field Personnel: S. Richer / E Paterson

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	~ 10°C	Beaufort 0-1 South	Ø	none	none

Start Time: 9:27

End Time: 9:57

Start Point UTM: 524705 5081448

End Point UTM: 524826 5080959

Habitat:

Transect: 15

Feature #:

Species	Tally
AMRO	IIII
WTSP	II
RCKI	III
WCSP	I
BBWO	I
GCKI	III
BLJA	II
PIWO	I
BCCH	IIII I
RBNT	II
SNBU	I

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824

Project Name: Henvey Inlet Wind

Date: OCT 10/13.

Field Personnel: S Richer / C Paterson

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	~ 13 °C	Beaufort 0-1 SW South	0	none	none

Start Time: 10:27

End Time: 11:15

Start Point UTM: 526669 5081665

End Point UTM: 527174 5081640

Habitat:

Transect: 16

Feature #:

Species	Tally
RCKI	++++ ++++ ||
GCKI	++++ |||
AMCR	||
HETH	|
SOSP	|
BCCH	|||
~~[illegible]~~	~~[illegible]~~
CORA	|
MYWA	++++ |
HAWO	|
RBNU	|
PUFI	|
BAEA	1 (at end of transect) – 2nd year bird, flying west along inlet, below blade height

Pg. 1 of 1

Signature: [signature] (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Henvey Inlet
Date: OCT 11/13
Field Personnel: S. Richer / C Paterson

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	8°C	0-1	0	none / fog	none / fog.

Start Time: 8:57
End Time: ~~9:5~~ 9:34.
Start Point UTM: 527521 5077705
End Point UTM: 527775 5077928
Habitat:
Transect: #3
Feature #:

Species	Tally
AMRO	𝍸 𝍸 II
AMCR	III
AMPI	IIII
GCKI	𝍸 𝍸
SCJU	𝍸 𝍸 II
MYWA	III
RCKI	𝍸 IIII
BHVI	I
MALL	II
SWSP	II
BLJA	II
SOSP	𝍸 I
WTSP	III
BCCH	𝍸
CAGO	𝍸 IIII in pond at end of transect - included in waterfowl survey form
HAWO	I
COLO	I (in Inlet)
CORA	I

Pg. 1 of 1

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Henvey Inlet
Date: OCT 11/13.
Field Personnel: S Richer / C Paterson

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	5°C	Ø-1 NE	0%	none / light fog	none / light fog AM

Start Time: 7:26
End Time: 8:06
Start Point UTM: 532357-5078609
End Point UTM: 532727-5078264
Habitat:
Transect: #1
Feature #:

Species	Tally
GCKI	𝍸 𝍸 𝍸 𝍸 𝍸 |
RBNU	|
AMRO	𝍸 𝍸 ||||
BCCH	𝍸
PUFI	|
BCCH	||||
RCKI	𝍸 𝍸 𝍸 𝍸 𝍸
SCJU	𝍸 𝍸
WTSP	|||
DOWO	|
RUBL	𝍸 ||||
NOFL	|
GOFI	||
BLJA	𝍸 ||
AMCR	||
HAWO	|
COGR	|||
PASSERINESP	|||

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.
Signature: (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 160960824 Project Name: Nigig

Date: Apr 10, 13 Field Personnel: BH NA

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	0°C	3 NE	99% – 80%	/	/

Start Time: 6:48am End Time: 0701

Start Point UTM: 17T 0532337 5078609. End Point UTM: 17T 0532727 5078264

Habitat: Woods Transect:

Feature #: T1

Species	Behaviour (foraging, mobbing, perched, migration, flying)	Using Woodlot (W) or Fly-over (FO)	Tally of Individuals
COYA	Heard	W	1
AMRO	PE	W	1
BOWA	FL	FO	1

Pg. 14 of ___

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

Species	Behaviour (foraging, mobbing, perched, migration, flying)	Using Woodlot (W) or Fly-over (FO)	Tally of Individuals
Transect 2	17T 0529489	Start: 0724	End: 0737
	5077989		
	17T	0529536	5078489
CAGO	Heard	W?	11
PIWO	Heard	W	1
Transect 3 17T	0527520	5077707	Start: 0819
17T	0527775	5077228	End: 0855
AMRO	FL	W	1
CAGO	Heard	W?	11
HEGO	FL	FO	1
RUGR	FO	W	11
HOME	FO	pond	4444 111
BCJA	Heard	W	1
ABDU	FO	pond	11
AMRO	FO	W	1
COGR	FO	W	1
BUWA	FO	W	1
BCKI	FO	W	1
CAGO	FO	Pond	11

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 160960874 Project Name: NJJ4

Date: Apr 10, 13 Field Personnel: BH NB

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	cool	calm	cloudy		

Start Time: 0925 End Time: 0953

Start Point UTM: 17T 0527695 5076554 End Point UTM: 17T 0527749 5076415

Habitat: Transect: 4

Feature #:

Species	Behaviour (foraging, mobbing, perched, migration, flying)	Using Woodlot (W) or Fly-over (FO)	Tally of Individuals
GRJA	PE	W	1
AMRO	FL	FO	IIII 1
SPGR	PE	W	1 - 9
HER6	FL	FO	11
SOSA	W FO	W	1
TUVU	FL	FO	1
SCCH	FO	W	11
GCKI	FO	W	1111
MALL	FL	FO	11

Pg. 3 of 4

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Species	Behaviour (foraging, mobbing, perched, migration, flying)	Using Woodlot (W) or Fly-over (FO)	Tally of Individuals
Transect 5 17T	0526647 5076469	S 1025	
17T	0526305 5076850	E 1054	
RUGR	PE	W	1
RBNU	FO	W	1
TUVU	FL	FO	1
RTHA	FL	FO	1

Pg. 4 of 4

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

17T

Migratory Bird Survey Observation Form

Project Number: 160960824 Project Name: Nisku

Date: Apr 11, 13 Field Personnel: BH NB

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	-4°C	3-4 NE	100		

Start Time: 0700 End Time: 0719

Start Point UTM: 0533226 5080087 End Point UTM: 0533360 5079612

Habitat: 0533226 5080087 Transect: 0533360 5079612

Feature #: T6 T6

Species		Tally
BCCH	BCCH	II
AMRO	AMRO	I
GCKI	GCKI	IIII
AMWO	AMWO	I
AMCR	AMCR	II
		Mixed Dead Voals

Pg. 1 of 4

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Field Personnel)

Signature: _____ (Project Manager)

Start: 0811 | End: 17T 0833

Species	Tally	
	17T	0527088
TB	0527236 5077499	5077047
PIWO	II	
RWBL	I	
CORE	I	Shoreline Mixed.
AMRO	IIII	Grasses
BOWA	II	Alders ?
GCKI	II	Woodlot edge.
RWBC	IIII	
	Start	
TQ	0525598 5076665	T = 0910
	End 0525736 5076178	0930
AMRO	II	
BOWA	IIII IIII IIII IIII	
GCKI	II	
	Mixed Barrens Habitat	

Pg. 4 of 4

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

oa c:\users\amord\documents\samsung\bird survey field kit\form_014-2_migratory_passerine_survey_2-sided.docx

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824 Project Name: Nizy

Date: Apr 11, 13 Field Personnel: N. Burnett

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	-4°C	Beaufort- 2	10.1	none	none

Start Time: 7:08 End Time: 7:21

Start Point UTM: 0533646, 5081878 - 17T End Point UTM: 0533306, 5081623

Habitat: upland forest - mixed conifer/deciduous, lowland mixed transitions as well. Transect: Transect 7

Feature #:

Species	Tally
CORA	1 - perched
Black-capped chickadee	1 - perched, 5 perched total
Golden-crowned kinglet	2 - perched

Pg. 1 of 4

Quality Control: This form is complete ☐ & legible ☐.

Signature: N. Burnett (Field Personnel)

Signature: (Project Manager)

ITT

0952- 1016

Species	Tally
	5
T10	3525165 5075948
GCKI	II
CORA	II
MALL	III
ABDU	III
BAEA-1	Ad.

05 24976

5075549

grassy / scrub shoreline

Transect Curves along shore edge.

Pg. 2 of 84

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

28

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 160960824 Project Name: Nigig

Date: Apr 17, 2013 Field Personnel: B. Holden B. Miller

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	0°C - 4°C	3 - NE	5%	/	/

Start Time: ~~8~~ End Time:

Start Point UTM: 0621 End Point UTM: 0639

Habitat: Decid. Woods Transect: ~~B~~ 7

Feature #:

B. Holden B. Miller

Species	Tally
GCKI	- ~~IIII~~ ~~IIII~~
BCCH	- II
RBNU	- I
HAWO	- I
AMRO	- III
CORA	- I
COGR	- II
/ / /

Species	Tally
	Pine Barrens
Transect 2	Start 0808 End 0830
WIWR	1
ATSP	III
DEJU	IIII
NOFL	1
AMWO	1
BCCH	II
RUGR	1
SOSP	1
Transect 3	Start 0911 End 0933
RUGR	1
CAGO	II
GCKI	~~IIII~~ ~~IIII~~ II II
YBSA	1
SESP	III
HAWO	II
BCCH	II
NOFL	1
WODU	II
BOWA	~~IIII~~ ~~IIII~~ II

Pg. 2 of 2

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

REV: 2011-05-03 / FORM 014a

als w:\resource\internal info and teams\field forms\birds\windfarm birding\form 014-a migratory-passerine-survey 2-sided.docx

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824 Project Name: Henvey Inlet Wind Farm

Date: April 18, 2013 Field Personnel: B. Miller, B. Holden

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	1	3	100%	Rain	Rain

Start Time: 7:00 am End Time: 7:45 am

Start Point UTM: End Point UTM:

Habitat: Deciduous/Mixed Woods Transect: 6

Feature #:

Species	Tally
PIWO	•
BCCH	•
HAWO	•
AMCR	••
RUGR	•
YBSA	•
COGR	•• ••
GCKI	•T

Pg. 1 of 1

Quality Control: This form is complete ☐ & legible ☐.

Signature: Bri Miller (Field Personnel)

Signature: (Project Manager)

REV: 2011-05-03 / FORM 014a

Species	Tally

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 160960824 Project Name: NSH

Date: Apr 23, 2013 Field Personnel: B. Holden

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	7°C	3-4S	25%	/	/

Start Time: 0755 End Time: 0820

Start Point UTM: End Point UTM:

Habitat: Transect: 8

Feature #:

Species	Tally
RUGR	1
REKI	++++ ||
MYWA	||
RBNU	||
PIWO	1
RBGU	1 - FO.
DOWO	1
BEKI	1 F.O.
WTSP	++++ |||
SOSP	1
AMRO	1

Pg. 1 of 2

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Species	Tally
Transect 10	Start 0922 End 0947
MYWA -	IIII
AMCR -	I
RUGR -	I
BCJA -	II
MBSA -	II
BCCH -	IIII
DOWO -	II
NOFL -	III
SOSP -	III
COGR -	I
EAPH -	I
CANG -	II
RCKI -	II
FOSP -	I
PIWO -	I
BAEA -	I F.O.
BHCO -	II
	BULPRUG?

Pg. 2 of 2

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

REV: 2011-05-03 / FORM 014a

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Henvey Inlet Nigig
Date: April 23, 2013
Field Personnel: B. Miller

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	7	3 - 4	25%.	None	

Start Time: 9:00am
End Time: 9:40am
Start Point UTM:
End Point UTM:
Habitat: Barrens, mixed forest + wetlands along Beckanon Rd.
Transect: 2
Feature #:

Species	Tally
EAPH	••
AMRO	•• :
RBNU	••
GULL	•
BCCH	•• : •
WIWR	•
RUGR	•
NOFL	•
YRWA	•• :

Pg. 1 of 1

Signature: Bri Miller (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

REV: 2011-05-03 / FORM 014a

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 160960824 Project Name: Mig

Date: Apr 24, 13 Field Personnel: BH BM

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	2-1°C	3-N	1 cu	Rain/Snow	Rain

Start Time: 0706 End Time: 0725

Start Point UTM: End Point UTM:

Habitat: Transect: 1

Feature #:

Species	Tally		
MYWA	11	YBSA	1
AMRO	1	BCCH	11
WTSP	1	GBHE	1 F.O.
RUGR	1		
CORA	11		
	Start: 0752 End: 0821		
T 3		CANG	11
	WTSP 1	GWTE	1
SOSP	IIII	DOWO	1
HETH	1	COGR	IIII
RUGR	1	AMCR	1
SACR	11	EAPH	1
RCKI	IIII	HOME	1
NOFL	1		
EAPH	11		

Pg. 1 of 2

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Field Personnel)

Signature: _____ (Project Manager)

Species	Tally
T04	S 0850 E 0918
CANG - 11	
BEKI - 1	
GRYE GEGU - 11	
AMRO - 11	
GCKI - 1	
T05	S. 0947 E. 1020
AMRO - 11	
BCCH - 11	
RUBR - 1	
WIWR - 1	
SOSP - 11	
WAVU - 11	

Pg. 2 of 2

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824 Project Name: N3y

Date: Apr 29, 2013 Field Personnel: BH BM

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	14-15°C	3-5	100	?	✓

Start Time: ~~0800~~ 0831 End Time: ~~0900~~ 0900

Start Point UTM: End Point UTM:

Habitat: Transect: T16

Feature #:

Species	Tally
SOSP	++++ |||
WTSP	++++ ++++ ||||
RCKI	||||
SACR	||
AMRO	++++ ||||
AMKE	|
NOPI	||
RUGR	|||
MYWA	|||
WOFW	||
COGR	|
AGTH	|
MALL	|
GRYE	||
WIWR	|
EATO	|
CATE	|
DIHU	|
YBSA	||
COME	|||
BCCH	|||

Pg. 1 of 2

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

DEN marked on GPS - Wolf / Bear Sized.

Species	Tally		
Start Time: 0939	End Time: 1006	Transect: 15	
Start Point UTM:			
End Point UTM:	CHORUS PRUC NEW	HEARD start to SE	
UTSP -HHT III	HETH-1	CANG-II	
AMCR -1	SACR-II	NOFL-HHT1	
AMRO -III	GRYE-II	RUGR-II	
SOSP-III	WIWR-1	MYWA-III	
RCKI-1	PUFI-IIII	RWBL-II	
COGR-HHT1	BRCR-1	BCJA-II	
		DUVO-1	
	Start: 1037	End: 1100	
T 14			
AMRO-HHT II			
NOFL-IIII			
CANG-II		Joe	
CATE-II			
MYWA-III		705	
GRYE-IIII			
RWBL-II		691	
TUVU-1			
UTSP-HHTII		1345	
HETH-1			
RUGR-III			
GCKI-II			
CHSP-1			

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824. Project Name: Nigig Henvey Inlet

Date: April 30 2013 (Tuesday) Field Personnel: Sarah Richer

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	10°C	None	100%	raining/just stopped	rained in night

Delay due to rain

Start Time: 7:25 End Time: 7:28

Start Point UTM: Get from Brandon. End Point UTM: "

Habitat: Transect: 1 - Straight road

Feature #:

Species	Tally
WTSP	||| ||
CHSP		
MYWA	||
GCKI		
PIWA		
AMRO	|||
NAWA		
SOSP		
RUGR		
NOFL		
RWBL	|| (flyover)
BLJA		
PUFI		
YBSA		
BCCH		
Passerine sp		

Pg. 1 of 1

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Field Personnel)

Signature: (Project Manager)

REV: 2011-05-03 / FORM 014a

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Henvey Mig.
Date: Tues Apr 30 2013
Field Personnel: NB, SR.

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	11°C	None	100%	Stopped raining	Flurries/ice and in night.

Start Time: 7:50 am
End Time: 8:22 am
Start Point UTM: Need from B Gordon.
End Point UTM: "
Habitat:
Transect: 2nd - by truck
Feature #:

Species	Tally
EAPH	II at truck
HETH	I
RBNU	II
MYWA	III
WTSP	++++ II
CHSP	I
AMRO	III
BHVI	I
YBSA	I
PUFI	II
NAWA	II
BLJA	III
RUGR	I
RCCH	I
SOSP	I
RCKI	I
COGR	+++ flyover
SACR	II (far away, singing)
RBGU	I
Passerine	II

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

REV: 2011-05-03 / FORM 014a

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Nigig Henvey Inlet
Date: Wed May 1 2013
Field Personnel: Nathan Burnett & Sarah Richer

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	15°C	Beauf 3-4	50%	0	0

Start Time: 8:16
End Time: 8:40
Start Point UTM: 17 0525669 5073239
End Point UTM: 17T 0525759 5073731
Habitat:
Transect: 17
Feature #:

Species	Tally
MYWA	111
PIWA	++++
AMCR	1
NOCA	1 - f
WTSP	++++ 111
NOFL	111
BCCH	11
TUVU	1
COGR	1 - flyover
BLJA	1
NAWA	1
AMRO	11
WIWR	1
CAGO	+++ flyover
RUGR	1 drumming
RCKI	1
EAPH	1
PIWO	1
DOWO	1
PUFI	1
BEKI	1
GCKI	1111

Pg. 1 of 1 (over)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Field Personnel)

Signature: _____ (Project Manager)

REV: 2011-05-03 / FORM 014

Species	Tally
Start Time:	9:27am **End Time:** 9:49am **Transect:** 13
Start Point UTM:	17T 0523029 5076241
End Point UTM:	17T 0522974 5075756
~~BSP~~	1
TUVU	1
HEGU	1
MYWA	++++ 1
WTSP	++++ 111
GCKI	11
PIWA	111
RBNU	1
NOFL	1
RCCH	1
Ruled sp	1
BLJA	1
WIWR	1
NAWA	1
PAWA	11
PUFI	1
RBWA	1
CAGO	11
RUGR	1, flushed
Possible Peregrine?	1

Pg. 1 of 1

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

REV: 2011-05-03 / FORM 014

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Henley/Nigg.
Date: May 1/13
Field Personnel: NB, SR

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	12° C	3-4 Beaufort	60.1°	None	Trace last evg.

Start Time: 6:55am
End Time: 7:25am
Start Point UTM: Transect II 525825 5077376
End Point UTM: Transect II 525406 5077663
Habitat:
Transect: Transect II.
Feature #:

Species	Behaviour (foraging, mobbing, perched, migration, flying)	Using Woodlot (W) or Fly-over (FO)	Tally of Individuals
Whitethroated Sparrow.			HH II
Myrtle Warbler			IIII
Black-capped chickadee			II
Song Sparrow.			II
Northern Flicker			I
Am. crow			I
Golden crowned Kinglet			I
Pine Warbler		using	II
Sandhill crane		using FO	I
Am. Robin			II
Raven			I
Hermit Thrush			I
Canada Goose			I
Magnolia Warbler			I
Chipping Sparrow			I

Northern Leopard - 3 - calling, possible chorus frog - heard several times

Pg. 1 of 1 (Cover)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Field Personnel)

Signature: _____ (Project Manager)

12°C Cloud 15% Wind S Beaufort 1-2 SR&NB Fri May 3 2013 Trans 15

AI# 16096024

7:16-7:40 Species	Behaviour (foraging, mobbing, perched, migration, flying)	Using Woodlot (W) or Fly-over (FO)	Tally of Individuals
KILL			1
GRYE	Transect ends		1
SOSP	on active		III
CAGO	beaver pond		II
RBGU			1
BAWW	heavy NEFR		III
WTSP	calling activity at		III
PUFI	transect end pond/		1
AMCR	swamp		1
MYWA			III
BEKI	start UTM 17T		1
RBNU	0524705		II
COGR	5081448		IIII
RUGR			1
PIWA	end UTM 17T		II
CHSP	0524826		II
BTNW	5080959		1
NOFL			1
AMRO			III
HETH			1
GCKI			1
EAPH			1
SWSP			1
WIWR			1
GRHE	flying together		II
PIWO			1
RUFF			HH III
TRES			II
NAWA			1

Pg. 1 of 1

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Nigig Henvey Inlet
Date: THURS May 2 2013
Field Personnel: Sarah Richer & Nathan Arnett

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	9	0	0	0	0

Start Time: 6:30 am
End Time: 6:57
Start Point UTM: Need from Brandon
End Point UTM: Need from Brandon
Habitat:
Transect: Truck? (2)
Feature #:

Species	Tally
YBSA	III drumming
AMRO	II
EAPH	II
PIWA	III
CAGO	I flyover – minimum III
MYWA	+++
RUGR	I
OVEN	II
WISP	+++ +++
SACR	I faraway to the south
GOFL	I
RBNU	I
CHSP	I
BLSA	I
SOSP	IIII
NOFL	I
HETH	I
PUFI	I
WIWR	I
PIWO	I

Pg. 1 of 1 (over)

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Species	Tally
Start Time: 7:38 **End Time:** 8:04 **Transect:** 3 (by Joe H6 camp)	
Start Point UTM: 17T 0527521 5077705	
End Point UTM: 17T 0527725 5077228	
PUFI	||
AMRO	|||
SOSP	||
MYWA	~~||||~~
WTSP	|||
CAGO	1 (far away)
SACR	1 (" ")
NOFL	|||
YBSA	||
RBNU	|
RUGR	|
BTNW	|
HETH	|
BRTH	|
BCSA	||
BAWW	|
PIWA	|
BLPW	|
AMRE	| far away to the west
WIWR	|
COGR	||||
BLBW	|
RCCH	||
CHSP	|
EAPH	|

Pg. 1 of 1

Signature: Daniel Rice (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

REV: 2011-05-03 / FORM 014

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Nigig Heavey Inlet
Date: Thurs May 2 2013
Field Personnel:

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	18	Beauf 2	5	0	0

Start Time: 8:35am
End Time: 9:00am
Start Point UTM: 17T 0525007 5076746
End Point UTM: 17T 0525147 5077237
Habitat:
Transect: T12
Feature #:

Species	Tally
WTSP	HHT II
SOSP	I
BRTH	II
YRSA	II
BTNW	II
PIWA	III
MYWA	HHT II
AMRO	I
RLSA	III
CAGO	II faraway + 1 flock of 32 flying N approx 40-60m high
RCKI	I
CHSP	I
MORA	I
SACR	II faraway to south
RBNU	I
PUFI	I
GCFL	I
NOFL	I
RUGR	I

Pg. 1 of 1 (over)

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Proj#160960824

May 3 2013 NBSR Trans 16 8:09 to 8:36am starting at end point of Transect

Species	Tally
COME	|| (mat, pair)
OSPR	| flying in Key
BRTH	|
AMCR	|| in distance
CHSP	|
SOSP	||
CAGO	|| in distance + || pair very near us
RUGR	| drumming
MYWA	|||
CORA	| flyover
RCCH	|||
SPSA	|
YBSA	|
DOCO	|
WTSP	|||
RBNU	|
BAWW	|
EAPH	|
SACR	| in distance
RLSA	|
WIWR	|
RWBL	|
BRYE	| (possibly same as the last transect)
COLO	| in distance
	start pt UTM 17T 0527174 5081640
	end point UTM 17T 0526669 5081665

Pg. 1 of 1

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

REV: 2011-05-03 / FORM 014

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Nigig Heaver, Inlet
Date: May 3 2013 Friday
Field Personnel: NB & SR

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	20°C	Beaf 23	30	0	0

Start Time: 9:01
End Time: 10:08 stopped for SNTU sighting
Start Point UTM: 17T 0523666 5081337
End Point UTM: 17T 0523872 5080615
Habitat:
Transect: 18 (new due to edit of T14 not within reserve boundary)
Feature #:

Species	Tally
KILL	1
MYWA	++++ |
WTSP	||||
EAPH	1
AMRO	1
YBSA	1 drumming
SOSP	+++
RWBL	1
RBNU	1
HEGU	||| flyover
NAWA	1
CHSP	11
RCKI	1
BRTH	1
COGR	||| flyover
GRAH	1 in distance
TUVU	||| (circling overhead to the east)
HETH	11
OCWA	1
BLJA	11
GCKI	1
CORA	1
PIWA	1

Pg. 1 of 1

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Henvey Inlet Wind
Date: May 7 Tues 2013
Field Personnel: S Richardson, Miller

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	5	0	Trace/0	0	0

Start Time: 6:06
End Time: 6:38
Start Point UTM: need from Brandon
End Point UTM: need from Brandon
Habitat:
Transect: 1
Feature #:

Species	Tally	
NAWA	++++ |	BRCR 1
RBCH	||	CHSP 1
RUGR	|	
RBNU	|	
YBSA	|||	
OVEN	+++	
MYWA	+++ |	
AMCR	|	
WIWR	|	
BLJA	|	
WTSP	||	
BTNW	+++	
PIWA	||	
AMRO	|||	
HETH	||||	
GCFL	|	
BAWW	||	
Cape May WA	|	
PIWO	|| pair	
HAWO	|	
GCKI	|	

Pg. 1 of 1 (cover)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Field Personnel)

Signature: (Project Manager)

Trans 2 (Track) Start 7:06 End 7:47 SRichter-RMiller Prj # 1609 60824

Prj Name Nigig/Henvey Inlet

Species	Tally	
WTSP	++++ |	
EAPH	|	
BWSA	|||	Wolf pack howling! SO COOL
YBSA	|	
NOFL	|	Mustelid TKs...
BCCH	||	
AMRE	||	
RBGR	|	
RTNW	|||	
AMRO	||	
OVEN	|||	
WIWR	|	
CORA	|	
NAWA	|||	
MYWA	|||	
CAGO	||	in distance, to NE
GCFL	||	
RBNU	|	
COYE	|	
GCKI	|	
PIWA	|||	
PUFI	|	
CHSP	|	
SOSP	|	
BAWW	|	
BHVI	|	
COSN	|	
SACR	||	in distance to NE

Pg. 1 of 1 (over)

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

REV: 2011-05-03 / FORM 014

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Nigig/Henve, Inlet
Date: May 7 2013 Tues
Field Personnel: ~~Adam~~ Richer & BM. Iler

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	15°C?	2 0	Trace 0	None 0	0

Start Time: 8:49
End Time: 9:26
Start Point UTM: 527521 5077705
End Point UTM: 527775 5077228
Habitat:
Transect: 3
Feature #:

Species		Tally	
SOSP	III	BLBW	II
EATO	I	EAPH	I
NAWA	III	YRSA	I
COME	II not f p	RBNU	I
OVEN	II	AMRE	I
BAWW	I		
PIWA	II		
RUGR	I		
SWTH	I		
BRWO	I across inlet		
AMRO	III		
MYWA	II		
RTMW	I		
PIWO	I		
HETH	I		
BCCH	I		
WIWR	II		
WTSP	IIII		
RCSA	I		
COGR	HH III		
SACR	I in distance		

Pg. 1 of 1

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Nigig Henvey Inlet
Date: May 8 2013 Wed
Field Personnel: S Richer & B Miller

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	6°C	Beauf 0	0	None	None

Start Time: 6:40 am
End Time: 7:05
Start Point UTM: 525825 5077376
End Point UTM: 525406 5077663
Habitat:
Transect: T11
Feature #:

Species	Tally	
SOSP	III	CATE | 1, carrying a fish west
WTSP	++++ II	KILL | 1
PIWA	I	
MYWA	++++ II	
OVEN	I	
AMRO	III	
RLJA	I	
CAGO	II far to west	
BCCH	I	
HETH	I	
SACR	II in the south side of inlet, VERY loud	
CHSP	II	
NAWA	II	
YBSA	I drumming	
AMRI	I to the east	
BAWW	II	
BRTH	I	
COLO	II on inlet, vocalizing. Awesome	
RUGR	I	
SWSP	I	
NOFL	I	

Pg. 1 of 1 (over)

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Wed May 8 2013 Transect 12 Start 7:14am End 8:05am start UTM 525007 5076746

Personnel S Richer & B Miller end UTM 525147 5077237

Species	Tally
OSPR	|, flying E
SOSP	| Pg # 160960824
CAGO	|| to the E Pg Name Nigg/Henvey Inlet
MYWA	|||
COLO	|| vocalizing in inlet, same as in Transect
BCCH	|
WTSP	|||
BHVI	|
PIWA	|
HETH	|
PAWA	|
CHSP	||
SACR	|| far to the south, other side of inlet
RCKI	|
BAWW	||
AMRO	||
BRTH	|
CORA	|
NAWA	|
RLJA	|

Pg. 1 of 1

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Nigig / Henvey Inlet
Date: May 8 2013 Wed
Field Personnel: SRicher & BMiller

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	20	Beauf 0	10	0	0

Start Time: 8:44am
End Time: 9:11am
Start Point UTM: 523029 5076241
End Point UTM: 522974 5075756
Habitat:
Transect: 13
Feature #:

Species	Tally
PIWA	||
MYWA	||||
WTSP	+++ |
CHSP	||||
RAVW	||
MALL	| flyover
AMRE	|
HETH	||
AMRO	|
PUFI	||
BCCH	|
CAGO	| far to the east
RBNU	|
GCKI	|||
BBWA	|||
BTNW	||
OVEN	|
~~##~~ DOWO	|
SWTH	|
Passerine sp	|

Pg. 1 of 1 (over)

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Wed May 8th 2013 Transect 17 Start 10:23am End 10:57am (Sandy Bay) start UTM 525669 50732 end UTM 525759 50737

Species	Tally
WTSP	++++
MYWA	++++ |
AMRO	|
CHSP	||
CAGO	|| to the west
PIWA	|||
AMGO	|
NOFL	|
BLPW	|
SOSP	||
PUFI	||
DCCO	| flyover
RAVE	||||
MALL	|, Adult female at nest w eggs
HETH	|
WIWR	|
NAWA	|
GCFL	|
RLHW	|
RCKI	|
HAWO	|
COYE	|
RBNU	|
BRWA	|

Pg #160960824
Pg Name Nigig/Henvey
Personnel: SRicher & BMiller

Heavy amount of Moose browse in this area; Moose yard? ##

Pg. 1 of 1

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Nigig/Heavey Inlet
Date: May 9 2013 Thurs
Field Personnel: S Richer & B Miller

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	10°	Beaufort 2 gusts of 3	25	0	0

Start Time: 7:44 am
End Time: 8:18 am
Start Point UTM: 523666 5081337
End Point UTM: 523790 5080850
Habitat:
Transect: 18 (Key River)
Feature #:

Species	Tally	Species	Tally
CATE	I	RWBL	I
CAGO	II pair on inlet	COMA	I
BAWA	II	COGR	I
CHSP	HHI	GCKI	I
MYWA	IIII		
COYE	I		
NAWA	I		
BCH	I		
WTSP	HHI		
NAWA	II		
HETH	I		
AMRO	II		
OVEN	II		
RUGR	I		
NOFL	I		
BAWW	I		
GRYE	I		
BLJA	I		
WIWR	I		
RUFI	II		
SOSP	IIII		

Pg. 1 of 1 (over)

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

May 9 2013 Thurs Prj #160960894 TJS start 9:00am end 9:19am start UTM 524705 5081448 end UTM 524836 5080959

Prj Name - Nigig / Henvey Inlet
Personnel - S Richer + B Miller

Species	Tally
CHSP	||
MYWA	++++ |
WTSP	|||
PIWA	|||
BLJA	|
GCKI	|
BTNW	|
RUGR	|
NAWA	|
NOFL	|
BRCR	|
OVEN	|
AMGO	|
BLJA	|
RUF	|||| 2 m of, 2 pair on beaver pond
WIWR	|
BAWW	|
AMRO	|
SOSP	|
COGR	||

Pg. 1 of 1 (over)

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

REV: 2011-05-03 / FORM 014

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Nigig/Henvey Inlet
Date: May 9 2013 Thurs
Field Personnel: S Fisher & B Miller

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	18°C	Beaf 23	20	0	0

Start Time: 9:50 am
End Time: 10:23 am
Start Point UTM: 526669 5081665
End Point UTM: 527174 5081640
Habitat:
Transect: 16 (Key River)
Feature #:

Species	Tally
PUFI	II
MYWA	IIII
AMRO	III
WTSP	III
RBWA	I
BAWW	II
COYE	I
SOSP	II
RLJA	I
YWAR	II
NOFC	I
GRYE	II
CAGO	I to the north, calling
WIWR	I
BTNW	I
YRST	I
OATE	I
HETH	I
NAWA	I

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

REV: 2011-05-03 / FORM 014

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824 Project Name: Nigig/Heavey Inlet

Date: May 13 2013 Field Personnel: S Richer & B Miller

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	6	Beaf 1	100	None	None

Start Time: 7:02 End Time: 7:36

Start Point UTM: End Point UTM:

Habitat: Transect: Trail (2)

Feature #:

Species	Tally	
WTSP	||||	YRSA 1
PIWA	|	RBWO 1 ! Cool
MYWA	||||	
NAWA	||||	
BCCH	|	
AMRO	||	
BTNW	||||	
BLJA	|||| - 1 which was imitating a Broadwing hawk	
BAWW	||	
RBNU	|	
RUGR	||	
OVEN	||	
OAGO	|| minimum	
RBWO	|	
COSN	|	
CHSP	|	
HETH	|	
NOFL	|	
BHVI	|	
SOSP	|	
AMRE	||	

Pg. ___ of ___

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Field Personnel)

Signature: _____ (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Nigig / Henvey Inlet
Date: May 14 2013 Tues
Field Personnel: J Richer & B Miller

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	5	Beaut	100	None	None

Start Time: 6:25
End Time: 6:37
Start Point UTM:
End Point UTM:
Habitat:
Transect: 1
Feature #:

Species	Tally		
HETH	++++ |	PIWO	|
OVEN	++++	NOFL	|
WIWR	||	GCKI	|
AMRO	||	NOPA	|
MYWA	++++ |		
YBSA	||		
RUGR	|		
WOTH	|		
NAWA	++++ |||		
BTNW	|||		
RBNU	|		
BAWW	|		
SAGR	| far to the west		
BLSA	||		
WTSP	||		
RBGR	|		
BCCH	||		
CHSP	||		
COYE	|		

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Nisg / Henry Inlet
Date: May 14 2013 Tues
Field Personnel: S Richer & E Miller

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	7	Beaufort 1	100	None	None

Start Time: 8:15
End Time: 8:52
Start Point UTM: 17T 527521 5077705
End Point UTM: 17T 527725 5077228
Habitat:
Transect: (Top Seed) 3
Feature #:

Species	Tally
CAGO	II pair
OVEN	I
BAWW	I
NAWA	III
PUFI	I
AMRO	II
SOSP	III
RBNU	I
PIWA	I
BTNW	I
MYWA	III (1 is a female!)
AMRE	I
RUGR	I
BLBW	I
EAPH	II
COGR	IIII
BRCR	II
WCSP	III
WTSP	III
RWBL	I
DOWO	I

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Nigig/Henvey Inlet
Date: May 14 2013 Tues
Field Personnel: S Richer & R Miller

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	8	Beaufort 2	100	None	None

Start Time: 9:40 am
End Time: 10:00
Start Point UTM: 17T 525825 5077376
End Point UTM: 17T 525406 5077663
Habitat:
Transect: 11
Feature #:

Species	Tally
COLO	11 pair on inlet
DCCO	1 flyover
MYWA	1
SOSP	1
PIWA	1
BAWW	11
WTSP	11
BLJA	11
NAWA	1111
CHSP	1
COYE	11
AMRO	11
RUGR	1
NOFL	1

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Nigig/Henvey Inlet
Date: Wed May 15 2013
Field Personnel: S Richer + B Miller

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	9	Beauf 3 gusts of 4	100	None	None

Start Time: 7:45
End Time: 8:10
Start Point UTM: 17T 523029 5076241
End Point UTM: 17T 522974 5075756
Habitat:
Transect: 13
Feature #:

Species	Tally
RTRW	II
WTSP	++++
MYWA	++++ I
BAWW	III
HETH	I
PUFI	I
AMRO	II
RTMW	IIII
NAWA	III
PIWA	II
BLJA	II
SWTH	I
GCKI	II
NOFL	I
WIWR	I
COYE	I

Pg. 1 of 1

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Field Personnel)

Signature: _____ (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Nigig/Henvey Inlet
Date: Wed May 15 2013
Field Personnel: S Richer & B Miller

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	11	Beauf 2-3 But 4 gusts of 5 beside inlet	100	None	None

Start Time: 8:57
End Time: 9:20
Start Point UTM: 17T 525007 5076746
End Point UTM: 17T 525147 5077237
Habitat:
Transect: 12
Feature #:

Species	Tally
PIWA	III
MYWA	IIII I
AMRO	I
BAWW	III
NAWA	II
CHSP	II
WTSP	II
SOSP	I
BTNW	III
AMGO	I
COYE	II
DCCO	I flyover
CORA	I flyover
TUVU	II flyover
AMRE	I

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Nigig / Henvey Inlet
Date: Thurs May 16 2013
Field Personnel: S Richer + B Miller

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	8	Beauf 2-3	0	None	None

Start Time: 7:19
End Time: 7:45
Start Point UTM: 523666 5081337
End Point UTM: 523790 5080850
Habitat:
Transect: 18
Feature #:

Species	Tally
MYWA	IIII
YWAR	II
RTMW	III
BAWW	+++
SACR	II
AMRI	I Cool! Pumper Unit... from SE of the point
BRTH	I
SOSP	IIII
CHSP	IIII
RUGR	I
WTSP	III
COLO	I calling from Henvey inlet or inland marsh to the south
NOFL	I
BLJA	I
CAGO	II in Key River
OVEN	III
HETH	II
MAWA	+++ I
AMRE	I
COYE	III
RHVI	I
COGR - I	
YRSA - I	
AMRO - III	
MAWA - I	
GBHE - I	
PUFI - I	
GRSA - II, pair together at end of survey	
HEGU - I at Key River	

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824 Project Name: Nigig/Henvey Inlet

Date: Thurs May 16 2013 Field Personnel: S Rider & B Miller

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	9	Beaut 2-3	0	None	None

Start Time: 8:30 End Time: 8:54

Start Point UTM: 524705 5081448 End Point UTM: 524826 5080959

Habitat: Transect: 15

Feature #:

Species	Tally	
RUGR	I	PAWA - III, all males together
NAWA	II	BRCR - I
MYWA	+++	RBNU - I
WTSP	II	*TRES - IIII after end of
BTNW	III	RUBW - I survey
OVEN	III	KILL - flyover
BAWW	III	
BLJA	II	
CAGO	II on Key River	
RCCH	II	
NOFL	I	
COYE	I	
PIWA	I	
HETH	II	
CHSP	II	
BHVI	I	
AMRO	II	
SOSP	IIII	
HOME	II - male & female, pair together	
COGR	I	
AMRE	I	

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

REV: 2011-05-03 / FORM

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Nigig/Henvey Inlet
Date: May 16 2013 Thurs
Field Personnel: S Richer & B Miller

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	10	Beaf 2-3	30	None	None

Start Time: 9:30 am
End Time: 10:01
Start Point UTM: 527174 5081640
End Point UTM: 526669 5081665
Habitat:
Transect: 16
Feature #:

Species	Tally	
NAWA	III	RCCH - II
YWAR	++++	NOPA - I
OVEN	II	WCSP - II
MYWA	IIII	NOWA - I
COYE	II	WTSP - II
RUGR	I	DOVE - II flyover
BAWW	II	BWHA - I, flying low & south with a snake in its talons
PIWO	I - male, Vocalizing & Foraging	
BTNW	I	
SOSP	I	CATE - at Key River, foraging
BLJA	II	
CHSP	I	
LEFL	II	
AMRO	III	
CAGO	I	
MODO	I	
EWPE	I	
CSWA	II	
HETH	I	
BHVI	I	
RLRW	I	

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 1069602894
Project Name: Nigig/Henvey Inlet
Date: May 22 2013
Field Personnel: P Read & J Richer

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT: light mist	PPT (in last 24 hrs):
	12°C	Beaufort 1	100	None	Code 3-4 Rain showers

Start Time: 5:50
End Time: 6:30
Start Point UTM: 532284 5078694
End Point UTM: 532942 5078069
Habitat:
Transect: 1
Feature #:

Species			Tally	
AMRO	III	3	BTNW II	2
BCCH	III	3	BAWW II	2
OVEN	IIII II	7	CAWA I	1
NOPA	I	1	BLJA II	2
RBGR	II	2	NOFL I	1
YRWA	III	3	MAWA I	1
EAPH	I	1	BBWA I	1
YWAR	III	3	VEER II	2
PISI	I	1	BLBW I	1
GCFL	III	3	CSWA I	1
NOWA	I	1	ALFL I	1
REVI	IIII	4		
COYE	IIII I	6		
YBSA	II	2		
SWSP	II	2		
RBNU	II	2		
WTSP	III	3		
MALL	II (P)	2		
NAWA	IIII I	6		
AMRE	II	2		
COGR	I	1		

Pg. 1 of 1

Signature: Peter Read (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

REV: 2011-05-03 / FORM 014a

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 106960284
Project Name: Nigig / Henvey Inlet
Date: May 22/2013
Field Personnel: P. Read & S. Richer

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	14	1	100	0	Code 3-4

Start Time: 7:02
End Time: 7:59
Start Point UTM: 529405 5078046
End Point UTM: 529630 5078526
Habitat:
Transect: 2
Feature #:

Species	Tally		Tally	
AMRE	7			
YRWA	4		BBWA III	3
OVEN	11		COVE IIII	4
BTNW	3		PIWO I	1
GCFL	2		PUFI I	1
WTSP	7		REVI 6 II	7
YBSA	2		BRCR I	1
SOSP	3		BAWW 5	5
CSWA	1		RUGR I	1
BLJA	3		BHVI I	1
NOPA	1		BCCH I	1
VEER	5		CSWA IIII	4
NAWA	4		PHVI I	1
PIWA	3		WIWA I	1
LEFL	1		COGR 3	3
RBNU	1		BLBW I	1
MAWA	4		LEFL I	1
BAWW	1		MOWA II	2
HETH	6			
BRTH	1			
MOWA	1			

Pg. 1 of 1

Signature: Peter Read
(Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.
Signature:
(Project Manager)

Stantec
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Observation Form

Project Number: 1069602 84 | Project Name: Niag / Henvey Inlet
Date: May 22 / 2013 | Field Personnel: P. Read + S. Richer

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	14	1	100	0	code 3/4

Start Time: 8:48 | End Time: 9:31
Start Point UTM: 527521 / 5077705 | End Point UTM: 527785 / 5077228
Habitat: | Transect: 3
Feature #:

Species	Tally		Tally	
OCWA	1	(1)	COGR IIII	(6)
REVI	IIII	(5)	PIWA 1	(1)
COYE	1 IIII	(5)	YBSA 11	(2)
YWAR	11	(2)	CAWA 1	(1)
BLPW	1	(1)	HAWO 1	(1)
OVEN	111	(3)	PIWO 1	(1)
BTGN	111	(3)	NAWA 1	(1)
YRWA	1111	(4)	CAGO 1	(1)
SOSP	1111	(4)	AMRO 1	(1)
GCFL	1	(1)	DOWO 1	(1)
PUFI	1	(1)		
MAWA	1111	(4)		
ALFL	1	(1)		
WTSP	IIII 1	(6)		
RBGR	111	(3)		
RUGR	1	(1)		
BAWW	1111	(4)		
AMRE	IIII 1	(6)		
NOFL	11	(2)		
CSWA	11	(2)		
SWTH	1	(1)		

Quality Control: This form is complete ☐ & legible ☐.

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 106960284
Project Name: Nig / Henvey Inlet
Date: May 22/2013
Field Personnel: P. Read + S Richer

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	14	0	100	0	code 3-4 Rain showers

Start Time: 10:07
End Time: 10:32
Start Point UTM: 525825 5077376
End Point UTM: 525406 5077663
Habitat:
Transect: 11
Feature #:

Species		Tally	
SPSA	II (2)	YRWA II	(2)
MAWA	II (2)	CSWA I	(1)
COYE	IIII I (6)	AMRO II	(2)
WTSP	IIII IIII (9)	PIWA I	(1)
BTNW	I (1)		
DUCK SP	I (1)		
SOSP	II (2)		
BLSA	IIII (4)		
NAWA	I (1)		
OVEN	II (2)		
BCCH	I (1)		
WTSP	I (1)		
AMRE	I (1)		
SWSP	II (2)		
RUGR	I (1)		
CAWA	I (1)		
YWAR	I (1)		
BHVI	I (1)		
HETH	II (2)		
YBFL	I (1)		
BAWW	III (3)		

Pg. 1 of 1

Signature: Peter Read (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Niag / Henvey
Date: May 24 2013 Fri
Field Personnel: Sarah Richer / Pete Read

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	4°C	Beauf 2	90%	None	Light to heavy rain

Start Time: 6:58
End Time: 7:32
Start Point UTM: 525669 5073239
End Point UTM: 525759 5073321
Habitat:
Transect: 17
Feature #:

Species	Tally		Tally	
COYE	IIII	(4)	BCCH I	(1)
BLJA	III	(3)	AMRO I	(1)
CHSP	II	(2)	RBNU I	(1)
CAWA	II	(2)	MALL II (P)	(2)
SOSP	I	(1)	YRWA I	(1)
CAGO	II	(2)	DOWO I	(1)
NAWA	III	(3)	RCKI I	(1)
WTSP	II	(2)	SWTH I	(1)
PIWA	II	(2)		
TRAILS	I	(1)		
BTNW	II	(2)		
HEGU	I	(1)		
SACR	II	(2)		
BLBW	II	(2)		
CSWA	II	(2)		
AMCR	I	(1)		
OVEN	III	(3)		
NOWA	I	(1)		
DCCO	I	(1)		
RUGR	I	(1)		
BAWW	I	(1)		

1 of 1

Signature: Peter Read
(Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.
Signature:
(Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Nigig / Henvey
Date: May 24th 2013
Field Personnel: Sarah Richer / Pete Read

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	5	2	90 %	0	light to heavy

Start Time: 8:50
End Time: 9:18
Start Point UTM: 523029 5076241
End Point UTM: 522974 5075756
Habitat:
Transect: 13
Feature #:

Species	Tally
SOSP	1 (1)
BAWW	11 (2)
PAWA	1 (1)
BTNW	11 (2)
YRWA	1111 (4)
NAWA	11 (2)
PIWA	11 (2)
BTNW	1111 (4)
CMWA	1 (1)
OVEN	1 (1)
WTSP	1 (1)
HAWO	1 (1)
CHSP	1 (1)
RBNU	1 (1)
COYE	11 (2)
CORA	11 (2)
HETH	1 (1)

Pg. 1 of 1

Signature: Peter Read
(Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.
Signature:
(Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160 960 824
Project Name: Nigig / Henvey
Date: May 24 for 2013
Field Personnel: Sarah Richer + Pete Read

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	7	2	60	0	light

Start Time: 10:05
End Time: 10:50
Start Point UTM: 525007 5076746
End Point UTM: 525147 5077237
Habitat:
Transect: 12
Feature #:

Species	Tally	
SPSA	1	(1)
SOSP	1	(1)
CHSP	111	(3)
WTSP	11 1111 1	(6)
COYE	1111 1	(6)
PIWA	1	(1)
NAWA	1111 1	(6)
AMRE	11	(2)
BAWW	1	(1)
BTNW	1111 1	(6)
BLWA	111 ✓	(3)
YWAR	1	(1)
PIWA	1	(1)
BLPW	1	(1)
NA AA		
OVEN	1	(1)
TEWA	1	(1)
BAWW	1	(1)
YRWA	1	(1)
BLJA	1	(1)

Pg. 1 of 1

Signature: Peter Read
(Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.
Signature:
(Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824 Project Name: Nigig / Henvey

Date: May 25./2013 Field Personnel: Sarah Richer & Pete Read

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	2	1-2	0	0	trace

Start Time: 6:40 End Time: 7:34

Start Point UTM: 527174 5081640 End Point UTM: 526669 5081665

Habitat: Transect: 16 east

Feature #:

Species	Tally		Tally	
WTSP	1111	4	TEWA 1	1
AMRO	5HH 1	6	RWBL 1	1
MOWA	1	1	BLJA 11	2
COYE	5HH 5HH	10	HAWO 1	1
BAWW	11	2	VEER 11	2
CORA	1	1	BRCH 11	2
YWAR	5HH	5	YBSA 11	2
BTNW	1111	4	LEFL 1	1
YRWA	1111	4	WIWA 1	1
OVEN	5HH	5	RUFI 1	1
RUGR	11	2	SWSP 11	2
NOFL	111	3	RBGU 1	1
BRTH	1	1	COGR 1	1
AMRE	1	1	CAGO 2	2
YRWA	1111	4		
SWTH	11	2		
CSWA	1111	4		
CAWA	11	2		
SOSP	111	3		
REVI	111	3		
NOPA	1			

Signature: Peter Read (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824 Project Name: Nigig/Henvey

Date: May 25/2013 Field Personnel: Sarah Richer + Pete Read

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	6	2	0	0	trace

Start Time: 8:00 End Time: 8:47

Start Point UTM: 524705 5081448 End Point UTM: 524826 5080959

Habitat: Transect: 15 middle

Feature #:

Species			Tally		
CATE	1	(1)	AMRO	1	(1)
COYE	IIII	(4)	SOSP	II (cop) II	(4)
OVEN	III	(3)	RWBL	II pair, FCN	(2)
MEGU	1	(1)	EAKI	1	(1)
WTSP	IIII	(4)	WODU	1	(1)
AMRE	II	(2)	MALL	II	(2)
CSWA	II	(2)	BLJA	1	(1)
BAWA	III	(3)	NOFL	1	(1)
SOSP	1	(1)	CAWA	1	(1)
SWTH	1	(1)			
BTNW	II	(2)			
NAWA	1	(1)			
CMWA	1	(1)			
CHSP	II	(2)			
COLO	1	(1)			
PIWA	III	(3)			
RBNU	II	(2)			
YRWA	IIII	(4)			
BCCH	1	(1)			
COGR	HHII	(5)			
CAGO	HH HH I	(11)			

Pg. 1 of 1

Signature: Peter Read (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

REV: 2011-05-03 / FORM 014

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Nigig/Henvey
Date: May 25 2017
Field Personnel: Pete Read & J Richer

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	7	2	3%	0	trace

Start Time: 9:18
End Time: 9:48
Start Point UTM: 523667 5081337
End Point UTM: 523790 5080850
Habitat:
Transect: 18
Feature #:

Species	Tally		Tally	
COYE	IIII 1	(6)	CORA 1	(1)
OVEN	III	(3)	GRJA 1	(1)
CMSP	II	(2)	TUVI 1 flyover	(1)
MEGU	1	(1)	SPSA 1	(1)
PUFI	1	(1)	CATE 1	(1)
BAWW	II	(2)		
CSWA	II	(2)		
WCSP	1	(1)		
WTSP	IIII	(4)		
NAWA	IIII	(4)		
BLJA	II	(2)		
YRWA	IIII	(4)		
SWSP	1	(1)		
REVI	1	(1)		
BTNW	1	(1)		
RBNU	1	(1)		
CAGO	II	(2)		
HAWO	1	(1)		
SOSP	1	(1)		
GBHE	1	(1)		
AMRE	1	(1)		

Pg. 1 of 1

Signature: Peter Read (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 1609960824 | Project Name: Nigig/Henvey

Date: May 28, 2013 | Field Personnel: S. Richer, K. St James

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	3	1	40%	/	/

Start Time: 5:24 am | End Time: 5:58 am

Start Point UTM: 532284 5078694 | End Point UTM: 532943 5078069

Habitat: | Transect: 1

Feature #:

Species	Tally		
COYE	111	MERL	II
MYWA	II	NOFL	III
EAPH	II	PIWO	I
OVEN	~~HH~~ I	BLJA	II
HETH	~~HH~~		
AMRO	IIII		
CAGO (flyover)	II		
BOCH	~~HH~~ IIII		
RBGR	III		
VEER	III		
RBNU	I		
YBSA	I		
MALL	II		
SWSP	II		
RUGR	I		
BAWW	III		
CSWA	II		
WTSP	III		
BTNW	III		
CEDW	IIII		
NAWA	II		

Signature: Katherine Sim (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Transect 2
Start time 6:21
End time 7:00

Species	Tally
BTNW	7 ||
REVI	|||
~~RBGR~~	
CSWA	||||
BAWW	5 |
OVEN	4 |
WTSP	3
NAWA	||
CAGO	|||
AMRO	||
YBSA	|
GRA	|
VEER	|
MYWA	||||
MAWA	|||
CHSP	|
SOSP	|
WISN	|
GCFL	|
BHVI	|
COYE	||
BLDA	|||
CEDW	|||
CMWA	|
HETH	|
AMRE	||
YWAR	|
CAWA	|
PIWA	|
BLBW	|

Pg. 2 of 2

Signature: Kathleen Lee (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 160960824 Project Name: Migis/Heavey/

Date: May 28, 2013 Field Personnel: K St James, S Richan

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	8	1	80 %	/	/

Start Time: 7:38am End Time: 8:28

Start Point UTM: 527521 5077705 End Point UTM: 527775, 5077228

Habitat: Transect: 3

Feature #:

Species	Tally		Tally
BAEA	1	YWAR	1
NOFL	II	VEER	1
CATE	1 flyover	TEWA	1
RTHW	II	EAWP	1
OVEN	IIII	MAWA	1 CW
COYE	+++ III	RUGR	1
REVI	III	RBGR	II pair
AMRO	II	MERL	1
WTSP	+++ 1	CAWA	II
BAWW	II	GRHE	1
CAGO	1 on nest	RWBL	1
CSWA	II	CEDW	1
RBGU	1 fly by	SWSP	1
MYWA	II	WODU	1
SOSP	II	AMCR	1
PIWA	II	NAWA	1
RCCH	1	BLRW	1
AMRE	IIII	EAPH	1
INBU	1	BEKI	1
HETH	1		
COGR	IIII		

Pg. 1 of 2 (over)

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Transect 11
Start time 9:09
End time 9:30 am

May 28th 2013 Transect 11

Species	Tally
REVI	|
SOSP	||
COYE	++++ |
BTNW	|
BLJA	++++
OVEN	|
WTSP	|||
CHSP	|
NAWA	|
AMRO	|
CAGO	|||
BAWW	|
HETH	|
RUGR	|
RBNU	|
BLJA	||
TUVU	|
SWSP	|
NOFL	|
MYWA	||
GRJA	||
MALL	||

starting UTM
525825 5077376

end UTM
525406 5077663

start time 9:09 am
end time 9:30 am

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____ (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Stantec

Migratory Bird Survey Observation Form

Project Number: 160960824 Project Name: Nigig Henvey Inlet

Date: May 29 2013 Wed Field Personnel: S Richard K S T James

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	10	Beaut 1-2	100	light rain	heavy rain

Start Time: 6:19 End Time: 7:06

Start Point UTM: 525669 5073229 End Point UTM: 525759 5073731

Habitat: Transect: 17

Feature #:

Species	Tally	
SOSP	|	
NAWA	++++	MAWA - 1
MYWA	++++ |||	AMRE - 1
EAPH	|	CAWA - 11
WTSP	||	DOWO - 1
PIWA	||	
COYE	++++ |||	
ALFL	|	
OVEN	|||	
REVI	||	
METH	||	
AMRO	|	
ROCH	|	
SWSP	|	
COGR	|	
BAWW	|||	
BLJA	|	
HAWO	|	
CSWA	|||	
RTMW	||	
SWTH	|	

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 160960824 Project Name: Nigig/Henvey Inlet

Date: May 29 2013 Field Personnel: S Richer, K St James

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	14	Beaufl	100	Light rain, ~~Thick fog~~	Heavy Rain

Start Time: 8:42 End Time: 9:07

Start Point UTM: 523029 5076241 End Point UTM: 522974 5075756

Habitat: Transect: L3

Feature #:

Species	Tally
RTMW	||||
MYWA	||||
SOSP	|
COYE	||||
REVI	|||
SWTH	|
HETH	|
OVEN	||||
NOCO	+++ || flyover
COME	|||| (2 pairs, flyover just before start of transect) Height "A" or "B"
RBNU	|
BAWW	||
WTSP	+++
PAWA	|
CHSP	||
AMCR	|
NAWA	|
WIWR	|
GCFL	|
AMRE	|
BLJA	|

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 160960824 Project Name: Nisg/Henvey Inlet

Date: Wed May 29 2013 Field Personnel: SRicher & KStamer

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT: off off	PPT (in last 24 hrs):
	14	Beauf 1-2	100	light rain	heavy rain

Start Time: 9:43 End Time: 10:05

Start Point UTM: 525007 5076746 End Point UTM: 525147 5077237

Habitat: Transect: 12

Feature #:

Species	Tally
SOSP	|
WTSP	+++
RTHW	||||
COYE	+++ |||
AMRE	|
HETH	||
MYWA	|||
AMRO	||
GCKI	|
PUFI	|
RLHA	|
BLBW	|
CHSP	||| – 2 obs copulating
BAWW	||
NAWA	||
REVI	|
CORA	|
GRJA	|
BRTH	|
SWTH	|
CAWA	|

Pg. 1 of 1

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: (Project Manager)

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Nigig / Henvey Inlet
Date: May 30 2012 Thurs
Field Personnel: S. Richar, K. St James

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	12	0-1	Fog	/	rain

Start Time: 8:31 am
End Time: 9:04 am
Start Point UTM: 523667 5081337
End Point UTM: 523790 5080850
Habitat:
Transect: 18
Feature #:

Species		Tally	
MAWA	11	WIVR	1
CHSP	11	BTNW	1
SOSP	111	PISI	1
WTSP	𝍸 1	GRJA	1
CAGO	111	DUFI	1
HEGU	1111	RCKI	1
HETH	11	SWSP	1
ALFL	11	DOWO	1
RWBL	1		
OVEN	11		
YWAR	111		
MYWA	𝍸		
COYE	𝍸 1111		
DCCO	1		
MALL	1		
BAWW	111		
NAWA	111		
AMCR	1		
REVI	1		
HAWO	1		
NOFL	1		

Pg. 1 of 2 (Cover leaf)

Quality Control: This form is complete ☐ & legible ☐.

Signature: Katherine Stars
(Field Personnel)

Signature:
(Project Manager)

Prj#160960824 (Nigig/Henvey Inlet)
May 30 2013 (Thurs)
Transect # 16

Start time 9:33 am
End time 9:58

Species	Tally
WTSP	II
COYE	++++ II
OVEN	IIII
ALFL	II
CSWA	IIII
SOSP	III
BLJA	II
AMRE	III
YWAR	+++ I
CAGO	II (48 FO) + 8 adults (separate flock)
NOFL	I
BAWW	II
MYWA	II
REVI	II
RUGR	I
BAWW	I
AMWO	I
PUFI	I
VEER	II
BTNW	I
GCFL	I
CHSP	I
HETH	I
RBGR	I

start UTM
527174 5081640

end UTM
526669 5081665

Signature: Kathryn Stevens
(Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature:
(Project Manager)

REV: 2011-05-03 / FORM 014a

als w:\resource\internal info and teams\field forms\birds\windfarm birding\form_014-a_migratory-passerine-survey_2-sided.docx

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph, ON
Canada N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Migratory Bird Survey Observation Form

Project Number: 160960824
Project Name: Niagara / Henvey Inlet
Date: May 20 2016 Thurs
Field Personnel: S. Richer, K. St James

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	19	1	30%	/	rain

Start Time: 10:19
End Time: 10:54
Start Point UTM: 524705 5081448
End Point UTM: 524826 5080959
Habitat:
Transect: 15
Feature #:

Species	Tally	Species	Tally
HEGU	II	HAWO	I
BAWW	IIII I	BLJA	III
SOSP	II	RWBL	III
ALFL	II	YBSA	I
REVI	II	SWSP	II
RUGR	I	BCCH	I
YWAR	I	DCCO	I
OVEN	IIII	WODU	II
COYE	IIII III	COGR	IIII
CAGO	II	MYWA	I
WTSP	III	CAGO	II
CHSP	II	HETH	II
NAWA	III	AMWO	I
CSWA	I	RBGR	I
PIWA	I	EAKI	II
AMCR	II	CONI	I
~~MYWA~~ KILL	I	CORA	II
BTNW	IIII	NOFL	I
AMRO	II	BHVI	I
TUVU	I	CEDW	II
GCFL	I	CAWA	I

Pg. 1 of 1

Quality Control: This form is complete ☐ & legible ☐.

Signature: Katherine St James
(Field Personnel)

Signature:
(Project Manager)

REV: 2011-05-03 / FORM 014a

Nigig Passerine Transect UTM's

Transect 15 -	Start:	17T	0524705	5080959	Key River West
	End:	17T	0524826	5080959	
Transect 18 -	Start:	17T	0523666	5081337	Key River central
	End:	17T	0523790	5080850	
Transect 16 -	Start:	17T	0527174	5081640	Key River East.
	End:	17T	0526669	5981665	
Transect 12 -	Start:	17T	0525007	5076746	
	End:	17T	0525147	5077237	
Transect 13 -	Start:	17T	0523029	5076241	
	End:	17T	0522974	5075756	
Transect 3 -	Start:	17T	0527521	5077705	
	End:	17T	0527775	5077228	
Transect 11 -	Start:	17T	0525825	5077376	
	End:	17T	0525406	5077663	
Transect 1 -	Start:	17T	0532337	5078609	Bekanon Rd.
	End:	17T	0532727	5078264	
Transect 2 -	Start:	17T	0529489	5077989	Bekanon Rd.
	End:	17T	0529536	5078489	
Transect 17 -	Start:	17T	0525669	5073239	Sandy Bay
	End:	17T	0525759	5073731	

Hawk Watch Station UTM's

① 0522592 5077005 (Coast)

② 0525957 5077068 (Flash's Cabin)

Appendix B

Work Plans

WORK PLAN FOR THE NIGIG POWER WIND FARM PROJECT BACKGROUND ECOLOGICAL STUDIES

HENVEY INLET FIRST NATION
PICKEREL RIVER, ONTARIO

prepared for

GENIVAR

on behalf of

NIGIG POWER CORPORATION

by

LGL LIMITED
environmental research associates

JULY 2011

LGL PROJECT TA8027

WORKPLAN FOR THE NIGIG POWER WIND FARM PROJECT BACKGROUND ECOLOGICAL STUDIES

HENVEY INLET FIRST NATION
PICKEREL RIVER, ONTARIO

prepared by:

Digital signature

Arnel Fausto, M.Sc.
SENIOR ECOLOGIST

Digital signature

Barry Myler, B.Sc.
SENIOR BIOLOGIST

LGL Limited
environmental research associates
3365 Harvester Road
Burlington, Ontario L7N 3N2
Tel: 905-333-1667 Fax: 905-333-2660
Email: burlington@lgl.com
URL: www.lgl.com

JULY 2011
LGL PROJECT TA8027

TABLE OF CONTENTS

1.0 INTRODUCTION 1

2.0 WORK PLAN OVERVIEW 1

TABLE 1: SUMMARY OF ECOLOGICAL RECEPTORS, PATHWAYS OF EFFECT AND ECOLOGICAL BASELINE STUDIES FOR THE NIGIG POWER WIND FARM PROJECT 3

3.0 ECOLOGICAL STUDY APPROACH 5

3.1 PRELIMINARY INFORMATION ACQUISITION AND DESKTOP REVIEW 6

3.2 FIELD INVESTIGATIONS 7

3.2.1 Avian Surveys 7

3.2.2 Bat Surveys 10

3.2.3 Wildlife Habitat, Fish Habitat, and Species-at-Risk 11

FIGURE 1 LOCATION OF NIGIG POWER WIND FARM PROJECT STUDY AREA 12

FIGURE 2 SATELLITE IMAGERY OF THE NIGIG POWER WIND FARM PROJECT AREA (PROJECT STUDY AREA SHOWN IN RED) 13

FIGURE 3 FOREST RESOURCE INVENTORY OF THE NIGIG POWER WIND FARM PROJECT AREA (PROJECT STUDY AREA SHOWN IN RED) 14

1.0 INTRODUCTION

In 2011, the Nigig Power Corporation received approval under Ontario's Feed-In- Tariff (FIT) Program to construct a Wind Power Project at Henvey Inlet on Georgian Bay in the province of Ontario (Figure 1). With a total proposed rating of 300MW, the Nigig Power Wind Farm Project is the largest wind power project FIT contract awarded in Ontario. The expected Commercial Operation Date (COD) is February 2014. The Project study area encompasses the Reserve Lands of approximately 80 square kilometres (Figure 2). The major components of the Project, including all of the Project's wind turbines, are proposed to be located on Henvey Inlet First Nation Reserve No. 2 (Reserve No. 2). A transmission line that is part of the Project will be located off of Reserve No. 2 and a transformer station may be located off reserve in order to enable an interconnection with the Hydro One Transmission System. Vehicular access is limited to the unpaved Bekanon Road, which leads to a boat ramp in the eastern end of the Inlet. The remainder of the study area is accessible only by boat during the open water season and, to some extent, by snowmobile during the winter.

The study area consists of rocky outcrops that form shallow, longitudinal ridges, oriented in a northwest to the southeast direction. Intervening pockets of wetlands, alder thickets, poplar and jack pine stands make up the balance of the site. Topographic relief decreases from the east to west direction with elevations ranging from a high of 216m at the eastern portions near Highway 69 to a low of 168m at the western shoreline at Georgian Bay.

2.0 WORK PLAN OVERVIEW

The background ecological studies were developed to address pathways of effect between the Project and the natural heritage resources that are known to occur in the study area and surrounding region. The study area is large and, given its location on the Georgian Bay shore, it may include migratory routes of birds and bats. Interaction with migratory species is considered to be of primary importance, as it has the potential to profoundly affect Project design, extent and operational strategies to effectively mitigate harm. As such, the background ecological studies include considerable focus on migratory studies.

On the ground, development of the Project will involve watercourse and wetland crossings, and the construction of access roads, overhead electrical collector lines and turbines that may displace some terrestrial habitat. There is considerable scope for identification and avoidance of sensitive habitats and implementation of effective and proven mitigation strategies where limited intrusion is unavoidable. The baseline ecological studies include elements of desktop and on-site evaluation that are tailored to the various wildlife groups based on their habitats and habits.

