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LOYALIST SOLAR LP

Natural Heritage Assessment Evaluation of Significance Report

Loyalist Solar Project

Table of Contents

1.0	Introduction	1
2.0	The Proponent	4
3.0	Project Location	5
4.0	Summary of Site Investigation	7
5.0	Evaluation of Significance Purpose	11
6.0	Evaluation of Significance Methodology	12
6.1	Access to Adjacent Lands	12
6.2	Wetlands	12
6.3	Woodlands	13
6.4	Wildlife Habitat	13
6.4.1	Seasonal Concentration Area	13
6.4.2	Rare Vegetation Communities	14
6.4.3	Specialised Wildlife Habitat	15
6.4.4	Habitat for Species of Conservation Concern	17
6.4.5	Special Concern and Rare Wildlife Species	18
6.4.6	Animal Movement Corridors	19
7.0	Names and Qualifications on Site Investigations	20
8.0	Evaluation of Significance Results	31
8.1	Wetlands	31
8.2	Woodlands	55
8.3	Wildlife Habitat	64
9.0	Conclusion	111
10.0	References	125

Figures

Figure 1: General Project Location.....	2
Figure 2: Project Location	6
Figure 3: Significant Wetlands	32
Figure 4: Significant Woodlands	56
Figure 5: Significant Wildlife Habitat	65

Tables

Table 1: Checklist for Requirements under <i>Ontario Regulation 359/09- NHA Evaluation of Significance</i>	3
Table 2: Summary of Natural Heritage Assessment Site Investigation Results.....	8
Table 3: Name and Qualifications of Site Investigators.....	20
Table 4: Site Evaluation Dates, Times, Duration and Weather Conditions	23
Table 5: Rapid Assessment to Determine Wetland Characteristics and Ecological Functions.....	33
Table 6: Evaluation of Woodlands Within the Project Location and 50 m Setback	57
Table 7: Significant Wildlife Habitat Located in the Project Location and 50 m Setback.....	80
Table 8: Natural Features Evaluation of Significance Summary	112

Appendices

A	Areas of Alternative Site Investigation
B	Field Surveys
C	Field Notes

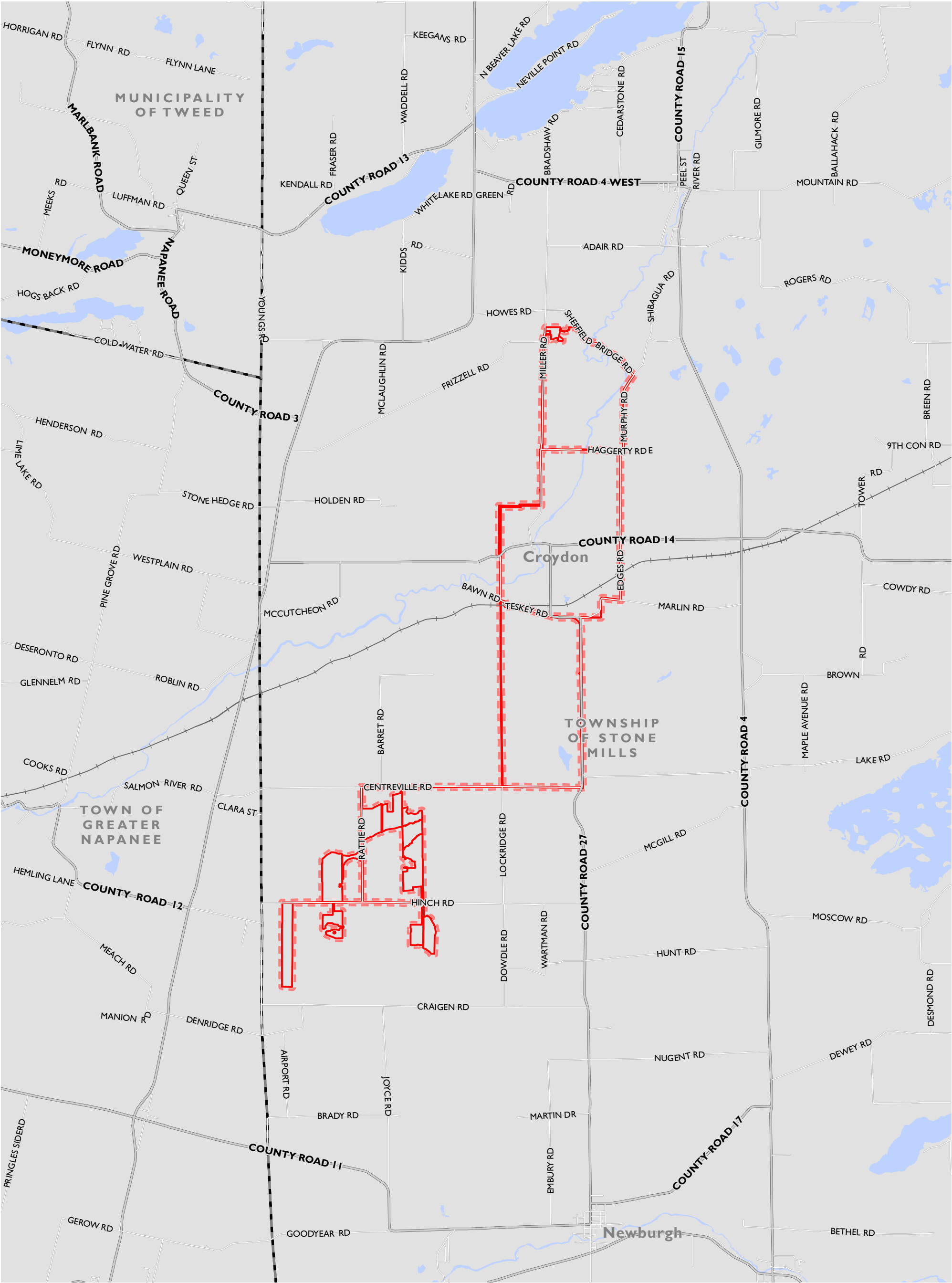
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Introduction

Loyalist Solar LP, a limited partnership between the Mohawks of the Bay of Quinte and BluEarth Renewables Inc. (together the “Proponent”), proposes to develop a non-rooftop solar facility with a maximum nameplate capacity of 54 megawatts alternating current (“MW_{AC}”), in the Township of Stone Mills, County of Lennox & Addington, Ontario (**Figure 1**). The renewable energy facility will be known as the Loyalist Solar Project (the “Project”).

The Proponent submitted a proposal to the Independent Electricity System Operator (“IESO”) under the Large Renewable Procurement (“LRP”) process and was subsequently awarded a LRP contract by the IESO to generate electricity. The Project will now be subject to a number of approvals including, among others *Ontario Regulation 359/09 – Renewable Energy Approval (“REA”)* under Part V.0.1 of the *Ontario Environmental Protection Act*.

This draft *Natural Heritage Assessment (“NHA”) Evaluation of Significance Report* was completed in partial fulfillment of the regulatory requirements for the REA process. Following review and comment by the Ministry of Natural Resources and Forestry (“MNRF”), this report will be finalized for submission to the Ministry of the Environment and Climate Change (“MOECC”) as part of the REA application. Additional details regarding the potential impacts and the mitigation measures required to protect significant natural features will be provided, as required, in the *NHA Environmental Impact Study (“EIS”) Report*. These reports are submitted to the MNRF for review and comment, as required under *Ontario Regulation 359/09*. For a description of the requirements of a Natural Heritage Assessment, please refer to the MNRF’s Natural Heritage Assessment Guide for Renewable Energy Projects (MNRF 2012). Discussion of Species at Risk, fish habitat, and other information needs, as outlined in the MNRF’s Approval and Permitting Requirements Document (“APRD”) for Renewable Energy (MNRF 2009), are discussed in separate reports, under direction from the MNRF and in compliance with the REA and other applicable legislation.



BluEarth Renewables Inc.
LOYALIST SOLAR LP

General Project Location
FIGURE 1

- Railway
- Project Location Boundary
- Project Location 50 m Setback
- Municipal Boundary



MAP CREATED BY: GM
MAP CHECKED BY: JP
MAP PROJECTION: NAD 1983 UTM Zone 18N



PROJECT: 163674 STATUS: DRAFT DATE: 10/27/2016

Table 1: Checklist for Requirements under *Ontario Regulation 359/09*- NHA Evaluation of Significance

Required Documentation	Location in Report
1. For each natural feature shown on the map mentioned in paragraph 3 of subsection 26 (3) of O. Reg. 359/09, a determination of whether the natural feature is provincially significant, significant, not significant or not provincially significant.	Section 8, <i>Evaluation of Significance</i> Table 8: Natural Features Evaluation of Significance Summary Figures 3, 4 and 5
2. A summary of the evaluation criteria or determinations mentioned in paragraph 1.	Section 6, <i>Methodology</i>
3. The name and qualifications of any person who criteria or procedures mentioned in paragraph 2.	Section 7, <i>Names and Qualifications of Site Investigation</i>
4. The dates of the beginning and completion of the evaluation	Table 3: <i>Site Evaluation Dates, Duration and Weather Conditions</i>

2.0 The Proponent

The Proponent is coordinating and managing the approvals process for the Project. The contact is:

Full Name of Company:	<i>Loyalist Solar LP, c/o BluEarth Renewables Inc.</i>
Prime Contact:	<i>Tom Bird, Director, Regulatory</i>
Address:	<i>34 Harvard Road, Guelph, ON, N1G 4V8</i>
Telephone:	<i>1-844-214-2578</i>
Email:	projects@bluearth.ca

Dillon Consulting Limited ("Dillon") has been retained by the Proponent to prepare the REA application for the Project. The contact at Dillon is:

Full Name of Company:	<i>Dillon Consulting Limited</i>
Prime Contact:	<i>Megan Bellamy, Project Manager</i>
Address:	<i>235 Yorkland Boulevard, Suite 800, Toronto, ON, M2J 4Y8</i>
Telephone:	<i>(416) 229-4646 ext. 2423</i>
Fax:	<i>(416) 229-4692</i>
Email:	MBellamy@dillon.ca

3.0 Project Location

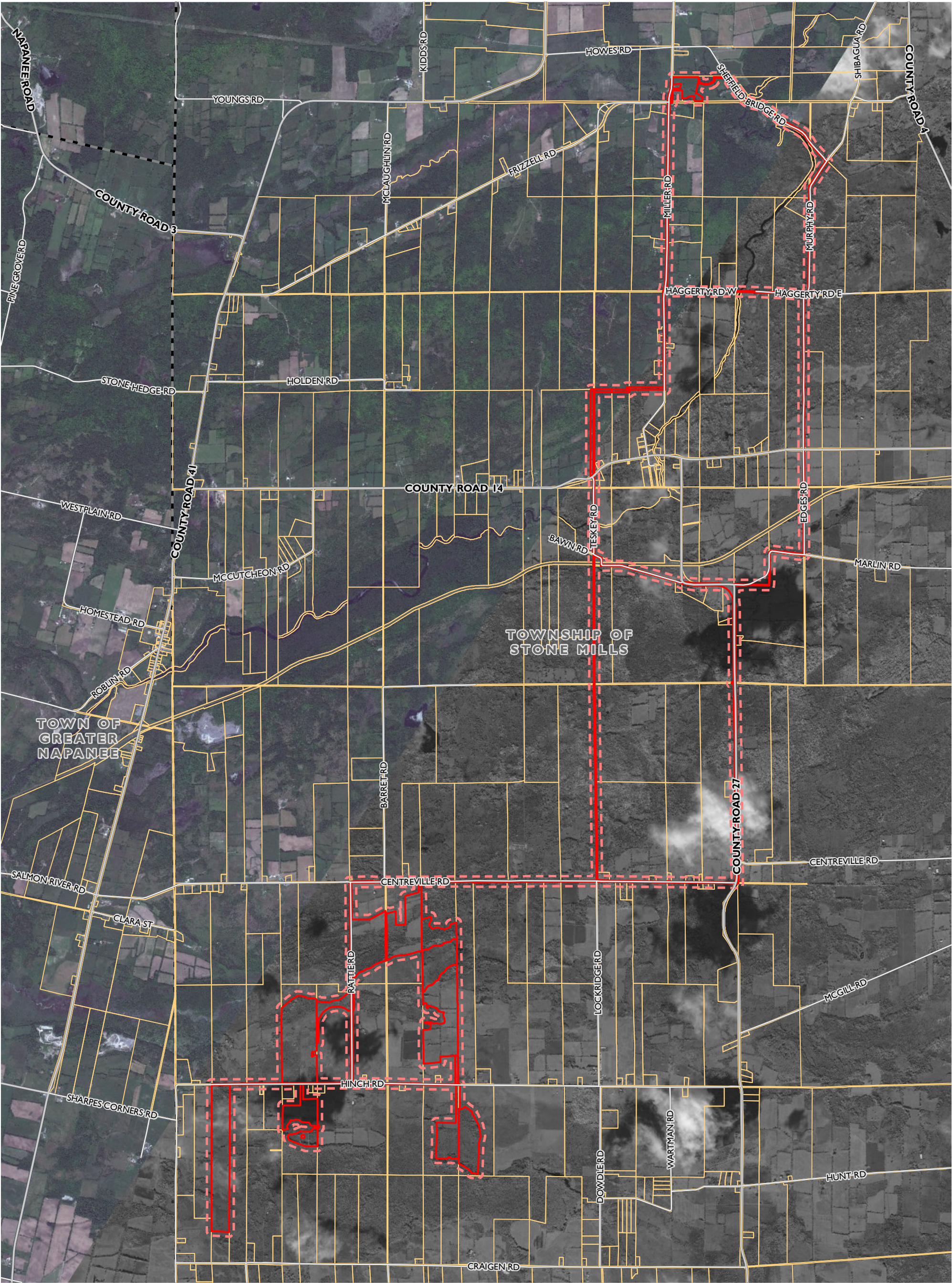
This Class 3 Solar Facility is to be located within the Township of Stone Mills, in the County of Lennox & Addington, approximately nine kilometres north of Napanee, Ontario. The Project Location, situated on multiple privately owned parcels, consists of approximately 200 hectares (494 acres) and is contained within an area generally bounded on the north by Howe's Road, Craigen Road to the south, County Road 27 and Murphy Road to the east and County Road 41 to the west (described as the "Project Location" on **Figure 1**). Project Location has an approximate centroid at the following geographic coordinates:

- Latitude: 44°22'3.382" N
- Longitude: 76°58'19.534" W

Figure 2 overviews the maximum extent of the Project Location for the purposes of this *NHA Evaluation of Significance Report*. The term "Project Location" is defined in *Ontario Regulation 359/09* to be "a part of land and all or part of any building or structure in, on or over which a person is engaging in or proposes to engage in the Project and any air space in which a person is engaging in or proposes to engage in the Project". The facility components within the Project Location will be provided in the *NHA EIS Report*. Project components, including photovoltaic ("PV") panels and electrical facilities such as inverters, transformers, a substation and Project access roads will be located on private land. Some Project components, such as electrical collector lines and the connection line route to the substation will be located in open and unopened road right-of-ways or on private lands.

For the purposes of this *NHA Evaluation of Significance Report*, the Project Location boundary has been further refined for reasons that include, but are not limited to, the avoidance of sensitive natural features determined to be present (e.g. wetlands, candidate wildlife habitat, etc.) and/or to accommodate other regulatory requirements and/or stakeholders input. For a comparison of how the Project Location was refined from the *NHA Site Investigation Report*, **Figure 2** from each report can be compared. This Project Location boundary may be subject to further refinement during detailed design following issue of the REA. The boundary represented on **Figure 2** and on the significant natural features mapping in this report represents the maximum extent of the boundary anticipated. Natural features that are no longer applicable to the Project Location have not been carried forward to the *NHA Evaluation of Significance Report*.

Figure 2 also includes the 50 m setback area from the Project Location. This area was required to be assessed for natural features as per *Ontario Regulation 359/09*. Setback development prohibitions for solar facilities are outlined in Part V, Sections 37 and 38 of *Ontario Regulation 359/09* (amended May 1, 2016).



LOYALIST SOLAR PROJECT
LOYALIST SOLAR LP

PROJECT LOCATION
FIGURE 2

- Project Location Boundary (subject to refinement)
- 50 m Setback
- Parcel Boundary
- Lower Tier Municipality
- Railway



MAP CREATED BY: GM
MAP CHECKED BY: JP
MAP PROJECTION: NAD 1983 UTM Zone 18N



PROJECT: 163674 STATUS: DRAFT DATE: 9/28/2016

4.0 Summary of Site Investigation

Using the results of the records review, completed in accordance with Section 26 of *Ontario Regulation 359/09*, a site investigation was conducted. A detailed list of the determinations made from site investigation work is outlined in **Table 2**. Natural features occurring within the Project Location or the surrounding 50 m, as defined in *Ontario Regulation*, are outlined in the *NHA Site Investigation Report*. Figures 5, 6 and 7A-7W of the *NHA Site Investigation Report* illustrate the results of the site investigation and identify the natural heritage features within 50 m of the Project Location in accordance with the requirements of Section 26 of *Ontario Regulation 359/09*.

Table 2: Summary of Natural Heritage Assessment Site Investigation Results

Natural Feature ID	Feature in Relation to Project Location		Evaluation of Significance Status		
	Within	Within Prescribed Setback	Requires Evaluation	Previously Evaluated	Evaluation not Required*
Wetlands					
Mud Creek Provincially Significant Wetland (11, 104)	Yes	Yes	No	Yes	N/A
Hinch Swamp Provincially Significant Wetland (4)	No	Yes	No	Yes	N/A
Pennell's Creek Provincially Significant Wetland (88)	No	Yes	No	Yes	N/A
Biddy's Lake Provincially Significant Wetland (94)	No	Yes	No	Yes	N/A
Unevaluated Southern Wetlands (18, 33, 41, 49, 92, 111, 113, 114, 121, 124)	Yes	Yes	Yes	No	N/A
Unevaluated Southern Wetlands (26, 30, 31, 34, 40, 43, 44, 45, 54, 61, 62, 71, 72, 73, 75, 77, 78, 83, 85, 86, 96, 99, 100, 101, 102, 103, 105, 106, 108, 109, 110, 112, 115, 116, 117, 118, 119, 120, 122, 123, 125, 126, 127)	No	Yes	Yes**	No	N/A
Woodlands					
Unevaluated Southern Woodlands (AD, AE, AP, B, BD, BH, BI, BM, BS, BT, CI, CY, DB, DD, DF, DI, DL, DZ, EA, F, I, L)	Yes	Yes	Yes	No	N/A
Unevaluated Southern Woodlands (AB, AQ, BC, BF, BG, BP, BU, CA, CN, CW, CX, CZ, DM, DN, DO, DP, DQ, DR, DS, DT, DU, DV, DX, DY)	No	Yes	Yes	No	N/A
Candidate Significant Wildlife Habitat					
Seasonal Concentration Areas					
Waterfowl Stopover and Staging Areas (Terrestrial; WSST1-10)	Yes	Yes	Yes	No	N/A
Waterfowl Stopover and Staging Areas (Aquatic; WSSA1-4)	Yes	Yes	Yes	No	N/A
Turtle Wintering Areas (TWA1)	Yes	Yes	Yes	No	N/A
Reptile Hibernaculum (RH1-16)	Yes	Yes	Yes	No	N/A
Colonially Nesting Bird Breeding Habitat (Trees/ Shrubs; CNT1-28)	Yes	Yes	Yes	No	N/A
Colonially Nesting Bird Breeding Habitat (Ground; CNG1-16)	Yes	Yes	Yes	No	N/A

Natural Feature ID	Feature in Relation to Project Location		Evaluation of Significance Status		
	Within	Within Prescribed Setback	Requires Evaluation	Previously Evaluated	Evaluation not Required*
<i>Rare Vegetation Communities</i>					
Alvar (ALV1-21)	Yes	Yes	Yes	No	N/A
Old Growth Forest (OG1-7)	Yes	Yes	Yes	No	N/A
<i>Specialized Habitat for Wildlife</i>					
Waterfowl Nesting Area (WNA1-7)	Yes	Yes	Yes	No	N/A
Bald Eagle & Osprey Nesting, Foraging and Perching Habitat (BEOS1-9)	Yes	Yes	Yes	No	N/A
Turtle Nesting Areas (TNA1)	Yes	Yes	Yes	No	N/A
Amphibian Breeding Habitat (Wetland; ABHWE1)	No	Yes	Yes	No	N/A
Amphibian Breeding Habitat (Woodland; ABHWO1-11)	Yes	Yes	Yes	No	N/A
Woodland Area-Sensitive Bird Breeding Habitat (ASBB1-5)	Yes	Yes	Yes	No	N/A
Woodland Raptor Nesting Habitat (WRN1-3)	Yes	Yes	Yes	No	N/A
<i>Habitat of Species of Conservation Concern</i>					
Marsh Breeding Bird Habitat (General; MBBH1-5)	Yes	Yes	Yes	No	N/A
Marsh Breeding Bird Habitat (Green Heron; GRHE1-12)	Yes	Yes	Yes	No	N/A
Terrestrial Crayfish (TC1)	Yes	Yes	Yes	No	N/A
Common Nighthawk (CN1-13)	Yes	Yes	Yes	No	N/A
Woodland Specific Bird Species of Special Concern (RHOW and EAWP 1-7)	Yes	Yes	Yes	No	N/A
Wood Thrush (WOTH1-5)	Yes	Yes	Yes	No	N/A
Large Yellow Pond Lily	Yes	Yes	Yes	No	N/A
Butterfly Species of Conservation Concern (JH1- 28)	Yes	Yes	Yes	No	N/A

Natural Feature ID	Feature in Relation to Project Location		Evaluation of Significance Status		
	Within	Within Prescribed Setback	Requires Evaluation	Previously Evaluated	Evaluation not Required*
Animal Movement Corridors					
Amphibian Movement Corridors	Yes	Yes	Yes	No	N/A
Generalized Candidate Significant Wildlife Habitat					
Waterfowl Stopover and Staging Areas (Terrestrial; WSST Other)	No	Yes	No	No	Yes
Waterfowl Stopover and Staging Areas (Aquatic; WSSA Other)	No	Yes	No	No	Yes
Shorebird Migratory Stopover & Staging	No	Yes	No	No	Yes
Waterfowl Nesting Area (WNA Other)	No	Yes	No	No	Yes
Bald Eagle & Osprey Nesting, Foraging and Perching Habitat (BEOS Other)	No	Yes	No	No	Yes
Amphibian Breeding Habitat (Wetland; ABHWE Other)	No	Yes	No	No	Yes
Amphibian Breeding Habitat (Woodland; ABHWO Other)	No	Yes	No	No	Yes
Woodland Area-Sensitive Bird Breeding Habitat (ASBB Other)	No	Yes	No	No	Yes
Marsh Breeding Bird Habitat (General ; MBB Other)	No	Yes	No	No	Yes
Marsh Breeding Bird Habitat (Green Heron; GRHE Other)	No	Yes	No	No	Yes
Common Nighthawk (CN Other)	No	Yes	No	No	Yes
Woodland Specific Bird Species of Special Concern (RHW Other; EAWP Other)	No	Yes	No	No	Yes
Turtle Wintering Areas (TWA Other)	No	Yes	No	No	Yes
Seeps & Springs	No	Yes	No	No	Yes
Woodland Raptor Nesting Habitat (WRN Other)	No	Yes	No	No	Yes

* an evaluation would not be required if the natural feature (i.e., wildlife habitat) is located entirely within the 50 m prescribed setback and has been identified by the MNRF as not likely to be impacted by the development of a solar Project. These natural features are identified as Generalized Candidate Significant Wildlife Habitat for the purposes of the NHA.

** Wetlands will be assessed using *Appendix C: Wetland Characteristics and Ecological Functions Assessment for Renewable Energy Projects* of the *Natural Heritage Assessment Guide for Renewable Energy Project* (MNRF 2012) and assumed to be provincially significant.

5.0 Evaluation of Significance Purpose

This Evaluation of Significance was completed to evaluate if natural features found within the Project Location or surrounding 50 m are significant or provincially significant¹. It is consistent with Section 27 of *O. Reg. 359/09*, which states that a person who proposes to engage in a solar renewable energy Project shall evaluate any information available to the person relating to natural features, including all information obtained during the records review, site investigation and in consultation with regulatory agencies, stakeholders and other interested and relevant parties. The aim of the *NHA Evaluation of Significance Report* is to evaluate the natural features identified in the *NHA Site Investigation Report* and summarized in **Table 2** above, in accordance with Section 27 of *O. Reg. 359/09* to determine:

- Whether a natural feature is significant if it is a woodland or wildlife habitat.
- Whether a natural feature is provincially significant if it is a southern wetland, a northern wetland, a coastal wetland, an area of natural scientific interest (earth science) or an area of natural and scientific interest (life science).

If a natural feature identified during the site investigation has not been previously evaluated by the MNRF, it is required to be evaluated using criteria and procedures established or accepted by the MNRF. Where appropriate studies to determine the significance of a wildlife habitat have not been conducted (e.g. due to timing windows for surveys, etc.), the *Natural Heritage Assessment Guide for Renewable Energy Projects* (MNRF 2012) states that the candidate wildlife habitat may be treated as significant for the purposes of the NHA. Wildlife habitat treated as significant will be clearly identified in this report and the necessary commitments will be made in the EIS for its evaluation (where required).

¹ For the purposes of the *NHA Evaluation of Significance Report*, use of the word significant may also mean “treated as significant” for wildlife habitat and use of the phrase “provincially significant” may also mean “assumed provincially significant” for wetlands within 50 m of the Project Location that were evaluated using the methods described in **Section 6.2**.

6.0 Evaluation of Significance Methodology

The following sections provide evaluation criteria and procedures used to evaluate the natural features determined to be within the Project Location and/or within the surrounding prescribed 50 m setback during the records review and/or site investigation. Criteria and procedures reported are those that are currently accepted by the MNRF. Additional evaluation criteria and procedures required to confirm the status of wildlife habitat treated as significant will be provided in the *NHA EIS Report*, if required.

6.1 Access to Adjacent Lands

As outlined in *Ontario Regulation 359/09*, all lands within 50 m of the Project Location must be assessed for natural features and resources. Access was not granted by some of the landowners to some lands located within 50 m of the Project Location boundary; all landowners participating in the Project granted access to facilitate field investigations. Where access was not granted, or there was a concern related to health and safety that prevented accessing the natural feature, vegetation community boundaries were determined through the review of aerial photography/satellite imagery. In addition, natural features located on adjacent lands where access was not available were assessed from safe vantage points, property lines and road rights-of-way, where applicable. Areas where alternative site investigations were completed, are identified in Appendix D *Figure D1* of the *NHA Site Investigation Report*.

6.2 Wetlands

Wetlands within the Project Location and surrounding prescribed 50 m setback were determined to be southern wetlands based on their location south of the northern limit of Ecoregion 6E as shown in Figure 1 of the *Provincial Policy Statement, 2005*. The evaluation of southern wetlands within 50 m of the Project Location was completed using the *Wetland Characteristics and Ecological Functions Assessment for Renewable Energy Projects* (MNRF 2012). This process identifies individual wetlands and wetland complexes and measures wetland functions and values, providing a framework for evaluating the relative importance of individual wetlands. The criteria and procedures found within are based on sections of the Ontario Wetland Evaluation System ("OWES") guidelines (MNRF 2014), reflective of their southern designation, and were applied by a qualified professional, who has received MNRF training in the use of OWES. The evaluation uses information collected during the records review and site investigation stages of the *NHA*. Wetlands within the 50 m setback area may be assumed provincially significant and assessed using Appendix C of the *Natural Heritage Assessment Guide for Renewable Energy Projects* (MNRF 2012).

Please note that, as stated within Appendix C: *Wetland Characteristics and Ecological Functions Assessment for Renewable Energy Projects*, "The assessment, however, will not be used to officially define the status of wetlands (either as provincially significant or not significant) and may not be used for projects other than renewable energy projects or renewable energy testing projects as defined in the *Green Energy Act*".

6.3 Woodlands

As outlined in the MNRF's Natural Heritage Assessment Guide for Renewable Energy Projects (MNRF 2012), and the Natural Heritage Reference Manual (MNRF 2010), for a woodland feature to be significant it must first meet minimum standards for tree crown cover (minimum 60%). If these minimum standards are met, it is then evaluated based on size criterion, ecological function criteria, and uncommon characteristics criteria. Many of the criteria have minimum size thresholds that are based on the percentage of woodland cover in the municipality where the project has been proposed (Township of Stone Mills). Woodlands that meet the minimum standard for any one of the criteria are considered significant.

6.4 Wildlife Habitat

The Significant Wildlife Habitat Technical Guide ("SWHTG", MNRF 2000) and associated Ecoregion 6E Criteria Schedule (MNRF 2015) is the authoritative source for the identification and evaluation of significant wildlife habitat. Information collected to evaluate wildlife habitat as significant often requires specific studies targeted to the species, the habitat, or both. The criteria considered and how they were applied in the evaluation of each of the candidate significant wildlife habitats identified in the *NHA Site Investigation Report* are discussed in **Section 8.3**.

Where appropriate studies to determine the significance of a wildlife habitat have not been conducted, wildlife habitat will be treated as significant. The methods to be implemented in order to confirm the status of wildlife habitat treated as significant will be outlined in the *NHA EIS Report*, where required.

6.4.1 Seasonal Concentration Area

6.4.1.1 Waterfowl Stopover and Staging Area (Terrestrial & Aquatic)

As surveys within this habitat did not occur during the spring migration period in 2016, all Candidate Waterfowl Stopover and Staging Area habitat will be treated as significant and additional waterfowl surveys will be completed prior to construction to confirm if the habitat is significant. At this time, the habitat will be treated as significant and carried forward to the *NHA EIS Report*.

6.4.1.2 Turtle Wintering Areas

Turtle wintering habitat was identified as candidate habitat based on the Ecological Land Classification ("ELC") surveys and the resulting permanent open aquatic areas with shallow marsh habitat. Based on timing of field work, surveys for overwintering turtles within the surrounding lands was not undertaken prior to the submission of this report. Incidental observations of this habitat area noted several turtles utilizing the area. At this time, the candidate habitat will be treated as significant and carried forward to the *NHA EIS Report*.

6.4.1.3 Reptile Hibernaculum

Hibernation occurs below the frost lines in rock crevices, broken and fissured rock. During ELC field investigations, as well as breeding bird survey station area searches, deep fractures and fissures were observed in some candidate significant wildlife habitats. Surveys for overwintering snakes were not undertaken prior to the submission of this report. As such, habitat could be present in the landscape and therefore this candidate wildlife habitat will be treated as significant and carried forward into the *NHA EIS Report*.

6.4.1.4 Colonially Nesting Bird Breeding Habitat (Ground; Trees & Shrubs)

Habitats were evaluated using breeding bird surveys following the methodology in the Bird and Bird Habitats: Guidelines for Wind Power Projects (MNRF, 2011). The surveys were completed within candidate significant Colonially Nesting Bird Habitats, on accessible lands, from late May to July of 2016 (three surveys over this time period). Specifically, breeding bird surveys consisted of ten-minute point counts that were used to establish quantitative estimates of bird abundance in major habitat types in the Project Location and surrounding 50 m setback. To supplement the survey, area searches of the habitat were completed to observe species presence and breeding activity. Area searches involved noting all individual bird species and their corresponding breeding evidence while traversing the habitat on foot. In areas where point count stations were not within 100 m of a candidate colonially nesting bird breeding habitat, or where permission was not attainable, those habitats will be treated as significant and carried forward to the *NHA EIS Report*. Based on access permissions, habitat will not be further evaluated prior to construction. See **Figure B1** of **Appendix B** for locations of point counts and the area search routes.

6.4.2 Rare Vegetation Communities**6.4.2.1 Alvar**

These habitats were evaluated using vegetation assessments with a focus on alvar indicator species as outlined in the Significant Wildlife Habitat Criteria Schedule for Ecoregion 6E (MNRF 2015).

6.4.2.2 Old Growth Forest

These habitats were characterized using ELC field investigations, observations noted during evaluation of significance field studies and supporting documentation of woodlands from the MNRF Forestry Resource Inventory mapping.

6.4.3 Specialised Wildlife Habitat

6.4.3.1 Waterfowl Nesting Area

These candidate habitats were evaluated using breeding bird surveys following the methodology in the Bird and Bird Habitats: Guidelines for Wind Power Projects (MNRF, 2011). The surveys were completed within candidate significant Waterfowl Nesting Area, on accessible lands, from late May to July of 2016 (three surveys over this time period).

Specifically, breeding bird surveys consisted of ten-minute point counts that were used to establish quantitative estimates of bird abundance in major habitat types of the study area. To supplement the survey, area searches of the habitat were completed to observe species presence and breeding activity.

Area searches involved noting all individual bird species and their corresponding breeding evidence while traversing the habitat on foot. In areas where point count stations were not within 100 m of a candidate waterfowl nesting area, or where access permission was not attained, those habitats will be treated as significant and carried forward to the *NHA EIS*. Based on access permissions, candidate waterfowl nesting habitat in areas without access permission will not be further evaluated prior to construction. See **Figure B1** of **Appendix B** for locations of point counts and the area search routes.

6.4.3.2 Bald Eagle & Osprey Nesting, Foraging, and Perching Habitat

When field studies began in the candidate Bald Eagle & Osprey Nesting, Foraging, and Perching Habitat in April 2016 (see *NHA Site Investigation Report*), no observations of stick nests were noted in areas of the woodlands that were accessible during a time where nests are more visible (i.e. before leaf out on deciduous trees). This habitat was subsequently evaluated during the breeding bird surveys following the methodology in the Bird and Bird Habitats: Guidelines for Wind Power Projects (MNRF, 2011). The surveys were completed within candidate Bald Eagle & Osprey Habitat, on accessible lands, from late May to July of 2016 (three surveys over this time period). Specifically, breeding bird surveys consisted of ten-minute point counts that were used to establish quantitative estimates of bird abundance in major habitat types of the study area. To supplement the survey, area searches of the habitat were completed to observe species presence and breeding activity. Area searches involved noting all individual bird species and their corresponding breeding evidence while traversing the habitat on foot. See **Figure B1** of **Appendix B** for locations of point counts and the area search routes.

6.4.3.3 Amphibian Breeding Habitat (Wetland & Woodland)

Amphibian monitoring followed the Marsh Monitoring Program protocol (Bird Studies Canada, 2009). Three different surveys were conducted between April 1 and June 30, 2016, with at least two weeks between each survey. Surveys began at least one-half hour after sunset during evenings with a minimum night temperature of 5°C, 10°C, 17°C for each of the three respective surveys. Survey points aligned with wetland features observed within each of the candidate habitats (**Figure B2** in **Appendix B**).

Each amphibian survey generally involved standing at a predetermined station for 3 minutes and listening to amphibian calls. The calling activity of individuals estimated to be within 100 m of the observation point were documented.

All individuals beyond 100 m were recorded as outside of the count circle and calling activity was not recorded. Calling activity was then ranked using one of the following three abundance code categories:

Code 1: Calls not simultaneous, number of individuals can be accurately counted

Code 2: Some calls simultaneous, number of individuals can reliably be estimated

Code 3: Calls continuous and overlapping, the number of individuals cannot be estimated

In areas where appropriate candidate habitat was observed, vernal pools were also visually examined for egg masses and amphibian larvae in conjunction with other field surveys. These searches occurred between April and June when amphibians were concentrated around the suitable breeding habitat.

Searches involved walking along the perimeter of the vernal pools/ wetlands, looking for egg masses or juveniles as indicators of amphibian breeding. Searches focused on submergent vegetation and woody debris where amphibians will attach single eggs or masses of eggs.

6.4.3.4 Woodland Area-Sensitive Bird Breeding Habitat

These habitats were evaluated using breeding bird surveys following the methodology in the Bird and Bird Habitats: Guidelines for Wind Power Projects (MNR, 2011). Surveys were completed within candidate habitat, on accessible lands, from late May to July of 2016 (three surveys over this time period). Specifically, breeding bird surveys consisted of ten-minute point counts that were used to establish quantitative estimates of bird abundance in major habitat types of the study area. To supplement the survey, area searches of the habitats were completed to observe species presence and breeding activity. Area searches involved noting all individual bird species and their corresponding breeding evidence while traversing the habitats on foot. See **Figure B1** of **Appendix B** for survey points/routes within the candidate woodland area-sensitive bird breeding habitat.

6.4.3.5 Woodland Raptor Nesting Area

When field studies began in the candidate Woodland Raptor Nesting habitat in April 2016 (see *NHA Site Investigation Report*), no observations of stick nests were noted in the areas of woodland that were accessible during a time nests are more visible (i.e. before leaf out on deciduous trees). This habitat was subsequently evaluated during the breeding bird surveys following the methodology in the Bird and Bird Habitats: Guidelines for Wind Power Projects (MNR, 2011). The surveys were completed within candidate significant Woodland Raptor Nesting habitat, on accessible lands, from late May to July of 2016 (three surveys over this time period). Specifically, breeding bird surveys consisted of ten-minute point counts that were used to establish quantitative estimates of bird abundance in major habitat types of the study area. To supplement the survey, area searches of the habitat were completed to observe species presence and breeding activity. Area searches involved noting all individual bird species and their corresponding breeding evidence while traversing the habitat on foot. See **Figure B1** of **Appendix B** for locations of point counts and the area search routes.

6.4.3.6

Turtle Nesting Site

This specialized habitat was identified as candidate habitat based on the conducted ELC surveys and the resulting permanent open aquatic areas within meadow marsh and shallow marsh habitat. Turtle nesting habitat was evaluated by performing visual encounter surveys to identify congregations of turtles on warm, sunny days during the prime nesting season (late May to June).

Nesting surveys occurred on May 11, 12, 17, 30 and June 1, 2016. Visual searches included observations of appropriate nesting substrate and basking features present within the candidate habitat, including large rocks, man-made structures, logs, branches, and shoreline.

Notes were taken to indicate where in the delineated habitat turtles were observed (if applicable). See **Figure B1** of **Appendix B** for survey points within the candidate habitat.

6.4.4

Habitat for Species of Conservation Concern

6.4.4.1

Marsh Breeding Bird Habitat (General & Green Heron)

Diurnal breeding bird surveys conducted within the Project Location and 50 m setback followed the methods outlined in the Bird and Bird Habitats: Guidelines for Wind Power Projects (MNR, 2011), and were completed from late May to July of 2016 (three surveys over this time period). Specifically, breeding bird surveys consisted of ten-minute point counts that were used to establish quantitative estimates of bird abundance in major habitat types in the Project Location and surrounding 50 m. To supplement the surveys, area searches of the habitat were completed using binoculars to observe species presence and breeding activity. Area searches involved noting all individual bird species and their corresponding breeding evidence while traversing the habitat on foot. A map of the surveys completed for this habitat is included in **Figure B1** of **Appendix B** for survey points/routes within the candidate Marsh Breeding Bird Habitat (General & Green Heron, respectively).

6.4.4.2

Terrestrial Crayfish

This specialized habitat was identified as candidate habitat based on the conducted ELC surveys and the resulting wet meadows, shallow marshes and swamps. Based on health and safety concerns with accessing the wetland areas where this habitat occurs (primarily a cattail marsh area with pockets of deep water and a thick layer of loose organic substrate), surveys for Terrestrial Crayfish were not undertaken. The candidate habitat will be treated as significant and carried forward to the *NHA EIS Report*.

6.4.5 Special Concern and Rare Wildlife Species

Observations of Species of Conservation Concern were primarily completed as part of other surveys outlined above. During the site investigation, six Species of Conservation Concern were identified with the potential to occur based on the occurrence of appropriate habitat.

6.4.5.1 Common Nighthawk

For evaluation of candidate Common Nighthawk habitat, crepuscular bird breeding surveys were conducted over at least two visits from May to early July of 2016 during periods with at least 50% lunar illumination and low cloud cover. These surveys followed the Nightjar Monitoring Protocol provided by the MNRF (2011) and generally consisted of ten minute point counts where suitable habitat for target species occurred and was accessible. Point count locations for these surveys are shown on **Figure B1 of Appendix B**.

6.4.5.2 Woodland Specific Bird Species of Special Concern (Red-headed Woodpecker and Eastern Wood-Pewee)

These habitats were evaluated using breeding bird surveys following the methodology in the Bird and Bird Habitats: Guidelines for Wind Power Projects (MNR 2011). Surveys were completed within candidate Red-headed Woodpecker and Eastern Wood-Pewee habitat, on accessible lands, from late May to July of 2016 (three surveys over this time period).

Specifically, breeding bird surveys consisted of ten-minute point counts that were used to establish quantitative estimates of bird abundance in major habitat types of the study area. To supplement the survey, area searches of the habitats were completed to observe species presence and breeding activity. Area searches involved noting all individual bird species and their corresponding breeding evidence while traversing the habitats on foot. See **Figure B1 of Appendix B** for survey points/routes within the candidate Red-headed Woodpecker breeding habitat.

6.4.5.3 Wood Thrush

These habitats were evaluated using breeding bird surveys following the methodology in the Bird and Bird Habitats: Guidelines for Wind Power Projects (MNR, 2011). Surveys were completed within candidate Wood Thrush habitat, on accessible lands, from late May to July of 2016 (three surveys over this time period). Specifically, breeding bird surveys consisted of ten-minute point counts that were used to establish quantitative estimates of bird abundance in major habitat types of the study area. To supplement the survey, area searches of the habitats were completed to observe species presence and breeding activity. Area searches involved noting all individual bird species and their corresponding breeding evidence while traversing the habitats on foot. See **Figure B1 of Appendix B** for survey points/routes within the candidate Wood Thrush habitat.

6.4.5.4 Yellow Pond Lily

The habitat of this species includes alkaline and neutral water 0.5 to 2.0 m deep. Blooming occurs from May to October. Surveys included incidental observations noted by site investigators responsible for the identification of both natural features and water bodies.

6.4.5.5

Juniper Hairstreak

Habitat for this species was characterized using ELC field investigations as well as vegetation assessments. This species prefers juniper vegetation during the breeding season as their caterpillar hosts. Ground juniper exists ubiquitously throughout the Project Location and 50 m setback. As such, habitat will be treated as significant and carried forward into the *NHA EIS Report*.

6.4.6

Animal Movement Corridors

Amphibian corridors are only considered once wetland Amphibian Breeding Habitat has been evaluated as significant. Should candidate wetland Amphibian Breeding Habitat be evaluated as significant as part of this evaluation of significance, the candidate amphibian movement corridor identified in the *NHA Site Investigation Report* will be treated as significant and carried forward into the *NHA EIS Report*.

7.0

Names and Qualifications on Site Investigations

The names and qualifications of all site investigators are outlined in **Table 3** below. All site investigators listed below have been involved with the Project since the initiation of this work.

Table 3: Name and Qualifications of Site Investigators

Name:	
Dayna LeClair (DLC)	
Degrees and Professional Designations:	<ul style="list-style-type: none"> • M.Sc. University of Guelph, 2012 • B.Sc. (Hons), Trent University, 2010 • Fish and Wildlife Technology Advanced Diploma, 2008 • Fish and Wildlife Technician Diploma, 2007
Years of Experience:	6 years
Project Role:	<ul style="list-style-type: none"> • Diurnal Breeding Bird Surveys • Crepuscular Breeding Bird Surveys • Amphibian Breeding Surveys • Ecological Land Classification • Incidental Wildlife Observations
Certifications:	<ul style="list-style-type: none"> • Ecological Land Classification for Southern Ontario (2009) • North American Bird Council (Trainer) • Class II Electrofishing Certification
Name:	
Jonathan Harris (JWH)	
Degrees and Professional Designations:	<ul style="list-style-type: none"> • Fish and Wildlife Technician Diploma • Fish and Wildlife Technology Advanced Diploma • International Society of Arboriculture (ISA) Certified Arborist (member-Ontario Chapter) • Affiliated with Ontario Field Ornithologists, Ontario Invasive Plant Council, Ontario Field Botanists, Toronto Field Naturalists, and Ontario Nature
Years of Experience:	9 years (over 30 renewable Projects)
Project Role:	<ul style="list-style-type: none"> • Diurnal Breeding Bird Surveys • Crepuscular Breeding Bird Surveys • Amphibian Breeding Surveys • Ecological Land Classification • Alvar Delineation • Wetland Delineation • Incidental Wildlife Observations
Certifications:	<ul style="list-style-type: none"> • Ecological Land Classification for Southern Ontario (2011) • Ontario Wetland Evaluation System Certification (2012) • MNRF Bat Maternity Colony Training (2012) • Butternut Health Assessor Certification (2014)

Name:	Ryan Godfrey (RMG)
Degrees and Professional Designations:	<ul style="list-style-type: none"> • B.Sc. University of British Columbia, 2010 • M.Sc. University of Toronto, 2014 • Affiliated with Field Botanists of Ontario, North American Native Plant Society
Years of Experience:	2 years
Project Role:	<ul style="list-style-type: none"> • Diurnal Breeding Bird Surveys • Vegetation Assessment
Professional Memberships/ Experience:	<ul style="list-style-type: none"> • Ontario Invasive Plant Council • North American Native Plant Society • Field Botanists of Ontario • Royal Ontario Museum Herbarium Intern • Royal Botanical Gardens Herbarium Intern
Name:	Kelly McLean (KLM)
Degrees and Professional Designations:	<ul style="list-style-type: none"> • M.Sc. Geography and Environmental Management • B.Sc. Environmental Biology and Technology
Years of Experience:	4 years
Project Role:	<ul style="list-style-type: none"> • Amphibian Breeding Surveys
Certifications:	<ul style="list-style-type: none"> • ROM Fish Identification certificate • Class 1 Electrofishing certification
Name:	Cale Hartin (CH)
Degrees and Professional Designations:	<ul style="list-style-type: none"> • B.Sc. Honours Biology / Environmental & Resources Sciences • Fish and Wildlife Technical Diploma • Fish and Wildlife Technology Advanced Diploma • Affiliated with American Fisheries
Years of Experience:	<ul style="list-style-type: none"> • 4 Years
Project Role:	<ul style="list-style-type: none"> • Watercourse Assessment Surveys • Incidental Wildlife Observations
Certifications:	<ul style="list-style-type: none"> • Level 2 Backpack E-fishing Crew Leader, 2014 • Ontario Benthic Bio-Monitoring Network
Name:	Kate Roper (KR)
Degrees and Professional Designations:	<ul style="list-style-type: none"> • M.Env.Sc. University of Toronto, in progress • B.Sc. Honours, Queens University, 2012
Years of Experience:	<ul style="list-style-type: none"> • 2 Years
Project Role:	<ul style="list-style-type: none"> • Amphibian Breeding Survey • Incidental Wildlife Observations
Certifications:	<ul style="list-style-type: none"> • Ontario Benthos Biomonitoring Network (OBBN) Certification, 2015

Name:	Sean Robinson (SJR)
Degrees and Professional Designations:	<ul style="list-style-type: none"> • B.Sc. University of Guelph, 2008 • Certificate of Environmental Conservation, University of Guelph, 2010
Years of Experience:	<ul style="list-style-type: none"> • 6 Years
Project Role:	<ul style="list-style-type: none"> • Watercourse Assessment Survey • Incidental Wildlife Observations
Certifications:	<ul style="list-style-type: none"> • Canadian Certified Inspection of Sediment and Erosion Control (CISEC, 2015)
Name:	Dale Kristensen (DK)
Degrees and Professional Designations:	<ul style="list-style-type: none"> • M.Sc., Queen's University, 1996 • B. Sc., University of Guelph, 1981
Years of Experience:	<ul style="list-style-type: none"> • 29 Years
Project Role:	<ul style="list-style-type: none"> • Alvars Surveys
Certifications:	<ul style="list-style-type: none"> • Certified Butternut Health Advisor

Overall, data collected from field evaluation studies of the Project Location in support of the site investigation and evaluation of significance work took place from April to October 2016 (see **Table 4**) and all field notes can be found in Appendix A of the *NHA Site Investigation Report* and in **Appendix C**. Analysis of the data and reporting effort was conducted from July 2016 to October 2016. This *NHA* was led by Jennifer Petruniak, M.Sc. Jennifer is a Biologist with over ten years of experience and has been qualified as an Expert in the *NHA* process for renewable energy facilities by the Environmental Review Tribunal.