The documented effects of wind power projects have been largely focused on impacts to migrating and resident birds and bats. Accordingly, wind farms should be located, designed and managed so that there are no significant adverse impacts on seasonal migrants, including those species that are of acknowledged national and international importance, or their habitats. In terms of the location of the project study area, the major physiographic features include the Georgian Bay coastline and Henvey Inlet, which may be used to some degree as migratory pathways by birds and bats. Of secondary concern are the terrestrial and aquatic flora and fauna, which are affected largely by the location of specific Project components in and around their habitats. The following potential effects have been documented in literature with respect to development of wind farms:

- Collision with the moving turbine blades, with the turbine tower or associated infrastructure such as overhead power lines, or the wake behind the rotors causing injury, leading to direct mortality to migrating birds and bats;
- Disturbance or displacement from around the turbines or exclusion from the whole wind farm. Reduced reproductive success or reduced survival may result if birds are displaced from preferred habitat and are unable to find suitable alternatives;
- Barriers to movement disrupting ecological links between feeding, wintering, breeding and moulting areas and extended flights around wind clusters; and,
- Change to or loss of habitat due to wind turbines and associated infrastructure.

As part of effective planning, there is a need to identify migratory pathways and patterns in terms of level of activity across the study area throughout the migratory seasons. This information may be used to identify sensitive areas, seasons and weather conditions that can be used to guide design of the Project extent and operation. In addition, migratory stopover, breeding bird and acoustic bat surveys are being used to understand distribution of birds and bats that use on-site habitats and may therefore be affected by the Project.

With respect to birds and bats, the following guidance documents have influenced and guided the ongoing evaluation of the ecological baseline:

- Ontario Ministry of Natural Resources (2010) Birds and Bird Habitats: Guidelines for Wind Power Projects;
- Ontario Ministry of Natural Resources (2010) Bats and Bat Habitats: Guidelines for Wind Power Projects;
- Environment Canada and Canadian Wildlife Service (2007) Recommended Protocols for Monitoring Wind Impacts of Wind Turbines on Birds; and,
- Environment Canada and Canadian Wildlife Service (2007) Wind Turbines and Birds, A Guidance Document for Environmental Assessment.

It should be noted that the Province has no regulatory jurisdiction over the Henvey Inlet Reserve #2 lands and therefore the above noted MNR documents are being used for reference only.

With respect to resident plants and wildlife, and their habitats, specific approaches have been developed in relation to the known factors of habitat association, life history parameters and Project interactions. Existing ecological information, ranging from large-scale forest resource inventories to studies of specific reptile SAR, is available for the region surrounding the Study Area. This includes data collected in the Highway 400 corridor and within the several large parks on Georgian Bay. Much can be inferred from this information regarding the occurrence, distribution, habitats and habits of wildlife species in the Study Area. This will form the basis of effective mitigation strategies to reduce the interaction of plants and wildlife with the Project.

Table 1, below, summarizes the ecological receptors, pathways of effect and corresponding study approaches recommended, and currently underway, for the Nigig Power Wind Farm Project.

Table 1: Summary of Ecological Receptors, Pathways of Effect and Ecological Baseline Studies for the Nigig Power Wind Farm Project

Ecological Receptor	Effects Pathways	Recommended Studies	Timing
Birds and Bats (SAR and non-SAR birds) (non-SAR bats only)	Collision with turbines (migratory and resident/seasonal). Habitat loss (migratory stopover and resident/seasonal).	Visual/IR-assisted studies of spring and fall bird/bat migration across the study area, using Henvey Inlet as an east-west transect. Migratory stopover surveys include boat-based and aerial surveys of waterfowl, hawk-watch stations and terrestrial routes for other species. Breeding bird surveys using point-count survey protocol at sites distributed throughout the study area (spring and summer). Aerial surveys to investigate possible colonial waterbird, heron and raptor nesting sites. Acoustic detection of resident bats using automated Wildlife Acoustics SM2BAT detectors at sites distributed throughout the study area (spring/summer).	Migration (May 2011; Aug-Oct 2011; Mar-May 2012) Breeding birds (Jun-Jul 2011; May-Jun 2012) Bat Acoustic (Jun-Jul 2011; Jun-Jul 2012, if warranted following review of 2011 data)

Ecological Receptor	Effects Pathways	Recommended Studies	Timing
Game/furbearers (non-SAR only)	Habitat loss. Road effects (disturbance, hunting, predation, roadkill).	Incidental observations confirm species and distribution within study area. Traditional knowledge and cultural value of wildlife species and their habitats. Aerial observations (moose/deer winter yards, wildlife trails). Desktop and field confirmation of key wildlife habitat (e.g., wetland, stands of mature trees, etc.) and seasonal biology.	Incidental (year round) Traditional (summer/fall/winter 2011) Aerial (winter 2011)
Reptiles (SAR and non-SAR)	Direct mortality during site preparation. Habitat loss. Road effects during operation (disturbance, roadkill).	Incidental observations confirm species and distribution within study area. Focused habitat identification within construction footprint of Project elements (e.g., road alignments, laydown and tower areas). General habitat identification (and avoidance) by ELC delineation of wetland communities as preliminary constraints. Desktop review of key reptile habitat (e.g., overwintering sites, nesting and incubation areas) and seasonal biology (e.g., timings of key life history elements) to inform spatial and temporal avoidance and mitigation strategies.	Incidental (spring, summer and fall) Mitigation methods will be developed and focused habitat ID and implementation of avoidance/mitigation will occur during design, pre-construction and construction phases.
Amphibians (SAR and non-SAR)	Direct mortality during site preparation (watercourse & wetland crossings). Habitat loss. Sedimentation and erosion effects on aquatic and wetland habitats of amphibians. Road effects during operation (roadkill).	Incidental observations confirm species and distribution within study area. Focused habitat identification within construction footprint of Project elements (e.g., watercourse and wetland crossings). General habitat identification (and avoidance) by ELC delineation of wetland communities as preliminary constraints. Desktop review of key amphibian habitat (e.g., overwintering sites, breeding areas) and seasonal biology (e.g., overwintering, emergence, breeding) to inform spatial and temporal avoidance and mitigation strategies.	Incidental (spring, summer and fall) Mitigation methods will be developed and focused habitat ID and implementation of avoidance/mitigation will occur during design, pre-construction and construction phases.

Ecological Receptor	Effects Pathways	Recommended Studies	Timing
Fish (non-SAR only)	Harmful alteration, disruption, destruction (HADD) of fish habitat at watercourse crossings (minor tributaries only). Sedimentation and erosion during construction and operations.	Focused fish habitat and fish community assessments within construction footprints (e.g., at watercourse crossings). Includes descriptions of physical habitat features (channel form, depth, flow, substrates, migration barriers, etc.), aquatic and riparian plant communities and fish community. Data to support selection of appropriate temporal, spatial and physical mitigation measures to minimize effects on fish habitat.	Incidental (spring, summer, fall) Focused assessment of watercourse crossings will be undertaken at design/permitting stage to support application to DFO for Fisheries Act Authorization if HADD to occur
Plants (SAR and non-SAR)	Direct loss/mortality of vegetation in cleared areas. Loss of vegetation communities during construction. Native plants may be used in traditional native medicine.	Desktop delineation of vegetation communities (aerial image interpretation; Forest Resource Inventory mapping). Supports assessment of effects on plants and basis for wildlife habitat assessment. Identification of wetlands and SAR plants as preliminary constraints. Focused assessment, including confirmation of significant species, within construction footprints. Traditional knowledge and cultural value of wild plant species and their habitats. Aerial and ground-based confirmation of valued vegetation communities (e.g., large stands of white pine, wetlands).	Field observations and confirmation of SAR, etc. (spring, summer, fall) Traditional (summer, fall 2011) Focused vegetation assessments may be required at design and pre-construction phases to confirm SAR or significant plants or plant communities

3.0 ECOLOGICAL STUDY APPROACH

The ecological baseline study approach has been designed to determine site sensitivity to the Project through a broad landscape-scale analysis using known ecological data and life history information, supplemented by new data collected within the study area. Sensitive areas will be identified as preliminary constraints on the basis of such criteria as habitat features, vegetation community, wildlife distribution and migratory patterns. Areas of lower sensitivity will emerge as preliminary opportunities for Project footprint, including access roads, transmission lines and turbine sites. Fine tuning of the layout and configuration will involve focused wildlife habitat identification and avoidance, particularly for Species-at-Risk and plants and wildlife that have traditional cultural significance. These approaches allow for the parallel collection of seasonally dependent ecological information about the site, as well as allow for the design and development of the Wind Power Project within the FIT Program timelines. Consultation with the Responsible Authority is a key component of the work plan and will be initiated early in the process to facilitate and incorporate meaningful feedback.

3.1 PRELIMINARY INFORMATION ACQUISITION AND DESKTOP REVIEW

Initial tasks of the baseline ecological studies were focused on compiling, reviewing and manipulating aerial and satellite imagery and forest/ecological mapping available for the study area. Due to the isolation of the site and lack of established transportation routes within the study area, much of the data available for use in this study include studies that were initiated by HIFN to serve their needs and remote sensing information. Work plan components for preliminary information acquisition include:

- Identification of regional natural heritage features;
- Assessment of landscape component features;
- Forest Resource Inventory Mapping and Ecological Lands Mapping;
- Database query on all known records of birds, bats, and SAR from local band, other studies conducted in the vicinity of the project site, local agency, naturalist and Bird Studies Canada, and other expert records; and
- A literature review of relevant plant and wildlife species studies, conservation objectives and issues related to the pathways of effect identified for the Project.

Assessment of landscape components utilized the following satellite imagery sources:

- FRI aerial photo ortho-images;
- Geoeye-1 new satellite images (0.5 m pixel);
- IKONOS archived satellite images (1 m pixel);
- FRI classification mapping;
- FRI Colour Infrared images; and,
- FRI DEM.

The imagery listed above was used to identify and map discrete units of habitat and cover, and these are among the primary constraints to the wind farm layout. Raw satellite imagery (Figure 2) and Forest Resource Inventory (FRI) mapping (Figure 3) and its associated layers are used to obtain other information regarding the topography and terrain associated with the site and was used to classify data into Ecological Lands Classification (ELC) Units. The ELC is used to delineate areas of landscape for sensitivity analysis based on vegetation community types and habitat associations for wildlife species and communities.

At present, the focus of the ELC-based analysis is identification and delineation of wetland units throughout the study area. The ELC analysis has been based on satellite and air photo images, supplemented by ground-truth surveys by the project botanist through reconnaissance of the study area by fixed wing aircraft, boat and pedestrian surveys. This has provided a preliminary constraint layer for the study area, as there are numerous ecological, engineering and economic justifications for avoiding intrusion of Project elements into wetlands. Specifically, minimizing intrusion into and crossing of wetland areas is a key mitigation strategy to limit Project effects on sensitive plant communities, potential SAR plants, fish and fish habitat, key amphibian habitats including breeding, nursery and overwintering areas, key reptile habitats including overwintering sites of SAR turtles and snakes and important breeding and feeding habitat for many other wildlife species.

3.2 FIELD INVESTIGATIONS

Screening level information will be obtained for the identification of major constraint areas, such as hibernaculae of bats and reptiles, major flyway corridors, waterfowl congregation areas, major wetlands, and areas of high quality vegetation communities (unique habitats such as fens, bogs, seepage zones, sand barrens, alvars) which have the potential for rare plants; and forested areas with high affinity for breeding birds and other wildlife. Once the major constraint areas are identified, it is anticipated that the information can be used to plan project components away from these zones. As constraints and Project design are considered in an iterative fashion, focused confirmation of plant and wildlife habitat, species and community characteristics will be undertaken on a site-specific basis within the project study area to support avoidance, mitigation and restoration strategies.

Because of the timeline associated with this project, preliminary field work collection was recommended to ensure that seasonally dependent data is collected in a timely manner to allow for fine tuning of the wind turbine layout. Biological fieldwork commenced in late April 2011 through reconnaissance investigations of the site and field observations of spring migratory birds, breeding birds, and bats. Incidental observations for other species and habitat features were also collected at that time.

3.2.1 Avian Surveys

Avian surveys have been targeted for migratory and breeding birds, as detailed in the following sections. The sections are separated by breeding bird consideration and field approach, and the migratory birds and field approach.

3.2.1.1 Breeding Bird Survey Considerations

- **Waterfowl –** breeding waterfowl are not expected to be abundant, however could be present in wetlands or small lakes and ponds.
- **Raptors –** breeding raptors may be at increased risk of collision with turbines because they tend to fly high and traverse the area repeatedly on a daily basis.
- **Colonial Waterbirds –** nesting colonies of species such as Double-crested Cormorant, Great Blue Heron, Black-crowned Night-Heron, gulls and terns may be present in the study area, and if so could be a concern depending on their location relative to the Project.
- **Passerines –** although not expected to be at great risk of mortality from turbines, habitat of breeding passerines could be affected by the Project. At this point, field studies have focused on covering the study area well and covering representative habitats to obtain a landscape-level understanding of breeding bird community and distribution.

3.2.1.2 Field Study Approach to Breeding Birds

- **Waterfow**l – incidental observations were made by field staff while in the study area during the 2011 breeding bird season.
- **Raptors** – An aerial survey was flown on June 9th to search for large nests (herons, hawks and eagles). Territories for more secretive species may be detected during breeding bird point counts (see below) or incidentally.
- **Colonial Waterbirds** – Aerial survey conducted to discover nesting colonies of Great Blue Heron. Gull and tern colonies will be investigated by a coastal survey conducted by boat, as well as observations from the air.
- **Passerine**s – Point counts and incidental observations will be used as the effective means for developing a species list for the site. Point counts followed EC guidelines, and will be used for the purpose of contributing to existing knowledge of the use of the site by birds during the breeding season, and to facilitate comparisons with the post-construction breeding bird community. Surveys were undertaken twice during the breeding season. Points were placed in representative habitats and distributed across the landscape to capture any habitat gradient which may be present across the study area.

Monitored Species / Behaviour	Sampling Method	Timing and Frequency
Waterfowl	Incidental observations from ground and aerial surveys	Throughout breeding season
Raptors	Aerial survey for large stick nests (Bald Eagle, Osprey), incidental observations.	Breeding season
Colonial Waterbirds	Aerial survey for heron nests, boat-based surveys of outer islands for other species	Breeding season
Passerines	A series of point counts established across the study area	Each point surveyed twice between May 30 and July 7, at least 10 days apart

3.2.1.3 Migratory Bird Considerations

- **Waterfowl** – migrating waterfowl may use Henvey Inlet or inlets to the north or south as stopover areas and this potential needs to be verified by field observations. Of particular concern would be overland flights by migratory waterfowl between Henvey Inlet and inlets to the north or south.
- **Raptors** – migrating raptors typically follow shorelines of Great Lakes. Field investigations will need to determine the magnitude of raptor migration through the site and where it is concentrated.
- **Passerines (nocturnal migrants**) – the majority of passerines migrate at night, at altitudes from close to ground level to well over 1 km. They are at risk of collision with towers and with the turbines, with an increased risk by lighting on the towers. Field investigations will need to determine the magnitude and altitude of nocturnal migrants across the study area. Nocturnal passerine migration generally occurs along a broad front, and flight altitude is largely determined by weather, however local features such as ridges or valleys may concentrate the number of migrants exposed to risk. Fortunately, the study area is characterized by relatively low relief.
- **Passerines (stopover sites)** – migration is energetically demanding for passerines and they require stopover habitat to feed and rest before continuing with migration. Habitat destruction in stopover areas is thought to be a primary cause of decline in migratory birds. This may not be as much of a concern for this project since the habitat in the surrounding area is fairly intact and the Project footprint would disturb only a small percentage of available natural habitat within the study area. However, shorelines can concentrate migrants so field investigations need to determine whether some areas are particularly important stopover sites.

3.2.1.4 Proposed Field Study Approach to Migratory Birds

- **Waterfow**l – visual monitoring, including passive IR camera techniques, and aerial observation surveys using fixed wing aircraft will be used to determine the magnitude and extent of waterfowl migration. These techniques will be employed at the site during the Fall Migration period in 2011 and Spring Migration in 2012.
- **Raptors** – raptor observation posts have been established in three locations along the Inlet. Regular visual watches during spring and fall migration are a straightforward method to determine magnitude of use and species involved. Diurnally migrating passerines such as Blue Jays and blackbirds will also be observed by this method.
- **Passerines (nocturnal migrants)** – visual and passive IR surveys will be used to monitor the movement of passerines during the Fall Migration period in 2011 and Spring Migration in 2012. The survey will utilize a number of locations situated along an east-west transect, accessible by boat along Henvey Inlet.

- **Passerines (stopover sites)** – regular stopover counts will be undertaken along a series of transects which will be surveyed weekly during the migration period. All birds encountered will be recorded (species & number).

Monitored Species / Behaviour	Sampling Method	Timing and Frequency
Waterfowl	Fixed wing aerial surveys of the study area and the immediately surrounding region	3 aerial surveys of region spaced throughout the migration period
Raptors and Diurnal Migrants	Standardized watches from 3 sites along the inlet.	September & October; 3 to 4 days per week
Nocturnal Migrants	Thermal infrared camera will be used to observe nocturnal migrants. A number of acoustic monitoring units will be spaced along the inlet to record night migrating birds.	IR – 2 weeks in September Acoustic – September to October
Stopover sites (passerines)	A series of transects will be set up across the study area and surveyed weekly for migrants	Mid August to October; 2 to 3 times per week

3.2.2 Bat Surveys

A screening level survey will be implemented in 2011 to determine the level of use of the site by bats, to identify significant habitat, and important habitat features or high use areas in the project area. Acoustic monitors were deployed in June and July 2011. The results of the 2011 acoustic monitoring will be reviewed to determine if additional monitoring is warranted perhaps in a more focused assessment based on initial data analysis and emerging Project layout.

3.2.2.1 Acoustic Monitoring of Bats

GENIVAR and LGL have initiated preliminary acoustic monitoring in June and July 2011 to attempt to identify the relative levels of bat activity across the study area during the late spring and early summer. These surveys are not focused on any anticipated turbine layout, but were intended to achieve broad geographical coverage of the study area, utilizing the established breeding bird routes for logistical efficiency. This preliminary data will contribute to a landscape-level understanding of bat distribution throughout the study area. The work plan includes:

- Deployment of 10 automatic acoustic monitors (Wildlife Acoustics SM2BAT units) at sites throughout the study area;
- Deployment and retrieval along or adjacent to existing breeding bird study routes for logistical efficiency;
- Shifting monitors to a number of locations to increase coverage; and,
- Incidental observations of bats during field surveys.

3.2.2.2 Bat Migration Monitoring

Bat migration will be investigated concurrently with bird migration with the use of visual observations augmented by the use of passive IR camera. The fall migratory study period from August to October is intended to capture peak bat activity in August.

3.2.3 Wildlife Habitat, Fish Habitat, and Species-at-Risk

Unlike other wind farm projects where the majority of wind turbine components will be situated in remnant agricultural lands, the Nigig Power Wind Farm Project will be situated in relatively undisturbed lands. Accordingly, it can be assumed that the ultimate wind farm location will be within an area already occupied by native flora and fauna, including several SAR. Blanding's Turtle, Five-lined Skink, Fox Snake, Hognose Snake and Massasauga Rattlesnake have been confirmed in the study area. At least one SAR plant species may occur within wetlands in the study area, although it cannot be confirmed until August or September.

Early indications are that wildlife SAR may be broadly distributed throughout the study area, occupying specific suitable habitats within the mosaic of upland and wetland that characterizes the local terrain. Baseline ecological investigations may benefit from incidental and focused confirmation of species presence; however detailed identification of specific habitats and occurrences is likely to be focused during an iterative detailed design and "tweaking" of the Project layout. This approach is proposed to address fish habitat and wildlife habitat for plants, amphibians, reptiles, birds and mammals, as detailed avoidance and mitigation strategies are developed using known species-specific life history and habitat associations. Avoidance of critical habitats to the extent possible will be a key strategy, in combination with identification and use of timing windows to avoid harm to sensitive seasonal life stages (e.g., nests) or during vulnerable periods (e.g., hibernation, gestation). Where sensitive habitats may be disturbed, focused mitigation may include relocation of individual specimens and associated habitat elements such as cover items (e.g., rocks and logs) outside of the work area. Mitigation/avoidance strategies throughout the Project phases will shift from early identification of broad preliminary constraints at a landscape level to the site-by-site implementation of mitigation plans during design, assessment and construction of access roads, watercourse crossings, turbines and transmission infrastructure. It is anticipated that ongoing consultation with CWS will occur throughout the project in relation to these species.

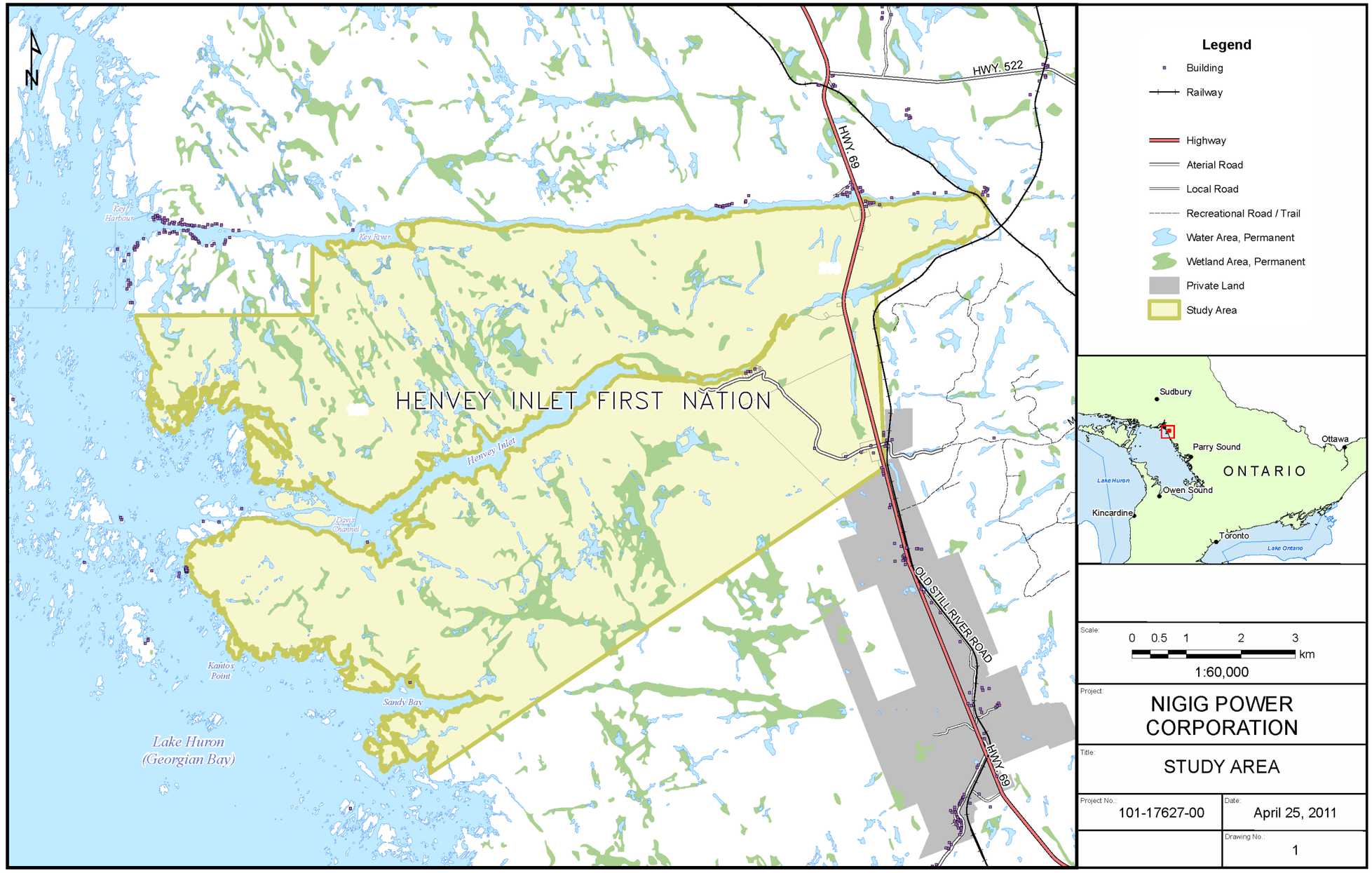
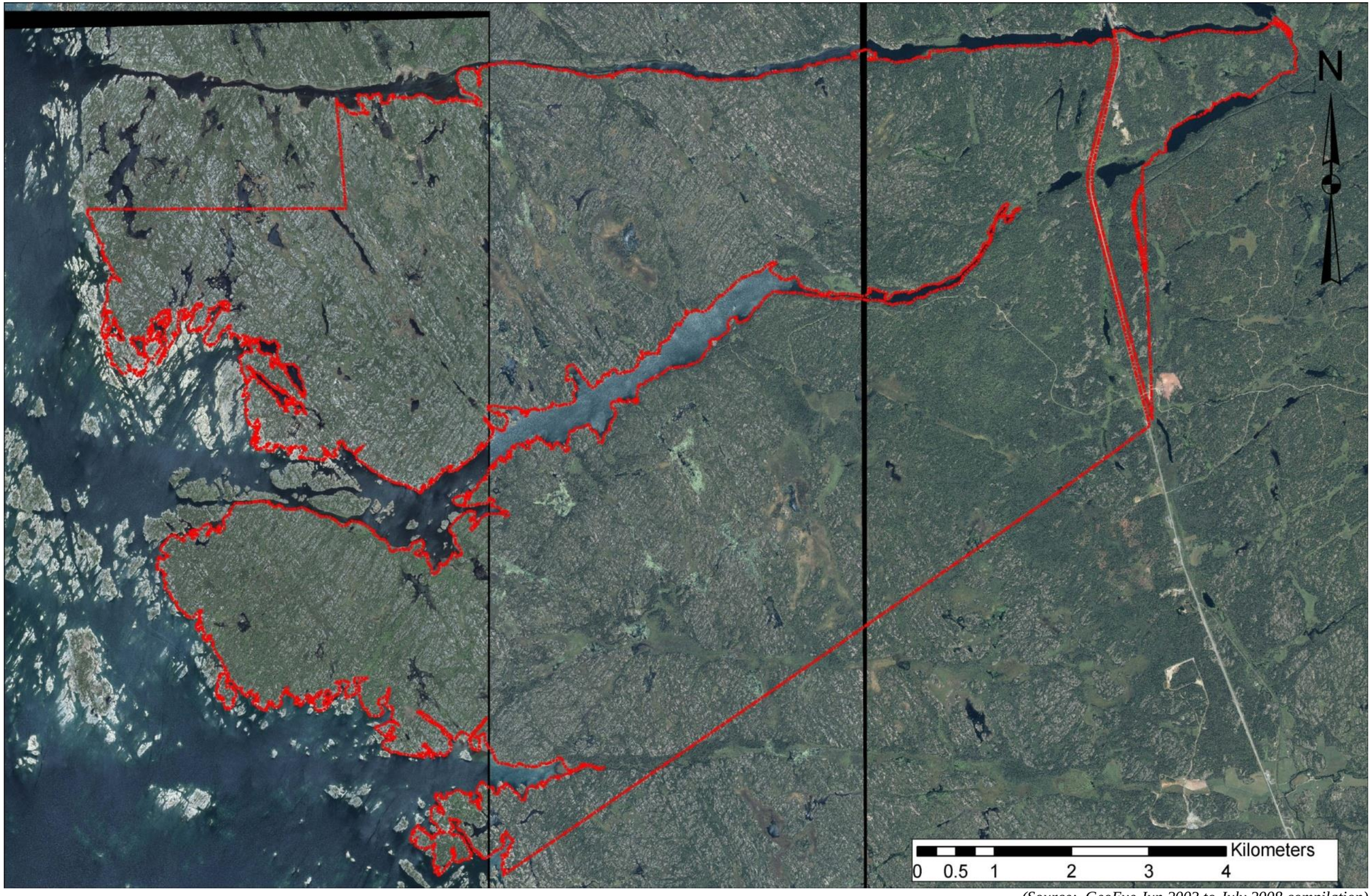
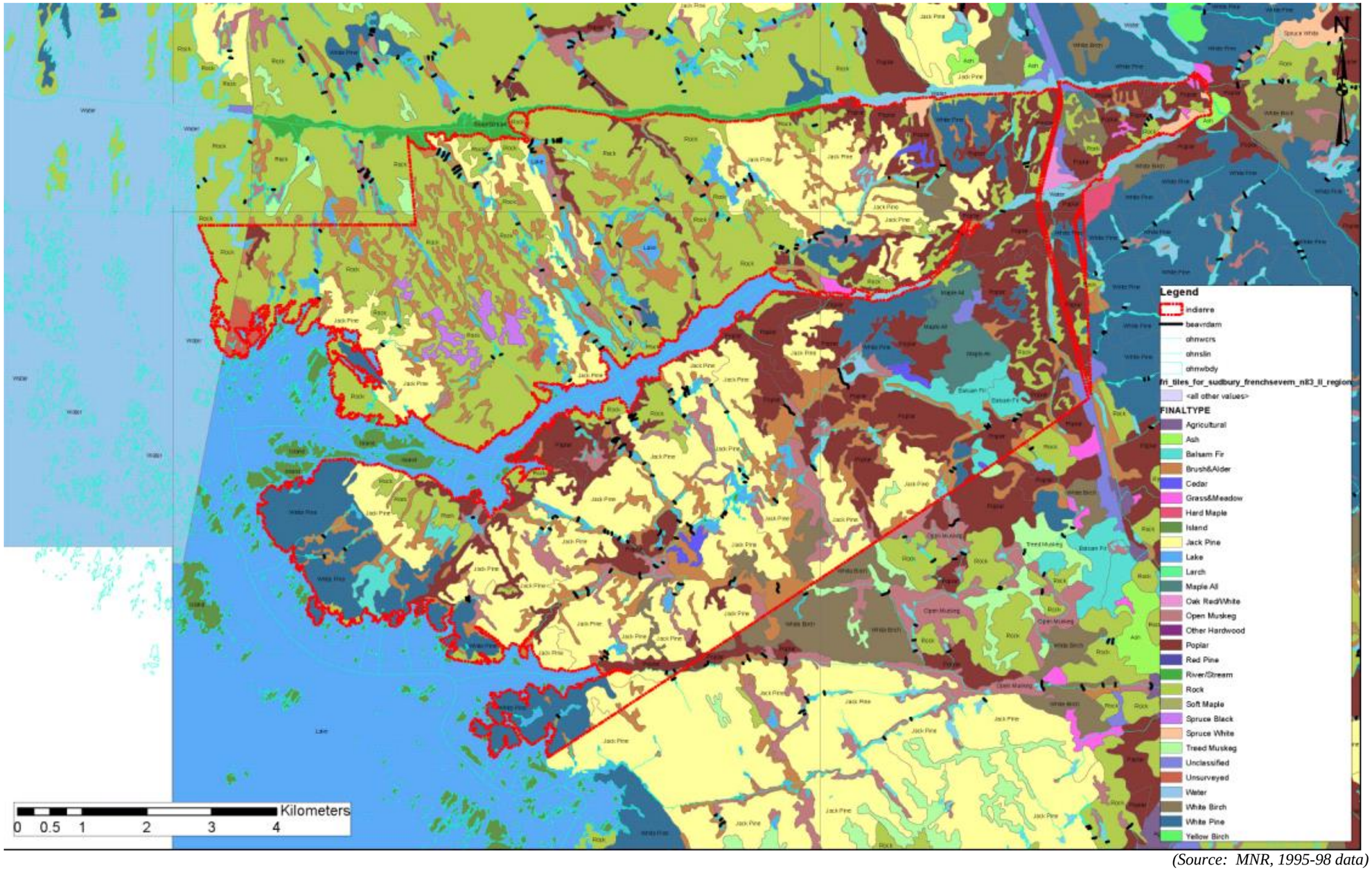


Figure 1 Location of Nigig Power Wind Farm Project Study Area



(Source: GeoEye Jun 2003 to July 2008 compilation)

Figure 2 Satellite Imagery of the Nigig Power Wind Farm Project Area (Project Study Area shown in red)



(Source: MNR, 1995-98 data)

Figure 3 Forest Resource Inventory of the Nigig Power Wind Farm Project Area (Project Study Area shown in red)

2013 TERRESTRIAL SURVEY
WORK PROGRAM

File No. 160960770
March 2013

Prepared for:

Nigig Power Corp.
Henvey Inlet Wind Project

Prepared by:

Stantec Consulting Ltd.
1 – 70 Southgate Drive
Guelph ON N1G 4P5

Table of Contents

1.0 TERRESTRIAL FIELD PROGRAM 1.1

2.0 FIELD PROGRAM OVERVIEW 2.1
2.1 ECOSITE CLASSIFICATION AND WETLANDS 2.1
2.2 WILDLIFE HABITAT 2.2
2.3 ENDANGERED, THREATENED AND SPECIAL CONCERN SPECIES 2.2

3.0 PROPOSED FIELD WORK PROGRAM 3.1
3.1 GENERAL RECONNAISSANCE 3.1
3.2 SPRING MIGRATORY BIRD SURVEYS 3.1
3.3 BREEDING BIRD SURVEYS 3.2
3.4 AMPHIBIAN AND REPTILE SURVEYS 3.4
3.5 REPTILE HABITAT AND TARGETED SURVEYS 3.4
3.6 BAT SURVEYS 3.6
3.7 ECOSITE, WETLAND AND VEGETATION SURVEYS 3.6
3.8 FALL MIGRATORY BIRD SURVEYS 3.7
3.9 INCIDENTAL OBSERVATIONS 3.8

4.0 REFERENCES AND INFORMATION SOURCES 4.1

List of Tables

Table 1: Endangered, threatened and special concern terrestrial wildlife species potentially present within the Study Area 2.2
Table 2: General Habitat Description and Use by Reptile Species at Risk 3.5
Table 3: Rare Plant Species and Flowering Period 3.7
Table 4: Summary of Natural Environment Field Program 3.9

List of Figures

Appendix A

Figure 1: Study Area for the proposed Nigig Power Corp. Henvey Inlet Wind Project and Transmission Corridor

1.0 Terrestrial Field Program

Stantec Consulting Ltd. ("Stantec") is providing this work plan to Environment Canada for the terrestrial field investigations for the 300 MW, Feed-In Tariff ("FIT") Contracted, Henvey Inlet Wind Project (the "Project"). The key Project elements include:

i) *On-Reserve Facilities:* up to 120 wind turbines, a transformer station, operations and maintenance building, access roads, collector lines, and ancillary facilities on Henvey Inlet First Nation Lands (Reserve No. 2); and

ii) *Off-Reserve Facilities:* approximately 90 km of 230 kV, double circuit overhead transmission line from Reserve No. 2 to the Town of Parry Sound, Ontario where the project will interconnect with the provincial electricity grid at Hydro One Networks Inc.'s ("Hydro One") existing Parry Sound Transformer Station. The transmission line, as presently proposed, would be located within the current and future rights-of-way held by the Ontario Ministry of Transportation for King's Highway 69/400.

Save the Project's transmission line and interconnection works at the Parry Sound Transformer Station, all Project infrastructure will be located on Henvey Inlet First Nation Reserve Lands (Reserve No. 2). Preliminary siting of the wind turbines, collector lines, operations and maintenance building, transformer station, and access roads are in progress and are taking into account important cultural and environmental features as they are identified through field surveys, traditional ecological knowledge studies, and engagement efforts with the Henvey Inlet First Nation community.

For the transmission line, as proposed to be located within the current and future rights-of-way held by the Ontario Ministry of Transportation for King's Highway 69/400, the natural heritage field investigations for the majority of the transmission corridor fall under the requirements of Ontario Regulation 116/01 of Ontario's *Environmental Assessment Act* and will therefore be subject to review and approval by the Ministry of the Environment. However, portions of the highway corridor traverses roughly 35 ha of the Magnetewan First Nation Reserve (No. 1) and about 11 ha of the Shawanaga First Nation Reserve (No. 17), lands which are under federal jurisdiction.

Throughout this document, the wind project component on the Reserve Lands will be referred to as the Project Location and the transmission line corridor will be referred to as the Transmission Line. Collectively, these areas will be referred to as the Study Area for the purpose of the terrestrial survey work program.

The Project Location and Transmission Line alignment are shown on **Figure 1**.The purpose of the natural environment field program is to collect data relevant to vegetation communities (ecosites), wetlands, wildlife habitat, and Species at Risk. The objective of this work plan is to seek Environment Canada's agreement with the study methodologies and protocols set out herein for terrestrial investigations of the Project during the late winter, spring, summer and fall of 2013.

2.0 Field Program Overview

The Project Location is within the Henvey Inlet First Nation Reserve along the eastern shore of Georgian Bay, south of French River Provincial Park and directly north of North Georgian Bay Shoreline and Islands Conservation Reserve. Generally, the Project Location has shallow soils, with many rocky outcrops forming longitudinal ridges running on a northwest to southeast axis, and is divided roughly in half by Henvey Inlet. Numerous wetland pockets are located between the ridges and across the Project Location, with upland areas supporting forested areas of poplar and jack pine.

The characteristics of terrestrial habitat and areas of potential significance or sensitivity will first be identified as part of the early-on consultation with Henvey Inlet First Nations and relevant agencies, as well as a review of the available natural heritage information. Information gained through the consultation process and desktop review will be supplemented by general aerial and ground-level (by foot or boat) surveys of the Study Area to fine-tune the field program and assist in siting monitoring stations. Wildlife and vegetation surveys will begin in March, when raptors begin their spring migration and will continue into November, when the final fall migratory waterfowl are expected to move through the Study Area.

2.1 ECOSITE CLASSIFICATION AND WETLANDS

Ecosite classification forms the backbone of wildlife habitat assessment. For the Project, the Ecosites of Ontario classification system (Banton *et al.*, 2009) will be used as it includes forest and non-forest communities as well as wetlands.

A wetland is land that is saturated with water long enough to promote wetland or aquatic processes as indicated by poorly drained soils, hydrophytic vegetation and various kinds of biological activity which are adapted to a wet environment (The Federal Policy on Wetland Conservation (“FPWC”), Environment Canada, 1991). The protection and conservation of wetlands on federal lands is mandated by the FPWC. Mitigation of adverse environmental effects on wetlands is guided by the FPCW goal of achieving ‘no net loss of wetland functions’. The no net loss principal can be achieved by using a hierarchical sequence of mitigation alternatives: avoidance, minimization, and compensation. Wetlands on federal lands can be described using The Canadian Wetland Classification System (National Wetlands Working Group, Second Edition, 1997).

Provincially, the Ontario Wetland Evaluation System (Ministry of Natural Resources, 2002), is used to map and score wetlands based on biological productivity and diversity, human use, hydrologic functions, and unique characteristics such as geographical rarity. It is anticipated that no wetlands have been evaluated using the OWES on the Henvey Inlet First Nation Reserve Lands.

2.2 WILDLIFE HABITAT

Wildlife habitat is defined as an area where plants, animals and other organisms live, including areas where species concentrate at a vulnerable point in their life cycle and that are important to migratory and non-migratory species. The work program has been designed to capture those wildlife species and their habitats which may occur in the Study Area and may be influenced by the Project.

2.3 ENDANGERED, THREATENED AND SPECIAL CONCERN SPECIES

A desktop review of the MNR Natural Heritage Information Centre (NHIC) database, as well as provincial atlases for breeding birds, mammals, reptiles and amphibians, was conducted to identify species of conservation concern in the vicinity of the Study Area. Twenty-seven terrestrial species listed as endangered, threatened or special concern at the provincial and federal level have the potential to occur within the Study Area (**Table 1**). Several of these species were recorded within the Project Location during previous terrestrial field investigations by LGL Limited. Site investigations in the proposed 2013 terrestrial work program will assess the presence and identify preferred habitat of these species.

Table 1: Endangered, threatened and special concern terrestrial wildlife species potentially present within the Study Area

Type	Common Name	Scientific Name	S - Rank	COSSARO	COSEWIC
Reptile	Stinkpot / Eastern Musk Turtle	*Sternotherus odoratus*	S3	THR	THR
Reptile	Blanding's Turtle	*Emydoidea blandingii*	S3	THR	THR
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Reptile	Snapping Turtle	*Chelydra serpentina*	S3	SC	SC
Reptile	Northern Map Turtle	*Graptemys geographica*	S3	SC	SC
Reptile	Eastern Hog-nosed Snake	*Heterodon platirhinos*	S3	THR	THR
Reptile	Eastern Foxsnake (Georgian Bay)	*Pantherophis gloydi*	S3	THR	END
Reptile	Eastern Massasauga (Great Lakes/ St Lawrence)	*Sistrurus catenatus catenatus*	S3	THR	THR
Reptile	Eastern Ribbonsnake	*Thamnophis sauritus*	S3	SC	SC
Reptile	Milksnake	*Lampropeltis triangulum*	S3	SC	SC
Reptile	Five-lined Skink (Southern Shield population)	*Plestiodon fasciatus*	S3	SC	SC
Bird	Least Bittern	*Ixobrychus exilis*	S4B	THR	THR
Bird	Eastern Whip-poor-will	*Antrostomus vociferus*	S4B	THR	THR
Bird	Chimney Swift	*Chaetura pelagica*	S4B, S4N	THR	THR
Bird	Barn Swallow	*Hirundo rustica*	S4B	THR	THR (NS)
Bird	Bobolink	*Dolichonyx oryzivorus*	S4B	THR	THR (NS)
Bird	Eastern Meadowlark	*Sturnella magna*	S4B	THR	THR (NS)
Bird	Bald Eagle	*Haliaeetus leucocephalus*	S4B,S2N	SC	SC
Bird	Common Nighthawk	*Chordeiles minor*	S4B	SC	THR
Bird	Olive-sided Flycatcher	*Contopus borealis*	S4B	SC	THR
Bird	Eastern Wood-Pewee	*Contopus virens*	S4B	-	SC (NS)
Bird	Wood Thrush	*Hylocichla mustelina*	S4B	-	THR (NS)

Table 1: Endangered, threatened and special concern terrestrial wildlife species potentially present within the Study Area

Type	Common Name	Scientific Name	S - Rank	COSSARO	COSEWIC
Bird	Golden-winged Warbler	*Vermivora chrysoptera*	S4B	SC	THR
Bird	Canada Warbler	*Wilsonia canadensis*	S4B	SC	THR
Mammal	Little Brown Myotis	*Myotis lucifugus*	S5	END	END (NS)
Mammal	Northern Myotis	*Myotis septentrionalis*	S3?	END	END (NS)
Mammal	Tri-coloured Bat	*Perimyotis subflavus*	S3?	-	END (NS)

COSSARO: Committee on the Status of Species at Risk in Ontario
COSEWIC: Committee on the Status of Endangered Species in Canada
S2 – Imperiled in the nation or state/province because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or state/province.
S3: Vulnerable—Vulnerable in the province, relatively few populations (often 80 or fewer)
S4: Apparently Secure—Uncommon but not rare
S5: Secure—Common, widespread, and abundant in the province
S#B: Breeding status rank
S#N – Non-breeding status rank
S? – Rank Uncertain
NAR: Not At Risk
END: Endangered
THR: Threatened
SC: Special Concern
N/A: not applicable
NS: Not on Species at Risk Act Schedule

3.0 Proposed Field Work Program

Due to the known presence of Species at Risk, the project is considered to have "Very High" site sensitivity and would be ranked as "Category 4" by Environment Canada's "Wind Turbines and Birds: A Guidance Document for Environmental Assessment" (2007a). Projects in this category usually require comprehensive baseline surveys; a requirement that has been considered in the development of this work program.

The survey protocols are consistent with Environment Canada's "Recommended Protocols for Monitoring Impacts on Wind Turbines on Birds" (Environment Canada, 2007b) and on Environment Canada's comments on LGL Limited's 2011 workplan for the Project. Recommended protocols for species at risk are based on Stantec's technical expertise and on experience with the Ministry of Natural Resources species-specific surveys requirements.

Detailed protocols of each survey type are outlined below. The suite of surveys proposed along the Transmission Line differs slightly than those within the Project Location, due to differences in potential environmental effects. For example, migratory bird surveys are not proposed along the Transmission Line. **Table 4** provides a summary of all proposed surveys, including a breakdown of which surveys are to be conducted within the Project Location and those to be conducted along the Transmission Line.

3.1 GENERAL RECONNAISSANCE (EARLY APRIL)

Given the limited access in and around the Project Location and the relatively rugged topography and abundance of wetlands in the Study Area, multi-purpose broad-scale surveys will be completed to obtain an overall understanding of the landscape, and to put the detailed field study locations in context.

An aerial survey by helicopter will be conducted in early April to observe the landscape without leaf cover and at a time of pronounced hydrological activity (i.e. spring melt). Leaf-off conditions will also allow a search for habitat features such as stick nests and wetland types. A reconnaissance survey of the Project Location by boat and foot will be undertaken in early April, guided by local members of the Henvey Inlet First Nations. The purpose of the reconnaissance survey will be to gain a better understanding of site access and points of interest, including locations of rare species, based in local knowledge.

3.2 SPRING MIGRATORY BIRD SURVEYS

3.2.1 Spring raptor migration (Ten surveys, early March to end of April):

Monitoring will consist of ten surveys throughout the spring migration period (March to end of April) to record presence of diurnal migrant raptors. Surveys will be comprised of six-hour point counts starting at 9:00 am, conducted by two observers stationed at two appropriate vantage

points within the Project Location. When site access allows, surveys stations will be situated in the east and west portions of the Project Location. However, during times of year when site access is limited (i.e. late winter, early spring) alternative locations may be used with efforts to maximize spatial coverage.

All raptors observed during the surveys will be recorded and mapped. Behaviour of the raptors will be noted with emphasis on flight height and determining which individuals were actively migrating as opposed to staging (e.g. hunting, perching, etc.). For actively migrating raptors, flight paths will be mapped.

3.2.2 Spring passerine migration (Eight surveys, early April to late May):

Natural habitat located in close proximity to the Georgian Bay shoreline provides stopover habitat for migrating passerine birds. Eight weekly surveys are proposed in April and May. Monitoring will consist of ten, 500m long transects distributed throughout the Project Location. Transects will be placed in different habitat types (i.e. woodland, rock barren and wetland). Given the variable nature of vegetation communities within the Project Location, it is likely most 500m transects will include more than one habitat type. A description of the habitat along each of the 10 transects will be recorded.

Surveys will be conducted in the morning, between dawn and approximately 10:00 am. A tally of all species observed will be recorded on each transect. These surveys will include characterizing the abundance and diversity of passerines within the Project Location.

3.2.3 Spring waterfowl migration (Four surveys, April to late May):

Spring monitoring for migrating waterfowl will be focused along Henvey Inlet and will consist of four bi-weekly surveys undertaken by boat in April and May. Surveys will include waterfowl counts to record species and number of individuals observed along the inlet, as well as characteristics of the wetlands to support migrating waterfowl (e.g. size, vegetation, permanence, etc.).

The use of scattered wetlands and ponds throughout the Project Location by staging waterfowl will be assessed through the spring passerine surveys.

3.3 BREEDING BIRD SURVEYS

3.3.1 Daytime breeding birds (Two surveys, late May to early July):

Two rounds of breeding bird surveys will be conducted in each major habitat type with the Study Area (woodland, rock barren and wetland). Surveys will consist of ten-minute point counts, in conjunction with area searches (wandering transects) between point count locations. The area searches will allow for collection a comprehensive species list, whereas point counts will provide information on species density.

Surveys would take place starting 30 minutes before sunrise and continue until approximately 10:00 am. As per Environment Canada guidance, a minimum of 20 point counts will be sited in each major habitat type. However, given the variability of habitat types that occur within the Study Area, it is anticipated that many point counts may cover more than one habitat type.

In marsh habitat, play-back call surveys for marsh breeding birds will be conducted following the ten-minute point count, to assist in detection or more secretive marsh bird species, specifically, the threatened Least Bittern.

Location of all species at risk observations will be geo-referenced using a hand-held GPS unit, mapped and compared to ecosite classification to develop habitat mapping for each species.

3.3.2 Crepuscular breeding birds (Two surveys, May and June):

Eastern Whip-poor-will surveys will be conducted in suitable open habitat within forested areas. Surveys will be conducted in May and June and will consist of six-minute point counts at stations spaced within the Project Location and Transmission Line corridor. Due to the remote location of much of the Study Area, survey locations may be selected with consideration to access and surveyor safety.

Surveys will begin approximately 30 minutes after sunset within appropriate weather conditions (not in high winds, persistent rain or an overcast sky) and will, if possible, coincide with the full moon. All individuals heard will be recorded, with an estimated direction and distance from the observer.

3.3.3 Owls (One survey, April):

Given the difficulty in detecting owl species, the use of playback calls to elect a response will be used. A single survey in April is proposed, and will include various stations throughout the Project Location. Due to the remote location of much of the Study Area, survey locations may be selected based on facility of access and surveyor safety.

Surveys will begin approximately 30 minutes after dark and will consist of 10 minute point counts incorporating playback and periods of silent listening. All individual heard will be recorded, with an estimated direction and distance from the observer.

3.3.4 Raptor and colonial nesting birds (Two surveys, April and June):

Searches for large stick nests or “nest bowls” in trees, typically exhibiting a DBH (diameter at breast height) of >50 cm, will be conducted during the aerial reconnaissance prior to leaf-out. Searches will target trees along watercourses, with special attention afforded to large white pines, and swamps along large bodies of water, as well as other appropriate habitat within the Study Area. If present, nests will be surveyed for activity concurrent with breeding bird point counts and area searches in June.

3.4 AMPHIBIAN AND REPTILE SURVEYS

3.4.1 Western Chorus Frog and Salamanders (April):

Western Chorus Frog surveys will consist of 3-minute call counts at potential breeding habitat conducted in April, during appropriate weather conditions. This species breeds in small or shallow aquatic habitats associated with moist, open terrestrial habitat (COSEWIC, 2008c). Males call from the water and are typically active when air temperatures are above 5°C, although calls have been detected at air temperatures as low as -1°C (COSEWIC, 2008c).

Unlike many anurans, Western Chorus Frogs are generally very active throughout the day. As such, daytime survey will be used to cover larger portions of the Study Area than evening call surveys would permit.

Surveys for amphibian egg masses will take place concurrent with calling surveys. These will consist of perimeter surveys of suitable breeding ponds by trained field personnel. Egg masses of different species are often characteristic based on features such as where they are laid, how many eggs are in the mass, density of the egg mass, and whether or not the eggs are encased in jelly.

3.5 REPTILE HABITAT AND TARGETED SURVEYS (MAY AND JUNE):

Reptile habitat and targeted species surveys will take place in three stages.

Preliminary surveys for reptiles will also take place throughout the migratory and breeding bird survey periods. Field biologists familiar with reptile species identification will be conducting area searches and wandering transect surveys in a variety of areas providing habitat for reptiles at both the Project Location, weekly from early April until early July, and along the Transmission Line, weekly from late May until early July. Any incidental observations of turtles, snakes or lizards, including shed skins or shells, will be recorded on survey forms and used to refine the field survey program proposed for June.

Potential snake or turtle habitat within the Study Area will also be identified during Ecosite surveys, beginning in May. The habitat assessment will involve identification of potential reptile habitat features, including:

- Turtle overwintering habitat and snake/skink hibernacula;
- Nesting sites; and,
- Foraging habitats.

Targeted field surveys for reptile species at risk will occur in June. Timing of these surveys will coincide with a period of high activity for reptiles (nesting and foraging), but also when air temperatures encourage basking behavior. Surveys for snake species at risk and Five-lined Skink will consist of wandering transects through all appropriate habitat types (**Table 2**).

Additional survey effort will be directed toward areas with previous observations of these species which may indicate high quality or limited habitat. To the extent possible, surveys will be conducted on sunny days when air temperatures are a minimum of 15°C (ideally 20°C). Surveys for turtles will consist of daytime basking surveys from land or boat in suitable wetland and open water habitat (**Table 2**), and evening nesting surveys in potential upland nesting sites identified during Ecosite surveys. Basking surveys will be conducted on sunny days when air temperatures are a minimum of 15°C (ideally 20°C). Nesting surveys will take place on warm evenings (daytime air temperature >20°C), ideally before or after rainfall. All surveys will record species, number, location and behaviour of observed reptiles.

The purpose of the targeted surveys is to confirm habitat used by the various reptile species at risk within the Study Area and provide information on general abundance and distribution. Survey results will be used to produce detailed mapping of reptile habitat features which will be used to guide the siting layout process and maximize avoidance of sensitive features.

Table 2: General Habitat Description and Use by Reptile Species at Risk

Common Name	General Habitat and Use*
Turtles	
[redacted]	[redacted]
Blanding's Turtle	Lakes, ponds and wetlands with clear shallow water and muck bottoms. Will move between habitats within active season; aerial basking; nesting in late May to early July, in open sandy soil up to 2.5km from primary wetland, but typically within 400m of water; overwinter in marsh, bog or fen with >0.5m water depth.
Stinkpot	Shallow water in rivers, lakes and ponds with slow current and soft bottom; aquatic basking, often under floating vegetation; nesting in June, in shallow soil near water, occasionally in or under leaf litter; overwinter in primary habitat with muck bottom.
Northern Map Turtle	Large rivers and lakes with soft bottom; aerial basking; nesting June and July in sandy soil; overwinter in general habitat in areas with >5m water depth.
Snapping Turtle	All aquatic habitats, but rarely in moving water, prefer large water bodies associated with marsh and/or swamp; aquatic basking
Snakes and Lizard	
Eastern Hog-nosed Snake	Open forest and forest edges with sandy soil in proximity to water; egg-laying in late June and July in nests excavated in sandy soil, often under cover objects; hibernation in mammal burrows.
Eastern Foxsnake	Georgian Bay populations inhabit rock barrens with sparse trees and shrubs in close proximity to shoreline; basking under or near rocks or in rock crevices; egg-laying late June to July in rock crevices or decaying vegetation; communal hibernation in rock crevices near shoreline.
Eastern Massasauga	Georgian Bay populations use rock barrens, wetlands and shorelines; viviparous, bearing young in late summer; communal gestation under rock cover; hibernation in rock crevices or animal burrows where water level is close to surface.
Eastern Ribbonsnake	Wetland edges with low vegetation and open basking areas; often seen swimming; viviparous, bearing young in late summer; hibernation in rock crevices and mammal burrows.

Table 2: General Habitat Description and Use by Reptile Species at Risk

Common Name	General Habitat and Use*
Milksnake	Forest edges and open meadow; bask under cover objects; egg-laying May to July in loose soil, decomposing wood or vegetation; hibernation in rock crevices and mammal burrows, often communally and with other species.
Five-lined Skink	Open forest and rock barren; abundance of cover objects (rocks and woody debris) is important, longer/larger cover is preferred; nesting in shallow soil under cover objects.

* Habitat description and use data obtained from COSEWIC assessment and status reports.

3.6 BAT SURVEYS (TWO SURVEYS, JUNE):

Bat surveys will be conducted in conjunction with Whip-poor-will surveys. A portable, hand-held broad band acoustic monitor will be used to detect bat calls. Recorded bat calls will be analysed to guild or species, where possible, following completion of the field program. The goal of the bat surveys will be to determine the presence and relative abundance of bat species at risk.

3.7 ECOSITE, WETLAND AND VEGETATION SURVEYS

3.7.1 Ecosite Classification, including Wetlands (May to July):

Vegetation communities within the Study Area will be delineated on aerial photographs and confirmed during field investigations. Community characterizations will be based on the Ecosites of Ontario system (Banton et al., 2009) and will be identified to the Vegetation Type unit level.

The Ecosites of Ontario classification system includes wetlands. Searches for wetlands not previously identified within the Study Area will be conducted as part of the Ecosite surveys. If encountered, previously unidentified wetlands will be recorded through field notes, photographs and geo-referenced using handheld GPS units.

3.7.2 Rare flora (May to July):

Searches for rare plants and habitat supporting these plants will be conducted concurrent with Ecosite surveys, where possible, but may also require spring assessments for ephemeral species or mid-summer assessments for species where identification is dependent on the flowering period of the species. If encountered, rare plants or habitat will be recorded through field notes, photographs and geo-referenced using handheld GPS units.

A review of the MNR Natural Heritage Information Centre (NHIC) database (NHIC, 2012) indicates that two provincially rare vegetation communities are known to occur within the Study Area:

- Atlantic Coastal Plain Shallow Marsh Type; and,
- Buttonbush Organic Thicket Swamp Type

The following rare plant species (**Table 3**) may also be encountered in the Study Area:

Table 3: Rare Plant Species and Flowering Period

Common Name	Scientific Name	Flowering Period
Flowering Plants		
St. Lawrence Grape Fern	*Botrychium rugulosum*	Mid-Spring
Thread-like Naiad	*Najas gracillima*	Summer to Fall, seeds important to ID so survey at end of period
Large Round-leaved Orchid	*Plantathera macrophylla*	June to August
Snailseed Pondweed	*Potamogeton bicupulatus*	Early Summer to Fall, seeds important to ID so survey at end of period
Alga Pondweed	*Potamogeton confervoides*	Summer, seeds important to ID so survey at end of period
Twin-stemmed Bladderwort	*Utricularia geminiscapa*	July to August
Liverworts		
Liverwort sp.		Unknown, best period for general identification is June-August

3.8 FALL MIGRATORY BIRD SURVEYS

3.8.1 Fall passerine migration (Eight surveys, end of August to mid October)

Natural habitat located in close proximity to shorelines provides stopover habitat for migrating birds. Eight weekly surveys are proposed between the end of August and mid October. Monitoring will consist of ten, 500 m long transects distributed throughout the Project Location. The same transects will be used as in the Spring Passerine Migration surveys.

Survey will be conducted in the morning, between dawn and approximately 10:00 am. A tally of all species observed will be recorded on each transect. These surveys will include characterizing the abundance and diversity of passerines within the Project Location.

3.8.2 Fall waterfowl migration (Six surveys, September to October):

Fall monitoring for migrating waterfowl will be focused along Henvey Inlet and will consist of four bi-weekly surveys undertaken by boat in September through October. Surveys will include waterfowl counts to record species and number of individuals observed along the inlet, as well as characteristics of the wetlands to support migrating waterfowl (e.g. size, vegetation, permanence, etc.).

The use of scattered wetlands and ponds throughout the Project Location by staging waterfowl will be assessed through the Fall Passerine surveys.

3.8.3 Fall raptor migration (Ten surveys, September to October):

Monitoring will consist of ten surveys throughout the fall migration period (September to October) to record presence of diurnal migrant raptors. Surveys will be comprised of six-hour point counts starting at 9:00 am, conducted by two observers stationed at two appropriate vantage points within the Project Location. When site access allows, surveys stations will be situated in the east and west portions of the Project Location.

All raptors observed during the survey will be recorded and mapped. Behaviour of the raptors will be noted with emphasis on flight height and determining which individuals were actively migrating as opposed to staging (e.g. hunting, perching, etc.). For actively migrating raptors, flight paths will be mapped.

3.9 INCIDENTAL OBSERVATIONS

In addition to targeted wildlife surveys described above, all incidental observations of terrestrial wildlife or other significant sightings made during surveys throughout the 2013 field season will be recorded. Notes will be taken on the species, number of individuals, locations and behavior. Observations made early in the field season may be used to refine the remainder of the field program.

STANTEC CONSULTING LTD.

Melissa Cameron, MSc, MLA
Ecologist / Landscape Architect

Andrew Taylor
Terrestrial Ecologist

Table 4: Summary of Natural Environment Field Program

Study	Mode	Frequency	Timing	Study Area
General Reconnaissance				
Aerial survey	Helicopter	Once	early April, prior to leaf-out	PL
Ground survey	Foot / boat survey with Henvey Inlet First Nations	Once	early April	PL
Bird Surveys				
Spring Migration				
Passerines	Ten, 500m long transects	Once per week, each transect (8 surveys)	Early April to late May	PL
Waterfowl Stopover and Staging	Henvey Inlet	Once every other week (4 surveys)	April to Late May	PL
Raptors	2 stations	Ten surveys	Early March to end April	PL
Breeding Birds				
Point Counts	Minimum of 20 stations in each major habitat type	Two rounds of surveys	Late May to early July	PL, TL
Area Searches	Wandering transect between point count stations	Two rounds of surveys	Late May to early July	PL, TL
Play-back call surveys	Stations in suitable habitat	Owls – once Marsh Birds – Two rounds of surveys	Owls – April Marsh Birds – May to July	PL, TL
Crepuscular surveys	In suitable Whip-poor-will habitat	Two round of surveys	May - June	PL, TL
Raptor and Colonial Bird Nests	Visual survey for raptor and colonial nesting bird nests	Twice – once to locate, once to confirm use	Concurrent with aerial reconnaissance, then with point counts to confirm use	PL, TL
Fall Migration				
Passerines	Ten, 500m long transects	Once per week, each transect (8 surveys)	End August to mid-October	PL
Waterfowl Stopover and Staging	Henvey Inlet only	Once every other week (4 surveys)	September to October	PL
Raptors	2 stations	Ten surveys	September to October	PL

Table 4: Summary of Natural Environment Field Program

Study	Mode	Frequency	Timing	Study Area
Bat Surveys				
Ultrasonic Recording Units	Handheld units	Twice	June, in conjunction with crepuscular surveys	PL, TL
Reptile Surveys				
General Habitat Survey	Habitat Assessment	Once	Concurrent with Ecosite and vegetation surveys	PL, TL
SAR Surveys	Targeted surveys for turtle, snake and lizard species at risk	Once	June	PL, TL
Amphibian Surveys				
Western Chorus Frog Call Counts	Daytime call surveys, including audio recordings	Once	April	PL, TL
Salamander Egg Mass	Daytime surveys in wetlands	Once	April, concurrent with frog call counts	PL, TL
FEC / Botanical Surveys				
Ecosite classification, including wetlands	Ground surveys	Once	May to July	PL, TL
Rare Plants – Spring Ephemerals	Ground surveys	Once	May and June	PL, TL
Rare Plants – Summer Botanical	Ground surveys	Once	July	PL, TL

PL – Project Location.

TL – Transmission Line.

4.0 References and Information Sources

Banton, E., J. Johnson, H. Lee, G. Racey, P. Uhlig, and M. Wester. 2009. Ecosites of Ontario (Operational Draft). Ecological Land Classification Working Group; Ontario Ministry of Natural Resources.

[redacted]

COSEWIC 2005. COSEWIC assessment and update status report on the Blanding's Turtle *Emydoidea blandingii* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. viii + 40 pp. (www.sararegistry.gc.ca/status/status_e.cfm).

COSEWIC. 2007a. COSEWIC assessment and update status report on the Eastern Hog-nosed Snake *Heterodon platirhinos* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. viii + 36 pp. (www.sararegistry.gc.ca/status/status_e.cfm).

COSEWIC. 2007b. COSEWIC assessment and update status report on the Five-lined Skink *Eumeces fasciatus (*Carolinian population and Great Lakes/St. Lawrence population) in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa.vii + 50 pp.

COSEWIC. 2008a. COSEWIC assessment and update status report on the Eastern Foxsnake *Elaphe gloydi*, Carolinian population and Great Lakes/St. Lawrence population, in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. vii + 45 pp.

COSEWIC. 2008b. COSEWIC assessment and status report on the Snapping Turtle *Chelydra serpentina* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. vii + 47 pp.

COSEWIC. 2008c. COSEWIC assessment and update status report on the Western Chorus Frog *Pseudacris triseriata* Carolinian population and Great Lakes/St. Lawrence – Canadian Shield population in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa.vii + 47 pp.

Edmonds, J. 2002. COSEWIC status report on the stinkpot *Sternotherus odoratus* in Canada, in COSEWIC assessment and status report the stinkpot *Sternotherus odoratus* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. 1-18 pp

Environment Canada. 1991. The Federal Policy on Wetland Conservation ("FPWC"), Government of Canada, 1991. Published by Authority of the Minister of Environment, © Minister of Supply and Services Canada. Available at: http://www.ec.gc.ca/Publications/BBAAE735-EF0D-4F0B-87B7-768745600AE8%5CGOCFederalPolicyonWetlandConservation1992.pdf

Environment Canada. 2007a. Wind Turbines and Birds - A Guidance Document for Environmental Assessment. Final: February 2007.

Environment Canada. 2007b. Recommended Protocols for Monitoring Impacts of Wind Turbines on Birds. Final: February 2007.

Fischer, L. 2002. COSEWIC status report on the milksnake Lampropeltis triangulum in Canada in COSEWIC assessment and status report on the milksnake Lampropeltis triangulum in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. 1-29 pp.

National Wetlands Working Group. 1997. The Canadian Wetland Classification System, Second Edition. Edited by B.G. Warner and C.D.A. Rubec. © Wetlands Research Centre, University of Waterloo, Waterloo, Ontario.

Natural Heritage Information Centre (NHIC). 2012. Provincial status of plants, wildlife and vegetation communities database. MNR, Peterborough. Also general background information checks; available at: http://www.mnr.gov.on.ca/MNR/nhic/nhic.html

Ontario Ministry of Natural Resources (MNR). 2002. Ontario Wetland Evaluation System (OWES) Northern Manual. 1st Edition. Published 1993, revised December, 2002.