Table 4: Site Evaluation Dates, Times, Duration and Weather Conditions

Date (2016)	Survey Type	Site Investigator	Start Time	Duration (hours)	Weather Conditions (Field Observations)			Weather Conditions (EC* Station)		
					Air Temp. (°C)	Wind (Beaufort Scale)	Cloud Cover (%)	Average Air Temp. (°C)	Wind (Speed(km/h)/ Direction)(degrees)	Precipitation (mm)
April 27	Amphibian Survey #1; Incidental Observations; SWH^ characteristic observations	JWH; KLM	20:42	2.75	7	0-2	0	4.8	39/21	0.0
April 28	Amphibian Survey #1; Incidental Observations; SWH^ characteristic observations	JWH; KLM	20:48	1.5	7	0-1	20-50	4.0	32/7	0.0
May 04	Amphibian Survey #1; Incidental Observations; SWH^ characteristic observations	JWH	20:52	3.0	12	1-3	50	11.3	32/4	1.0
May 11	Turtle Survey #1; Incidental Observations; SWH^ characteristic observations	DLC; JWH	9:28	2.5	11	0-2	10	10	<31/NA	0.0
May 12	Turtle Survey #1; Incidental Observations; SWH^ characteristic observations	DLC; JWH	11:30	2.0	22-23	0	30	15.3	<31/NA	0.0
May 17	Turtle Survey #2; Incidental Observations; SWH^ characteristic observations	DLC	9:06	4.5	10-18	0-2	0-50	10.6	32/21	0.0
May 17	Alvar Surveys; Incidental Observations; SWH^ characteristic observations	DK; JWH	8:00	7.5	-	-	-	-	-	-

Date (2016)	Survey Type	Site Investigator	Start Time	Duration (hours)	Weather Conditions (Field Observations)			Weather Conditions (EC* Station)		
					Air Temp. (°C)	Wind (Beaufort Scale)	Cloud Cover (%)	Average Air Temp.(°C)	Wind (Speed(km/h)/ Direction)(degrees)	Precipitation (mm)
May 20	Alvar Surveys	DK	8:00	7.5	NR	NR	NR	8.8	<31/NA	0.0
May 23	Breeding Bird Survey #1; Incidental Observations; SWH^ characteristic observations	DLC; JWH	5:02	4.50	10-15	0	0	19.0	<31/NA	0.0
May 23	Amphibian Survey #2; Incidental Observations; SWH^ characteristic observations	DLC; JWH	21:05	1.75	19-26	0-1	0-10	19.0	<31/NA	0.0
May 24	Amphibian Survey #2; Incidental Observations; SWH^ characteristic observations	DLC; KR	21:14	2.5	22	0	10	18.8	<31/NA	0.0
May 25	Amphibian Survey #2; Incidental Observations; SWH^ characteristic observations	JWH; KR	21:11	1.5	23	0	20	20.0	35/23	0.0
May 26	Crepuscular Bird Survey #1; Incidental Observations; SWH^ characteristic observations	DLC	20:14	1.0	20	0	60	22.5	<31/NA	0.2
May 27	Breeding Bird Survey #1; Incidental Observations; SWH^ characteristic observations	DLC	5:03	3.50	14-18	0	20-80	22.3	<31/NA	0.0
May 27	Turtle Survey #3; Incidental Observations; SWH^ characteristic observations	DLC	9:00	3.5	23-29	0-1	10-30	20.3	<31/NA	0.0

Date (2016)	Survey Type	Site Investigator	Start Time	Duration (hours)	Weather Conditions (Field Observations)			Weather Conditions (EC* Station)		
					Air Temp. (°C)	Wind (Beaufort Scale)	Cloud Cover (%)	Average Air Temp.(°C)	Wind (Speed(km/h)/ Direction)(degrees)	Precipitation (mm)
May 30	Breeding Bird Survey #1; Incidental Observations; SWH^ characteristic observations	DLC	5:00	4.00	19-21	0-3	90	23.0	43/23	0.0
May 30	Crepuscular Bird Survey #1; Incidental Observations; SWH^ characteristic observations	DLC	20:13	1.0	26	3	0	23.0	42/23	0.0
May 30	Turtle Survey #4; Incidental Observations; SWH^ characteristic observations	DLC	10:00	1.5	26	2-3	0-70	3.3	43/23	0.0
May 31	Breeding Bird Survey #1; Incidental Observations; SWH^ characteristic observations	DLC	5:10	4.50	13-18	1-2	0	19.3	44/34	0.0
May 31	Crepuscular Bird Survey #1; Incidental Observations; SWH^ characteristic observations	DLC	20:04	0.5	20	3-4	30	19.3	44/34	0.0
June 01	Breeding Bird Survey #1; Incidental Observations; SWH^ characteristic observations	DLC	5:00	2.00	8-18	1-2	0	16.3	<31/NA	0.6
June 01	Crepuscular Bird Survey #1; Incidental Observations; SWH^ characteristic observations	DLC	20:35	0.75	8	0	N/A	16.3	<31/NA	0.6

Date (2016)	Survey Type	Site Investigator	Start Time	Duration (hours)	Weather Conditions (Field Observations)			Weather Conditions (EC* Station)		
					Air Temp. (°C)	Wind (Beaufort Scale)	Cloud Cover (%)	Average Air Temp.(°C)	Wind (Speed(km/h)/ Direction)(degrees)	Precipitation (mm)
June 01	Turtle Survey #5; Incidental Observations; SWH^ characteristic observations	DLC	7:45	1.75	13-16	0-2	0-50	15.9	<31/NA	0.0
June 02	Breeding Bird Survey #1; Incidental Observations; SWH^ characteristic observations	DLC	6:50	1.15	17	2	100	20.0	41/17	0.0
June 02	Crepuscular Bird Survey #1; Incidental Observations; SWH^ characteristic observations	DLC	20:10	1.0	14	0-1	0	20.0	41/17	0.0
June 03	Breeding Bird Survey #1; Incidental Observations; SWH^ characteristic observations	DLC	4:55	2.75	10-14	0	0	18.5	33/20	0.0
June 06	Crepuscular Bird Survey #1; Incidental Observations; SWH^ characteristic observations	DLC	20:20	0.25	19	1	100	19.0	50/23	6.6
June 07	Breeding Bird Survey #2; Incidental Observations; SWH^ characteristic observations	DLC	5:00	3.75	14	0	100	15.8	44/27	1.4
June 07	Crepuscular Bird Survey #2; Incidental Observations; SWH^ characteristic observations	DLC	20:10	0.75	19	1	80	15.8	<31/NA	1.4

Date (2016)	Survey Type	Site Investigator	Start Time	Duration (hours)	Weather Conditions (Field Observations)			Weather Conditions (EC* Station)		
					Air Temp. (°C)	Wind (Beaufort Scale)	Cloud Cover (%)	Average Air Temp.(°C)	Wind (Speed(km/h)/ Direction)(degrees)	Precipitation (mm)
June 08	Breeding Bird Survey #2; Incidental Observations; SWH^ characteristic observations	DLC	4:46	4.00	10	1	100	12.5	41/29	0.8
June 09	Breeding Bird Survey #2; Incidental Observations; SWH^ characteristic observations	DLC	5:00	4.50	7	1	100	13.3	48/27	0.0
June 09	Alvar Survey	DK	8:00	7.5	11	2	50	14	48/27	0.0
June 09	Crepuscular Bird Survey #2; Incidental Observations; SWH^ characteristic observations	DLC	20:20	0.5	15	3	20	13.3	48/27	0.0
June 10	Breeding Bird Survey #2; Incidental Observations; SWH^ characteristic observations	DLC	5:05	2.75	7-10	1	0	14.0	35/20	11.0
June 13	Crepuscular Bird Survey #2; Incidental Observations; SWH^ characteristic observations	DLC	20:20	0.75	19	3	70	16.3	69/34	0.0
June 14	Breeding Bird Survey #2; Incidental Observations; SWH^ characteristic observations	DLC	4:45	5.0	5-9	1	0	15.0	32/19	0.0
June 15	Breeding Bird Survey #2; Incidental Observations; SWH^ characteristic observations	DLC	4:47	4.25	7	0	0	16.8	<31/NA	0.0

Date (2016)	Survey Type	Site Investigator	Start Time	Duration (hours)	Weather Conditions (Field Observations)			Weather Conditions (EC* Station)		
					Air Temp. (°C)	Wind (Beaufort Scale)	Cloud Cover (%)	Average Air Temp.(°C)	Wind (Speed(km/h)/Direction)(degrees)	Precipitation (mm)
June 15	Alvar Survey	DK	8:00	7.5	16	0	0	14.2	<31/NA	0.0
June 15	Amphibian Survey #3; Incidental Observations; SWH^ characteristic observations	JWH; KR	21:27	2.5	17-22	0	100	16.8	<31/NA	0.0
June 16	Breeding Bird Survey #2; Incidental Observations; SWH^ characteristic observations	DLC	5:10	3.00	18	1	30	21.8	37/9	0.0
June 16	Amphibian Survey #3; Incidental Observations; SWH^ characteristic observations	JWH; KR	21:22	2.25	21	0-1	0	21.8	37/9	0.0
June 17	Breeding Bird Survey #3; Incidental Observations; SWH^ characteristic observations	DLC	5:00	3.75	11-12	0-1	20	20.0	<31/NA	0.0
June 20	Breeding Bird Survey #3; Incidental Observations; SWH^ characteristic observations	DLC	4:50	4.50	17-18	0	20	23.3	69/27	25.2
June 21	Breeding Bird Survey #3; Incidental Observations; SWH^ characteristic observations	DLC	4:53	3.00	12-16	1-2	20	17.0	41/26	2.2
June 21	Alvar Surveys	DK	7:30	8.0	16	1	30	19.0	41-26	2.2

Date (2016)	Survey Type	Site Investigator	Start Time	Duration (hours)	Weather Conditions (Field Observations)			Weather Conditions (EC* Station)		
					Air Temp. (°C)	Wind (Beaufort Scale)	Cloud Cover (%)	Average Air Temp.(°C)	Wind (Speed(km/h)/ Direction)(degrees)	Precipitation (mm)
June 21	Crepuscular Bird Survey #2; Incidental Observations; SWH^ characteristic observations	DLC	20:20	1.0	23	3	40	17.0	41/26	2.2
June 24	Breeding Bird Survey #3; Incidental Observations; SWH^ characteristic observations	DLC	5:30	1.00	18	0	20	17.8	<31/NA	0.0
June 27	Breeding Bird Survey #3; Incidental Observations; SWH^ characteristic observations	DLC	5:05	3.50	22	2-3	10	24.8	32/19	0.0
June 27	Crepuscular Bird Survey #2; Incidental Observations; SWH^ characteristic observations	DLC	20:30	1.0	28	0	70	24.8	32/19	0.0
June 28	Breeding Bird Survey #3; Incidental Observations; SWH^ characteristic observations	DLC	4:55	3.50	19-23	0	60	21.8	41/34	6.6
June 28	Crepuscular Bird Survey #2; Incidental Observations; SWH^ characteristic observations	DLC	20:24	0.50	16	2	N/A	21.8	41/34	6.6
June 29	Breeding Bird Survey #3; Incidental Observations; SWH^ characteristic observations	DLC	7:00	0.50	12	2	100	20.3	32/18	2.0

Date (2016)	Survey Type	Site Investigator	Start Time	Duration (hours)	Weather Conditions (Field Observations)			Weather Conditions (EC* Station)		
					Air Temp. (°C)	Wind (Beaufort Scale)	Cloud Cover (%)	Average Air Temp.(°C)	Wind (Speed(km/h)/ Direction)(degrees)	Precipitation (mm)
June 30	Breeding Bird Survey #3; Incidental Observations; SWH^ characteristic observations	DLC	4:57	4.00	14-16	0	0	19.5	<31/NA	0.0
July 07	Breeding Bird Survey #3; Incidental Observations; SWH^ characteristic observations	JWH	5:28	3.00	19-22	0	100	26.5	33/5	0.0
Sept 29	ELC – Alvars; Incidental Observations; SWH^ characteristic observations	DLC; RG	10:30	6.0	15	3	14.8	37/4	0.0	
Sept 30	ELC – Alvars; Incidental Observations; SWH^ characteristic observations	DLD; RG	7:30	6.0	12	2	14.3	<31/N A	0.0	
October 4	ELC – Alvars; Incidental Observations; SWH^ characteristic observations	JWH; DLC; RG; DK	10:30	5.0	10	1	13.8	<31/N A	0.0	
Total Duration of Field Work (staff hours)				232.15						

*Closest Environment Canada (EC) Weather Station is in Kingston, Ontario. All EC Data refers to daily values; n/a indicates the information was not available from an Environment Canada weather station from the date/time of field work.

8.0 Evaluation of Significance Results

The following sections summarize the results of the evaluation of significance using criteria and procedures accepted by the MNRF. A complete list of species, representative photographs and field notes can be found in the *NHA Site Investigation Report* appendices.

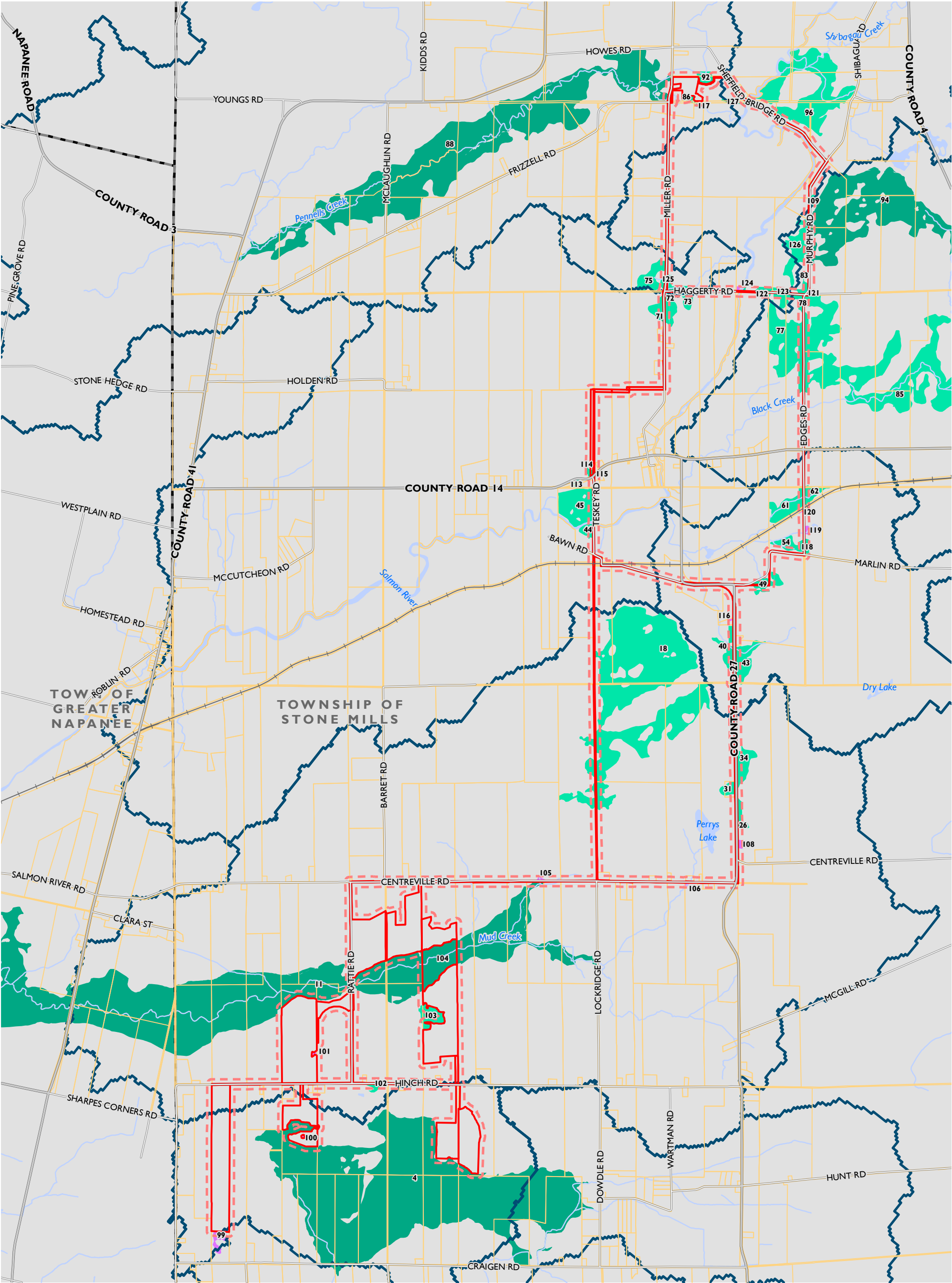
8.1 Wetlands

Southern wetlands that met the minimum size criteria (i.e., ≥ 2 ha) for evaluation, or met the criteria for including wetlands in a complex, were assumed to be provincially significant. Of the 51 distinct wetlands areas that occur within 50 m of the Project Location, the following groupings were compiled:

- Twenty-five wetlands (i.e. Wetlands 4, 11, 18, 34, 40, 43, 44, 45, 49, 54, 61, 62, 71, 72, 75, 77, 78, 85, 88, 94, 96, 103, 104, 125, 126) were greater than two hectares.
- Thirteen wetlands (Wetlands 26, 31, 73, 83, 86, 92, 102, 109, 114, 118, 122, 123, and 127) were under 2 ha but over 0.5 ha and within 750 m of another assumed provincially significant wetland.
- One wetland (i.e. Wetland 117) was less than 0.5 ha but contains significant natural features which would warrant inclusion into the wetland complex.
- Twelve wetlands (i.e. Wetlands 99, 100, 101, 105, 106, 108, 115, 116, 119, 120, 121, 124) have been excluded on the basis of size (i.e., less than 2 ha). For those wetlands less than 2 ha, but greater than 0.5 ha (and therefore may be considered based on the wetland complex rule), no significant features were identified that warrant inclusion into the greater wetland complex.

From the *NHA Site Investigation Report*, seven wetlands are no longer applicable to the Project Location (i.e., 30, 33, 41, 110, 111, 112 and 113).

Figure 3 identifies those wetlands assumed to be provincially significant or previously evaluated as provincially significant. A summary of each wetland documented during the records review and site investigation is provided below in accordance with Appendix C: *Wetland Characteristics and Ecological Functions Assessment for Renewable Energy Projects* of the *Natural Heritage Assessment Guide for Renewable Energy Projects* (MNRF 2012). Please note, where a wetland unit is part of a larger, previously evaluated, provincially significant wetland complex, only the unit within the Project Location and/or surrounding 50 m setback area has been summarized. The purpose of defining the wetland features presented in **Table 5** is to inform the *NHA EIS Report*. Field notes supporting the wetland evaluations are provided in Appendix A of the *NHA Site Investigation Report*. Where available, the previous wetland evaluation records from the MNRF were also reviewed and applied (see the *NHA Records Review Report*).



LOYALIST SOLAR PROJECT

LOYALIST SOLAR LP

SIGNIFICANT WETLANDS

FIGURE 3

Railway

Project Location Boundary (subject to refinement)

50 m Setback

Parcel Boundary

Municipal Boundary

Catchment Area

Mapped Watercourse

Mapped Water Body

Provincially Significant Wetland

Assumed Provincially Significant Wetland

Non Significant Wetland

Thunder Bay

Sault Ste. Marie

Sudbury

North Bay

Ottawa

Peterborough

Barrie

Toronto

Kingston

London

Windsor

Temmins

W

N

E

S

1:40,000

0

0.5

1

2 km

MAP CREATED BY: GM

MAP CHECKED BY: JP

DATA PROVIDED BY: MNRF

MAP PROJECTION: NAD 1983 UTM Zone 18N

PROJECT: 163674

STATUS: DRAFT

DATE: 10/25/2016

Table 5: Rapid Assessment to Determine Wetland Characteristics and Ecological Functions

Wetland ID Number	Wetland Size (ha)	Wetland Type	Site Type	Vegetation Communities (* denotes dominant vegetation form)	Proximity to Other Wetlands	Interspersion	Open Water Type	Flood Attenuation	Water Quality Improvement	Shoreline Erosion Control	Groundwater Recharge	Species Rarity	Significant Features and Habitat	Fish Habitat	
4 Hinch Swamp PSW	306.3 Wetland boundaries were delineated during fieldwork and it was found that the wetland does not occur within Project Location. 17.49 ha of the wetland unit occurs within 50 m of the Project Location.	<p>This wetland is comprised of Swamp (94%) with deciduous trees as the dominant form and Marsh (6%) with narrow-leaved emergent species as the dominant species.</p> <p>The individual units within this wetland make up the Hinch Swamp Complex PSW. The ELC communities present in the wetland unit include:</p> <p>Swamp Maple Organic Deciduous Swamp (SWDO2-3)</p> <p>Reed Canary Grass Graminoid Mineral Meadow Marsh (MAMM1-3)</p> <p>These ELC communities are considered common in Ontario based on the SRank designated by the NHIC.</p>	<p>Palustrine</p> <p>This palustrine wetland doesn’t appear to be connected to other wetlands within 50 m of the Project Location but has outflows that cross Craigen Road.</p> <p>The construction of the solar facility will not significantly change the flow of water to or from the wetland unit.</p>	<p>1. H* - Swamp Maple (<i>Acer x freemanii</i>), Green Ash (<i>Fraxinus pennsylvanica</i>), Black Ash (<i>Fraxinus nigra</i>), White Elm (<i>Ulmus americana</i>), Eastern Cottonwood (<i>Populus deltoides</i>), Ts - Willow species (<i>Salix</i> sp.), Ls - Red-osier Dogwood (<i>Cornus sericea</i> ssp. <i>sericea</i>), Bristly Dewberry (<i>Rubus hispidus</i>), Gc - Sensitive Fern (<i>Onoclea sensibilis</i>), Marsh Fern (<i>Thelypteris palustris</i> var. <i>pubescens</i>), Wild Sarsaparilla (<i>Aralia nudicaulis</i>), Marsh Bedstraw (<i>Galium palustre</i>), Ne - Hop Sedge (<i>Carex lupulina</i>), Fox Sedge (<i>Carex vulpinoidea</i>), Be - Smartweed species (<i>Persicaria</i> sp.) FF - Lesser Duckweed (<i>Lemna minor</i>)</p> <p>2. Ne* - Reed Canary Grass (<i>Phalaris arundinacea</i>), Hop Sedge, Fox Sedge, Re -Narrow-leaved Cattail (<i>Typha angustifolia</i>)</p>	48.1 m to Wetland 100	Interspersion count of 92 intersections.	Type 1 (less than 5% of wetland area).	The construction of a solar facility on adjacent lands will not decrease or increase the value of the wetland unit’s open water.	<p>Wetland unit is small in comparison to its upstream catchment area of 1597.77 ha, which was determined using topographic and drainage mapping.</p> <p>Since no part of the wetland unit will be removed the unit will still attenuate flood peaks.</p>	<p>Catchment area determined to be >50% agricultural (cropland, hayfield and pasture).</p> <p>The quality of water entering the wetland unit adjacent to the Project Location should remain unchanged or improved with the development of a solar facility. The solar facility will not result in the input of chemicals into adjacent lands.</p>	N/A – no shoreline is present in the wetland	<p>The wetland unit is palustrine meaning the unit may be valuable as a source of groundwater recharge.</p> <p>Since there will be no change to the wetland, the unit’s ability to recharge groundwater will remain the same.</p>	<p>Rare species were observed in this wetland unit including Snapping Turtle and Olive-sided Flycatcher.</p> <p>The development of the Loyalist Solar Project is not expected to impact rare species.</p>	<p>Generalized Candidate Significant Wildlife Habitat;</p> <p>Amphibian Breeding Habitat (Woodland);</p> <p>Colonially Nesting Bird Breeding Habitat^ (Tree & Shrubs);</p> <p>Woodland Area-Sensitive Bird Breeding Habitat;</p> <p>Waterfowl Nesting Habitat;</p> <p>Wood Thrush Habitat</p>	Fish spawning or migration/staging habitat is present in the south portion of the wetland unit

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11 Mud Creek PSW	286.18 Wetland boundaries were delineated during fieldwork and it was found that the wetland occurs within 50 m of the Project Location.	This wetland is comprised of Marsh (29%) with robust emergent species as the dominant form and Swamp (71%) with deciduous trees/tall shrubs as the dominant form. The individual units within this wetland make up the Mud Creek PSW . The ELC communities present in the wetland unit include: Willow Mineral Deciduous Thicket Swamp (SWTM3) Willow Organic Deciduous Thicket Swamp (SWTO2) Cattail Graminoid Organic Shallow Marsh (MASO1-1) Reed Canary Grass Graminoid Mineral Meadow Marsh (MAMM1-3) Swamp Maple Organic Deciduous Swamp (SWDO2-3) These ELC communities are considered common in Ontario based on the SRank designated by the NHIC.	Palustrine This palustrine wetland likely experiences seasonal overland drainage towards the watercourse that flows through it. The construction of the solar facility will not significantly change the flow of water to or from the wetland unit.	1. Ts* - Willow species 2. Ts* - Willow species H - White Elm, Swamp Maple Ls - White Meadowsweet (<i>Spiraea alba</i>), Red-osier Dogwood Gc - Sensitive Fern, Common Boneset (<i>Eupatorium perfoliatum</i>), Canada Anemone (<i>Anemone canadensis</i>), Ne - Canada Mannagrass (<i>Glyceria canadensis</i>), Fox Sedge, sedge species (<i>Carex</i> sp.) 3. Re* - Narrow-leaved Cattail, Broad-leaved Cattail (<i>Typha latifolia</i>), Sweet Flag (<i>Acorus americanus</i>), Harlequin Blue Flag (<i>Iris versicolor</i>), American Burreed (<i>Sparganium americanum</i>) Dh - dead hardwoods Be - Greater Water Dock (<i>Rumex orbiculatus</i>), Marsh Marigold (<i>Caltha palustris</i>) Ne - Reed Canary Grass Gc - Swamp Milkweed (<i>Asclepias incarnata</i>), Marsh Bedstraw, Sensitive Fern, Spotted-joe Pyeweed (<i>Eutrochium maculatum</i>), Marsh Horsetail (<i>Equisetum palustre</i>) 4. Ne* - Reed Canary Grass 5. H* - Swamp Maple, Green Ash, Black Ash, White Elm Ls - Red-osier Dogwood, White Meadowsweet Dh - Swamp Maple Ne - Lake-bank Sedge (<i>Carex lacustris</i>), Porcupine Sedge (<i>Carex hystericina</i>) Re - Narrow-leaved Cattail Gc - Common Boneset, Water Loosestrife (<i>Lysimachia thyrsiflora</i>), Spotted-joe Pyeweed, Marsh Horsetail, Sensitive Fern	1.7 m to unevaluated wetland beyond Project Location	Interspersion count of 121 intersections. The interspersion value used was for wetlands in a wetland complex made up of Wetland 11, 104, 107, 103	Type 3 (5-25% is open water, occurring in various sized ponds) The construction of a solar facility on adjacent lands will not decrease or increase the value of the wetland unit's open water.	Wetland unit is small in comparison to its upstream catchment area of 3417.21 ha, which was determined using topographic and drainage mapping. Since no part of the wetland unit will be removed the unit will still attenuate flood peaks.	Catchment area determined to be >50% agricultural (cropland, hayfield, and pasture). The quality of water entering the wetland unit adjacent to the Project Location should remain unchanged or improved with the development of a solar facility. The solar facility will not result in the input of chemicals into adjacent lands.	This wetland unit contains a permanent watercourse. Shoreline vegetation is treed providing strong shoreline erosion control.	The wetland unit is palustrine meaning the unit may be valuable as a source of groundwater recharge. Since there will be no change to the wetland, the unit's ability to recharge groundwater will remain the same.	Rare species were observed within this wetland including avian Species at Risk. The development of the Loyalist Solar Project is not expected to impact rare species.	Generalized Candidate Significant Wildlife Habitat; Waterfowl Nesting Area^.	A permanent watercourse (Mud Creek) is present in this wetland that may provide spawning and migration/staging habitat. This permanent watercourse is located outside of the 50 m setback and will not be impacted by the development of the Loyalist Solar Project.

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26	1.94 Wetland boundaries were delineated during fieldwork and it was found that the wetland does not occur within Project Location. 1.54 ha of the wetland unit occurs within 50 m of the Project Location.	This wetland is comprised of a Swamp /Marsh complex with narrow-leaved emergent and tall shrub species as the dominant forms. The ELC community present in the wetland unit includes: Reed Canary Grass Mineral Meadow Marsh (MAMM1-3)/Willow Mineral Deciduous Thicket Swamp (SWTM3) Complex This ELC community is considered common in Ontario based on the SRank designated by the NHIC.	Palustrine The construction of the solar facility will not significantly change the flow of water to or from the wetland unit.	1. *Ne/Ts – Reed Canary Grass, Willow species	43.5 m to Wetland 31	Interspersion count of 94 intersections. The interspersion value used was for wetlands in a wetland complex made up of Wetland 18, 26, 31, 34,	Type 1 (less than 5% of wetland area). The construction of a solar facility on adjacent lands will not decrease or increase the value of the wetland unit's open water.	Wetland unit is small in comparison to its upstream catchment area of 3417.21 ha, which was determined using topographic and drainage mapping. Since no part of the wetland unit will be removed the unit will still attenuate flood peaks.	Catchment area determined to be >50% agricultural (cropland, hayfield, and pasture). The quality of water entering the wetland unit adjacent to the Project Location should remain unchanged or improved with the development of a solar facility. The solar facility will not result in the input of chemicals into adjacent lands.	N/A – no shoreline is present in the wetland	The wetland unit is palustrine and as such the unit may be valuable as a source of groundwater recharge. Since there will be no change to the wetland, the unit's ability to recharge groundwater will remain the same.	Rare species were observed within this unit and in the general larger study area. The development of the Loyalist Solar Project is not expected to impact rare species.	Generalized Candidate Significant Wildlife Habitat; Reptile Hibernaculum^	N/A – no fish spawning or migration/staging habitat is present
31	1.99 Wetland boundaries were delineated during fieldwork and it was found that the wetland does occur within Project Location. 0.70 ha of the wetland unit occurs within 50 m of the Project Location.	This wetland is comprised of Swamp (86%) with coniferous tree species as the dominant form and Marsh (14%) with robust emergent as the dominant form. The ELC communities present in the wetland unit include: White Cedar Organic Coniferous Swamp (SWCO1-1) Cattail Mineral Meadow Marsh (MAMM1-2) These ELC communities are considered common in Ontario based on the SRank designated by the NHIC.	Palustrine This wetland has a surface water connection with Wetland 34. The construction of the solar facility will not significantly change the flow of water to or from the wetland unit.	1. C* - Eastern White Cedar 2. Re* - Broad-leaved Cattail	11.3 m to unevaluated wetland beyond the Project Location	Interspersion count of 94 intersections. The interspersion value used was for wetlands in a wetland complex made up of Wetland 18, 26, 31, 34,	Type 1 (less than 5% of wetland area). The construction of a solar facility on adjacent lands will not decrease or increase the value of the wetland unit's open water.	Wetland unit is small in comparison to its upstream catchment area of 3417.21 ha, which was determined using topographic and drainage mapping. Since no part of the wetland unit will be removed the unit will still attenuate flood peaks.	Catchment area determined to be >50% agricultural (cropland, hayfield, and pasture). The quality of water entering the wetland unit adjacent to the Project Location should remain unchanged or improved with the development of a solar facility. The solar facility will not result in the input of chemicals into adjacent lands.	N/A – no shoreline is present in the wetland	The wetland unit is palustrine and as such the unit may be valuable as a source of groundwater recharge. Since there will be no change to the wetland, the unit's ability to recharge groundwater will remain the same.	No rare species were observed in this wetland unit. Rare species were observed in the general larger study area. The development of the Loyalist Solar Project is not expected to impact rare species.	Generalized Candidate Significant Wildlife Habitat; Reptile Hibernaculum^; Amphibian Breeding Habitat (Woodland); Woodland Area-Sensitive Bird Breeding Habitat; Red-headed Woodpecker Habitat	Fish spawning or migration/staging habitat is present

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34	5.41 Wetland boundaries were delineated during fieldwork and it was found that the wetland does not occur within Project Location. 1.92 ha of the wetland unit occurs within 50 m of the Project Location.	This wetland is comprised of Swamp (100%) with coniferous tree species as the dominant form. The ELC community present in the wetland unit includes: White Cedar Organic Coniferous Swamp (SWCO1-1) This ELC community is considered common in Ontario based on the SRank designated by the NHIC.	Palustrine This wetland has a surface water connection with Wetland 31. The construction of the solar facility will not significantly change the flow of water to or from the wetland unit.	1. C* - Eastern White Cedar H – Trembling Aspen Re – Broad-leaved Cattail	26 m to Wetland 31	Interspersion count of 94 intersections. The interspersion value used was for wetlands in a wetland complex made up of Wetland 18, 26, 31, 34,	Type 1 (less than 5% of wetland area). The construction of a solar facility on adjacent lands will not decrease or increase the value of the wetland unit's open water.	Wetland unit is small in comparison to its upstream catchment area of 3417.21 ha, which was determined using topographic and drainage mapping. Since no part of the wetland unit will be removed the unit will still attenuate flood peaks.	Catchment area determined to be >50% agricultural (cropland, hayfield, and pasture). The quality of water entering the wetland unit adjacent to the Project Location should remain unchanged or improved with the development of a solar facility. The solar facility will not result in the input of chemicals into adjacent lands.	N/A – no shoreline is present in the wetland	The wetland unit is palustrine and as such the unit may be valuable as a source of groundwater recharge. Since there will be no change to the wetland, the unit's ability to recharge groundwater will remain the same.	No rare species were observed in this wetland unit. Rare species were observed in the general larger study area. The development of the Loyalist Solar Project is not expected to impact rare species.	Generalized Candidate Significant Wildlife Habitat; Reptile Hibernaculum^;	Fish spawning or migration/staging habitat is present
40	4.24 Wetland boundaries were delineated during fieldwork and it was found that the wetland does not occur within Project Location. 2.32 ha of the wetland unit occurs within 50 m of the Project Location.	This wetland is comprised of Swamp (80%) with deciduous tree species as the dominant form and Marsh (20%). The ELC community present in the portion of the wetland unit within 50 m of the Project Location includes: Mineral Deciduous Swamp (SWDM4) This ELC community is considered common in Ontario based on the SRank designated by the NHIC.	Palustrine This wetland has a surface water connection with Wetland 43. The construction of the solar facility will not significantly change the flow of water to or from the wetland unit.	1. H* – Trembling Aspen, Green Ash, Swamp Maple, White Elm C - Eastern White Cedar Ts – Willow species	25.9 m to Wetland 43	Interspersion count of 61 intersections. The interspersion value used was for wetlands in a wetland complex made up of Wetland 40, 43, 49, 54, 118, 61, 62	Type 1 (less than 5% of wetland area). The construction of a solar facility on adjacent lands will not decrease or increase the value of the wetland unit's open water.	Wetland unit is small in comparison to its upstream catchment area of 754.56 ha, which was determined using topographic and drainage mapping. Since no part of the wetland unit will be removed the unit will still attenuate flood peaks.	Catchment area determined to be >50% agricultural (cropland, hayfield, and pasture). The quality of water entering the wetland unit adjacent to the Project Location should remain unchanged or improved with the development of a solar facility. The solar facility will not result in the input of chemicals into adjacent lands.	N/A – no shoreline is present in the wetland	The wetland unit is palustrine and as such the unit may be valuable as a source of groundwater recharge. Since there will be no change to the wetland, the unit's ability to recharge groundwater will remain the same.	No rare species were observed in this wetland unit. Rare species were observed in the general larger study area. The development of the Loyalist Solar Project is not expected to impact rare species.	Generalized Candidate Significant Wildlife Habitat; Amphibian Breeding Habitat (Woodland); Colonially Nesting Bird Breeding Habitat^ (Tree & Shrubs); Woodland Area-Sensitive Bird Breeding Habitat; Red-headed Woodpecker Habitat.	N/A – no fish spawning or migration/staging habitat is present

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43	6.92 Wetland boundaries were delineated during fieldwork and it was found that the wetland does not occur within Project Location. 1.73 ha of the wetland unit occurs within 50 m of the Project Location.	This wetland is comprised of 100 % Swamp with deciduous tree species as the dominant form. The ELC community present in the wetland unit includes: Mineral Deciduous Swamp (SWDM4) This ELC community is considered common in Ontario based on the SRank designated by the NHIC.	Palustrine This wetland has a surface water connection with Wetland 40. The construction of the solar facility will not significantly change the flow of water to or from the wetland unit.	1. H* – Trembling Aspen, Green Ash, Swamp Maple, White Elm C - Eastern White Cedar Ts – Willow species	25.9 m to Wetland 40	Interspersion count of 61 intersections. The interspersion value used was for wetlands in a wetland complex made up of Wetland 40, 43, 49, 54, 118, 61, 62	Type 1 (less than 5% of wetland area). The construction of a solar facility on adjacent lands will not decrease or increase the value of the wetland unit's open water.	Wetland unit is small in comparison to its upstream catchment area of 754.56 ha, which was determined using topographic and drainage mapping. Since no part of the wetland unit will be removed the unit will still attenuate flood peaks.	Catchment area determined to be >50% agricultural (cropland, hayfield, and pasture). The quality of water entering the wetland unit adjacent to the Project Location should remain unchanged or improved with the development of a solar facility. The solar facility will not result in the input of chemicals into adjacent lands.	N/A – no shoreline is present in the wetland	The wetland unit is palustrine and as such the unit may be valuable as a source of groundwater recharge. Since there will be no change to the wetland, the unit's ability to recharge groundwater will remain the same.	No rare species were observed in this wetland unit. Rare species were observed in the general larger study area. The development of the Loyalist Solar Project is not expected to impact rare species.	Generalized Candidate Significant Wildlife Habitat; Colonially Nesting Bird Breeding Habitat^ (Tree & Shrubs);	N/A – no fish spawning or migration/staging habitat is present
44	2.15 Wetland boundaries were delineated during fieldwork and it was found that the wetland does not occur within Project Location. 0.25 ha of the wetland unit occurs within 50 m of the Project Location.	This wetland is comprised of 100 % Swamp with deciduous tree species as the dominant form. The ELC community present in the wetland unit includes: Green Ash Mineral Deciduous Swamp (SWDM2-2) This ELC community is considered common in Ontario based on the SRank designated by the NHIC.	Riverine This riverine wetland likely experiences fluctuating water levels associated with the Salmon River. The construction of the solar facility will not significantly change the flow of water to or from the wetland unit.	1. H* – Green Ash	18.5 m to Wetland 45	Interspersion count of 116 intersections. The interspersion value used was for wetlands in a wetland complex made up of Wetland 33, 41, 44, 45, 112, 113, 114	Type 1 (less than 5% of wetland area). The construction of a solar facility on adjacent lands will not decrease or increase the value of the wetland unit's open water.	Wetland unit is small in comparison to its upstream catchment area of 65850.7 ha, which was determined using topographic and drainage mapping. Since no part of the wetland unit will be removed the unit will still attenuate flood peaks.	Catchment area determined to be >50% agricultural (cropland, hayfield, and pasture). The quality of water entering the wetland unit adjacent to the Project Location should remain unchanged or improved with the development of a solar facility. The solar facility will not result in the input of chemicals into adjacent lands.	This swamp contains a permanent watercourse. Shoreline vegetation is treed providing strong shoreline erosion control.	The wetland unit is riverine and as such the unit may be a moderate source of groundwater recharge. Since there will be no change to the wetland, the unit's ability to recharge groundwater will remain the same.	No rare species were observed in this wetland unit. Rare species were observed in the general larger study area. The development of the Loyalist Solar Project is not expected to impact rare species.	Colonially Nesting Bird Breeding Habitat^ (Tree & Shrubs)	Fish spawning or migration/staging habitat is present in the Salmon River

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45	13.4 Wetland boundaries were delineated during fieldwork and it was found that the wetland does not occur within Project Location. 0.16 ha of the wetland unit occurs within 50 m of the Project Location.	This wetland is comprised of 100 % Swamp with deciduous tree species as the dominant form. The ELC community present in the wetland unit includes: Green Ash Mineral Deciduous Swamp (SWDM2-2) This ELC community is considered common in Ontario based on the SRank designated by the NHIC.	Riverine This riverine wetland likely experiences fluctuating water levels associated with the Salmon River. The construction of the solar facility will not significantly change the flow of water to or from the wetland unit.	1. H* – Green Ash	7.4 m to Wetland 113	Interspersion count of 116 intersections. The interspersion value used was for wetlands in a wetland complex made up of Wetland 33, 41, 44, 45, 112, 113, 114	Type 1 (less than 5% of wetland area). The construction of a solar facility on adjacent lands will not decrease or increase the value of the wetland unit's open water.	Wetland unit is small in comparison to its upstream catchment area of 65850.7 ha, which was determined using topographic and drainage mapping. Since no part of the wetland unit will be removed the unit will still attenuate flood peaks.	Catchment area determined to be >50% agricultural (cropland, hayfield, and pasture). The quality of water entering the wetland unit adjacent to the Project Location should remain unchanged or improved with the development of a solar facility. The solar facility will not result in the input of chemicals into adjacent lands.	This swamp contains a permanent watercourse. Shoreline vegetation is treed providing strong shoreline erosion control.	The wetland unit is riverine and as such the unit may be a moderate source of groundwater recharge. Since there will be no change to the wetland, the unit's ability to recharge groundwater will remain the same.	No rare species were observed in this wetland unit. Rare species were observed in the general larger study area. The development of the Loyalist Solar Project is not expected to impact rare species.	Colonially Nesting Bird Breeding Habitat^ (Tree & Shrubs)	Fish spawning or migration/staging habitat is present in the Salmon River
54	3.56 Wetland boundaries were delineated during fieldwork and it was found that the wetland does not occur within Project Location. 1.11 ha of the wetland unit occurs within 50 m of the Project Location.	This wetland is comprised of Marsh (31%) with robust emergent species as the dominant form and Swamp (69%). The ELC community present in the portion of the wetland unit within the 50 m setback includes: Cattail Mineral Meadow Marsh (MAMM1-2) This ELC community is considered common in Ontario based on the SRank designated by the NHIC.	Palustrine This wetland has a surface water connection with Wetland 49, 61, 62, 118, 119 The construction of the solar facility will not significantly change the flow of water to or from the wetland unit.	1. Re*- Broad-leaved Cattail	12.2 m to Wetland 119	Interspersion count of 61 intersections. The interspersion value used was for wetlands in a wetland complex made up of Wetland 40, 43, 49, 54, 118, 61, 62	Type 1 (less than 5% of wetland area). The construction of a solar facility on adjacent lands will not decrease or increase the value of the wetland unit's open water.	Wetland unit is small in comparison to its upstream catchment area of 754.56 ha, which was determined using topographic and drainage mapping. Since no part of the wetland unit will be removed the unit will still attenuate flood peaks.	Catchment area determined to be >50% agricultural (cropland, hayfield, and pasture). The quality of water entering the wetland unit adjacent to the Project Location should remain unchanged or improved with the development of a solar facility. The solar facility will not result in the input of chemicals into adjacent lands.	N/A – no shoreline is present in the wetland	The wetland unit is palustrine and as such the unit may be valuable as a source of groundwater recharge. Since there will be no change to the wetland, the unit's ability to recharge groundwater will remain the same.	No rare species were observed in this wetland unit. Rare species were observed in the general larger study area. The development of the Loyalist Solar Project is not expected to impact rare species.	Generalized Candidate Significant Wildlife Habitat	N/A – no fish spawning or migration/staging habitat is present

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61	7.3 Wetland boundaries were delineated during fieldwork and it was found that the wetland does not occur within Project Location. 1.16 ha of the wetland unit occurs within 50 m of the Project Location.	This wetland is comprised of 100 % Swamp with tall shrub and deciduous tree species as the dominant forms. The ELC communities present in the wetland unit include: Willow Mineral Deciduous Thicket Swamp (SWTM3) Green Ash Mineral Deciduous Swamp (SWDM2-2) These ELC communities are considered common in Ontario based on the SRank designated by the NHIC.	Palustrine This wetland has a surface water connection with Wetland 49, 54, 62, 118, 119 The construction of the solar facility will not significantly change the flow of water to or from the wetland unit.	1. Ts* - Tall Shrubs 2. H* - Green Ash	12.1 m to Wetland 62	Interspersion count of 61 intersections. The interspersion value used was for wetlands in a wetland complex made up of Wetland 40, 43, 49, 52, 118, 61, 62	Type 1 (less than 5% of wetland area). The construction of a solar facility on adjacent lands will not decrease or increase the value of the wetland unit's open water.	Wetland unit is small in comparison to its upstream catchment area of 754.56 ha, which was determined using topographic and drainage mapping. Since no part of the wetland unit will be removed the unit will still attenuate flood peaks.	Catchment area determined to be >50% agricultural (cropland, hayfield, and pasture). The quality of water entering the wetland unit adjacent to the Project Location should remain unchanged or improved with the development of a solar facility. The solar facility will not result in the input of chemicals into adjacent lands.	N/A – no shoreline is present in the wetland	The wetland unit is palustrine and as such the unit may be valuable as a source of groundwater recharge. Since there will be no change to the wetland, the unit's ability to recharge groundwater will remain the same.	No rare species were observed in this wetland unit. Rare species were observed in the general larger study area. The development of the Loyalist Solar Project is not expected to impact rare species.	Generalized Candidate Significant Wildlife Habitat	N/A – no fish spawning or migration/staging habitat is present
62	3.04 Wetland boundaries were delineated during fieldwork and it was found that the wetland does not occur within Project Location. 1.04 ha of the wetland unit occurs within 50 m of the Project Location.	This wetland is comprised of Swamp (72.94%) with tall shrub and deciduous tree species as the dominant forms and Marsh (27.06%). The ELC communities present in the wetland unit include: Willow Mineral Deciduous Thicket Swamp (SWTM3) Green Ash Mineral Deciduous Swamp (SWDM2-2) These ELC communities are considered common in Ontario based on the SRank designated by the NHIC.	Palustrine This wetland has a surface water connection with Wetland 49, 54, 61, 118, 119 The construction of the solar facility will not significantly change the flow of water to or from the wetland unit.	1. Ts* - Tall Shrubs 2. H* - Green Ash	12.1 m to Wetland 61	Interspersion count of 61 intersections. The interspersion value used was for wetlands in a wetland complex made up of Wetland 40, 43, 49, 52, 118, 61, 62	Type 1 (less than 5% of wetland area). The construction of a solar facility on adjacent lands will not decrease or increase the value of the wetland unit's open water.	Wetland unit is small in comparison to its upstream catchment area of 754.56 ha, which was determined using topographic and drainage mapping. Since no part of the wetland unit will be removed the unit will still attenuate flood peaks.	Catchment area determined to be >50% agricultural (cropland, hayfield, and pasture). The quality of water entering the wetland unit adjacent to the Project Location should remain unchanged or improved with the development of a solar facility. The solar facility will not result in the input of chemicals into adjacent lands.	N/A – no shoreline is present in the wetland	The wetland unit is palustrine and as such the unit may be valuable as a source of groundwater recharge. Since there will be no change to the wetland, the unit's ability to recharge groundwater will remain the same.	No rare species were observed in this wetland unit. Rare species were observed in the general larger study area. The development of the Loyalist Solar Project is not expected to impact rare species.	Generalized Candidate Significant Wildlife Habitat	N/A – no fish spawning or migration/staging habitat is present

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71	2.61 Wetland boundaries were delineated during fieldwork and it was found that the wetland does not occur within Project Location. 1.32 ha of the wetland unit occurs within 50 m of the Project Location.	This wetland is comprised of 100 % Swamp with tall shrub species as the dominant form. The ELC community present in the wetland unit includes: Willow Mineral Deciduous Thicket Swamp (SWTM3) This ELC community is considered common in Ontario based on the SRank designated by the NHIC.	Palustrine This wetland has a surface water connection with Wetland 72, 75, 125 The construction of the solar facility will not significantly change the flow of water to or from the wetland unit.	1. Ts* - Tall Shrubs	15.3 m to Wetland 72	Interspersion count of 100 intersections. The interspersion value used was for wetlands in a wetland complex made up of Wetland 71, 72, 73, 75, 125	Type 1 (less than 5% of wetland area). The construction of a solar facility on adjacent lands will not decrease or increase the value of the wetland unit's open water.	Wetland unit is small in comparison to its upstream catchment area of 65850.7 ha, which was determined using topographic and drainage mapping. Since no part of the wetland unit will be removed the unit will still attenuate flood peaks.	Catchment area determined to be >50% forested or other natural vegetation. The quality of water entering the wetland unit adjacent to the Project Location should remain unchanged or improved with the development of a solar facility. The solar facility will not result in the input of chemicals into adjacent lands.	N/A – no shoreline is present in the wetland	The wetland unit is palustrine and as such the unit may be valuable as a source of groundwater recharge. Since there will be no change to the wetland, the unit's ability to recharge groundwater will remain the same.	No rare species were observed in this wetland unit. Rare species were observed in the general larger study area. The development of the Loyalist Solar Project is not expected to impact rare species.	Generalized Candidate Significant Wildlife Habitat; Colonially Nesting Bird Breeding Habitat^ (Tree & Shrubs); Amphibian Breeding Habitat (Woodland); Woodland Area-Sensitive Bird Breeding Habitat; Wood Thrush Habitat	Fish spawning or migration/staging habitat is present
72	3.63 Wetland boundaries were delineated during fieldwork and it was found that the wetland does not occur within Project Location. 1.73 ha of the wetland unit occurs within 50 m of the Project Location. The remainder of the wetland occurs more than 50 m from the Project Location.	This wetland is comprised of 100 % Swamp with tall shrub or deciduous tree species as the dominant form. The ELC communities present in the wetland unit include: Willow Mineral Deciduous Thicket Swamp (SWTM3) Swamp Maple Mineral Deciduous Swamp (SWDM3-3) These ELC communities are considered common in Ontario based on the SRank designated by the NHIC.	Palustrine This wetland has a surface water connection with Wetland 71, 125, 75 The construction of the solar facility will not significantly change the flow of water to or from the wetland unit.	1. Ts* - Tall Shrubs 2. H* - Green Ash, Swamp Maple	15.3 m to Wetland 71	Interspersion count of 100 intersections. The interspersion value used was for wetlands in a wetland complex made up of Wetland 71, 72, 73, 75, 125	Type 1 (less than 5% of wetland area). The construction of a solar facility on adjacent lands will not decrease or increase the value of the wetland unit's open water.	Wetland unit is small in comparison to its upstream catchment area of 65850.7 ha, which was determined using topographic and drainage mapping. Since no part of the wetland unit will be removed the unit will still attenuate flood peaks.	Catchment area determined to be >50% forested or other natural vegetation. The quality of water entering the wetland unit adjacent to the Project Location should remain unchanged or improved with the development of a solar facility. The solar facility will not result in the input of chemicals into adjacent lands.	N/A – no shoreline is present in the wetland	The wetland unit is palustrine and as such the unit may be valuable as a source of groundwater recharge. Since there will be no change to the wetland, the unit's ability to recharge groundwater will remain the same.	No rare species were observed in this wetland unit. Rare species were observed in the general larger study area. The development of the Loyalist Solar Project is not expected to impact rare species.	Generalized Candidate Significant Wildlife Habitat; Amphibian Breeding Habitat (Woodland); Woodland Area-Sensitive Bird Breeding Habitat; Wood Thrush Habitat.	Fish spawning or migration/staging habitat is present