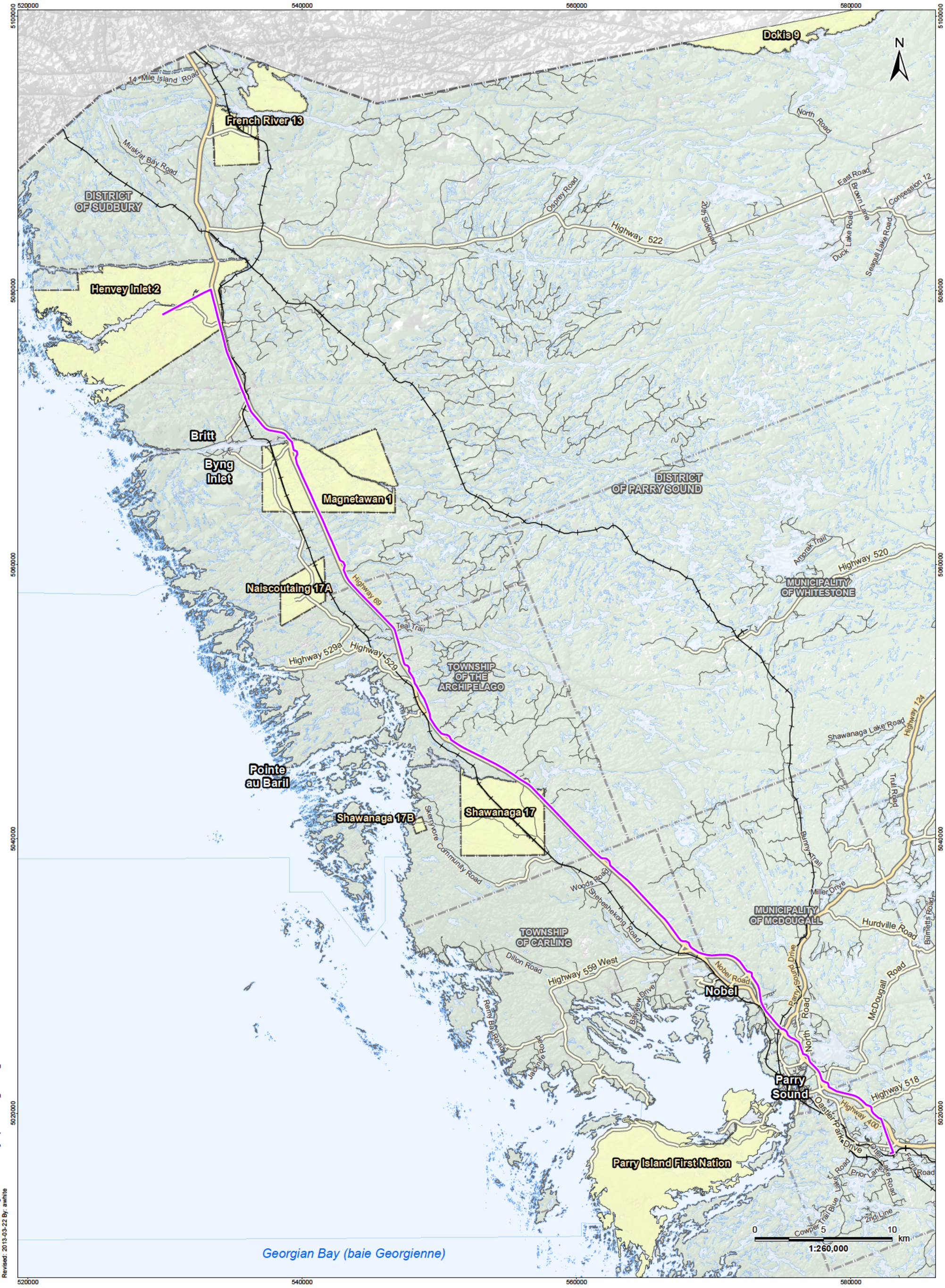
Roche, B. 2002. COSEWIC status report on the northern map turtle *Graptemys geographica* in Canada, in COSEWIC assessment and status report on the northern map turtle *Graptemys geographica* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. 1-34 pp.

Rouse, J.D., and R.J. Willson. 2002. Update COSEWIC status report on the massasauga *Sistrurus catenatus* in Canada, *in* COSEWIC assessment and update status report on the massasauga *Sistrurus catenatus* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. 1-23 pp.

Smith, K. 2002. COSEWIC status report on the eastern ribbonsnake Thamnophis sauritus in Canada, in COSEWIC assessment and status report on the eastern ribbonsnake Thamnophis sauritus. Committee on the Status of Endangered Wildlife in Canada. Ottawa. 1-24 pp.

Appendix A

Figures



W:\active\160960770\drawing\MXD\Terrestrial\Agency\160960770_Overview_R0.mxd
Revised: 2013-03-22 By: awhite

March 2013
160960770

Stantec

Legend

- Proposed Transmission Line
- Railway
- Watercourse
- First Nation Reserve
- Upper Tier Boundary
- Lower Tier Boundary
- Waterbody

Existing Features

- Highway
- Major Road
- Local Road

Notes

1. Coordinate System: NAD 1983 UTM Zone 17N
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2013.

*Precise location of transmission line within highway corridor to be determined

Client/Project
NIGIG POWER CORP.
HENVEY INLET WIND PROJECT

Figure No.
1

DRAFT

Title
Study Area Overview

Appendix C

Results of 2011, 2012 and 2013 Field Studies

Table C-1: 2011 Spring Passerine Migration Survey Results

				Date	May 10 2011						May 11 2011						May 12 2011						
				Transect	Transect 7		Transect 8		Transect 9		Transect 1		Transect 2		Transect 3		Transect 4		Transect 5		Transect 6		
				Weather Conditions	6 °C, clouds 80%, winds E, 10 km/h						10 °C, clouds 40%, wind SE, 10 km/h						12 °C, clouds 100%, winds W, 5 km/h						
				Start Time	6:15		7:52		9:06		6:10		7:10		8:05		6:30		7:40		8:40		
				End Time	7:20		8:35		10:00		7:05		7:55		8:54		7:20		8:30		9:35		
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**
Passerine Observations																							
American Crow	*Corvus brachyrhynchos*	-	-	S5							2												
American Goldfinch	*Cardeulis tristis*	-	-	S5	2		1				2		2		1		2						
American Redstart	*Setophaga ruticilla*	-	-	S5											2				2		2		
American Robin	*Turdus migratorius*	-	-	S5	3		1				5	pair	3		4		5		1				
Baltimore Oriole	*Icterus galbula*	-	-	S4									1				3	all male					
Bay-breasted Warbler	*Dendroica castanea*	-	-	S5	2												1		3				
Black-and-white Warbler	*Mniotilta varia*	-	-	S5	2		5		2		4		4		4		4		3		4		
Blackburnian Warbler	*Setophaga fusca*	-	-	S5	2						1				3		1						
Black-capped Chickadee	*Poecile atricapillus*	-	-	S5	1		2		3		2		5		3								
Blackpoll Warbler	*Setophaga striata*	-	-	S4	2																		
Black-throated Green Warbler	*Setophaga virens*	-	-	S5			2		2		3		2		4		6		3		3		
Blue Jay	*Cyanocitta cristata*	-	-	S5	9						1		2		2		6		1		2		
Brown Creeper	*Certhia americana*	-	-	S5											1								
Brown Thrasher	*Toxostoma rufum*	-	-	S4							1												
Brown-headed Cowbird	*Molothrus ater*	-	-	S4	2	pair																	
Canada Warbler	*Wilsonia canadensis*	SC	THR Schedule 1	S4																			
Cedar Waxwing	*Bombycilla cedrorum*	-	-	S5																			
Chestnut-sided Warbler	*Setophaga pensylvanica*	-	-	S5			1								3								
Chipping Sparrow	*Spizella passerina*	-	-	S5	4		3		2		1		1		1		4		4		4		
Common Grackle	*Quiscalus quiscula*	-	-	S5	7		2				2				1								
Common Raven	*Corvus corax*	-	-	S5	1										1		1						
Common Yellowthroat	*Geothlyphis trichas*	-	-	S5	2		3				1						3		3		4		
Dark-eyed Junco	*Junco hyemalis*	-	-	S5													2						
Eastern Phoebe	*Sayornis phoebe*	-	-	S5							1		1						1				
Eastern Towhee	*Pipilio erythrophthalmus*	-	-	S4	1																		
Eastern Wood-pewee	*Contopus virens*	SC	-	S4																			
Gray Catbird	*Dumetella carolinensis*	-	-	S4							2				1								
Hermit Thrush	*Catharus guttatus*	-	-	S5			1								2								
House Wren	*Troglodytes aedon*	-	-	S5																			
Least Flycatcher	*Empidonax minimus*	-	-	S4			1																
Lincoln's Sparrow	*Melospiza lincolnii*	-	-	S5																			
Magnolia Warbler	*Setophaga magnolia*	-	-	S5															2				
Nashville Warbler	*Oreothlypis ruficapilla*	-	-	S5			3				10		7		5		8		9		3		
Northern Parula	*Parula americana*	-	-	S4																			
Northern Waterthrush	*Seiurus noveboracensis*	-	-	S5																			
Ovenbird	*Seiurus aurocapillus*	-	-	S4	2		1		1		4		5		4						1		
Palm Warbler	*Dendroica palmarum*	-	-	S5	2		1										1						
Pine Grosbeak	*Pinicola enucleator*	-	-	S4																			
Pine Warbler	*Setophaga pinus*	-	-	S5	2		4		3		1				1		4				3		
Purple Finch	*Carpodacus purpureus*	-	-	S4																			
Red-breasted Nuthatch	*Sitta canadensis*	-	-	S5			2		1		1		1										

Table C-1: 2011 Spring Passerine Migration Survey Results

				Date	May 10 2011						May 11 2011						May 12 2011						
				Transect	Transect 7		Transect 8		Transect 9		Transect 1		Transect 2		Transect 3		Transect 4		Transect 5		Transect 6		
				Weather Conditions	6 °C, clouds 80%, winds E, 10 km/h						10 °C, clouds 40%, wind SE, 10 km/h						12 °C, clouds 100%, winds W, 5 km/h						
				Start Time	6:15		7:52		9:06		6:10		7:10		8:05		6:30		7:40		8:40		
				End Time	7:20		8:35		10:00		7:05		7:55		8:54		7:20		8:30		9:35		
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	
Red-eyed Vireo	*Vireo olivaceus*	-	-	S5													1						
Red-winged Blackbird	*Agelaius phoeniceus*	-	-	S4	3		3										3						
Rose-breasted Grosbeak	*Pheucticus ludovicianus*	-	-	S4													1						
Ruby-crowned Kinglet	*Regulus calendula*	-	-	S4	1																		
Song Sparrow	*Melospiza melodia*	-	-	S5	2				2		1		1		1		4						
Swainson's Thrush	*Catharus ustulatus*	-	-	S4																			
Swamp Sparrow	*Melospiza georgiana*	-	-	S5													1						
Tennessee Warbler	*Oreothlypis peregrina*	-	-	S5													1				1		
Veery	*Catharus fuscescens*	-	-	S4											1						2		
White-crowned Sparrow	*Zonotrichia leucophrys*	-	-	S4			6								3				2				
White-throated Sparrow	*Zonotrichia albicollis*	-	-	S5	3		3		5		1		2		4		10		4		7		
Wilson's Warbler	*Cardellina pusilla*	-	-	S4			2																
Winter Wren	*Troglodytes troglodytes*	-	-	S5	1		1						2		1		1						
Wood Thrush	*Hylocichla mustelina*	SC	-	S4									2		1								
Yellow Warbler	*Setophaga petechia*	-	-	S5																			
Yellow-bellied Flycatcher	*Empidonax flaviventris*	-	-	S5									2										
Yellow-rumped Warbler	*Dendroica coronata*	-	-	S5	5		3		3		4		2		5		4		7		9		
Grand Total																							
Incidental Wildlife Observations																							
American Kestrel	*Falco sparverius*	-	-	S4																	1		
Bald Eagle	*Haliaeetus leucocephalus*	SC	-	S2					1	adult													
Belted Kingfisher	*Ceryle alcyon*	-	-	S4			1				2	pair	1										
Broad-winged Hawk	*Buteo platypterus*	-	-	S5							1		2	pair	1	calling, circling							
Bufflehead	*Bucephala albeola*	-	-	S4	6	1m,5f			3	all female													
Canada Goose	*Branta canadensis*	-	-	S5	2		2								1						2		
Caspian Tern	*Sterna caspia*	-	-	S3	2								2										
Common Loon	*Gavia immer*	-	-	S5					1														
Common Merganser	*Mergus merganser*	-	-	S5			3										4	2 p, m & f					
Double-crested Cormorant	*Phalacrocorax auritus*	-	-	S5			1		3	x							1						
Downy Woodpecker	*Picoides pubescens*	-	-	S5	1						1												
Great Blue Heron	*Ardea herodias*	-	-	S4	1												1						
Hairy Woodpecker	*Picoides villosus*	-	-	S5			1						1		1								
Herring Gull	*Larus argentatus*	-	-	S5	w		1		1								2						
Killdeer	*Charadrius vociferus*	-	-	S5													1						
Mallard	*Anas platyrhynchos*	-	-	S5													2	males					
Northern Flicker	*Colaptes auratus*	-	-	S4	2		2		1		1		1		2		1		1		1		
Northern Harrier	*Circus cyaneus*	-	-	S4													2	pair					
Pileated Woodpecker	*Dryocopus pileatus*	-	-	S5	1								1		1						1		
Ring-billed Gull	*Larus delawarensis*	-	-	S5					1														
Ruby-throated Hummingbird	*Archilochus colubris*	-	-	S5																			
Ruffed Grouse	*Bonasa umbellus*	-	-	S4	2		1				1		1		1		1		2		1		

Table C-1: 2011 Spring Passerine Migration Survey Results

				Date	May 10 2011						May 11 2011						May 12 2011						
				Transect	Transect 7		Transect 8		Transect 9		Transect 1		Transect 2		Transect 3		Transect 4		Transect 5		Transect 6		
				Weather Conditions	6 °C, clouds 80%, winds E, 10 km/h						10 °C, clouds 40%, wind SE, 10 km/h						12 °C, clouds 100%, winds W, 5 km/h						
				Start Time	6:15		7:52		9:06		6:10		7:10		8:05		6:30		7:40		8:40		
				End Time	7:20		8:35		10:00		7:05		7:55		8:54		7:20		8:30		9:35		
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	
Sandhill Crane	*Grus canadensis tabida*	-	-	S5	2		1				1						3						
Spotted Sandpiper	*Actitis macularia*	-	-	S5					1		4												
Turkey Vulture	*Cathartes aura*	-	-	S5																			
Unknown *Accipiter* sp.	*N/A*	-	-	-									1	flyover									
Unknown Scaup sp.	*N/A*	-	-	-					2														
Whip-poor-will	*Caprimulgus vociferus*	THR	THR Schedule 1	S4																			
Wilson's Snipe	*Gallinago delicata*	-	-	S5	1	winnowing															1		
Wood Duck	*Aix sponsa*	-	-	S5			1	male															
Yellow-bellied Sapsucker	*Sphyrapicus varius*	-	-	S5	1	male	1				1		2	pair	1		1						
Grand Total																							

Legend
ESA Status: The Endangered Species Act 2007 (ESA) protects Species at Risk at a provincial level.
SC - Special Concern
THR - Threatened
END - Endangered

SARA Status: The Species at Risk Act (SARA) protects Species at Risk at a federal level.
SC - Special Concern
THR - Threatened
END - Endangered

S-rank: The natural heritage provincial ranking system (provincial S-rank) is used by the MNRF Natural Heritage Information Centre (NHIC) to set protection priorities for rare species and natural communities. Definitions are as follows:
S1 - Critically Imperiled, often < 5 occurrences
S2 - Imperiled, often <20 occurences
S3 - Vulnerable, often 80 or fewer
S3S4 - Uncertain between S3 and S4
S4 - Aparently Secure, ncommon
S5 - Secure, common
SNA - Not Applicable —A conservation status rank is not applicable because the species is not a suitable target for conservation activities.
SH - Species or community occurred historically in the nation or state/province, and there is some possibility that it may be rediscovered.

Table C-1: 2011 Spring Passerine Migration Survey Results

				Date	May 16 2011						May 18 2011						May 23 2011						**Totals**
				Transect	Transect 1		Transect 2		Transect 3		Transect 7		Transect 8		Transect 9		Transect 4		Transect 5		Transect 6		
				Weather Conditions	1 °C, clouds 100%, winds NE 30 km/hr; 1st day in 3 days with no rain, water too rough to boat to other transects; not ideal but must see what weather is keeping grounded						14 °C, clouds 100%,winds NE 5 km/h						14 °C, clouds 80%, wind SW 15 km/h						
				Start Time	6:00		7:12		8:20		6:30		8:03		9:12		6:15		7:45		8:55		
				End Time	7:00		8:00		9:08		7:18		8:56		10:00		7:15		8:39		9:45		
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	
Passerine Observations																							
American Crow	*Corvus brachyrhynchos*	-	-	S5																			**2**
American Goldfinch	*Cardeulis tristis*	-	-	S5					1														**11**
American Redstart	*Setophaga ruticilla*	-	-	S5					3		1		1		1				1				**13**
American Robin	*Turdus migratorius*	-	-	S5	2		1				1		1		1				4				**32**
Baltimore Oriole	*Icterus galbula*	-	-	S4																			**4**
Bay-breasted Warbler	*Dendroica castanea*	-	-	S5													2						**8**
Black-and-white Warbler	*Mniotilta varia*	-	-	S5	3		2		4		2		3		3		4		2		6		**61**
Blackburnian Warbler	*Setophaga fusca*	-	-	S5			1		1								1		1				**11**
Black-capped Chickadee	*Poecile atricapillus*	-	-	S5	4		3		3		1		2								2		**31**
Blackpoll Warbler	*Setophaga striata*	-	-	S4	1		1		1				1						1				**7**
Black-throated Green Warbler	*Setophaga virens*	-	-	S5	1		3				3		5		2		3		2		7		**51**
Blue Jay	*Cyanocitta cristata*	-	-	S5					1				8		2		4						**38**
Brown Creeper	*Certhia americana*	-	-	S5																			**1**
Brown Thrasher	*Toxostoma rufum*	-	-	S4							1		1				1						**4**
Brown-headed Cowbird	*Molothrus ater*	-	-	S4																			**2**
Canada Warbler	*Wilsonia canadensis*	SC	THR Schedule 1	S4													1				2		**3**
Cedar Waxwing	*Bombycilla cedrorum*	-	-	S5			3																**3**
Chestnut-sided Warbler	*Setophaga pensylvanica*	-	-	S5	2		4				2		3										**15**
Chipping Sparrow	*Spizella passerina*	-	-	S5	3						2		4		1		3		6		2		**45**
Common Grackle	*Quiscalus quiscula*	-	-	S5	1																		**13**
Common Raven	*Corvus corax*	-	-	S5							4						1						**8**
Common Yellowthroat	*Geothlyphis trichas*	-	-	S5	2		1				4		2		4		5		8		12		**54**
Dark-eyed Junco	*Junco hyemalis*	-	-	S5																			**2**
Eastern Phoebe	*Sayornis phoebe*	-	-	S5			2																**5**
Eastern Towhee	*Pipilio erythrophthalmus*	-	-	S4					1														**2**
Eastern Wood-pewee	*Contopus virens*	SC	-	S4	1																		**1**
Gray Catbird	*Dumetella carolinensis*	-	-	S4									1						1				**5**
Hermit Thrush	*Catharus guttatus*	-	-	S5					2								1		3		6		**15**
House Wren	*Troglodytes aedon*	-	-	S5							1						1						**2**
Least Flycatcher	*Empidonax minimus*	-	-	S4									2										**3**
Lincoln's Sparrow	*Melospiza lincolnii*	-	-	S5																	1		**1**
Magnolia Warbler	*Setophaga magnolia*	-	-	S5			1				1												**4**
Nashville Warbler	*Oreothlypis ruficapilla*	-	-	S5	6		5		3		2		8		4		6		6		4		**89**
Northern Parula	*Parula americana*	-	-	S4			1		1														**2**
Northern Waterthrush	*Seiurus noveboracensis*	-	-	S5															1				**1**
Ovenbird	*Seiurus aurocapillus*	-	-	S4	3		1		3		3		4		1						1		**34**
Palm Warbler	*Dendroica palmarum*	-	-	S5																			**4**
Pine Grosbeak	*Pinicola enucleator*	-	-	S4													1						**1**
Pine Warbler	*Setophaga pinus*	-	-	S5	1								1		3		1		3		1		**28**
Purple Finch	*Carpodacus purpureus*	-	-	S4	1		1										1						**3**
Red-breasted Nuthatch	*Sitta canadensis*	-	-	S5	1		1		2		2						2						**13**

Table C-1: 2011 Spring Passerine Migration Survey Results

				Date	May 16 2011						May 18 2011						May 23 2011						**Totals**
				Transect	Transect 1		Transect 2		Transect 3		Transect 7		Transect 8		Transect 9		Transect 4		Transect 5		Transect 6		
				Weather Conditions	1 °C, clouds 100%, winds NE 30 km/hr; 1st day in 3 days with no rain, water too rough to boat to other transects; not ideal but must see what weather is keeping grounded						14 °C, clouds 100%,winds NE 5 km/h						14 °C, clouds 80%, wind SW 15 km/h						
				Start Time	6:00		7:12		8:20		6:30		8:03		9:12		6:15		7:45		8:55		
				End Time	7:00		8:00		9:08		7:18		8:56		10:00		7:15		8:39		9:45		
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	
Red-eyed Vireo	*Vireo olivaceus*	-	-	S5			1		1				2										**5**
Red-winged Blackbird	*Agelaius phoeniceus*	-	-	S4							3		3										**15**
Rose-breasted Grosbeak	*Pheucticus ludovicianus*	-	-	S4									1	male			1						**3**
Ruby-crowned Kinglet	*Regulus calendula*	-	-	S4																			**1**
Song Sparrow	*Melospiza melodia*	-	-	S5	3		5				2				3		5	AF, one egg	1				**30**
Swainson's Thrush	*Catharus ustulatus*	-	-	S4					4										1				**5**
Swamp Sparrow	*Melospiza georgiana*	-	-	S5							1												**2**
Tennessee Warbler	*Oreothlypis peregrina*	-	-	S5																			**2**
Veery	*Catharus fuscescens*	-	-	S4					1														**4**
White-crowned Sparrow	*Zonotrichia leucophrys*	-	-	S4																			**11**
White-throated Sparrow	*Zonotrichia albicollis*	-	-	S5	2		4		2		7		2		5		2		7		5		**75**
Wilson's Warbler	*Cardellina pusilla*	-	-	S4			1																**3**
Winter Wren	*Troglodytes troglodytes*	-	-	S5			1										1						**8**
Wood Thrush	*Hylocichla mustelina*	SC	-	S4																			**3**
Yellow Warbler	*Setophaga petechia*	-	-	S5			1		1		2		1		2		1		2				**10**
Yellow-bellied Flycatcher	*Empidonax flaviventris*	-	-	S5			1						1										**4**
Yellow-rumped Warbler	*Dendroica coronata*	-	-	S5	2		3		3		1		7		2		1		3		9		**73**
Grand Total																							**886**
Incidental Wildlife Observations																							
American Kestrel	*Falco sparverius*	-	-	S4																			**1**
Bald Eagle	*Haliaeetus leucocephalus*	SC	-	S2																			**1**
Belted Kingfisher	*Ceryle alcyon*	-	-	S4							1												**5**
Broad-winged Hawk	*Buteo platypterus*	-	-	S5																			**4**
Bufflehead	*Bucephala albeola*	-	-	S4									2	females									**11**
Canada Goose	*Branta canadensis*	-	-	S5							3	pair											**10**
Caspian Tern	*Sterna caspia*	-	-	S3							2												**6**
Common Loon	*Gavia immer*	-	-	S5													1		1		3	flying west	**6**
Common Merganser	*Mergus merganser*	-	-	S5															1	male			**8**
Double-crested Cormorant	*Phalacrocorax auritus*	-	-	S5							1				2						1		**9**
Downy Woodpecker	*Picoides pubescens*	-	-	S5					1														**3**
Great Blue Heron	*Ardea herodias*	-	-	S4																			**2**
Hairy Woodpecker	*Picoides villosus*	-	-	S5									1				2	pair	1				**7**
Herring Gull	*Larus argentatus*	-	-	S5					1		1		1				2						**9**
Killdeer	*Charadrius vociferus*	-	-	S5																			**1**
Mallard	*Anas platyrhynchos*	-	-	S5							3	all female					1	male					**6**
Northern Flicker	*Colaptes auratus*	-	-	S4	1						1		1				2		1				**18**
Northern Harrier	*Circus cyaneus*	-	-	S4																			**2**
Pileated Woodpecker	*Dryocopus pileatus*	-	-	S5																			**4**
Ring-billed Gull	*Larus delawarensis*	-	-	S5																			**1**
Ruby-throated Hummingbird	*Archilochus colubris*	-	-	S5							1												**1**
Ruffed Grouse	*Bonasa umbellus*	-	-	S4	1		2		1		1		2				2				1		**20**

Table C-1: 2011 Spring Passerine Migration Survey Results

				Date	May 16 2011						May 18 2011						May 23 2011						**Totals**
				Transect	Transect 1		Transect 2		Transect 3		Transect 7		Transect 8		Transect 9		Transect 4		Transect 5		Transect 6		
				Weather Conditions	1 °C, clouds 100%, winds NE 30 km/hr; 1st day in 3 days with no rain, water too rough to boat to other transects; not ideal but must see what weather is keeping grounded						14 °C, clouds 100%,winds NE 5 km/h						14 °C, clouds 80%, wind SW 15 km/h						
				Start Time	6:00		7:12		8:20		6:30		8:03		9:12		6:15		7:45		8:55		
				End Time	7:00		8:00		9:08		7:18		8:56		10:00		7:15		8:39		9:45		
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	
Sandhill Crane	*Grus canadensis tabida*	-	-	S5	2						2						1						**12**
Spotted Sandpiper	*Actitis macularia*	-	-	S5																			**5**
Turkey Vulture	*Cathartes aura*	-	-	S5							1				2				1				**4**
Unknown *Accipiter* sp.	*N/A*	-	-	-																			**1**
Unknown Scaup sp.	*N/A*	-	-	-																			**2**
Whip-poor-will	*Caprimulgus vociferus*	THR	THR Schedule 1	S4													2	s, before start					**2**
Wilson's Snipe	*Gallinago delicata*	-	-	S5																			**2**
Wood Duck	*Aix sponsa*	-	-	S5													1	female					**2**
Yellow-bellied Sapsucker	*Sphyrapicus varius*	-	-	S5			1				1		1	female									**10**
Grand Total																							**175**

Legend
ESA Status: The Endangered Species Act 2007 (ESA) protects Species at Risk at a provincial level.
SC - Special Concern
THR - Threatened
END - Endangered

SARA Status: The Species at Risk Act (SARA) protects Species at Risk at a federal level.
SC - Special Concern
THR - Threatened
END - Endangered

S-rank: The natural heritage provincial ranking system (provincial S-rank) is used by the MNRF Natural Heritage Information Centre (NHIC) to set protection priorities for rare species and natural communities. Definitions are as follows:
S1 - Critically Imperiled, often < 5 occurrences
S2 - Imperiled, often <20 occurences
S3 - Vulnerable, often 80 or fewer
S3S4 - Uncertain between S3 and S4
S4 - Aparently Secure, ncommon
S5 - Secure, common
SNA - Not Applicable —A conservation status rank is not applicable because the species is not a suitable target for conservation activities.
SH - Species or community occurred historically in the nation or state/province, and there is some possibility that it may be rediscovered.

Table C-2: 2011 Fall Passerine Migration Survey Results

				Date	September 5 2011						September 6 2011							
				Transect	Transect 2		Transect 3		Transect 1		Transect 4		Transect 5		Transect			
				Weather Conditions	12 C, clouds 100%, winds N, 20 km/hr						15 C, clouds 100%, wind N, Beaufort 1							
				Start Time	7:28		8:15		By Andrew		7:58		8:57		10:04			
				End Time	8:05		9:21				8:45		9:52		10:56			
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**		
Passerine Observations																		
American Crow	*Corvus brachyrhynchos*	-	-	S5	2						2							
American Goldfinch	*Cardeulis tristis*	-	-	S5	2													
American Pipit	*Anthus rubescens*	-	-	S4														
American Redstart	*Setophaga ruticilla*	-	-	S5			2						1					
American Robin	*Turdus migratorius*	-	-	S5			5						2		6			
Black-and-white Warbler	*Mniotilta varia*	-	-	S5			1						1					
Black-capped Chickadee	*Poecile atricapillus*	-	-	S5			3						2					
Black-throated Green Warbler	*Setophaga virens*	-	-	S5			2											
Blue Jay	*Cyanocitta cristata*	-	-	S5			1				3		5	mobbing				
Blue-headed Vireo	*Vireo solitarius*	-	-	S5														
Brown Creeper	*Certhia americana*	-	-	S5														
Cedar Waxwing	*Bombycilla cedrorum*	-	-	S5														
Chestnut-sided Warbler	*Setophaga pensylvanica*	-	-	S5			2											
Chipping Sparrow	*Spizella passerina*	-	-	S5														
Common Grackle	*Quiscalus quiscula*	-	-	S5														
Common Raven	*Corvus corax*	-	-	S5														
Common Yellowthroat	*Geothlyphis trichas*	-	-	S5							3		4					
Dark-eyed Junco	*Junco hyemalis*	-	-	S5														
Eastern Bluebird	*Sialia sialis*	-	-	S5														
Eastern Kingbird	*Tyrannus tyrannus*	-	-	S4														
Eastern Towhee	*Pipilio erythrophthalmus*	-	-	S4														
Golden-crowned Kinglet	*Regulus satrapa*	-	-	S5														
Gray Catbird	*Dumetella carolinensis*	-	-	S4														
Gray Jay	*Perisoreus canadensis*	-	-	S5														
Hermit Thrush	*Catharus guttatus*	-	-	S5														
Lincoln's Sparrow	*Melospiza lincolnii*	-	-	S5														
Magnolia Warbler	*Setophaga magnolia*	-	-	S5			2											
Nashville Warbler	*Oreothlypis ruficapilla*	-	-	S5														
Ovenbird	*Seiurus aurocapillus*	-	-	S4			1											
Palm Warbler	*Dendroica palmarum*	-	-	S5														
Philadelphia Vireo	*Vireo philadelphicus*	-	-	S5														
Pine Siskin	*Cardeulis pinus*	-	-	S4														
Pine Warbler	*Setophaga pinus*	-	-	S5														
Purple Finch	*Carpodacus purpureus*	-	-	S4														
Red-breasted Nuthatch	*Sitta canadensis*	-	-	S5														
Red Crossbill	*Loxia curvirostra*	-	-	S4														
Red-eyed Vireo	*Vireo olivaceus*	-	-	S5			1											
Ruby-crowned Kinglet	*Regulus calendula*	-	-	S4														
Rusty Blackbird	*Euphagus carolinus*	-	SC Schedule 1	S4														
Song Sparrow	*Melospiza melodia*	-	-	S5							1				1			
Swainson's Thrush	*Catharus ustulatus*	-	-	S4	1										2			
Swamp Sparrow	*Melospiza georgiana*	-	-	S5											1			
Unknown Blackbird sp.	*N/A*	-	-	-														

Table C-2: 2011 Fall Passerine Migration Survey Results

				Date	September 5 2011						September 6 2011					
				Transect	Transect 2		Transect 3		Transect 1		Transect 4		Transect 5		Transect	
				Weather Conditions	12 C, clouds 100%, winds N, 20 km/hr						15 C, clouds 100%, wind N, Beaufort 1					
				Start Time	7:28		8:15		By Andrew		7:58		8:57		10:04	
				End Time	8:05		9:21				8:45		9:52		10:56	
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**
Unknown Passerine sp.	*N/A*	-	-	-	4											
Unknown Sparrow sp.	*N/A*	-	-	-												
Unknown Thrush sp.	*N/A*	-	-	-												
Veery	*Catharus fuscescens*	-	-	S4												
White-crowned Sparrow	*Zonotrichia leucophrys*	-	-	S4												
White-throated Sparrow	*Zonotrichia albicollis*	-	-	S5												
Wilson's Warbler	*Cardellina pusilla*	-	-	S4			1	female								
Winter Wren	*Troglodytes troglodytes*	-	-	S5												
Wood Duck	*Aix sponsa*	-	-	S5												
Yellow-bellied Flycatcher	*Empidonax flaviventris*	-	-	S5												
Yellow-rumped Warbler	*Setophaga coronata*	-	-	S5									3			
Grand Total																
Incidental Wildlife Observations																
American Kestrel	*Falco sparverius*	-	-	S4												
Bald Eagle	*Haliaeetus leucocephalus*	SC	-	S2												
Belted Kingfisher	*Ceryle alcyon*	-	-	S4												
Black Scoter	*Melanitta nigra*	-	-	S4												
Black-billed Cuckoo	*Coccyzus erythropthalmus*	-	-	S5												
Broad-winged Hawk	*Buteo platypterus*	-	-	S5			1	flyover								
Bufflehead	*Bucephala albeola*	-	-	S4												
Canada Goose	*Branta canadensis*	-	-	S5	7	flock, going S	30	one flock			3		2	flyover	2	flyover
Common Loon	*Gavia immer*	-	-	S5	1										1	flyover
Common Merganser	*Mergus merganser*	-	-	S5												
Cooper's Hawk	*Accipiter cooperi*	-	-	S4												
Double-crested Cormorant	*Phalacrocorax auritus*	-	-	S5												
Downy Woodpecker	*Picoides pubescens*	-	-	S5												
Great Blue Heron	*Ardea herodias*	-	-	S4												
Greater Yellowlegs	*Tringa melanoleuca*	-	-	S4							3					
Hairy Woodpecker	*Picoides villosus*	-	-	S5									1			
Herring Gull	*Larus argentatus*	-	-	S5												
Killdeer	*Charadrius vociferus*	-	-	S5												
Long-tailed Duck	*Clangula hyemalis*	-	-	S3												
Mallard	*Anas platyrhynchos*	-	-	S5												
Merlin	*Falco columbarius*	-	-	S5									1	flying S		
Northern Flicker	*Colaptes auratus*	-	-	S4							3		2		1	
Northern Harrier	*Circus cyaneus*	-	-	S4							1	adult female chasing GRYE				
Northern Shrike	*Lanius excubitor*	-	-	SNA												
Pileated Woodpecker	*Dryocopus pileatus*	-	-	S5												
Red-tailed Hawk	*Buteo jamaicensis*	-	-	S4												
Ring-billed Gull	*Larus delawarensis*	-	-	S5												
Ruffed Grouse	*Bonasa umbellus*	-	-	S4												
Sandhill Crane	*Grus canadensis tabida*	-	-	S5							2		3	flying W, spooked from ground		
Sharp-shinned Hawk	*Accipiter striatus*	-	-	S5												

Table C-2: 2011 Fall Passerine Migration Survey Results

				Date	September 5 2011						September 6 2011					
				Transect	Transect 2		Transect 3		Transect 1		Transect 4		Transect 5		Transect	
				Weather Conditions	12 C, clouds 100%, winds N, 20 km/hr						15 C, clouds 100%, wind N, Beaufort 1					
				Start Time	7:28		8:15		By Andrew		7:58		8:57		10:04	
				End Time	8:05		9:21				8:45		9:52		10:56	
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**
Spruce Grouse	*Falcipennis canadensis*	-	-	S5												
Turkey Vulture	*Cathartes aura*	-	-	S5	2											
Unknown Duck sp.	*N/A*	-	-	-												
Unknown Owl sp.	*N/A*	-	-	-												
Unknown Sandpiper sp.	*N/A*	-	-	-												
Whip-poor-will	*Caprimulgus vociferus*	THR	THR Schedule 1	S4												
White-winged Scoter	*Melanitta fusca*	-	-	S4												
Wood Duck	*Aix sponsa*	-	-	S5												
Yellow-bellied Sapsucker	*Sphyrapicus varius*	-	-	S5												
Grand Total																

Legend
ESA Status: The Endangered Species Act 2007 (ESA) protects Species at Risk at a provincial level.
SC - Special Concern
THR - Threatened
END - Endangered

SARA Status: The Species at Risk Act (SARA) protects Species at Risk at a federal level.
SC - Special Concern
THR - Threatened
END - Endangered

S-rank: The natural heritage provincial ranking system (provincial S-rank) is used by the MNRF Natural Heritage Information Centre (NHIC) to set protection priorities for rare species and natural communities. Definitions are as follows:
S1 - Critically Imperiled, often < 5 occurrences
S2 - Imperiled, often <20 occurences
S3 - Vulnerable, often 80 or fewer
S3S4 - Uncertain between S3 and S4
S4 - Aparently Secure, ncommon
S5 - Secure, common
SNA - Not Applicable —A conservation status rank is not applicable because the species is not a suitable target for conservation activities.
SH - Species or community occurred historically in the nation or state/province, and there is some possibility that it may be rediscovered.

Table C-2: 2011 Fall Passerine Migration Survey Results

				Date	September 7 2011						September 8 2011					
				Transect	Transect 9		Transect 8		Transect 7		Transect 10		Transect 11		Transect 12	
				Weather Conditions							9 C, clouds 0 %, wind ? Beaufort 1					
				Start Time	10:05		By Andrew		By Andrew		7:32		8:24		9:16	
				End Time	11:00						8:12		9:10		10:00	
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**
Passerine Observations																
American Crow	*Corvus brachyrhynchos*	-	-	S5	7						2					
American Goldfinch	*Cardeulis tristis*	-	-	S5							1					
American Pipit	*Anthus rubescens*	-	-	S4												
American Redstart	*Setophaga ruticilla*	-	-	S5							1					
American Robin	*Turdus migratorius*	-	-	S5	1								8		4	
Black-and-white Warbler	*Mniotilta varia*	-	-	S5							3		1			
Black-capped Chickadee	*Poecile atricapillus*	-	-	S5							3		1			
Black-throated Green Warbler	*Setophaga virens*	-	-	S5												
Blue Jay	*Cyanocitta cristata*	-	-	S5	17						4		5			
Blue-headed Vireo	*Vireo solitarius*	-	-	S5												
Brown Creeper	*Certhia americana*	-	-	S5												
Cedar Waxwing	*Bombycilla cedrorum*	-	-	S5												
Chestnut-sided Warbler	*Setophaga pensylvanica*	-	-	S5												
Chipping Sparrow	*Spizella passerina*	-	-	S5												
Common Grackle	*Quiscalus quiscula*	-	-	S5	150+	huge flock on ground moving SE										
Common Raven	*Corvus corax*	-	-	S5												
Common Yellowthroat	*Geothlyphis trichas*	-	-	S5	1						1		2		2	
Dark-eyed Junco	*Junco hyemalis*	-	-	S5												
Eastern Bluebird	*Sialia sialis*	-	-	S5												
Eastern Kingbird	*Tyrannus tyrannus*	-	-	S4	1											
Eastern Towhee	*Pipilio erythrophthalmus*	-	-	S4												
Golden-crowned Kinglet	*Regulus satrapa*	-	-	S5												
Gray Catbird	*Dumetella carolinensis*	-	-	S4												
Gray Jay	*Perisoreus canadensis*	-	-	S5												
Hermit Thrush	*Catharus guttatus*	-	-	S5							3					
Lincoln's Sparrow	*Melospiza lincolnii*	-	-	S5												
Magnolia Warbler	*Setophaga magnolia*	-	-	S5							1					
Nashville Warbler	*Oreothlypis ruficapilla*	-	-	S5												
Ovenbird	*Seiurus aurocapillus*	-	-	S4												
Palm Warbler	*Dendroica palmarum*	-	-	S5											4	
Philadelphia Vireo	*Vireo philadelphicus*	-	-	S5							1					
Pine Siskin	*Cardeulis pinus*	-	-	S4												
Pine Warbler	*Setophaga pinus*	-	-	S5									1			
Purple Finch	*Carpodacus purpureus*	-	-	S4												
Red-breasted Nuthatch	*Sitta canadensis*	-	-	S5												
Red Crossbill	*Loxia curvirostra*	-	-	S4												
Red-eyed Vireo	*Vireo olivaceus*	-	-	S5												
Ruby-crowned Kinglet	*Regulus calendula*	-	-	S4												
Rusty Blackbird	*Euphagus carolinus*	-	SC Schedule 1	S4												
Song Sparrow	*Melospiza melodia*	-	-	S5	1											
Swainson's Thrush	*Catharus ustulatus*	-	-	S4							1					
Swamp Sparrow	*Melospiza georgiana*	-	-	S5												
Unknown Blackbird sp.	*N/A*	-	-	-												

Table C-2: 2011 Fall Passerine Migration Survey Results

				Date	September 7 2011						September 8 2011					
				Transect	Transect 9		Transect 8		Transect 7		Transect 10		Transect 11		Transect 12	
				Weather Conditions							9 C, clouds 0 %, wind ? Beaufort 1					
				Start Time	10:05		By Andrew		By Andrew		7:32		8:24		9:16	
				End Time	11:00						8:12		9:10		10:00	
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**
Unknown Passerine sp.	*N/A*	-	-	-												
Unknown Sparrow sp.	*N/A*	-	-	-									1			
Unknown Thrush sp.	*N/A*	-	-	-												
Veery	*Catharus fuscescens*	-	-	S4												
White-crowned Sparrow	*Zonotrichia leucophrys*	-	-	S4												
White-throated Sparrow	*Zonotrichia albicollis*	-	-	S5	3						2		1		3	
Wilson's Warbler	*Cardellina pusilla*	-	-	S4												
Winter Wren	*Troglodytes troglodytes*	-	-	S5												
Wood Duck	*Aix sponsa*	-	-	S5												
Yellow-bellied Flycatcher	*Empidonax flaviventris*	-	-	S5									1			
Yellow-rumped Warbler	*Setophaga coronata*	-	-	S5									1			
Grand Total																
Incidental Wildlife Observations																
American Kestrel	*Falco sparverius*	-	-	S4												
Bald Eagle	*Haliaeetus leucocephalus*	SC	-	S2												
Belted Kingfisher	*Ceryle alcyon*	-	-	S4												
Black Scoter	*Melanitta nigra*	-	-	S4												
Black-billed Cuckoo	*Coccyzus erythropthalmus*	-	-	S5												
Broad-winged Hawk	*Buteo platypterus*	-	-	S5												
Bufflehead	*Bucephala albeola*	-	-	S4												
Canada Goose	*Branta canadensis*	-	-	S5									14	flock flying S		
Common Loon	*Gavia immer*	-	-	S5	2											
Common Merganser	*Mergus merganser*	-	-	S5												
Cooper's Hawk	*Accipiter cooperi*	-	-	S4												
Double-crested Cormorant	*Phalacrocorax auritus*	-	-	S5									1			
Downy Woodpecker	*Picoides pubescens*	-	-	S5												
Great Blue Heron	*Ardea herodias*	-	-	S4												
Greater Yellowlegs	*Tringa melanoleuca*	-	-	S4												
Hairy Woodpecker	*Picoides villosus*	-	-	S5	1											
Herring Gull	*Larus argentatus*	-	-	S5	3											
Killdeer	*Charadrius vociferus*	-	-	S5												
Long-tailed Duck	*Clangula hyemalis*	-	-	S3												
Mallard	*Anas platyrhynchos*	-	-	S5												
Merlin	*Falco columbarius*	-	-	S5												
Northern Flicker	*Colaptes auratus*	-	-	S4	2						1		2		2	
Northern Harrier	*Circus cyaneus*	-	-	S4												
Northern Shrike	*Lanius excubitor*	-	-	SNA												
Pileated Woodpecker	*Dryocopus pileatus*	-	-	S5	1											
Red-tailed Hawk	*Buteo jamaicensis*	-	-	S4												
Ring-billed Gull	*Larus delawarensis*	-	-	S5	4											
Ruffed Grouse	*Bonasa umbellus*	-	-	S4												
Sandhill Crane	*Grus canadensis tabida*	-	-	S5	2	flushed from ground behind hawkwatch point									2**	
Sharp-shinned Hawk	*Accipiter striatus*	-	-	S5	1	flying S							1			

Table C-2: 2011 Fall Passerine Migration Survey Results

				Date	September 7 2011						September 8 2011					
				Transect	Transect 9		Transect 8		Transect 7		Transect 10		Transect 11		Transect 12	
				Weather Conditions							9 C, clouds 0 %, wind ? Beaufort 1					
				Start Time	10:05		By Andrew		By Andrew		7:32		8:24		9:16	
				End Time	11:00						8:12		9:10		10:00	
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**
Spruce Grouse	*Falcipennis canadensis*	-	-	S5												
Turkey Vulture	*Cathartes aura*	-	-	S5												
Unknown Duck sp.	*N/A*	-	-	-												
Unknown Owl sp.	*N/A*	-	-	-												
Unknown Sandpiper sp.	*N/A*	-	-	-												
Whip-poor-will	*Caprimulgus vociferus*	THR	THR Schedule 1	S4	1+*											
White-winged Scoter	*Melanitta fusca*	-	-	S4												
Wood Duck	*Aix sponsa*	-	-	S5												
Yellow-bellied Sapsucker	*Sphyrapicus varius*	-	-	S5							2					
Grand Total																

Legend
ESA Status: The Endangered Species Act 2007 (ESA) protects Species at Risk at a provincial level.
SC - Special Concern
THR - Threatened
END - Endangered

SARA Status: The Species at Risk Act (SARA) protects Species at Risk at a federal level.
SC - Special Concern
THR - Threatened
END - Endangered

S-rank: The natural heritage provincial ranking system (provincial S-rank) is used by the MNRF Natural Heritage Information Centre (NHIC) to set protection priorities for rare
S1 - Critically Imperiled, often < 5 occurrences
S2 - Imperiled, often <20 occurences
S3 - Vulnerable, often 80 or fewer
S3S4 - Uncertain between S3 and S4
S4 - Aparently Secure, ncommon
S5 - Secure, common
SNA - Not Applicable —A conservation status rank is not applicable because the species is not a suitable target for conservation activities.
SH - Species or community occurred historically in the nation or state/province, and there is some possibility that it may be rediscovered.

Table C-2: 2011 Fall Passerine Migration Survey Results

				Date	September 14 2011						September 15 2011							
				Transect	Transect 1		Transect 2		Transect 3		Transect 7		Transect 8		Transect 9			
				Weather Conditions	9 C, wind 5-10 km/hr, West; some mist						8 C, cloud 0%, wind 15/20 km/hr from NW,							
				Start Time	7:04		by Andrew Davis		7:50		7:54		9:20		by Andrew Davis			
				End Time	7:29		w Tony Solomon		8:16		8:59		10:04		& Tony Solomon			
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**		
Passerine Observations																		
American Crow	*Corvus brachyrhynchos*	-	-	S5	3				1		3							
American Goldfinch	*Cardeulis tristis*	-	-	S5	1													
American Pipit	*Anthus rubescens*	-	-	S4														
American Redstart	*Setophaga ruticilla*	-	-	S5							2							
American Robin	*Turdus migratorius*	-	-	S5	1				2		1							
Black-and-white Warbler	*Mniotilta varia*	-	-	S5									1					
Black-capped Chickadee	*Poecile atricapillus*	-	-	S5	2						8		7					
Black-throated Green Warbler	*Setophaga virens*	-	-	S5														
Blue Jay	*Cyanocitta cristata*	-	-	S5	5				4		4		3					
Blue-headed Vireo	*Vireo solitarius*	-	-	S5									1					
Brown Creeper	*Certhia americana*	-	-	S5														
Cedar Waxwing	*Bombycilla cedrorum*	-	-	S5	2													
Chestnut-sided Warbler	*Setophaga pensylvanica*	-	-	S5							1							
Chipping Sparrow	*Spizella passerina*	-	-	S5	1													
Common Grackle	*Quiscalus quiscula*	-	-	S5					1									
Common Raven	*Corvus corax*	-	-	S5														
Common Yellowthroat	*Geothlyphis trichas*	-	-	S5							2		3					
Dark-eyed Junco	*Junco hyemalis*	-	-	S5														
Eastern Bluebird	*Sialia sialis*	-	-	S5														
Eastern Kingbird	*Tyrannus tyrannus*	-	-	S4														
Eastern Towhee	*Pipilio erythrophthalmus*	-	-	S4														
Golden-crowned Kinglet	*Regulus satrapa*	-	-	S5														
Gray Catbird	*Dumetella carolinensis*	-	-	S4														
Gray Jay	*Perisoreus canadensis*	-	-	S5														
Hermit Thrush	*Catharus guttatus*	-	-	S5														
Lincoln's Sparrow	*Melospiza lincolnii*	-	-	S5														
Magnolia Warbler	*Setophaga magnolia*	-	-	S5														
Nashville Warbler	*Oreothlypis ruficapilla*	-	-	S5														
Ovenbird	*Seiurus aurocapillus*	-	-	S4									1					
Palm Warbler	*Dendroica palmarum*	-	-	S5									3					
Philadelphia Vireo	*Vireo philadelphicus*	-	-	S5														
Pine Siskin	*Cardeulis pinus*	-	-	S4														
Pine Warbler	*Setophaga pinus*	-	-	S5									4					
Purple Finch	*Carpodacus purpureus*	-	-	S4														
Red-breasted Nuthatch	*Sitta canadensis*	-	-	S5					1									
Red Crossbill	*Loxia curvirostra*	-	-	S4														
Red-eyed Vireo	*Vireo olivaceus*	-	-	S5														
Ruby-crowned Kinglet	*Regulus calendula*	-	-	S4														
Rusty Blackbird	*Euphagus carolinus*	-	SC Schedule 1	S4														
Song Sparrow	*Melospiza melodia*	-	-	S5														
Swainson's Thrush	*Catharus ustulatus*	-	-	S4														
Swamp Sparrow	*Melospiza georgiana*	-	-	S5														
Unknown Blackbird sp.	*N/A*	-	-	-														

Table C-2: 2011 Fall Passerine Migration Survey Results

				Date	September 14 2011						September 15 2011							
				Transect	Transect 1		Transect 2		Transect 3		Transect 7		Transect 8		Transect 9			
				Weather Conditions	9 C, wind 5-10 km/hr, West; some mist						8 C, cloud 0%, wind 15/20 km/hr from NW,							
				Start Time	7:04		by Andrew Davis		7:50		7:54		9:20		by Andrew Davis			
				End Time	7:29		w Tony Solomon		8:16		8:59		10:04		& Tony Solomon			
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**		
Unknown Passerine sp.	*N/A*	-	-	-	2													
Unknown Sparrow sp.	*N/A*	-	-	-														
Unknown Thrush sp.	*N/A*	-	-	-														
Veery	*Catharus fuscescens*	-	-	S4	1													
White-crowned Sparrow	*Zonotrichia leucophrys*	-	-	S4														
White-throated Sparrow	*Zonotrichia albicollis*	-	-	S5														
Wilson's Warbler	*Cardellina pusilla*	-	-	S4														
Winter Wren	*Troglodytes troglodytes*	-	-	S5														
Wood Duck	*Aix sponsa*	-	-	S5														
Yellow-bellied Flycatcher	*Empidonax flaviventris*	-	-	S5														
Yellow-rumped Warbler	*Setophaga coronata*	-	-	S5							7		3					
Grand Total																		
Incidental Wildlife Observations																		
American Kestrel	*Falco sparverius*	-	-	S4							1							
Bald Eagle	*Haliaeetus leucocephalus*	SC	-	S2														
Belted Kingfisher	*Ceryle alcyon*	-	-	S4							1							
Black Scoter	*Melanitta nigra*	-	-	S4														
Black-billed Cuckoo	*Coccyzus erythropthalmus*	-	-	S5														
Broad-winged Hawk	*Buteo platypterus*	-	-	S5														
Bufflehead	*Bucephala albeola*	-	-	S4							1	flyover						
Canada Goose	*Branta canadensis*	-	-	S5														
Common Loon	*Gavia immer*	-	-	S5	1	flyover												
Common Merganser	*Mergus merganser*	-	-	S5														
Cooper's Hawk	*Accipiter cooperi*	-	-	S4														
Double-crested Cormorant	*Phalacrocorax auritus*	-	-	S5							1							
Downy Woodpecker	*Picoides pubescens*	-	-	S5					1									
Great Blue Heron	*Ardea herodias*	-	-	S4														
Greater Yellowlegs	*Tringa melanoleuca*	-	-	S4														
Hairy Woodpecker	*Picoides villosus*	-	-	S5					1		1							
Herring Gull	*Larus argentatus*	-	-	S5														
Killdeer	*Charadrius vociferus*	-	-	S5														
Long-tailed Duck	*Clangula hyemalis*	-	-	S3														
Mallard	*Anas platyrhynchos*	-	-	S5														
Merlin	*Falco columbarius*	-	-	S5									1	flying west				
Northern Flicker	*Colaptes auratus*	-	-	S4					1				1					
Northern Harrier	*Circus cyaneus*	-	-	S4														
Northern Shrike	*Lanius excubitor*	-	-	SNA														
Pileated Woodpecker	*Dryocopus pileatus*	-	-	S5					1									
Red-tailed Hawk	*Buteo jamaicensis*	-	-	S4					1									
Ring-billed Gull	*Larus delawarensis*	-	-	S5														
Ruffed Grouse	*Bonasa umbellus*	-	-	S4							2	young of year						
Sandhill Crane	*Grus canadensis tabida*	-	-	S5									1	calling far away				
Sharp-shinned Hawk	*Accipiter striatus*	-	-	S5														

Table C-2: 2011 Fall Passerine Migration Survey Results

				Date	September 14 2011						September 15 2011					
				Transect	Transect 1		Transect 2		Transect 3		Transect 7		Transect 8		Transect 9	
				Weather Conditions	9 C, wind 5-10 km/hr, West; some mist						8 C, cloud 0%, wind 15/20 km/hr from NW,					
				Start Time	7:04		by Andrew Davis		7:50		7:54		9:20		by Andrew Davis	
				End Time	7:29		w Tony Solomon		8:16		8:59		10:04		& Tony Solomon	
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**
Spruce Grouse	*Falcipennis canadensis*	-	-	S5												
Turkey Vulture	*Cathartes aura*	-	-	S5												
Unknown Duck sp.	*N/A*	-	-	-												
Unknown Owl sp.	*N/A*	-	-	-												
Unknown Sandpiper sp.	*N/A*	-	-	-												
Whip-poor-will	*Caprimulgus vociferus*	THR	THR Schedule 1	S4												
White-winged Scoter	*Melanitta fusca*	-	-	S4												
Wood Duck	*Aix sponsa*	-	-	S5												
Yellow-bellied Sapsucker	*Sphyrapicus varius*	-	-	S5					2		1					
Grand Total																

Legend
ESA Status: The Endangered Species Act 2007 (ESA) protects Species at Risk at a provincial level.
SC - Special Concern
THR - Threatened
END - Endangered

SARA Status: The Species at Risk Act (SARA) protects Species at Risk at a federal level.
SC - Special Concern
THR - Threatened
END - Endangered

S-rank: The natural heritage provincial ranking system (provincial S-rank) is used by the MNRF Natural Heritage Information Centre (NHIC) to set protection priorities for rare
S1 - Critically Imperiled, often < 5 occurrences
S2 - Imperiled, often <20 occurences
S3 - Vulnerable, often 80 or fewer
S3S4 - Uncertain between S3 and S4
S4 - Aparently Secure, ncommon
S5 - Secure, common
SNA - Not Applicable —A conservation status rank is not applicable because the species is not a suitable target for conservation activities.
SH - Species or community occurred historically in the nation or state/province, and there is some possibility that it may be rediscovered.

Table C-2: 2011 Fall Passerine Migration Survey Results

				Date	September 16 2011						September 20 2011						September 21 2011				
				Transect	Transect 10		Transect 11		Transect 12		Transect 4		Transect 5		Transect 6		Transect 1		Transect 2		Transe
				Weather Conditions	4 C, cloud 0 %, wind W beaufort 2						16 C, cloud 10%, wind Beaufort 0, fog						8 C, cloud 80%, wind 0				
				Start Time	7:37		8:37		9:12		8:13		8:55		9:51		7:52		8:51		9:5
				End Time	8:29		9:04		9:49		8:47		9:38		10:17		8:39		9:30		10:2
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**
Passerine Observations																					
American Crow	*Corvus brachyrhynchos*	-	-	S5							3										
American Goldfinch	*Cardeulis tristis*	-	-	S5	1		1		2		3		2				2				9
American Pipit	*Anthus rubescens*	-	-	S4																	
American Redstart	*Setophaga ruticilla*	-	-	S5							1		1						1		
American Robin	*Turdus migratorius*	-	-	S5	1				1		5		4		2		1		7		1
Black-and-white Warbler	*Mniotilta varia*	-	-	S5	1																
Black-capped Chickadee	*Poecile atricapillus*	-	-	S5	4		2		3		1		4		1		5		7		2
Black-throated Green Warbler	*Setophaga virens*	-	-	S5			5												1		
Blue Jay	*Cyanocitta cristata*	-	-	S5	1		3				2		48		1				2		
Blue-headed Vireo	*Vireo solitarius*	-	-	S5							1						1				
Brown Creeper	*Certhia americana*	-	-	S5																	
Cedar Waxwing	*Bombycilla cedrorum*	-	-	S5	1												2				
Chestnut-sided Warbler	*Setophaga pensylvanica*	-	-	S5																	
Chipping Sparrow	*Spizella passerina*	-	-	S5																	
Common Grackle	*Quiscalus quiscula*	-	-	S5							2	flyover					1				
Common Raven	*Corvus corax*	-	-	S5	1				1										1		
Common Yellowthroat	*Geothlyphis trichas*	-	-	S5	1						3		1				1		1		
Dark-eyed Junco	*Junco hyemalis*	-	-	S5																	
Eastern Bluebird	*Sialia sialis*	-	-	S5											1						
Eastern Kingbird	*Tyrannus tyrannus*	-	-	S4																	
Eastern Towhee	*Pipilio erythrophthalmus*	-	-	S4																	
Golden-crowned Kinglet	*Regulus satrapa*	-	-	S5																	
Gray Catbird	*Dumetella carolinensis*	-	-	S4																	
Gray Jay	*Perisoreus canadensis*	-	-	S5																	
Hermit Thrush	*Catharus guttatus*	-	-	S5																	
Lincoln's Sparrow	*Melospiza lincolnii*	-	-	S5																	
Magnolia Warbler	*Setophaga magnolia*	-	-	S5																	
Nashville Warbler	*Oreothlypis ruficapilla*	-	-	S5			2														
Ovenbird	*Seiurus aurocapillus*	-	-	S4																	
Palm Warbler	*Dendroica palmarum*	-	-	S5									4				1				
Philadelphia Vireo	*Vireo philadelphicus*	-	-	S5																	
Pine Siskin	*Cardeulis pinus*	-	-	S4																	
Pine Warbler	*Setophaga pinus*	-	-	S5					1												
Purple Finch	*Carpodacus purpureus*	-	-	S4																	
Red-breasted Nuthatch	*Sitta canadensis*	-	-	S5													3		3		1
Red Crossbill	*Loxia curvirostra*	-	-	S4																	
Red-eyed Vireo	*Vireo olivaceus*	-	-	S5															5		1
Ruby-crowned Kinglet	*Regulus calendula*	-	-	S4																	
Rusty Blackbird	*Euphagus carolinus*	-	SC Schedule 1	S4																	
Song Sparrow	*Melospiza melodia*	-	-	S5																	
Swainson's Thrush	*Catharus ustulatus*	-	-	S4	1																
Swamp Sparrow	*Melospiza georgiana*	-	-	S5																	
Unknown Blackbird sp.	*N/A*	-	-	-																	

Table C-2: 2011 Fall Passerine Migration Survey Results

				Date	September 16 2011						September 20 2011						September 21 2011					
				Transect	Transect 10		Transect 11		Transect 12		Transect 4		Transect 5		Transect 6		Transect 1		Transect 2		Transe	
				Weather Conditions	4 C, cloud 0 %, wind W beaufort 2						16 C, cloud 10%, wind Beaufort 0, fog						8 C, cloud 80%, wind 0					
				Start Time	7:37		8:37		9:12		8:13		8:55		9:51		7:52		8:51		9:5	
				End Time	8:29		9:04		9:49		8:47		9:38		10:17		8:39		9:30		10:2	
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	
Unknown Passerine sp.	*N/A*	-	-	-	5								7			3	5					
Unknown Sparrow sp.	*N/A*	-	-	-																		
Unknown Thrush sp.	*N/A*	-	-	-																		
Veery	*Catharus fuscescens*	-	-	S4																		
White-crowned Sparrow	*Zonotrichia leucophrys*	-	-	S4																		
White-throated Sparrow	*Zonotrichia albicollis*	-	-	S5			4				8						4		8			
Wilson's Warbler	*Cardellina pusilla*	-	-	S4																		
Winter Wren	*Troglodytes troglodytes*	-	-	S5																		
Wood Duck	*Aix sponsa*	-	-	S5																		
Yellow-bellied Flycatcher	*Empidonax flaviventris*	-	-	S5																		
Yellow-rumped Warbler	*Setophaga coronata*	-	-	S5	2								1				1					
Grand Total																						
Incidental Wildlife Observations																						
American Kestrel	*Falco sparverius*	-	-	S4					3													
Bald Eagle	*Haliaeetus leucocephalus*	SC	-	S2																		
Belted Kingfisher	*Ceryle alcyon*	-	-	S4							1											
Black Scoter	*Melanitta nigra*	-	-	S4																		
Black-billed Cuckoo	*Coccyzus erythropthalmus*	-	-	S5			1															
Broad-winged Hawk	*Buteo platypterus*	-	-	S5																		
Bufflehead	*Bucephala albeola*	-	-	S4																		
Canada Goose	*Branta canadensis*	-	-	S5	1				14	flyover					2							
Common Loon	*Gavia immer*	-	-	S5																		
Common Merganser	*Mergus merganser*	-	-	S5																		
Cooper's Hawk	*Accipiter cooperi*	-	-	S4																		
Double-crested Cormorant	*Phalacrocorax auritus*	-	-	S5																		
Downy Woodpecker	*Picoides pubescens*	-	-	S5																		
Great Blue Heron	*Ardea herodias*	-	-	S4					1	flyover												
Greater Yellowlegs	*Tringa melanoleuca*	-	-	S4																		
Hairy Woodpecker	*Picoides villosus*	-	-	S5	1				1		1											
Herring Gull	*Larus argentatus*	-	-	S5																		
Killdeer	*Charadrius vociferus*	-	-	S5																		
Long-tailed Duck	*Clangula hyemalis*	-	-	S3																		
Mallard	*Anas platyrhynchos*	-	-	S5																		
Merlin	*Falco columbarius*	-	-	S5																		
Northern Flicker	*Colaptes auratus*	-	-	S4	2		3		2		2		3				1				1	
Northern Harrier	*Circus cyaneus*	-	-	S4																		
Northern Shrike	*Lanius excubitor*	-	-	SNA																		
Pileated Woodpecker	*Dryocopus pileatus*	-	-	S5							1		2									
Red-tailed Hawk	*Buteo jamaicensis*	-	-	S4																		
Ring-billed Gull	*Larus delawarensis*	-	-	S5																		
Ruffed Grouse	*Bonasa umbellus*	-	-	S4									1									
Sandhill Crane	*Grus canadensis tabida*	-	-	S5											1	calling in distance						
Sharp-shinned Hawk	*Accipiter striatus*	-	-	S5																		

Table C-2: 2011 Fall Passerine Migration Survey Results

				Date	September 16 2011						September 20 2011						September 21 2011					
				Transect	Transect 10		Transect 11		Transect 12		Transect 4		Transect 5		Transect 6		Transect 1		Transect 2		Transe	
				Weather Conditions	4 C, cloud 0 %, wind W beaufort 2						16 C, cloud 10%, wind Beaufort 0, fog						8 C, cloud 80%, wind 0					
				Start Time	7:37		8:37		9:12		8:13		8:55		9:51		7:52		8:51		9:5	
				End Time	8:29		9:04		9:49		8:47		9:38		10:17		8:39		9:30		10:2	
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**
Spruce Grouse	*Falcipennis canadensis*	-	-	S5																	
Turkey Vulture	*Cathartes aura*	-	-	S5																	
Unknown Duck sp.	*N/A*	-	-	-																	
Unknown Owl sp.	*N/A*	-	-	-																	
Unknown Sandpiper sp.	*N/A*	-	-	-													1				
Whip-poor-will	*Caprimulgus vociferus*	THR	THR Schedule 1	S4																	
White-winged Scoter	*Melanitta fusca*	-	-	S4																	
Wood Duck	*Aix sponsa*	-	-	S5																	
Yellow-bellied Sapsucker	*Sphyrapicus varius*	-	-	S5			1												1		1
Grand Total																					

Legend
ESA Status: The Endangered Species Act 2007 (ESA) protects Species at Risk at a provincial level.
SC - Special Concern
THR - Threatened
END - Endangered

SARA Status: The Species at Risk Act (SARA) protects Species at Risk at a federal level.
SC - Special Concern
THR - Threatened
END - Endangered

S-rank: The natural heritage provincial ranking system (provincial S-rank) is used by the MNRF Natural Heritage Information Centre (NHIC) to set protection priorities for rare
S1 - Critically Imperiled, often < 5 occurrences
S2 - Imperiled, often <20 occurences
S3 - Vulnerable, often 80 or fewer
S3S4 - Uncertain between S3 and S4
S4 - Aparently Secure, ncommon
S5 - Secure, common
SNA - Not Applicable —A conservation status rank is not applicable because the species is not a suitable target for conservation activities.
SH - Species or community occurred historically in the nation or state/province, and there is some possibility that it may be rediscovered.

Table C-2: 2011 Fall Passerine Migration Survey Results

				Date		September 22 2011						September 26 2011						September 27 2011			
				Transect	ct 3	Transect 9		Transect 10		Transect 11		Transect 1		Transect 2		Transect 3		Transect 4		Transect 5	
				Weather Conditions		14 C, clouds 30%, wind W/SW beaufort 2 gusts 3						16 C, cloud 90%, wind 0 at start, 3 at end)						19 C, cloud 90%, wind NE be			
				Start Time	6	by Andrew Davis		by Andrew Davis		8:47		8:03		9:10		10:25		by Andrew Davis		by Andrew Davis	
				End Time	5	& Tony Solomon		& Tony Solomon		9:23		8:52		9:54		10:46		& Tony Solomon		& Tony Solomon	
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**
Passerine Observations																					
American Crow	*Corvus brachyrhynchos*	-	-	S5						3											
American Goldfinch	*Cardeulis tristis*	-	-	S5						1		1									
American Pipit	*Anthus rubescens*	-	-	S4								10									
American Redstart	*Setophaga ruticilla*	-	-	S5																	
American Robin	*Turdus migratorius*	-	-	S5										3							
Black-and-white Warbler	*Mniotilta varia*	-	-	S5																	
Black-capped Chickadee	*Poecile atricapillus*	-	-	S5								6		6							
Black-throated Green Warbler	*Setophaga virens*	-	-	S5												1					
Blue Jay	*Cyanocitta cristata*	-	-	S5						2		3		2							
Blue-headed Vireo	*Vireo solitarius*	-	-	S5										1							
Brown Creeper	*Certhia americana*	-	-	S5												1					
Cedar Waxwing	*Bombycilla cedrorum*	-	-	S5																	
Chestnut-sided Warbler	*Setophaga pensylvanica*	-	-	S5																	
Chipping Sparrow	*Spizella passerina*	-	-	S5																	
Common Grackle	*Quiscalus quiscula*	-	-	S5																	
Common Raven	*Corvus corax*	-	-	S5																	
Common Yellowthroat	*Geothlyphis trichas*	-	-	S5								1									
Dark-eyed Junco	*Junco hyemalis*	-	-	S5										1							
Eastern Bluebird	*Sialia sialis*	-	-	S5																	
Eastern Kingbird	*Tyrannus tyrannus*	-	-	S4																	
Eastern Towhee	*Pipilio erythrophthalmus*	-	-	S4																	
Golden-crowned Kinglet	*Regulus satrapa*	-	-	S5								5									
Gray Catbird	*Dumetella carolinensis*	-	-	S4										1							
Gray Jay	*Perisoreus canadensis*	-	-	S5																	
Hermit Thrush	*Catharus guttatus*	-	-	S5										2							
Lincoln's Sparrow	*Melospiza lincolnii*	-	-	S5																	
Magnolia Warbler	*Setophaga magnolia*	-	-	S5																	
Nashville Warbler	*Oreothlypis ruficapilla*	-	-	S5																	
Ovenbird	*Seiurus aurocapillus*	-	-	S4										1							
Palm Warbler	*Dendroica palmarum*	-	-	S5																	
Philadelphia Vireo	*Vireo philadelphicus*	-	-	S5																	
Pine Siskin	*Cardeulis pinus*	-	-	S4																	
Pine Warbler	*Setophaga pinus*	-	-	S5																	
Purple Finch	*Carpodacus purpureus*	-	-	S4								3		1							
Red-breasted Nuthatch	*Sitta canadensis*	-	-	S5								2		3							
Red Crossbill	*Loxia curvirostra*	-	-	S4																	
Red-eyed Vireo	*Vireo olivaceus*	-	-	S5																	
Ruby-crowned Kinglet	*Regulus calendula*	-	-	S4								2		1							
Rusty Blackbird	*Euphagus carolinus*	-	SC Schedule 1	S4																	
Song Sparrow	*Melospiza melodia*	-	-	S5										2							
Swainson's Thrush	*Catharus ustulatus*	-	-	S4																	
Swamp Sparrow	*Melospiza georgiana*	-	-	S5								1									
Unknown Blackbird sp.	*N/A*	-	-	-								7									

Table C-2: 2011 Fall Passerine Migration Survey Results

				Date		September 22 2011						September 26 2011						September 27 2011			
				Transect	ect 3	Transect 9		Transect 10		Transect 11		Transect 1		Transect 2		Transect 3		Transect 4		Transect 5	
				Weather Conditions		14 C, clouds 30%, wind W/SW beaufort 2 gusts 3						16 C, cloud 90%, wind 0 at start, 3 at end)						19 C, cloud 90%, wind NE be			
				Start Time	6	by Andrew Davis		by Andrew Davis		8:47		8:03		9:10		10:25		by Andrew Davis		by Andrew Davis	
				End Time	:5	& Tony Solomon		& Tony Solomon		9:23		8:52		9:54		10:46		& Tony Solomon		& Tony Solomon	
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**
Unknown Passerine sp.	*N/A*	-	-	-								58		3		3					
Unknown Sparrow sp.	*N/A*	-	-	-																	
Unknown Thrush sp.	*N/A*	-	-	-										1							
Veery	*Catharus fuscescens*	-	-	S4																	
White-crowned Sparrow	*Zonotrichia leucophrys*	-	-	S4																	
White-throated Sparrow	*Zonotrichia albicollis*	-	-	S5										5							
Wilson's Warbler	*Cardellina pusilla*	-	-	S4																	
Winter Wren	*Troglodytes troglodytes*	-	-	S5																	
Wood Duck	*Aix sponsa*	-	-	S5																	
Yellow-bellied Flycatcher	*Empidonax flaviventris*	-	-	S5																	
Yellow-rumped Warbler	*Setophaga coronata*	-	-	S5								2		1							
Grand Total																					
Incidental Wildlife Observations																					
American Kestrel	*Falco sparverius*	-	-	S4						1	flying S										
Bald Eagle	*Haliaeetus leucocephalus*	SC	-	S2																	
Belted Kingfisher	*Ceryle alcyon*	-	-	S4																	
Black Scoter	*Melanitta nigra*	-	-	S4																	
Black-billed Cuckoo	*Coccyzus erythropthalmus*	-	-	S5																	
Broad-winged Hawk	*Buteo platypterus*	-	-	S5																	
Bufflehead	*Bucephala albeola*	-	-	S4																	
Canada Goose	*Branta canadensis*	-	-	S5								40	flying SW								
Common Loon	*Gavia immer*	-	-	S5						1		1									
Common Merganser	*Mergus merganser*	-	-	S5																	
Cooper's Hawk	*Accipiter cooperi*	-	-	S4																	
Double-crested Cormorant	*Phalacrocorax auritus*	-	-	S5																	
Downy Woodpecker	*Picoides pubescens*	-	-	S5								1									
Great Blue Heron	*Ardea herodias*	-	-	S4																	
Greater Yellowlegs	*Tringa melanoleuca*	-	-	S4																	
Hairy Woodpecker	*Picoides villosus*	-	-	S5																	
Herring Gull	*Larus argentatus*	-	-	S5						2											
Killdeer	*Charadrius vociferus*	-	-	S5																	
Long-tailed Duck	*Clangula hyemalis*	-	-	S3																	
Mallard	*Anas platyrhynchos*	-	-	S5						1											
Merlin	*Falco columbarius*	-	-	S5																	
Northern Flicker	*Colaptes auratus*	-	-	S4						1		1									
Northern Harrier	*Circus cyaneus*	-	-	S4																	
Northern Shrike	*Lanius excubitor*	-	-	SNA																	
Pileated Woodpecker	*Dryocopus pileatus*	-	-	S5						1											
Red-tailed Hawk	*Buteo jamaicensis*	-	-	S4																	
Ring-billed Gull	*Larus delawarensis*	-	-	S5																	
Ruffed Grouse	*Bonasa umbellus*	-	-	S4																	
Sandhill Crane	*Grus canadensis tabida*	-	-	S5																	
Sharp-shinned Hawk	*Accipiter striatus*	-	-	S5																	

Table C-2: 2011 Fall Passerine Migration Survey Results

				Date		September 22 2011						September 26 2011						September 27 2011					
				Transect	ct 3	Transect 9		Transect 10		Transect 11		Transect 1		Transect 2		Transect 3		Transect 4		Transect 5			
				Weather Conditions		14 C, clouds 30%, wind W/SW beaufort 2 gusts 3						16 C, cloud 90%, wind 0 at start, 3 at end)						19 C, cloud 90%, wind NE be					
				Start Time	6	by Andrew Davis		by Andrew Davis		8:47		8:03		9:10		10:25		by Andrew Davis		by Andrew Davis			
				End Time	5	& Tony Solomon		& Tony Solomon		9:23		8:52		9:54		10:46		& Tony Solomon		& Tony Solomon			
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**		
Spruce Grouse	*Falcipennis canadensis*	-	-	S5																			
Turkey Vulture	*Cathartes aura*	-	-	S5																			
Unknown Duck sp.	*N/A*	-	-	-																			
Unknown Owl sp.	*N/A*	-	-	-																			
Unknown Sandpiper sp.	*N/A*	-	-	-																			
Whip-poor-will	*Caprimulgus vociferus*	THR	THR Schedule 1	S4																			
White-winged Scoter	*Melanitta fusca*	-	-	S4																			
Wood Duck	*Aix sponsa*	-	-	S5																			
Yellow-bellied Sapsucker	*Sphyrapicus varius*	-	-	S5										1	young of year								
Grand Total																							

Legend
ESA Status: The Endangered Species Act 2007 (ESA) protects Species at Risk at a provincial level.
SC - Special Concern
THR - Threatened
END - Endangered

SARA Status: The Species at Risk Act (SARA) protects Species at Risk at a federal level.
SC - Special Concern
THR - Threatened
END - Endangered

S-rank: The natural heritage provincial ranking system (provincial S-rank) is used by the MNRF Natural Heritage Information Centre (NHIC) to set protection priorities for rare
S1 - Critically Imperiled, often < 5 occurrences
S2 - Imperiled, often <20 occurences
S3 - Vulnerable, often 80 or fewer
S3S4 - Uncertain between S3 and S4
S4 - Aparently Secure, ncommon
S5 - Secure, common
SNA - Not Applicable —A conservation status rank is not applicable because the species is not a suitable target for conservation activities.
SH - Species or community occurred historically in the nation or state/province, and there is some possibility that it may be rediscovered.

Table C-2: 2011 Fall Passerine Migration Survey Results

				Date			September 29 2011						October 3 2011					
				Transect	Transect 6		Transect 7		Transect 8		Transect 9		Transect 10		Transect 11		Transect 12	
				Weather Conditions	aufort 1		14 C, cloud 100%, wind W beaufort 1						10 C, cloud 80%, wind N/NE, beaufort 1 at start, 3 at end					
				Start Time	10:24		8:35		9:40		by Andrew Davis		8:28		8:57		9:41	
				End Time	10:51		9:10		10:33		& Tony Solomon		8:54		9:38		10:10	
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**
Passerine Observations																		
American Crow	*Corvus brachyrhynchos*	-	-	S5	2								2					
American Goldfinch	*Cardeulis tristis*	-	-	S5	1		2								10		12	
American Pipit	*Anthus rubescens*	-	-	S4														
American Redstart	*Setophaga ruticilla*	-	-	S5														
American Robin	*Turdus migratorius*	-	-	S5	8								9		11			
Black-and-white Warbler	*Mniotilta varia*	-	-	S5														
Black-capped Chickadee	*Poecile atricapillus*	-	-	S5	2				4						2		2	
Black-throated Green Warbler	*Setophaga virens*	-	-	S5			1											
Blue Jay	*Cyanocitta cristata*	-	-	S5	15	flying S											4	
Blue-headed Vireo	*Vireo solitarius*	-	-	S5					1									
Brown Creeper	*Certhia americana*	-	-	S5											2			
Cedar Waxwing	*Bombycilla cedrorum*	-	-	S5					8									
Chestnut-sided Warbler	*Setophaga pensylvanica*	-	-	S5														
Chipping Sparrow	*Spizella passerina*	-	-	S5														
Common Grackle	*Quiscalus quiscula*	-	-	S5														
Common Raven	*Corvus corax*	-	-	S5													2	
Common Yellowthroat	*Geothlyphis trichas*	-	-	S5	1		1											
Dark-eyed Junco	*Junco hyemalis*	-	-	S5			2											
Eastern Bluebird	*Sialia sialis*	-	-	S5														
Eastern Kingbird	*Tyrannus tyrannus*	-	-	S4														
Eastern Towhee	*Pipilio erythrophthalmus*	-	-	S4									1					
Golden-crowned Kinglet	*Regulus satrapa*	-	-	S5														
Gray Catbird	*Dumetella carolinensis*	-	-	S4														
Gray Jay	*Perisoreus canadensis*	-	-	S5														
Hermit Thrush	*Catharus guttatus*	-	-	S5														
Lincoln's Sparrow	*Melospiza lincolnii*	-	-	S5														
Magnolia Warbler	*Setophaga magnolia*	-	-	S5														
Nashville Warbler	*Oreothlypis ruficapilla*	-	-	S5					1									
Ovenbird	*Seiurus aurocapillus*	-	-	S4														
Palm Warbler	*Dendroica palmarum*	-	-	S5	2		1											
Philadelphia Vireo	*Vireo philadelphicus*	-	-	S5														
Pine Siskin	*Cardeulis pinus*	-	-	S4														
Pine Warbler	*Setophaga pinus*	-	-	S5	1		1											
Purple Finch	*Carpodacus purpureus*	-	-	S4														
Red-breasted Nuthatch	*Sitta canadensis*	-	-	S5														
Red Crossbill	*Loxia curvirostra*	-	-	S4														
Red-eyed Vireo	*Vireo olivaceus*	-	-	S5														
Ruby-crowned Kinglet	*Regulus calendula*	-	-	S4					2						7			
Rusty Blackbird	*Euphagus carolinus*	-	SC Schedule 1	S4											3			
Song Sparrow	*Melospiza melodia*	-	-	S5														
Swainson's Thrush	*Catharus ustulatus*	-	-	S4														
Swamp Sparrow	*Melospiza georgiana*	-	-	S5														
Unknown Blackbird sp.	*N/A*	-	-	-														

Table C-2: 2011 Fall Passerine Migration Survey Results

				Date			September 29 2011						October 3 2011					
				Transect	Transect 6		Transect 7		Transect 8		Transect 9		Transect 10		Transect 11		Transect 12	
				Weather Conditions	aufort 1		14 C, cloud 100%, wind W beaufort 1						10 C, cloud 80%, wind N/NE, beaufort 1 at start, 3 at end					
				Start Time	10:24		8:35		9:40		by Andrew Davis		8:28		8:57		9:41	
				End Time	10:51		9:10		10:33		& Tony Solomon		8:54		9:38		10:10	
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**
Unknown Passerine sp.	*N/A*	-	-	-	27								5		8			
Unknown Sparrow sp.	*N/A*	-	-	-														
Unknown Thrush sp.	*N/A*	-	-	-														
Veery	*Catharus fuscescens*	-	-	S4														
White-crowned Sparrow	*Zonotrichia leucophrys*	-	-	S4			2											
White-throated Sparrow	*Zonotrichia albicollis*	-	-	S5			12								1		4	
Wilson's Warbler	*Cardellina pusilla*	-	-	S4														
Winter Wren	*Troglodytes troglodytes*	-	-	S5														
Wood Duck	*Aix sponsa*	-	-	S5														
Yellow-bellied Flycatcher	*Empidonax flaviventris*	-	-	S5														
Yellow-rumped Warbler	*Setophaga coronata*	-	-	S5	1		1											
Grand Total																		
Incidental Wildlife Observations																		
American Kestrel	*Falco sparverius*	-	-	S4														
Bald Eagle	*Haliaeetus leucocephalus*	SC	-	S2			1											
Belted Kingfisher	*Ceryle alcyon*	-	-	S4														
Black Scoter	*Melanitta nigra*	-	-	S4														
Black-billed Cuckoo	*Coccyzus erythropthalmus*	-	-	S5														
Broad-winged Hawk	*Buteo platypterus*	-	-	S5														
Bufflehead	*Bucephala albeola*	-	-	S4														
Canada Goose	*Branta canadensis*	-	-	S5	52	flyover	2										15	
Common Loon	*Gavia immer*	-	-	S5	1	far away												
Common Merganser	*Mergus merganser*	-	-	S5														
Cooper's Hawk	*Accipiter cooperi*	-	-	S4														
Double-crested Cormorant	*Phalacrocorax auritus*	-	-	S5														
Downy Woodpecker	*Picoides pubescens*	-	-	S5														
Great Blue Heron	*Ardea herodias*	-	-	S4					1									
Greater Yellowlegs	*Tringa melanoleuca*	-	-	S4														
Hairy Woodpecker	*Picoides villosus*	-	-	S5									1	female	1			
Herring Gull	*Larus argentatus*	-	-	S5														
Killdeer	*Charadrius vociferus*	-	-	S5													1	
Long-tailed Duck	*Clangula hyemalis*	-	-	S3														
Mallard	*Anas platyrhynchos*	-	-	S5														
Merlin	*Falco columbarius*	-	-	S5														
Northern Flicker	*Colaptes auratus*	-	-	S4	2													
Northern Harrier	*Circus cyaneus*	-	-	S4									1	male, flying S				
Northern Shrike	*Lanius excubitor*	-	-	SNA														
Pileated Woodpecker	*Dryocopus pileatus*	-	-	S5														
Red-tailed Hawk	*Buteo jamaicensis*	-	-	S4														
Ring-billed Gull	*Larus delawarensis*	-	-	S5									1					
Ruffed Grouse	*Bonasa umbellus*	-	-	S4					1						1		1	
Sandhill Crane	*Grus canadensis tabida*	-	-	S5														
Sharp-shinned Hawk	*Accipiter striatus*	-	-	S5														

Table C-2: 2011 Fall Passerine Migration Survey Results

				Date			September 29 2011						October 3 2011					
				Transect	Transect 6		Transect 7		Transect 8		Transect 9		Transect 10		Transect 11		Transect 12	
				Weather Conditions	aufort 1		14 C, cloud 100%, wind W beaufort 1						10 C, cloud 80%, wind N/NE, beaufort 1 at start, 3 at end					
				Start Time	10:24		8:35		9:40		by Andrew Davis		8:28		8:57		9:41	
				End Time	10:51		9:10		10:33		& Tony Solomon		8:54		9:38		10:10	
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**
Spruce Grouse	*Falcipennis canadensis*	-	-	S5														
Turkey Vulture	*Cathartes aura*	-	-	S5														
Unknown Duck sp.	*N/A*	-	-	-														
Unknown Owl sp.	*N/A*	-	-	-														
Unknown Sandpiper sp.	*N/A*	-	-	-														
Whip-poor-will	*Caprimulgus vociferus*	THR	THR Schedule 1	S4														
White-winged Scoter	*Melanitta fusca*	-	-	S4														
Wood Duck	*Aix sponsa*	-	-	S5														
Yellow-bellied Sapsucker	*Sphyrapicus varius*	-	-	S5					1									
Grand Total																		

Legend
ESA Status: The Endangered Species Act 2007 (ESA) protects Species at Risk at a provincial level.
SC - Special Concern
THR - Threatened
END - Endangered

SARA Status: The Species at Risk Act (SARA) protects Species at Risk at a federal level.
SC - Special Concern
THR - Threatened
END - Endangered

S-rank: The natural heritage provincial ranking system (provincial S-rank) is used by the MNRF Natural Heritage Information Centre (NHIC) to set protection priorities for rare
S1 - Critically Imperiled, often < 5 occurrences
S2 - Imperiled, often <20 occurences
S3 - Vulnerable, often 80 or fewer
S3S4 - Uncertain between S3 and S4
S4 - Aparently Secure, ncommon
S5 - Secure, common
SNA - Not Applicable —A conservation status rank is not applicable because the species is not a suitable target for conservation activities.
SH - Species or community occurred historically in the nation or state/province, and there is some possibility that it may be rediscovered.

Table C-2: 2011 Fall Passerine Migration Survey Results

					October 4 2011						October 5 2011						October 6 2011					
				Date																		
				Transect	Transect 7		Transect 8		Transect 9		Transect 1		Transect 2		Transect 3		Transect 16		Transect 17		Transect 18	
				Weather Conditions	15 C, cloud 10%, wind W, beaufort 1-2						8 C, clouds 0%, wind N/NE beaufort 1 at start, then 3						9 C, clouds 0%, wind S/SE beaufort 1					
				Start Time	by Andrew Davis		by Andrew Davis		11:37		8:13		9:19		10:19		8:44		9:45		10:19	
				End Time	& Tony Solomon		& Tony Solomon		12:20		9:00		9:59		10:40							
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**
Passerine Observations																						
American Crow	*Corvus brachyrhynchos*	-	-	S5					2													
American Goldfinch	*Cardeulis tristis*	-	-	S5																		
American Pipit	*Anthus rubescens*	-	-	S4																		
American Redstart	*Setophaga ruticilla*	-	-	S5																		
American Robin	*Turdus migratorius*	-	-	S5					3		2						2				8	
Black-and-white Warbler	*Mniotilta varia*	-	-	S5																		
Black-capped Chickadee	*Poecile atricapillus*	-	-	S5					3		3		7				10				11	
Black-throated Green Warbler	*Setophaga virens*	-	-	S5																		
Blue Jay	*Cyanocitta cristata*	-	-	S5							2		1						1		1	
Blue-headed Vireo	*Vireo solitarius*	-	-	S5							6											
Brown Creeper	*Certhia americana*	-	-	S5																		
Cedar Waxwing	*Bombycilla cedrorum*	-	-	S5																		
Chestnut-sided Warbler	*Setophaga pensylvanica*	-	-	S5																		
Chipping Sparrow	*Spizella passerina*	-	-	S5																		
Common Grackle	*Quiscalus quiscula*	-	-	S5																		
Common Raven	*Corvus corax*	-	-	S5																		
Common Yellowthroat	*Geothlyphis trichas*	-	-	S5																		
Dark-eyed Junco	*Junco hyemalis*	-	-	S5																	5	
Eastern Bluebird	*Sialia sialis*	-	-	S5																		
Eastern Kingbird	*Tyrannus tyrannus*	-	-	S4																		
Eastern Towhee	*Pipilio erythrophthalmus*	-	-	S4																		
Golden-crowned Kinglet	*Regulus satrapa*	-	-	S5							8				3		2		5		2	
Gray Catbird	*Dumetella carolinensis*	-	-	S4																		
Gray Jay	*Perisoreus canadensis*	-	-	S5																		
Hermit Thrush	*Catharus guttatus*	-	-	S5																		
Lincoln's Sparrow	*Melospiza lincolnii*	-	-	S5																		
Magnolia Warbler	*Setophaga magnolia*	-	-	S5																		
Nashville Warbler	*Oreothlypis ruficapilla*	-	-	S5																		
Ovenbird	*Seiurus aurocapillus*	-	-	S4																		
Palm Warbler	*Dendroica palmarum*	-	-	S5																		
Philadelphia Vireo	*Vireo philadelphicus*	-	-	S5																		
Pine Siskin	*Cardeulis pinus*	-	-	S4					7								2					
Pine Warbler	*Setophaga pinus*	-	-	S5					2													
Purple Finch	*Carpodacus purpureus*	-	-	S4					1										1			
Red-breasted Nuthatch	*Sitta canadensis*	-	-	S5							3						1					
Red Crossbill	*Loxia curvirostra*	-	-	S4							1											
Red-eyed Vireo	*Vireo olivaceus*	-	-	S5																		
Ruby-crowned Kinglet	*Regulus calendula*	-	-	S4					3		6						5		3		6	
Rusty Blackbird	*Euphagus carolinus*	-	SC Schedule 1	S4																		
Song Sparrow	*Melospiza melodia*	-	-	S5													2				1	
Swainson's Thrush	*Catharus ustulatus*	-	-	S4																		
Swamp Sparrow	*Melospiza georgiana*	-	-	S5																		
Unknown Blackbird sp.	*N/A*	-	-	-																		

Table C-2: 2011 Fall Passerine Migration Survey Results

					October 4 2011						October 5 2011						October 6 2011					
				Date																		
				Transect	Transect 7		Transect 8		Transect 9		Transect 1		Transect 2		Transect 3		Transect 16		Transect 17		Transect 18	
				Weather Conditions	15 C, cloud 10%, wind W, beaufort 1-2						8 C, clouds 0%, wind N/NE beaufort 1 at start, then 3						9 C, clouds 0%, wind S/SE beaufort 1					
				Start Time	by Andrew Davis		by Andrew Davis		11:37		8:13		9:19		10:19		8:44		9:45		10:19	
				End Time	& Tony Solomon		& Tony Solomon		12:20		9:00		9:59		10:40							
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**
Unknown Passerine sp.	*N/A*	-	-	-							26		3									
Unknown Sparrow sp.	*N/A*	-	-	-																		
Unknown Thrush sp.	*N/A*	-	-	-																		
Veery	*Catharus fuscescens*	-	-	S4																		
White-crowned Sparrow	*Zonotrichia leucophrys*	-	-	S4									8		4						1	
White-throated Sparrow	*Zonotrichia albicollis*	-	-	S5					3		1		2									
Wilson's Warbler	*Cardellina pusilla*	-	-	S4							1											
Winter Wren	*Troglodytes troglodytes*	-	-	S5									1									
Wood Duck	*Aix sponsa*	-	-	S5																		
Yellow-bellied Flycatcher	*Empidonax flaviventris*	-	-	S5																		
Yellow-rumped Warbler	*Setophaga coronata*	-	-	S5					5												1	
Grand Total																						
Incidental Wildlife Observations																						
American Kestrel	*Falco sparverius*	-	-	S4																		
Bald Eagle	*Haliaeetus leucocephalus*	SC	-	S2																		
Belted Kingfisher	*Ceryle alcyon*	-	-	S4																		
Black Scoter	*Melanitta nigra*	-	-	S4																		
Black-billed Cuckoo	*Coccyzus erythropthalmus*	-	-	S5																		
Broad-winged Hawk	*Buteo platypterus*	-	-	S5																		
Bufflehead	*Bucephala albeola*	-	-	S4																		
Canada Goose	*Branta canadensis*	-	-	S5															1			
Common Loon	*Gavia immer*	-	-	S5																		
Common Merganser	*Mergus merganser*	-	-	S5																		
Cooper's Hawk	*Accipiter cooperi*	-	-	S4																		
Double-crested Cormorant	*Phalacrocorax auritus*	-	-	S5																		
Downy Woodpecker	*Picoides pubescens*	-	-	S5																		
Great Blue Heron	*Ardea herodias*	-	-	S4																		
Greater Yellowlegs	*Tringa melanoleuca*	-	-	S4																		
Hairy Woodpecker	*Picoides villosus*	-	-	S5									1		1							
Herring Gull	*Larus argentatus*	-	-	S5																		
Killdeer	*Charadrius vociferus*	-	-	S5																		
Long-tailed Duck	*Clangula hyemalis*	-	-	S3																		
Mallard	*Anas platyrhynchos*	-	-	S5													1					
Merlin	*Falco columbarius*	-	-	S5																		
Northern Flicker	*Colaptes auratus*	-	-	S4							1						1					
Northern Harrier	*Circus cyaneus*	-	-	S4																		
Northern Shrike	*Lanius excubitor*	-	-	SNA																		
Pileated Woodpecker	*Dryocopus pileatus*	-	-	S5					1	male												
Red-tailed Hawk	*Buteo jamaicensis*	-	-	S4																		
Ring-billed Gull	*Larus delawarensis*	-	-	S5																		
Ruffed Grouse	*Bonasa umbellus*	-	-	S4					1													
Sandhill Crane	*Grus canadensis tabida*	-	-	S5																		
Sharp-shinned Hawk	*Accipiter striatus*	-	-	S5																		

Table C-2: 2011 Fall Passerine Migration Survey Results

				Date	October 4 2011						October 5 2011						October 6 2011						
				Transect	Transect 7		Transect 8		Transect 9		Transect 1		Transect 2		Transect 3		Transect 16		Transect 17		Transect 18		
				Weather Conditions	15 C, cloud 10%, wind W, beaufort 1-2						8 C, clouds 0%, wind N/NE beaufort 1 at start, then 3						9 C, clouds 0%, wind S/SE beaufort 1						
				Start Time	by Andrew Davis		by Andrew Davis		11:37		8:13		9:19		10:19		8:44		9:45		10:19		
				End Time	& Tony Solomon		& Tony Solomon		12:20		9:00		9:59		10:40								
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**
Spruce Grouse	*Falcipennis canadensis*	-	-	S5																		
Turkey Vulture	*Cathartes aura*	-	-	S5									1						1			
Unknown Duck sp.	*N/A*	-	-	-																		
Unknown Owl sp.	*N/A*	-	-	-																		
Unknown Sandpiper sp.	*N/A*	-	-	-																		
Whip-poor-will	*Caprimulgus vociferus*	THR	THR Schedule 1	S4																		
White-winged Scoter	*Melanitta fusca*	-	-	S4																		
Wood Duck	*Aix sponsa*	-	-	S5																		
Yellow-bellied Sapsucker	*Sphyrapicus varius*	-	-	S5																		
Grand Total																						

Legend
ESA Status: The Endangered Species Act 2007 (ESA) protects Species at Risk at a provincial level.
SC - Special Concern
THR - Threatened
END - Endangered

SARA Status: The Species at Risk Act (SARA) protects Species at Risk at a federal level.
SC - Special Concern
THR - Threatened
END - Endangered

S-rank: The natural heritage provincial ranking system (provincial S-rank) is used by the MNRF Natural Heritage Information Centre (NHIC) to set protection priorities for rare
S1 - Critically Imperiled, often < 5 occurrences
S2 - Imperiled, often <20 occurences
S3 - Vulnerable, often 80 or fewer
S3S4 - Uncertain between S3 and S4
S4 - Aparently Secure, ncommon
S5 - Secure, common
SNA - Not Applicable —A conservation status rank is not applicable because the species is not a suitable target for conservation activities.
SH - Species or community occurred historically in the nation or state/province, and there is some possibility that it may be rediscovered.

Table C-2: 2011 Fall Passerine Migration Survey Results

				Date	October 7 2011				October 12 2011				October 14 2011					
				Transect	Transect 19		Transect 20		Transect 21		Transect 22		Transect 1		Transect 2		Transect 3	
				Weather Conditions	12 C, cloud 0%, wind S beaufort 1				15 C, cloud 90%, wind S/SE, beaufort 0-1				14 C, cloud 100%, wind E/SE, beaufort 2-3					
				Start Time	8:57		9:51		9:23		10:37		by Andrew Davis		9:06		by Andrew Davis	
				End Time	9:40		10:27		10:18		11:22		& Tony Solomon		9:45		& Tony Solomon	
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**
Passerine Observations																		
American Crow	*Corvus brachyrhynchos*	-	-	S5					15									
American Goldfinch	*Cardeulis tristis*	-	-	S5														
American Pipit	*Anthus rubescens*	-	-	S4														
American Redstart	*Setophaga ruticilla*	-	-	S5														
American Robin	*Turdus migratorius*	-	-	S5	1				64		8							
Black-and-white Warbler	*Mniotilta varia*	-	-	S5														
Black-capped Chickadee	*Poecile atricapillus*	-	-	S5					4		6				3			
Black-throated Green Warbler	*Setophaga virens*	-	-	S5														
Blue Jay	*Cyanocitta cristata*	-	-	S5														
Blue-headed Vireo	*Vireo solitarius*	-	-	S5														
Brown Creeper	*Certhia americana*	-	-	S5														
Cedar Waxwing	*Bombycilla cedrorum*	-	-	S5														
Chestnut-sided Warbler	*Setophaga pensylvanica*	-	-	S5														
Chipping Sparrow	*Spizella passerina*	-	-	S5														
Common Grackle	*Quiscalus quiscula*	-	-	S5														
Common Raven	*Corvus corax*	-	-	S5					1									
Common Yellowthroat	*Geothlyphis trichas*	-	-	S5														
Dark-eyed Junco	*Junco hyemalis*	-	-	S5					4						9			
Eastern Bluebird	*Sialia sialis*	-	-	S5														
Eastern Kingbird	*Tyrannus tyrannus*	-	-	S4														
Eastern Towhee	*Pipilio erythrophthalmus*	-	-	S4														
Golden-crowned Kinglet	*Regulus satrapa*	-	-	S5	1		2		3		7				3			
Gray Catbird	*Dumetella carolinensis*	-	-	S4														
Gray Jay	*Perisoreus canadensis*	-	-	S5					2									
Hermit Thrush	*Catharus guttatus*	-	-	S5														
Lincoln's Sparrow	*Melospiza lincolnii*	-	-	S5														
Magnolia Warbler	*Setophaga magnolia*	-	-	S5														
Nashville Warbler	*Oreothlypis ruficapilla*	-	-	S5														
Ovenbird	*Seiurus aurocapillus*	-	-	S4														
Palm Warbler	*Dendroica palmarum*	-	-	S5														
Philadelphia Vireo	*Vireo philadelphicus*	-	-	S5														
Pine Siskin	*Cardeulis pinus*	-	-	S4														
Pine Warbler	*Setophaga pinus*	-	-	S5														
Purple Finch	*Carpodacus purpureus*	-	-	S4							1							
Red-breasted Nuthatch	*Sitta canadensis*	-	-	S5	1													
Red Crossbill	*Loxia curvirostra*	-	-	S4														
Red-eyed Vireo	*Vireo olivaceus*	-	-	S5														
Ruby-crowned Kinglet	*Regulus calendula*	-	-	S4			1		2		1							
Rusty Blackbird	*Euphagus carolinus*	-	SC Schedule 1	S4														
Song Sparrow	*Melospiza melodia*	-	-	S5														
Swainson's Thrush	*Catharus ustulatus*	-	-	S4														
Swamp Sparrow	*Melospiza georgiana*	-	-	S5														
Unknown Blackbird sp.	*N/A*	-	-	-														

Table C-2: 2011 Fall Passerine Migration Survey Results

				Date	October 7 2011				October 12 2011				October 14 2011					
				Transect	Transect 19		Transect 20		Transect 21		Transect 22		Transect 1		Transect 2		Transect 3	
				Weather Conditions	12 C, cloud 0%, wind S beaufort 1				15 C, cloud 90%, wind S/SE, beaufort 0-1				14 C, cloud 100%, wind E/SE, beaufort 2-3					
				Start Time	8:57		9:51		9:23		10:37		by Andrew Davis		9:06		by Andrew Davis	
				End Time	9:40		10:27		10:18		11:22		& Tony Solomon		9:45		& Tony Solomon	
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**
Unknown Passerine sp.	*N/A*	-	-	-	1													
Unknown Sparrow sp.	*N/A*	-	-	-			1											
Unknown Thrush sp.	*N/A*	-	-	-														
Veery	*Catharus fuscescens*	-	-	S4														
White-crowned Sparrow	*Zonotrichia leucophrys*	-	-	S4					5						1			
White-throated Sparrow	*Zonotrichia albicollis*	-	-	S5							1							
Wilson's Warbler	*Cardellina pusilla*	-	-	S4														
Winter Wren	*Troglodytes troglodytes*	-	-	S5														
Wood Duck	*Aix sponsa*	-	-	S5														
Yellow-bellied Flycatcher	*Empidonax flaviventris*	-	-	S5														
Yellow-rumped Warbler	*Setophaga coronata*	-	-	S5														
Grand Total																		
Incidental Wildlife Observations																		
American Kestrel	*Falco sparverius*	-	-	S4														
Bald Eagle	*Haliaeetus leucocephalus*	SC	-	S2														
Belted Kingfisher	*Ceryle alcyon*	-	-	S4														
Black Scoter	*Melanitta nigra*	-	-	S4														
Black-billed Cuckoo	*Coccyzus erythropthalmus*	-	-	S5														
Broad-winged Hawk	*Buteo platypterus*	-	-	S5														
Bufflehead	*Bucephala albeola*	-	-	S4														
Canada Goose	*Branta canadensis*	-	-	S5														
Common Loon	*Gavia immer*	-	-	S5							2	heard far away						
Common Merganser	*Mergus merganser*	-	-	S5														
Cooper's Hawk	*Accipiter cooperi*	-	-	S4							1							
Double-crested Cormorant	*Phalacrocorax auritus*	-	-	S5														
Downy Woodpecker	*Picoides pubescens*	-	-	S5														
Great Blue Heron	*Ardea herodias*	-	-	S4														
Greater Yellowlegs	*Tringa melanoleuca*	-	-	S4														
Hairy Woodpecker	*Picoides villosus*	-	-	S5	1						1							
Herring Gull	*Larus argentatus*	-	-	S5					7									
Killdeer	*Charadrius vociferus*	-	-	S5														
Long-tailed Duck	*Clangula hyemalis*	-	-	S3														
Mallard	*Anas platyrhynchos*	-	-	S5														
Merlin	*Falco columbarius*	-	-	S5														
Northern Flicker	*Colaptes auratus*	-	-	S4			1											
Northern Harrier	*Circus cyaneus*	-	-	S4														
Northern Shrike	*Lanius excubitor*	-	-	SNA							1							
Pileated Woodpecker	*Dryocopus pileatus*	-	-	S5														
Red-tailed Hawk	*Buteo jamaicensis*	-	-	S4														
Ring-billed Gull	*Larus delawarensis*	-	-	S5														
Ruffed Grouse	*Bonasa umbellus*	-	-	S4														
Sandhill Crane	*Grus canadensis tabida*	-	-	S5														
Sharp-shinned Hawk	*Accipiter striatus*	-	-	S5											1			

Table C-2: 2011 Fall Passerine Migration Survey Results

				Date	October 7 2011				October 12 2011				October 14 2011					
				Transect	Transect 19		Transect 20		Transect 21		Transect 22		Transect 1		Transect 2		Transect 3	
				Weather Conditions	12 C, cloud 0%, wind S beaufort 1				15 C, cloud 90%, wind S/SE, beaufort 0-1				14 C, cloud 100%, wind E/SE, beaufort 2-3					
				Start Time	8:57		9:51		9:23		10:37		by Andrew Davis		9:06		by Andrew Davis	
				End Time	9:40		10:27		10:18		11:22		& Tony Solomon		9:45		& Tony Solomon	
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**
Spruce Grouse	*Falcipennis canadensis*	-	-	S5														
Turkey Vulture	*Cathartes aura*	-	-	S5														
Unknown Duck sp.	*N/A*	-	-	-							1							
Unknown Owl sp.	*N/A*	-	-	-	1						1							
Unknown Sandpiper sp.	*N/A*	-	-	-														
Whip-poor-will	*Caprimulgus vociferus*	THR	THR Schedule 1	S4														
White-winged Scoter	*Melanitta fusca*	-	-	S4														
Wood Duck	*Aix sponsa*	-	-	S5														
Yellow-bellied Sapsucker	*Sphyrapicus varius*	-	-	S5														
Grand Total																		

Legend
ESA Status: The Endangered Species Act 2007 (ESA) protects Species at Risk at a provincial level.
SC - Special Concern
THR - Threatened
END - Endangered

SARA Status: The Species at Risk Act (SARA) protects Species at Risk at a federal level.
SC - Special Concern
THR - Threatened
END - Endangered

S-rank: The natural heritage provincial ranking system (provincial S-rank) is used by the MNRF Natural Heritage Information Centre (NHIC) to set protection priorities for rare
S1 - Critically Imperiled, often < 5 occurrences
S2 - Imperiled, often <20 occurences
S3 - Vulnerable, often 80 or fewer
S3S4 - Uncertain between S3 and S4
S4 - Aparently Secure, ncommon
S5 - Secure, common
SNA - Not Applicable —A conservation status rank is not applicable because the species is not a suitable target for conservation activities.
SH - Species or community occurred historically in the nation or state/province, and there is some possibility that it may be rediscovered.

Table C-2: 2011 Fall Passerine Migration Survey Results

Henvey Inlet Wind
Summary of 2011, 2012 and 2013 Passerine Migration Surveys –
Henvey Inlet Wind Energy Centre Study Area

				Date	October 18 2011						October 25 2011				October 27 2011		**Totals**
				Transect	Transect 1		Transect 2		Transect 3		Transect 9		Duck Survey in		Transect 19		
				Weather Conditions	8 C, clouds 100%, wind NW beaufort 2, cloud burst rain										4 C, clouds 100%, winds NE beaufort 1		
				Start Time	11:13		10:10		9:00		9:30		10:05		9:27		
				End Time	11:35		11:02		9:37		10:03		11:05		10:18		
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	
Passerine Observations																	
American Crow	*Corvus brachyrhynchos*	-	-	S5													47
American Goldfinch	*Cardeulis tristis*	-	-	S5			9								7		67
American Pipit	*Anthus rubescens*	-	-	S4													10
American Redstart	*Setophaga ruticilla*	-	-	S5													9
American Robin	*Turdus migratorius*	-	-	S5	1		12		1						50+		185
Black-and-white Warbler	*Mniotilta varia*	-	-	S5													8
Black-capped Chickadee	*Poecile atricapillus*	-	-	S5			18		6		2				13		163
Black-throated Green Warbler	*Setophaga virens*	-	-	S5													10
Blue Jay	*Cyanocitta cristata*	-	-	S5			2										141
Blue-headed Vireo	*Vireo solitarius*	-	-	S5			1										12
Brown Creeper	*Certhia americana*	-	-	S5													3
Cedar Waxwing	*Bombycilla cedrorum*	-	-	S5													13
Chestnut-sided Warbler	*Setophaga pensylvanica*	-	-	S5													3
Chipping Sparrow	*Spizella passerina*	-	-	S5													1
Common Grackle	*Quiscalus quiscula*	-	-	S5													4
Common Raven	*Corvus corax*	-	-	S5			1				2				3		12
Common Yellowthroat	*Geothlyphis trichas*	-	-	S5													28
Dark-eyed Junco	*Junco hyemalis*	-	-	S5			28										49
Eastern Bluebird	*Sialia sialis*	-	-	S5													1
Eastern Kingbird	*Tyrannus tyrannus*	-	-	S4													1
Eastern Towhee	*Pipilio erythrophthalmus*	-	-	S4													1
Golden-crowned Kinglet	*Regulus satrapa*	-	-	S5	1		37		34		5						118
Gray Catbird	*Dumetella carolinensis*	-	-	S4													1
Gray Jay	*Perisoreus canadensis*	-	-	S5													2
Hermit Thrush	*Catharus guttatus*	-	-	S5													5
Lincoln's Sparrow	*Melospiza lincolnii*	-	-	S5			1										1
Magnolia Warbler	*Setophaga magnolia*	-	-	S5													3
Nashville Warbler	*Oreothlypis ruficapilla*	-	-	S5													3
Ovenbird	*Seiurus aurocapillus*	-	-	S4													3
Palm Warbler	*Dendroica palmarum*	-	-	S5													15
Philadelphia Vireo	*Vireo philadelphicus*	-	-	S5													1
Pine Siskin	*Cardeulis pinus*	-	-	S4	13		7								1		30
Pine Warbler	*Setophaga pinus*	-	-	S5													10
Purple Finch	*Carpodacus purpureus*	-	-	S4													7
Red-breasted Nuthatch	*Sitta canadensis*	-	-	S5	1		3										22
Red Crossbill	*Loxia curvirostra*	-	-	S4											5		6
Red-eyed Vireo	*Vireo olivaceus*	-	-	S5													7
Ruby-crowned Kinglet	*Regulus calendula*	-	-	S4	4		15		7		1				1		67
Rusty Blackbird	*Euphagus carolinus*	-	SC Schedule 1	S4													3
Song Sparrow	*Melospiza melodia*	-	-	S5													8
Swainson's Thrush	*Catharus ustulatus*	-	-	S4													5
Swamp Sparrow	*Melospiza georgiana*	-	-	S5													2
Unknown Blackbird sp.	*N/A*	-	-	-													7

Table C-2: 2011 Fall Passerine Migration Survey Results

Henvey Inlet Wind
Summary of 2011, 2012 and 2013 Passerine Migration Surveys –
Henvey Inlet Wind Energy Centre Study Area

				Date	October 18 2011						October 25 2011				October 27 2011		**Totals**
				Transect	Transect 1		Transect 2		Transect 3		Transect 9		Duck Survey in		Transect 19		
				Weather Conditions	8 C, clouds 100%, wind NW beaufort 2, cloud burst rain										4 C, clouds 100%, winds NE beaufort 1		
				Start Time	11:13		10:10		9:00		9:30		10:05		9:27		
				End Time	11:35		11:02		9:37		10:03		11:05		10:18		
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	
Unknown Passerine sp.	*N/A*	-	-	-	3												163
Unknown Sparrow sp.	*N/A*	-	-	-													2
Unknown Thrush sp.	*N/A*	-	-	-													1
Veery	*Catharus fuscescens*	-	-	S4													1
White-crowned Sparrow	*Zonotrichia leucophrys*	-	-	S4	5		11		5								42
White-throated Sparrow	*Zonotrichia albicollis*	-	-	S5			1		5						1		69
Wilson's Warbler	*Cardellina pusilla*	-	-	S4													2
Winter Wren	*Troglodytes troglodytes*	-	-	S5			3		1								5
Wood Duck	*Aix sponsa*	-	-	S5									1				1
Yellow-bellied Flycatcher	*Empidonax flaviventris*	-	-	S5													1
Yellow-rumped Warbler	*Setophaga coronata*	-	-	S5			5		25								59
Grand Total																	**1381**
Incidental Wildlife Observations																	
American Kestrel	*Falco sparverius*	-	-	S4			1										6
Bald Eagle	*Haliaeetus leucocephalus*	SC	-	S2													1
Belted Kingfisher	*Ceryle alcyon*	-	-	S4													2
Black Scoter	*Melanitta nigra*	-	-	S4									2				2
Black-billed Cuckoo	*Coccyzus erythropthalmus*	-	-	S5													1
Broad-winged Hawk	*Buteo platypterus*	-	-	S5													1
Bufflehead	*Bucephala albeola*	-	-	S4									1				2
Canada Goose	*Branta canadensis*	-	-	S5													185
Common Loon	*Gavia immer*	-	-	S5									3				13
Common Merganser	*Mergus merganser*	-	-	S5									2	female			2
Cooper's Hawk	*Accipiter cooperi*	-	-	S4													1
Double-crested Cormorant	*Phalacrocorax auritus*	-	-	S5													2
Downy Woodpecker	*Picoides pubescens*	-	-	S5											1		3
Great Blue Heron	*Ardea herodias*	-	-	S4													2
Greater Yellowlegs	*Tringa melanoleuca*	-	-	S4													3
Hairy Woodpecker	*Picoides villosus*	-	-	S5	2	p	1		3		1				4		24
Herring Gull	*Larus argentatus*	-	-	S5					2				1				15
Killdeer	*Charadrius vociferus*	-	-	S5													1
Long-tailed Duck	*Clangula hyemalis*	-	-	S3									3				3
Mallard	*Anas platyrhynchos*	-	-	S5													2
Merlin	*Falco columbarius*	-	-	S5													2
Northern Flicker	*Colaptes auratus*	-	-	S4							1						37
Northern Harrier	*Circus cyaneus*	-	-	S4													2
Northern Shrike	*Lanius excubitor*	-	-	SNA													1
Pileated Woodpecker	*Dryocopus pileatus*	-	-	S5					1								8
Red-tailed Hawk	*Buteo jamaicensis*	-	-	S4			2	1 dark morph	1								4
Ring-billed Gull	*Larus delawarensis*	-	-	S5													5
Ruffed Grouse	*Bonasa umbellus*	-	-	S4			1	drumming	4	1 drumming							12
Sandhill Crane	*Grus canadensis tabida*	-	-	S5													9
Sharp-shinned Hawk	*Accipiter striatus*	-	-	S5													3

Table C-2: 2011 Fall Passerine Migration Survey Results

				Date	October 18 2011						October 25 2011				October 27 2011		**Totals**	
				Transect	Transect 1		Transect 2		Transect 3		Transect 9		Duck Survey in		Transect 19			
				Weather Conditions	8 C, clouds 100%, wind NW beaufort 2, cloud burst rain										4 C, clouds 100%, winds NE beaufort 1			
				Start Time	11:13		10:10		9:00		9:30		10:05		9:27			
				End Time	11:35		11:02		9:37		10:03		11:05		10:18			
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**		
Spruce Grouse	*Falcipennis canadensis*	-	-	S5											1		1	
Turkey Vulture	*Cathartes aura*	-	-	S5													4	
Unknown Duck sp.	*N/A*	-	-	-									12				13	
Unknown Owl sp.	*N/A*	-	-	-													2	
Unknown Sandpiper sp.	*N/A*	-	-	-													1	
Whip-poor-will	*Caprimulgus vociferus*	THR	THR Schedule 1	S4													1	
White-winged Scoter	*Melanitta fusca*	-	-	S4									1				1	
Wood Duck	*Aix sponsa*	-	-	S5									1				1	
Yellow-bellied Sapsucker	*Sphyrapicus varius*	-	-	S5													10	
Grand Total																	**388**	

Legend
ESA Status: The Endangered Species Act 2007 (ESA) protects Species at Risk at a provincial level.
SC - Special Concern
THR - Threatened
END - Endangered

SARA Status: The Species at Risk Act (SARA) protects Species at Risk at a federal level.
SC - Special Concern
THR - Threatened
END - Endangered

S-rank: The natural heritage provincial ranking system (provincial S-rank) is used by the MNRF Natural Heritage Information Centre (NHIC) to set protection priorities for rare
S1 - Critically Imperiled, often < 5 occurrences
S2 - Imperiled, often <20 occurences
S3 - Vulnerable, often 80 or fewer
S3S4 - Uncertain between S3 and S4
S4 - Aparently Secure, ncommon
S5 - Secure, common
SNA - Not Applicable —A conservation status rank is not applicable because the species is not a suitable target for conservation activities.
SH - Species or community occurred historically in the nation or state/province, and there is some possibility that it may be rediscovered.

Table C-3: 2012 Spring Passerine Migration Survey Results

				Date	30-Apr-12						2-May-12				3-May-12	
				Transect	Transect 1		Transect 2		Transect 3		Transect 7		Not Recorded		Transect 10	
				Weather Conditions	3 °C, clouds 100%, winds SE, winds 5-10 km/hr						12 °C, clouds 10%, winds S/SE, Beaufort 2				10 °C, clouds 100%, wind SE, Beaufort 1, thick fog	
				Start Time	8:15		8:53		9:50		9:25		11:14		8:55	
				End Time	8:50		9:17		10:15		10:12		11:54		9:40	
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**
Passerine Observations																
American Crow	*Corvus brachyrhynchos*	-	-	S5									2		1	
American Goldfinch	*Cardeulis tristis*	-	-	S5	1				1							
American Redstart	*Setophaga ruticilla*	-	-	S5												
American Robin	*Turdus migratorius*	-	-	S5	1		1				4				2	
Black-and-white Warbler	*Mniotilta varia*	-	-	S5									2		1	
Black-capped Chickadee	*Poecile atricapillus*	-	-	S5	3		2				2		2		4	
Blue-headed Vireo	*Vireo solitarius*	-	-	S5					2						11	
Blackburnian Warbler	*Setophaga fusca*	-	-	S5												
Blue Jay	*Cyanocitta cristata*	-	-	S5	1		1		1						1	
Brown Creeper	*Certhia americana*	-	-	S5			1		1		2				2	
Brown Thrasher	*Toxostoma rufum*	-	-	S4												
Black-throated Blue Warbler	*Setophaga caerulescens*	-	-	S5												
Black-throated Green Warbler	*Setophaga virens*	-	-	S5									1		2	
Canada Warbler	*Cardellina pusilla*	SC	THR Schedule 1	S4												
Chipping Sparrow	*Spizella passerina*	-	-	S5									3		1	
Common Grackle	*Quiscalus quiscula*	-	-	S5					2		3					
Common Raven	*Corvus corax*	-	-	S5			1	nest			2		1			
Common Yellowthroat	*Geothlyphis trichas*	-	-	S5												
Chestnut-sided Warbler	*Setophaga pensylvanica*	-	-	S5												
Eastern Kingbird	*Tyrannus tyrannus*	-	-	S4												
Eastern Phoebe	*Sayornis phoebe*	-	-	S5			1		1							
Eastern Wood-pewee	*Contopus virens*	SC	-	S4												
Golden-crowned Kinglet	*Regulus satrapa*	-	-	S5			1				1				1	
Gray Catbird	*Dumetella carolinensis*	-	-	S4			1									
Great Crested Flycatcher	*Myiarchus crinitus*	-	-	S4												
Hermit Thrush	*Catharus guttatus*	-	-	S5							3				9	
Least Flycatcher	*Empidonax minimus*	-	-	S4												
Lincoln's Sparrow	*Melospiza lincolnii*	-	-	S5												
Magnolia Warbler	*Setophaga magnolia*	-	-	S5												
Nashville Warbler	*Oreothlypis ruficapilla*	-	-	S5												
Northern Parula	*Parula americana*	-	-	S4												
Orange-crowned Warbler	*Oreothlypis celata*	-	-	S4												
Ovenbird	*Seiurus aurocapillus*	-	-	S4												
Palm Warbler	*Dendroica palmarum*	-	-	S5									3			
Pine Siskin	*Cardeulis pinus*	-	-	S4												
Pine Warbler	*Setophaga pinus*	-	-	S5	2						6		6		1	
Purple Finch	*Carpodacus purpureus*	-	-	S4	1								1			
Red-breasted Nuthatch	*Sitta canadensis*	-	-	S5			1		2				1		1	
Red-eyed Vireo	*Vireo olivaceus*	-	-	S5												
Red-winged Blackbird	*Agelaius phoeniceus*	-	-	S4							3					

Table C-3: 2012 Spring Passerine Migration Survey Results

				Date	30-Apr-12						2-May-12				3-May-12	
				Transect	Transect 1		Transect 2		Transect 3		Transect 7		Not Recorded		Transect 10	
				Weather Conditions	3 °C, clouds 100%, winds SE, winds 5-10 km/hr						12 °C, clouds 10%, winds S/SE, Beaufort 2				10 °C, clouds 100%, wind SE, Beaufort 1, thick fog	
				Start Time	8:15		8:53		9:50		9:25		11:14		8:55	
				End Time	8:50		9:17		10:15		10:12		11:54		9:40	
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**
Rose-breasted Grosbeak	*Pheucticus ludovicianus*	-	-	S4							1	male				
Ruby-crowned Kinglet	*Regulus calendula*	-	-	S4											3	
Song Sparrow	*Melospiza melodia*	-	-	S5							3		1		3	
Swainson's Thrush	*Catharus ustulatus*	-	-	S4	1		1									
Swamp Sparrow	*Melospiza georgiana*	-	-	S5												
Tree Swallow	*Tachycineta bicolor*	-	-	S4												
Veery	*Catharus fuscescens*	-	-	S4												
Winter Wren	*Troglodytes troglodytes*	-	-	S5					1						1	
White-throated Sparrow	*Zonotrichia albicollis*	-	-	S5	1	singing	6	all singing			12		2		11	
Yellow-rumped Warbler	*Setophaga coronata*	-	-	S5	2		4				11		7			3
Grand Total																
Incidental Wildlife Observations																
American Wigeon	*Anas americana*	-	-	S4					2	by hawkwatch 3						
Bald Eagle	*Haliaeetus leucocephalus*	SC	-	S2							1	immature				
Black-backed Woodpecker	*Picoides arcticus*	-	-	S4												
Belted Kingfisher	*Ceryle alcyon*	-	-	S4	2	pair, m & f			2	pair, m & f						
Bufflehead	*Bucephala albeola*	-	-	S4					65	by hawkwatch 3			9			
Broad-winged Hawk	*Buteo platypterus*	-	-	S5					2							
Canada Goose	*Branta canadensis*	-	-	S5					3		1		2	pair		
Chimney Swift	*Chaetura pelagica*	THR	THR Schedule 1	S4												
Common Goldeneye	*Bucephala clangula*	-	-	S5					10	by hawkwatch 3						
Common Loon	*Gavia immer*	-	-	S5					1	flyover						
Common Merganser	*Mergus merganser*	-	-	S5					3	by hawkwatch 3			1	female		
Common Tern	*Sterna hirundo*	-	-	S4					2				1			
Double-crested Cormorant	*Phalacrocorax auritus*	-	-	S5												
Downy Woodpecker	*Picoides pubescens*	-	-	S5			1									
Hairy Woodpecker	*Picoides villosus*	-	-	S5			2	p, m & f								
Hooded Merganser	*Lophodytes cucullatus*	-	-	S5												
Mallard	*Anas platyrhynchos*	-	-	S5					6	by hawkwatch 3	2	pair, m & f			1	female
Merlin	*Falco columbarius*	-	-	S5					1	female	1		1			
Northern Flicker	*Colaptes auratus*	-	-	S4	1				3		6					
Northern Goshawk	*Accipiter gentilis atricapillus*	-	-	S4												
Northern Harrier	*Circus cyaneus*	-	-	S4												
Osprey	*Pandion haliaetus*	-	-	S5												
Pileated Woodpecker	*Dryocopus pileatus*	-	-	S5	1		1		1		1					
Ring-necked Duck	*Aythya collaris*	-	-	S5					12	by hawkwatch 3						
Ruffed Grouse	*Bonasa umbellus*	-	-	S4	1	drumming	2	both drumming	1	drumming						
Sandhill Crane	*Grus canadensis tabida*	-	-	S5							2	in distance to the west			1	low flyover
Scaup sp.	*N/A*	-	-	-					130	by hawkwatch 3			11			
Turkey Vulture	*Cathartes aura*	-	-	S5					1							

Table C-3: 2012 Spring Passerine Migration Survey Results

				Date	30-Apr-12						2-May-12				3-May-12	
				Transect	Transect 1		Transect 2		Transect 3		Transect 7		Not Recorded		Transect 10	
				Weather Conditions	3 °C, clouds 100%, winds SE, winds 5-10 km/hr						12 °C, clouds 10%, winds S/SE, Beaufort 2				10 °C, clouds 100%, wind SE, Beaufort 1, thick fog	
				Start Time	8:15		8:53		9:50		9:25		11:14		8:55	
				End Time	8:50		9:17		10:15		10:12		11:54		9:40	
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**
Yellow-bellied Sapsucker	*Sphyrapicus varius*	-	-	S5	2	both drumming		2	2	pair, m & f	1				1	
Grand Total																

Legend
ESA Status: The Endangered Species Act 2007 (ESA) protects Species at Risk at a provincial level.
SC - Special Concern
THR - Threatened
END - Endangered

SARA Status: The Species at Risk Act (SARA) protects Species at Risk at a federal level.
SC - Special Concern
THR - Threatened
END - Endangered

S-rank: The natural heritage provincial ranking system (provincial S-rank) is used by the MNRF Natural Heritage Information Centre (NHIC) to set protection priorities for rare species and natural communities. Definitions are as follows:

S1 - Critically Imperiled, often < 5 occurrences
S2 - Imperiled, often <20 occurences
S3 - Vulnerable, often 80 or fewer
S3S4 - Uncertain between S3 and S4
S4 - Aparently Secure, ncommon
S5 - Secure, common
SNA - Not Applicable —A conservation status rank is not applicable because the species is not a suitable target for conservation activities.
SH - Species or community occurred historically in the nation or state/province, and there is some possibility that it may be rediscovered.

Table C-3: 2012 Spring Passerine Migration Survey Results

				Date	7-May-12				10-May-12				11-May-12					
				Transect	Transect 1		Transect 3		Transect J1		Transect J2		Transect 4		Transect 5		Transect 6	
				Weather Conditions	11 °C, clouds 5%, winds SE, Beaufort 1-2				9 °C, clouds 0%, winds N/NE Beaufort 2-3				5 °C, clouds 0%,winds SE, Beaufort 1					
				Start Time	7:38		8:56		9:28		11:00		8:04		8:43		9:43	
				End Time	8:23		9:39		10:36		11:53		8:33		9:20		10:15	
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**
Passerine Observations																		
American Crow	*Corvus brachyrhynchos*	-	-	S5					1									
American Goldfinch	*Cardeulis tristis*	-	-	S5	1		1											
American Redstart	*Setophaga ruticilla*	-	-	S5														
American Robin	*Turdus migratorius*	-	-	S5	4		1						1		3			
Black-and-white Warbler	*Mniotilta varia*	-	-	S5	2		4		2		2		2		3		2	
Black-capped Chickadee	*Poecile atricapillus*	-	-	S5	3				2						2		1	
Blue-headed Vireo	*Vireo solitarius*	-	-	S5			1						1		1			
Blackburnian Warbler	*Setophaga fusca*	-	-	S5														
Blue Jay	*Cyanocitta cristata*	-	-	S5	2		3		2		1		2				3	
Brown Creeper	*Certhia americana*	-	-	S5														
Brown Thrasher	*Toxostoma rufum*	-	-	S4									1					
Black-throated Blue Warbler	*Setophaga caerulescens*	-	-	S5	2		1											
Black-throated Green Warbler	*Setophaga virens*	-	-	S5	3		2		2		3		2		3		3	
Canada Warbler	*Cardellina pusilla*	SC	THR Schedule 1	S4														
Chipping Sparrow	*Spizella passerina*	-	-	S5	3				1				3		2		2	
Common Grackle	*Quiscalus quiscula*	-	-	S5					3									
Common Raven	*Corvus corax*	-	-	S5					1								1	
Common Yellowthroat	*Geothlyphis trichas*	-	-	S5									2		1			
Chestnut-sided Warbler	*Setophaga pensylvanica*	-	-	S5			1				1							
Eastern Kingbird	*Tyrannus tyrannus*	-	-	S4														
Eastern Phoebe	*Sayornis phoebe*	-	-	S5			1											
Eastern Wood-pewee	*Contopus virens*	SC	-	S4														
Golden-crowned Kinglet	*Regulus satrapa*	-	-	S5					2		1				1		2	
Gray Catbird	*Dumetella carolinensis*	-	-	S4	1													
Great Crested Flycatcher	*Myiarchus crinitus*	-	-	S4	1													
Hermit Thrush	*Catharus guttatus*	-	-	S5			1										1	
Least Flycatcher	*Empidonax minimus*	-	-	S4														
Lincoln's Sparrow	*Melospiza lincolnii*	-	-	S5													1	
Magnolia Warbler	*Setophaga magnolia*	-	-	S5	2		1		1		3		1		1			
Nashville Warbler	*Oreothlypis ruficapilla*	-	-	S5	8		5		7		4		3		6		6	
Northern Parula	*Parula americana*	-	-	S4														
Orange-crowned Warbler	*Oreothlypis celata*	-	-	S4					3						2			
Ovenbird	*Seiurus aurocapillus*	-	-	S4	5		2		1		1		1					
Palm Warbler	*Dendroica palmarum*	-	-	S5									1					
Pine Siskin	*Cardeulis pinus*	-	-	S4									3					
Pine Warbler	*Setophaga pinus*	-	-	S5	2		1		3		1		2		1			
Purple Finch	*Carpodacus purpureus*	-	-	S4	1		1		1						2			
Red-breasted Nuthatch	*Sitta canadensis*	-	-	S5	1		1											
Red-eyed Vireo	*Vireo olivaceus*	-	-	S5														
Red-winged Blackbird	*Agelaius phoeniceus*	-	-	S4														

Table C-3: 2012 Spring Passerine Migration Survey Results

				Date	7-May-12				10-May-12				11-May-12						
				Transect	Transect 1		Transect 3		Transect J1		Transect J2		Transect 4		Transect 5		Transect 6		
				Weather Conditions	11 °C, clouds 5%, winds SE, Beaufort 1-2				9 °C, clouds 0%, winds N/NE Beaufort 2-3				5 °C, clouds 0%,winds SE, Beaufort 1						
				Start Time	7:38		8:56		9:28		11:00		8:04		8:43		9:43		
				End Time	8:23		9:39		10:36		11:53		8:33		9:20		10:15		
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	
Rose-breasted Grosbeak	*Pheucticus ludovicianus*	-	-	S4	1		1												
Ruby-crowned Kinglet	*Regulus calendula*	-	-	S4					1		1						2		
Song Sparrow	*Melospiza melodia*	-	-	S5	1				3				1				1		
Swainson's Thrush	*Catharus ustulatus*	-	-	S4			1												
Swamp Sparrow	*Melospiza georgiana*	-	-	S5															
Tree Swallow	*Tachycineta bicolor*	-	-	S4															
Veery	*Catharus fuscescens*	-	-	S4															
Winter Wren	*Troglodytes troglodytes*	-	-	S5			1				1		1						
White-throated Sparrow	*Zonotrichia albicollis*	-	-	S5	9		2		7				6		8		3		
Yellow-rumped Warbler	*Setophaga coronata*	-	-	S5	4		2		3		1		2		3		5		
Grand Total																			
Incidental Wildlife Observations																			
American Wigeon	*Anas americana*	-	-	S4															
Bald Eagle	*Haliaeetus leucocephalus*	SC	-	S2															
Black-backed Woodpecker	*Picoides arcticus*	-	-	S4															
Belted Kingfisher	*Ceryle alcyon*	-	-	S4	1	male													
Bufflehead	*Bucephala albeola*	-	-	S4															
Broad-winged Hawk	*Buteo platypterus*	-	-	S5			1				1								
Canada Goose	*Branta canadensis*	-	-	S5									1		1	flyover			
Chimney Swift	*Chaetura pelagica*	THR	THR Schedule 1	S4															
Common Goldeneye	*Bucephala clangula*	-	-	S5															
Common Loon	*Gavia immer*	-	-	S5	1	flyover													
Common Merganser	*Mergus merganser*	-	-	S5															
Common Tern	*Sterna hirundo*	-	-	S4															
Double-crested Cormorant	*Phalacrocorax auritus*	-	-	S5					1										
Downy Woodpecker	*Picoides pubescens*	-	-	S5			1												
Hairy Woodpecker	*Picoides villosus*	-	-	S5											1		1		
Hooded Merganser	*Lophodytes cucullatus*	-	-	S5			1	male											
Mallard	*Anas platyrhynchos*	-	-	S5															
Merlin	*Falco columbarius*	-	-	S5															
Northern Flicker	*Colaptes auratus*	-	-	S4			1		1		1		1		1				
Northern Goshawk	*Accipiter gentilis atricapillus*	-	-	S4					1										
Northern Harrier	*Circus cyaneus*	-	-	S4					1	female			1	male					
Osprey	*Pandion haliaetus*	-	-	S5					1										
Pileated Woodpecker	*Dryocopus pileatus*	-	-	S5					1										
Ring-necked Duck	*Aythya collaris*	-	-	S5															
Ruffed Grouse	*Bonasa umbellus*	-	-	S4	1		1	drumming	1				1		1		1		
Sandhill Crane	*Grus canadensis tabida*	-	-	S5									1	far away					
Scaup sp.	*N/A*	-	-	-															
Turkey Vulture	*Cathartes aura*	-	-	S5							3								

Table C-3: 2012 Spring Passerine Migration Survey Results

				Date	7-May-12				10-May-12				11-May-12					
				Transect	Transect 1		Transect 3		Transect J1		Transect J2		Transect 4		Transect 5		Transect 6	
				Weather Conditions	11 °C, clouds 5%, winds SE, Beaufort 1-2				9 °C, clouds 0%, winds N/NE Beaufort 2-3				5 °C, clouds 0%,winds SE, Beaufort 1					
				Start Time	7:38		8:56		9:28		11:00		8:04		8:43		9:43	
				End Time	8:23		9:39		10:36		11:53		8:33		9:20		10:15	
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**
Yellow-bellied Sapsucker	*Sphyrapicus varius*	-	-	S5	2		3											
Grand Total																		

Legend
ESA Status: The Endangered Species Act 2007 (ESA) protects Species at Risk at a provincial level.
SC - Special Concern
THR - Threatened
END - Endangered

SARA Status: The Species at Risk Act (SARA) protects Species at Risk at a federal level.
SC - Special Concern
THR - Threatened
END - Endangered

S-rank: The natural heritage provincial ranking system (provincial S-rank) is used by the MNRF Natural Heritage Information Centre (NHIC) to set protection priorities for rare species and natural communities. Definitions are as follows:

S1 - Critically Imperiled, often < 5 occurrences
S2 - Imperiled, often <20 occurences
S3 - Vulnerable, often 80 or fewer
S3S4 - Uncertain between S3 and S4
S4 - Aparently Secure, ncommon
S5 - Secure, common
SNA - Not Applicable —A conservation status rank is not applicable because the species is not a suitable target for conservation activities.
SH - Species or community occurred historically in the nation or state/province, and there is some possibility that it may be rediscovered.