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73	1.73 Wetland boundaries were delineated during fieldwork and it was found that the wetland does not occur within Project Location. 0.33 ha of the wetland unit occurs within 50 m of the Project Location.	This wetland is comprised of 100 % Swamp with tall shrub or deciduous tree species as the dominant form. The ELC community present in the wetland unit includes: Green Ash Mineral Deciduous Swamp (SWDM2-2) This ELC community is considered common in Ontario based on the SRank designated by the NHIC.	Palustrine The construction of the solar facility will not significantly change the flow of water to or from the wetland unit.	1. H* - Green Ash, Swamp Maple	12.2 m to Wetland 125	Interspersion count of 100 intersections. The interspersion value used was for wetlands in a wetland complex made up of Wetland 71, 72, 73, 75, 125	Type 1 (less than 5% of wetland area). The construction of a solar facility on adjacent lands will not decrease or increase the value of the wetland unit's open water.	Wetland unit is small in comparison to its upstream catchment area of 65850.7 ha, which was determined using topographic and drainage mapping. Since no part of the wetland unit will be removed the unit will still attenuate flood peaks.	Catchment area determined to be >50% forested or other natural vegetation. The quality of water entering the wetland unit adjacent to the Project Location should remain unchanged or improved with the development of a solar facility. The solar facility will not result in the input of chemicals into adjacent lands.	N/A – no shoreline is present in the wetland	The wetland unit is palustrine and as such the unit may be valuable as a source of groundwater recharge. Since there will be no change to the wetland, the unit's ability to recharge groundwater will remain the same.	No rare species were observed in this wetland unit. Rare species were observed in the general larger study area. The development of the Loyalist Solar Project is not expected to impact rare species.	Generalized Candidate Significant Wildlife Habitat; Amphibian Breeding Habitat (Woodland); Woodland Area-Sensitive Bird Breeding Habitat; Wood Thrush Habitat.	N/A – no fish spawning or migration/staging habitat is present
75	6.28 Wetland boundaries were delineated during fieldwork and it was found that the wetland does not occur within Project Location. 0.99 ha of the wetland unit occurs within 50 m of the Project Location.	This wetland is comprised of 100 % Swamp with tall shrub species as the dominant form. The ELC community present in the wetland unit includes: Willow Mineral Deciduous Thicket Swamp (SWTM3) This ELC community is considered common in Ontario based on the SRank designated by the NHIC.	Palustrine This wetland has a surface water connection with Wetland 72, 71, 125 The construction of the solar facility will not significantly change the flow of water to or from the wetland unit.	1. Ts* - Tall Shrubs	19.7 m to Wetland 128	Interspersion count of 100 intersections. The interspersion value used was for wetlands in a wetland complex made up of Wetland 71, 72, 73, 75, 125	Type 1 (less than 5% of wetland area). The construction of a solar facility on adjacent lands will not decrease or increase the value of the wetland unit's open water.	Wetland unit is small in comparison to its upstream catchment area of 65850.7 ha, which was determined using topographic and drainage mapping. Since no part of the wetland unit will be removed the unit will still attenuate flood peaks.	Catchment area determined to be >50% forested or other natural vegetation. The quality of water entering the wetland unit adjacent to the Project Location should remain unchanged or improved with the development of a solar facility. The solar facility will not result in the input of chemicals into adjacent lands.	N/A – no shoreline is present in the wetland	The wetland unit is palustrine and as such the unit may be valuable as a source of groundwater recharge. Since there will be no change to the wetland, the unit's ability to recharge groundwater will remain the same.	No rare species were observed in this wetland unit. Rare species were observed in the general larger study area. The development of the Loyalist Solar Project is not expected to impact rare species.	Generalized Candidate Significant Wildlife Habitat; Amphibian Breeding Habitat (Woodland); Woodland Area-Sensitive Bird Breeding Habitat; Wood Thrush Habitat.	Fish spawning or migration/staging habitat is present

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77	21.71 Wetland boundaries were delineated during fieldwork and it was found that the wetland does not occur within Project Location. 2.51 ha of the wetland unit occurs within 50 m of the Project Location.	This wetland is comprised of 100 % Swamp with tall shrub or deciduous tree species as the dominant form. The ELC community present in the wetland unit includes: Green Ash Mineral Deciduous Swamp (SWDM2-2) This ELC community is considered common in Ontario based on the SRank designated by the NHIC.	Palustrine The construction of the solar facility will not significantly change the flow of water to or from the wetland unit.	1. H* - Green Ash, Trembling Aspen, Swamp Maple	12.2 m to Wetland 85	Interspersion count of 261 intersections. The interspersion value used was for wetlands in a wetland complex made up of Wetland 77, 78, 83, 85, 94, 109, 122, 123, 126	Type 1 (less than 5% of wetland area). The construction of a solar facility on adjacent lands will not decrease or increase the value of the wetland unit's open water.	Wetland unit is small in comparison to its upstream catchment area of 1924.83 ha, which was determined using topographic and drainage mapping. Since no part of the wetland unit will be removed the unit will still attenuate flood peaks.	Catchment area determined to be >50% forested or other natural vegetation. The quality of water entering the wetland unit adjacent to the Project Location should remain unchanged or improved with the development of a solar facility. The solar facility will not result in the input of chemicals into adjacent lands.	N/A – no shoreline is present in the wetland	The wetland unit is palustrine and as such the unit may be valuable as a source of groundwater recharge. Since there will be no change to the wetland, the unit's ability to recharge groundwater will remain the same.	Rare species were observed in this wetland unit and within the general larger study area. The development of the Loyalist Solar Project is not expected to impact rare species.	Generalized Candidate Significant Wildlife Habitat; Colonially Nesting Bird Breeding Habitat^ (Tree & Shrubs); Amphibian Breeding Habitat (Woodland); Woodland Area-Sensitive Bird Breeding Habitat; Wood Thrush Habitat	N/A – no fish spawning or migration/staging habitat is present
78	3.11 Wetland boundaries were delineated during fieldwork and it was found that the wetland does not occur within Project Location. 2.26 ha of the wetland unit occurs within 50 m of the Project Location.	This wetland is comprised of 100 % Swamp with tall shrub or deciduous tree species as the dominant form. The ELC community present in the wetland unit includes: Green Ash Mineral Deciduous Swamp (SWDM2-2) This ELC community is considered common in Ontario based on the SRank designated by the NHIC.	Palustrine The construction of the solar facility will not significantly change the flow of water to or from the wetland unit.	1. H* - Green Ash, Trembling Aspen, Swamp Maple	12.2 m to Wetland 83	Interspersion count of 261 intersections. The interspersion value used was for wetlands in a wetland complex made up of Wetland 77, 78, 83, 85, 94, 109, 122, 123, 126	Type 1 (less than 5% of wetland area). The construction of a solar facility on adjacent lands will not decrease or increase the value of the wetland unit's open water.	Wetland unit is small in comparison to its upstream catchment area of 1924.83 ha, which was determined using topographic and drainage mapping. Since no part of the wetland unit will be removed the unit will still attenuate flood peaks.	Catchment area determined to be >50% forested or other natural vegetation. The quality of water entering the wetland unit adjacent to the Project Location should remain unchanged or improved with the development of a solar facility. The solar facility will not result in the input of chemicals into adjacent lands.	N/A – no shoreline is present in the wetland	The wetland unit is palustrine and as such the unit may be valuable as a source of groundwater recharge. Since there will be no change to the wetland, the unit's ability to recharge groundwater will remain the same.	Rare species were observed in this wetland unit and within the general larger study area. The development of the Loyalist Solar Project is not expected to impact rare species.	Generalized Candidate Significant Wildlife Habitat; Colonially Nesting Bird Breeding Habitat^ (Tree & Shrubs); Amphibian Breeding Habitat (Woodland); Woodland Area-Sensitive Bird Breeding Habitat; Wood Thrush Habitat	N/A – no fish spawning or migration/staging habitat is present

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83	1.19 Wetland boundaries were delineated during fieldwork and it was found that the wetland does not occur within Project Location. 0.54 ha of the wetland unit occurs within 50 m of the Project Location.	This wetland is comprised of 100 % Swamp with tall shrub or deciduous tree species as the dominant form. The ELC community present in the wetland unit includes: Green Ash Mineral Deciduous Swamp (SWDM2-2) This ELC community is considered common in Ontario based on the SRank designated by the NHIC.	Palustrine The construction of the solar facility will not significantly change the flow of water to or from the wetland unit.	1. H* - Green Ash, Trembling Aspen, Swamp Maple	12.2 m to Wetland 78	Interspersion count of 261 intersections. The interspersion value used was for wetlands in a wetland complex made up of Wetland 77, 78, 83, 85, 94, 109, 122, 123, 126	Type 1 (less than 5% of wetland area). The construction of a solar facility on adjacent lands will not decrease or increase the value of the wetland unit's open water.	Wetland unit is small in comparison to its upstream catchment area of 1924.83 ha, which was determined using topographic and drainage mapping. Since no part of the wetland unit will be removed the unit will still attenuate flood peaks.	Catchment area determined to be >50% forested or other natural vegetation. The quality of water entering the wetland unit adjacent to the Project Location should remain unchanged or improved with the development of a solar facility. The solar facility will not result in the input of chemicals into adjacent lands.	N/A – no shoreline is present in the wetland	The wetland unit is palustrine and as such the unit may be valuable as a source of groundwater recharge. Since there will be no change to the wetland, the unit's ability to recharge groundwater will remain the same.	Rare species were observed in this wetland unit and within the general larger study area. The development of the Loyalist Solar Project is not expected to impact rare species.	Generalized Candidate Significant Wildlife Habitat; Amphibian Breeding Habitat (Woodland); Woodland Area-Sensitive Bird Breeding Habitat; Wood Thrush Habitat	N/A – no fish spawning or migration/staging habitat is present
85	92.2 Wetland boundaries were delineated during fieldwork and it was found that the wetland does not occur within Project Location. 5.06 ha of the wetland unit occurs within 50 m of the Project Location.	This wetland is comprised of 100 % Swamp with tall shrub or deciduous tree species as the dominant form. The ELC community present in the wetland unit includes: Green Ash Mineral Deciduous Swamp (SWDM2-2) This ELC community is considered common in Ontario based on the SRank designated by the NHIC.	Palustrine The construction of the solar facility will not significantly change the flow of water to or from the wetland unit.	1. H* - Green Ash, Swamp Maple, Trembling Aspen	7.3 m to Wetland 121	Interspersion count of 100 intersections. The interspersion value used was for wetlands in the entire 1924.83 ha catchment this wetland unit is part of, which form a wetland complex. This interspersion value will persist with the development of the Loyalist Solar Project.	Type 1 (less than 5% of wetland area). The construction of a solar facility on adjacent lands will not decrease or increase the value of the wetland unit's open water.	Wetland unit is small in comparison to its upstream catchment area of 1924.83 ha, which was determined using topographic and drainage mapping. Since no part of the wetland unit will be removed the unit will still attenuate flood peaks.	Catchment area determined to be >50% forested or other natural vegetation. The quality of water entering the wetland unit adjacent to the Project Location should remain unchanged or improved with the development of a solar facility. The solar facility will not result in the input of chemicals into adjacent lands.	N/A – no shoreline is present in the wetland	The wetland unit is palustrine and as such the unit may be valuable as a source of groundwater recharge. Since there will be no change to the wetland, the unit's ability to recharge groundwater will remain the same.	No rare species were observed in this wetland unit. Rare species were observed in the general larger study area. The development of the Loyalist Solar Project is not expected to impact rare species.	Generalized Candidate Significant Wildlife Habitat; Colonially Nesting Bird Breeding Habitat^ (Tree & Shrubs); Amphibian Breeding Habitat (Woodland); Woodland Area-Sensitive Bird Breeding Habitat; Wood Thrush Habitat	N/A – no fish spawning or migration/staging habitat is present

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86	0.58 Wetland boundaries were delineated during fieldwork and it was found that the wetland does not occur within the Project Location. The wetland occurs within 50 m of the Project Location	This wetland is comprised of Swamp (59%) with deciduous and coniferous tree species as the dominant form and Marsh (41%) with narrow-leaved emergent species as the dominant form. The ELC communities present in the wetland unit include: Black Ash Mineral Deciduous Swamp (SWDM2-1) Reed Canary Grass Mineral Meadow Marsh (MAMM1-3) These ELC communities are considered common in Ontario based on the SRank designated by the NHIC.	Riverine This riverine wetland likely experiences fluctuating water levels associated with the Pennell's Creek. The construction of the solar facility will not significantly change the flow of water to or from the wetland unit.	1. Ne* - Reed Canary Grass Be - Northern Water-plantain (<i>Alisma triviale</i>), 2. H* - Black Ash, Green Ash Ne - Reed Canary Grass Gc - Slender Stinging Nettle (<i>Urtica dioica</i> ssp. <i>gracilis</i>), Smartweed species	9.5 m to Wetland 117	Interspersion count of 127 intersections. The interspersion value used was for wetlands in a wetland complex made up of Wetland 88, 86, 92, 117	Type 1 (less than 5% of wetland area). The construction of a solar facility on adjacent lands will not decrease or increase the value of the wetland unit's open water.	Wetland unit is small in comparison to its upstream catchment area of 3340.35 ha, which was determined using topographic and drainage mapping. Since no part of the wetland unit will be removed the unit will still attenuate flood peaks.	Catchment area determined to be >50% agricultural (cropland, hayfield, and pasture). The quality of water entering the wetland unit adjacent to the Project Location should remain unchanged or improved with the development of a solar facility. The solar facility will not result in the input of chemicals into adjacent lands.	This swamp contains a permanent watercourse. Shoreline vegetation is treed providing strong shoreline erosion control.	The wetland unit is riverine meaning the unit may be a moderate source of groundwater recharge. Since there will be no change to the wetland, the unit's ability to recharge groundwater will remain the same.	No rare species were observed in this wetland unit. Rare species were observed in the general larger study area. The development of the Loyalist Solar Project is not expected to impact rare species.	Generalized Candidate Significant Wildlife Habitat; Colonially Nesting Bird Breeding Habitat^ (Tree & Shrubs); Amphibian Breeding Habitat (Woodland); Woodland Area-Sensitive Bird Breeding Habitat; Wood Thrush Habitat	A permanent watercourse is present in this wetland that may provide spawning and migration/staging habitat. This permanent watercourse is located within the Project Location.
88 Pennell's Creek PSW	185.24 Wetland boundaries were delineated during fieldwork and it was found that the wetland does not occur within Project Location. 0.74 ha of the wetland unit occurs within 50 m of the Project Location.	This wetland is comprised of Swamp (78%) with deciduous and coniferous tree species as the dominant form and Marsh (20%) with narrow-leaved emergent species as the dominant form. The individual units within this wetland make up the Pennell's Creek PSW . The ELC communities present in the wetland unit include: Green Ash Mineral Deciduous Swamp (SWDM2-2) Reed Canary Grass Mineral Meadow Marsh (MAMM1-3) These ELC communities are considered common in Ontario based on the SRank designated by the NHIC.	Riverine This riverine wetland likely experiences fluctuating water levels associated with the Pennell's Creek. The construction of the solar facility will not significantly change the flow of water to or from the wetland unit.	1. Ne* - Reed Canary Grass Be - Northern Water-plantain 2. H* - Black Ash, Green Ash Ne - Reed Canary Grass	39.7 m to unevaluated wetland beyond 50 m of the Project Location	Interspersion count of 127 intersections. The interspersion value used was for wetlands in a wetland complex made up of Wetland 88, 86, 92, 117	Type 1 (less than 5% of wetland area). The construction of a solar facility on adjacent lands will not decrease or increase the value of the wetland unit's open water.	Wetland unit is small in comparison to its upstream catchment area of 3340.35 ha, which was determined using topographic and drainage mapping. Since no part of the wetland unit will be removed the unit will still attenuate flood peaks.	Catchment area determined to be >50% agricultural (cropland, hayfield, and pasture). The quality of water entering the wetland unit adjacent to the Project Location should remain unchanged or improved with the development of a solar facility. The solar facility will not result in the input of chemicals into adjacent lands.	This swamp contains a permanent watercourse. Shoreline vegetation is treed providing strong shoreline erosion control.	The wetland unit is riverine meaning the unit may be a moderate source of groundwater recharge. Since there will be no change to the wetland, the unit's ability to recharge groundwater will remain the same.	No rare species were observed in this wetland unit. Rare species were observed in the general larger study area. The development of the Loyalist Solar Project is not expected to impact rare species.	Generalized Candidate Significant Wildlife Habitat; Colonially Nesting Bird Breeding Habitat (Trees & Shrubs^); Waterfowl Nesting Area.	A permanent watercourse is present in this wetland that may provide spawning and migration/staging habitat. This permanent watercourse is located within the Project Location.

Wetland ID Number	Wetland Size (ha)	Wetland Type	Site Type	Vegetation Communities (* denotes dominant vegetation form)	Proximity to Other Wetlands	Interspersion	Open Water Type	Flood Attenuation	Water Quality Improvement	Shoreline Erosion Control	Groundwater Recharge	Species Rarity	Significant Features and Habitat	Fish Habitat
94 Biddy's Lake PSW	80.63 Wetland boundaries were delineated during fieldwork and it was found that the wetland does not occur within Project Location. 1.90 ha of the wetland unit occurs within 50 m of the Project Location.	This wetland is comprised of 100 % Swamp with tall shrub or deciduous tree species as the dominant form. The individual units within this wetland make up the Biddy's Lake PSW . The ELC communities present in the wetland unit include: Willow Mineral Deciduous Thicket Swamp (SWTM3) Green Ash Mineral Deciduous Swamp (SWDM2-2) These ELC communities are considered common in Ontario based on the SRank designated by the NHIC.	Palustrine This wetland has a seasonal surface water connection with Wetland 109 and 126 The construction of the solar facility will not significantly change the flow of water to or from the wetland unit.	1. Ts* - Tall Shrubs 2. H* - Green Ash, Swamp Maple	12.2 m to Wetland 126	Interspersion count of 261 intersections. The interspersion value used was for wetlands in a wetland complex made up of Wetland 77, 78, 83, 85, 94, 109, 122, 123, 126	Type 1 (less than 5% of wetland area). The construction of a solar facility on adjacent lands will not decrease or increase the value of the wetland unit's open water.	Wetland unit is small in comparison to its upstream catchment area of 1924.83 ha, which was determined using topographic and drainage mapping. Since no part of the wetland unit will be removed the unit will still attenuate flood peaks.	Catchment area determined to be >50% forested or other natural vegetation. The quality of water entering the wetland unit adjacent to the Project Location should remain unchanged or improved with the development of a solar facility. The solar facility will not result in the input of chemicals into adjacent lands.	N/A – no shoreline is present in the wetland	The wetland unit is palustrine and as such the unit may be valuable as a source of groundwater recharge. Since there will be no change to the wetland, the unit's ability to recharge groundwater will remain the same.	No rare species were observed in this wetland unit. Rare species were observed in the general larger study area. The development of the Loyalist Solar Project is not expected to impact rare species.	Generalized Candidate Significant Wildlife Habitat; Woodland Area-Sensitive Bird Breeding Habitat; Wood Thrush Habitat; Amphibian Breeding Habitat (Woodland).	Fish spawning or migration/staging habitat is present
96	40.84 Wetland boundaries were delineated during fieldwork and it was found that the wetland does not occur within Project Location. 1.13 ha of the wetland unit occurs within the Project Location.	This wetland is comprised of Swamp (52%) with tall shrub or deciduous tree species as the dominant form and Marsh (39%). The ELC community present within the portion of the wetland unit in 50 m of the Project Location includes: Cattail Mineral Meadow Marsh (MAMM1-2) This ELC community is considered common in Ontario based on the SRank designated by the NHIC.	Riverine This riverine wetland likely experiences fluctuating water levels associated with the Salmon River. The construction of the solar facility will not significantly change the flow of water to or from the wetland unit.	2. Re – Broad-leaved Cattail H – Green Ash, Swamp Maple	16.3 m to unevaluated wetland beyond 50 m of the Project Location	Interspersion count of 100 intersections. The interspersion value used was for wetlands in a wetland complex made up of Wetland 96 and 127.	Type 1 (less than 5% of wetland area). The construction of a solar facility on adjacent lands will not decrease or increase the value of the wetland unit's open water.	Wetland unit is small in comparison to its upstream catchment area of 1924.83 ha, which was determined using topographic and drainage mapping. Since no part of the wetland unit will be removed the unit will still attenuate flood peaks.	Catchment area determined to be >50% forested or other natural vegetation. The quality of water entering the wetland unit adjacent to the Project Location should remain unchanged or improved with the development of a solar facility. The solar facility will not result in the input of chemicals into adjacent lands.	N/A – no shoreline is present in the wetland	The wetland unit is palustrine and as such the unit may be valuable as a source of groundwater recharge. Since there will be no change to the wetland, the unit's ability to recharge groundwater will remain the same.	No rare species were observed in this wetland unit. Rare species were observed in the general larger study area. The development of the Loyalist Solar Project is not expected to impact rare species.	Generalized Candidate Significant Wildlife Habitat; Amphibian Breeding Habitat (Woodland); Waterfowl Nesting Area; Wood Thrush Habitat; Woodland Area-Sensitive Bird Breeding Habitat	Fish spawning or migration/staging habitat is present in the Salmon River

Wetland ID Number	Wetland Size (ha)	Wetland Type	Site Type	Vegetation Communities (* denotes dominant vegetation form)	Proximity to Other Wetlands	Interspersion	Open Water Type	Flood Attenuation	Water Quality Improvement	Shoreline Erosion Control	Groundwater Recharge	Species Rarity	Significant Features and Habitat	Fish Habitat
102	0.79 Wetland boundaries were delineated during fieldwork and it was found that the wetland does not occur within Project Location. 0.51 ha of the wetland unit occurs within 50 m of the Project Location.	This wetland is comprised of 100% Swamp with tall shrub species as the dominant form. The ELC community present in the wetland unit includes: Willow Mineral Deciduous Thicket Swamp (SWTM3) This ELC community is considered common in Ontario based on the SRank designated by the NHIC.	Palustrine This wetland may have seasonal overland flow connection with Wetland 11. The construction of the solar facility will not significantly change the flow of water to or from the wetland unit.	1. *Ts – Willow species	219.5 m to Wetland 4	Interspersion count of 121 intersections. The interspersion value used was for wetlands in the entire 3417.21 ha catchment this wetland unit is part of, which form a wetland complex. This interspersion value will persist with the development of the Loyalist Solar Project.	Type 1 (less than 5% of wetland area). The construction of a solar facility on adjacent lands will not decrease or increase the value of the wetland unit's open water.	Wetland unit is small in comparison to its upstream catchment area of 3417.21 ha, which was determined using topographic and drainage mapping. Since no part of the wetland unit will be removed the unit will still attenuate flood peaks.	Catchment area determined to be >50% agricultural (cropland, hayfield, and pasture). The quality of water entering the wetland unit adjacent to the Project Location should remain unchanged or improved with the development of a solar facility. The solar facility will not result in the input of chemicals into adjacent lands.	N/A – no shoreline is present in the wetland	The wetland unit is palustrine and as such the unit may be valuable as a source of groundwater recharge. Since there will be no change to the wetland, the unit's ability to recharge groundwater will remain the same.	Rare species were observed within this unit and in the general larger study area. The development of the Loyalist Solar Project is not expected to impact rare species.	Generalized Candidate Significant Wildlife Habitat; Waterfowl Nesting Habitat.	N/A – no fish spawning or migration/staging habitat is present
103	4.71 Wetland boundaries were delineated during fieldwork and it was found that the wetland does not occur within Project Location. 4.01 ha of the wetland unit occurs within the Project Location.	This wetland is comprised of Swamp (70.46%) with deciduous tree species as the dominant form and Marsh (29.54%) with robust/ narrow-leaved emergent species as the dominant forms. The ELC communities present in the wetland unit includes: Green Ash Mineral Deciduous Swamp (SWDM2-2) Cattail Graminoid Organic Meadow Marsh (MAMO1-2) Bedrock Meadow Marsh (MAMR3) This ELC community is considered common in Ontario based on the SRank designated by the NHIC.	Palustrine This wetland has intermittent inflow but no observed outflow. The construction of the solar facility will not significantly change the inputs of water to or from the wetland unit.	1. H* - Green Ash, White Elm, Trembling Aspen, Swamp White Oak (<i>Quercus bicolor</i>) Ts - Willow species Ls - Red-osier Dogwood C - Eastern White Cedar Ne - Bebb's Sedge, Lake-bank Sedge, Tussock Sedge, Tuckerman's Sedge (<i>Carex tuckermanii</i>), Northeastern Sedge, Porcupine Sedge, Canada Mannagrass, Reed Canary Grass Gc - Marsh Bedstraw, Marsh Horsetail, Common Boneset, Swamp Milkweed, Harlequin Blue Flag 2. Re* - Narrow-leaved Cattail, Harlequin Blue Flag Ne – Tussock Sedge, Reed Canary Grass H – Green Ash, White Elm Ts – Willow species 3. Ne* - Tussock Sedge, Reed Canary Grass Re – Harlequin Blue Flag Ts – Willow species Ls – Red-osier Dogwood Gc – Common Boneset	127 m to Wetland 104	Interspersion count of 121 intersections. The interspersion value used was for wetlands in a wetland complex made up of Wetland 11, 104, 107, 103	Type 1 (less than 5% of wetland area). The construction of a solar facility on adjacent lands will not decrease or increase the value of the wetland unit's open water.	Wetland unit is small in comparison to its upstream catchment area of 3417.21 ha, which was determined using topographic and drainage mapping. Since no part of the wetland unit will be removed the unit will still attenuate flood peaks.	Catchment area determined to be >50% agricultural (cropland, hayfield, and pasture). The quality of water entering the wetland unit adjacent to the Project Location should remain unchanged or improved with the development of a solar facility. The solar facility will not result in the input of chemicals into adjacent lands.	N/A – no shoreline is present in the wetland	The wetland unit is palustrine, as such the unit may be valuable as a source of groundwater recharge. Since there will be no change to the wetland, the unit's ability to recharge groundwater will remain the same.	No rare species were observed in this wetland unit. Rare species were observed in the general larger study area. The development of the Loyalist Solar Project is not expected to impact rare species.	Generalized Candidate Significant Wildlife Habitat; Waterfowl Nesting Habitat.	N/A – no fish spawning or migration/staging habitat is present

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104 Mud Creek PSW	85.47 Wetland boundaries were delineated during fieldwork and it was found that the wetland does occur within Project Location. 2.63 ha of the wetland unit occurs within the Project Location.	This wetland is comprised of Marsh (64%) with robust emergent species as the dominant form and Swamp (36%) with deciduous trees/tall shrubs as the dominant form. The individual units within this wetland make up the Mud Creek PSW . The ELC communities present in the wetland unit include: Willow Mineral Deciduous Thicket Swamp (SWTM3) Willow Organic Deciduous Thicket Swamp (SWTO2) Cattail Graminoid Organic Shallow Marsh (MASO1-1) Reed Canary Grass Graminoid Mineral Meadow Marsh (MAMM1-3) Swamp Maple Organic Deciduous Swamp (SWDO2-3) These ELC communities are considered common in Ontario based on the SRank designated by the NHIC.	Palustrine This palustrine wetland likely experiences seasonal overland drainage towards the watercourse that flows through it. The construction of the solar facility will not significantly change the flow of water to or from the wetland unit.	1. Ts* - Willow species 2. Ts* - Willow species H - White Elm, Swamp Maple Ls - White Meadowsweet (<i>Spiraea alba</i>), Red-osier Dogwood Gc - Sensitive Fern, Common Boneset (<i>Eupatorium perfoliatum</i>), Canada Anemone (<i>Anemone canadensis</i>), Ne - Canada Mannagrass (<i>Glyceria canadensis</i>), Fox Sedge, sedge species (<i>Carex</i> sp.) 3. Re* - Narrow-leaved Cattail, Broad-leaved Cattail (<i>Typha latifolia</i>), Sweet Flag (<i>Acorus americanus</i>), Harlequin Blue Flag (<i>Iris versicolor</i>), American Burreed (<i>Sparganium americanum</i>) Dh - dead hardwoods Be - Greater Water Dock (<i>Rumex orbiculatus</i>), Marsh Marigold (<i>Caltha palustris</i>) Ne - Reed Canary Grass Gc - Swamp Milkweed (<i>Asclepias incarnata</i>), Marsh Bedstraw, , Sensitive Fern, Spotted-joe Pyeweed (<i>Eutrochium maculatum</i>), Marsh Horsetail (<i>Equisetum palustre</i>) 4. Ne* - Reed Canary Grass 5. H* - Swamp Maple, Green Ash, Black Ash, White Elm Ls - Red-osier Dogwood, White Meadowsweet Dh - Swamp Maple Ne - Lake-bank Sedge (<i>Carex lacustris</i>), Porcupine Sedge (<i>Carex hystericina</i>) Re - Narrow-leaved Cattail Gc - Common Boneset, Water Loosestrife (<i>Lysimachia thyrsiflora</i>), Spotted-joe Pyeweed, Marsh Horsetail, Sensitive Fern	8.2 m to Wetland 11	Interspersion count of 121 intersections. The interspersion value used was for wetlands in a wetland complex made up of Wetland 11, 104, 107, 103	Type 3 (5-25% is open water, occurring in various sized ponds) The construction of a solar facility on adjacent lands will not decrease or increase the value of the wetland unit's open water.	Wetland unit is small in comparison to its upstream catchment area of 3417.21 ha, which was determined using topographic and drainage mapping. Since no part of the wetland unit will be removed the unit will still attenuate flood peaks.	Catchment area determined to be >50% agricultural (cropland, hayfield, and pasture). The quality of water entering the wetland unit adjacent to the Project Location should remain unchanged or improved with the development of a solar facility. The solar facility will not result in the input of chemicals into adjacent lands.	This swamp contains a permanent watercourse. Shoreline vegetation is treed providing strong shoreline erosion control.	The wetland unit is palustrine meaning the unit may be valuable as a source of groundwater recharge. Since there will be no change to the wetland, the unit's ability to recharge groundwater will remain the same.	Rare species were observed within this wetland including avian Species at Risk. The development of the Loyalist Solar Project is not expected to impact rare species.	Colonially Nesting Bird Breeding Habitat (Trees & Shrubs^); Waterfowl Nesting Habitat; Turtle Overwintering Habitat^; Turtle Nesting Area^; Amphibian Breeding Habitat (Woodland); Terrestrial Crayfish^; Large Yellow Pond Lily Habitat^.	A permanent watercourse (Mud Creek) is present in this wetland that may provide spawning and migration/staging habitat. This permanent watercourse is located outside of the 50 m setback and will not be impacted by the development of the Loyalist Solar Project.

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109	0.52 Wetland boundaries were delineated during fieldwork and it was found that the wetland does not occur within Project Location. 0.52 ha of the wetland unit occurs within 50 m of the Project Location.	This wetland is comprised of 100 % Swamp with tall shrub or deciduous tree species as the dominant form. The ELC communities present in the wetland unit include: Green Ash Mineral Deciduous Swamp (SWDM2-2) This ELC community is considered common in Ontario based on the SRank designated by the NHIC.	Palustrine This wetland has a seasonal surface water connection with Wetland 109 and 126 The construction of the solar facility will not significantly change the flow of water to or from the wetland unit.	1. H* - Green Ash, Swamp Maple	12.3 m to Wetland 94	Interspersion count of 261 intersections. The interspersion value used was for wetlands in a wetland complex made up of Wetland 77, 78, 83, 85, 94, 109, 122, 123, 126	Type 1 (less than 5% of wetland area). The construction of a solar facility on adjacent lands will not decrease or increase the value of the wetland unit's open water.	Wetland unit is small in comparison to its upstream catchment area of 1924.83 ha, which was determined using topographic and drainage mapping. Since no part of the wetland unit will be removed the unit will still attenuate flood peaks.	Catchment area determined to be >50% forested or other natural vegetation. The quality of water entering the wetland unit adjacent to the Project Location should remain unchanged or improved with the development of a solar facility. The solar facility will not result in the input of chemicals into adjacent lands.	N/A – no shoreline is present in the wetland	The wetland unit is palustrine and as such the unit may be valuable as a source of groundwater recharge. Since there will be no change to the wetland, the unit's ability to recharge groundwater will remain the same.	No rare species were observed in this wetland unit. Rare species were observed in the general larger study area. The development of the Loyalist Solar Project is not expected to impact rare species.	Generalized Candidate Significant Wildlife Habitat; Amphibian Breeding Habitat (Woodland); Woodland Area-Sensitive Bird Breeding Habitat; Wood Thrush Habitat.	N/A – no fish spawning or migration/staging habitat is present
117	0.08 Wetland boundaries were delineated during fieldwork and it was found that the wetland does not occur within the Project Location. 0.06 ha of the wetland unit occurs within 50 m of the Project Location.	This wetland is comprised of Marsh (100%) with narrow-leaved emergent species as the dominant form. The ELC community present in the wetland unit includes: Reed Canary Grass Mineral Meadow Marsh (MAMM1-3) This ELC community is considered common in Ontario based on the SRank designated by the NHIC.	Riverine This riverine wetland likely experiences fluctuating water levels associated with the Salmon River. The construction of the solar facility will not significantly change the flow of water to or from the wetland unit.	1. Ne* - Reed Canary Grass Be - Northern Water-plantain, Smartweed species	9.5 m to Wetland 86	Interspersion count of 127 intersections. The interspersion value used was for wetlands in a wetland complex made up of Wetland 88, 86, 92, 117	Type 1 (less than 5% of wetland area). The construction of a solar facility on adjacent lands will not decrease or increase the value of the wetland unit's open water.	Wetland unit is small in comparison to its upstream catchment area of 3340.35 ha, which was determined using topographic and drainage mapping. Since no part of the wetland unit will be removed the unit will still attenuate flood peaks.	Catchment area determined to be >50% agricultural (cropland, hayfield, and pasture). The quality of water entering the wetland unit adjacent to the Project Location should remain unchanged or improved with the development of a solar facility. The solar facility will not result in the input of chemicals into adjacent lands.	This swamp contains a permanent watercourse. Shoreline vegetation is treed providing strong shoreline erosion control.	The wetland unit is riverine meaning the unit may be a moderate source of groundwater recharge. Since there will be no change to the wetland, the unit's ability to recharge groundwater will remain the same.	No rare species were observed in this wetland unit. Rare species were observed in the general larger study area. The development of the Loyalist Solar Project is not expected to impact rare species.	Generalized Candidate Significant Wildlife Habitat; Amphibian Breeding Habitat (Woodland); Woodland Area-Sensitive Bird Breeding Habitat; Wood Thrush Habitat.	A permanent watercourse is present in this wetland that may provide spawning and migration/staging habitat. This permanent watercourse is located within the Project Location.

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118	0.83 Wetland boundaries were delineated during fieldwork and it was found that the wetland does not occur within Project Location. 0.83 ha of the wetland unit occurs within 50 m of the Project Location.	This wetland is comprised of 100 % Swamp with tall shrub species as the dominant form. The ELC community present in the wetland unit includes: Willow Mineral Deciduous Thicket Swamp (SWTM3) This ELC community is considered common in Ontario based on the SRank designated by the NHIC.	Palustrine This wetland has a surface water connection with Wetland 49, 54, 61, 62, 119 The construction of the solar facility will not significantly change the flow of water to or from the wetland unit.	1. Ts* - Tall Shrubs	12.2 m to Wetland 54	Interspersion count of 61 intersections. The interspersion value used was for wetlands in a wetland complex made up of Wetland 40, 43, 49, 52, 118, 61, 62	Type 1 (less than 5% of wetland area). The construction of a solar facility on adjacent lands will not decrease or increase the value of the wetland unit's open water.	Wetland unit is small in comparison to its upstream catchment area of 754.56 ha, which was determined using topographic and drainage mapping. Since no part of the wetland unit will be removed the unit will still attenuate flood peaks.	Catchment area determined to be >50% agricultural (cropland, hayfield, and pasture). The quality of water entering the wetland unit adjacent to the Project Location should remain unchanged or improved with the development of a solar facility. The solar facility will not result in the input of chemicals into adjacent lands.	N/A – no shoreline is present in the wetland	The wetland unit is palustrine and as such the unit may be valuable as a source of groundwater recharge. Since there will be no change to the wetland, the unit's ability to recharge groundwater will remain the same.	No rare species were observed in this wetland unit. Rare species were observed in the general larger study area. The development of the Loyalist Solar Project is not expected to impact rare species.	Generalized Candidate Significant Wildlife Habitat	N/A – no fish spawning or migration/staging habitat is present
122	0.54 Wetland boundaries were delineated during fieldwork and it was found that the wetland does not occur within Project Location. 0.54 ha of the wetland unit occurs within 50 m of the Project Location.	This wetland is comprised of 100 % Swamp with tall shrub or deciduous tree species as the dominant form. The ELC community present in the wetland unit includes: Green Ash Mineral Deciduous Swamp (SWDM2-2) This ELC community is considered common in Ontario based on the SRank designated by the NHIC.	Palustrine The construction of the solar facility will not significantly change the flow of water to or from the wetland unit.	1. H* - Green Ash, Trembling Aspen, Swamp Maple	12.2 m to Wetland 123	Interspersion count of 261 intersections. The interspersion value used was for wetlands in a wetland complex made up of Wetland 77, 78, 83, 85, 94, 109, 122, 123, 126	Type 1 (less than 5% of wetland area). The construction of a solar facility on adjacent lands will not decrease or increase the value of the wetland unit's open water.	Wetland unit is small in comparison to its upstream catchment area of 1924.83 ha, which was determined using topographic and drainage mapping. Since no part of the wetland unit will be removed the unit will still attenuate flood peaks.	Catchment area determined to be >50% forested or other natural vegetation. The quality of water entering the wetland unit adjacent to the Project Location should remain unchanged or improved with the development of a solar facility. The solar facility will not result in the input of chemicals into adjacent lands.	N/A – no shoreline is present in the wetland	The wetland unit is palustrine and as such the unit may be valuable as a source of groundwater recharge. Since there will be no change to the wetland, the unit's ability to recharge groundwater will remain the same.	Rare species were observed in this wetland unit and within the general larger study area. The development of the Loyalist Solar Project is not expected to impact rare species.	Generalized Candidate Significant Wildlife Habitat; Amphibian Breeding Habitat (Woodland); Woodland Area-Sensitive Bird Breeding Habitat; Wood Thrush Habitat.	N/A – no fish spawning or migration/staging habitat is present

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123	1.57 Wetland boundaries were delineated during fieldwork and it was found that the wetland does not occur within Project Location. 1.57 ha of the wetland unit occurs within 50 m of the Project Location.	This wetland is comprised of 100 % Swamp with tall shrub or deciduous tree species as the dominant form. The ELC community present in the wetland unit includes: Green Ash Mineral Deciduous Swamp (SWDM2-2) This ELC community is considered common in Ontario based on the SRank designated by the NHIC.	Palustrine The construction of the solar facility will not significantly change the flow of water to or from the wetland unit.	1. H* - Green Ash, Trembling Aspen, Swamp Maple	12.2 to Wetland 122	Interspersion count of 261 intersections. The interspersion value used was for wetlands in a wetland complex made up of Wetland 77, 78, 83, 85, 94, 109, 122, 123, 126	Type 1 (less than 5% of wetland area). The construction of a solar facility on adjacent lands will not decrease or increase the value of the wetland unit's open water.	Wetland unit is small in comparison to its upstream catchment area of 1924.83 ha, which was determined using topographic and drainage mapping. Since no part of the wetland unit will be removed the unit will still attenuate flood peaks.	Catchment area determined to be >50% forested or other natural vegetation. The quality of water entering the wetland unit adjacent to the Project Location should remain unchanged or improved with the development of a solar facility. The solar facility will not result in the input of chemicals into adjacent lands.	N/A – no shoreline is present in the wetland	The wetland unit is palustrine and as such the unit may be valuable as a source of groundwater recharge. Since there will be no change to the wetland, the unit's ability to recharge groundwater will remain the same.	Rare species were observed in this wetland unit and within the general larger study area. The development of the Loyalist Solar Project is not expected to impact rare species.	Generalized Candidate Significant Wildlife Habitat; Amphibian Breeding Habitat (Woodland); Woodland Area-Sensitive Bird Breeding Habitat; Wood Thrush Habitat.	N/A – no fish spawning or migration/staging habitat is present
125	2.19 Wetland boundaries were delineated during fieldwork and it was found that the wetland does not occur within Project Location. 2.19 ha of the wetland unit occurs within 50 m of the Project Location.	This wetland is comprised of 100 % Swamp with tall shrub or deciduous tree species as the dominant form. The ELC communities present in the wetland unit include: Willow Mineral Deciduous Thicket Swamp (SWTM3) Green Ash Mineral Deciduous Swamp (SWDM2-2) These ELC communities are considered common in Ontario based on the SRank designated by the NHIC.	Palustrine This wetland has a surface water connection with Wetland 71, 75 The construction of the solar facility will not significantly change the flow of water to or from the wetland unit.	1. Ts* - Tall Shrubs 2. H* - Green Ash, Swamp Maple	12.2 m to Wetland 73	Interspersion count of 100 intersections. The interspersion value used was for wetlands in a wetland complex made up of Wetland 71, 72, 73, 75, 125	Type 1 (less than 5% of wetland area). The construction of a solar facility on adjacent lands will not decrease or increase the value of the wetland unit's open water.	Wetland unit is small in comparison to its upstream catchment area of 65850.7 ha, which was determined using topographic and drainage mapping. Since no part of the wetland unit will be removed the unit will still attenuate flood peaks.	Catchment area determined to be >50% forested or other natural vegetation. The quality of water entering the wetland unit adjacent to the Project Location should remain unchanged or improved with the development of a solar facility. The solar facility will not result in the input of chemicals into adjacent lands.	N/A – no shoreline is present in the wetland	The wetland unit is palustrine and as such the unit may be valuable as a source of groundwater recharge. Since there will be no change to the wetland, the unit's ability to recharge groundwater will remain the same.	No rare species were observed in this wetland unit. Rare species were observed in the general larger study area. The development of the Loyalist Solar Project is not expected to impact rare species.	Generalized Candidate Significant Wildlife Habitat; Amphibian Breeding Habitat (Woodland); Woodland Area-Sensitive Bird Breeding Habitat; Wood Thrush Habitat.	Fish spawning or migration/staging habitat is present

Wetland ID Number	Wetland Size (ha)	Wetland Type	Site Type	Vegetation Communities (* denotes dominant vegetation form)	Proximity to Other Wetlands	Interspersion	Open Water Type	Flood Attenuation	Water Quality Improvement	Shoreline Erosion Control	Groundwater Recharge	Species Rarity	Significant Features and Habitat	Fish Habitat
126	9.38 Wetland boundaries were delineated during fieldwork and it was found that the wetland does not occur within Project Location. 1.23 ha of the wetland unit occurs within 50 m of the Project Location	This wetland is comprised of 100 % Swamp with tall shrub or deciduous tree species as the dominant form. The ELC communities present in the wetland unit include: Green Ash Mineral Deciduous Swamp (SWDM2-2) This ELC community is considered common in Ontario based on the SRank designated by the NHIC.	Palustrine This wetland has a seasonal surface water connection with Wetland 109 and 94 The construction of the solar facility will not significantly change the flow of water to or from the wetland unit.	1. H* - Green Ash, Swamp Maple	12.2 m to Wetland 94	Interspersion count of 261 intersections. The interspersion value used was for wetlands in a wetland complex made up of Wetland 77, 78, 83, 85, 94, 109, 122, 123, 126	Type 1 (less than 5% of wetland area). The construction of a solar facility on adjacent lands will not decrease or increase the value of the wetland unit's open water.	Wetland unit is small in comparison to its upstream catchment area of 1924.83 ha, which was determined using topographic and drainage mapping. Since no part of the wetland unit will be removed the unit will still attenuate flood peaks.	Catchment area determined to be >50% forested or other natural vegetation. The quality of water entering the wetland unit adjacent to the Project Location should remain unchanged or improved with the development of a solar facility. The solar facility will not result in the input of chemicals into adjacent lands.	N/A – no shoreline is present in the wetland	The wetland unit is palustrine and as such the unit may be valuable as a source of groundwater recharge. Since there will be no change to the wetland, the unit's ability to recharge groundwater will remain the same.	No rare species were observed in this wetland unit. Rare species were observed in the general larger study area. The development of the Loyalist Solar Project is not expected to impact rare species.	Amphibian Breeding Habitat (Woodland); Woodland Area-Sensitive Bird Breeding Habitat; Wood Thrush Habitat.	N/A – no fish spawning or migration/staging habitat is present
127	0.86 Wetland boundaries were delineated during fieldwork and it was found that the wetland does not occur within the Project Location. 0.27 ha of the wetland unit occurs within the Project Location.	This wetland is comprised of Swamp (56%) with deciduous tree and tall/low shrub species as the dominant form and Marsh (44%) with narrow-leaved emergent species as the dominant form. The ELC communities present in the wetland unit include: Reed Canary Grass Graminoid Organic Meadow Marsh (MAMO1-3) Organic Deciduous Thicket Swamp (SWTO5) These ELC communities are considered common in Ontario based on the SRank designated by the NHIC.	Riverine This riverine wetland likely experiences fluctuating water levels associated with the Salmon River. The construction of the solar facility will not significantly change the flow of water to or from the wetland unit.	1. Ne* - Reed Canary Grass, Lake-bank Sedge, Hop Sedge, Tussock Sedge (<i>Carex stricta</i>) Fox Sedge H - Green Ash, Swamp Maple Ls - White Meadowsweet, Red-osier Dogwood Ts - Willow species Re - Harlequin Blue Flag Gc - Marsh Fern, Marsh Horsetail, Water Loosestrife, Swamp Milkweed, Spotted-joe Pyeweed, Sensitive Fern, Canada Anemone 2. H* - Green Ash, Swamp Maple Ls - Red-osier Dogwood Ne - Reed Canary Grass, Lake-bank Sedge, Hop Sedge, Tussock Sedge (<i>Carex stricta</i>) Fox Sedge Re - Harlequin Blue Flag Gc - Marsh Fern, Marsh Horsetail, Water Loosestrife, Swamp Milkweed, Spotted-joe Pyeweed, Sensitive Fern, Canada Anemone	2 m to an unevaluated wetland beyond Project Location	Interspersion count of 100 intersections. The interspersion value used was for wetlands in a wetland complex made up of Wetland 96 and 127.	Type 1 (less than 5% of wetland area). The construction of a solar facility on adjacent lands will not decrease or increase the value of the wetland unit's open water.	Wetland unit is small in comparison to its upstream catchment area of 3340.35 ha, which was determined using topographic and drainage mapping. Since no part of the wetland unit will be removed the unit will still attenuate flood peaks.	Catchment area determined to be >50% agricultural (cropland, hayfield, and pasture). The quality of water entering the wetland unit adjacent to the Project Location should remain unchanged or improved with the development of a solar facility. The solar facility will not result in the input of chemicals into adjacent lands.	N/A – no shoreline is present in the wetland	The wetland unit is palustrine meaning the unit may be valuable as a source of groundwater recharge. Since there will be no change to the wetland, the unit's ability to recharge groundwater will remain the same.	No rare species were observed in this wetland unit. Rare species were observed in the general larger study area. The development of the Loyalist Solar Project is not expected to impact rare species.	Generalized Candidate Significant Wildlife Habitat; Amphibian Breeding Habitat (Woodland); Woodland Area-Sensitive Bird Breeding Habitat; Waterfowl Nesting Area; Wood Thrush Habitat.	N/A – no fish spawning or migration/staging habitat is present