Table C-3: 2012 Spring Passerine Migration Survey Results

				Date	14-May-12						15-May-12					
				Transect	Transect F1		Transect F2		Transect F3		Transect 10		Transect 11		Transect 12	
				Weather Conditions	14 °C, clouds 80%, wind SW 15 km/h						13 °C, clouds 10%, wind S, Beaufort 2					
				Start Time	8:11		9:26		12:45		8:54		9:36		10:05	
				End Time	8:45		9:58		1:09		9:21		10:01		10:30	
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**
Passerine Observations																
American Crow	*Corvus brachyrhynchos*	-	-	S5												
American Goldfinch	*Cardeulis tristis*	-	-	S5											1	
American Redstart	*Setophaga ruticilla*	-	-	S5	1		1		3		1					
American Robin	*Turdus migratorius*	-	-	S5	1		1				2					
Black-and-white Warbler	*Mniotilta varia*	-	-	S5	1				3		1		2		1	
Black-capped Chickadee	*Poecile atricapillus*	-	-	S5	1		2								1	
Blue-headed Vireo	*Vireo solitarius*	-	-	S5	1											
Blackburnian Warbler	*Setophaga fusca*	-	-	S5	3		2		2							
Blue Jay	*Cyanocitta cristata*	-	-	S5			1		1				2			
Brown Creeper	*Certhia americana*	-	-	S5			1				1					
Brown Thrasher	*Toxostoma rufum*	-	-	S4									2		2	
Black-throated Blue Warbler	*Setophaga caerulescens*	-	-	S5	1		2		2							
Black-throated Green Warbler	*Setophaga virens*	-	-	S5	3		3		4		1		2			
Canada Warbler	*Cardellina pusilla*	SC	THR Schedule 1	S4												
Chipping Sparrow	*Spizella passerina*	-	-	S5	1						1		2		1	
Common Grackle	*Quiscalus quiscula*	-	-	S5	1										1	
Common Raven	*Corvus corax*	-	-	S5					1							
Common Yellowthroat	*Geothlyphis trichas*	-	-	S5							1		1		3	
Chestnut-sided Warbler	*Setophaga pensylvanica*	-	-	S5	1		1						1		1	
Eastern Kingbird	*Tyrannus tyrannus*	-	-	S4											2	
Eastern Phoebe	*Sayornis phoebe*	-	-	S5	1											
Eastern Wood-pewee	*Contopus virens*	SC	-	S4			1									
Golden-crowned Kinglet	*Regulus satrapa*	-	-	S5					1		2					
Gray Catbird	*Dumetella carolinensis*	-	-	S4												
Great Crested Flycatcher	*Myiarchus crinitus*	-	-	S4	2		1		2							
Hermit Thrush	*Catharus guttatus*	-	-	S5			1		2		2					
Least Flycatcher	*Empidonax minimus*	-	-	S4			2									
Lincoln's Sparrow	*Melospiza lincolnii*	-	-	S5												
Magnolia Warbler	*Setophaga magnolia*	-	-	S5					1		1		2		2	
Nashville Warbler	*Oreothlypis ruficapilla*	-	-	S5	4				3		3		5		1	
Northern Parula	*Parula americana*	-	-	S4	1						1					
Orange-crowned Warbler	*Oreothlypis celata*	-	-	S4												
Ovenbird	*Seiurus aurocapillus*	-	-	S4	8		7		6		2		2			
Palm Warbler	*Dendroica palmarum*	-	-	S5												
Pine Siskin	*Cardeulis pinus*	-	-	S4	1										2	
Pine Warbler	*Setophaga pinus*	-	-	S5	1						1					
Purple Finch	*Carpodacus purpureus*	-	-	S4											1	
Red-breasted Nuthatch	*Sitta canadensis*	-	-	S5	1		1									
Red-eyed Vireo	*Vireo olivaceus*	-	-	S5	3		1		2							
Red-winged Blackbird	*Agelaius phoeniceus*	-	-	S4												

Table C-3: 2012 Spring Passerine Migration Survey Results

				Date	14-May-12						15-May-12					
				Transect	Transect F1		Transect F2		Transect F3		Transect 10		Transect 11		Transect 12	
				Weather Conditions	14 °C, clouds 80%, wind SW 15 km/h						13 °C, clouds 10%, wind S, Beaufort 2					
				Start Time	8:11		9:26		12:45		8:54		9:36		10:05	
				End Time	8:45		9:58		1:09		9:21		10:01		10:30	
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**
Rose-breasted Grosbeak	*Pheucticus ludovicianus*	-	-	S4	1										1	female carcass
Ruby-crowned Kinglet	*Regulus calendula*	-	-	S4												
Song Sparrow	*Melospiza melodia*	-	-	S5											2	
Swainson's Thrush	*Catharus ustulatus*	-	-	S4												
Swamp Sparrow	*Melospiza georgiana*	-	-	S5							1				2	
Tree Swallow	*Tachycineta bicolor*	-	-	S4	1											
Veery	*Catharus fuscescens*	-	-	S4												
Winter Wren	*Troglodytes troglodytes*	-	-	S5							1		1			
White-throated Sparrow	*Zonotrichia albicollis*	-	-	S5					1		2		3		5	
Yellow-rumped Warbler	*Setophaga coronata*	-	-	S5	6						1				1	
Grand Total																
Incidental Wildlife Observations																
American Wigeon	*Anas americana*	-	-	S4												
Bald Eagle	*Haliaeetus leucocephalus*	SC	-	S2												
Black-backed Woodpecker	*Picoides arcticus*	-	-	S4												
Belted Kingfisher	*Ceryle alcyon*	-	-	S4												
Bufflehead	*Bucephala albeola*	-	-	S4												
Broad-winged Hawk	*Buteo platypterus*	-	-	S5												
Canada Goose	*Branta canadensis*	-	-	S5												
Chimney Swift	*Chaetura pelagica*	THR	THR Schedule 1	S4												
Common Goldeneye	*Bucephala clangula*	-	-	S5												
Common Loon	*Gavia immer*	-	-	S5												
Common Merganser	*Mergus merganser*	-	-	S5												
Common Tern	*Sterna hirundo*	-	-	S4												
Double-crested Cormorant	*Phalacrocorax auritus*	-	-	S5												
Downy Woodpecker	*Picoides pubescens*	-	-	S5												
Hairy Woodpecker	*Picoides villosus*	-	-	S5							1					
Hooded Merganser	*Lophodytes cucullatus*	-	-	S5												
Mallard	*Anas platyrhynchos*	-	-	S5							1					
Merlin	*Falco columbarius*	-	-	S5												
Northern Flicker	*Colaptes auratus*	-	-	S4	2											
Northern Goshawk	*Accipiter gentilis atricapillus*	-	-	S4												
Northern Harrier	*Circus cyaneus*	-	-	S4												
Osprey	*Pandion haliaetus*	-	-	S5												
Pileated Woodpecker	*Dryocopus pileatus*	-	-	S5												
Ring-necked Duck	*Aythya collaris*	-	-	S5												
Ruffed Grouse	*Bonasa umbellus*	-	-	S4	1						1	drumming	1		1	
Sandhill Crane	*Grus canadensis tabida*	-	-	S5												
Scaup sp.	*N/A*	-	-	-												
Turkey Vulture	*Cathartes aura*	-	-	S5					1	flyover						

Table C-3: 2012 Spring Passerine Migration Survey Results

				Date	14-May-12						15-May-12					
				Transect	Transect F1		Transect F2		Transect F3		Transect 10		Transect 11		Transect 12	
				Weather Conditions	14 ^{o}C, clouds 80%, wind SW 15 km/h						13 ^{o}C, clouds 10%, wind S, Beaufort 2					
				Start Time	8:11		9:26		12:45		8:54		9:36		10:05	
				End Time	8:45		9:58		1:09		9:21		10:01		10:30	
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**
Yellow-bellied Sapsucker	*Sphyrapicus varius*	-	-	S5	1		2				1					
Grand Total																

Legend
ESA Status: The Endangered Species Act 2007 (ESA) protects Species at Risk at a provincial level.
SC - Special Concern
THR - Threatened
END - Endangered

SARA Status: The Species at Risk Act (SARA) protects Species at Risk at a federal level.
SC - Special Concern
THR - Threatened
END - Endangered

S-rank: The natural heritage provincial ranking system (provincial S-rank) is used by the MNRF Natural Heritage Information Centre (NHIC) to set protection priorities for rare species and natural communities. Definitions are as follows:

S1 - Critically Imperiled, often < 5 occurrences
S2 - Imperiled, often <20 occurences
S3 - Vulnerable, often 80 or fewer
S3S4 - Uncertain between S3 and S4
S4 - Aparently Secure, ncommon
S5 - Secure, common
SNA - Not Applicable —A conservation status rank is not applicable because the species is not a suitable target for conservation activities.
SH - Species or community occurred historically in the nation or state/province, and there is some possibility that it may be rediscovered.

Table C-3: 2012 Spring Passerine Migration Survey Results

				Date	16-May-12						17-May-11		24-May-12		**Total**
				Transect	Transect 13		Transect 14		Transect 15		Transect 25		All Transect 'B'		
				Weather Conditions	8 °C, clouds 100%, wind NW, Beaufort 2 gusts of 3						14 °C, clouds 80%, wind SW 15 km/h		19 °C, clouds 70%, wind S Beaufort 3		
				Start Time	9:45		10:15		11:02		9:33		7:57		
				End Time	10:10		10:50		11:25		10:46		8:57		
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	
Passerine Observations															
American Crow	*Corvus brachyrhynchos*	-	-	S5			1								**5**
American Goldfinch	*Cardeulis tristis*	-	-	S5											**5**
American Redstart	*Setophaga ruticilla*	-	-	S5	1		1				5		1		**14**
American Robin	*Turdus migratorius*	-	-	S5	1						2				**24**
Black-and-white Warbler	*Mniotilta varia*	-	-	S5	1		1				3		1		**34**
Black-capped Chickadee	*Poecile atricapillus*	-	-	S5			4		4				1		**34**
Blue-headed Vireo	*Vireo solitarius*	-	-	S5											**17**
Blackburnian Warbler	*Setophaga fusca*	-	-	S5			1								**8**
Blue Jay	*Cyanocitta cristata*	-	-	S5			1		2		1		1		**26**
Brown Creeper	*Certhia americana*	-	-	S5			1		2				1		**12**
Brown Thrasher	*Toxostoma rufum*	-	-	S4											**5**
Black-throated Blue Warbler	*Setophaga caerulescens*	-	-	S5											**8**
Black-throated Green Warbler	*Setophaga virens*	-	-	S5	3		4		2		4		1		**48**
Canada Warbler	*Cardellina pusilla*	SC	THR Schedule 1	S4									2		**2**
Chipping Sparrow	*Spizella passerina*	-	-	S5			1		2		1				**24**
Common Grackle	*Quiscalus quiscula*	-	-	S5											**10**
Common Raven	*Corvus corax*	-	-	S5	1						1				**9**
Common Yellowthroat	*Geothlyphis trichas*	-	-	S5			1		1		1		1		**12**
Chestnut-sided Warbler	*Setophaga pensylvanica*	-	-	S5											**6**
Eastern Kingbird	*Tyrannus tyrannus*	-	-	S4											**2**
Eastern Phoebe	*Sayornis phoebe*	-	-	S5							1				**5**
Eastern Wood-pewee	*Contopus virens*	SC	-	S4											**1**
Golden-crowned Kinglet	*Regulus satrapa*	-	-	S5			1								**13**
Gray Catbird	*Dumetella carolinensis*	-	-	S4											**2**
Great Crested Flycatcher	*Myiarchus crinitus*	-	-	S4											**6**
Hermit Thrush	*Catharus guttatus*	-	-	S5											**19**
Least Flycatcher	*Empidonax minimus*	-	-	S4											**2**
Lincoln's Sparrow	*Melospiza lincolnii*	-	-	S5											**1**
Magnolia Warbler	*Setophaga magnolia*	-	-	S5			1		1		2				**19**
Nashville Warbler	*Oreothlypis ruficapilla*	-	-	S5	3		3		3		4		1		**69**
Northern Parula	*Parula americana*	-	-	S4											**2**
Orange-crowned Warbler	*Oreothlypis celata*	-	-	S4											**5**
Ovenbird	*Seiurus aurocapillus*	-	-	S4	2		2		2		4		2		**47**
Palm Warbler	*Dendroica palmarum*	-	-	S5											**4**
Pine Siskin	*Cardeulis pinus*	-	-	S4	3										**9**
Pine Warbler	*Setophaga pinus*	-	-	S5			3								**30**
Purple Finch	*Carpodacus purpureus*	-	-	S4							2				**10**
Red-breasted Nuthatch	*Sitta canadensis*	-	-	S5							1		1		**11**
Red-eyed Vireo	*Vireo olivaceus*	-	-	S5							2				**8**
Red-winged Blackbird	*Agelaius phoeniceus*	-	-	S4											**3**

Table C-3: 2012 Spring Passerine Migration Survey Results

				Date	16-May-12						17-May-11		24-May-12		**Total**
				Transect	Transect 13		Transect 14		Transect 15		Transect 25		All Transect 'B'		
				Weather Conditions	8 °C, clouds 100%, wind NW, Beaufort 2 gusts of 3						14 °C, clouds 80%, wind SW 15 km/h		19 °C, clouds 70%, wind S Beaufort 3		
				Start Time	9:45		10:15		11:02		9:33		7:57		
				End Time	10:10		10:50		11:25		10:46		8:57		
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	
Rose-breasted Grosbeak	*Pheucticus ludovicianus*	-	-	S4											**5**
Ruby-crowned Kinglet	*Regulus calendula*	-	-	S4											**7**
Song Sparrow	*Melospiza melodia*	-	-	S5											**15**
Swainson's Thrush	*Catharus ustulatus*	-	-	S4											**3**
Swamp Sparrow	*Melospiza georgiana*	-	-	S5											**3**
Tree Swallow	*Tachycineta bicolor*	-	-	S4											**1**
Veery	*Catharus fuscescens*	-	-	S4									1		**1**
Winter Wren	*Troglodytes troglodytes*	-	-	S5			1				2				**10**
White-throated Sparrow	*Zonotrichia albicollis*	-	-	S5	2		2				10				**92**
Yellow-rumped Warbler	*Setophaga coronata*	-	-	S5	3		3		2		2		1		**66**
Grand Total															**774**
Incidental Wildlife Observations															
American Wigeon	*Anas americana*	-	-	S4											**2**
Bald Eagle	*Haliaeetus leucocephalus*	SC	-	S2											**1**
Black-backed Woodpecker	*Picoides arcticus*	-	-	S4	1	female									**1**
Belted Kingfisher	*Ceryle alcyon*	-	-	S4											**5**
Bufflehead	*Bucephala albeola*	-	-	S4											**74**
Broad-winged Hawk	*Buteo platypterus*	-	-	S5											**4**
Canada Goose	*Branta canadensis*	-	-	S5											**8**
Chimney Swift	*Chaetura pelagica*	THR	THR Schedule 1	S4							3				**3**
Common Goldeneye	*Bucephala clangula*	-	-	S5											**10**
Common Loon	*Gavia immer*	-	-	S5											**2**
Common Merganser	*Mergus merganser*	-	-	S5							1				**5**
Common Tern	*Sterna hirundo*	-	-	S4											**3**
Double-crested Cormorant	*Phalacrocorax auritus*	-	-	S5											**1**
Downy Woodpecker	*Picoides pubescens*	-	-	S5							1				**3**
Hairy Woodpecker	*Picoides villosus*	-	-	S5											**5**
Hooded Merganser	*Lophodytes cucullatus*	-	-	S5											**1**
Mallard	*Anas platyrhynchos*	-	-	S5											**10**
Merlin	*Falco columbarius*	-	-	S5											**3**
Northern Flicker	*Colaptes auratus*	-	-	S4	1						2				**20**
Northern Goshawk	*Accipiter gentilis atricapillus*	-	-	S4											**1**
Northern Harrier	*Circus cyaneus*	-	-	S4											**2**
Osprey	*Pandion haliaetus*	-	-	S5											**1**
Pileated Woodpecker	*Dryocopus pileatus*	-	-	S5							1				**6**
Ring-necked Duck	*Aythya collaris*	-	-	S5											**12**
Ruffed Grouse	*Bonasa umbellus*	-	-	S4			2		1		2	1 drumming, 1 female at nest, 11 eggs			**19**
Sandhill Crane	*Grus canadensis tabida*	-	-	S5											**4**
Scaup sp.	*N/A*	-	-	-											**141**
Turkey Vulture	*Cathartes aura*	-	-	S5	2										**7**

Table C-3: 2012 Spring Passerine Migration Survey Results

				Date	16-May-12						17-May-11		24-May-12		**Total**
				Transect	Transect 13		Transect 14		Transect 15		Transect 25		All Transect 'B'		
				Weather Conditions	8 °C, clouds 100%, wind NW, Beaufort 2 gusts of 3						14 °C, clouds 80%, wind SW 15 km/h		19 °C, clouds 70%, wind S Beaufort 3		
				Start Time	9:45		10:15		11:02		9:33		7:57		
				End Time	10:10		10:50		11:25		10:46		8:57		
Common Name	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	**Number**	**Notes**	
Yellow-bellied Sapsucker	*Sphyrapicus varius*	-	-	S5							1				**18**
Grand Total															**372**

Legend
ESA Status: The Endangered Species Act 2007 (ESA) protects Species at Risk at a provincial level.
SC - Special Concern
THR - Threatened
END - Endangered

SARA Status: The Species at Risk Act (SARA) protects Species at Risk at a federal level.
SC - Special Concern
THR - Threatened
END - Endangered

S-rank: The natural heritage provincial ranking system (provincial S-rank) is used by the MNRF Natural Heritage Information Centre (NHIC) to set protection priorities for rare species and natural communities. Definitions are as follows:

S1 - Critically Imperiled, often < 5 occurrences
S2 - Imperiled, often <20 occurences
S3 - Vulnerable, often 80 or fewer
S3S4 - Uncertain between S3 and S4
S4 - Aparently Secure, ncommon
S5 - Secure, common
SNA - Not Applicable —A conservation status rank is not applicable because the species is not a suitable target for conservation activities.
SH - Species or community occurred historically in the nation or state/province, and there is some possibility that it may be rediscovered.

Table C-4: 2013 Spring Passerine Migration Survey Results

Henvey Inlet Wind
Summary of 2011, 2012 and 2013 Passerine Migration Surveys –
Henvey Inlet Wind Energy Centre Study Area

						Transect	Transect 1										
						Survey Number	1	2	3	4	5	6	7	8		1	2	3
						Habitat	Not Recorded											Barrens, mix
						Temperature (°C)	0	0 to -4	0 to -1	10	5	5	12	3		0	0 to -4	7
						Wind (Beaufort Scale)	3	3	3	0	0	-	1	1		3	3	3-4
						Relative Cloud Cover (%)	80 - 99	5	1	100	10	100	100	40		80 - 99	5	25
						Precipitation	-	-	Rain / Snow	Rain	0	None	Light Rain	-	Sub-total	-	-	None
						Precipitation (24h)	-	-	Rain / Snow	Rain	0	None	Code 3-4, Rain Showers	-		-	-	-
						Start Time	6:48	7:12	7:06	7:05	6:06	6:05	5:50	5:24		7:24	8:08	9:00
						End Time	7:01	7:38	7:25	7:28	6:38	6:37	6:30	5:58		7:37	8:30	9:40
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	10-Apr-13	17-Apr-13	24-Apr-13	30-Apr-13	7-May-13	14-May-13	22-May-13	28-May-13		10-Apr-13	17-Apr-13	23-Apr-13
Passerines Observed																		
ALFL	Alder Flycatcher	*Empidonax alnorum*	-	-	S5								1		1			
AMCR	American Crow	*Corvus brachyrhynchos*	-	-	S5						1				1			
AMGO	American Goldfinch	*Cardeulis tristis*	-	-	S5										0			
AMRE	American Redstart	*Setophaga ruticilla*	-	-	S5								2		2			
AMRO	American Robin	*Turdus migratorius*	-	-	S5		1	5	1	3	3	2	3	4	22			3
ATSP	American Tree Sparrow	*Spizella arborea*	-	-	S4			1							1		3	
BAWW	Black-and-white Warbler	*Mniotilta varia*	-	-	S5						2	1	2	3	8			
BBWA	Bay-breasted Warbler	*Setophaga castanea*	-	-	S5								1		1			
BCCH	Black-capped Chickadee	*Poecile atricapillus*	-	-	S5			2	2	1	2	2	3	9	21		2	4
BHCO	Brown-headed Cowbird	*Molothrus ater*	-	-	S4										0			
BHVI	Blue-headed Vireo	*Vireo solitarius*	-	-	S5										0			
BLBW	Blackburnian Warbler	*Setophaga fusca*	-	-	S5								1		1			
BLJA	Blue Jay	*Cyanocitta cristata*	-	-	S5					1	1	2	2	2	8			
BLPW	Blackpoll Warbler	*Setophaga striata*	-	-	S4										0			
BOWA	Bohemian Waxwing	*Bombycilla garrulus*	-	-	SNA		1								1			
BRCR	Brown Creeper	*Certhia americana*	-	-	S5						1				1			
BRTH	Brown Thrasher	*Toxostoma rufum*	-	-	S4										0			
BTBW	Black-throated Blue Warbler	*Setophaga caerulescens*	-	-	S5										0			
BTNW	Black-throated Green Warbler	*Setophaga virens*	-	-	S5						5	3	2	3	13			
CAWA	Canada Warbler	*Cardellina pusilla*	SC	THR Schedule 1	S4								1		1			
CEDW	Cedar Waxwing	*Setophaga tigrina*	-	-	S5									4	4			
CHSP	Chipping Sparrow	*Setophaga cerulea*	-	-	S5					1	1	1			3			
CMWA	Cape May Warbler	*Setophaga tigrina*	-	-	S5						1				1			
COGR	Common Grackle	*Quiscalus quiscula*	-	-	S5			2					1		3			
CORA	Common Raven	*Corvus corax*	-	-	S5		1		2						3			
CORE	Common Redpoll	*Carduelis flammea*	-	-	S4										0			
COYE	Common Yellowthroat	*Geothlyphis trichas*	-	-	S5							1	6	3	10			
CSWA	Chestnut-sided Warbler	*Setophaga pensylvanica*	-	-	S5								1	2	3			
DEJU	Dark-eyed Junco	*Junco hyemalis*	-	-	S5			48							48		4	
EAKI	Eastern Kingbird	*Tyrannus tyrannus*	-	-	S4										0			
EAPH	Eastern Phoebe	*Sayornis phoebe*	-	-	S5								1	2	3			2
EATO	Eastern Towhee	*Pipilio erythrophthalmus*	-	-	S4										0			
EWPE	Eastern Wood-pewee	*Contopus virens*	SC	-	S4										0			
FOSP	Fox Sparrow	*Passerella iliaca*	-	-	S4										0			
GCFL	Great Crested Flycatcher	*Myiarchus crinitus*	-	-	S4								3		3			
GCKI	Golden-crowned Kinglet	*Regulus satrapa*	-	-	S5			2		1	1	1			5			
GRJA	Gray Jay	*Perisoreus canadensis*	-	-	S5										0			
HETH	Hermit Thrush	*Catharus guttatus*	-	-	S5			1			4	6		5	16			
INBU	Indigo Bunting	*Passerina cyanea*	-	-	S4										0			

Table C-4: 2013 Spring Passerine Migration Survey Results

Henvey Inlet Wind
Summary of 2011, 2012 and 2013 Passerine Migration Surveys –
Henvey Inlet Wind Energy Centre Study Area

					Transect	Transect 1														
					Survey Number	1	2	3	4	5	6	7	8		1	2	3			
					Habitat	Not Recorded									Barrens, mix					
					Temperature (°C)	0	0 to -4	0 to -1	10	5	5	12	3		0	0 to -4	7			
					Wind (Beaufort Scale)	3	3	3	0	0	-	1	1		3	3	3-4			
					Relative Cloud Cover (%)	80 - 99	5	1	100	10	100	100	40		80 - 99	5	25			
					Precipitation	-	-	Rain / Snow	Rain	0	None	Light Rain	-	Sub-total	-	-	None			
					Precipitation (24h)	-	-	Rain / Snow	Rain	0	None	Code 3-4, Rain Showers	-		-	-	-			
					Start Time	6:48	7:12	7:06	7:05	6:06	6:05	5:50	5:24		7:24	8:08	9:00			
					End Time	7:01	7:38	7:25	7:28	6:38	6:37	6:30	5:58		7:37	8:30	9:40			
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	10-Apr-13	17-Apr-13	24-Apr-13	30-Apr-13	7-May-13	14-May-13	22-May-13	28-May-13		10-Apr-13	17-Apr-13	23-Apr-13			
LEFL	Least Flycatcher	*Empidonax minimus*	-	-	S4										0					
MAWA	Magnolia Warbler	*Setophaga magnolia*	-	-	S5								1		1					
MOWA	Mourning Warbler	*Geothlypis philadelphia*	-	-	S4										0					
NAWA	Nashville Warbler	*Oreothlypis ruficapilla*	-	-	S5					1	6	8	6	2	23					
NOCA	Northern Cardinal	*Cardinalis cardinalis*	-	-	S5										0					
NOPA	Northern Parula	*Parula americana*	-	-	S4							1	1		2					
NOWA	Northern Waterthrush	*Seiurus noveboracensis*	-	-	S5								1		1					
OCWA	Orange-crowned Warbler	*Oreothlypis celata*	-	-	S4										0					
OVEN	Ovenbird	*Seiurus aurocapillus*	-	-	S4						5	5	7	6	23					
PAWA	Palm Warbler	*Dendroica palmarum*	-	-	S5										0					
N/A	Passerine sp.	-	-	-	-										0					
PHVI	Philadelphia Vireo	*Vireo philadelphicus*	-	-	S5										0					
PISI	Pine Siskin	*Cardeulis pinus*	-	-	S4								1		1					
PIWA	Pine Warbler	*Setophaga pinus*	-	-	S5					1	2				3					
PUFI	Purple Finch	*Carpodacus purpureus*	-	-	S4					1					1					
RBNU	Red-breasted Nuthatch	*Sitta canadensis*	-	-	S5						1	1	2	1	5			2		
REVI	Red-eyed Vireo	*Vireo olivaceus*	-	-	S5								4		4					
RWBL	Red-winged Blackbird	*Agelaius phoeniceus*	-	-	S4					2					2					
RBGR	Rose-breasted Grosbeak	*Pheucticus ludovicianus*	-	-	S4							1	2	3	6					
RCKI	Ruby-crowned Kinglet	*Regulus calendula*	-	-	S4										0					
SOSP	Song Sparrow	*Melospiza melodia*	-	-	S5			3		1					4			1		
SWTH	Swainson's Thrush	*Catharus ustulatus*	-	-	S4										0					
SWSP	Swamp Sparrow	*Melospiza georgiana*	-	-	S5								2	2	4					
TEWA	Tennessee Warbler	*Oreothlypis peregrina*	-	-	S5										0					
TRES	Tree Swallow	*Tachycineta bicolor*	-	-	S4										0					
VEER	Veery	*Catharus fuscescens*	-	-	S4								2	3	5					
WCSP	White-crowned Sparrow	*Zonotrichia leucophrys*	-	-	S4										0					
WIFL	Willow Flycatcher (Trail's Flyca	*Empidonax traillii*	-	-	S5										0					
WIWA	Wilson's Warbler	*Cardellina pusilla*	-	-	S4										0					
WIWR	Winter Wren	*Troglodytes troglodytes*	-	-	S5						1	2			3			1	1	
WOTH	Wood Thrush	*Hylocichla mustelina*	SC	-	S4							1			1					
WTSP	White-throated Sparrow	*Zonotrichia albicollis*	-	-	S5		2	1	7	2	2	3	3		20					
YBFL	Yellow-bellied Flycatcher	*Empidonax flaviventris*	-	-	S5										0					
YRWA	Yellow-rumped Warbler	*Setophaga coronata*	-	-	S5			2	2	6	6	3	2		21			3		
YWAR	Yellow Warbler	*Setophaga petechia*	-	-	S5							3			3					
Total																				
Incidental Wildlife																				
AMBI	American Bittern	*Botaurus lentiginosus*	-	-	S4										0					
ABDU	American Black Duck	*Anas rubripes*	-	-	S4										0					
AMCO	American Coot	*Fulica americana*	-	-	S4										0					
AMWO	American Woodcock	*Scolopax minor*	-	-	S4										0		1			
BAEA	Bald Eagle	*Haliaeetus leucocephalus*	SC	-	S2										0					
BEKI	Belted Kingfisher	*Ceryle alcyon*	-	-	S4										0					

Table C-4: 2013 Spring Passerine Migration Survey Results

Henvey Inlet Wind
Summary of 2011, 2012 and 2013 Passerine Migration Surveys –
Henvey Inlet Wind Energy Centre Study Area

						Transect	Transect 1												
						Survey Number	1	2	3	4	5	6	7	8		1	2	3	
						Habitat	Not Recorded									Barrens, mix			
						Temperature (°C)	0	0 to -4	0 to -1	10	5	5	12	3		0	0 to -4	7	
						Wind (Beaufort Scale)	3	3	3	0	0	-	1	1		3	3	3-4	
						Relative Cloud Cover (%)	80 - 99	5	1	100	10	100	100	40		80 - 99	5	25	
						Precipitation	-	-	Rain / Snow	Rain	0	None	Light Rain	-	Sub-total	-	-	None	
						Precipitation (24h)	-	-	Rain / Snow	Rain	0	None	Code 3-4, Rain Showers	-		-	-	-	
						Start Time	6:48	7:12	7:06	7:05	6:06	6:05	5:50	5:24		7:24	8:08	9:00	
						End Time	7:01	7:38	7:25	7:28	6:38	6:37	6:30	5:58		7:37	8:30	9:40	
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	10-Apr-13	17-Apr-13	24-Apr-13	30-Apr-13	7-May-13	14-May-13	22-May-13	28-May-13		10-Apr-13	17-Apr-13	23-Apr-13	
BBWO	Black-backed Woodpecker	*Picoides arcticus*	-	-	S4										0				
BBCU	Black-billed Cuckoo	*Coccyzus erythropthalmus*	-	-	S5										0				
BWHA	Broad-winged Hawk	*Buteo platypterus*	-	-	S5										0				
BUFF	Bufflehead	*Bucephala albeola*	-	-	S4										0				
N/A	*Buteo* sp.	-	-	-	-										0				
CANG	Canada Goose	*Branta canadensis*	-	-	S5									2	2	2			
CATE	Caspian Tern	*Sterna caspia*	-	-	S3										0				
COLO	Common Loon	*Gavia immer*	-	-	S5										0				
COME	Common Merganser	*Mergus merganser*	-	-	S5										0				
CONI	Common Nighthawk	*Chordeiles minor*	SC	THR Schedule 1	S4										0				
COSN	Common Snipe	*Gallinago gallinago*	-	-	S5										0				
DCCO	Double-crested Cormorant	*Phalacrocorax auritus*	-	-	S5										0				
DOWO	Downy Woodpecker	*Picoides pubescens*	-	-	S5										0				
N/A	Duck sp.	-	-	-	-										0				
GBHE	Great Blue Heron	*Ardea herodias*	-	-	S4				1						1				
GRYE	Greater Yellowlegs	*Tringa melanoleuca*	-	-	S4										0				
GWTE	Green-winged Teal	*Anas crecca*	-	-	S4										0				
NA	Gull sp.	-	-	-	-										0			1	
HAWO	Hairy Woodpecker	*Picoides villosus*	-	-	S5						1				1				
HEGU	Herring Gull	*Larus argentatus*	-	-	S5										0				
HOME	Hooded Merganser	*Lophodytes cucullatus*	-	-	S5										0				
KILL	Killdeer	*Charadrius vociferus*	-	-	S5										0				
MALL	Mallard	*Anas platyrhynchos*	-	-	S5								2	2	4				
MERL	Merlin	*Geothlypis philadelphia*	-	-	S5									2	2				
MODO	Mourning Dove	*Oreothlypis ruficapilla*	-	-	S5										0				
NOFL	Northern Flicker	*Colaptes auratus*	-	-	S4					1		1	1	3	6		1	1	
OSPR	Osprey	*Pandion haliaetus*	-	-	S5										0				
PIWO	Pileated Woodpecker	*Dryocopus pileatus*	-	-	S5						2	1		1	4	1			
N/A	Raptor sp.	-	-	-	-										0				
RBWO	Red-bellied Woodpecker	*Melanerpes carolinus*	-	-	S4										0				
RTHA	Red-tailed Hawk	*Buteo jamaicensis*	-	-	S4										0				
RBGU	Ring-billed Gull	*Larus delawarensis*	-	-	S5										0				
RUGR	Ruffed Grouse	*Bonasa umbellus*	-	-	S4				1	1	1	1		1	5		1	1	
SACR	Sandhill Crane	*Grus canadensis tabida*	-	-	S5							1			1				
SOWA	Species Code Undetermined	-	-	-	-										0				
SPSA	Spotted Sandpiper	*Actitis macularia*	-	-	S5										0				
SPGR	Spruce Grouse	*Falcipennis canadensis*	-	-	S5										0				
TUVU	Turkey Vulture	*Cathartes aura*	-	-	S5										0				
WODU	Wood Duck	*Aix sponsa*	-	-	S5										0				
YBSA	Yellow-bellied Sapsucker	*Sphyrapicus varius*	-	-	S5				1	1	3	2	2	1	10				
Total																			

Legend
Wind (Beafort Scale):
0 (Less than 1 Km/h), 1 (1 -5 Km/h), 2 (6 - 11 Km/h), 3 (12 - 19 Km/h), 4 (20 - 28 Km/h), 5 (29 - 38 Km/h), 6 (39 - 49 Km/h), 7(50 - 61 Km/h), 8 (62 - 74 Km/h), 9 (75 - 88 Km/h), 10 (89 - 102 Km/h), 11 (103 - 117 Km/h), 12 (118 - 133 Km/h)

Table C-4: 2013 Spring Passerine Migration Survey Results

Henvey Inlet Wind
Summary of 2011, 2012 and 2013 Passerine Migration Surveys –
Henvey Inlet Wind Energy Centre Study Area

						Transect	Transect 2							Transect 3				
						Survey Number	4	5	6	7	8	9		1	2	3	4	5
						Habitat	ed forest and wetlands along Bekanon Rd.							Not Recorded				
						Temperature (°C)	11	9	5	6	14	3		0	0 to -4	0 to -1	-	15
						Wind (Beaufort Scale)	0	0	0	1	1	1		3	3	3	-	0
						Relative Cloud Cover (%)	100	0	10	100	100	40		80 - 99	5	1	-	Trace
						Precipitation	Stopped Raining	0	0	None	0	-	Sub-total	-	-	Rain / Snow	-	0
						Precipitation (24h)	Rain	0	0	None	Code 3-4	-		-	-	Rain / Snow	-	0
						Start Time	7:50	6:30	7:06	7:02	7:02	6:21		8:19	9:11	7:52	7:38	8:49
						End Time	8:22	6:57	7:47	7:36	7:59	7:00		8:55	9:33	8:21	8:04	9:26
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	30-Apr-13	2-May-13	7-May-13	13-May-13	22-May-13	28-May-13		10-Apr-13	17-Apr-13	24-Apr-13	2-May-13	7-May-13
Passerines Observed																		
ALFL	Alder Flycatcher	*Empidonax alnorum*	-	-	S5								0					
AMCR	American Crow	*Corvus brachyrhynchos*	-	-	S5								0			1		
AMGO	American Goldfinch	*Cardeulis tristis*	-	-	S5								0					
AMRE	American Redstart	*Setophaga ruticilla*	-	-	S5				2	2	7	2	13					1
AMRO	American Robin	*Turdus migratorius*	-	-	S5		3	2	2	2		2	14	2			4	3
ATSP	American Tree Sparrow	*Spizella arborea*	-	-	S4								3					
BAWW	Black-and-white Warbler	*Mniotilta varia*	-	-	S5				1	2	6	6	15				1	1
BBWA	Bay-breasted Warbler	*Setophaga castanea*	-	-	S5						3		3					
BCCH	Black-capped Chickadee	*Poecile atricapillus*	-	-	S5		1		2	1	1		11		2		2	1
BHCO	Brown-headed Cowbird	*Molothrus ater*	-	-	S4								0					
BHVI	Blue-headed Vireo	*Vireo solitarius*	-	-	S5		1		1	1	1	1	5					
BLBW	Blackburnian Warbler	*Setophaga fusca*	-	-	S5						1	1	2				1	2
BLJA	Blue Jay	*Cyanocitta cristata*	-	-	S5		3	1	3	4	3	3	17	1			2	1
BLPW	Blackpoll Warbler	*Setophaga striata*	-	-	S4								0				1	
BOWA	Bohemian Waxwing	*Bombycilla garrulus*	-	-	SNA								0	1	12			
BRCR	Brown Creeper	*Certhia americana*	-	-	S5						1		1					
BRTH	Brown Thrasher	*Toxostoma rufum*	-	-	S4						1		1				1	
BTBW	Black-throated Blue Warbler	*Setophaga caerulescens*	-	-	S5								0					
BTNW	Black-throated Green Warbler	*Setophaga virens*	-	-	S5				3	4	3	7	17				1	1
CAWA	Canada Warbler	*Cardellina pusilla*	SC	THR Schedule 1	S4							1	1					
CEDW	Cedar Waxwing	*Setophaga tigrina*	-	-	S5							3	3					
CHSP	Chipping Sparrow	*Setophaga cerulea*	-	-	S5		1	1	1	1		1	5				1	
CMWA	Cape May Warbler	*Setophaga tigrina*	-	-	S5							1	1					
COGR	Common Grackle	*Quiscalus quiscula*	-	-	S5		5				3		8	1		5	4	8
CORA	Common Raven	*Corvus corax*	-	-	S5				1			1	2					
CORE	Common Redpoll	*Carduelis flammea*	-	-	S4								0					
COYE	Common Yellowthroat	*Geothlyphis trichas*	-	-	S5				1		4	2	7					
CSWA	Chestnut-sided Warbler	*Setophaga pensylvanica*	-	-	S5						5	4	9					
DEJU	Dark-eyed Junco	*Junco hyemalis*	-	-	S5								4					
EAKI	Eastern Kingbird	*Tyrannus tyrannus*	-	-	S4								0					
EAPH	Eastern Phoebe	*Sayornis phoebe*	-	-	S5		2	2	1				7			3	1	1
EATO	Eastern Towhee	*Pipilio erythrophthalmus*	-	-	S4								0					1
EWPE	Eastern Wood-pewee	*Contopus virens*	SC	-	S4								0					
FOSP	Fox Sparrow	*Passerella iliaca*	-	-	S4								0					
GCFL	Great Crested Flycatcher	*Myiarchus crinitus*	-	-	S4			1	2		2	1	6					
GCKI	Golden-crowned Kinglet	*Regulus satrapa*	-	-	S5				1				1	1	14			
GRJA	Gray Jay	*Perisoreus canadensis*	-	-	S5								0					
HETH	Hermit Thrush	*Catharus guttatus*	-	-	S5		1	1		1	6	1	10			1	1	1
INBU	Indigo Bunting	*Passerina cyanea*	-	-	S4								0					

Table C-4: 2013 Spring Passerine Migration Survey Results

Henvey Inlet Wind
Summary of 2011, 2012 and 2013 Passerine Migration Surveys –
Henvey Inlet Wind Energy Centre Study Area

					Transect	Transect 2							Transect 3				
					Survey Number	4	5	6	7	8	9		1	2	3	4	5
					Habitat	ed forest and wetlands along Bekanon Rd.							Not Recorded				
					Temperature (°C)	11	9	5	6	14	3		0	0 to -4	0 to -1	-	15
					Wind (Beaufort Scale)	0	0	0	1	1	1		3	3	3	-	0
					Relative Cloud Cover (%)	100	0	10	100	100	40		80 - 99	5	1	-	Trace
					Precipitation	Stopped Raining	0	0	None	0	-	Sub-total	-	-	Rain / Snow	-	0
					Precipitation (24h)	Rain	0	0	None	Code 3-4	-		-	-	Rain / Snow	-	0
					Start Time	7:50	6:30	7:06	7:02	7:02	6:21		8:19	9:11	7:52	7:38	8:49
					End Time	8:22	6:57	7:47	7:36	7:59	7:00		8:55	9:33	8:21	8:04	9:26
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	30-Apr-13	2-May-13	7-May-13	13-May-13	22-May-13	28-May-13		10-Apr-13	17-Apr-13	24-Apr-13	2-May-13	7-May-13
LEFL	Least Flycatcher	*Empidonax minimus*	-	-	S4						2		2					
MAWA	Magnolia Warbler	*Setophaga magnolia*	-	-	S5						4	3	7					
MOWA	Mourning Warbler	*Geothlypis philadelphia*	-	-	S4						3		3					
NAWA	Nashville Warbler	*Oreothlypis ruficapilla*	-	-	S5		2		3	5	4	2	16					3
NOCA	Northern Cardinal	*Cardinalis cardinalis*	-	-	S5								0					
NOPA	Northern Parula	*Parula americana*	-	-	S4						1		1					
NOWA	Northern Waterthrush	*Seiurus noveboracensis*	-	-	S5								0					
OCWA	Orange-crowned Warbler	*Oreothlypis celata*	-	-	S4								0					
OVEN	Ovenbird	*Seiurus aurocapillus*	-	-	S4			2	3	2	11	6	24					2
PAWA	Palm Warbler	*Dendroica palmarum*	-	-	S5								0					
N/A	Passerine sp.	-	-	-	-		2						2					
PHVI	Philadelphia Vireo	*Vireo philadelphicus*	-	-	S5						1		1					
PISI	Pine Siskin	*Cardeulis pinus*	-	-	S4								0					
PIWA	Pine Warbler	*Setophaga pinus*	-	-	S5			3	3	1	3	1	11				1	2
PUFI	Purple Finch	*Carpodacus purpureus*	-	-	S4		2	1	1		1		5				2	
RBNU	Red-breasted Nuthatch	*Sitta canadensis*	-	-	S5		2	1	1	1	1		8				1	1
REVI	Red-eyed Vireo	*Vireo olivaceus*	-	-	S5						7	3	10					
RWBL	Red-winged Blackbird	*Agelaius phoeniceus*	-	-	S4								0					
RBGR	Rose-breasted Grosbeak	*Pheucticus ludovicianus*	-	-	S4				1				1					
RCKI	Ruby-crowned Kinglet	*Regulus calendula*	-	-	S4		1						1			6		
SOSP	Song Sparrow	*Melospiza melodia*	-	-	S5		1	4	1	1	3	1	12		3	6	2	3
SWTH	Swainson's Thrush	*Catharus ustulatus*	-	-	S4								0					1
SWSP	Swamp Sparrow	*Melospiza georgiana*	-	-	S5								0					
TEWA	Tennessee Warbler	*Oreothlypis peregrina*	-	-	S5								0					
TRES	Tree Swallow	*Tachycineta bicolor*	-	-	S4								0					
VEER	Veery	*Catharus fuscescens*	-	-	S4						5	1	6					
WCSP	White-crowned Sparrow	*Zonotrichia leucophrys*	-	-	S4								0					
WIFL	Willow Flycatcher (Trail's Flyca	*Empidonax traillii*	-	-	S5								0					
WIWA	Wilson's Warbler	*Cardellina pusilla*	-	-	S4						1		1					
WIWR	Winter Wren	*Troglodytes troglodytes*	-	-	S5			1	1				4				1	2
WOTH	Wood Thrush	*Hylocichla mustelina*	SC	-	S4								0					
WTSP	White-throated Sparrow	*Zonotrichia albicollis*	-	-	S5		7	10	6	4	7	5	39			1	3	4
YBFL	Yellow-bellied Flycatcher	*Empidonax flaviventris*	-	-	S5								0					
YRWA	Yellow-rumped Warbler	*Setophaga coronata*	-	-	S5		3	5	3	4	4	4	26				5	2
YWAR	Yellow Warbler	*Setophaga petechia*	-	-	S5							1	1					
Total																		
Incidental Wildlife																		
AMBI	American Bittern	*Botaurus lentiginosus*	-	-	S4								0				1	
ABDU	American Black Duck	*Anas rubripes*	-	-	S4								0	2				
AMCO	American Coot	*Fulica americana*	-	-	S4								0					
AMWO	American Woodcock	*Scolopax minor*	-	-	S4								1					
BAEA	Bald Eagle	*Haliaeetus leucocephalus*	SC	-	S2								0					
BEKI	Belted Kingfisher	*Ceryle alcyon*	-	-	S4								0					

Table C-4: 2013 Spring Passerine Migration Survey Results

Henvey Inlet Wind
Summary of 2011, 2012 and 2013 Passerine Migration Surveys –
Henvey Inlet Wind Energy Centre Study Area

					Transect	Transect 2							Transect 3				
					Survey Number	4	5	6	7	8	9		1	2	3	4	5
					Habitat	ed forest and wetlands along Bekanon Rd.							Not Recorded				
					Temperature (°C)	11	9	5	6	14	3		0	0 to -4	0 to -1	-	15
					Wind (Beaufort Scale)	0	0	0	1	1	1		3	3	3	-	0
					Relative Cloud Cover (%)	100	0	10	100	100	40		80 - 99	5	1	-	Trace
					Precipitation	Stopped Raining	0	0	None	0	-	Sub-total	-	-	Rain / Snow	-	0
					Precipitation (24h)	Rain	0	0	None	Code 3-4	-		-	-	Rain / Snow	-	0
					Start Time	7:50	6:30	7:06	7:02	7:02	6:21		8:19	9:11	7:52	7:38	8:49
					End Time	8:22	6:57	7:47	7:36	7:59	7:00		8:55	9:33	8:21	8:04	9:26
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	30-Apr-13	2-May-13	7-May-13	13-May-13	22-May-13	28-May-13		10-Apr-13	17-Apr-13	24-Apr-13	2-May-13	7-May-13
BBWO	Black-backed Woodpecker	*Picoides arcticus*	-	-	S4					1			1				1
BBCU	Black-billed Cuckoo	*Coccyzus erythropthalmus*	-	-	S5								0				
BWHA	Broad-winged Hawk	*Buteo platypterus*	-	-	S5								0				
BUFF	Bufflehead	*Bucephala albeola*	-	-	S4								0				
N/A	*Buteo* sp.	-	-	-	-								0				
CANG	Canada Goose	*Branta canadensis*	-	-	S5			3	2	2		3	12	4	2	2	1	
CATE	Caspian Tern	*Sterna caspia*	-	-	S3								0					
COLO	Common Loon	*Gavia immer*	-	-	S5								0					
COME	Common Merganser	*Mergus merganser*	-	-	S5								0					2
CONI	Common Nighthawk	*Chordeiles minor*	SC	THR Schedule 1	S4								0					
COSN	Common Snipe	*Gallinago gallinago*	-	-	S5				1	1		1	3					
DCCO	Double-crested Cormorant	*Phalacrocorax auritus*	-	-	S5								0					
DOWO	Downy Woodpecker	*Picoides pubescens*	-	-	S5								0			1		
N/A	Duck sp.	-	-	-	-								0					
GBHE	Great Blue Heron	*Ardea herodias*	-	-	S4								0					
GRYE	Greater Yellowlegs	*Tringa melanoleuca*	-	-	S4								0					
GWTE	Green-winged Teal	*Anas crecca*	-	-	S4								0			1		
NA	Gull sp.	-	-	-	-								1					
HAWO	Hairy Woodpecker	*Picoides villosus*	-	-	S5								0		2			
HEGU	Herring Gull	*Larus argentatus*	-	-	S5								0	1				
HOME	Hooded Merganser	*Lophodytes cucullatus*	-	-	S5								0	10		1		
KILL	Killdeer	*Charadrius vociferus*	-	-	S5								0					
MALL	Mallard	*Anas platyrhynchos*	-	-	S5								0					
MERL	Merlin	*Geothlypis philadelphia*	-	-	S5								0					
MODO	Mourning Dove	*Oreothlypis ruficapilla*	-	-	S5								0					
NOFL	Northern Flicker	*Colaptes auratus*	-	-	S4			1	1	1			5		1	1	3	
OSPR	Osprey	*Pandion haliaetus*	-	-	S5								0					
PIWO	Pileated Woodpecker	*Dryocopus pileatus*	-	-	S5			1			1		3					1
N/A	Raptor sp.	-	-	-	-								0					
RBWO	Red-bellied Woodpecker	*Melanerpes carolinus*	-	-	S4					1			1					
RTHA	Red-tailed Hawk	*Buteo jamaicensis*	-	-	S4								0					
RBGU	Ring-billed Gull	*Larus delawarensis*	-	-	S5		1						1					
RUGR	Ruffed Grouse	*Bonasa umbellus*	-	-	S4		1	1		2	1		7	2	1	1	1	1
SACR	Sandhill Crane	*Grus canadensis tabida*	-	-	S5		2	1	2				5			2	1	1
SOWA	Species Code Undetermined	-	-	-	-								0					
SPSA	Spotted Sandpiper	*Actitis macularia*	-	-	S5								0					
SPGR	Spruce Grouse	*Falcipennis canadensis*	-	-	S5								0					
TUVU	Turkey Vulture	*Cathartes aura*	-	-	S5								0					
WODU	Wood Duck	*Aix sponsa*	-	-	S5								0		2			
YBSA	Yellow-bellied Sapsucker	*Sphyrapicus varius*	-	-	S5		1	3	1	1	2	1	9		1		2	1
Total																		

Legend
Wind (Beafort Scale):
0 (Less than 1 Km/h), 1 (1 -5 Km/h), 2 (6 - 11 Km/h), 3 (12 - 19 Km/h), 4 (20 - 28 Km/h), 5 (29 - 38 Km/h), 6 (39 - 49 Km/h), 7(50 - 61 Km/h), 8 (62 - 74 Km/h), 9 (75 - 88 Km/h), 10

Table C-4: 2013 Spring Passerine Migration Survey Results

Henvey Inlet Wind
Summary of 2011, 2012 and 2013 Passerine Migration Surveys –
Henvey Inlet Wind Energy Centre Study Area

						Transect					Transect 4			Transect 5			Transect 6	
						Survey Number	6	7	8		1	2		1	2		1	2
						Habitat					Not Recorded			Not Recorded			Deciduous / mixed woods	
						Temperature (°C)	7	14	8		0	0 to -1		0	0 to -1		-4	1
						Wind (Beaufort Scale)	1	1	1		3	3		3	3		3-4	3
						Relative Cloud Cover (%)	100	100	80		80 - 99	1		80 - 99	1		100	100
						Precipitation	None	0	-	Sub-total	-	Rain / Snow	Sub-total	-	Rain / Snow	Sub-total	-	Rain
						Precipitation (24h)	None	Code 3-4	-		-	Rain / Snow		-	Rain / Snow		-	Rain
						Start Time	8:15	8:48	7:38		9:25	8:50		10:25	9:47		7:00	7:00
						End Time	8:52	9:31	8:28		9:33	9:18		10:54	10:20		7:19	7:45
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	14-May-13	22-May-13	28-May-13		10-Apr-13	24-Apr-13		10-Apr-13	24-Apr-13		11-Apr-13	18-Apr-13
Passerines Observed																		
ALFL	Alder Flycatcher	*Empidonax alnorum*	-	-	S5			1		1			0			0		
AMCR	American Crow	*Corvus brachyrhynchos*	-	-	S5				1	2			0			0	2	2
AMGO	American Goldfinch	*Cardeulis tristis*	-	-	S5					0			0			0		
AMRE	American Redstart	*Setophaga ruticilla*	-	-	S5		1	6	4	12			0			0		
AMRO	American Robin	*Turdus migratorius*	-	-	S5		2	1	2	14	6	2	8		2	2	1	
ATSP	American Tree Sparrow	*Spizella arborea*	-	-	S4					0			0			0		
BAWW	Black-and-white Warbler	*Mniotilta varia*	-	-	S5		1	4	2	9			0			0		
BBWA	Bay-breasted Warbler	*Setophaga castanea*	-	-	S5					0			0			0		
BCCH	Black-capped Chickadee	*Poecile atricapillus*	-	-	S5				1	6	2		2		2	2	2	1
BHCO	Brown-headed Cowbird	*Molothrus ater*	-	-	S4					0			0			0		
BHVI	Blue-headed Vireo	*Vireo solitarius*	-	-	S5					0			0			0		
BLBW	Blackburnian Warbler	*Setophaga fusca*	-	-	S5		1		1	5			0			0		
BLJA	Blue Jay	*Cyanocitta cristata*	-	-	S5					4			0			0		
BLPW	Blackpoll Warbler	*Setophaga striata*	-	-	S4			1		2			0			0		
BOWA	Bohemian Waxwing	*Bombycilla garrulus*	-	-	SNA					13			0			0		
BRCR	Brown Creeper	*Certhia americana*	-	-	S5		2			2			0			0		
BRTH	Brown Thrasher	*Toxostoma rufum*	-	-	S4					1			0			0		
BTBW	Black-throated Blue Warbler	*Setophaga caerulescens*	-	-	S5					0			0			0		
BTNW	Black-throated Green Warbler	*Setophaga virens*	-	-	S5		1	3	2	8			0			0		
CAWA	Canada Warbler	*Cardellina pusilla*	SC	THR Schedule 1	S4			1	2	3			0			0		
CEDW	Cedar Waxwing	*Setophaga tigrina*	-	-	S5				1	1			0			0		
CHSP	Chipping Sparrow	*Setophaga cerulea*	-	-	S5					1			0			0		
CMWA	Cape May Warbler	*Setophaga tigrina*	-	-	S5					0			0			0		
COGR	Common Grackle	*Quiscalus quiscula*	-	-	S5		4	6	4	32			0			0		4
CORA	Common Raven	*Corvus corax*	-	-	S5					0			0			0		
CORE	Common Redpoll	*Carduelis flammea*	-	-	S4					0			0			0		
COYE	Common Yellowthroat	*Geothlyphis trichas*	-	-	S5			5	8	13			0			0		
CSWA	Chestnut-sided Warbler	*Setophaga pensylvanica*	-	-	S5			2	2	4			0			0		
DEJU	Dark-eyed Junco	*Junco hyemalis*	-	-	S5					0			0			0		
EAKI	Eastern Kingbird	*Tyrannus tyrannus*	-	-	S4					0			0			0		
EAPH	Eastern Phoebe	*Sayornis phoebe*	-	-	S5		2		1	8			0			0		
EATO	Eastern Towhee	*Pipilio erythrophthalmus*	-	-	S4					1			0			0		
EWPE	Eastern Wood-pewee	*Contopus virens*	SC	-	S4				1	1			0			0		
FOSP	Fox Sparrow	*Passerella iliaca*	-	-	S4					0			0			0		
GCFL	Great Crested Flycatcher	*Myiarchus crinitus*	-	-	S4			1		1			0			0		
GCKI	Golden-crowned Kinglet	*Regulus satrapa*	-	-	S5					15	4	1	5			0	5	6
GRJA	Gray Jay	*Perisoreus canadensis*	-	-	S5					0	1		1			0		
HETH	Hermit Thrush	*Catharus guttatus*	-	-	S5				1	4			0			0		
INBU	Indigo Bunting	*Passerina cyanea*	-	-	S4				1	1			0			0		

Table C-4: 2013 Spring Passerine Migration Survey Results

Henvey Inlet Wind
Summary of 2011, 2012 and 2013 Passerine Migration Surveys –
Henvey Inlet Wind Energy Centre Study Area

						Transect				Transect 4			Transect 5			Transect 6	
						Survey Number	6	7	8		1	2		1	2		1	2
						Habitat					Not Recorded			Not Recorded			Deciduous / mixed woods	
						Temperature (°C)	7	14	8		0	0 to -1		0	0 to -1		-4	1
						Wind (Beaufort Scale)	1	1	1		3	3		3	3		3-4	3
						Relative Cloud Cover (%)	100	100	80		80 - 99	1		80 - 99	1		100	100
						Precipitation	None	0	-	Sub-total	-	Rain / Snow	Sub-total	-	Rain / Snow	Sub-total	-	Rain
						Precipitation (24h)	None	Code 3-4	-		-	Rain / Snow		-	Rain / Snow		-	Rain
						Start Time	8:15	8:48	7:38		9:25	8:50		10:25	9:47		7:00	7:00
						End Time	8:52	9:31	8:28		9:33	9:18		10:54	10:20		7:19	7:45
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	14-May-13	22-May-13	28-May-13		10-Apr-13	24-Apr-13		10-Apr-13	24-Apr-13		11-Apr-13	18-Apr-13
LEFL	Least Flycatcher	*Empidonax minimus*	-	-	S4					0			0			0		
MAWA	Magnolia Warbler	*Setophaga magnolia*	-	-	S5			4	1	5			0			0		
MOWA	Mourning Warbler	*Geothlypis philadelphia*	-	-	S4					0			0			0		
NAWA	Nashville Warbler	*Oreothlypis ruficapilla*	-	-	S5		3	1	1	8			0			0		
NOCA	Northern Cardinal	*Cardinalis cardinalis*	-	-	S5					0			0			0		
NOPA	Northern Parula	*Parula americana*	-	-	S4					0			0			0		
NOWA	Northern Waterthrush	*Seiurus noveboracensis*	-	-	S5					0			0			0		
OCWA	Orange-crowned Warbler	*Oreothlypis celata*	-	-	S4			1		1			0			0		
OVEN	Ovenbird	*Seiurus aurocapillus*	-	-	S4		1	3	4	10			0			0		
PAWA	Palm Warbler	*Dendroica palmarum*	-	-	S5					0			0			0		
N/A	Passerine sp.	-	-	-	-					0			0			0		
PHVI	Philadelphia Vireo	*Vireo philadelphicus*	-	-	S5					0			0			0		
PISI	Pine Siskin	*Cardeulis pinus*	-	-	S4					0			0			0		
PIWA	Pine Warbler	*Setophaga pinus*	-	-	S5		1	1	2	7			0			0		
PUFI	Purple Finch	*Carpodacus purpureus*	-	-	S4		1	1		4			0			0		
RBNU	Red-breasted Nuthatch	*Sitta canadensis*	-	-	S5		1			3			0	1		1		
REVI	Red-eyed Vireo	*Vireo olivaceus*	-	-	S5			5	3	8			0			0		
RWBL	Red-winged Blackbird	*Agelaius phoeniceus*	-	-	S4		1		1	2			0			0		
RBGR	Rose-breasted Grosbeak	*Pheucticus ludovicianus*	-	-	S4			3	2	5			0			0		
RCKI	Ruby-crowned Kinglet	*Regulus calendula*	-	-	S4					6			0			0		
SOSP	Song Sparrow	*Melospiza melodia*	-	-	S5		3	4	2	23			0		2	2		
SWTH	Swainson's Thrush	*Catharus ustulatus*	-	-	S4			1		2			0			0		
SWSP	Swamp Sparrow	*Melospiza georgiana*	-	-	S5				1	1			0			0		
TEWA	Tennessee Warbler	*Oreothlypis peregrina*	-	-	S5				1	1			0			0		
TRES	Tree Swallow	*Tachycineta bicolor*	-	-	S4					0			0			0		
VEER	Veery	*Catharus fuscescens*	-	-	S4				1	1			0			0		
WCSP	White-crowned Sparrow	*Zonotrichia leucophrys*	-	-	S4		3			3			0			0		
WIFL	Willow Flycatcher (Trail's Flyca	*Empidonax traillii*	-	-	S5					0			0			0		
WIWA	Wilson's Warbler	*Cardellina pusilla*	-	-	S4					0			0			0		
WIWR	Winter Wren	*Troglodytes troglodytes*	-	-	S5					3			0		1	1		
WOTH	Wood Thrush	*Hylocichla mustelina*	SC	-	S4					0			0			0		
WTSP	White-throated Sparrow	*Zonotrichia albicollis*	-	-	S5		3	6	6	23			0			0		
YBFL	Yellow-bellied Flycatcher	*Empidonax flaviventris*	-	-	S5					0			0			0		
YRWA	Yellow-rumped Warbler	*Setophaga coronata*	-	-	S5		3	4	2	16			0			0		
YWAR	Yellow Warbler	*Setophaga petechia*	-	-	S5			2	1	3			0			0		
Total																		
Incidental Wildlife																		
AMBI	American Bittern	*Botaurus lentiginosus*	-	-	S4					1			0			0		
ABDU	American Black Duck	*Anas rubripes*	-	-	S4					2			0			0		
AMCO	American Coot	*Fulica americana*	-	-	S4					0			0			0		
AMWO	American Woodcock	*Scolopax minor*	-	-	S4					0			0			0	1	
BAEA	Bald Eagle	*Haliaeetus leucocephalus*	SC	-	S2					0			0			0		
BEKI	Belted Kingfisher	*Ceryle alcyon*	-	-	S4				1	1		1	1			0		

Table C-4: 2013 Spring Passerine Migration Survey Results

Henvey Inlet Wind
Summary of 2011, 2012 and 2013 Passerine Migration Surveys –
Henvey Inlet Wind Energy Centre Study Area

						Transect	Transect 4						Transect 5			Transect 6	
						Survey Number	6	7	8		1	2		1	2		1	2
						Habitat					Not Recorded			Not Recorded			Deciduous / mixed woods	
						Temperature (°C)	7	14	8		0	0 to -1		0	0 to -1		-4	1
						Wind (Beaufort Scale)	1	1	1		3	3		3	3		3-4	3
						Relative Cloud Cover (%)	100	100	80		80 - 99	1		80 - 99	1		100	100
						Precipitation	None	0	-	Sub-total	-	Rain / Snow	Sub-total	-	Rain / Snow	Sub-total	-	Rain
						Precipitation (24h)	None	Code 3-4	-		-	Rain / Snow		-	Rain / Snow		-	Rain
						Start Time	8:15	8:48	7:38		9:25	8:50		10:25	9:47		7:00	7:00
						End Time	8:52	9:31	8:28		9:33	9:18		10:54	10:20		7:19	7:45
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	14-May-13	22-May-13	28-May-13		10-Apr-13	24-Apr-13		10-Apr-13	24-Apr-13		11-Apr-13	18-Apr-13
BBWO	Black-backed Woodpecker	*Picoides arcticus*	-	-	S4					1			0			0		
BBCU	Black-billed Cuckoo	*Coccyzus erythropthalmus*	-	-	S5				1	1			0			0		
BWHA	Broad-winged Hawk	*Buteo platypterus*	-	-	S5					0			0			0		
BUFF	Bufflehead	*Bucephala albeola*	-	-	S4					0			0			0		
N/A	*Buteo* sp.	-	-	-	-					0			0			0		
CANG	Canada Goose	*Branta canadensis*	-	-	S5		2	1	1	13		2	2			0		
CATE	Caspian Tern	*Sterna caspia*	-	-	S3				1	1			0			0		
COLO	Common Loon	*Gavia immer*	-	-	S5					0			0			0		
COME	Common Merganser	*Mergus merganser*	-	-	S5					2			0			0		
CONI	Common Nighthawk	*Chordeiles minor*	SC	THR Schedule 1	S4					0			0			0		
COSN	Common Snipe	*Gallinago gallinago*	-	-	S5					0			0			0		
DCCO	Double-crested Cormorant	*Phalacrocorax auritus*	-	-	S5					0			0			0		
DOWO	Downy Woodpecker	*Picoides pubescens*	-	-	S5		1	1		3			0			0		
N/A	Duck sp.	-	-	-	-					0			0			0		
GBHE	Great Blue Heron	*Ardea herodias*	-	-	S4				1	1			0			0		
GRYE	Greater Yellowlegs	*Tringa melanoleuca*	-	-	S4					0		2	2			0		
GWTE	Green-winged Teal	*Anas crecca*	-	-	S4					1			0			0		
NA	Gull sp.	-	-	-	-					0			0			0		
HAWO	Hairy Woodpecker	*Picoides villosus*	-	-	S5			1		3			0			0		1
HEGU	Herring Gull	*Larus argentatus*	-	-	S5					1	2		2			0		
HOME	Hooded Merganser	*Lophodytes cucullatus*	-	-	S5					11			0			0		
KILL	Killdeer	*Charadrius vociferus*	-	-	S5					0			0			0		
MALL	Mallard	*Anas platyrhynchos*	-	-	S5					0	2		2			0		
MERL	Merlin	*Geothlypis philadelphia*	-	-	S5				1	1			0			0		
MODO	Mourning Dove	*Oreothlypis ruficapilla*	-	-	S5					0			0			0		
NOFL	Northern Flicker	*Colaptes auratus*	-	-	S4			2	2	9			0			0		
OSPR	Osprey	*Pandion haliaetus*	-	-	S5					0			0			0		
PIWO	Pileated Woodpecker	*Dryocopus pileatus*	-	-	S5			1		2			0			0		1
N/A	Raptor sp.	-	-	-	-					0			0			0		
RBWO	Red-bellied Woodpecker	*Melanerpes carolinus*	-	-	S4					0			0			0		
RTHA	Red-tailed Hawk	*Buteo jamaicensis*	-	-	S4					0			0	1		1		
RBGU	Ring-billed Gull	*Larus delawarensis*	-	-	S5				1	1			0			0		
RUGR	Ruffed Grouse	*Bonasa umbellus*	-	-	S4		1	1	1	9			0	1	1	2		1
SACR	Sandhill Crane	*Grus canadensis tabida*	-	-	S5					4			0			0		
SOWA	Species Code Undetermined	-	-	-	-					0	1		1			0		
SPSA	Spotted Sandpiper	*Actitis macularia*	-	-	S5					0			0			0		
SPGR	Spruce Grouse	*Falcipennis canadensis*	-	-	S5					0	1		1			0		
TUVU	Turkey Vulture	*Cathartes aura*	-	-	S5					0	1		1	1		1		
WODU	Wood Duck	*Aix sponsa*	-	-	S5				1	3			0		2	2		
YBSA	Yellow-bellied Sapsucker	*Sphyrapicus varius*	-	-	S5			2		6			0			0		1
Total																		

Legend
Wind (Beafort Scale):
0 (Less than 1 Km/h), 1 (1 -5 Km/h), 2 (6 - 11 Km/h), 3 (12 - 19 Km/h), 4 (20 - 28 Km/h), 5 (29 - 38 Km/h), 6 (39 - 49 Km/h), 7(50 - 61 Km/h), 8 (62 - 74 Km/h), 9 (75 - 88 Km/h), 10

Table C-4: 2013 Spring Passerine Migration Survey Results

Henvey Inlet Wind
Summary of 2011, 2012 and 2013 Passerine Migration Surveys –
Henvey Inlet Wind Energy Centre Study Area