Wetland ID Number	Wetland Size (ha)	Wetland Type	Site Type	Vegetation Communities (* denotes dominant vegetation form)	Proximity to Other Wetlands	Interspersion	Open Water Type	Flood Attenuation	Water Quality Improvement	Shoreline Erosion Control	Groundwater Recharge	Species Rarity	Significant Features and Habitat	Fish Habitat
18 (within the Mud Creek PSW area)	131.03 Wetland boundaries were delineated during fieldwork and it was found that the wetland does occur within the Project Location. 0.81 ha of the wetland unit occurs within the Project Location.	<p>This wetland is comprised of Marsh (1%) with narrow-leaved emergent species as the dominant form and Swamp (99 %) with deciduous trees as the dominant form. The ELC communities present in the wetland unit include: Swamp Maple Organic Deciduous Swamp (SWDO 2-3) White Cedar Organic Coniferous Swamp (SWCO1-1)</p> <p>Poplar Mineral Deciduous Swamp (SWDM4-5) Swamp Maple Mineral Deciduous Swamp (SWDM3-3) These ELC communities are considered common in Ontario based on the SRank designated by the NHIC.</p>	<p>Palustrine This wetland appears to have seasonal overland flow connection to wetland 21.</p> <p>The construction of the solar facility will not significantly change the flow of water to or from the wetland unit.</p>	<p>1. H* - Swamp Maple, Black Ash, Green Ash, White Elm, C - Eastern White Cedar (<i>Thuja occidentalis</i>) Ls -Bristly Dewberry, Red-osier Dogwood Ne - Reed Canary Grass, Canada Mannagrass Re - Harlequin Blue Flag Gc - Wild Sarsaparilla, Marsh Fern, Canada Clearweed (<i>Pilea pumila</i>)</p> <p>2. C* - Eastern White Cedar (<i>Thuja occidentalis</i>) H - Swamp Maple, Black Ash, Green Ash, White Elm, Ls -Bristly Dewberry, Red-osier Dogwood Ne - Reed Canary Grass, Canada Mannagrass Re - Harlequin Blue Flag Gc - Wild Sarsaparilla, Marsh Fern, Canada Clearweed (<i>Pilea pumila</i>)</p> <p>3. *H – Trembling Aspen, Green Ash, Black Ash, Swamp Maple Ne – Northeastern Sedge</p> <p>4.*H – Swamp Maple, Green Ash, Black Ash, Trembling Aspen, White Elm C - Eastern White Cedar Ls - Grey Dogwood (<i>Cornus racemosa</i>), Silky Dogwood (<i>Cornus obliqua</i>), Ne - Hop Sedge, Reed Canary Grass Gc - Swamp Milkweed, Smartweed species, Canada Anemone</p>	30.5 m to an unevaluated wetland beyond Project Location	Interspersion count of 94 intersections. The interspersion value used was for wetlands in a wetland complex made up of Wetland 18, 26, 31, 34,	Type 1 (less than 5% is open water) The construction of a solar facility on adjacent lands will not decrease or increase the value of the wetland unit's open water.	Wetland unit is small in comparison to its upstream catchment area of 3417.21 ha, which was determined using topographic and drainage mapping. Since no part of the wetland unit will be removed the unit will still attenuate flood peaks.	Catchment area determined to be >50% agricultural (cropland, hayfield, and pasture). The quality of water entering the wetland unit adjacent to the Project Location should remain unchanged or improved with the development of a solar facility. The solar facility will not result in the input of chemicals into adjacent lands.	N/A – no shoreline is present in the wetland	The wetland unit is palustrine meaning the unit may be valuable as a source of groundwater recharge. Since there will be no change to the wetland, the unit's ability to recharge groundwater will remain the same.	No rare species were observed in this wetland unit. Rare species were observed in the general larger study area. The development of the Loyalist Solar Project is not expected to impact rare species.	Amphibian Breeding Habitat (Woodland); Woodland Area-Sensitive Bird Breeding Habitat; Waterfowl Stopover & Staging Area^ (Aquatic); Red-headed Woodpecker Habitat	N/A – no fish spawning or migration/staging habitat is present

Wetland ID Number	Wetland Size (ha)	Wetland Type	Site Type	Vegetation Communities (* denotes dominant vegetation form)	Proximity to Other Wetlands	Interspersion	Open Water Type	Flood Attenuation	Water Quality Improvement	Shoreline Erosion Control	Groundwater Recharge	Species Rarity	Significant Features and Habitat	Fish Habitat
49	3.38 Wetland boundaries were delineated during fieldwork and it was found that the wetland does occur within Project Location. 0.25 ha of the wetland unit occurs within the Project Location.	This wetland is comprised of Marsh (88%) with robust emergent species as the dominant form and Swamp (12%). The ELC community present in the portion of wetland unit within the Project Location includes: Cattail Mineral Meadow Marsh (MAMM1-2) This ELC community is considered common in Ontario based on the SRank designated by the NHIC.	Palustrine This wetland has a surface water connection with Wetland 54, 61, 62, 118, 119 The construction of the solar facility will not significantly change the flow of water to or from the wetland unit.	1. Re*- Broad-leaved Cattail	274.4 m to Wetland 54	Interspersion count of 61 intersections. The interspersion value used was for wetlands in a wetland complex made up of Wetland 40, 43, 49, 52, 118, 61, 62	Type 1 (less than 5% of wetland area). The construction of a solar facility on adjacent lands will not decrease or increase the value of the wetland unit's open water.	Wetland unit is small in comparison to its upstream catchment area of 754.56 ha, which was determined using topographic and drainage mapping. Since no part of the wetland unit will be removed the unit will still attenuate flood peaks.	Catchment area determined to be >50% agricultural (cropland, hayfield, and pasture). The quality of water entering the wetland unit adjacent to the Project Location should remain unchanged or improved with the development of a solar facility. The solar facility will not result in the input of chemicals into adjacent lands.	N/A – no shoreline is present in the wetland	The wetland unit is palustrine and as such the unit may be valuable as a source of groundwater recharge. Since there will be no change to the wetland, the unit's ability to recharge groundwater will remain the same.	No rare species were observed in this wetland unit. Rare species were observed in the general larger study area. The development of the Loyalist Solar Project is not expected to impact rare species.	Butterfly Species of Conservation Concern	N/A – no fish spawning or migration/staging habitat is present
92	1.9 Wetland boundaries were delineated during fieldwork and it was found that the wetland does not occur within the Project Location. 1.9 ha of the wetland unit occurs within 50 m of the Project Location.	This wetland is comprised of Swamp (78%) with deciduous tree and tall/low shrub species as the dominant form and Marsh (22%) with narrow-leaved emergent species as the dominant form. The ELC communities present in the wetland unit include: Reed Canary Grass Graminoid Organic Meadow Marsh (MAMO1-3) Organic Deciduous Thicket Swamp (SWTO5) These ELC communities are considered common in Ontario based on the SRank designated by the NHIC.	Palustrine This wetland likely has seasonal overland flow connection with Wetland 88 The construction of the solar facility will not significantly change the flow of water to or from the wetland unit.	1. Ne* - Reed Canary Grass Be - Northern Water-plantain 2. H* - Black Ash, Green Ash Ne - Reed Canary Grass Gc -Slender Stinging Nettle, Smartweed species	172.2 m to Wetland 130	Interspersion count of 127 intersections. The interspersion value used was for wetlands in a wetland complex made up of Wetland 88, 86, 92, 117	Type 1 (less than 5% of wetland area). The construction of a solar facility on adjacent lands will not decrease or increase the value of the wetland unit's open water.	Wetland unit is small in comparison to its upstream catchment area of 3340.35 ha, which was determined using topographic and drainage mapping. Since no part of the wetland unit will be removed the unit will still attenuate flood peaks.	Catchment area determined to be >50% agricultural (cropland, hayfield, and pasture). The quality of water entering the wetland unit adjacent to the Project Location should remain unchanged or improved with the development of a solar facility. The solar facility will not result in the input of chemicals into adjacent lands.	N/A – no shoreline is present in the wetland	The wetland unit is palustrine, meaning the unit may be valuable as a source of groundwater recharge. Since there will be no change to the wetland, the unit's ability to recharge groundwater will remain the same.	No rare species were observed in this wetland unit. Rare species were observed in the general larger study area. The development of the Loyalist Solar Project is not expected to impact rare species.	Generalized Candidate Significant Wildlife Habitat; Amphibian Breeding Habitat^ (Woodland); Colonially Nesting Bird Breeding Habitat^ (Tree/Shrubs) Waterfowl Nesting Area.	N/A – no fish spawning or migration/staging habitat is present

Wetland ID Number	Wetland Size (ha)	Wetland Type	Site Type	Vegetation Communities (* denotes dominant vegetation form)	Proximity to Other Wetlands	Interspersion	Open Water Type	Flood Attenuation	Water Quality Improvement	Shoreline Erosion Control	Groundwater Recharge	Species Rarity	Significant Features and Habitat	Fish Habitat
114	0.70 Wetland boundaries were delineated during fieldwork and it was found that the wetland does occur within Project Location. 0.24 ha of the wetland unit occurs within the Project Location.	This wetland is comprised of Swamp (86%) with coniferous tree species as the dominant form and Marsh (14%) with robust emergent as the dominant form. The ELC communities present in the wetland unit include: Reed Canary Grass Organic Meadow Marsh (MAMO1-3) Willow Organic Thicket Swamp (SWTO2) These ELC communities are considered common in Ontario based on the SRank designated by the NHIC.	Palustrine This wetland has a seasonal surface water connection with Wetland 115. The construction of the solar facility will not significantly change the flow of water to or from the wetland unit.	1.Ne*- Reed Canary Grass, Fox Sedge, Re-Harlequin Blue Flag, Narrow-leaved Cattail, Gc -Canada Anemone, Marsh Marigold,	21.6 m to Wetland 115	Interspersion count of 116 intersections. The interspersion value used was for wetlands in a wetland complex made up of Wetland 33, 41, 44, 45, 112, 113, 114	Type 1 (less than 5% of wetland area). The construction of a solar facility on adjacent lands will not decrease or increase the value of the wetland unit's open water.	Wetland unit is small in comparison to its upstream catchment area of 65850.7 ha, which was determined using topographic and drainage mapping. Since no part of the wetland unit will be removed the unit will still attenuate flood peaks.	Catchment area determined to be >50% agricultural (cropland, hayfield, and pasture). The quality of water entering the wetland unit adjacent to the Project Location should remain unchanged or improved with the development of a solar facility. The solar facility will not result in the input of chemicals into adjacent lands.	N/A – no shoreline is present in the wetland	The wetland unit is palustrine and as such the unit may be valuable as a source of groundwater recharge. Since there will be no change to the wetland, the unit's ability to recharge groundwater will remain the same.	No rare species were observed in this wetland unit. Rare species were observed in the general larger study area. The development of the Loyalist Solar Project is not expected to impact rare species.	None	N/A – no fish spawning or migration/staging habitat is present

^Candidate wildlife habitat treated as significant for the purposes of the NHA

8.2 Woodlands

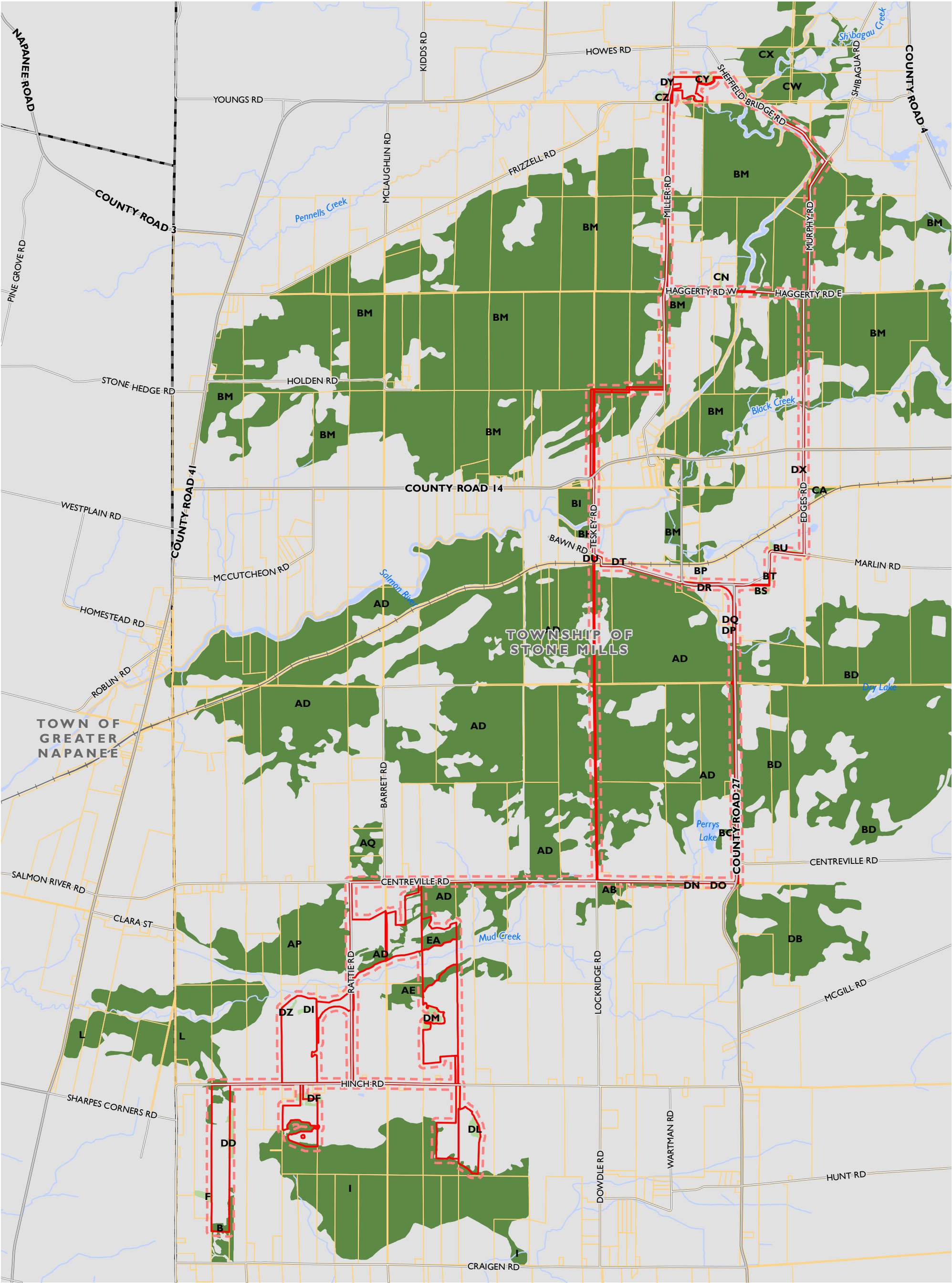
For this evaluation of significance, the definition of woodlands is as defined on May 1, 2016, amendments to *Ontario Regulation 359/09*. As such, the estimate of woodland cover within the Township of Stone Mills is 24.38% (Roger Hogan Stone Mills Township *pers. comm.* August 10, 2016). Lennox and Addington County has not set out criteria to determine the significance of woodlands (Lennox & Addington County 2016). The natural cover and target forest area outlined in the *MNRF's Natural Heritage Assessment Guide for Renewable Energy Projects* (2012) criteria for the Madoc ecodistrict (6E-9) is 69% and 42.7 %, respectively. Criteria set out by the Township Stone Mills is more stringent and locally relevant than those set out by MNRF, as such Stone Mills Township criteria will be considered for the purpose of this report.

In order for woodland to be considered significant, it must be greater than or equal to 20 ha in size (outside the settlement areas). If woodland fails to meet that criterion, it was considered significant if it meets any one of the following criteria:

- a) Interior habitat of greater than or equal to 2 ha, with a 100 m interior buffer on all sides
- b) Proximity to other woodlands (within 30 m of another significant woodland or habitat) and greater than 4 ha in size
- c) Overlap with other natural heritage features (provincially significant wetlands, ANSI's, etc.) and is greater than 4 ha in size
- d) Within 50 m of a sensitive groundwater discharge, watercourse or fish habitat and is greater than 2 ha in size, or
- e) Contain certain representative native woodland species and greater than 4 ha in size

The criteria being considered are included in **Table 6**. The criteria responsible for the evaluation of significance are identified by bold text. Significant woodlands are identified by ID numbers as per **Figure 4**.

Note that following the completion of the *NHA Site Investigation Report*, the Project Location was refined for the purposes of the *NHA Evaluation of Significance Report*. As such, Candidate Woodlands identified in the *NHA Site Investigation Report* that are no longer within the Project Location or 50 m setback have been omitted from **Table 6** (i.e., BF, BG, CI, DS).



LOYALIST SOLAR PROJECT

LOYALIST SOLAR LP

SIGNIFICANT WOODLANDS

FIGURE 4

Railway

Project Location Boundary (subject to refinement)

50 m Setback

Parcel Boundary

Municipal Boundary

Mapped Watercourse

Mapped Water Body

Significant Woodland

Non Significant Woodland

1:40,000

0

0.5

1

2 km

N

S

E

W

MAP CREATED BY: GM

MAP CHECKED BY: JP

DATA PROVIDED BY: MNRF

MAP PROJECTION: NAD 1983 UTM Zone 18N

PROJECT: 163674

STATUS: DRAFT

DATE: 10/27/2016

FILE LOCATION: I:\GIS\163674 - Loyalist Solar\mxd\EOS\Figure 4 Significant Woodlands.mxd

Table 6: Evaluation of Woodlands Within the Project Location and 50 m Setback

Woodland ID	Size Criterion	Ecological Function Criteria					Woodland Uncommon Characteristics (0.5 – 2 ha)	Evaluation of Significance	
	Woodland Size (ha) (≥20 ha)	Woodland Interior (ha) (2 ha)	Proximity to Other Significant Woodlands or Habitats (Within 30 m) ^ (4 ha)	Linkages (4 ha)	Water Protection (2 ha)	Woodland Diversity Representation (4 ha)		Significant	Not Significant
AB	14.16	0	<ul style="list-style-type: none"> Generalized Candidate Significant Wildlife Habitat 	Woodland AB is small with no interior habitat. Woodland AB is not between two other significant features within 120 m.	Woodland does not contain any notable surface water and is not identified as a source water protection area.	Identified as Dry-Fresh Sugar Maple – Black Cherry Deciduous Forest (FODM5-7). Dominant canopy species include Sugar Maple (<i>Acer saccharum</i>) and Black Cherry (<i>Prunus serotina</i>).	No uncommon characteristics.	✓	
AD	1131.19	463.82	<ul style="list-style-type: none"> Generalized Candidate Significant Wildlife Habitat Waterfowl Stopover and Staging Area (Aquatic) Reptile Hibernaculum Colonially Nesting Bird Breeding Habitat (Tree/Shrubs)* Alvar Waterfowl Nesting Area Amphibian Breeding Habitat (Woodland) Woodland Area-Sensitive Bird Breeding Habitat Common Nighthawk Habitat Red-headed Woodpecker Habitat 	Woodland AD is large and provides direct connectivity to multiple woodlands within the Lennox and Addington County as well as Mud Creek Provincially Significant Swamp (PSW) and Roblin Swamp.	Woodland AD contains unevaluated wetlands. Woodland AD contains Dillon delineated wetlands. Woodland AD is within 50m of Mud Creek PSW, Perry's Lake, Salmon River Tributary and Roblin Swamp.	Identified as: Fresh-Moist White Cedar Coniferous Forest Type (FOCM4-1); Dry-Fresh Sugar Maple Deciduous Forest Ecosite (FODM5); Dry-Fresh White Cedar Coniferous Forest Ecosite (FOCM2-2); Dry-Fresh White Cedar Calcareous Bedrock Coniferous Forest Type (FOCS3-1); Swamp Maple Mineral Deciduous Swamp (SWDM3-3); Poplar Mineral Deciduous Swamp (SWDM4-5); White Cedar Organic Coniferous Swamp (SWCO1-1); Swamp Maple Organic Deciduous Swamp (SWDO2-3); Mineral Deciduous Swamp Ecosite (SWDM4); Fresh-moist Green Ash-Hardwood Lowland Deciduous Forest (FODM7-2); Dry-Fresh Sugar Maple-Ironwood Deciduous Forest Type (FODM5-4); Dry Sugar Maple-White Ash Deciduous Forest (FODM5-8); Green Ash Mineral Deciduous Swamp (SWDM2-2); Dry-Fresh White Ash-Hardwood Deciduous Forest Type (FODM4-2); Dry-Fresh Ironwood Deciduous Forest Type (FODM4-4); Dry-Fresh White Cedar-Hardwood Mixed Forest Type (FODM4-3). Dry-fresh Red Cedar Coniferous Forest Type (FOCM2-1). Dominant canopy species include Eastern White Cedar (<i>Thuja occidentalis</i>) and Sugar Maple.	No uncommon characteristics	✓	
AE	21.59	0.05	<ul style="list-style-type: none"> Generalized Candidate Significant Wildlife Habitat Reptile Hibernaculum Colonially Nesting Bird Breeding Habitat (Tree/Shrubs) Waterfowl Nesting Area Amphibian Breeding Habitat (Woodland) 	Woodland AE is not between two other significant features within 120m.	Woodland AE contains unevaluated wetlands. Woodland AE is within 50 m of Mud Creek PSW.	Identified as: Swamp Maple Organic Deciduous Swamp (SWDO2-3); Fresh-moist Oak-Maple-Hickory Deciduous Forest (FODM9); Green Ash Mineral Deciduous Swamp (SWDM2-2); Fresh-Moist White Cedar Coniferous Forest Type (FOCM4-1). Dominant canopy species include Eastern White Cedar and Freeman's Maple (<i>Acer x freemannii</i>).	No uncommon characteristics	✓	
AP	83.92	34.25	<ul style="list-style-type: none"> Generalized Candidate Significant Wildlife Habitat Reptile Hibernaculum Colonially Nesting Bird Breeding Habitat (Tree/Shrubs) Waterfowl Nesting Area 	Woodland AP is large and provides direct connectivity to other woodlands to west within the Lennox & Addington County as well as the Mud Creek PSW.	Woodland AP is within 50 m of Mud Creek PSW.	Identified as Dry-Fresh Poplar Mixed Forest Type (FODM5-2). Dominant canopy species include Trembling Aspen (<i>Populus tremuloides</i>), with Eastern Red Cedar (<i>Juniperus virginiana</i>), American Elm and Sugar Maple.	No uncommon characteristics	✓	

Woodland ID	Size Criterion	Ecological Function Criteria					Woodland Uncommon Characteristics (0.5 – 2 ha)	Evaluation of Significance	
	Woodland Size (ha) (≥20 ha)	Woodland Interior (ha) (2 ha)	Proximity to Other Significant Woodlands or Habitats (Within 30 m) ^ (4 ha)	Linkages (4 ha)	Water Protection (2 ha)	Woodland Diversity Representation (4 ha)		Significant	Not Significant
AQ	15.31	0	<ul style="list-style-type: none"> Generalized Candidate Significant Wildlife Habitat 	Woodland AQ is located within 120 m of Woodland AP and AD.	Woodland does not contain any notable surface water and is not identified as a source water protection area.	Identified as Dry-Fresh Poplar Mixed Forest Type (FOMM5-2). Dominant canopy species include Trembling Aspen, with Eastern Red Cedar, American Elm and Sugar Maple.	No uncommon characteristics.	✓	
B	10.38	0	<ul style="list-style-type: none"> Generalized Candidate Significant Wildlife Habitat 	Woodland B is not between two other significant features within 120 m.	Woodland B does not contain any notable surface water and is not identified as a source water protection area. Woodland B contains Dillon delineated wetlands.	Identified as: Dry-Fresh Oak-Hardwood Non-calcareous Shallow Deciduous Forest Ecosite (FODR2); Dry-Fresh White Cedar Calcareous Bedrock Coniferous Forest Type (FOCS3-1); Dry-Fresh Sugar Maple Deciduous Forest Ecosite (FODM5). Dominant canopy species include Eastern Red Cedar, Eastern White Cedar and Bur Oak (<i>Quercus macrocarpa</i>).	No uncommon characteristics.	✓	
BC	2.34	0	<ul style="list-style-type: none"> Generalized Candidate Significant Wildlife Habitat 	Woodland BC is between two other significant features (Woodland BD & AD) within 120 m.	Woodland BC is adjacent to Perry's Lake.	Identified as Fresh-moist Green Ash-Hardwood Lowland Deciduous Forest (FODM7-2). Dominant canopy species include Green Ash (<i>Fraxinus pennsylvanica</i>).	No uncommon characteristics	✓	
BD	539.45	247.84	<ul style="list-style-type: none"> Generalized Candidate Significant Wildlife Habitat 	Woodland BD is not between two other significant features within 120 m.	Woodland BD contains unevaluated wetlands. Woodland BD contains Dry Lake.	Identified as : White Cedar Organic Coniferous Swamp (SWCO1-1); Fresh-Moist White Cedar Coniferous Forest Type (FOCM4-1); Dry-Fresh Sugar Maple Deciduous Forest Ecosite (FODM5); Mineral Deciduous Swamp Ecosite (SWDM4). Dominant canopy species include Eastern White Cedar and Sugar Maple.	No uncommon characteristics	✓	
BH	3.88	0	<ul style="list-style-type: none"> Generalized Candidate Significant Wildlife Habitat Reptile Hibernaculum Colonially Nesting Bird Breeding Habitat (Tree/Shrubs) 	Woodland BH provides direct connectivity to multiple Woodlands with the Lennox and Addington Country.	Woodland BH contains unevaluated wetlands. Woodland BH is within 50 m of Salmon River.	Identified as Green Ash Mineral Deciduous Swamp (SWDM2-2). Dominant canopy species include Green Ash.	No uncommon characteristics	✓	
BI	15.81	0	<ul style="list-style-type: none"> Colonially Nesting Bird Breeding Habitat (Tree & Shrubs) 	Woodland BI provides direct connectivity to multiple Woodlands with the Lennox and Addington Country.	Woodland BI contains unevaluated wetlands. Woodland BI is within 50 m of Salmon River.	Identified as Green Ash Mineral Deciduous Swamp (SWDM2-2). Dominant canopy species include Green Ash.	No uncommon characteristics	✓	