						Transect		Transect 7			Transect 8			Transect 9			Transect 10		
						Survey Number		1	2		1	2		1			1	2	
						Habitat		Upland forest-mixed forest, lowland transitions as well.			Not Recorded			Not Recorded			Not Recorded		
						Temperature (°C)		-4	0 to -4		-4	7		-4			-4	7	
						Wind (Beaufort Scale)		2	3		3-4	3-5		3-4			2	3-5	
						Relative Cloud Cover (%)		10	5		100	25		100			10	25	
						Precipitation	Sub-total	None	-	Sub-total	-	-	Sub-total	-	Sub-total		None	-	Sub-total
						Precipitation (24h)		None	-		-	-		-			None	-	
						Start Time		7:08	6:21		8:11	7:55		9:10			9:52	9:22	
						End Time		7:21	6:39		8:33	8:20		9:30			10:16	9:47	
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**		11-Apr-13	17-Apr-13		11-Apr-13	23-Apr-13		11-Apr-13			11-Apr-13	23-Apr-13	
Passerines Observed																			
ALFL	Alder Flycatcher	*Empidonax alnorum*	-	-	S5		0			0			0		0				0
AMCR	American Crow	*Corvus brachyrhynchos*	-	-	S5		4			0			0		0			1	1
AMGO	American Goldfinch	*Cardeulis tristis*	-	-	S5		0			0			0		0				0
AMRE	American Redstart	*Setophaga ruticilla*	-	-	S5		0			0			0		0				0
AMRO	American Robin	*Turdus migratorius*	-	-	S5		1		3	3	7	1	8		0				0
ATSP	American Tree Sparrow	*Spizella arborea*	-	-	S4		0			0			0		0				0
BAWW	Black-and-white Warbler	*Mniotilta varia*	-	-	S5		0			0			0		0				0
BBWA	Bay-breasted Warbler	*Setophaga castanea*	-	-	S5		0			0			0		0				0
BCCH	Black-capped Chickadee	*Poecile atricapillus*	-	-	S5		3	5	2	7			0		0			4	4
BHCO	Brown-headed Cowbird	*Molothrus ater*	-	-	S4		0			0			0		0			2	2
BHVI	Blue-headed Vireo	*Vireo solitarius*	-	-	S5		0			0			0		0				0
BLBW	Blackburnian Warbler	*Setophaga fusca*	-	-	S5		0			0			0		0				0
BLJA	Blue Jay	*Cyanocitta cristata*	-	-	S5		0			0			0		0			2	2
BLPW	Blackpoll Warbler	*Setophaga striata*	-	-	S4		0			0			0		0				0
BOWA	Bohemian Waxwing	*Bombycilla garrulus*	-	-	SNA		0			0	2		2	24	24				0
BRCR	Brown Creeper	*Certhia americana*	-	-	S5		0			0			0		0				0
BRTH	Brown Thrasher	*Toxostoma rufum*	-	-	S4		0			0			0		0				0
BTBW	Black-throated Blue Warbler	*Setophaga caerulescens*	-	-	S5		0			0			0		0				0
BTNW	Black-throated Green Warbler	*Setophaga virens*	-	-	S5		0			0			0		0				0
CAWA	Canada Warbler	*Cardellina pusilla*	SC	THR Schedule 1	S4		0			0			0		0				0
CEDW	Cedar Waxwing	*Setophaga tigrina*	-	-	S5		0			0			0		0				0
CHSP	Chipping Sparrow	*Setophaga cerulea*	-	-	S5		0			0			0		0				0
CMWA	Cape May Warbler	*Setophaga tigrina*	-	-	S5		0			0			0		0				0
COGR	Common Grackle	*Quiscalus quiscula*	-	-	S5		4		2	2			0		0			1	1
CORA	Common Raven	*Corvus corax*	-	-	S5		0	1	1	2			0		0	2			2
CORE	Common Redpoll	*Carduelis flammea*	-	-	S4		0			0	1		1		0				0
COYE	Common Yellowthroat	*Geothlyphis trichas*	-	-	S5		0			0			0		0				0
CSWA	Chestnut-sided Warbler	*Setophaga pensylvanica*	-	-	S5		0			0			0		0				0
DEJU	Dark-eyed Junco	*Junco hyemalis*	-	-	S5		0			0			0		0				0
EAKI	Eastern Kingbird	*Tyrannus tyrannus*	-	-	S4		0			0			0		0				0
EAPH	Eastern Phoebe	*Sayornis phoebe*	-	-	S5		0			0			0		0			1	1
EATO	Eastern Towhee	*Pipilio erythrophthalmus*	-	-	S4		0			0			0		0				0
EWPE	Eastern Wood-pewee	*Contopus virens*	SC	-	S4		0			0			0		0				0
FOSP	Fox Sparrow	*Passerella iliaca*	-	-	S4		0			0			0		0			1	1
GCFL	Great Crested Flycatcher	*Myiarchus crinitus*	-	-	S4		0			0			0		0				0
GCKI	Golden-crowned Kinglet	*Regulus satrapa*	-	-	S5		11	2	10	12	2		2	2	2	2			2
GRJA	Gray Jay	*Perisoreus canadensis*	-	-	S5		0			0			0		0				0
HETH	Hermit Thrush	*Catharus guttatus*	-	-	S5		0			0			0		0				0
INBU	Indigo Bunting	*Passerina cyanea*	-	-	S4		0			0			0		0				0

Table C-4: 2013 Spring Passerine Migration Survey Results

Henvey Inlet Wind
Summary of 2011, 2012 and 2013 Passerine Migration Surveys –
Henvey Inlet Wind Energy Centre Study Area

						Transect		Transect 7			Transect 8			Transect 9			Transect 10		
						Survey Number		1	2		1	2		1			1	2	
						Habitat		Upland forest-mixed forest, lowland transitions as well.			Not Recorded			Not Recorded			Not Recorded		
						Temperature (°C)		-4	0 to -4		-4	7		-4			-4	7	
						Wind (Beaufort Scale)		2	3		3-4	3-5		3-4			2	3-5	
						Relative Cloud Cover (%)		10	5		100	25		100			10	25	
						Precipitation	Sub-total	None	-	Sub-total	-	-	Sub-total	-	Sub-total		None	-	Sub-total
						Precipitation (24h)		None	-		-	-		-			None	-	
						Start Time		7:08	6:21		8:11	7:55		9:10			9:52	9:22	
						End Time		7:21	6:39		8:33	8:20		9:30			10:16	9:47	
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**		11-Apr-13	17-Apr-13		11-Apr-13	23-Apr-13		11-Apr-13			11-Apr-13	23-Apr-13	
LEFL	Least Flycatcher	*Empidonax minimus*	-	-	S4		0			0			0		0				0
MAWA	Magnolia Warbler	*Setophaga magnolia*	-	-	S5		0			0			0		0				0
MOWA	Mourning Warbler	*Geothlypis philadelphia*	-	-	S4		0			0			0		0				0
NAWA	Nashville Warbler	*Oreothlypis ruficapilla*	-	-	S5		0			0			0		0				0
NOCA	Northern Cardinal	*Cardinalis cardinalis*	-	-	S5		0			0			0		0				0
NOPA	Northern Parula	*Parula americana*	-	-	S4		0			0			0		0				0
NOWA	Northern Waterthrush	*Seiurus noveboracensis*	-	-	S5		0			0			0		0				0
OCWA	Orange-crowned Warbler	*Oreothlypis celata*	-	-	S4		0			0			0		0				0
OVEN	Ovenbird	*Seiurus aurocapillus*	-	-	S4		0			0			0		0				0
PAWA	Palm Warbler	*Dendroica palmarum*	-	-	S5		0			0			0		0				0
N/A	Passerine sp.	-	-	-	-		0			0			0		0				0
PHVI	Philadelphia Vireo	*Vireo philadelphicus*	-	-	S5		0			0			0		0				0
PISI	Pine Siskin	*Cardeulis pinus*	-	-	S4		0			0			0		0				0
PIWA	Pine Warbler	*Setophaga pinus*	-	-	S5		0			0			0		0				0
PUFI	Purple Finch	*Carpodacus purpureus*	-	-	S4		0			0			0		0				0
RBNU	Red-breasted Nuthatch	*Sitta canadensis*	-	-	S5		0		1	1		2	2		0				0
REVI	Red-eyed Vireo	*Vireo olivaceus*	-	-	S5		0			0			0		0				0
RWBL	Red-winged Blackbird	*Agelaius phoeniceus*	-	-	S4		0			0	5		5		0				0
RBGR	Rose-breasted Grosbeak	*Pheucticus ludovicianus*	-	-	S4		0			0			0		0				0
RCKI	Ruby-crowned Kinglet	*Regulus calendula*	-	-	S4		0			0		7	7		0			2	2
SOSP	Song Sparrow	*Melospiza melodia*	-	-	S5		0			0		1	1		0			3	3
SWTH	Swainson's Thrush	*Catharus ustulatus*	-	-	S4		0			0			0		0				0
SWSP	Swamp Sparrow	*Melospiza georgiana*	-	-	S5		0			0			0		0				0
TEWA	Tennessee Warbler	*Oreothlypis peregrina*	-	-	S5		0			0			0		0				0
TRES	Tree Swallow	*Tachycineta bicolor*	-	-	S4		0			0			0		0				0
VEER	Veery	*Catharus fuscescens*	-	-	S4		0			0			0		0				0
WCSP	White-crowned Sparrow	*Zonotrichia leucophrys*	-	-	S4		0			0			0		0				0
WIFL	Willow Flycatcher (Trail's Flyca	*Empidonax traillii*	-	-	S5		0			0			0		0				0
WIWA	Wilson's Warbler	*Cardellina pusilla*	-	-	S4		0			0			0		0				0
WIWR	Winter Wren	*Troglodytes troglodytes*	-	-	S5		0			0			0		0				0
WOTH	Wood Thrush	*Hylocichla mustelina*	SC	-	S4		0			0			0		0				0
WTSP	White-throated Sparrow	*Zonotrichia albicollis*	-	-	S5		0			0		8	8		0				0
YBFL	Yellow-bellied Flycatcher	*Empidonax flaviventris*	-	-	S5		0			0			0		0				0
YRWA	Yellow-rumped Warbler	*Setophaga coronata*	-	-	S5		0			0		2	2		0			6	6
YWAR	Yellow Warbler	*Setophaga petechia*	-	-	S5		0			0			0		0				0
Total																			
Incidental Wildlife																			
AMBI	American Bittern	*Botaurus lentiginosus*	-	-	S4		0			0			0		0				0
ABDU	American Black Duck	*Anas rubripes*	-	-	S4		0			0			0		0		3		3
AMCO	American Coot	*Fulica americana*	-	-	S4		0			0			0	2	2				0
AMWO	American Woodcock	*Scolopax minor*	-	-	S4		1			0			0		0				0
BAEA	Bald Eagle	*Haliaeetus leucocephalus*	SC	-	S2		0			0			0		0		1	1	2
BEKI	Belted Kingfisher	*Ceryle alcyon*	-	-	S4		0			0		1	1		0				0

Table C-4: 2013 Spring Passerine Migration Survey Results

Henvey Inlet Wind
Summary of 2011, 2012 and 2013 Passerine Migration Surveys –
Henvey Inlet Wind Energy Centre Study Area

						Transect		Transect 7			Transect 8			Transect 9		Transect 10		
						Survey Number		1	2		1	2		1		1	2	
						Habitat		Upland forest-mixed forest, lowland transitions as well.			Not Recorded			Not Recorded		Not Recorded		
						Temperature (°C)		-4	0 to -4		-4	7		-4		-4	7	
						Wind (Beaufort Scale)		2	3		3-4	3-5		3-4		2	3-5	
						Relative Cloud Cover (%)		10	5		100	25		100		10	25	
						Precipitation	Sub-total	None	-	Sub-total	-	-	Sub-total	-	Sub-total	None	-	Sub-total
						Precipitation (24h)		None	-		-	-		-		None	-	
						Start Time		7:08	6:21		8:11	7:55		9:10		9:52	9:22	
						End Time		7:21	6:39		8:33	8:20		9:30		10:16	9:47	
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**		11-Apr-13	17-Apr-13		11-Apr-13	23-Apr-13		11-Apr-13		11-Apr-13	23-Apr-13	
BBWO	Black-backed Woodpecker	*Picoides arcticus*	-	-	S4		0			0			0		0			0
BBCU	Black-billed Cuckoo	*Coccyzus erythropthalmus*	-	-	S5		0			0			0		0			0
BWHA	Broad-winged Hawk	*Buteo platypterus*	-	-	S5		0			0			0		0			0
BUFF	Bufflehead	*Bucephala albeola*	-	-	S4		0			0			0		0			0
N/A	*Buteo* sp.	-	-	-	-		0			0			0		0			0
CANG	Canada Goose	*Branta canadensis*	-	-	S5		0			0			0		0		2	2
CATE	Caspian Tern	*Sterna caspia*	-	-	S3		0			0			0		0			0
COLO	Common Loon	*Gavia immer*	-	-	S5		0			0			0		0			0
COME	Common Merganser	*Mergus merganser*	-	-	S5		0			0			0		0			0
CONI	Common Nighthawk	*Chordeiles minor*	SC	THR Schedule 1	S4		0			0			0		0			0
COSN	Common Snipe	*Gallinago gallinago*	-	-	S5		0			0			0		0			0
DCCO	Double-crested Cormorant	*Phalacrocorax auritus*	-	-	S5		0			0			0		0			0
DOWO	Downy Woodpecker	*Picoides pubescens*	-	-	S5		0			0		1	1		0		2	2
N/A	Duck sp.	-	-	-	-		0			0			0		0			0
GBHE	Great Blue Heron	*Ardea herodias*	-	-	S4		0			0			0		0			0
GRYE	Greater Yellowlegs	*Tringa melanoleuca*	-	-	S4		0			0			0		0			0
GWTE	Green-winged Teal	*Anas crecca*	-	-	S4		0			0			0		0			0
NA	Gull sp.	-	-	-	-		0			0			0		0			0
HAWO	Hairy Woodpecker	*Picoides villosus*	-	-	S5		1		1	1			0		0			0
HEGU	Herring Gull	*Larus argentatus*	-	-	S5		0			0			0		0			0
HOME	Hooded Merganser	*Lophodytes cucullatus*	-	-	S5		0			0			0		0			0
KILL	Killdeer	*Charadrius vociferus*	-	-	S5		0			0			0		0			0
MALL	Mallard	*Anas platyrhynchos*	-	-	S5		0			0			0		0	3		3
MERL	Merlin	*Geothlypis philadelphia*	-	-	S5		0			0			0		0			0
MODO	Mourning Dove	*Oreothlypis ruficapilla*	-	-	S5		0			0			0		0			0
NOFL	Northern Flicker	*Colaptes auratus*	-	-	S4		0			0			0		0		3	3
OSPR	Osprey	*Pandion haliaetus*	-	-	S5		0			0			0		0			0
PIWO	Pileated Woodpecker	*Dryocopus pileatus*	-	-	S5		1			0	2	1	3		0		1	1
N/A	Raptor sp.	-	-	-	-		0			0			0		0			0
RBWO	Red-bellied Woodpecker	*Melanerpes carolinus*	-	-	S4		0			0			0		0			0
RTHA	Red-tailed Hawk	*Buteo jamaicensis*	-	-	S4		0			0			0		0			0
RBGU	Ring-billed Gull	*Larus delawarensis*	-	-	S5		0			0		1	1		0			0
RUGR	Ruffed Grouse	*Bonasa umbellus*	-	-	S4		1			0		1	1		0		1	1
SACR	Sandhill Crane	*Grus canadensis tabida*	-	-	S5		0			0			0		0			0
SOWA	Species Code Undetermined	-	-	-	-		0			0			0		0			0
SPSA	Spotted Sandpiper	*Actitis macularia*	-	-	S5		0			0			0		0			0
SPGR	Spruce Grouse	*Falcipennis canadensis*	-	-	S5		0			0			0		0			0
TUVU	Turkey Vulture	*Cathartes aura*	-	-	S5		0			0			0		0			0
WODU	Wood Duck	*Aix sponsa*	-	-	S5		0			0			0		0			0
YBSA	Yellow-bellied Sapsucker	*Sphyrapicus varius*	-	-	S5		1			0			0		0		2	2
Total																		

Legend
Wind (Beafort Scale):
0 (Less than 1 Km/h), 1 (1 -5 Km/h), 2 (6 - 11 Km/h), 3 (12 - 19 Km/h), 4 (20 - 28 Km/h), 5 (29 - 38 Km/h), 6 (39 - 49 Km/h), 7(50 - 61 Km/h), 8 (62 - 74 Km/h), 9 (75 - 88 Km/h), 10

Table C-4: 2013 Spring Passerine Migration Survey Results

Henvey Inlet Wind
Summary of 2011, 2012 and 2013 Passerine Migration Surveys –
Henvey Inlet Wind Energy Centre Study Area

						Transect	Transect 11						Transect 12					
						Survey Number	1	2	3	4	5		1	2	3	4	5	
						Habitat	Not Recorded						Not Recorded					
						Temperature (°C)	12	6	8	14	8		18	6	11	7	14	
						Wind (Beaufort Scale)	3-4	0	2-3	0	1		2	0	2-3	2	1-2	
						Relative Cloud Cover (%)	60	0	100	100	80		5	0	100	60	100	
						Precipitation	None	None	None	0	-	Sub-total	0	None	None	0	Light Rain	Sub-total
						Precipitation (24h)	Trace	None	None	Code 3-4, Rain Showers	-		0	None	None	Light	Heavy Rain	
						Start Time	6:55	6:40	9:40	10:01	9:09		8:35	7:41	8:57	10:05	9:43	
						End Time	7:25	7:05	10:00	10:32	9:30		9:00	8:05	9:20	10:50	10:05	
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	1-May-13	8-May-13	14-May-13	22-May-13	28-May-13		2-May-13	8-May-13	15-May-13	24-May-13	29-May-13	
Passerines Observed																		
ALFL	Alder Flycatcher	*Empidonax alnorum*	-	-	S5							0						0
AMCR	American Crow	*Corvus brachyrhynchos*	-	-	S5		1					1						0
AMGO	American Goldfinch	*Cardeulis tristis*	-	-	S5							0			1			1
AMRE	American Redstart	*Setophaga ruticilla*	-	-	S5					1		1			1	2	1	4
AMRO	American Robin	*Turdus migratorius*	-	-	S5		2	3	2	2	1	10	1	2	1		2	6
ATSP	American Tree Sparrow	*Spizella arborea*	-	-	S4							0						0
BAWW	Black-and-white Warbler	*Mniotilta varia*	-	-	S5			2	2	3	1	8		2	3	2	2	9
BBWA	Bay-breasted Warbler	*Setophaga castanea*	-	-	S5							0						0
BCCH	Black-capped Chickadee	*Poecile atricapillus*	-	-	S5		2	1		1		4		1				1
BHCO	Brown-headed Cowbird	*Molothrus ater*	-	-	S4							0						0
BHVI	Blue-headed Vireo	*Vireo solitarius*	-	-	S5					1		1		1				1
BLBW	Blackburnian Warbler	*Setophaga fusca*	-	-	S5							0				3	1	4
BLJA	Blue Jay	*Cyanocitta cristata*	-	-	S5			1	2	4	7	14	3	1		1	1	6
BLPW	Blackpoll Warbler	*Setophaga striata*	-	-	S4							0				1		1
BOWA	Bohemian Waxwing	*Bombycilla garrulus*	-	-	SNA							0						0
BRCR	Brown Creeper	*Certhia americana*	-	-	S5							0						0
BRTH	Brown Thrasher	*Toxostoma rufum*	-	-	S4			1				1	2	1			1	4
BTBW	Black-throated Blue Warbler	*Setophaga caerulescens*	-	-	S5							0						0
BTNW	Black-throated Green Warbler	*Setophaga virens*	-	-	S5					1	1	2	2		3	6	4	15
CAWA	Canada Warbler	*Cardellina pusilla*	SC	THR Schedule 1	S4					1		1					1	1
CEDW	Cedar Waxwing	*Setophaga tigrina*	-	-	S5							0						0
CHSP	Chipping Sparrow	*Setophaga cerulea*	-	-	S5		1	2	1		1	5	1	2	2	3	3	11
CMWA	Cape May Warbler	*Setophaga tigrina*	-	-	S5							0						0
COGR	Common Grackle	*Quiscalus quiscula*	-	-	S5							0						0
CORA	Common Raven	*Corvus corax*	-	-	S5		1					1	1	1	1		1	4
CORE	Common Redpoll	*Carduelis flammea*	-	-	S4							0						0
COYE	Common Yellowthroat	*Geothlyphis trichas*	-	-	S5				2	6	6	14			2	6	8	16
CSWA	Chestnut-sided Warbler	*Setophaga pensylvanica*	-	-	S5					1		1						0
DEJU	Dark-eyed Junco	*Junco hyemalis*	-	-	S5							0						0
EAKI	Eastern Kingbird	*Tyrannus tyrannus*	-	-	S4							0						0
EAPH	Eastern Phoebe	*Sayornis phoebe*	-	-	S5							0						0
EATO	Eastern Towhee	*Pipilio erythrophthalmus*	-	-	S4							0						0
EWPE	Eastern Wood-pewee	*Contopus virens*	SC	-	S4							0						0
FOSP	Fox Sparrow	*Passerella iliaca*	-	-	S4							0						0
GCFL	Great Crested Flycatcher	*Myiarchus crinitus*	-	-	S4							0	1					1
GCKI	Golden-crowned Kinglet	*Regulus satrapa*	-	-	S5		1					1					1	1
GRJA	Gray Jay	*Perisoreus canadensis*	-	-	S5						2	2					1	1
HETH	Hermit Thrush	*Catharus guttatus*	-	-	S5		1	1		2	1	5		1			2	3
INBU	Indigo Bunting	*Passerina cyanea*	-	-	S4							0						0

Table C-4: 2013 Spring Passerine Migration Survey Results

Henvey Inlet Wind
Summary of 2011, 2012 and 2013 Passerine Migration Surveys –
Henvey Inlet Wind Energy Centre Study Area

					Transect	Transect 11						Transect 12					
					Survey Number	1	2	3	4	5		1	2	3	4	5	
					Habitat	Not Recorded						Not Recorded					
					Temperature (°C)	12	6	8	14	8		18	6	11	7	14	
					Wind (Beaufort Scale)	3-4	0	2-3	0	1		2	0	2-3	2	1-2	
					Relative Cloud Cover (%)	60	0	100	100	80		5	0	100	60	100	
					Precipitation	None	None	None	0	-	Sub-total	0	None	None	0	Light Rain	Sub-total
					Precipitation (24h)	Trace	None	None	Code 3-4, Rain Showers	-		0	None	None	Light	Heavy Rain	
					Start Time	6:55	6:40	9:40	10:01	9:09		8:35	7:41	8:57	10:05	9:43	
					End Time	7:25	7:05	10:00	10:32	9:30		9:00	8:05	9:20	10:50	10:05	
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	1-May-13	8-May-13	14-May-13	22-May-13	28-May-13		2-May-13	8-May-13	15-May-13	24-May-13	29-May-13	
LEFL	Least Flycatcher	*Empidonax minimus*	-	-	S4							0						0
MAWA	Magnolia Warbler	*Setophaga magnolia*	-	-	S5		1			2		3						0
MOWA	Mourning Warbler	*Geothlypis philadelphia*	-	-	S4							0						0
NAWA	Nashville Warbler	*Oreothlypis ruficapilla*	-	-	S5			2	4	1	1	8		1	3	6	2	12
NOCA	Northern Cardinal	*Cardinalis cardinalis*	-	-	S5							0						0
NOPA	Northern Parula	*Parula americana*	-	-	S4							0						0
NOWA	Northern Waterthrush	*Seiurus noveboracensis*	-	-	S5							0						0
OCWA	Orange-crowned Warbler	*Oreothlypis celata*	-	-	S4							0						0
OVEN	Ovenbird	*Seiurus aurocapillus*	-	-	S4			1		2	1	4				1		1
PAWA	Palm Warbler	*Dendroica palmarum*	-	-	S5							0		1				1
N/A	Passerine sp.	-	-	-	-							0						0
PHVI	Philadelphia Vireo	*Vireo philadelphicus*	-	-	S5							0						0
PISI	Pine Siskin	*Cardeulis pinus*	-	-	S4							0						0
PIWA	Pine Warbler	*Setophaga pinus*	-	-	S5		2	1	1	1		5	3	1	3	2		9
PUFI	Purple Finch	*Carpodacus purpureus*	-	-	S4							0	1				1	2
RBNU	Red-breasted Nuthatch	*Sitta canadensis*	-	-	S5						1	1	1					1
REVI	Red-eyed Vireo	*Vireo olivaceus*	-	-	S5						1	1					1	1
RWBL	Red-winged Blackbird	*Agelaius phoeniceus*	-	-	S4							0						0
RBGR	Rose-breasted Grosbeak	*Pheucticus ludovicianus*	-	-	S4							0						0
RCKI	Ruby-crowned Kinglet	*Regulus calendula*	-	-	S4							0	1	1				2
SOSP	Song Sparrow	*Melospiza melodia*	-	-	S5		2	3	1	2	2	10	1	1	1	1	1	5
SWTH	Swainson's Thrush	*Catharus ustulatus*	-	-	S4							0					1	1
SWSP	Swamp Sparrow	*Melospiza georgiana*	-	-	S5			1		2	1	4						0
TEWA	Tennessee Warbler	*Oreothlypis peregrina*	-	-	S5							0						0
TRES	Tree Swallow	*Tachycineta bicolor*	-	-	S4							0						0
VEER	Veery	*Catharus fuscescens*	-	-	S4							0						0
WCSP	White-crowned Sparrow	*Zonotrichia leucophrys*	-	-	S4							0						0
WIFL	Willow Flycatcher (Trail's Flyca	*Empidonax traillii*	-	-	S5							0						0
WIWA	Wilson's Warbler	*Cardellina pusilla*	-	-	S4							0						0
WIWR	Winter Wren	*Troglodytes troglodytes*	-	-	S5							0						0
WOTH	Wood Thrush	*Hylocichla mustelina*	SC	-	S4							0						0
WTSP	White-throated Sparrow	*Zonotrichia albicollis*	-	-	S5		7	7	2	10	3	29	7	4	2	6	5	24
YBFL	Yellow-bellied Flycatcher	*Empidonax flaviventris*	-	-	S5					1		1						0
YRWA	Yellow-rumped Warbler	*Setophaga coronata*	-	-	S5		4	7	1	2	2	16	7	4	6	1	3	21
YWAR	Yellow Warbler	*Setophaga petechia*	-	-	S5					1		1				1		1
Total																		
Incidental Wildlife																		
AMBI	American Bittern	*Botaurus lentiginosus*	-	-	S4			1				1						0
ABDU	American Black Duck	*Anas rubripes*	-	-	S4							0						0
AMCO	American Coot	*Fulica americana*	-	-	S4							0						0
AMWO	American Woodcock	*Scolopax minor*	-	-	S4							0						0
BAEA	Bald Eagle	*Haliaeetus leucocephalus*	SC	-	S2							0						0
BEKI	Belted Kingfisher	*Ceryle alcyon*	-	-	S4							0						0

Table C-4: 2013 Spring Passerine Migration Survey Results

Henvey Inlet Wind
Summary of 2011, 2012 and 2013 Passerine Migration Surveys –
Henvey Inlet Wind Energy Centre Study Area

						Transect	Transect 11						Transect 12					
						Survey Number	1	2	3	4	5		1	2	3	4	5	
						Habitat	Not Recorded						Not Recorded					
						Temperature (°C)	12	6	8	14	8		18	6	11	7	14	
						Wind (Beaufort Scale)	3-4	0	2-3	0	1		2	0	2-3	2	1-2	
						Relative Cloud Cover (%)	60	0	100	100	80		5	0	100	60	100	
						Precipitation	None	None	None	0	-	Sub-total	0	None	None	0	Light Rain	Sub-total
						Precipitation (24h)	Trace	None	None	Code 3-4, Rain Showers	-		0	None	None	Light	Heavy Rain	
						Start Time	6:55	6:40	9:40	10:01	9:09		8:35	7:41	8:57	10:05	9:43	
						End Time	7:25	7:05	10:00	10:32	9:30		9:00	8:05	9:20	10:50	10:05	
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	1-May-13	8-May-13	14-May-13	22-May-13	28-May-13		2-May-13	8-May-13	15-May-13	24-May-13	29-May-13	
BBWO	Black-backed Woodpecker	*Picoides arcticus*	-	-	S4							0						0
BBCU	Black-billed Cuckoo	*Coccyzus erythropthalmus*	-	-	S5							0						0
BWHA	Broad-winged Hawk	*Buteo platypterus*	-	-	S5							0						0
BUFF	Bufflehead	*Bucephala albeola*	-	-	S4							0						0
N/A	*Buteo* sp.	-	-	-	-							0						0
CANG	Canada Goose	*Branta canadensis*	-	-	S5		1	2			3	6	35	2				37
CATE	Caspian Tern	*Sterna caspia*	-	-	S3			1				1						0
COLO	Common Loon	*Gavia immer*	-	-	S5			2	2			4		2				2
COME	Common Merganser	*Mergus merganser*	-	-	S5							0						0
CONI	Common Nighthawk	*Chordeiles minor*	SC	THR Schedule 1	S4							0						0
COSN	Common Snipe	*Gallinago gallinago*	-	-	S5							0						0
DCCO	Double-crested Cormorant	*Phalacrocorax auritus*	-	-	S5				1			1			1			1
DOWO	Downy Woodpecker	*Picoides pubescens*	-	-	S5							0						0
N/A	Duck sp.	-	-	-	-					1		1						0
GBHE	Great Blue Heron	*Ardea herodias*	-	-	S4							0						0
GRYE	Greater Yellowlegs	*Tringa melanoleuca*	-	-	S4							0						0
GWTE	Green-winged Teal	*Anas crecca*	-	-	S4							0						0
NA	Gull sp.	-	-	-	-							0						0
HAWO	Hairy Woodpecker	*Picoides villosus*	-	-	S5							0						0
HEGU	Herring Gull	*Larus argentatus*	-	-	S5							0						0
HOME	Hooded Merganser	*Lophodytes cucullatus*	-	-	S5							0						0
KILL	Killdeer	*Charadrius vociferus*	-	-	S5			1				1						0
MALL	Mallard	*Anas platyrhynchos*	-	-	S5						2	2						0
MERL	Merlin	*Geothlypis philadelphia*	-	-	S5							0						0
MODO	Mourning Dove	*Oreothlypis ruficapilla*	-	-	S5							0						0
NOFL	Northern Flicker	*Colaptes auratus*	-	-	S4		1	1	1		1	4	1					1
OSPR	Osprey	*Pandion haliaetus*	-	-	S5							0		1				1
PIWO	Pileated Woodpecker	*Dryocopus pileatus*	-	-	S5							0						0
N/A	Raptor sp.	-	-	-	-							0						0
RBWO	Red-bellied Woodpecker	*Melanerpes carolinus*	-	-	S4							0						0
RTHA	Red-tailed Hawk	*Buteo jamaicensis*	-	-	S4							0						0
RBGU	Ring-billed Gull	*Larus delawarensis*	-	-	S5							0						0
RUGR	Ruffed Grouse	*Bonasa umbellus*	-	-	S4			1	1	1	1	4	1					1
SACR	Sandhill Crane	*Grus canadensis tabida*	-	-	S5		1	2				3	2	2				4
SOWA	Species Code Undetermined	-	-	-	-							0						0
SPSA	Spotted Sandpiper	*Actitis macularia*	-	-	S5					2		2				1		1
SPGR	Spruce Grouse	*Falcipennis canadensis*	-	-	S5							0						0
TUVU	Turkey Vulture	*Cathartes aura*	-	-	S5						1	1			2	1		3
WODU	Wood Duck	*Aix sponsa*	-	-	S5							0						0
YBSA	Yellow-bellied Sapsucker	*Sphyrapicus varius*	-	-	S5			1				1	2					2
Total																		

Legend
Wind (Beafort Scale):
0 (Less than 1 Km/h), 1 (1 -5 Km/h), 2 (6 - 11 Km/h), 3 (12 - 19 Km/h), 4 (20 - 28 Km/h), 5 (29 - 38 Km/h), 6 (39 - 49 Km/h), 7(50 - 61 Km/h), 8 (62 - 74 Km/h), 9 (75 - 88 Km/h), 10

Table C-4: 2013 Spring Passerine Migration Survey Results

Henvey Inlet Wind
Summary of 2011, 2012 and 2013 Passerine Migration Surveys –
Henvey Inlet Wind Energy Centre Study Area

						Transect	Transect 13						Transect 14		Trans			
						Survey Number	1	2	3	4	5		1		1	2	3	4
						Habitat	Not Recorded						Not Recorded		Not Recorded			
						Temperature (°C)	15	20	9	5	14		14-15		14-15	12	10	9
						Wind (Beaufort Scale)	3-4	0	3-4	2	1		3-5		3-5	3-4	2-3	2-3
						Relative Cloud Cover (%)	50	10	100	90	100		100		100	60	25	0
						Precipitation	0	0	None	0	Light Rain, Thick Fog	Sub-total	-	Sub-total	-	None	0	None
						Precipitation (24h)	0	0	None	Light to Heavy	Heavy Rain		-		-	Trace	0	None
						Start Time	9:27	8:44	7:45	8:50	8:42		10:37		9:39	7:16	9:00	8:30
						End Time	9:49	9:11	8:10	9:18	9:07		11:00		10:06	7:40	9:19	8:54
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	1-May-13	8-May-13	15-May-13	24-May-13	29-May-13		29-Apr-13		29-Apr-13	3-May-13	9-May-13	16-May-13
Passerines Observed																		
ALFL	Alder Flycatcher	*Empidonax alnorum*	-	-	S5							0		0				
AMCR	American Crow	*Corvus brachyrhynchos*	-	-	S5						1	1		0	1	1		
AMGO	American Goldfinch	*Cardeulis tristis*	-	-	S5							0		0			1	
AMRE	American Redstart	*Setophaga ruticilla*	-	-	S5			1			1	2		0				1
AMRO	American Robin	*Turdus migratorius*	-	-	S5			1	2			3	7	7	3	3	1	2
ATSP	American Tree Sparrow	*Spizella arborea*	-	-	S4							0		0				
BAWW	Black-and-white Warbler	*Mniotilta varia*	-	-	S5			2	3	2	2	9		0		3	1	3
BBWA	Bay-breasted Warbler	*Setophaga castanea*	-	-	S5		1	3				4		0				
BCCH	Black-capped Chickadee	*Poecile atricapillus*	-	-	S5		1	1				2		0				2
BHCO	Brown-headed Cowbird	*Molothrus ater*	-	-	S4							0		0				
BHVI	Blue-headed Vireo	*Vireo solitarius*	-	-	S5							0		0				1
BLBW	Blackburnian Warbler	*Setophaga fusca*	-	-	S5							0		0				1
BLJA	Blue Jay	*Cyanocitta cristata*	-	-	S5		1		2		1	4		0	2		2	2
BLPW	Blackpoll Warbler	*Setophaga striata*	-	-	S4							0		0				
BOWA	Bohemian Waxwing	*Bombycilla garrulus*	-	-	SNA							0		0				
BRCR	Brown Creeper	*Certhia americana*	-	-	S5							0		0	1		1	1
BRTH	Brown Thrasher	*Toxostoma rufum*	-	-	S4							0		0				
BTBW	Black-throated Blue Warbler	*Setophaga caerulescens*	-	-	S5				2			2		0				
BTNW	Black-throated Green Warbler	*Setophaga virens*	-	-	S5			2	4	6	4	16		0		1	1	3
CAWA	Canada Warbler	*Cardellina pusilla*	SC	THR Schedule 1	S4							0		0				
CEDW	Cedar Waxwing	*Setophaga tigrina*	-	-	S5							0		0				
CHSP	Chipping Sparrow	*Setophaga cerulea*	-	-	S5			4		1	2	7	1	1		2	2	2
CMWA	Cape May Warbler	*Setophaga tigrina*	-	-	S5					1		1		0				
COGR	Common Grackle	*Quiscalus quiscula*	-	-	S5							0		0	6	4	2	1
CORA	Common Raven	*Corvus corax*	-	-	S5					2		2		0				
CORE	Common Redpoll	*Carduelis flammea*	-	-	S4							0		0				
COYE	Common Yellowthroat	*Geothlyphis trichas*	-	-	S5				1	2	4	7		0				1
CSWA	Chestnut-sided Warbler	*Setophaga pensylvanica*	-	-	S5							0		0				
DEJU	Dark-eyed Junco	*Junco hyemalis*	-	-	S5							0		0				
EAKI	Eastern Kingbird	*Tyrannus tyrannus*	-	-	S4							0		0				
EAPH	Eastern Phoebe	*Sayornis phoebe*	-	-	S5							0		0		1		
EATO	Eastern Towhee	*Pipilio erythrophthalmus*	-	-	S4							0		0				
EWPE	Eastern Wood-pewee	*Contopus virens*	SC	-	S4							0		0				
FOSP	Fox Sparrow	*Passerella iliaca*	-	-	S4							0		0				
GCFL	Great Crested Flycatcher	*Myiarchus crinitus*	-	-	S4						1	1		0				
GCKI	Golden-crowned Kinglet	*Regulus satrapa*	-	-	S5		2	3	2			7	2	2		1	1	
GRJA	Gray Jay	*Perisoreus canadensis*	-	-	S5							0		0				
HETH	Hermit Thrush	*Catharus guttatus*	-	-	S5			2	1	1	1	5	1	1	1	1		2
INBU	Indigo Bunting	*Passerina cyanea*	-	-	S4							0		0				

Table C-4: 2013 Spring Passerine Migration Survey Results

Henvey Inlet Wind
Summary of 2011, 2012 and 2013 Passerine Migration Surveys –
Henvey Inlet Wind Energy Centre Study Area

						Transect	Transect 13						Transect 14		Trans			
						Survey Number	1	2	3	4	5		1		1	2	3	4
						Habitat	Not Recorded						Not Recorded		Not Recorded			
						Temperature (°C)	15	20	9	5	14		14-15		14-15	12	10	9
						Wind (Beaufort Scale)	3-4	0	3-4	2	1		3-5		3-5	3-4	2-3	2-3
						Relative Cloud Cover (%)	50	10	100	90	100		100		100	60	25	0
						Precipitation	0	0	None	0	Light Rain, Thick Fog	Sub-total	-	Sub-total	-	None	0	None
						Precipitation (24h)	0	0	None	Light to Heavy	Heavy Rain		-		-	Trace	0	None
						Start Time	9:27	8:44	7:45	8:50	8:42		10:37		9:39	7:16	9:00	8:30
						End Time	9:49	9:11	8:10	9:18	9:07		11:00		10:06	7:40	9:19	8:54
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	1-May-13	8-May-13	15-May-13	24-May-13	29-May-13		29-Apr-13		29-Apr-13	3-May-13	9-May-13	16-May-13
LEFL	Least Flycatcher	*Empidonax minimus*	-	-	S4							0		0				
MAWA	Magnolia Warbler	*Setophaga magnolia*	-	-	S5							0		0				
MOWA	Mourning Warbler	*Geothlypis philadelphia*	-	-	S4							0		0				
NAWA	Nashville Warbler	*Oreothlypis ruficapilla*	-	-	S5		1		3	2	1	7		0		1	1	2
NOCA	Northern Cardinal	*Cardinalis cardinalis*	-	-	S5							0		0				
NOPA	Northern Parula	*Parula americana*	-	-	S4							0		0				
NOWA	Northern Waterthrush	*Seiurus noveboracensis*	-	-	S5							0		0				
OCWA	Orange-crowned Warbler	*Oreothlypis celata*	-	-	S4							0		0				
OVEN	Ovenbird	*Seiurus aurocapillus*	-	-	S4			1		1	4	6		0			1	3
PAWA	Palm Warbler	*Dendroica palmarum*	-	-	S5		2			1	1	4		0				3
N/A	Passerine sp.	-	-	-	-			1				1		0				
PHVI	Philadelphia Vireo	*Vireo philadelphicus*	-	-	S5							0		0				
PISI	Pine Siskin	*Cardeulis pinus*	-	-	S4							0		0				
PIWA	Pine Warbler	*Setophaga pinus*	-	-	S5		3	2	2	2		9		0		3	3	1
PUFI	Purple Finch	*Carpodacus purpureus*	-	-	S4		1	2	1			4		0	4	1		
RBNU	Red-breasted Nuthatch	*Sitta canadensis*	-	-	S5		1	1		1	1	4		0		2		1
REVI	Red-eyed Vireo	*Vireo olivaceus*	-	-	S5						3	3		0				
RWBL	Red-winged Blackbird	*Agelaius phoeniceus*	-	-	S4							0	2	2	2			
RBGR	Rose-breasted Grosbeak	*Pheucticus ludovicianus*	-	-	S4							0		0				
RCKI	Ruby-crowned Kinglet	*Regulus calendula*	-	-	S4							0		0	1			
SOSP	Song Sparrow	*Melospiza melodia*	-	-	S5		1			1	1	3		0	3	3	1	4
SWTH	Swainson's Thrush	*Catharus ustulatus*	-	-	S4			1	1		1	3		0				
SWSP	Swamp Sparrow	*Melospiza georgiana*	-	-	S5							0		0		1		
TEWA	Tennessee Warbler	*Oreothlypis peregrina*	-	-	S5							0		0				
TRES	Tree Swallow	*Tachycineta bicolor*	-	-	S4							0		0		3		4
VEER	Veery	*Catharus fuscescens*	-	-	S4							0		0				
WCSP	White-crowned Sparrow	*Zonotrichia leucophrys*	-	-	S4							0		0				
WIFL	Willow Flycatcher (Trail's Flyca	*Empidonax traillii*	-	-	S5							0		0				
WIWA	Wilson's Warbler	*Cardellina pusilla*	-	-	S4							0		0				
WIWR	Winter Wren	*Troglodytes troglodytes*	-	-	S5		1		1		1	3		0	1	1	1	
WOTH	Wood Thrush	*Hylocichla mustelina*	SC	-	S4							0		0				
WTSP	White-throated Sparrow	*Zonotrichia albicollis*	-	-	S5		8	6	5	1	5	25	7	7	8	3	3	
YBFL	Yellow-bellied Flycatcher	*Empidonax flaviventris*	-	-	S5							0		0				
YRWA	Yellow-rumped Warbler	*Setophaga coronata*	-	-	S5		6	4	6	4	4	24	3	3	3	3	6	5
YWAR	Yellow Warbler	*Setophaga petechia*	-	-	S5							0		0				
Total																		
Incidental Wildlife																		
AMBI	American Bittern	*Botaurus lentiginosus*	-	-	S4							0		0				
ABDU	American Black Duck	*Anas rubripes*	-	-	S4							0		0				
AMCO	American Coot	*Fulica americana*	-	-	S4							0		0				
AMWO	American Woodcock	*Scolopax minor*	-	-	S4							0		0				
BAEA	Bald Eagle	*Haliaeetus leucocephalus*	SC	-	S2							0		0				
BEKI	Belted Kingfisher	*Ceryle alcyon*	-	-	S4							0		0		1		

Table C-4: 2013 Spring Passerine Migration Survey Results

Henvey Inlet Wind
Summary of 2011, 2012 and 2013 Passerine Migration Surveys –
Henvey Inlet Wind Energy Centre Study Area

						Transect	Transect 13						Transect 14						Trans
						Survey Number	1	2	3	4	5		1		1	2	3	4	
						Habitat	Not Recorded						Not Recorded						Not Recorded
						Temperature (°C)	15	20	9	5	14		14-15		14-15	12	10	9	
						Wind (Beaufort Scale)	3-4	0	3-4	2	1		3-5		3-5	3-4	2-3	2-3	
						Relative Cloud Cover (%)	50	10	100	90	100		100		100	60	25	0	
						Precipitation	0	0	None	0	Light Rain, Thick Fog	Sub-total	-	Sub-total	-	None	0	None	
						Precipitation (24h)	0	0	None	Light to Heavy	Heavy Rain		-		-	Trace	0	None	
						Start Time	9:27	8:44	7:45	8:50	8:42		10:37		9:39	7:16	9:00	8:30	
						End Time	9:49	9:11	8:10	9:18	9:07		11:00		10:06	7:40	9:19	8:54	
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	1-May-13	8-May-13	15-May-13	24-May-13	29-May-13		29-Apr-13		29-Apr-13	3-May-13	9-May-13	16-May-13	
BBWO	Black-backed Woodpecker	*Picoides arcticus*	-	-	S4							0		0					
BBCU	Black-billed Cuckoo	*Coccyzus erythropthalmus*	-	-	S5							0		0					
BWHA	Broad-winged Hawk	*Buteo platypterus*	-	-	S5							0		0					
BUFF	Bufflehead	*Bucephala albeola*	-	-	S4							0		0		8	6		
N/A	*Buteo* sp.	-	-	-	-		1					1		0					
CANG	Canada Goose	*Branta canadensis*	-	-	S5		2	1				3	2	2	2	2		2	
CATE	Caspian Tern	*Sterna caspia*	-	-	S3							0	2	2					
COLO	Common Loon	*Gavia immer*	-	-	S5							0		0					
COME	Common Merganser	*Mergus merganser*	-	-	S5						4	4		0					
CONI	Common Nighthawk	*Chordeiles minor*	SC	THR Schedule 1	S4							0		0					
COSN	Common Snipe	*Gallinago gallinago*	-	-	S5							0		0					
DCCO	Double-crested Cormorant	*Phalacrocorax auritus*	-	-	S5						8	8		0					
DOWO	Downy Woodpecker	*Picoides pubescens*	-	-	S5			1				1		0	1				
N/A	Duck sp.	-	-	-	-							0		0					
GBHE	Great Blue Heron	*Ardea herodias*	-	-	S4							0		0		2			
GRYE	Greater Yellowlegs	*Tringa melanoleuca*	-	-	S4							0	4	4	2	1			
GWTE	Green-winged Teal	*Anas crecca*	-	-	S4							0		0					
NA	Gull sp.	-	-	-	-							0		0					
HAWO	Hairy Woodpecker	*Picoides villosus*	-	-	S5					1		1		0					
HEGU	Herring Gull	*Larus argentatus*	-	-	S5		1					1		0					
HOME	Hooded Merganser	*Lophodytes cucullatus*	-	-	S5							0		0				2	
KILL	Killdeer	*Charadrius vociferus*	-	-	S5							0		0		1		1	
MALL	Mallard	*Anas platyrhynchos*	-	-	S5			1				1		0					
MERL	Merlin	*Geothlypis philadelphia*	-	-	S5							0		0					
MODO	Mourning Dove	*Oreothlypis ruficapilla*	-	-	S5							0		0					
NOFL	Northern Flicker	*Colaptes auratus*	-	-	S4		1		1			2	4	4	6	1	1	1	
OSPR	Osprey	*Pandion haliaetus*	-	-	S5							0		0					
PIWO	Pileated Woodpecker	*Dryocopus pileatus*	-	-	S5							0		0		1			
N/A	Raptor sp.	-	-	-	-		1					1		0					
RBWO	Red-bellied Woodpecker	*Melanerpes carolinus*	-	-	S4							0		0					
RTHA	Red-tailed Hawk	*Buteo jamaicensis*	-	-	S4							0		0					
RBGU	Ring-billed Gull	*Larus delawarensis*	-	-	S5							0		0		1			
RUGR	Ruffed Grouse	*Bonasa umbellus*	-	-	S4		1					1	3	3	2	1	1	1	
SACR	Sandhill Crane	*Grus canadensis tabida*	-	-	S5							0		0	2				
SOWA	Species Code Undetermined	-	-	-	-							0		0					
SPSA	Spotted Sandpiper	*Actitis macularia*	-	-	S5							0		0					
SPGR	Spruce Grouse	*Falcipennis canadensis*	-	-	S5							0		0					
TUVU	Turkey Vulture	*Cathartes aura*	-	-	S5		1					1	1	1					
WODU	Wood Duck	*Aix sponsa*	-	-	S5							0		0					
YBSA	Yellow-bellied Sapsucker	*Sphyrapicus varius*	-	-	S5							0		0					
Total																			

Legend
Wind (Beafort Scale):
0 (Less than 1 Km/h), 1 (1 -5 Km/h), 2 (6 - 11 Km/h), 3 (12 - 19 Km/h), 4 (20 - 28 Km/h), 5 (29 - 38 Km/h), 6 (39 - 49 Km/h), 7(50 - 61 Km/h), 8 (62 - 74 Km/h), 9 (75 - 88 Km/h), 10

Table C-4: 2013 Spring Passerine Migration Survey Results

Henvey Inlet Wind
Summary of 2011, 2012 and 2013 Passerine Migration Surveys –
Henvey Inlet Wind Energy Centre Study Area

						Transect	ect 15				Transect 16								
						Survey Number	5	6	7		1	2	3	4	5	6		1
						Habitat					Not Recorded								
						Temperature (°C)	6	19	-		14-15	-	18	10	2	10		15
						Wind (Beaufort Scale)	2	1	-		3-5	-	2-3	2-3	1-2	1-2		3-4
						Relative Cloud Cover (%)	0	30	-		100	-	20	30	0	100		50
						Precipitation	0	-	-	Sub-total	-	-	0	None	0	Light Rain	Sub-total	0
						Precipitation (24h)	Trace	Rain	-		-	-	0	None	Trace	Heavy Rain		0
						Start Time	8:00	10:19	-		8:31	8:09	9:50	9:30	6:40	9:33		8:16
						End Time	8:47	10:54	-		9:00	8:36	10:23	10:01	7:34	9:56		8:40
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	25-May-13	30-May-13	-		29-Apr-13	3-May-13	9-May-13	16-May-13	25-May-13	30-May-13		1-May-13
Passerines Observed																			
ALFL	Alder Flycatcher	*Empidonax alnorum*	-	-	S5			2	2	4						2	2		
AMCR	American Crow	*Corvus brachyrhynchos*	-	-	S5			2	2	6	1	2					3	1	
AMGO	American Goldfinch	*Cardeulis tristis*	-	-	S5					1							0		
AMRE	American Redstart	*Setophaga ruticilla*	-	-	S5		2			3					1	4	5		
AMRO	American Robin	*Turdus migratorius*	-	-	S5		1	2	2	14	9		3	3	6		21	2	
ATSP	American Tree Sparrow	*Spizella arborea*	-	-	S4					0							0		
BAWW	Black-and-white Warbler	*Mniotilta varia*	-	-	S5		3	6	6	22		1	2	2	2	3	10		
BBWA	Bay-breasted Warbler	*Setophaga castanea*	-	-	S5					0			1				1		
BCCH	Black-capped Chickadee	*Poecile atricapillus*	-	-	S5		1	1	1	5	3	3		2			8	2	
BHCO	Brown-headed Cowbird	*Molothrus ater*	-	-	S4					0							0		
BHVI	Blue-headed Vireo	*Vireo solitarius*	-	-	S5			1	1	3	1			1			2		
BLBW	Blackburnian Warbler	*Setophaga fusca*	-	-	S5					1				1			1		
BLJA	Blue Jay	*Cyanocitta cristata*	-	-	S5		1	3	3	13		1	1	2	2	2	8	1	
BLPW	Blackpoll Warbler	*Setophaga striata*	-	-	S4					0							0		
BOWA	Bohemian Waxwing	*Bombycilla garrulus*	-	-	SNA					0							0		
BRCR	Brown Creeper	*Certhia americana*	-	-	S5					3							0		
BRTH	Brown Thrasher	*Toxostoma rufum*	-	-	S4					0		1			1		2		
BTBW	Black-throated Blue Warbler	*Setophaga caerulescens*	-	-	S5					0							0		
BTNW	Black-throated Green Warbler	*Setophaga virens*	-	-	S5		2	4	4	15			1	1	4	1	7		
CAWA	Canada Warbler	*Cardellina pusilla*	SC	THR Schedule 1	S4		1	1	1	3					2		2		
CEDW	Cedar Waxwing	*Setophaga tigrina*	-	-	S5			2	2	4							0		
CHSP	Chipping Sparrow	*Setophaga cerulea*	-	-	S5		2	2	2	12		1		1		1	3		
CMWA	Cape May Warbler	*Setophaga tigrina*	-	-	S5		1			1							0		
COGR	Common Grackle	*Quiscalus quiscula*	-	-	S5		5	4	4	26	1				1		2	1	
CORA	Common Raven	*Corvus corax*	-	-	S5			2	2	4		1			1		2		
CORE	Common Redpoll	*Carduelis flammea*	-	-	S4					0							0		
COYE	Common Yellowthroat	*Geothlyphis trichas*	-	-	S5		4	8	8	21			1	2	10	7	20		
CSWA	Chestnut-sided Warbler	*Setophaga pensylvanica*	-	-	S5		2	1	1	4				2	4	4	10		
DEJU	Dark-eyed Junco	*Junco hyemalis*	-	-	S5					0							0		
EAKI	Eastern Kingbird	*Tyrannus tyrannus*	-	-	S4		1	2	2	5							0		
EAPH	Eastern Phoebe	*Sayornis phoebe*	-	-	S5					1		1					1	1	
EATO	Eastern Towhee	*Pipilio erythrophthalmus*	-	-	S4					0	1						1		
EWPE	Eastern Wood-pewee	*Contopus virens*	SC	-	S4					0				1			1		
FOSP	Fox Sparrow	*Passerella iliaca*	-	-	S4					0							0		
GCFL	Great Crested Flycatcher	*Myiarchus crinitus*	-	-	S4			1	1	2						1	1		
GCKI	Golden-crowned Kinglet	*Regulus satrapa*	-	-	S5					2							0	4	
GRJA	Gray Jay	*Perisoreus canadensis*	-	-	S5					0							0		
HETH	Hermit Thrush	*Catharus guttatus*	-	-	S5			2	2	8	1		1	1		1	4		
INBU	Indigo Bunting	*Passerina cyanea*	-	-	S4					0							0		

Table C-4: 2013 Spring Passerine Migration Survey Results

Henvey Inlet Wind
Summary of 2011, 2012 and 2013 Passerine Migration Surveys –
Henvey Inlet Wind Energy Centre Study Area

						Transect	ect 15				Transect 16								
						Survey Number	5	6	7		1	2	3	4	5	6		1
						Habitat					Not Recorded								
						Temperature (°C)	6	19	-		14-15	-	18	10	2	10		15
						Wind (Beaufort Scale)	2	1	-		3-5	-	2-3	2-3	1-2	1-2		3-4
						Relative Cloud Cover (%)	0	30	-		100	-	20	30	0	100		50
						Precipitation	0	-	-	Sub-total	-	-	0	None	0	Light Rain	Sub-total	0
						Precipitation (24h)	Trace	Rain	-		-	-	0	None	Trace	Heavy Rain		0
						Start Time	8:00	10:19	-		8:31	8:09	9:50	9:30	6:40	9:33		8:16
						End Time	8:47	10:54	-		9:00	8:36	10:23	10:01	7:34	9:56		8:40
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	25-May-13	30-May-13	-		29-Apr-13	3-May-13	9-May-13	16-May-13	25-May-13	30-May-13		1-May-13
LEFL	Least Flycatcher	*Empidonax minimus*	-	-	S4					0				2	1		3	
MAWA	Magnolia Warbler	*Setophaga magnolia*	-	-	S5					0							0	
MOWA	Mourning Warbler	*Geothlypis philadelphia*	-	-	S4					0					1		1	
NAWA	Nashville Warbler	*Oreothlypis ruficapilla*	-	-	S5		1	3	3	11			1	3			4	1
NOCA	Northern Cardinal	*Cardinalis cardinalis*	-	-	S5					0							0	1
NOPA	Northern Parula	*Parula americana*	-	-	S4					0				1	1		2	
NOWA	Northern Waterthrush	*Seiurus noveboracensis*	-	-	S5					0				1			1	
OCWA	Orange-crowned Warbler	*Oreothlypis celata*	-	-	S4					0							0	
OVEN	Ovenbird	*Seiurus aurocapillus*	-	-	S4		3	5	5	17				2	5	4	11	
PAWA	Palm Warbler	*Dendroica palmarum*	-	-	S5					3							0	
N/A	Passerine sp.	-	-	-	-					0							0	
PHVI	Philadelphia Vireo	*Vireo philadelphicus*	-	-	S5					0							0	
PISI	Pine Siskin	*Cardeulis pinus*	-	-	S4					0							0	
PIWA	Pine Warbler	*Setophaga pinus*	-	-	S5		3	1	1	12							0	5
PUFI	Purple Finch	*Carpodacus purpureus*	-	-	S4					5			2		1	1	4	1
RBNU	Red-breasted Nuthatch	*Sitta canadensis*	-	-	S5		2			5		1					1	
REVI	Red-eyed Vireo	*Vireo olivaceus*	-	-	S5			2	2	4					3	2	5	
RWBL	Red-winged Blackbird	*Agelaius phoeniceus*	-	-	S4		2	3	3	10		1			1		2	
RBGR	Rose-breasted Grosbeak	*Pheucticus ludovicianus*	-	-	S4			1	1	2						1	1	
RCKI	Ruby-crowned Kinglet	*Regulus calendula*	-	-	S4					1	4						4	1
SOSP	Song Sparrow	*Melospiza melodia*	-	-	S5		5	2	2	20	8	3	2	1	3	3	20	
SWTH	Swainson's Thrush	*Catharus ustulatus*	-	-	S4		1			1					2		2	
SWSP	Swamp Sparrow	*Melospiza georgiana*	-	-	S5			2	2	5					2		2	
TEWA	Tennessee Warbler	*Oreothlypis peregrina*	-	-	S5					0					1		1	
TRES	Tree Swallow	*Tachycineta bicolor*	-	-	S4					7							0	
VEER	Veery	*Catharus fuscescens*	-	-	S4					0					2	2	4	
WCSP	White-crowned Sparrow	*Zonotrichia leucophrys*	-	-	S4					0				2			2	
WIFL	Willow Flycatcher (Trail's Flyca	*Empidonax traillii*	-	-	S5					0							0	
WIWA	Wilson's Warbler	*Cardellina pusilla*	-	-	S4					0					1		1	
WIWR	Winter Wren	*Troglodytes troglodytes*	-	-	S5					3	1	1	1				3	1
WOTH	Wood Thrush	*Hylocichla mustelina*	SC	-	S4					0							0	
WTSP	White-throated Sparrow	*Zonotrichia albicollis*	-	-	S5		4	3		21	14	3	3	2	4	2	28	8
YBFL	Yellow-bellied Flycatcher	*Empidonax flaviventris*	-	-	S5					0							0	
YRWA	Yellow-rumped Warbler	*Setophaga coronata*	-	-	S5		4	1	1	23	3	3	3	4	8	2	23	3
YWAR	Yellow Warbler	*Setophaga petechia*	-	-	S5			1	1	2			2	5	5	6	18	
Total																		
Incidental Wildlife																		
AMBI	American Bittern	*Botaurus lentiginosus*	-	-	S4					0							0	
ABDU	American Black Duck	*Anas rubripes*	-	-	S4					0							0	
AMCO	American Coot	*Fulica americana*	-	-	S4					0							0	
AMWO	American Woodcock	*Scolopax minor*	-	-	S4			1	1	2						1	1	
BAEA	Bald Eagle	*Haliaeetus leucocephalus*	SC	-	S2					0							0	
BEKI	Belted Kingfisher	*Ceryle alcyon*	-	-	S4					1							0	1

Table C-4: 2013 Spring Passerine Migration Survey Results

Henvey Inlet Wind
Summary of 2011, 2012 and 2013 Passerine Migration Surveys –
Henvey Inlet Wind Energy Centre Study Area

						Transect	ect 15				Transect 16								
						Survey Number	5	6	7		1	2	3	4	5	6		1
						Habitat					Not Recorded								
						Temperature (°C)	6	19	-		14-15	-	18	10	2	10		15
						Wind (Beaufort Scale)	2	1	-		3-5	-	2-3	2-3	1-2	1-2		3-4
						Relative Cloud Cover (%)	0	30	-		100	-	20	30	0	100		50
						Precipitation	0	-	-	Sub-total	-	-	0	None	0	Light Rain	Sub-total	0
						Precipitation (24h)	Trace	Rain	-		-	-	0	None	Trace	Heavy Rain		0
						Start Time	8:00	10:19	-		8:31	8:09	9:50	9:30	6:40	9:33		8:16
						End Time	8:47	10:54	-		9:00	8:36	10:23	10:01	7:34	9:56		8:40
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	25-May-13	30-May-13	-		29-Apr-13	3-May-13	9-May-13	16-May-13	25-May-13	30-May-13		1-May-13
BBWO	Black-backed Woodpecker	*Picoides arcticus*	-	-	S4					0							0	
BBCU	Black-billed Cuckoo	*Coccyzus erythropthalmus*	-	-	S5					0					2		2	
BWHA	Broad-winged Hawk	*Buteo platypterus*	-	-	S5					0				1			1	
BUFF	Bufflehead	*Bucephala albeola*	-	-	S4					14							0	
N/A	*Buteo* sp.	-	-	-	-					0							0	
CANG	Canada Goose	*Branta canadensis*	-	-	S5		11	4	4	25		4	1	1	2	58	66	5
CATE	Caspian Tern	*Sterna caspia*	-	-	S3		1			1	1		1	1			3	
COLO	Common Loon	*Gavia immer*	-	-	S5		1			1		1					1	
COME	Common Merganser	*Mergus merganser*	-	-	S5					0	3	2					5	
CONI	Common Nighthawk	*Chordeiles minor*	SC	THR Schedule 1	S4			1	1	2							0	
COSN	Common Snipe	*Gallinago gallinago*	-	-	S5					0							0	
DCCO	Double-crested Cormorant	*Phalacrocorax auritus*	-	-	S5			1	1	2		1		2			3	
DOWO	Downy Woodpecker	*Picoides pubescens*	-	-	S5					1							0	1
N/A	Duck sp.	-	-	-	-					0							0	
GBHE	Great Blue Heron	*Ardea herodias*	-	-	S4					2							0	
GRYE	Greater Yellowlegs	*Tringa melanoleuca*	-	-	S4					3	2	1	2				5	
GWTE	Green-winged Teal	*Anas crecca*	-	-	S4					0							0	
NA	Gull sp.	-	-	-	-					0							0	
HAWO	Hairy Woodpecker	*Picoides villosus*	-	-	S5			1	1	2					1		1	
HEGU	Herring Gull	*Larus argentatus*	-	-	S5		1	2	2	5							0	
HOME	Hooded Merganser	*Lophodytes cucullatus*	-	-	S5					2							0	
KILL	Killdeer	*Charadrius vociferus*	-	-	S5			1	1	4							0	
MALL	Mallard	*Anas platyrhynchos*	-	-	S5		2			2	1						1	
MERL	Merlin	*Geothlypis philadelphia*	-	-	S5					0							0	
MODO	Mourning Dove	*Oreothlypis ruficapilla*	-	-	S5					0				1			1	
NOFL	Northern Flicker	*Colaptes auratus*	-	-	S4		1	1	1	12	2		1		3	1	7	3
OSPR	Osprey	*Pandion haliaetus*	-	-	S5					0		1					1	
PIWO	Pileated Woodpecker	*Dryocopus pileatus*	-	-	S5					1				1			1	1
N/A	Raptor sp.	-	-	-	-					0							0	
RBWO	Red-bellied Woodpecker	*Melanerpes carolinus*	-	-	S4					0							0	
RTHA	Red-tailed Hawk	*Buteo jamaicensis*	-	-	S4					0							0	
RBGU	Ring-billed Gull	*Larus delawarensis*	-	-	S5					1					1		1	
RUGR	Ruffed Grouse	*Bonasa umbellus*	-	-	S4			1	1	7	3	1		1	2	1	8	1
SACR	Sandhill Crane	*Grus canadensis tabida*	-	-	S5					2	2	1					3	
SOWA	Species Code Undetermined	-	-	-	-					0							0	
SPSA	Spotted Sandpiper	*Actitis macularia*	-	-	S5					0		1					1	
SPGR	Spruce Grouse	*Falcipennis canadensis*	-	-	S5					0							0	
TUVU	Turkey Vulture	*Cathartes aura*	-	-	S5			1	1	2							0	1
WODU	Wood Duck	*Aix sponsa*	-	-	S5		1	2	2	5	2						2	
YBSA	Yellow-bellied Sapsucker	*Sphyrapicus varius*	-	-	S5			1	1	2	2	1	1		2		6	
Total																		

Legend
Wind (Beafort Scale):
0 (Less than 1 Km/h), 1 (1 -5 Km/h), 2 (6 - 11 Km/h), 3 (12 - 19 Km/h), 4 (20 - 28 Km/h), 5 (29 - 38 Km/h), 6 (39 - 49 Km/h), 7(50 - 61 Km/h), 8 (62 - 74 Km/h), 9 (75 - 88 Km/h), 10

Table C-4: 2013 Spring Passerine Migration Survey Results

						Transect	Transect 17				Transect 18						
						Survey Number	2	3	4		1	2	3	4	5		
						Habitat	Not Recorded				Not Recorded						
						Temperature (°C)	20	4	10		20	10	8	7	12		
						Wind (Beaufort Scale)	0	2	1-2		2-3	2-3	2-3	2	0-1		
						Relative Cloud Cover (%)	10	90	100		30	25	0	<3	fog		
						Precipitation	0	None	Light Rain	Sub-total	0	0	None	0	-	Sub-total	Grand Total
						Precipitation (24h)	0	Light to Heavy Rain	Heavy Rain		0	0	None	Trace	Rain		
						Start Time	10:23	6:58	6:19		9:01	7:44	7:19	9:18	8:31		
						End Time	10:57	7:32	7:06		10:03	8:18	7:45	9:48	9:04		
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	8-May-13	24-May-13	29-May-13		3-May-13	9-May-13	16-May-13	25-May-13	30-May-13		
Passerines Observed																	
ALFL	Alder Flycatcher	*Empidonax alnorum*	-	-	S5				1	1					2	2	**11**
AMCR	American Crow	*Corvus brachyrhynchos*	-	-	S5			1		2					1	1	**22**
AMGO	American Goldfinch	*Cardeulis tristis*	-	-	S5		1			1						0	**3**
AMRE	American Redstart	*Setophaga ruticilla*	-	-	S5				1	1			1	1		2	**45**
AMRO	American Robin	*Turdus migratorius*	-	-	S5		1	1	1	5	1	2	3			6	**144**
ATSP	American Tree Sparrow	*Spizella arborea*	-	-	S4					0						0	**4**
BAWW	Black-and-white Warbler	*Mniotilta varia*	-	-	S5		4	1	3	8		1	5	2	3	11	**109**
BBWA	Bay-breasted Warbler	*Setophaga castanea*	-	-	S5		1			1		2				2	**12**
BCCH	Black-capped Chickadee	*Poecile atricapillus*	-	-	S5			1	1	4		1				1	**81**
BHCO	Brown-headed Cowbird	*Molothrus ater*	-	-	S4					0						0	**2**
BHVI	Blue-headed Vireo	*Vireo solitarius*	-	-	S5					0			1			1	**13**
BLBW	Blackburnian Warbler	*Setophaga fusca*	-	-	S5		1	2		3						0	**17**
BLJA	Blue Jay	*Cyanocitta cristata*	-	-	S5			3	1	5	2	1	1	2		6	**87**
BLPW	Blackpoll Warbler	*Setophaga striata*	-	-	S4		1			1						0	**4**
BOWA	Bohemian Waxwing	*Bombycilla garrulus*	-	-	SNA					0						0	**40**
BRCR	Brown Creeper	*Certhia americana*	-	-	S5					0						0	**7**
BRTH	Brown Thrasher	*Toxostoma rufum*	-	-	S4					0	1		1			2	**11**
BTBW	Black-throated Blue Warbler	*Setophaga caerulescens*	-	-	S5					0						0	**2**
BTNW	Black-throated Green Warbler	*Setophaga virens*	-	-	S5			2	2	4			3	1	1	5	**102**
CAWA	Canada Warbler	*Cardellina pusilla*	SC	THR Schedule 1	S4			2	2	4						0	**16**
CEDW	Cedar Waxwing	*Setophaga tigrina*	-	-	S5					0						0	**12**
CHSP	Chipping Sparrow	*Setophaga cerulea*	-	-	S5		2	2		4	2	5	4	2	2	15	**67**
CMWA	Cape May Warbler	*Setophaga tigrina*	-	-	S5					0						0	**4**
COGR	Common Grackle	*Quiscalus quiscula*	-	-	S5				1	2	4	1	1			6	**86**
CORA	Common Raven	*Corvus corax*	-	-	S5					0	1	1		1		3	**25**
CORE	Common Redpoll	*Carduelis flammea*	-	-	S4					0						0	**1**
COYE	Common Yellowthroat	*Geothlyphis trichas*	-	-	S5		1	4	8	13		1	3	6	9	19	**140**
CSWA	Chestnut-sided Warbler	*Setophaga pensylvanica*	-	-	S5			2	3	5				2		2	**38**
DEJU	Dark-eyed Junco	*Junco hyemalis*	-	-	S5					0						0	**52**
EAKI	Eastern Kingbird	*Tyrannus tyrannus*	-	-	S4					0						0	**5**
EAPH	Eastern Phoebe	*Sayornis phoebe*	-	-	S5				1	2	1					1	**24**
EATO	Eastern Towhee	*Pipilio erythrophthalmus*	-	-	S4					0						0	**2**
EWPE	Eastern Wood-pewee	*Contopus virens*	SC	-	S4					0						0	**2**
FOSP	Fox Sparrow	*Passerella iliaca*	-	-	S4					0						0	**1**
GCFL	Great Crested Flycatcher	*Myiarchus crinitus*	-	-	S4		1			1						0	**16**
GCKI	Golden-crowned Kinglet	*Regulus satrapa*	-	-	S5					4	1	1				2	**74**
GRJA	Gray Jay	*Perisoreus canadensis*	-	-	S5					0			2	1	1	4	**8**
HETH	Hermit Thrush	*Catharus guttatus*	-	-	S5		1		2	3	2	1	2		2	7	**66**
INBU	Indigo Bunting	*Passerina cyanea*	-	-	S4					0						0	**1**

Table C-4: 2013 Spring Passerine Migration Survey Results

Henvey Inlet Wind
Summary of 2011, 2012 and 2013 Passerine Migration Surveys –
Henvey Inlet Wind Energy Centre Study Area

						Transect	Transect 17				Transect 18						**Grand Total**
						Survey Number	2	3	4		1	2	3	4	5		
						Habitat	Not Recorded				Not Recorded						
						Temperature (°C)	20	4	10		20	10	8	7	12		
						Wind (Beaufort Scale)	0	2	1-2		2-3	2-3	2-3	2	0-1		
						Relative Cloud Cover (%)	10	90	100		30	25	0	<3	fog		
						Precipitation	0	None	Light Rain	Sub-total	0	0	None	0	-	Sub-total	
						Precipitation (24h)	0	Light to Heavy Rain	Heavy Rain		0	0	None	Trace	Rain		
						Start Time	10:23	6:58	6:19		9:01	7:44	7:19	9:18	8:31		
						End Time	10:57	7:32	7:06		10:03	8:18	7:45	9:48	9:04		
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	8-May-13	24-May-13	29-May-13		3-May-13	9-May-13	16-May-13	25-May-13	30-May-13		
LEFL	Least Flycatcher	*Empidonax minimus*	-	-	S4					0						0	**5**
MAWA	Magnolia Warbler	*Setophaga magnolia*	-	-	S5				1	1		1	1		2	4	**21**
MOWA	Mourning Warbler	*Geothlypis philadelphia*	-	-	S4					0						0	**4**
NAWA	Nashville Warbler	*Oreothlypis ruficapilla*	-	-	S5		1	3	5	10	1	2	6	4	3	16	**115**
NOCA	Northern Cardinal	*Cardinalis cardinalis*	-	-	S5					1						0	**1**
NOPA	Northern Parula	*Parula americana*	-	-	S4					0						0	**5**
NOWA	Northern Waterthrush	*Seiurus noveboracensis*	-	-	S5			1		1						0	**3**
OCWA	Orange-crowned Warbler	*Oreothlypis celata*	-	-	S4					0	1					1	**2**
OVEN	Ovenbird	*Seiurus aurocapillus*	-	-	S4			3	3	6		2	3	3	2	10	**112**
PAWA	Palm Warbler	*Dendroica palmarum*	-	-	S5					0						0	**8**
N/A	Passerine sp.	-	-	-	-					0						0	**3**
PHVI	Philadelphia Vireo	*Vireo philadelphicus*	-	-	S5					0						0	**1**
PISI	Pine Siskin	*Cardeulis pinus*	-	-	S4					0					1	1	**2**
PIWA	Pine Warbler	*Setophaga pinus*	-	-	S5		3	2	2	12	1					1	**69**
PUFI	Purple Finch	*Carpodacus purpureus*	-	-	S4		2			3		2	1	1	1	5	**33**
RBNU	Red-breasted Nuthatch	*Sitta canadensis*	-	-	S5		1	1		2	1			1		2	**36**
REVI	Red-eyed Vireo	*Vireo olivaceus*	-	-	S5				2	2				1	1	2	**40**
RWBL	Red-winged Blackbird	*Agelaius phoeniceus*	-	-	S4					0	1	1			1	3	**26**
RBGR	Rose-breasted Grosbeak	*Pheucticus ludovicianus*	-	-	S4					0						0	**15**
RCKI	Ruby-crowned Kinglet	*Regulus calendula*	-	-	S4		1	1		3	1				1	2	**28**
SOSP	Song Sparrow	*Melospiza melodia*	-	-	S5		2	1	1	4	5	4	4	1	3	17	**124**
SWTH	Swainson's Thrush	*Catharus ustulatus*	-	-	S4			1	1	2						0	**11**
SWSP	Swamp Sparrow	*Melospiza georgiana*	-	-	S5				1	1				1	1	2	**19**
TEWA	Tennessee Warbler	*Oreothlypis peregrina*	-	-	S5					0						0	**2**
TRES	Tree Swallow	*Tachycineta bicolor*	-	-	S4					0						0	**7**
VEER	Veery	*Catharus fuscescens*	-	-	S4					0						0	**16**
WCSP	White-crowned Sparrow	*Zonotrichia leucophrys*	-	-	S4					0				1		1	**6**
WIFL	Willow Flycatcher (Trail's Flyca	*Empidonax traillii*	-	-	S5			1		1							**1**
WIWA	Wilson's Warbler	*Cardellina pusilla*	-	-	S4					0						0	**2**
WIWR	Winter Wren	*Troglodytes troglodytes*	-	-	S5		1			2		1			1	2	**24**
WOTH	Wood Thrush	*Hylocichla mustelina*	SC	-	S4					0						0	**1**
WTSP	White-throated Sparrow	*Zonotrichia albicollis*	-	-	S5		5	2	3	18	4	5	3	4	6	22	**264**
YBFL	Yellow-bellied Flycatcher	*Empidonax flaviventris*	-	-	S5					0						0	**1**
YRWA	Yellow-rumped Warbler	*Setophaga coronata*	-	-	S5		6	1	8	18	6	4	4	4	5	23	**222**
YWAR	Yellow Warbler	*Setophaga petechia*	-	-	S5					0			2		3	5	**34**
Total																	**2619**
Incidental Wildlife																	
AMBI	American Bittern	*Botaurus lentiginosus*	-	-	S4					0			1			1	**3**
ABDU	American Black Duck	*Anas rubripes*	-	-	S4					0						0	**5**
AMCO	American Coot	*Fulica americana*	-	-	S4					0						0	**2**
AMWO	American Woodcock	*Scolopax minor*	-	-	S4					0						0	**5**
BAEA	Bald Eagle	*Haliaeetus leucocephalus*	SC	-	S2					0						0	**2**
BEKI	Belted Kingfisher	*Ceryle alcyon*	-	-	S4					1						0	**5**

Table C-4: 2013 Spring Passerine Migration Survey Results

						Transect	Transect 17				Transect 18								
						Survey Number	2	3	4		1	2	3	4	5				
						Habitat	Not Recorded				Not Recorded								
						Temperature (°C)	20	4	10		20	10	8	7	12				
						Wind (Beaufort Scale)	0	2	1-2		2-3	2-3	2-3	2	0-1				
						Relative Cloud Cover (%)	10	90	100		30	25	0	<3	fog				
						Precipitation	0	None	Light Rain	Sub-total	0	0	None	0	-	Sub-total	**Grand Total**		
						Precipitation (24h)	0	Light to Heavy Rain	Heavy Rain		0	0	None	Trace	Rain				
						Start Time	10:23	6:58	6:19		9:01	7:44	7:19	9:18	8:31				
						End Time	10:57	7:32	7:06		10:03	8:18	7:45	9:48	9:04				
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	8-May-13	24-May-13	29-May-13		3-May-13	9-May-13	16-May-13	25-May-13	30-May-13				
BBWO	Black-backed Woodpecker	*Picoides arcticus*	-	-	S4					0						0	**2**		
BBCU	Black-billed Cuckoo	*Coccyzus erythropthalmus*	-	-	S5					0						0	**3**		
BWHA	Broad-winged Hawk	*Buteo platypterus*	-	-	S5					0						0	**1**		
BUFF	Bufflehead	*Bucephala albeola*	-	-	S4					0						0	**14**		
N/A	*Buteo* sp.	-	-	-	-					0						0	**1**		
CANG	Canada Goose	*Branta canadensis*	-	-	S5		2	2		9		2	2	2	3	9	**188**		
CATE	Caspian Tern	*Sterna caspia*	-	-	S3					0		1		1		2	**10**		
COLO	Common Loon	*Gavia immer*	-	-	S5					0			1			1	**9**		
COME	Common Merganser	*Mergus merganser*	-	-	S5					0						0	**11**		
CONI	Common Nighthawk	*Chordeiles minor*	SC	THR Schedule 1	S4					0						0	**2**		
COSN	Common Snipe	*Gallinago gallinago*	-	-	S5					0						0	**3**		
DCCO	Double-crested Cormorant	*Phalacrocorax auritus*	-	-	S5		1	1		2					1	1	**18**		
DOWO	Downy Woodpecker	*Picoides pubescens*	-	-	S5			1	1	3					1	1	**12**		
N/A	Duck sp.	-	-	-	-					0						0	**1**		
GBHE	Great Blue Heron	*Ardea herodias*	-	-	S4					0	1		1	1		3	**7**		
GRYE	Greater Yellowlegs	*Tringa melanoleuca*	-	-	S4					0		1				1	**15**		
GWTE	Green-winged Teal	*Anas crecca*	-	-	S4					0						0	**1**		
NA	Gull sp.	-	-	-	-					0						0	**1**		
HAWO	Hairy Woodpecker	*Picoides villosus*	-	-	S5		1		1	2				1	1	2	**14**		
HEGU	Herring Gull	*Larus argentatus*	-	-	S5			1		1	4		1	1	4	10	**20**		
HOME	Hooded Merganser	*Lophodytes cucullatus*	-	-	S5					0						0	**13**		
KILL	Killdeer	*Charadrius vociferus*	-	-	S5					0	1					1	**6**		
MALL	Mallard	*Anas platyrhynchos*	-	-	S5		1	2		3					1	1	**19**		
MERL	Merlin	*Geothlypis philadelphia*	-	-	S5					0						0	**3**		
MODO	Mourning Dove	*Oreothlypis ruficapilla*	-	-	S5					0						0	**1**		
NOFL	Northern Flicker	*Colaptes auratus*	-	-	S4		1			4		1	1		1	3	**60**		
OSPR	Osprey	*Pandion haliaetus*	-	-	S5					0						0	**2**		
PIWO	Pileated Woodpecker	*Dryocopus pileatus*	-	-	S5					1						0	**17**		
N/A	Raptor sp.	-	-	-	-					0						0	**1**		
RBWO	Red-bellied Woodpecker	*Melanerpes carolinus*	-	-	S4					0						0	**1**		
RTHA	Red-tailed Hawk	*Buteo jamaicensis*	-	-	S4					0						0	**1**		
RBGU	Ring-billed Gull	*Larus delawarensis*	-	-	S5					0						0	**5**		
RUGR	Ruffed Grouse	*Bonasa umbellus*	-	-	S4			1		2		1	1			2	**54**		
SACR	Sandhill Crane	*Grus canadensis tabida*	-	-	S5			2		2			2			2	**26**		
SOWA	Species Code Undetermined	-	-	-	-					0						0	**1**		
SPSA	Spotted Sandpiper	*Actitis macularia*	-	-	S5					0				1		1	**5**		
SPGR	Spruce Grouse	*Falcipennis canadensis*	-	-	S5					0						0	**1**		
TUVU	Turkey Vulture	*Cathartes aura*	-	-	S5					1	3			1		4	**15**		
WODU	Wood Duck	*Aix sponsa*	-	-	S5					0						0	**12**		
YBSA	Yellow-bellied Sapsucker	*Sphyrapicus varius*	-	-	S5					0	1		1			2	**41**		
Total																	**639**		

Legend
Wind (Beafort Scale):
0 (Less than 1 Km/h), 1 (1 -5 Km/h), 2 (6 - 11 Km/h), 3 (12 - 19 Km/h), 4 (20 - 28 Km/h), 5 (29 - 38 Km/h), 6 (39 - 49 Km/h), 7(50 - 61 Km/h), 8 (62 - 74 Km/h), 9 (75 - 88 Km/h), 10

Table C-5: 2013 Fall Passerine Migration Survey Results

						Transect	Transect 1											
						Survey Number	1	2	3	4	5	6	7	8		1	2	3
						Habitat	Woods (Lowland)											
						Temperature (°C)	20	23	16	4	4	0	14	5		20	23	16
						Wind (Beaufort Scale)	1	3-4	2	2-3	0-1	0	1	0-1		1	3-4	1-3
						Relative Cloud Cover (%)	-	100	100	100	50	0	0	0		-	100	100
						Precipitation	Rain	Rain	0	-	Fog	None	None	Light Fog	Sub-total	Rain	Rain	Light Rain
						Precipitation (24h)	-	Rain	0	2-3 mm	Fog	None	None	Light Fog		-	Rain	-
						Start Time	7:00	6:54	7:11	6:51	6:56	7:05	7:30	7:26		8:17	7:37	8:44
						End Time	7:34	7:17	7:55	7:21	7:32	7:58	8:05	8:06		8:44	8:09	10:31
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	22-Aug-13	26-Aug-13	4-Sep-13	13-Sep-13	17-Sep-13	24-Sep-13	2-Oct-13	11-Oct-13		22-Aug-13	26-Aug-13	4-Sep-13
Passerines Observed																		
ALFL	Alder Flycatcher	*Empidonax alnorum*	-	-	S5		2	1							3			
AMCR	American Crow	*Corvus brachyrhynchos*	-	-	S5				1	2	1	1	1	2	8			
GOLI	American Goldfinch	*Cardeulis tristis*	-	-	S5		2					1		2	5			
AMPI	American Pipit	*Anthus rubescens*	-	-	S4										0			
AMRE	American Redstart	*Setophaga ruticilla*	-	-	S5				1						1		1	
AMRO	American Robin	*Turdus migratorius*	-	-	S5				2			12	10	14	38	3	2	
ATSP	American Tree Sparrow	*Spizella arborea*	-	-	S4							5			5			
BBWA	Bay-breasted Warbler	*Dendroica castanea*	-	-	S5										0			1
BAWW	Black-and-white Warbler	*Mniotilta varia*	-	-	S5		1	1	1		1				4	2		5
BLBW	Blackburnian Warbler	*Dendroica fusca*	-	-	S5										0			
BCCH	Black-capped Chickadee	*Poecile atricapillus*	-	-	S5		4	4	5	5	2	9	9	4	42	9		7
BLPW	Blackpoll Warbler	*Dendroica striata*	-	-	S4								1		1			
BHVI	Blue-headed Vireo	*Vireo solitarius*	-	-	S5								2		2			3
BLJA	Blue Jay	*Cyanocitta cristata*	-	-	S5		2	2	2	7	7	39	1	7	67	8	3	1
BRCR	Brown Creeper	*Certhia americana*	-	-	S5						2	4	1		7			
BRTH	Brown Thrasher	*Toxostoma rufum*	-	-	S4										0			
BTNW	Black-throated Green Warbler	*Dendroica virens*	-	-	S5				3	1	2				6	1	1	5
CAWA	Canada Warbler	*Wilsonia canadensis*	SC	THR Schedule 1	S4										0			
CASP	Cassin's Sparrow	*Aimophila cassinii*	-	-	SNA										0		2	
CEDW	Cedar Waxwing	*Bombycilla cedrorum*	-	-	S5		4	3	18	6					31	4	2	
CHSP	Chipping Sparrow	*Spizella passerina*	-	-	S5					1					1			
COGR	Common Grackle	*Quiscalus quiscula*	-	-	S5									3	3			
CORA	Common Raven	*Corvus corax*	-	-	S5										0	1		
COYE	Common Yellowthroat	*Geothlyphis trichas*	-	-	S5			7	1			2	1		11			
CSWA	Chestnut-sided Warbler	*Dendroica pensylvanica*	-	-	S5										0	2	1	2
DEJU	Dark-eyed Junco	*Junco hyemalis*	-	-	S5							4		10	14			
EAKI	Eastern Kingbird	*Tyrannus tyrannus*	-	-	S4										0			
EAPH	Eastern Phoebe	*Sayornis phoebe*	-	-	S5										0			
EATO	Eastern Towhee	*Pipilio erythrophthalmus*	-	-	S4										0			
EWPE	Eastern Wood-pewee	*Contopus virens*	SC	-	S4										0			
FOSP	Fox Sparrow	*Passerella iliaca*	-	-	S4										0			
GCKI	Golden-crowned Kinglet	*Regulus satrapa*	-	-	S5						8	17	18	31	74			
GRJA	Gray Jay	*Perisoreus canadensis*	-	-	S5										0			
HETH	Hermit Thrush	*Catharus guttatus*	-	-	S5							1			1			
LISP	Lincoln's Sparrow	*Melospiza lincolnii*	-	-	S5										0			
MAWA	Magnolia Warbler	*Dendroica magnolia*	-	-	S5										0			
NAWA	Nashville Warbler	*Vermivora ruficapilla*	-	-	S5				2		2	1	2		7			3
NOWA	Northern Waterthrush	*Seiurus noveboracensis*	-	-	S5										0			
OCWA	Orange-crowned Warbler	*Vermivora celata*	-	-	S4							3			3			
OSFL	Olive-sided Flycatcher	*Contopus cooperi*	SC	THR Schedule 1	S4			1							1			
OVEN	Ovenbird	*Seiurus aurocapillus*	-	-	S4						1				1			
PAWA	Palm Warbler	*Dendroica palmarum*	-	-	S5								6		6			
N/A	Passerine sp.	-	-	-	-				1			7		3	11			

Table C-5: 2013 Fall Passerine Migration Survey Results

						Transect	Transect 1												
						Survey Number	1	2	3	4	5	6	7	8		1	2	3	
						Habitat	Woods (Lowland)												
						Temperature (°C)	20	23	16	4	4	0	14	5		20	23	16	
						Wind (Beaufort Scale)	1	3-4	2	2-3	0-1	0	1	0-1		1	3-4	1-3	
						Relative Cloud Cover (%)	-	100	100	100	50	0	0	0		-	100	100	
						Precipitation	Rain	Rain	0	-	Fog	None	None	Light Fog	Sub-total	Rain	Rain	Light Rain	
						Precipitation (24h)	-	Rain	0	2-3 mm	Fog	None	None	Light Fog		-	Rain	-	
						Start Time	7:00	6:54	7:11	6:51	6:56	7:05	7:30	7:26		8:17	7:37	8:44	
						End Time	7:34	7:17	7:55	7:21	7:32	7:58	8:05	8:06		8:44	8:09	10:31	
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	22-Aug-13	26-Aug-13	4-Sep-13	13-Sep-13	17-Sep-13	24-Sep-13	2-Oct-13	11-Oct-13		22-Aug-13	26-Aug-13	4-Sep-13	
PIWA	Pine Warbler	*Dendroica pinus*	-	-	S5				1						1			1	
PUFI	Purple Finch	*Carpodacus purpureus*	-	-	S4		3		2			1		1	7			1	
RBNU	Red-breasted Nuthatch	*Sitta canadensis*	-	-	S5			3	1	1	2	2	3	1	13			2	
REVI	Red-eyed Vireo	*Vireo olivaceus*	-	-	S5		3	1							4	1	3	1	
RWBL	Red-winged Blackbird	*Agelaius phoeniceus*	-	-	S4										0				
RBGR	Rose-breasted Grosbeak	*Pheucticus ludovicianus*	-	-	S4		1								1				
RCKI	Ruby-crowned Kinglet	*Regulus calendula*	-	-	S4				1		7	25	40	25	98				
RUBL	Rusty Blackbird	*Euphagus carolinus*	-	SC Schedule 1	S4							12		9	21				
SNBU	Snow Bunting	*Plectrophenax nivalis*	-	-	SNA										0				
SOSP	Song Sparrow	*Melospiza melodia*	-	-	S5		2		1	2	1				6				
N/A	Sparrow sp.	-	-	-	-										0				
SWTH	Swainson's Thrush	*Catharus ustulatus*	-	-	S4										0				
SWSP	Swamp Sparrow	*Melospiza georgiana*	-	-	S5		1								1				
TEWA	Tennessee Warbler	*Vermivora peregrina*	-	-	S5							4			4				
TRES	Tree Swallow	*Tachycineta bicolor*	-	-	S4										0				
VEER	Veery	*Catharus fuscescens*	-	-	S4										0				
N/A	Warbler sp.	-	-	-	-				3	2					5		2	1	
WCSP	White-crowned Sparrow	*Zonotrichia leucophrys*	-	-	S4							4			4				
WTSP	White-throated Sparrow	*Zonotrichia albicollis*	-	-	S5		3	3	9	7	7	3	3	3	38		1	3	
WIWA	Wilson's Warbler	Wilsonia pusilla	-	-	S4						1				1				
WIWR	Winter Wren	*Troglodytes troglodytes*	-	-	S5										0				
YRWA	Yellow-rumped Warbler	*Dendroica coronata*	-	-	S5					4		11	8		23				
Total																			
Incidental Wildlife																			
N/A	*Accipiter* sp.	-	-	-	-										0				
AMBI	American Bittern	*Botaurus lentiginosus*	-	-	S4										0				
BDOW	Barred Owl	*Strix varia*	-	-	S5										0				
BAEA	Bald Eagle	*Haliaeetus leucocephalus*	SC	-	S2										0				
BEKI	Belted Kingfisher	*Ceryle alcyon*	-	-	S4				1						1				
BBWO	Black-backed Woodpecker	*Picoides arcticus*	-	-	S4							1	1		2				
BBCU	Black-billed Cuckoo	*Coccyzus erythropthalmus*	-	-	S5						1				1				
BWTE	Blue-winged Teal	*Anas discors*	-	-	S4										0				
BWHA	Broad-winged Hawk	*Buteo platypterus*	-	-	S5		1	1							2				
CANG	Canada Goose	*Branta canadensis*	-	-	S5										0				
COGO	Common Goldeneye	*Bucephala clangula*	-	-	S5										0				
COLO	Common Loon	*Gavia immer*	-	-	S5										0				
COME	Common Merganser	*Mergus merganser*	-	-	S5		5								5		2		
DCCO	Double-crested Cormorant	*Phalacrocorax auritus*	-	-	S5										0				
DOWO	Downy Woodpecker	*Picoides pubescens*	-	-	S5								1	1	2				
N/A	Duck sp.	-	-	-	-										0				
GBHE	Great Blue Heron	*Ardea herodias*	-	-	S4										0				
N/A	Grouse sp.	-	-	-	-										0				
HAWO	Hairy Woodpecker	*Picoides villosus*	-	-	S5					1	1	2	1	1	6				
HEGU	Herring Gull	*Larus argentatus*	-	-	S5										0				
HOME	Hooded Merganser	*Lophodytes cucullatus*	-	-	S5										0				
MALL	Mallard	*Anas platyrhynchos*	-	-	S5										0				

Table C-5: 2013 Fall Passerine Migration Survey Results

						Transect	Transect 1										
						Survey Number	1	2	3	4	5	6	7	8		1	2	3
						Habitat	Woods (Lowland)											
						Temperature (°C)	20	23	16	4	4	0	14	5		20	23	16
						Wind (Beaufort Scale)	1	3-4	2	2-3	0-1	0	1	0-1		1	3-4	1-3
						Relative Cloud Cover (%)	-	100	100	100	50	0	0	0		-	100	100
						Precipitation	Rain	Rain	0	-	Fog	None	None	Light Fog	Sub-total	Rain	Rain	Light Rain
						Precipitation (24h)	-	Rain	0	2-3 mm	Fog	None	None	Light Fog		-	Rain	-
						Start Time	7:00	6:54	7:11	6:51	6:56	7:05	7:30	7:26		8:17	7:37	8:44
						End Time	7:34	7:17	7:55	7:21	7:32	7:58	8:05	8:06		8:44	8:09	10:31
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	22-Aug-13	26-Aug-13	4-Sep-13	13-Sep-13	17-Sep-13	24-Sep-13	2-Oct-13	11-Oct-13		22-Aug-13	26-Aug-13	4-Sep-13
MERL	Merlin	*Falco columbarius*	-	-	S5							1			1			
MODO	Mourning Dove	*Zenaida macroura*	-	-	S5										0			
NOFL	Northern Flicker	*Colaptes auratus*	-	-	S4		1	1	1	1	1	3	2	1	11	1		
NOHA	Northern Harrier	*Circus cyaneus*	-	-	S4										0			
OSPR	Osprey	*Pandion haliaetus*	-	-	S5										0			
N/A	Owl sp.	-	-	-	-										0			
PIWO	Pileated Woodpecker	*Dryocopus pileatus*	-	-	S5							1	1		2			1
RTHA	Red-tailed Hawk	*Buteo jamaicensis*	-	-	S4										0			
RBGU	Ring-billed Gull	*Larus delawarensis*	-	-	S5										0			
RNDU	Ring-necked Duck	*Aythya collaris*	-	-	S5										0			
RTHO	Ruby-throated Hummingbird	*Archilochus colubris*	-	-	S5										0	1		
RUGR	Ruffed Grouse	*Bonasa umbellus*	-	-	S4		1						1		2			
SACR	Sandhill Crane	*Grus canadensis tabida*	-	-	S5						2				2			
SSHA	Sharp-shinned Hawk	*Accipiter striatus*	-	-	S5										0			
SPGR	Spruce Grouse	*Falcipennis canadensis*	-	-	S5										0			
TUVU	Turkey Vulture	*Cathartes aura*	-	-	S5		2								2			
WISN	Wilson's Snipe	*Gallinago delicata*	-	-	S5										0			
WODU	Wood Duck	*Aix sponsa*	-	-	S5										0			
N/A	Woodpecker sp.	-	-	-	-								1		1			
YBSA	Yellow-bellied Sapsucker	*Sphyrapicus varius*	-	-	S5						1				1			
Total																		

Legend
Wind (Beafort Scale):
0 (Less than 1 Km/h), 1 (1 -5 Km/h), 2 (6 - 11 Km/h), 3 (12 - 19 Km/h), 4 (20 - 28 Km/h), 5 (29 - 38 Km/h), 6 (39 - 49 Km/h), 7(50 - 61 Km/h), 8 (62 - 74 Km/h), 9 (75 - 88 Km/h), 10 (89 - 102 Km/h), 11 (103 - 117 Km/h), 12 (118 - 133 Km/h)

ESA Status: The Endangered Species Act 2007 (ESA) protects Species at Risk at a provincial level.
SC - Special Concern
THR - Threatened
END - Endangered

SARA Status: The Species at Risk Act (SARA) protects Species at Risk at a federal level.
SC - Special Concern
THR - Threatened
END - Endangered

S-rank: The natural heritage provincial ranking system (provincial S-rank) is used by the MNRF Natural Heritage Information Centre (NHIC) to set protection priorities for rare species and natural communities. Definitions are as follows:
S1 - Critically Imperiled, often < 5 occurrences
S2 - Imperiled, often <20 occurences
S3 - Vulnerable, often 80 or fewer
S3S4 - Uncertain between S3 and S4
S4 - Aparently Secure, ncommon
S5 - Secure, common
SNA - Not Applicable —A conservation status rank is not applicable because the species is not a suitable target for conservation activities.
SH - Species or community occurred historically in the nation or state/province, and there is some possibility that it may be rediscovered.

Table C-5: 2013 Fall Passerine Migration Survey Results

						Transect	Transect 2						Transect 3					
						Survey Number	4	5	6	7	8		1	2	3	4	5	6
						Habitat	Dry woods						Not Recorded					
						Temperature (°C)	5	5	0	17	8		20	23	16	7	8	6
						Wind (Beaufort Scale)	2-3	0-1	0	1-2	0		1	3-4	3	3-4	0-1	0
						Relative Cloud Cover (%)	100	0	0	0	0		-	100	100	100	90	0
						Precipitation	-	Fog	-	None	0	Sub-total	Rain	Rain	None	-	-	None
						Precipitation (24h)	2-3 mm	Fog	None	None	Heavy Rain		-	Rain	0	2-3 mm	Fog	None
						Start Time	7:46	7:50	8:16	8:21	10:20		9:36	8:36	10:15	8:44	8:59	9:26
						End Time	8:25	8:28	8:50	9:08	10:51		10:12	9:09	11:00	9:21	9:39	10:09
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	13-Sep-13	17-Sep-13	24-Sep-13	2-Oct-13	8-Oct-13		22-Aug-13	26-Aug-13	4-Sep-13	13-Sep-13	17-Sep-13	24-Sep-13
Passerines Observed																		
ALFL	Alder Flycatcher	*Empidonax alnorum*	-	-	S5							0						
AMCR	American Crow	*Corvus brachyrhynchos*	-	-	S5		3	1	4	1		9				1	1	2
GOLI	American Goldfinch	*Cardeulis tristis*	-	-	S5							0					1	8
AMPI	American Pipit	*Anthus rubescens*	-	-	S4							0						
AMRE	American Redstart	*Setophaga ruticilla*	-	-	S5							1	5	3		1		
AMRO	American Robin	*Turdus migratorius*	-	-	S5			1		3	6	12				3		
ATSP	American Tree Sparrow	*Spizella arborea*	-	-	S4				2			2						
BBWA	Bay-breasted Warbler	*Dendroica castanea*	-	-	S5			1	1			3				1		
BAWW	Black-and-white Warbler	*Mniotilta varia*	-	-	S5							5	1	1		2		
BLBW	Blackburnian Warbler	*Dendroica fusca*	-	-	S5							0	1					
BCCH	Black-capped Chickadee	*Poecile atricapillus*	-	-	S5		6	1	2	2		18			3		2	5
BLPW	Blackpoll Warbler	*Dendroica striata*	-	-	S4				2			2						
BHVI	Blue-headed Vireo	*Vireo solitarius*	-	-	S5						1	4						
BLJA	Blue Jay	*Cyanocitta cristata*	-	-	S5		4	4	39	1	2	54	4	4	1	6	7	9
BRCR	Brown Creeper	*Certhia americana*	-	-	S5						1	1						
BRTH	Brown Thrasher	*Toxostoma rufum*	-	-	S4							0						
BTNW	Black-throated Green Warbler	*Dendroica virens*	-	-	S5		1	1	1			9		3				
CAWA	Canada Warbler	*Wilsonia canadensis*	SC	THR Schedule 1	S4			1				1						
CASP	Cassin's Sparrow	*Aimophila cassinii*	-	-	SNA							2	3					
CEDW	Cedar Waxwing	*Bombycilla cedrorum*	-	-	S5							2	16			6		
CHSP	Chipping Sparrow	*Spizella passerina*	-	-	S5							0	3					
COGR	Common Grackle	*Quiscalus quiscula*	-	-	S5					>100		0		5				
CORA	Common Raven	*Corvus corax*	-	-	S5							0		1	2			
COYE	Common Yellowthroat	*Geothlyphis trichas*	-	-	S5		6			2	1	9				3	3	4
CSWA	Chestnut-sided Warbler	*Dendroica pensylvanica*	-	-	S5							3	1					
DEJU	Dark-eyed Junco	*Junco hyemalis*	-	-	S5						7	7						
EAKI	Eastern Kingbird	*Tyrannus tyrannus*	-	-	S4							0	1					
EAPH	Eastern Phoebe	*Sayornis phoebe*	-	-	S5							0						
EATO	Eastern Towhee	*Pipilio erythrophthalmus*	-	-	S4							0						
EWPE	Eastern Wood-pewee	*Contopus virens*	SC	-	S4							0						
FOSP	Fox Sparrow	*Passerella iliaca*	-	-	S4							0						
GCKI	Golden-crowned Kinglet	*Regulus satrapa*	-	-	S5			2	17		6	25						3
GRJA	Gray Jay	*Perisoreus canadensis*	-	-	S5							0						
HETH	Hermit Thrush	*Catharus guttatus*	-	-	S5							0						2
LISP	Lincoln's Sparrow	*Melospiza lincolnii*	-	-	S5							0						
MAWA	Magnolia Warbler	*Dendroica magnolia*	-	-	S5							0	1	6				
NAWA	Nashville Warbler	*Vermivora ruficapilla*	-	-	S5			1	2			6				4		
NOWA	Northern Waterthrush	*Seiurus noveboracensis*	-	-	S5			1				1						
OCWA	Orange-crowned Warbler	*Vermivora celata*	-	-	S4			1				1						
OSFL	Olive-sided Flycatcher	*Contopus cooperi*	SC	THR Schedule 1	S4							0						
OVEN	Ovenbird	*Seiurus aurocapillus*	-	-	S4			2				2		1				
PAWA	Palm Warbler	*Dendroica palmarum*	-	-	S5					2		2						
N/A	Passerine sp.	-	-	-	-		3	6				9				3		

Table C-5: 2013 Fall Passerine Migration Survey Results

						Transect	Transect 2						Transect 3						
						Survey Number	4	5	6	7	8		1	2	3	4	5	6	
						Habitat	Dry woods						Not Recorded						
						Temperature (^{o}C)	5	5	0	17	8		20	23	16	7	8	6	
						Wind (Beaufort Scale)	2-3	0-1	0	1-2	0		1	3-4	3	3-4	0-1	0	
						Relative Cloud Cover (%)	100	0	0	0	0		-	100	100	100	90	0	
						Precipitation	-	Fog	-	None	0		Rain	Rain	None	-	-	None	
						Precipitation (24h)	2-3 mm	Fog	None	None	Heavy Rain	Sub-total	-	Rain	0	2-3 mm	Fog	None	
						Start Time	7:46	7:50	8:16	8:21	10:20		9:36	8:36	10:15	8:44	8:59	9:26	
						End Time	8:25	8:28	8:50	9:08	10:51		10:12	9:09	11:00	9:21	9:39	10:09	
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	13-Sep-13	17-Sep-13	24-Sep-13	2-Oct-13	8-Oct-13		22-Aug-13	26-Aug-13	4-Sep-13	13-Sep-13	17-Sep-13	24-Sep-13	
PIWA	Pine Warbler	*Dendroica pinus*	-	-	S5							1							
PUFI	Purple Finch	*Carpodacus purpureus*	-	-	S4							1							
RBNU	Red-breasted Nuthatch	*Sitta canadensis*	-	-	S5			1	1	1	2	7				1	1	1	
REVI	Red-eyed Vireo	*Vireo olivaceus*	-	-	S5							4	2	2					
RWBL	Red-winged Blackbird	*Agelaius phoeniceus*	-	-	S4							0							
RBGR	Rose-breasted Grosbeak	*Pheucticus ludovicianus*	-	-	S4							0							
RCKI	Ruby-crowned Kinglet	*Regulus calendula*	-	-	S4			5	19	2	6	32						7	
RUBL	Rusty Blackbird	*Euphagus carolinus*	-	SC Schedule 1	S4			2				2							
SNBU	Snow Bunting	*Plectrophenax nivalis*	-	-	SNA							0							
SOSP	Song Sparrow	*Melospiza melodia*	-	-	S5		1					1		1	2	2	5	6	
N/A	Sparrow sp.	-	-	-	-							0							
SWTH	Swainson's Thrush	*Catharus ustulatus*	-	-	S4							0							
SWSP	Swamp Sparrow	*Melospiza georgiana*	-	-	S5							0							
TEWA	Tennessee Warbler	*Vermivora peregrina*	-	-	S5							0		1					
TRES	Tree Swallow	*Tachycineta bicolor*	-	-	S4							0							
VEER	Veery	*Catharus fuscescens*	-	-	S4			1				1							
N/A	Warbler sp.	-	-	-	-							3							
WCSP	White-crowned Sparrow	*Zonotrichia leucophrys*	-	-	S4				17		4	21							
WTSP	White-throated Sparrow	*Zonotrichia albicollis*	-	-	S5		13	5	7	3	3	35	5	6	1	8	3	9	
WIWA	Wilson's Warbler	Wilsonia pusilla	-	-	S4							0							
WIWR	Winter Wren	*Troglodytes troglodytes*	-	-	S5							0							
YRWA	Yellow-rumped Warbler	*Dendroica coronata*	-	-	S5				1	2	6	9	1			21		9	
Total																			
Incidental Wildlife																			
N/A	*Accipiter* sp.	-	-	-	-							0							
AMBI	American Bittern	*Botaurus lentiginosus*	-	-	S4							0							
BDOW	Barred Owl	*Strix varia*	-	-	S5							0							
BAEA	Bald Eagle	*Haliaeetus leucocephalus*	SC	-	S2							0							
BEKI	Belted Kingfisher	*Ceryle alcyon*	-	-	S4							0							
BBWO	Black-backed Woodpecker	*Picoides arcticus*	-	-	S4							0							
BBCU	Black-billed Cuckoo	*Coccyzus erythropthalmus*	-	-	S5							0							
BWTE	Blue-winged Teal	*Anas discors*	-	-	S4							0							
BWHA	Broad-winged Hawk	*Buteo platypterus*	-	-	S5							0							
CANG	Canada Goose	*Branta canadensis*	-	-	S5		2		4	flock (1)		6			1	1	14	7	
COGO	Common Goldeneye	*Bucephala clangula*	-	-	S5							0							
COLO	Common Loon	*Gavia immer*	-	-	S5				1			1					3		
COME	Common Merganser	*Mergus merganser*	-	-	S5							2	1						
DCCO	Double-crested Cormorant	*Phalacrocorax auritus*	-	-	S5							0			1				
DOWO	Downy Woodpecker	*Picoides pubescens*	-	-	S5						1	1	1						
N/A	Duck sp.	-	-	-	-							0							
GBHE	Great Blue Heron	*Ardea herodias*	-	-	S4							0							
N/A	Grouse sp.	-	-	-	-							0							
HAWO	Hairy Woodpecker	*Picoides villosus*	-	-	S5			1				1				2	1	2	
HEGU	Herring Gull	*Larus argentatus*	-	-	S5							0			2				
HOME	Hooded Merganser	*Lophodytes cucullatus*	-	-	S5							0							
MALL	Mallard	*Anas platyrhynchos*	-	-	S5							0							

Table C-5: 2013 Fall Passerine Migration Survey Results

						Transect	Transect 2						Transect 3					
						Survey Number	4	5	6	7	8		1	2	3	4	5	6
						Habitat	Dry woods						Not Recorded					
						Temperature (°C)	5	5	0	17	8		20	23	16	7	8	6
						Wind (Beaufort Scale)	2-3	0-1	0	1-2	0		1	3-4	3	3-4	0-1	0
						Relative Cloud Cover (%)	100	0	0	0	0		-	100	100	100	90	0
						Precipitation	-	Fog	-	None	0	Sub-total	Rain	Rain	None	-	-	None
						Precipitation (24h)	2-3 mm	Fog	None	None	Heavy Rain		-	Rain	0	2-3 mm	Fog	None
						Start Time	7:46	7:50	8:16	8:21	10:20		9:36	8:36	10:15	8:44	8:59	9:26
						End Time	8:25	8:28	8:50	9:08	10:51		10:12	9:09	11:00	9:21	9:39	10:09
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	13-Sep-13	17-Sep-13	24-Sep-13	2-Oct-13	8-Oct-13		22-Aug-13	26-Aug-13	4-Sep-13	13-Sep-13	17-Sep-13	24-Sep-13
MERL	Merlin	*Falco columbarius*	-	-	S5							0						
MODO	Mourning Dove	*Zenaida macroura*	-	-	S5							0			1			
NOFL	Northern Flicker	*Colaptes auratus*	-	-	S4			1	1			2					1	
NOHA	Northern Harrier	*Circus cyaneus*	-	-	S4							0						
OSPR	Osprey	*Pandion haliaetus*	-	-	S5							0						
N/A	Owl sp.	-	-	-	-							0						
PIWO	Pileated Woodpecker	*Dryocopus pileatus*	-	-	S5				1	2		4	1					
RTHA	Red-tailed Hawk	*Buteo jamaicensis*	-	-	S4							0						
RBGU	Ring-billed Gull	*Larus delawarensis*	-	-	S5							0						2
RNDU	Ring-necked Duck	*Aythya collaris*	-	-	S5							0					1	
RTHO	Ruby-throated Hummingbird	*Archilochus colubris*	-	-	S5							0						
RUGR	Ruffed Grouse	*Bonasa umbellus*	-	-	S4							0		2		1		
SACR	Sandhill Crane	*Grus canadensis tabida*	-	-	S5			2				2						
SSHA	Sharp-shinned Hawk	*Accipiter striatus*	-	-	S5							0						
SPGR	Spruce Grouse	*Falcipennis canadensis*	-	-	S5							0						
TUVU	Turkey Vulture	*Cathartes aura*	-	-	S5							0			2	2		
WISN	Wilson's Snipe	*Gallinago delicata*	-	-	S5							0						
WODU	Wood Duck	*Aix sponsa*	-	-	S5							0				3		7
N/A	Woodpecker sp.	-	-	-	-							0						
YBSA	Yellow-bellied Sapsucker	*Sphyrapicus varius*	-	-	S5			1				1						
Total																		

Legend
Wind (Beafort Scale):
0 (Less than 1 Km/h), 1 (1 -5 Km/h), 2 (6 - 11 Km/h), 3 (12 - 19 Km/h), 4 (20 - 28 Km/h), 5 (29 - 38 Km/h), 6 (39 - 49 Km/h), 7(50 - 61 Km/h), 8 (62 - 74 Km/h), 9 (75 - 88 Km/l

ESA Status: The Endangered Species Act 2007 (ESA) protects Species at Risk at a provincial level.
SC - Special Concern
THR - Threatened
END - Endangered

SARA Status: The Species at Risk Act (SARA) protects Species at Risk at a federal level.
SC - Special Concern
THR - Threatened
END - Endangered

S-rank: The natural heritage provincial ranking system (provincial S-rank) is used by the MNRF Natural Heritage Information Centre (NHIC) to set protection priorities for rare species and natural communities. Definitions are as follows:
S1 - Critically Imperiled, often < 5 occurrences
S2 - Imperiled, often <20 occurences
S3 - Vulnerable, often 80 or fewer
S3S4 - Uncertain between S3 and S4
S4 - Aparently Secure, ncommon
S5 - Secure, common
SNA - Not Applicable —A conservation status rank is not applicable because the species is not a suitable target for conservation activities.
SH - Species or community occurred historically in the nation or state/province, and there is some possibility that it may be rediscovered.

Table C-5: 2013 Fall Passerine Migration Survey Results

						Transect				Transect 11											
						Survey Number	7	8		1	2	3	4	5	6	7	8				
						Habitat				Not Recorded											
						Temperature (°C)	17	8		20.2	23	6	9	11	12	18	5				
						Wind (Beaufort Scale)	3	0-1		2	3	0	3	1-2	1	3	0-1				
						Relative Cloud Cover (%)	0	0		20.3	50	0	100	50	0	0	5				
						Precipitation	None	Fog	Sub-total	-	-	0	-	None	None	None	None	Sub-total			
						Precipitation (24h)	None	Fog		-	-	0	-	-	None	None	None				
						Start Time	9:36	8:57		7:11	7:00	7:15	9:42	10:08	10:35	10:53	7:34				
						End Time	10:22	9:34		7:35	7:27	8:00	10:07	10:50	11:16	11:29	8:16				
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	2-Oct-13	11-Oct-13		23-Aug-13	28-Aug-13	5-Sep-13	13-Sep-13	17-Sep-13	24-Sep-13	2-Oct-13	9-Oct-13				
Passerines Observed																					
ALFL	Alder Flycatcher	*Empidonax alnorum*	-	-	S5				0									0			
AMCR	American Crow	*Corvus brachyrhynchos*	-	-	S5			3	7					2		1	7	10			
GOLI	American Goldfinch	*Cardeulis tristis*	-	-	S5		1		10						2			2			
AMPI	American Pipit	*Anthus rubescens*	-	-	S4			4	4								4	4			
AMRE	American Redstart	*Setophaga ruticilla*	-	-	S5				9									0			
AMRO	American Robin	*Turdus migratorius*	-	-	S5		1	12	16		2	1					1	4			
ATSP	American Tree Sparrow	*Spizella arborea*	-	-	S4				0									0			
BBWA	Bay-breasted Warbler	*Dendroica castanea*	-	-	S5				1									0			
BAWW	Black-and-white Warbler	*Mniotilta varia*	-	-	S5				4			3						3			
BLBW	Blackburnian Warbler	*Dendroica fusca*	-	-	S5				1									0			
BCCH	Black-capped Chickadee	*Poecile atricapillus*	-	-	S5		1	5	16						1	1		2			
BLPW	Blackpoll Warbler	*Dendroica striata*	-	-	S4				0									0			
BHVI	Blue-headed Vireo	*Vireo solitarius*	-	-	S5			1	1					2				2			
BLJA	Blue Jay	*Cyanocitta cristata*	-	-	S5			2	33		23	5	6	5	3	1	2	45			
BRCR	Brown Creeper	*Certhia americana*	-	-	S5		1		1									0			
BRTH	Brown Thrasher	*Toxostoma rufum*	-	-	S4				0	1				2	2			5			
BTNW	Black-throated Green Warbler	*Dendroica virens*	-	-	S5				3		1			2	1			4			
CAWA	Canada Warbler	*Wilsonia canadensis*	SC	THR Schedule 1	S4				0									0			
CASP	Cassin's Sparrow	*Aimophila cassinii*	-	-	SNA				3									0			
CEDW	Cedar Waxwing	*Bombycilla cedrorum*	-	-	S5				22		6							6			
CHSP	Chipping Sparrow	*Spizella passerina*	-	-	S5				3									0			
COGR	Common Grackle	*Quiscalus quiscula*	-	-	S5				5									0			
CORA	Common Raven	*Corvus corax*	-	-	S5			1	4			1	1					2			
COYE	Common Yellowthroat	*Geothlyphis trichas*	-	-	S5				10			4	2	8	3			17			
CSWA	Chestnut-sided Warbler	*Dendroica pensylvanica*	-	-	S5				1									0			
DEJU	Dark-eyed Junco	*Junco hyemalis*	-	-	S5			12	12									0			
EAKI	Eastern Kingbird	*Tyrannus tyrannus*	-	-	S4				1									0			
EAPH	Eastern Phoebe	*Sayornis phoebe*	-	-	S5				0									0			
EATO	Eastern Towhee	*Pipilio erythrophthalmus*	-	-	S4				0									0			
EWPE	Eastern Wood-pewee	*Contopus virens*	SC	-	S4				0		1							1			
FOSP	Fox Sparrow	*Passerella iliaca*	-	-	S4				0									0			
GCKI	Golden-crowned Kinglet	*Regulus satrapa*	-	-	S5		3	10	16								1	1			
GRJA	Gray Jay	*Perisoreus canadensis*	-	-	S5				0						3			3			
HETH	Hermit Thrush	*Catharus guttatus*	-	-	S5				2	1	1				1		2	5			
LISP	Lincoln's Sparrow	*Melospiza lincolnii*	-	-	S5				0					1				1			
MAWA	Magnolia Warbler	*Dendroica magnolia*	-	-	S5				7		3							3			
NAWA	Nashville Warbler	*Vermivora ruficapilla*	-	-	S5				4									0			
NOWA	Northern Waterthrush	*Seiurus noveboracensis*	-	-	S5				0									0			
OCWA	Orange-crowned Warbler	*Vermivora celata*	-	-	S4				0									0			
OSFL	Olive-sided Flycatcher	*Contopus cooperi*	SC	THR Schedule 1	S4				0									0			
OVEN	Ovenbird	*Seiurus aurocapillus*	-	-	S4				1									0			
PAWA	Palm Warbler	*Dendroica palmarum*	-	-	S5				0									0			
N/A	Passerine sp.	-	-	-	-				3									0			

Table C-5: 2013 Fall Passerine Migration Survey Results

						Transect				Transect 11											
						Survey Number	7	8		1	2	3	4	5	6	7	8				
						Habitat				Not Recorded											
						Temperature (°C)	17	8		20.2	23	6	9	11	12	18	5				
						Wind (Beaufort Scale)	3	0-1		2	3	0	3	1-2	1	3	0-1				
						Relative Cloud Cover (%)	0	0		20.3	50	0	100	50	0	0	5				
						Precipitation	None	Fog	Sub-total	-	-	0	-	None	None	None	None	Sub-total			
						Precipitation (24h)	None	Fog		-	-	0	-	-	None	None	None				
						Start Time	9:36	8:57		7:11	7:00	7:15	9:42	10:08	10:35	10:53	7:34				
						End Time	10:22	9:34		7:35	7:27	8:00	10:07	10:50	11:16	11:29	8:16				
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	2-Oct-13	11-Oct-13		23-Aug-13	28-Aug-13	5-Sep-13	13-Sep-13	17-Sep-13	24-Sep-13	2-Oct-13	9-Oct-13				
PIWA	Pine Warbler	*Dendroica pinus*	-	-	S5				0									0			
PUFI	Purple Finch	*Carpodacus purpureus*	-	-	S4				0									0			
RBNU	Red-breasted Nuthatch	*Sitta canadensis*	-	-	S5				3			2				1		3			
REVI	Red-eyed Vireo	*Vireo olivaceus*	-	-	S5				4	1	1							2			
RWBL	Red-winged Blackbird	*Agelaius phoeniceus*	-	-	S4				0									0			
RBGR	Rose-breasted Grosbeak	*Pheucticus ludovicianus*	-	-	S4				0									0			
RCKI	Ruby-crowned Kinglet	*Regulus calendula*	-	-	S4		4	9	20					2	5		6	13			
RUBL	Rusty Blackbird	*Euphagus carolinus*	-	SC Schedule 1	S4				0									0			
SNBU	Snow Bunting	*Plectrophenax nivalis*	-	-	SNA				0									0			
SOSP	Song Sparrow	*Melospiza melodia*	-	-	S5		7	6	29	1	2	1		9	8	12		33			
N/A	Sparrow sp.	-	-	-	-				0									0			
SWTH	Swainson's Thrush	*Catharus ustulatus*	-	-	S4				0								1	1			
SWSP	Swamp Sparrow	*Melospiza georgiana*	-	-	S5			2	2					4	2		3	9			
TEWA	Tennessee Warbler	*Vermivora peregrina*	-	-	S5				1									0			
TRES	Tree Swallow	*Tachycineta bicolor*	-	-	S4				0									0			
VEER	Veery	*Catharus fuscescens*	-	-	S4				0									0			
N/A	Warbler sp.	-	-	-	-				0	4								4			
WCSP	White-crowned Sparrow	*Zonotrichia leucophrys*	-	-	S4				0						3			3			
WTSP	White-throated Sparrow	*Zonotrichia albicollis*	-	-	S5		2	3	37		3	3	4	9	12	1	6	38			
WIWA	Wilson's Warbler	Wilsonia pusilla	-	-	S4				0									0			
WIWR	Winter Wren	*Troglodytes troglodytes*	-	-	S5				0									0			
YRWA	Yellow-rumped Warbler	*Dendroica coronata*	-	-	S5		4	3	38					5	8		2	15			
Total																					
Incidental Wildlife																					
N/A	*Accipiter* sp.	-	-	-	-				0									0			
AMBI	American Bittern	*Botaurus lentiginosus*	-	-	S4				0							2		2			
BDOW	Barred Owl	*Strix varia*	-	-	S5				0									0			
BAEA	Bald Eagle	*Haliaeetus leucocephalus*	SC	-	S2				0					1				1			
BEKI	Belted Kingfisher	*Ceryle alcyon*	-	-	S4				0									0			
BBWO	Black-backed Woodpecker	*Picoides arcticus*	-	-	S4				0									0			
BBCU	Black-billed Cuckoo	*Coccyzus erythropthalmus*	-	-	S5				0									0			
BWTE	Blue-winged Teal	*Anas discors*	-	-	S4				0			1						1			
BWHA	Broad-winged Hawk	*Buteo platypterus*	-	-	S5				0									0			
CANG	Canada Goose	*Branta canadensis*	-	-	S5			9	32			14	1					15			
COGO	Common Goldeneye	*Bucephala clangula*	-	-	S5				0									0			
COLO	Common Loon	*Gavia immer*	-	-	S5			1	4			2					2	4			
COME	Common Merganser	*Mergus merganser*	-	-	S5				1	2			3				1	6			
DCCO	Double-crested Cormorant	*Phalacrocorax auritus*	-	-	S5				1			2	3					5			
DOWO	Downy Woodpecker	*Picoides pubescens*	-	-	S5				1									0			
N/A	Duck sp.	-	-	-	-				0									0			
GBHE	Great Blue Heron	*Ardea herodias*	-	-	S4				0									0			
N/A	Grouse sp.	-	-	-	-				0									0			
HAWO	Hairy Woodpecker	*Picoides villosus*	-	-	S5		1	1	7		1	1		1	3		2	8			
HEGU	Herring Gull	*Larus argentatus*	-	-	S5				2			2	3	1				6			
HOME	Hooded Merganser	*Lophodytes cucullatus*	-	-	S5				0									0			
MALL	Mallard	*Anas platyrhynchos*	-	-	S5			2	2			3	2	21		2		28			

Table C-5: 2013 Fall Passerine Migration Survey Results

						Transect				Transect 11										
						Survey Number	7	8		1	2	3	4	5	6	7	8		
						Habitat				Not Recorded										
						Temperature (°C)	17	8		20.2	23	6	9	11	12	18	5		
						Wind (Beaufort Scale)	3	0-1		2	3	0	3	1-2	1	3	0-1		
						Relative Cloud Cover (%)	0	0		20.3	50	0	100	50	0	0	5		
						Precipitation	None	Fog	Sub-total	-	-	0	-	None	None	None	None	Sub-total	
						Precipitation (24h)	None	Fog		-	-	0	-	-	None	None	None		
						Start Time	9:36	8:57		7:11	7:00	7:15	9:42	10:08	10:35	10:53	7:34		
						End Time	10:22	9:34		7:35	7:27	8:00	10:07	10:50	11:16	11:29	8:16		
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	2-Oct-13	11-Oct-13		23-Aug-13	28-Aug-13	5-Sep-13	13-Sep-13	17-Sep-13	24-Sep-13	2-Oct-13	9-Oct-13		
MERL	Merlin	*Falco columbarius*	-	-	S5				0										0
MODO	Mourning Dove	*Zenaida macroura*	-	-	S5				1										0
NOFL	Northern Flicker	*Colaptes auratus*	-	-	S4				1	1	2	3	1	2	2	1			12
NOHA	Northern Harrier	*Circus cyaneus*	-	-	S4				0										0
OSPR	Osprey	*Pandion haliaetus*	-	-	S5				0										0
N/A	Owl sp.	-	-	-	-				0										0
PIWO	Pileated Woodpecker	*Dryocopus pileatus*	-	-	S5				1	1		1	2						4
RTHA	Red-tailed Hawk	*Buteo jamaicensis*	-	-	S4				0										0
RBGU	Ring-billed Gull	*Larus delawarensis*	-	-	S5				2				2						2
RNDU	Ring-necked Duck	*Aythya collaris*	-	-	S5				1										0
RTHO	Ruby-throated Hummingbird	*Archilochus colubris*	-	-	S5				0										0
RUGR	Ruffed Grouse	*Bonasa umbellus*	-	-	S4				3					1					1
SACR	Sandhill Crane	*Grus canadensis tabida*	-	-	S5				0			2							2
SSHA	Sharp-shinned Hawk	*Accipiter striatus*	-	-	S5				0			1							1
SPGR	Spruce Grouse	*Falcipennis canadensis*	-	-	S5				0										0
TUVU	Turkey Vulture	*Cathartes aura*	-	-	S5				4						2	3	1		6
WISN	Wilson's Snipe	*Gallinago delicata*	-	-	S5				0										0
WODU	Wood Duck	*Aix sponsa*	-	-	S5		1		11								3		3
N/A	Woodpecker sp.	-	-	-	-				0										0
YBSA	Yellow-bellied Sapsucker	*Sphyrapicus varius*	-	-	S5				0										0
Total																			

Legend
Wind (Beafort Scale):
0 (Less than 1 Km/h), 1 (1 -5 Km/h), 2 (6 - 11 Km/h), 3 (12 - 19 Km/h), 4 (20 - 28 Km/h), 5 (29 - 38 Km/h), 6 (39 - 49 Km/h), 7(50 - 61 Km/h), 8 (62 - 74 Km/h), 9 (75 - 88 Km/l

ESA Status: The Endangered Species Act 2007 (ESA) protects Species at Risk at a provincial level.
SC - Special Concern
THR - Threatened
END - Endangered

SARA Status: The Species at Risk Act (SARA) protects Species at Risk at a federal level.
SC - Special Concern
THR - Threatened
END - Endangered

S-rank: The natural heritage provincial ranking system (provincial S-rank) is used by the MNRF Natural Heritage Information Centre (NHIC) to set protection priorities for rare species and natural communities. Definitions are as follows:
S1 - Critically Imperiled, often < 5 occurrences
S2 - Imperiled, often <20 occurences
S3 - Vulnerable, often 80 or fewer
S3S4 - Uncertain between S3 and S4
S4 - Aparently Secure, ncommon
S5 - Secure, common
SNA - Not Applicable —A conservation status rank is not applicable because the species is not a suitable target for conservation activities.
SH - Species or community occurred historically in the nation or state/province, and there is some possibility that it may be rediscovered.

Table C-5: 2013 Fall Passerine Migration Survey Results

						Transect	Transect 12										
						Survey Number	1	2	3	4	5	6	7	8		1	2	3
						Habitat	Not Recorded											
						Temperature (°C)	20-25	23	12	18	6	10	10	12		20.2	23	16
						Wind (Beaufort Scale)	2	3	2-3	1-2	0-1	1	2-3	2-3		2	3-4	2
						Relative Cloud Cover (%)	20-30	50	5	100	50	0	100	Trave		20.3	100	2
						Precipitation	-	-	None	Light Rain	fog	None	Light Rain	None	Sub-total	-	Rain	0
						Precipitation (24h)	-	-	None	2-3 mm	fog	None	Rain	None		-	Rain	0
						Start Time	8:12	8:02	8:30	8:48	7:24	9:15	7:46	8:45		6:04	9:46	9:50
						End Time	8:37	8:35	9:30	9:20	8:01	9:51	8:26	9:15		6:24	10:14	10:45
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	23-Aug-13	28-Aug-13	5-Sep-13	12-Sep-13	18-Sep-13	25-Sep-13	4-Oct-13	9-Oct-13		23-Aug-13	26-Aug-13	5-Sep-13
Passerines Observed																		
ALFL	Alder Flycatcher	*Empidonax alnorum*	-	-	S5										0			
AMCR	American Crow	*Corvus brachyrhynchos*	-	-	S5			2		1	1		1	30	35			
GOLI	American Goldfinch	*Cardeulis tristis*	-	-	S5										0			
AMPI	American Pipit	*Anthus rubescens*	-	-	S4								3		3			
AMRE	American Redstart	*Setophaga ruticilla*	-	-	S5		2								2		2	
AMRO	American Robin	*Turdus migratorius*	-	-	S5		2	2		18	1	58		3	84	3	2	
ATSP	American Tree Sparrow	*Spizella arborea*	-	-	S4										0			
BBWA	Bay-breasted Warbler	*Dendroica castanea*	-	-	S5		1					3			4			
BAWW	Black-and-white Warbler	*Mniotilta varia*	-	-	S5				2						2			5
BLBW	Blackburnian Warbler	*Dendroica fusca*	-	-	S5										0			1
BCCH	Black-capped Chickadee	*Poecile atricapillus*	-	-	S5						6	8			14			4
BLPW	Blackpoll Warbler	*Dendroica striata*	-	-	S4										0			
BHVI	Blue-headed Vireo	*Vireo solitarius*	-	-	S5							2			2			
BLJA	Blue Jay	*Cyanocitta cristata*	-	-	S5			3	3	21	17	40		2	86			
BRCR	Brown Creeper	*Certhia americana*	-	-	S5									1	1			
BRTH	Brown Thrasher	*Toxostoma rufum*	-	-	S4										0			
BTNW	Black-throated Green Warbler	*Dendroica virens*	-	-	S5		1				1				2			1
CAWA	Canada Warbler	*Wilsonia canadensis*	SC	THR Schedule 1	S4										0			
CASP	Cassin's Sparrow	*Aimophila cassinii*	-	-	SNA										0			
CEDW	Cedar Waxwing	*Bombycilla cedrorum*	-	-	S5					12					12	12		2
CHSP	Chipping Sparrow	*Spizella passerina*	-	-	S5					2	1				3		4	
COGR	Common Grackle	*Quiscalus quiscula*	-	-	S5										0			
CORA	Common Raven	*Corvus corax*	-	-	S5			1		4		2	1		8			1
COYE	Common Yellowthroat	*Geothlyphis trichas*	-	-	S5				1	3	2				6			
CSWA	Chestnut-sided Warbler	*Dendroica pensylvanica*	-	-	S5										0			
DEJU	Dark-eyed Junco	*Junco hyemalis*	-	-	S5										0			
EAKI	Eastern Kingbird	*Tyrannus tyrannus*	-	-	S4										0			
EAPH	Eastern Phoebe	*Sayornis phoebe*	-	-	S5										0			
EATO	Eastern Towhee	*Pipilio erythrophthalmus*	-	-	S4										0			
EWPE	Eastern Wood-pewee	*Contopus virens*	SC	-	S4										0			
FOSP	Fox Sparrow	*Passerella iliaca*	-	-	S4										0			
GCKI	Golden-crowned Kinglet	*Regulus satrapa*	-	-	S5								3		3	3		1
GRJA	Gray Jay	*Perisoreus canadensis*	-	-	S5										0			
HETH	Hermit Thrush	*Catharus guttatus*	-	-	S5							2	1		3			
LISP	Lincoln's Sparrow	*Melospiza lincolnii*	-	-	S5										0			
MAWA	Magnolia Warbler	*Dendroica magnolia*	-	-	S5		6								6		3	
NAWA	Nashville Warbler	*Vermivora ruficapilla*	-	-	S5										0			
NOWA	Northern Waterthrush	*Seiurus noveboracensis*	-	-	S5										0			
OCWA	Orange-crowned Warbler	*Vermivora celata*	-	-	S4								1		1			
OSFL	Olive-sided Flycatcher	*Contopus cooperi*	SC	THR Schedule 1	S4										0			
OVEN	Ovenbird	*Seiurus aurocapillus*	-	-	S4						1				1			
PAWA	Palm Warbler	*Dendroica palmarum*	-	-	S5								3		3			
N/A	Passerine sp.	-	-	-	-					6					6			1

Table C-5: 2013 Fall Passerine Migration Survey Results

						Transect	Transect 12										
						Survey Number	1	2	3	4	5	6	7	8		1	2	3
						Habitat	Not Recorded											
						Temperature (°C)	20-25	23	12	18	6	10	10	12		20.2	23	16
						Wind (Beaufort Scale)	2	3	2-3	1-2	0-1	1	2-3	2-3		2	3-4	2
						Relative Cloud Cover (%)	20-30	50	5	100	50	0	100	Trave		20.3	100	2
						Precipitation	-	-	None	Light Rain	fog	None	Light Rain	None	Sub-total	-	Rain	0
						Precipitation (24h)	-	-	None	2-3 mm	fog	None	Rain	None		-	Rain	0
						Start Time	8:12	8:02	8:30	8:48	7:24	9:15	7:46	8:45		6:04	9:46	9:50
						End Time	8:37	8:35	9:30	9:20	8:01	9:51	8:26	9:15		6:24	10:14	10:45
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	23-Aug-13	28-Aug-13	5-Sep-13	12-Sep-13	18-Sep-13	25-Sep-13	4-Oct-13	9-Oct-13		23-Aug-13	26-Aug-13	5-Sep-13
PIWA	Pine Warbler	*Dendroica pinus*	-	-	S5		1								1		1	
PUFI	Purple Finch	*Carpodacus purpureus*	-	-	S4										0			
RBNU	Red-breasted Nuthatch	*Sitta canadensis*	-	-	S5				1	1	1				3			3
REVI	Red-eyed Vireo	*Vireo olivaceus*	-	-	S5		2					2			4			
RWBL	Red-winged Blackbird	*Agelaius phoeniceus*	-	-	S4										0			
RBGR	Rose-breasted Grosbeak	*Pheucticus ludovicianus*	-	-	S4										0			
RCKI	Ruby-crowned Kinglet	*Regulus calendula*	-	-	S4									4	4		2	
RUBL	Rusty Blackbird	*Euphagus carolinus*	-	SC Schedule 1	S4										0			
SNBU	Snow Bunting	*Plectrophenax nivalis*	-	-	SNA										0			
SOSP	Song Sparrow	*Melospiza melodia*	-	-	S5					2	3			1	6		3	
N/A	Sparrow sp.	-	-	-	-										0			
SWTH	Swainson's Thrush	*Catharus ustulatus*	-	-	S4										0			
SWSP	Swamp Sparrow	*Melospiza georgiana*	-	-	S5										0	1	1	
TEWA	Tennessee Warbler	*Vermivora peregrina*	-	-	S5										0			
TRES	Tree Swallow	*Tachycineta bicolor*	-	-	S4										0			
VEER	Veery	*Catharus fuscescens*	-	-	S4										0			
N/A	Warbler sp.	-	-	-	-										0			
WCSP	White-crowned Sparrow	*Zonotrichia leucophrys*	-	-	S4								8		8			
WTSP	White-throated Sparrow	*Zonotrichia albicollis*	-	-	S5				1	3	5		1	4	14	5	8	4
WIWA	Wilson's Warbler	Wilsonia pusilla	-	-	S4										0			
WIWR	Winter Wren	*Troglodytes troglodytes*	-	-	S5										0			
YRWA	Yellow-rumped Warbler	*Dendroica coronata*	-	-	S5		2			2		18			22	2	6	
Total																		
Incidental Wildlife																		
N/A	*Accipiter* sp.	-	-	-	-										0			
AMBI	American Bittern	*Botaurus lentiginosus*	-	-	S4										0			
BDOW	Barred Owl	*Strix varia*	-	-	S5										0			
BAEA	Bald Eagle	*Haliaeetus leucocephalus*	SC	-	S2										0			
BEKI	Belted Kingfisher	*Ceryle alcyon*	-	-	S4				1						1			
BBWO	Black-backed Woodpecker	*Picoides arcticus*	-	-	S4										0			
BBCU	Black-billed Cuckoo	*Coccyzus erythropthalmus*	-	-	S5										0			
BWTE	Blue-winged Teal	*Anas discors*	-	-	S4										0			
BWHA	Broad-winged Hawk	*Buteo platypterus*	-	-	S5		1								1			
CANG	Canada Goose	*Branta canadensis*	-	-	S5							8			8			2
COGO	Common Goldeneye	*Bucephala clangula*	-	-	S5										0			
COLO	Common Loon	*Gavia immer*	-	-	S5						1				1			
COME	Common Merganser	*Mergus merganser*	-	-	S5										0	2	2	
DCCO	Double-crested Cormorant	*Phalacrocorax auritus*	-	-	S5										0			
DOWO	Downy Woodpecker	*Picoides pubescens*	-	-	S5										0	1	1	
N/A	Duck sp.	-	-	-	-										0			
GBHE	Great Blue Heron	*Ardea herodias*	-	-	S4		1				1				2			
N/A	Grouse sp.	-	-	-	-									2	2			
HAWO	Hairy Woodpecker	*Picoides villosus*	-	-	S5			1	1	3	3	3		1	12			
HEGU	Herring Gull	*Larus argentatus*	-	-	S5										0			
HOME	Hooded Merganser	*Lophodytes cucullatus*	-	-	S5										0			
MALL	Mallard	*Anas platyrhynchos*	-	-	S5										0			

Table C-5: 2013 Fall Passerine Migration Survey Results

						Transect	Transect 12										
						Survey Number	1	2	3	4	5	6	7	8		1	2	3
						Habitat	Not Recorded											
						Temperature (^{o}C)	20-25	23	12	18	6	10	10	12		20.2	23	16
						Wind (Beaufort Scale)	2	3	2-3	1-2	0-1	1	2-3	2-3		2	3-4	2
						Relative Cloud Cover (%)	20-30	50	5	100	50	0	100	Trave		20.3	100	2
						Precipitation	-	-	None	Light Rain	fog	None	Light Rain	None	Sub-total	-	Rain	0
						Precipitation (24h)	-	-	None	2-3 mm	fog	None	Rain	None		-	Rain	0
						Start Time	8:12	8:02	8:30	8:48	7:24	9:15	7:46	8:45		6:04	9:46	9:50
						End Time	8:37	8:35	9:30	9:20	8:01	9:51	8:26	9:15		6:24	10:14	10:45
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	23-Aug-13	28-Aug-13	5-Sep-13	12-Sep-13	18-Sep-13	25-Sep-13	4-Oct-13	9-Oct-13		23-Aug-13	26-Aug-13	5-Sep-13
MERL	Merlin	*Falco columbarius*	-	-	S5			1							1		1	
MODO	Mourning Dove	*Zenaida macroura*	-	-	S5										0			
NOFL	Northern Flicker	*Colaptes auratus*	-	-	S4		1		2	1	4	3			11	1	1	
NOHA	Northern Harrier	*Circus cyaneus*	-	-	S4							1			1			1
OSPR	Osprey	*Pandion haliaetus*	-	-	S5										0			
N/A	Owl sp.	-	-	-	-										0			
PIWO	Pileated Woodpecker	*Dryocopus pileatus*	-	-	S5						1	1			2			
RTHA	Red-tailed Hawk	*Buteo jamaicensis*	-	-	S4										0			
RBGU	Ring-billed Gull	*Larus delawarensis*	-	-	S5					3					3			
RNDU	Ring-necked Duck	*Aythya collaris*	-	-	S5										0			
RTHO	Ruby-throated Hummingbird	*Archilochus colubris*	-	-	S5										0			
RUGR	Ruffed Grouse	*Bonasa umbellus*	-	-	S4		1	1							2	1		
SACR	Sandhill Crane	*Grus canadensis tabida*	-	-	S5					1	2				3			
SSHA	Sharp-shinned Hawk	*Accipiter striatus*	-	-	S5										0			
SPGR	Spruce Grouse	*Falcipennis canadensis*	-	-	S5										0			
TUVU	Turkey Vulture	*Cathartes aura*	-	-	S5							1			1		3	
WISN	Wilson's Snipe	*Gallinago delicata*	-	-	S5										0			
WODU	Wood Duck	*Aix sponsa*	-	-	S5										0			5
N/A	Woodpecker sp.	-	-	-	-										0			
YBSA	Yellow-bellied Sapsucker	*Sphyrapicus varius*	-	-	S5										0			
Total																		

Legend
Wind (Beafort Scale):
0 (Less than 1 Km/h), 1 (1 -5 Km/h), 2 (6 - 11 Km/h), 3 (12 - 19 Km/h), 4 (20 - 28 Km/h), 5 (29 - 38 Km/h), 6 (39 - 49 Km/h), 7(50 - 61 Km/h), 8 (62 - 74 Km/h), 9 (75 - 88 Km/l

ESA Status: The Endangered Species Act 2007 (ESA) protects Species at Risk at a provincial level.
SC - Special Concern
THR - Threatened
END - Endangered

SARA Status: The Species at Risk Act (SARA) protects Species at Risk at a federal level.
SC - Special Concern
THR - Threatened
END - Endangered

S-rank: The natural heritage provincial ranking system (provincial S-rank) is used by the MNRF Natural Heritage Information Centre (NHIC) to set protection priorities for rare species and natural communities. Definitions are as follows:
S1 - Critically Imperiled, often < 5 occurrences
S2 - Imperiled, often <20 occurences
S3 - Vulnerable, often 80 or fewer
S3S4 - Uncertain between S3 and S4
S4 - Aparently Secure, ncommon
S5 - Secure, common
SNA - Not Applicable —A conservation status rank is not applicable because the species is not a suitable target for conservation activities.
SH - Species or community occurred historically in the nation or state/province, and there is some possibility that it may be rediscovered.

Table C-5: 2013 Fall Passerine Migration Survey Results

						Transect	Transect 13						Transect 15					
						Survey Number	4	5	6	7	8		1	2	3	4	5	6
						Habitat	Not Recorded						Not Recorded					
						Temperature (°C)	18	12	1	11	10		22-26	20	15	12	17	12
						Wind (Beaufort Scale)	0-1	2	0-1	2-3	2-3		3	2-3	3-4	0	1-2	0
						Relative Cloud Cover (%)	100	50	0	100	0-5		10-30	50	50	0	90	0
						Precipitation	Rain	None	Fog	Light Rain	None	Sub-total	-	-	0	-	Spitting	None
						Precipitation (24h)	2/3 mm	Fog	None	Rain	None		-	Rain	0	0	Light Rain	None
						Start Time	7:37	8:38	8:03	8:54	9:40		7:11	7:20	9:25	9:28	8:53	9:25
						End Time	8:07	9:02	8:43	9:42	10:07		7:34	7:44	10:20	10:00	9:18	10:05
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	12-Sep-13	18-Sep-13	25-Sep-13	4-Oct-13	9-Oct-13		24-Aug-13	27-Aug-13	6-Sep-13	14-Sep-13	19-Sep-13	26-Sep-13
Passerines Observed																		
ALFL	Alder Flycatcher	*Empidonax alnorum*	-	-	S5							0						
AMCR	American Crow	*Corvus brachyrhynchos*	-	-	S5		4	1	2	1	6	14		2	1	2	1	1
GOLI	American Goldfinch	*Cardeulis tristis*	-	-	S5				9			9						2
AMPI	American Pipit	*Anthus rubescens*	-	-	S4					2		2						5
AMRE	American Redstart	*Setophaga ruticilla*	-	-	S5							2						
AMRO	American Robin	*Turdus migratorius*	-	-	S5			3	13	18		39		5		1		4
ATSP	American Tree Sparrow	*Spizella arborea*	-	-	S4							0						
BBWA	Bay-breasted Warbler	*Dendroica castanea*	-	-	S5							0						
BAWW	Black-and-white Warbler	*Mniotilta varia*	-	-	S5		3					8			1			
BLBW	Blackburnian Warbler	*Dendroica fusca*	-	-	S5							1						
BCCH	Black-capped Chickadee	*Poecile atricapillus*	-	-	S5		2		6	6	1	19	4		2		6	1
BLPW	Blackpoll Warbler	*Dendroica striata*	-	-	S4							0						
BHVI	Blue-headed Vireo	*Vireo solitarius*	-	-	S5				3			3						4
BLJA	Blue Jay	*Cyanocitta cristata*	-	-	S5		3	11	8			22	1	16	1	17	11	15
BRCR	Brown Creeper	*Certhia americana*	-	-	S5			2		1	2	5		1				
BRTH	Brown Thrasher	*Toxostoma rufum*	-	-	S4							0						
BTNW	Black-throated Green Warbler	*Dendroica virens*	-	-	S5		3	3	2			9			1			
CAWA	Canada Warbler	*Wilsonia canadensis*	SC	THR Schedule 1	S4							0						
CASP	Cassin's Sparrow	*Aimophila cassinii*	-	-	SNA							0						
CEDW	Cedar Waxwing	*Bombycilla cedrorum*	-	-	S5		2					16		7		3		
CHSP	Chipping Sparrow	*Spizella passerina*	-	-	S5		1	3	2			10	1	8	3		1	
COGR	Common Grackle	*Quiscalus quiscula*	-	-	S5							0						
CORA	Common Raven	*Corvus corax*	-	-	S5			2	2	1		6	1				2	1
COYE	Common Yellowthroat	*Geothlyphis trichas*	-	-	S5			3				3				3	2	1
CSWA	Chestnut-sided Warbler	*Dendroica pensylvanica*	-	-	S5							0						
DEJU	Dark-eyed Junco	*Junco hyemalis*	-	-	S5					6	7	13						4
EAKI	Eastern Kingbird	*Tyrannus tyrannus*	-	-	S4							0						
EAPH	Eastern Phoebe	*Sayornis phoebe*	-	-	S5							0						
EATO	Eastern Towhee	*Pipilio erythrophthalmus*	-	-	S4							0						
EWPE	Eastern Wood-pewee	*Contopus virens*	SC	-	S4							0						
FOSP	Fox Sparrow	*Passerella iliaca*	-	-	S4							0						
GCKI	Golden-crowned Kinglet	*Regulus satrapa*	-	-	S5				12	27	4	47					2	7
GRJA	Gray Jay	*Perisoreus canadensis*	-	-	S5			2				2				3		2
HETH	Hermit Thrush	*Catharus guttatus*	-	-	S5				3	5	2	10		1		3		
LISP	Lincoln's Sparrow	*Melospiza lincolnii*	-	-	S5							0						
MAWA	Magnolia Warbler	*Dendroica magnolia*	-	-	S5							3			1			
NAWA	Nashville Warbler	*Vermivora ruficapilla*	-	-	S5							0				2		
NOWA	Northern Waterthrush	*Seiurus noveboracensis*	-	-	S5							0						
OCWA	Orange-crowned Warbler	*Vermivora celata*	-	-	S4							0						
OSFL	Olive-sided Flycatcher	*Contopus cooperi*	SC	THR Schedule 1	S4							0						
OVEN	Ovenbird	*Seiurus aurocapillus*	-	-	S4				2			2						
PAWA	Palm Warbler	*Dendroica palmarum*	-	-	S5					3		3						
N/A	Passerine sp.	-	-	-	-		1					2						

Table C-5: 2013 Fall Passerine Migration Survey Results

						Transect	Transect 13						Transect 15					
						Survey Number	4	5	6	7	8		1	2	3	4	5	6
						Habitat	Not Recorded						Not Recorded					
						Temperature (°C)	18	12	1	11	10		22-26	20	15	12	17	12
						Wind (Beaufort Scale)	0-1	2	0-1	2-3	2-3		3	2-3	3-4	0	1-2	0
						Relative Cloud Cover (%)	100	50	0	100	0-5		10-30	50	50	0	90	0
						Precipitation	Rain	None	Fog	Light Rain	None	Sub-total	-	-	0	-	Spitting	None
						Precipitation (24h)	2/3 mm	Fog	None	Rain	None		-	Rain	0	0	Light Rain	None
						Start Time	7:37	8:38	8:03	8:54	9:40		7:11	7:20	9:25	9:28	8:53	9:25
						End Time	8:07	9:02	8:43	9:42	10:07		7:34	7:44	10:20	10:00	9:18	10:05
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	12-Sep-13	18-Sep-13	25-Sep-13	4-Oct-13	9-Oct-13		24-Aug-13	27-Aug-13	6-Sep-13	14-Sep-13	19-Sep-13	26-Sep-13
PIWA	Pine Warbler	*Dendroica pinus*	-	-	S5							1						
PUFI	Purple Finch	*Carpodacus purpureus*	-	-	S4							0						
RBNU	Red-breasted Nuthatch	*Sitta canadensis*	-	-	S5		1	1	3		1	9				1		2
REVI	Red-eyed Vireo	*Vireo olivaceus*	-	-	S5							0						
RWBL	Red-winged Blackbird	*Agelaius phoeniceus*	-	-	S4							0						
RBGR	Rose-breasted Grosbeak	*Pheucticus ludovicianus*	-	-	S4							0						
RCKI	Ruby-crowned Kinglet	*Regulus calendula*	-	-	S4					25	4	31		2				8
RUBL	Rusty Blackbird	*Euphagus carolinus*	-	SC Schedule 1	S4							0						3
SNBU	Snow Bunting	*Plectrophenax nivalis*	-	-	SNA							0						
SOSP	Song Sparrow	*Melospiza melodia*	-	-	S5					1		4			1			
N/A	Sparrow sp.	-	-	-	-							0						
SWTH	Swainson's Thrush	*Catharus ustulatus*	-	-	S4							0						
SWSP	Swamp Sparrow	*Melospiza georgiana*	-	-	S5							2						1
TEWA	Tennessee Warbler	*Vermivora peregrina*	-	-	S5							0						
TRES	Tree Swallow	*Tachycineta bicolor*	-	-	S4							0						
VEER	Veery	*Catharus fuscescens*	-	-	S4			1				1						
N/A	Warbler sp.	-	-	-	-							0						
WCSP	White-crowned Sparrow	*Zonotrichia leucophrys*	-	-	S4							0						4
WTSP	White-throated Sparrow	*Zonotrichia albicollis*	-	-	S5		2	9		8		36	2		1	9	1	11
WIWA	Wilson's Warbler	Wilsonia pusilla	-	-	S4							0						
WIWR	Winter Wren	*Troglodytes troglodytes*	-	-	S5							0						
YRWA	Yellow-rumped Warbler	*Dendroica coronata*	-	-	S5		3	1	16	4		32		3		2		2
Total																		
Incidental Wildlife																		
N/A	*Accipiter* sp.	-	-	-	-							0						
AMBI	American Bittern	*Botaurus lentiginosus*	-	-	S4							0						
BDOW	Barred Owl	*Strix varia*	-	-	S5							0						
BAEA	Bald Eagle	*Haliaeetus leucocephalus*	SC	-	S2		1					1						
BEKI	Belted Kingfisher	*Ceryle alcyon*	-	-	S4							0			1	1	2	
BBWO	Black-backed Woodpecker	*Picoides arcticus*	-	-	S4							0						
BBCU	Black-billed Cuckoo	*Coccyzus erythropthalmus*	-	-	S5							0						
BWTE	Blue-winged Teal	*Anas discors*	-	-	S4							0						
BWHA	Broad-winged Hawk	*Buteo platypterus*	-	-	S5							0						
CANG	Canada Goose	*Branta canadensis*	-	-	S5					50		52					2	
COGO	Common Goldeneye	*Bucephala clangula*	-	-	S5							0						
COLO	Common Loon	*Gavia immer*	-	-	S5		2		1			3						
COME	Common Merganser	*Mergus merganser*	-	-	S5							4		6				
DCCO	Double-crested Cormorant	*Phalacrocorax auritus*	-	-	S5							0						
DOWO	Downy Woodpecker	*Picoides pubescens*	-	-	S5							2						
N/A	Duck sp.	-	-	-	-							0			13			
GBHE	Great Blue Heron	*Ardea herodias*	-	-	S4							0				1		
N/A	Grouse sp.	-	-	-	-							0						
HAWO	Hairy Woodpecker	*Picoides villosus*	-	-	S5				2	1	1	4			1	1		2
HEGU	Herring Gull	*Larus argentatus*	-	-	S5		1					1						
HOME	Hooded Merganser	*Lophodytes cucullatus*	-	-	S5						1	1						
MALL	Mallard	*Anas platyrhynchos*	-	-	S5							0	1		12			

Table C-5: 2013 Fall Passerine Migration Survey Results

						Transect	Transect 13						Transect 15					
						Survey Number	4	5	6	7	8		1	2	3	4	5	6
						Habitat	Not Recorded						Not Recorded					
						Temperature (°C)	18	12	1	11	10		22-26	20	15	12	17	12
						Wind (Beaufort Scale)	0-1	2	0-1	2-3	2-3		3	2-3	3-4	0	1-2	0
						Relative Cloud Cover (%)	100	50	0	100	0-5		10-30	50	50	0	90	0
						Precipitation	Rain	None	Fog	Light Rain	None	Sub-total	-	-	0	-	Spitting	None
						Precipitation (24h)	2/3 mm	Fog	None	Rain	None		-	Rain	0	0	Light Rain	None
						Start Time	7:37	8:38	8:03	8:54	9:40		7:11	7:20	9:25	9:28	8:53	9:25
						End Time	8:07	9:02	8:43	9:42	10:07		7:34	7:44	10:20	10:00	9:18	10:05
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	12-Sep-13	18-Sep-13	25-Sep-13	4-Oct-13	9-Oct-13		24-Aug-13	27-Aug-13	6-Sep-13	14-Sep-13	19-Sep-13	26-Sep-13
MERL	Merlin	*Falco columbarius*	-	-	S5							1						
MODO	Mourning Dove	*Zenaida macroura*	-	-	S5							0						
NOFL	Northern Flicker	*Colaptes auratus*	-	-	S4		1	6				9		1	5	4	2	1
NOHA	Northern Harrier	*Circus cyaneus*	-	-	S4							1						
OSPR	Osprey	*Pandion haliaetus*	-	-	S5							0						
N/A	Owl sp.	-	-	-	-							0						
PIWO	Pileated Woodpecker	*Dryocopus pileatus*	-	-	S5				1			1		1		1		1
RTHA	Red-tailed Hawk	*Buteo jamaicensis*	-	-	S4							0				1		
RBGU	Ring-billed Gull	*Larus delawarensis*	-	-	S5							0						
RNDU	Ring-necked Duck	*Aythya collaris*	-	-	S5							0						
RTHO	Ruby-throated Hummingbird	*Archilochus colubris*	-	-	S5							0						
RUGR	Ruffed Grouse	*Bonasa umbellus*	-	-	S4				6			7		1				
SACR	Sandhill Crane	*Grus canadensis tabida*	-	-	S5				4			4						
SSHA	Sharp-shinned Hawk	*Accipiter striatus*	-	-	S5							0						
SPGR	Spruce Grouse	*Falcipennis canadensis*	-	-	S5							0	2					
TUVU	Turkey Vulture	*Cathartes aura*	-	-	S5							3						
WISN	Wilson's Snipe	*Gallinago delicata*	-	-	S5							0						
WODU	Wood Duck	*Aix sponsa*	-	-	S5							5			4	1	1	2
N/A	Woodpecker sp.	-	-	-	-							0						
YBSA	Yellow-bellied Sapsucker	*Sphyrapicus varius*	-	-	S5							0						
Total																		

Legend
Wind (Beafort Scale):
0 (Less than 1 Km/h), 1 (1 -5 Km/h), 2 (6 - 11 Km/h), 3 (12 - 19 Km/h), 4 (20 - 28 Km/h), 5 (29 - 38 Km/h), 6 (39 - 49 Km/h), 7(50 - 61 Km/h), 8 (62 - 74 Km/h), 9 (75 - 88 Km/l

ESA Status: The Endangered Species Act 2007 (ESA) protects Species at Risk at a provincial level.
SC - Special Concern
THR - Threatened
END - Endangered

SARA Status: The Species at Risk Act (SARA) protects Species at Risk at a federal level.
SC - Special Concern
THR - Threatened
END - Endangered

S-rank: The natural heritage provincial ranking system (provincial S-rank) is used by the MNRF Natural Heritage Information Centre (NHIC) to set protection priorities for rare species and natural communities. Definitions are as follows:
S1 - Critically Imperiled, often < 5 occurrences
S2 - Imperiled, often <20 occurences
S3 - Vulnerable, often 80 or fewer
S3S4 - Uncertain between S3 and S4
S4 - Aparently Secure, ncommon
S5 - Secure, common
SNA - Not Applicable —A conservation status rank is not applicable because the species is not a suitable target for conservation activities.
SH - Species or community occurred historically in the nation or state/province, and there is some possibility that it may be rediscovered.

Table C-5: 2013 Fall Passerine Migration Survey Results

						Transect				Transect 16											
						Survey Number	7	8		1	2	3	4	5	6	7	8			
						Habitat				Not Recorded											
						Temperature (°C)	13	10		-	20	18	15	15	5	14	13			
						Wind (Beaufort Scale)	0	0-1		-	2-3	4	1	0-1	0	0	0-1			
						Relative Cloud Cover (%)	10	0		-	50	80-100	0	50	0	0	0			
						Precipitation	None	None	Sub-total	-	-	0	0	None	None	None	None	Sub-total		
						Precipitation (24h)	None	None		-	Rain	0	0	Light Rain	-	None	None			
						Start Time	9:19	9:27		9:14	9:36	10:35	10:20	7:53	8:10	10:23	10:27			
						End Time	9:58	9:57		9:47	10:09	11:35	10:55	8:29	8:59	11:09	11:15			
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	3-Oct-13	10-Oct-13		31-Aug-13	27-Aug-13	6-Sep-13	14-Sep-13	19-Sep-13	26-Sep-13	3-Oct-13	10-Oct-13			
Passerines Observed																					0
ALFL	Alder Flycatcher	*Empidonax alnorum*	-	-	S5				0												0
AMCR	American Crow	*Corvus brachyrhynchos*	-	-	S5		1		8	2	2			2			2				8
GOLI	American Goldfinch	*Cardeulis tristis*	-	-	S5		4		6		2			1	4						7
AMPI	American Pipit	*Anthus rubescens*	-	-	S4				5							2					2
AMRE	American Redstart	*Setophaga ruticilla*	-	-	S5				0												0
AMRO	American Robin	*Turdus migratorius*	-	-	S5		8	4	22	1			2		17	2					22
ATSP	American Tree Sparrow	*Spizella arborea*	-	-	S4				0												0
BBWA	Bay-breasted Warbler	*Dendroica castanea*	-	-	S5				0												0
BAWW	Black-and-white Warbler	*Mniotilta varia*	-	-	S5		1		2												0
BLBW	Blackburnian Warbler	*Dendroica fusca*	-	-	S5				0												0
BCCH	Black-capped Chickadee	*Poecile atricapillus*	-	-	S5		2	6	21	4		3	7	3	4	2	3				26
BLPW	Blackpoll Warbler	*Dendroica striata*	-	-	S4				0												0
BHVI	Blue-headed Vireo	*Vireo solitarius*	-	-	S5		2		6						3						3
BLJA	Blue Jay	*Cyanocitta cristata*	-	-	S5		1	2	64	2	5		5	7	16						35
BRCR	Brown Creeper	*Certhia americana*	-	-	S5				1		1										1
BRTH	Brown Thrasher	*Toxostoma rufum*	-	-	S4				0												0
BTNW	Black-throated Green Warbler	*Dendroica virens*	-	-	S5				1												0
CAWA	Canada Warbler	*Wilsonia canadensis*	SC	THR Schedule 1	S4				0												0
CASP	Cassin's Sparrow	*Aimophila cassinii*	-	-	SNA				0												0
CEDW	Cedar Waxwing	*Bombycilla cedrorum*	-	-	S5				10	5	11										16
CHSP	Chipping Sparrow	*Spizella passerina*	-	-	S5				13	8											8
COGR	Common Grackle	*Quiscalus quiscula*	-	-	S5		3		3												0
CORA	Common Raven	*Corvus corax*	-	-	S5		1		5				2		7	1	1				11
COYE	Common Yellowthroat	*Geothlyphis trichas*	-	-	S5		1		7				2	6	2	1					11
CSWA	Chestnut-sided Warbler	*Dendroica pensylvanica*	-	-	S5				0												0
DEJU	Dark-eyed Junco	*Junco hyemalis*	-	-	S5				4							2					2
EAKI	Eastern Kingbird	*Tyrannus tyrannus*	-	-	S4				0												0
EAPH	Eastern Phoebe	*Sayornis phoebe*	-	-	S5				0												0
EATO	Eastern Towhee	*Pipilio erythrophthalmus*	-	-	S4				0					1							1
EWPE	Eastern Wood-pewee	*Contopus virens*	SC	-	S4				0												0
FOSP	Fox Sparrow	*Passerella iliaca*	-	-	S4				0												0
GCKI	Golden-crowned Kinglet	*Regulus satrapa*	-	-	S5			3	12				2		8	1	8				19
GRJA	Gray Jay	*Perisoreus canadensis*	-	-	S5		1		6												0
HETH	Hermit Thrush	*Catharus guttatus*	-	-	S5		1	2	7						3	3	1				7
LISP	Lincoln's Sparrow	*Melospiza lincolnii*	-	-	S5				0												0
MAWA	Magnolia Warbler	*Dendroica magnolia*	-	-	S5				1	1											1
NAWA	Nashville Warbler	*Vermivora ruficapilla*	-	-	S5		1		3												0
NOWA	Northern Waterthrush	*Seiurus noveboracensis*	-	-	S5				0												0
OCWA	Orange-crowned Warbler	*Vermivora celata*	-	-	S4				0												0
OSFL	Olive-sided Flycatcher	*Contopus cooperi*	SC	THR Schedule 1	S4				0												0
OVEN	Ovenbird	*Seiurus aurocapillus*	-	-	S4				0												0
PAWA	Palm Warbler	*Dendroica palmarum*	-	-	S5				0												0
N/A	Passerine sp.	-	-	-	-				0			3	6								9

Table C-5: 2013 Fall Passerine Migration Survey Results

						Transect				Transect 16											
						Survey Number	7	8		1	2	3	4	5	6	7	8				
						Habitat				Not Recorded											
						Temperature (°C)	13	10		-	20	18	15	15	5	14	13				
						Wind (Beaufort Scale)	0	0-1		-	2-3	4	1	0-1	0	0	0-1				
						Relative Cloud Cover (%)	10	0		-	50	80-100	0	50	0	0	0				
						Precipitation	None	None	Sub-total	-	-	0	0	None	None	None	None	Sub-total			
						Precipitation (24h)	None	None		-	Rain	0	0	Light Rain	-	None	None				
						Start Time	9:19	9:27		9:14	9:36	10:35	10:20	7:53	8:10	10:23	10:27				
						End Time	9:58	9:57		9:47	10:09	11:35	10:55	8:29	8:59	11:09	11:15				
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	3-Oct-13	10-Oct-13		31-Aug-13	27-Aug-13	6-Sep-13	14-Sep-13	19-Sep-13	26-Sep-13	3-Oct-13	10-Oct-13				
PIWA	Pine Warbler	*Dendroica pinus*	-	-	S5				0	1								1			
PUFI	Purple Finch	*Carpodacus purpureus*	-	-	S4				0					1			1	2			
RBNU	Red-breasted Nuthatch	*Sitta canadensis*	-	-	S5		1		4					1	1	1	1	4			
REVI	Red-eyed Vireo	*Vireo olivaceus*	-	-	S5				0	4								4			
RWBL	Red-winged Blackbird	*Agelaius phoeniceus*	-	-	S4				0		4							4			
RBGR	Rose-breasted Grosbeak	*Pheucticus ludovicianus*	-	-	S4				0									0			
RCKI	Ruby-crowned Kinglet	*Regulus calendula*	-	-	S4		7	3	20						7	5	12	24			
RUBL	Rusty Blackbird	*Euphagus carolinus*	-	SC Schedule 1	S4				3						3			3			
SNBU	Snow Bunting	*Plectrophenax nivalis*	-	-	SNA			1	1									0			
SOSP	Song Sparrow	*Melospiza melodia*	-	-	S5		4		5		2	1		1	2	1	1	8			
N/A	Sparrow sp.	-	-	-	-				0									0			
SWTH	Swainson's Thrush	*Catharus ustulatus*	-	-	S4				0							1		1			
SWSP	Swamp Sparrow	*Melospiza georgiana*	-	-	S5				1							1		1			
TEWA	Tennessee Warbler	*Vermivora peregrina*	-	-	S5				0									0			
TRES	Tree Swallow	*Tachycineta bicolor*	-	-	S4				0	1								1			
VEER	Veery	*Catharus fuscescens*	-	-	S4				0									0			
N/A	Warbler sp.	-	-	-	-				0									0			
WCSP	White-crowned Sparrow	*Zonotrichia leucophrys*	-	-	S4			1	5							2		2			
WTSP	White-throated Sparrow	*Zonotrichia albicollis*	-	-	S5		2	2	28	3			4	4		1		12			
WIWA	Wilson's Warbler	Wilsonia pusilla	-	-	S4				0									0			
WIWR	Winter Wren	*Troglodytes troglodytes*	-	-	S5				0							1		1			
YRWA	Yellow-rumped Warbler	*Dendroica coronata*	-	-	S5				7	3			7				6	16			
Total																		0			
Incidental Wildlife																		0			
N/A	*Accipiter* sp.	-	-	-	-				0				1					1			
AMBI	American Bittern	*Botaurus lentiginosus*	-	-	S4				0				1	4				5			
BDOW	Barred Owl	*Strix varia*	-	-	S5				0									0			
BAEA	Bald Eagle	*Haliaeetus leucocephalus*	SC	-	S2				0								1	1			
BEKI	Belted Kingfisher	*Ceryle alcyon*	-	-	S4		1		5									0			
BBWO	Black-backed Woodpecker	*Picoides arcticus*	-	-	S4			1	1									0			
BBCU	Black-billed Cuckoo	*Coccyzus erythropthalmus*	-	-	S5				0						1			1			
BWTE	Blue-winged Teal	*Anas discors*	-	-	S4				0			2						2			
BWHA	Broad-winged Hawk	*Buteo platypterus*	-	-	S5				0									0			
CANG	Canada Goose	*Branta canadensis*	-	-	S5		1		3			14						14			
COGO	Common Goldeneye	*Bucephala clangula*	-	-	S5		2		2									0			
COLO	Common Loon	*Gavia immer*	-	-	S5				0									0			
COME	Common Merganser	*Mergus merganser*	-	-	S5				6	2								2			
DCCO	Double-crested Cormorant	*Phalacrocorax auritus*	-	-	S5				0									0			
DOWO	Downy Woodpecker	*Picoides pubescens*	-	-	S5				0	1			1					2			
N/A	Duck sp.	-	-	-	-				13			10			1			11			
GBHE	Great Blue Heron	*Ardea herodias*	-	-	S4				1		1		2		2			5			
N/A	Grouse sp.	-	-	-	-				0									0			
HAWO	Hairy Woodpecker	*Picoides villosus*	-	-	S5		2		6						1	2	1	4			
HEGU	Herring Gull	*Larus argentatus*	-	-	S5				0									0			
HOME	Hooded Merganser	*Lophodytes cucullatus*	-	-	S5		2		2						3			3			
MALL	Mallard	*Anas platyrhynchos*	-	-	S5				13		2	4	4	2				12			

Table C-5: 2013 Fall Passerine Migration Survey Results

						Transect				Transect 16									
						Survey Number	7	8		1	2	3	4	5	6	7	8	
						Habitat				Not Recorded								
						Temperature (°C)	13	10		-	20	18	15	15	5	14	13	
						Wind (Beaufort Scale)	0	0-1		-	2-3	4	1	0-1	0	0	0-1	
						Relative Cloud Cover (%)	10	0		-	50	80-100	0	50	0	0	0	
						Precipitation	None	None	Sub-total	-	-	0	0	None	None	None	None	Sub-total
						Precipitation (24h)	None	None		-	Rain	0	0	Light Rain	-	None	None	
						Start Time	9:19	9:27		9:14	9:36	10:35	10:20	7:53	8:10	10:23	10:27	
						End Time	9:58	9:57		9:47	10:09	11:35	10:55	8:29	8:59	11:09	11:15	
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	3-Oct-13	10-Oct-13		31-Aug-13	27-Aug-13	6-Sep-13	14-Sep-13	19-Sep-13	26-Sep-13	3-Oct-13	10-Oct-13	
MERL	Merlin	*Falco columbarius*	-	-	S5				0									0
MODO	Mourning Dove	*Zenaida macroura*	-	-	S5				0									0
NOFL	Northern Flicker	*Colaptes auratus*	-	-	S4				13	1				2	4			7
NOHA	Northern Harrier	*Circus cyaneus*	-	-	S4				0									0
OSPR	Osprey	*Pandion haliaetus*	-	-	S5				0									0
N/A	Owl sp.	-	-	-	-				0						1			1
PIWO	Pileated Woodpecker	*Dryocopus pileatus*	-	-	S5			1	4					1	1			2
RTHA	Red-tailed Hawk	*Buteo jamaicensis*	-	-	S4				1									0
RBGU	Ring-billed Gull	*Larus delawarensis*	-	-	S5				0									0
RNDU	Ring-necked Duck	*Aythya collaris*	-	-	S5				0									0
RTHO	Ruby-throated Hummingbird	*Archilochus colubris*	-	-	S5				0									0
RUGR	Ruffed Grouse	*Bonasa umbellus*	-	-	S4				1		1		1			1		3
SACR	Sandhill Crane	*Grus canadensis tabida*	-	-	S5		1		1		2					1		3
SSHA	Sharp-shinned Hawk	*Accipiter striatus*	-	-	S5				0									0
SPGR	Spruce Grouse	*Falcipennis canadensis*	-	-	S5				2									0
TUVU	Turkey Vulture	*Cathartes aura*	-	-	S5				0			1	2					3
WISN	Wilson's Snipe	*Gallinago delicata*	-	-	S5				0			1	1	4		1		7
WODU	Wood Duck	*Aix sponsa*	-	-	S5				8			3		1				4
N/A	Woodpecker sp.	-	-	-	-				0									0
YBSA	Yellow-bellied Sapsucker	*Sphyrapicus varius*	-	-	S5				0									0
Total																		0

Legend
Wind (Beafort Scale):
0 (Less than 1 Km/h), 1 (1 -5 Km/h), 2 (6 - 11 Km/h), 3 (12 - 19 Km/h), 4 (20 - 28 Km/h), 5 (29 - 38 Km/h), 6 (39 - 49 Km/h), 7(50 - 61 Km/h), 8 (62 - 74 Km/h), 9 (75 - 88 Km/l

ESA Status: The Endangered Species Act 2007 (ESA) protects Species at Risk at a provincial level.
SC - Special Concern
THR - Threatened
END - Endangered

SARA Status: The Species at Risk Act (SARA) protects Species at Risk at a federal level.
SC - Special Concern
THR - Threatened
END - Endangered

S-rank: The natural heritage provincial ranking system (provincial S-rank) is used by the MNRF Natural Heritage Information Centre (NHIC) to set protection priorities for rare species and natural communities. Definitions are as follows:
S1 - Critically Imperiled, often < 5 occurrences
S2 - Imperiled, often <20 occurences
S3 - Vulnerable, often 80 or fewer
S3S4 - Uncertain between S3 and S4
S4 - Aparently Secure, ncommon
S5 - Secure, common
SNA - Not Applicable —A conservation status rank is not applicable because the species is not a suitable target for conservation activities.
SH - Species or community occurred historically in the nation or state/province, and there is some possibility that it may be rediscovered.

Table C-5: 2013 Fall Passerine Migration Survey Results

						Transect	Transect 17						Transect 18						
						Survey Number	1	2	3	4	5		1	2	3	4	5	6	
						Habitat	Not Recorded						Not Recorded						
						Temperature (°C)	23-25	23	18	15	12		22-26	20	1	5	15	18	
						Wind (Beaufort Scale)	2	3	2-3	0	2-3		3	2-3	3	0	2	0	
						Relative Cloud Cover (%)	30	50	100	0	100		41942	50	75	0	100	0	
						Precipitation	-	-	None	None	Light Rain	Sub-total	-	-	0	-	Intermittent Spitting	None	
						Precipitation (24h)	-	-	Heavy Rain	None	Rain		-	Rain	0	None	Light Rain	None	
						Start Time	9:42	8:02	9:30	10:33	10:40		8:08	8:25	8:14	8:31	9:45	10:52	
						End Time	10:13	8:35	10:17	11:20	11:35		8:40	8:50	9:15	9:06	10:16	11:30	
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	23-Aug-13	28-Aug-13	11-Sep-13	25-Sep-13	4-Oct-13		24-Aug-13	27-Aug-13	6-Sep-13	14-Sep-13	19-Sep-13	26-Sep-13	
Passerines Observed												0							
ALFL	Alder Flycatcher	*Empidonax alnorum*	-	-	S5							0		1					
AMCR	American Crow	*Corvus brachyrhynchos*	-	-	S5		2		1	3	1	7			1	8	4	1	
GOLI	American Goldfinch	*Cardeulis tristis*	-	-	S5					8	1	9				7			
AMPI	American Pipit	*Anthus rubescens*	-	-	S4							0							
AMRE	American Redstart	*Setophaga ruticilla*	-	-	S5			3				3		4					
AMRO	American Robin	*Turdus migratorius*	-	-	S5			2				2	3			1			
ATSP	American Tree Sparrow	*Spizella arborea*	-	-	S4							0							
BBWA	Bay-breasted Warbler	*Dendroica castanea*	-	-	S5							0							
BAWW	Black-and-white Warbler	*Mniotilta varia*	-	-	S5				1			1		1					
BLBW	Blackburnian Warbler	*Dendroica fusca*	-	-	S5							0							
BCCH	Black-capped Chickadee	*Poecile atricapillus*	-	-	S5				4	6	1	11	5			4	1		
BLPW	Blackpoll Warbler	*Dendroica striata*	-	-	S4						1	1							
BHVI	Blue-headed Vireo	*Vireo solitarius*	-	-	S5							0	1	1					
BLJA	Blue Jay	*Cyanocitta cristata*	-	-	S5		4	2	8	11	3	28	7		3		7	2	
BRCR	Brown Creeper	*Certhia americana*	-	-	S5							0							
BRTH	Brown Thrasher	*Toxostoma rufum*	-	-	S4							0							
BTNW	Black-throated Green Warbler	*Dendroica virens*	-	-	S5		1	1	1			3	1						
CAWA	Canada Warbler	*Wilsonia canadensis*	SC	THR Schedule 1	S4							0							
CASP	Cassin's Sparrow	*Aimophila cassinii*	-	-	SNA							0							
CEDW	Cedar Waxwing	*Bombycilla cedrorum*	-	-	S5							0	2						
CHSP	Chipping Sparrow	*Spizella passerina*	-	-	S5		9				3	12						2	
COGR	Common Grackle	*Quiscalus quiscula*	-	-	S5		2					2							
CORA	Common Raven	*Corvus corax*	-	-	S5							0	2	1	1	4	2	2	
COYE	Common Yellowthroat	*Geothlyphis trichas*	-	-	S5					2		2				1			
CSWA	Chestnut-sided Warbler	*Dendroica pensylvanica*	-	-	S5			1				1							
DEJU	Dark-eyed Junco	*Junco hyemalis*	-	-	S5							0							
EAKI	Eastern Kingbird	*Tyrannus tyrannus*	-	-	S4							0							
EAPH	Eastern Phoebe	*Sayornis phoebe*	-	-	S5							0							
EATO	Eastern Towhee	*Pipilio erythrophthalmus*	-	-	S4		1					1							
EWPE	Eastern Wood-pewee	*Contopus virens*	SC	-	S4							0							
FOSP	Fox Sparrow	*Passerella iliaca*	-	-	S4						1	1							
GCKI	Golden-crowned Kinglet	*Regulus satrapa*	-	-	S5		2			5	2	9				1			
GRJA	Gray Jay	*Perisoreus canadensis*	-	-	S5							0							
HETH	Hermit Thrush	*Catharus guttatus*	-	-	S5							0							
LISP	Lincoln's Sparrow	*Melospiza lincolnii*	-	-	S5							0							
MAWA	Magnolia Warbler	*Dendroica magnolia*	-	-	S5		1	2				3	2	4					
NAWA	Nashville Warbler	*Vermivora ruficapilla*	-	-	S5			2				2							
NOWA	Northern Waterthrush	*Seiurus noveboracensis*	-	-	S5							0							
OCWA	Orange-crowned Warbler	*Vermivora celata*	-	-	S4					6		6							
OSFL	Olive-sided Flycatcher	*Contopus cooperi*	SC	THR Schedule 1	S4							0							
OVEN	Ovenbird	*Seiurus aurocapillus*	-	-	S4							0					1		
PAWA	Palm Warbler	*Dendroica palmarum*	-	-	S5					11		11						6	
N/A	Passerine sp.	-	-	-	-				2			2			3				

Table C-5: 2013 Fall Passerine Migration Survey Results

						Transect	Transect 17						Transect 18					
						Survey Number	1	2	3	4	5		1	2	3	4	5	6
						Habitat	Not Recorded						Not Recorded					
						Temperature (°C)	23-25	23	18	15	12		22-26	20	1	5	15	18
						Wind (Beaufort Scale)	2	3	2-3	0	2-3		3	2-3	3	0	2	0
						Relative Cloud Cover (%)	30	50	100	0	100		41942	50	75	0	100	0
						Precipitation	-	-	None	None	Light Rain	Sub-total	-	-	0	-	Intermittent Spitting	None
						Precipitation (24h)	-	-	Heavy Rain	None	Rain		-	Rain	0	None	Light Rain	None
						Start Time	9:42	8:02	9:30	10:33	10:40		8:08	8:25	8:14	8:31	9:45	10:52
						End Time	10:13	8:35	10:17	11:20	11:35		8:40	8:50	9:15	9:06	10:16	11:30
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	23-Aug-13	28-Aug-13	11-Sep-13	25-Sep-13	4-Oct-13		24-Aug-13	27-Aug-13	6-Sep-13	14-Sep-13	19-Sep-13	26-Sep-13
PIWA	Pine Warbler	*Dendroica pinus*	-	-	S5							0		1				
PUFI	Purple Finch	*Carpodacus purpureus*	-	-	S4					1		1						
RBNU	Red-breasted Nuthatch	*Sitta canadensis*	-	-	S5		1			2	1	4						
REVI	Red-eyed Vireo	*Vireo olivaceus*	-	-	S5			3				3						
RWBL	Red-winged Blackbird	*Agelaius phoeniceus*	-	-	S4							0						
RBGR	Rose-breasted Grosbeak	*Pheucticus ludovicianus*	-	-	S4							0						
RCKI	Ruby-crowned Kinglet	*Regulus calendula*	-	-	S4					4	6	10						6
RUBL	Rusty Blackbird	*Euphagus carolinus*	-	SC Schedule 1	S4							0						
SNBU	Snow Bunting	*Plectrophenax nivalis*	-	-	SNA							0						
SOSP	Song Sparrow	*Melospiza melodia*	-	-	S5			5			2	7	1	3	2			
N/A	Sparrow sp.	-	-	-	-							0					2	
SWTH	Swainson's Thrush	*Catharus ustulatus*	-	-	S4					2		2						
SWSP	Swamp Sparrow	*Melospiza georgiana*	-	-	S5			1				1	1	3				
TEWA	Tennessee Warbler	*Vermivora peregrina*	-	-	S5							0						
TRES	Tree Swallow	*Tachycineta bicolor*	-	-	S4			2				2						
VEER	Veery	*Catharus fuscescens*	-	-	S4							0						
N/A	Warbler sp.	-	-	-	-				1			1						
WCSP	White-crowned Sparrow	*Zonotrichia leucophrys*	-	-	S4							0						7
WTSP	White-throated Sparrow	*Zonotrichia albicollis*	-	-	S5		4			2	1	7	4	2	1		3	12
WIWA	Wilson's Warbler	Wilsonia pusilla	-	-	S4							0						
WIWR	Winter Wren	*Troglodytes troglodytes*	-	-	S5							0						
YRWA	Yellow-rumped Warbler	*Dendroica coronata*	-	-	S5					4	1	5		6				9
Total												0						
Incidental Wildlife												0						
N/A	*Accipiter* sp.	-	-	-	-							0						
AMBI	American Bittern	*Botaurus lentiginosus*	-	-	S4							0				5		
BDOW	Barred Owl	*Strix varia*	-	-	S5							0				1		
BAEA	Bald Eagle	*Haliaeetus leucocephalus*	SC	-	S2							0						
BEKI	Belted Kingfisher	*Ceryle alcyon*	-	-	S4							0						
BBWO	Black-backed Woodpecker	*Picoides arcticus*	-	-	S4							0		1				
BBCU	Black-billed Cuckoo	*Coccyzus erythropthalmus*	-	-	S5							0						
BWTE	Blue-winged Teal	*Anas discors*	-	-	S4							0				3		
BWHA	Broad-winged Hawk	*Buteo platypterus*	-	-	S5							0						
CANG	Canada Goose	*Branta canadensis*	-	-	S5			2			27	29	3			6		
COGO	Common Goldeneye	*Bucephala clangula*	-	-	S5							0						
COLO	Common Loon	*Gavia immer*	-	-	S5				2			2						
COME	Common Merganser	*Mergus merganser*	-	-	S5		2	9				11	4	5				
DCCO	Double-crested Cormorant	*Phalacrocorax auritus*	-	-	S5				24			24						
DOWO	Downy Woodpecker	*Picoides pubescens*	-	-	S5							0						
N/A	Duck sp.	-	-	-	-							0						
GBHE	Great Blue Heron	*Ardea herodias*	-	-	S4							0			1			3
N/A	Grouse sp.	-	-	-	-							0						
HAWO	Hairy Woodpecker	*Picoides villosus*	-	-	S5					2	2	4			1	2		2
HEGU	Herring Gull	*Larus argentatus*	-	-	S5							0						
HOME	Hooded Merganser	*Lophodytes cucullatus*	-	-	S5							0						
MALL	Mallard	*Anas platyrhynchos*	-	-	S5					17		17				3		

Table C-5: 2013 Fall Passerine Migration Survey Results

						Transect	Transect 17						Transect 18					
						Survey Number	1	2	3	4	5		1	2	3	4	5	6
						Habitat	Not Recorded						Not Recorded					
						Temperature (^{o}C)	23-25	23	18	15	12		22-26	20	1	5	15	18
						Wind (Beaufort Scale)	2	3	2-3	0	2-3		3	2-3	3	0	2	0
						Relative Cloud Cover (%)	30	50	100	0	100		41942	50	75	0	100	0
						Precipitation	-	-	None	None	Light Rain	Sub-total	-	-	0	-	Intermittent Spitting	None
						Precipitation (24h)	-	-	Heavy Rain	None	Rain		-	Rain	0	None	Light Rain	None
						Start Time	9:42	8:02	9:30	10:33	10:40		8:08	8:25	8:14	8:31	9:45	10:52
						End Time	10:13	8:35	10:17	11:20	11:35		8:40	8:50	9:15	9:06	10:16	11:30
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	23-Aug-13	28-Aug-13	11-Sep-13	25-Sep-13	4-Oct-13		24-Aug-13	27-Aug-13	6-Sep-13	14-Sep-13	19-Sep-13	26-Sep-13
MERL	Merlin	*Falco columbarius*	-	-	S5				1			1	1				1	
MODO	Mourning Dove	*Zenaida macroura*	-	-	S5				1			1						
NOFL	Northern Flicker	*Colaptes auratus*	-	-	S4				6			6	1		3	4	2	2
NOHA	Northern Harrier	*Circus cyaneus*	-	-	S4							0						1
OSPR	Osprey	*Pandion haliaetus*	-	-	S5			1				1						
N/A	Owl sp.	-	-	-	-							0						
PIWO	Pileated Woodpecker	*Dryocopus pileatus*	-	-	S5			1	1		1	3				1		
RTHA	Red-tailed Hawk	*Buteo jamaicensis*	-	-	S4							0						
RBGU	Ring-billed Gull	*Larus delawarensis*	-	-	S5							0						
RNDU	Ring-necked Duck	*Aythya collaris*	-	-	S5							0						
RTHO	Ruby-throated Hummingbird	*Archilochus colubris*	-	-	S5		1					1						
RUGR	Ruffed Grouse	*Bonasa umbellus*	-	-	S4						1	1					1	
SACR	Sandhill Crane	*Grus canadensis tabida*	-	-	S5			1	1			2				4		
SSHA	Sharp-shinned Hawk	*Accipiter striatus*	-	-	S5							0		1				
SPGR	Spruce Grouse	*Falcipennis canadensis*	-	-	S5							0						
TUVU	Turkey Vulture	*Cathartes aura*	-	-	S5					1		1		3				1
WISN	Wilson's Snipe	*Gallinago delicata*	-	-	S5							0						
WODU	Wood Duck	*Aix sponsa*	-	-	S5							0						
N/A	Woodpecker sp.	-	-	-	-							0						
YBSA	Yellow-bellied Sapsucker	*Sphyrapicus varius*	-	-	S5				1			1						
Total												0						

Legend
Wind (Beafort Scale):
0 (Less than 1 Km/h), 1 (1 -5 Km/h), 2 (6 - 11 Km/h), 3 (12 - 19 Km/h), 4 (20 - 28 Km/h), 5 (29 - 38 Km/h), 6 (39 - 49 Km/h), 7(50 - 61 Km/h), 8 (62 - 74 Km/h), 9 (75 - 88 Km/h

ESA Status: The Endangered Species Act 2007 (ESA) protects Species at Risk at a provincial level.
SC - Special Concern
THR - Threatened
END - Endangered

SARA Status: The Species at Risk Act (SARA) protects Species at Risk at a federal level.
SC - Special Concern
THR - Threatened
END - Endangered

S-rank: The natural heritage provincial ranking system (provincial S-rank) is used by the MNRF Natural Heritage Information Centre (NHIC) to set protection priorities for rare species and natural communities. Definitions are as follows:
S1 - Critically Imperiled, often < 5 occurrences
S2 - Imperiled, often <20 occurences
S3 - Vulnerable, often 80 or fewer
S3S4 - Uncertain between S3 and S4
S4 - Aparently Secure, ncommon
S5 - Secure, common
SNA - Not Applicable —A conservation status rank is not applicable because the species is not a suitable target for conservation activities.
SH - Species or community occurred historically in the nation or state/province, and there is some possibility that it may be rediscovered.

Table C-5: 2013 Fall Passerine Migration Survey Results

						Transect					**Grand Total**
						Survey Number	7	8	9	Sub-total	
						Habitat					
						Temperature (°C)	9	2	6		
						Wind (Beaufort Scale)	0	1	0-1		
						Relative Cloud Cover (%)	50	5	0		
						Precipitation	None	None	None		
						Precipitation (24h)	None	Heavy Rain	None		
						Start Time	8:05	8:14	8:17		
						End Time	8:49	9:00	8:55		
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	3-Oct-13	8-Oct-13	10-Oct-13		
Passerines Observed											
ALFL	Alder Flycatcher	*Empidonax alnorum*	-	-	S5					1	**4**
AMCR	American Crow	*Corvus brachyrhynchos*	-	-	S5		1	25	3	43	**149**
GOLI	American Goldfinch	*Cardeulis tristis*	-	-	S5		3			10	**58**
AMPI	American Pipit	*Anthus rubescens*	-	-	S4		3	1		4	**24**
AMRE	American Redstart	*Setophaga ruticilla*	-	-	S5					4	**22**
AMRO	American Robin	*Turdus migratorius*	-	-	S5		3	7	1	15	**254**
ATSP	American Tree Sparrow	*Spizella arborea*	-	-	S4					0	**7**
BBWA	Bay-breasted Warbler	*Dendroica castanea*	-	-	S5					0	**8**
BAWW	Black-and-white Warbler	*Mniotilta varia*	-	-	S5			1		2	**31**
BLBW	Blackburnian Warbler	*Dendroica fusca*	-	-	S5					0	**2**
BCCH	Black-capped Chickadee	*Poecile atricapillus*	-	-	S5			3	1	14	**183**
BLPW	Blackpoll Warbler	*Dendroica striata*	-	-	S4					0	**4**
BHVI	Blue-headed Vireo	*Vireo solitarius*	-	-	S5		1			3	**26**
BLJA	Blue Jay	*Cyanocitta cristata*	-	-	S5		8	9	2	38	**472**
BRCR	Brown Creeper	*Certhia americana*	-	-	S5		1		1	2	**19**
BRTH	Brown Thrasher	*Toxostoma rufum*	-	-	S4					0	**5**
BTNW	Black-throated Green Warbler	*Dendroica virens*	-	-	S5					1	**38**
CAWA	Canada Warbler	*Wilsonia canadensis*	SC	THR Schedule 1	S4					0	**1**
CASP	Cassin's Sparrow	*Aimophila cassinii*	-	-	SNA					0	**5**
CEDW	Cedar Waxwing	*Bombycilla cedrorum*	-	-	S5					2	**117**
CHSP	Chipping Sparrow	*Spizella passerina*	-	-	S5			2		4	**54**
COGR	Common Grackle	*Quiscalus quiscula*	-	-	S5		1			1	**14**
CORA	Common Raven	*Corvus corax*	-	-	S5			1		13	**49**
COYE	Common Yellowthroat	*Geothlyphis trichas*	-	-	S5		1	1		3	**79**
CSWA	Chestnut-sided Warbler	*Dendroica pensylvanica*	-	-	S5					0	**5**
DEJU	Dark-eyed Junco	*Junco hyemalis*	-	-	S5		1			1	**53**
EAKI	Eastern Kingbird	*Tyrannus tyrannus*	-	-	S4					0	**1**
EAPH	Eastern Phoebe	*Sayornis phoebe*	-	-	S5			1		1	**1**
EATO	Eastern Towhee	*Pipilio erythrophthalmus*	-	-	S4					0	**2**
EWPE	Eastern Wood-pewee	*Contopus virens*	SC	-	S4					0	**1**
FOSP	Fox Sparrow	*Passerella iliaca*	-	-	S4					0	**1**
GCKI	Golden-crowned Kinglet	*Regulus satrapa*	-	-	S5			7	4	12	**218**
GRJA	Gray Jay	*Perisoreus canadensis*	-	-	S5					0	**11**
HETH	Hermit Thrush	*Catharus guttatus*	-	-	S5		1	2	1	4	**39**
LISP	Lincoln's Sparrow	*Melospiza lincolnii*	-	-	S5					0	**1**
MAWA	Magnolia Warbler	*Dendroica magnolia*	-	-	S5					6	**30**
NAWA	Nashville Warbler	*Vermivora ruficapilla*	-	-	S5					0	**22**
NOWA	Northern Waterthrush	*Seiurus noveboracensis*	-	-	S5					0	**1**
OCWA	Orange-crowned Warbler	*Vermivora celata*	-	-	S4					0	**11**
OSFL	Olive-sided Flycatcher	*Contopus cooperi*	SC	THR Schedule 1	S4					0	**1**
OVEN	Ovenbird	*Seiurus aurocapillus*	-	-	S4					1	**8**
PAWA	Palm Warbler	*Dendroica palmarum*	-	-	S5			2		8	**33**
N/A	Passerine sp.	-	-	-	-		2			5	**47**

Table C-5: 2013 Fall Passerine Migration Survey Results

						Transect					**Grand Total**
						Survey Number	7	8	9	Sub-total	
						Habitat					
						Temperature (°C)	9	2	6		
						Wind (Beaufort Scale)	0	1	0-1		
						Relative Cloud Cover (%)	50	5	0		
						Precipitation	None	None	None		
						Precipitation (24h)	None	Heavy Rain	None		
						Start Time	8:05	8:14	8:17		
						End Time	8:49	9:00	8:55		
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	3-Oct-13	8-Oct-13	10-Oct-13		
PIWA	Pine Warbler	*Dendroica pinus*	-	-	S5					1	**6**
PUFI	Purple Finch	*Carpodacus purpureus*	-	-	S4					0	**11**
RBNU	Red-breasted Nuthatch	*Sitta canadensis*	-	-	S5		1	1	1	3	**53**
REVI	Red-eyed Vireo	*Vireo olivaceus*	-	-	S5					0	**25**
RWBL	Red-winged Blackbird	*Agelaius phoeniceus*	-	-	S4					0	**4**
RBGR	Rose-breasted Grosbeak	*Pheucticus ludovicianus*	-	-	S4					0	**1**
RCKI	Ruby-crowned Kinglet	*Regulus calendula*	-	-	S4		2	7	3	18	**270**
RUBL	Rusty Blackbird	*Euphagus carolinus*	-	SC Schedule 1	S4					0	**29**
SNBU	Snow Bunting	*Plectrophenax nivalis*	-	-	SNA					0	**1**
SOSP	Song Sparrow	*Melospiza melodia*	-	-	S5		2	1	3	12	**111**
N/A	Sparrow sp.	-	-	-	-					2	**2**
SWTH	Swainson's Thrush	*Catharus ustulatus*	-	-	S4			1		1	**5**
SWSP	Swamp Sparrow	*Melospiza georgiana*	-	-	S5				2	6	**23**
TEWA	Tennessee Warbler	*Vermivora peregrina*	-	-	S5					0	**5**
TRES	Tree Swallow	*Tachycineta bicolor*	-	-	S4					0	**3**
VEER	Veery	*Catharus fuscescens*	-	-	S4					0	**2**
N/A	Warbler sp.	-	-	-	-					0	**13**
WCSP	White-crowned Sparrow	*Zonotrichia leucophrys*	-	-	S4		4	4		15	**58**
WTSP	White-throated Sparrow	*Zonotrichia albicollis*	-	-	S5		2			24	**269**
WIWA	Wilson's Warbler	Wilsonia pusilla	-	-	S4						**1**
WIWR	Winter Wren	*Troglodytes troglodytes*	-	-	S5					0	**1**
YRWA	Yellow-rumped Warbler	*Dendroica coronata*	-	-	S5		3	3		21	**188**
Total											**3192**
Incidental Wildlife											
N/A	*Accipiter* sp.	-	-	-	-					0	**1**
AMBI	American Bittern	*Botaurus lentiginosus*	-	-	S4					5	**12**
BDOW	Barred Owl	*Strix varia*	-	-	S5		1			2	**2**
BAEA	Bald Eagle	*Haliaeetus leucocephalus*	SC	-	S2					0	**3**
BEKI	Belted Kingfisher	*Ceryle alcyon*	-	-	S4					0	**7**
BBWO	Black-backed Woodpecker	*Picoides arcticus*	-	-	S4					1	**4**
BBCU	Black-billed Cuckoo	*Coccyzus erythropthalmus*	-	-	S5					0	**2**
BWTE	Blue-winged Teal	*Anas discors*	-	-	S4					3	**6**
BWHA	Broad-winged Hawk	*Buteo platypterus*	-	-	S5					0	**3**
CANG	Canada Goose	*Branta canadensis*	-	-	S5				2	11	**170**
COGO	Common Goldeneye	*Bucephala clangula*	-	-	S5					0	**2**
COLO	Common Loon	*Gavia immer*	-	-	S5					0	**15**
COME	Common Merganser	*Mergus merganser*	-	-	S5					9	**46**
DCCO	Double-crested Cormorant	*Phalacrocorax auritus*	-	-	S5					0	**30**
DOWO	Downy Woodpecker	*Picoides pubescens*	-	-	S5					0	**8**
N/A	Duck sp.	-	-	-	-					0	**24**
GBHE	Great Blue Heron	*Ardea herodias*	-	-	S4		1		2	7	**15**
N/A	Grouse sp.	-	-	-	-					0	**2**
HAWO	Hairy Woodpecker	*Picoides villosus*	-	-	S5			1	1	7	**59**
HEGU	Herring Gull	*Larus argentatus*	-	-	S5					0	**9**
HOME	Hooded Merganser	*Lophodytes cucullatus*	-	-	S5					0	**6**
MALL	Mallard	*Anas platyrhynchos*	-	-	S5		1		3	7	**79**

Table C-5: 2013 Fall Passerine Migration Survey Results

						Transect					**Grand Total**
						Survey Number	7	8	9	Sub-total	
						Habitat					
						Temperature (°C)	9	2	6		
						Wind (Beaufort Scale)	0	1	0-1		
						Relative Cloud Cover (%)	50	5	0		
						Precipitation	None	None	None		
						Precipitation (24h)	None	Heavy Rain	None		
						Start Time	8:05	8:14	8:17		
						End Time	8:49	9:00	8:55		
Code	**Common Name**	**Scientific Name**	**ESA Status**	**SARA Status**	**S-rank**	**Survey Date**	3-Oct-13	8-Oct-13	10-Oct-13		
MERL	Merlin	*Falco columbarius*	-	-	S5			1		3	**7**
MODO	Mourning Dove	*Zenaida macroura*	-	-	S5					0	**2**
NOFL	Northern Flicker	*Colaptes auratus*	-	-	S4		2		2	16	**88**
NOHA	Northern Harrier	*Circus cyaneus*	-	-	S4					1	**3**
OSPR	Osprey	*Pandion haliaetus*	-	-	S5					0	**1**
N/A	Owl sp.	-	-	-	-					0	**1**
PIWO	Pileated Woodpecker	*Dryocopus pileatus*	-	-	S5		1			2	**25**
RTHA	Red-tailed Hawk	*Buteo jamaicensis*	-	-	S4					0	**1**
RBGU	Ring-billed Gull	*Larus delawarensis*	-	-	S5					0	**7**
RNDU	Ring-necked Duck	*Aythya collaris*	-	-	S5					0	**1**
RTHO	Ruby-throated Hummingbird	*Archilochus colubris*	-	-	S5					0	**1**
RUGR	Ruffed Grouse	*Bonasa umbellus*	-	-	S4		2	1		4	**24**
SACR	Sandhill Crane	*Grus canadensis tabida*	-	-	S5					4	**23**
SSHA	Sharp-shinned Hawk	*Accipiter striatus*	-	-	S5					1	**2**
SPGR	Spruce Grouse	*Falcipennis canadensis*	-	-	S5			1		1	**3**
TUVU	Turkey Vulture	*Cathartes aura*	-	-	S5					4	**24**
WISN	Wilson's Snipe	*Gallinago delicata*	-	-	S5					0	**7**
WODU	Wood Duck	*Aix sponsa*	-	-	S5					0	**31**
N/A	Woodpecker sp.	-	-	-	-					0	**1**
YBSA	Yellow-bellied Sapsucker	*Sphyrapicus varius*	-	-	S5					0	**3**
Total											**760**

Legend
Wind (Beafort Scale):
0 (Less than 1 Km/h), 1 (1 -5 Km/h), 2 (6 - 11 Km/h), 3 (12 - 19 Km/h), 4 (20 - 28 Km/h), 5 (29 - 38 Km/h), 6 (39 - 49 Km/h), 7(50 - 61 Km/h), 8 (62 - 74 Km/h), 9 (75 - 88 Km/h

ESA Status: The Endangered Species Act 2007 (ESA) protects Species at Risk at a provincial level.
SC - Special Concern
THR - Threatened
END - Endangered

SARA Status: The Species at Risk Act (SARA) protects Species at Risk at a federal level.
SC - Special Concern
THR - Threatened
END - Endangered

S-rank: The natural heritage provincial ranking system (provincial S-rank) is used by the MNRF Natural Heritage Information Centre (NHIC) to set protection priorities for rare species and natural communities. Definitions are as follows:
S1 - Critically Imperiled, often < 5 occurrences
S2 - Imperiled, often <20 occurences
S3 - Vulnerable, often 80 or fewer
S3S4 - Uncertain between S3 and S4
S4 - Aparently Secure, ncommon
S5 - Secure, common
SNA - Not Applicable —A conservation status rank is not applicable because the species is not a suitable target for conservation activities.
SH - Species or community occurred historically in the nation or state/province, and there is some possibility that it may be rediscovered.