Woodland ID	Size Criterion	Ecological Function Criteria					Woodland Uncommon Characteristics (0.5 – 2 ha)	Evaluation of Significance	
	Woodland Size (ha) (≥20 ha)	Woodland Interior (ha) (2 ha)	Proximity to Other Significant Woodlands or Habitats (Within 30 m) ^ (4 ha)	Linkages (4 ha)	Water Protection (2 ha)	Woodland Diversity Representation (4 ha)		Significant	Not Significant
BM	1774.24	893.57	<ul style="list-style-type: none"> Generalized Candidate Significant Wildlife Habitat Colonially Nesting Bird Breeding Habitat (Trees & Shrubs) Waterfowl Nesting Habitat Amphibian Breeding Habitat (Woodland) Woodland Area-Sensitive Bird Breeding Habitat Wood Thrush Habitat 	Woodland BM is large and provides direct connectivity to other woodlands within the Lennox & Addington County.	<p>Woodland BM is directly adjacent to Pennell's Creek PSW, Biddy's Lake PSW and a Salmon River tributary.</p> <p>Woodland BM contains unevaluated wetland.</p>	<p>Identified as : Dry-Fresh White Pine-Hardwood Mixed Forest Type (FOMM2-3); Fresh-moist Green Ash-Hardwood Lowland Deciduous Forest (FODM7-2); Dry-Fresh Sugar Maple Deciduous Forest Ecosite (FODM5); Dry-Fresh White Cedar-Hardwood Mixed Forest Type (FOMM4-3); Dry-Fresh Ironwood Deciduous Forest Type (FODM4-4); Dry-Fresh White Cedar Coniferous Forest Ecosite (FOCM2-2); Fresh-Moist White Cedar Coniferous Forest Type (FOCM4-1); Green Ash Mineral Deciduous Swamp (SWDM2-2); Fresh-moist Poplar Deciduous Forest (FODM8-1); Swamp Maple Mineral Deciduous Swamp (SWDM3-3); Coniferous Forest (FOC); Dry-Fresh Sugar Maple-Beech Deciduous Forest Type (FODM5-2); Dry-Fresh White Ash-Hardwood Deciduous Forest Type (FODM4-2); Fresh - Moist Lowland Deciduous Forest (FODM7). Dominant canopy species include Green Ash, Sugar Maple, Black Maple (<i>Fraxinus nigra</i>), White Ash <i>Fraxinus americana</i>), and Trembling Aspen (<i>Populus tremuloides</i>).</p>	No uncommon characteristics	✓	
BP	0.81	0	<ul style="list-style-type: none"> Generalized Candidate Significant Wildlife Habitat 	Woodland BP is not between two other significant features within 120 m.	Woodland BP is within 50 m of Salmon River tributary.	Identified as Fresh-moist Green Ash-Hardwood Lowland Deciduous Forest (FODM7-2). Dominant canopy species include Green Ash.	No uncommon characteristics.		✓
BS	1.29	0	<ul style="list-style-type: none"> Generalized Candidate Significant Wildlife Habitat 	Woodland BS is not between two other significant features within 120 m.	Woodland BS is within 50 m of a Salmon River tributary. Woodland BS contains Dillon Delineated Wetlands.	Identified as Fresh-moist Green Ash-Hardwood Lowland Deciduous Forest (FODM7-2). Dominant canopy species include Green Ash.	No uncommon characteristics		✓
BT	0.53	0	<ul style="list-style-type: none"> Generalized Candidate Significant Wildlife Habitat 	Woodland BT is not between two other significant features within 120 m.	Woodland BT is within 50 m of a Salmon River tributary. Woodland BT contains unevaluated wetlands. Woodland BT contains Dillon Delineated Wetlands.	Identified as Fresh-moist Green Ash-Hardwood Lowland Deciduous Forest (FODM7-2). Dominant canopy species include Green Ash.	No uncommon characteristics		✓
BU	1.65	0	<ul style="list-style-type: none"> Generalized Candidate Significant Wildlife Habitat 	Woodland BU is not between two other significant features within 120 m.	Woodland BU is within 50 m a Salmon River tributary. Woodland BU contains unevaluated wetlands. Woodland BU contains Dillon Delineated Wetlands.	Identified as Fresh-moist Green Ash-Hardwood Lowland Deciduous Forest (FODM7-2). Dominant canopy species include Green Ash.	No uncommon characteristics		✓

Woodland ID	Size Criterion	Ecological Function Criteria					Woodland Uncommon Characteristics (0.5 – 2 ha)	Evaluation of Significance	
	Woodland Size (ha) (≥20 ha)	Woodland Interior (ha) (2 ha)	Proximity to Other Significant Woodlands or Habitats (Within 30 m) ^ (4 ha)	Linkages (4 ha)	Water Protection (2 ha)	Woodland Diversity Representation (4 ha)		Significant	Not Significant
CA	2.63	0	N/A	Woodland CA is not between two other significant features within 120 m.	Woodland CA is within 50 m a Salmon River tributary.	Identified as Green Ash Mineral Deciduous Swamp (SWDM2-2). Dominant canopy species includes Green Ash.	No uncommon characteristics	✓	
CN	0.89	0	<ul style="list-style-type: none"> Generalized Candidate Significant Wildlife Habitat 	Woodland CN is not between two other significant features within 120 m.	Woodland CN does not contain any notable surface water and is not identified as a source water protection area.	Identified as Dry-Fresh Sugar Maple Deciduous Forest Ecosite (FODM5). Dominant canopy species include Sugar Maple.	No uncommon characteristics		✓
CW	72.95	7.85	<ul style="list-style-type: none"> Generalized Candidate Significant Wildlife Habitat 	Woodland CW is between two significant natural features (Woodland BM and CX) within 120 m.	Woodland CW contains unevaluated wetland. Woodland CW is adjacent to the Pennell's Creek PSW tributary.	Identified as Fresh-moist Green Ash-Hardwood Lowland Deciduous Forest (FODM7-2). Dominant canopy species include Green Ash.	No uncommon characteristics	✓	
CX	38.21	4.17	<ul style="list-style-type: none"> Generalized Candidate Significant Wildlife Habitat Waterfowl Nesting Area 	Woodland CX is not between two other significant features within 120 m.	Woodland CX contains unevaluated wetland. Woodland CX is adjacent to the Pennell's Creek PSW tributary.	Identified as Fresh-moist Green Ash-Hardwood Lowland Deciduous Forest (FODM7-2). Dominant canopy species include Green Ash.	No uncommon characteristics	✓	
CY	1.49	0	<ul style="list-style-type: none"> Colonially Nesting Bird Breeding Habitat (Trees & Shrubs) Waterfowl Nesting Area Amphibian Breeding Habitat (Woodland) 	Woodland CY is not between two other significant features within 120 m.	Woodland CY contains unevaluated wetland. Woodland CY contains Dillon delineated wetland. Woodland CY is within 50 m of Pennell's Creek PSW tributary.	Identified as Black Ash Mineral Deciduous Swamp (SWDM2-1). Dominant canopy species include Black Ash.	No uncommon characteristics		✓
CZ	1.57	0	<ul style="list-style-type: none"> Generalized Candidate Significant Wildlife Habitat Colonially Nesting Bird Breeding Habitat (Trees & Shrubs) 	Woodland CZ is not between two other significant features within 120 m.	Woodland CZ contains unevaluated wetland. Woodland CZ contains Dillon delineated wetland. Woodland CZ is within 50 m of Pennell's Creek PSW.	Identified as Green Ash Mineral Deciduous Swamp (SWDM2-2) and Fresh-moist Green Ash-Hardwood Lowland Deciduous Forest (FODM7-2). Dominant canopy species include Green Ash.	No uncommon characteristics		✓
DB	101.41	32.81	<ul style="list-style-type: none"> Generalized Candidate Significant Wildlife Habitat 	Woodland DB is not between two other significant features within 120m.	Woodland CN does not contain any notable surface water and is not identified as a source water protection area.	Identified as Fresh-moist Green Ash-Hardwood Lowland Deciduous Forest (FODM7-2). Dominant canopy species include Green Ash.	No uncommon characteristics	✓	
DD	3.86	0	N/A	Woodland DD is not between two other significant features within 120m.	Woodland DD does not contain any notable surface water and is not identified as a source water protection area.	Identified as Fresh-moist Green Ash-Hardwood Lowland Deciduous Forest (FODM7-2). Dominant canopy species include Green Ash.	No uncommon characteristics		✓

Woodland ID	Size Criterion	Ecological Function Criteria					Woodland Uncommon Characteristics (0.5 – 2 ha)	Evaluation of Significance	
	Woodland Size (ha) (≥20 ha)	Woodland Interior (ha) (2 ha)	Proximity to Other Significant Woodlands or Habitats (Within 30 m) ^ (4 ha)	Linkages (4 ha)	Water Protection (2 ha)	Woodland Diversity Representation (4 ha)		Significant	Not Significant
DF	2.64	0	N/A	Woodland DF is not between two other significant features within 120m.	Woodland DF does not contain any notable surface water and is not identified as a source water protection area.	Identified as Fresh-moist White Cedar Coniferous Forest Ecosite (FOCM4). Dominant canopy species include Eastern White Cedar.	No uncommon characteristics		✓
DI	0.46	0	• Reptile Hibernaculum	Woodland DI is not between two other significant features within 120m.	Woodland DI does not contain any notable surface water and is not identified as a source water protection area.	Identified as Dry-Fresh Poplar Mixed Forest Type (FOMM5-2). Dominant canopy species include Trembling Aspen.	No uncommon characteristics		✓
DL	2.15	0	N/A	Woodland DL is not between two other significant features within 120m.	Woodland DL does not contain any notable surface water and is not identified as a source water protection area.	Identified as Dry-Fresh White Pine-Hardwood Mixed Forest Type (FOMM2-3); Dry-Fresh Poplar Deciduous Forest Type (FODM3-1). Dominant canopy includes White Pine and Eastern White Cedar.	No uncommon characteristics		✓
DM	3.06	0	• Generalized Candidate Significant Wildlife Habitat • Colonially Nesting Bird Breeding Habitat (Trees & Shrubs) • Waterfowl Nesting Area	Woodland DM is not between two other significant features within 120m.	Woodland DM does not contain any notable surface water and is not identified as a source water protection area.	Identified as Green Ash Mineral Deciduous Swamp (SWDM2-2). Dominant canopy includes Green Ash.	No uncommon characteristics		✓
DN	0.54	0	• Generalized Candidate Significant Wildlife Habitat	Woodland DN is not between two other significant natural features within 120 m.	Woodland DN is within 50 m of a tributary to Mud Creek PSW and Perry's Lake.	Identified as Dry-Fresh Red Cedar Coniferous Woodland (WOCM1-1). Dominant canopy includes Eastern Red Cedar.	No uncommon characteristics		✓
DO	0.55	0	• Generalized Candidate Significant Wildlife Habitat	Woodland DO is not between two other significant features within 120 m.	Woodland DO does not contain any notable surface water and is not identified as a source water protection area.	Identified as Dry-Fresh Red Cedar Coniferous Woodland (WOCM1-1). Dominant canopy includes Eastern Red Cedar.	No uncommon characteristics		✓
DP	0.03	0	• Generalized Candidate Significant Wildlife Habitat • Colonially Nesting Bird Breeding Habitat (Trees & Shrubs)	Woodland DP is not between two other significant features within 120 m.	Woodland DP is within 50 m of a Salmon River tributary.	Identified as Fresh-Moist White Cedar Coniferous Forest Type (FOCM4-1). Dominant canopy included Eastern White Cedar.	No uncommon characteristics		✓
DQ	0.14	0	• Generalized Candidate Significant Wildlife Habitat • Colonially Nesting Bird Breeding Habitat (Trees & Shrubs)	Woodland DO is not between two other significant natural features within 120 m.	Woodland DQ is within 50 m of a Salmon River tributary.	Identified as Mineral Deciduous Swamp Ecosite (SWDM4). Dominant canopy includes Trembling Aspen and Freeman's Maple.	No uncommon characteristics		✓

Woodland ID	Size Criterion	Ecological Function Criteria					Woodland Uncommon Characteristics (0.5 – 2 ha)	Evaluation of Significance	
	Woodland Size (ha) (≥20 ha)	Woodland Interior (ha) (2 ha)	Proximity to Other Significant Woodlands or Habitats (Within 30 m) ^ (4 ha)	Linkages (4 ha)	Water Protection (2 ha)	Woodland Diversity Representation (4 ha)		Significant	Not Significant
DR	0.25	0	• Generalized Candidate Significant Wildlife Habitat	Woodland DR is not between two other natural features within 120 m.	Woodland DR contains a Salmon River tributary.	Identified as Fresh-moist Green Ash-Hardwood Lowland Deciduous Forest (FODM7-2). Dominant canopy species include Green Ash.	No uncommon characteristics.		✓
DT	0.30	0	N/A	Woodland DT is not between two other significant features within 120 m.	Woodland DT does not contain any notable surface water and is not identified as a source water protection area.	Identified as Dry-Fresh Sugar Maple Deciduous Forest Ecosite (FODM5). Dominant canopy species include Sugar Maple.	No uncommon characteristics.		✓
DU	0.13	0	• Generalized Candidate Significant Wildlife Habitat	Woodland DU is not between two other significant features within 120 m.	Woodland DU does not contain any notable surface water and is not identified as a source water protection area.	Identified as Dry-Fresh Sugar Maple Deciduous Forest Ecosite (FODM5). Dominant canopy species include Sugar Maple.	No uncommon characteristics.		✓
DX	0.05	0	• Colonially Nesting Bird Breeding Habitat (Trees & Shrubs)	Woodland DX is not between two other significant features within 120 m.	Woodland DX does not contain any notable surface water and is not identified as a source water protection area.	Identified as Dry-Fresh Red Cedar Coniferous Woodland (WOCM1-1). Dominant canopy species include Eastern Red Cedar.	No uncommon characteristics.		✓
DY	0.33	0	• Generalized Candidate Significant Wildlife Habitat	Woodland DY is not between two other significant features within 120m.	Woodland DY is within 50 m of Pennell’s Creek.	Identified as Fresh-moist Green Ash-Hardwood Lowland Deciduous Forest (FODM7-2). Dominant canopy species include Green Ash.	No uncommon characteristics.		✓
DZ	0.69	0	• Reptile Hibernaculum	Woodland DZ is not between two other significant features within 120m	Woodland DZ is within 50 m of Mud Creek PSW.	Identified as Dry-Fresh Sugar Maple – Hardwood Calcareous Shallow Deciduous Forest (FODR1-1). Dominant canopy species include Sugar Maple.	No uncommon characteristics		✓
EA	7.24	0	• Reptile Hibernaculum • Alvar • Waterfowl Nesting Area • Amphibian Breeding Habitat (Woodland)	Woodland EA is between Woodland AD and Mud Creek PSW.	Woodland EA is within 50 m of Mud Creek PSW.	Identified as Dry – Fresh Ironwood Deciduous Forest (FODR1-1), Dry – Fresh White Cedar – Hardwood Mixed Forest Type. Dominant canopy species include Ironwood and White Cedar.	No uncommon characteristics	✓	
F	1.73	0	N/A	Woodland F is not between two other significant features within 120 m.	Woodland F does not contain any notable surface water and is not identified as a source water protection area.	Identified as Dry-Fresh Sugar Maple Deciduous Forest Ecosite (FODM5). Dominant canopy species include Sugar Maple.	No uncommon characteristics.		✓
L	132.37	29.31	• Waterfowl Nesting Area	Woodland L is between two other significant features within 120 m.	Woodland L contains Mud Creek PSW.	Identified as: Dry-Fresh Sugar Maple Deciduous Forest Ecosite (FODM5); Dry-Fresh Ironwood Deciduous Forest Type (FODM4-4); Dry-Fresh White Cedar Calcareous Bedrock Coniferous Forest Type (FOCS3-1); Fresh-moist Green Ash-Hardwood Lowland Deciduous Forest (FODM7-2). Dominant species include Sugar Maple, Ironwood, Eastern White Cedar and Green Ash.	No uncommon characteristics.	✓	

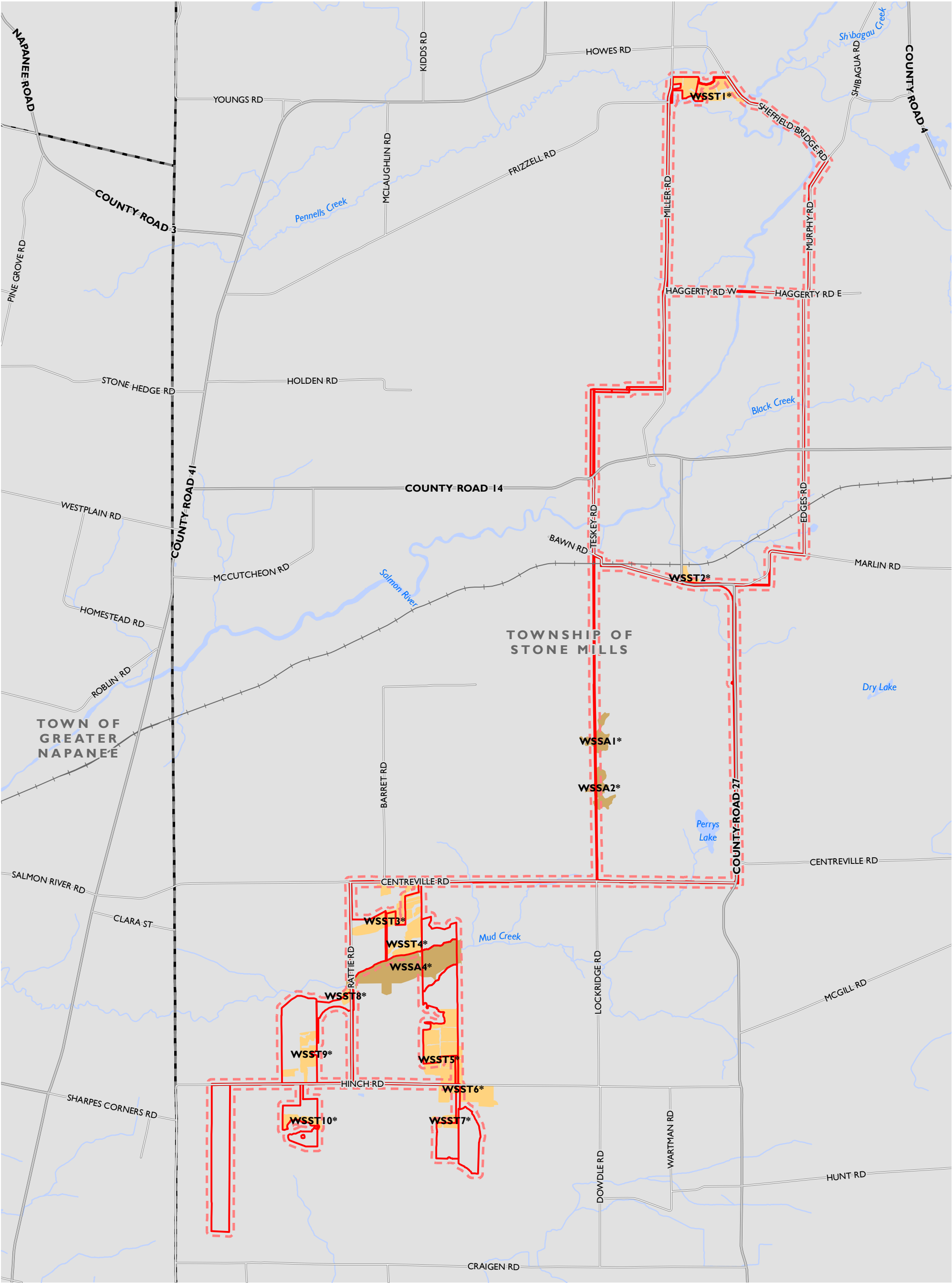
Woodland ID	Size Criterion	Ecological Function Criteria					Woodland Uncommon Characteristics (0.5 – 2 ha)	Evaluation of Significance	
	Woodland Size (ha) (≥20 ha)	Woodland Interior (ha) (2 ha)	Proximity to Other Significant Woodlands or Habitats (Within 30 m) ^ (4 ha)	Linkages (4 ha)	Water Protection (2 ha)	Woodland Diversity Representation (4 ha)		Significant	Not Significant
I	261.96	167.79	<ul style="list-style-type: none">Generalized Candidate Significant Wildlife HabitatColonially Nesting Bird Breeding Habitat (Trees & Shrubs)Waterfowl Nesting AreaAmphibian Breeding Habitat (Woodland)Reptile Hibernaculum HabitatWoodland Area-Sensitive Bird Breeding HabitatWood Thrush	Woodland I is not between two other significant natural features within 120 m.	Woodland I contain Hinch Swamp Complex PSW. Woodland I contain unevaluated wetlands. Woodland I contains Dillon delineated wetland.	Identified as: Swamp Maple Deciduous Swamp (SWDO2-3); White Cedar Coniferous Forest (FOCM2-2); Poplar Mixed Forest (FOMM5-2); Poplar Deciduous Forest (FODM8-3); Green Ash – Hardwood Lowland Deciduous Forest (FODM7-2).	No uncommon characteristics.	✓	

^"Proximity to Other Significant Habitats" contains both "Significant" and "Treated as Significant" Wildlife Habitat. A distinction between the two was not deemed necessary as this Ecological Function Criteria, solely, did not affect the Significance classification of any Woodland.

8.3 Wildlife Habitat

As discussed in **Section 6.4**, wildlife habitat was assessed using the Significant Wildlife Habitat Technical Guide (MNR 2000) and the associated Ecoregion 6E Criteria Schedules (MNRF 2015). For complete descriptions related to each type of wildlife habitat and the associated defining criteria, please refer to these sources. Candidate wildlife habitat was scoped by applying the criteria found within the above technical guide and its associated appendices to the site conditions in the Project Location and surrounding lands determined through field work (**Table 7**). Where appropriate studies to determine the significance of a wildlife habitat have not been conducted, wildlife habitat has been treated as significant. For natural features treated as significant, pre-construction surveys will be undertaken to confirm their status (where required) and mitigation measures for environmental effects will be outlined in the *NHA EIS Report*. Details of the evaluation are outlined in **Table 7**. Field notes are available in **Appendix C** to supplement the details outlined in **Table 7**.

Note that following the completion of the *NHA Site Investigation Report*, the Project Location was refined for the purposes of the *NHA Evaluation of Significance Report*. As such, candidate wildlife habitat identified in the *NHA Site Investigation Report* that is no longer within the Project Location or 50 m setback will be labelled as Not Applicable (“N/A”) in **Table 7** below.



LOYALIST SOLAR PROJECT
LOYALIST SOLAR LP

**WATERFOWL STOPOVER
AND STAGING AREA**
FIGURE 5A

- Railway
- Project Location Boundary (subject to refinement)
- 50 m Setback
- Significant Waterfowl Stopover and Staging Area (Aquatic) (WSSA)
- Significant Waterfowl Stopover and Staging Area (Terrestrial) (WSST)
- Municipal Boundary
- Mapped Watercourse
- Mapped Water Body

* Treated as Significant

MAP CREATED BY: GM
MAP CHECKED BY: JP
DATA PROVIDED BY: MNRF
MAP PROJECTION: NAD 1983 UTM Zone 18N

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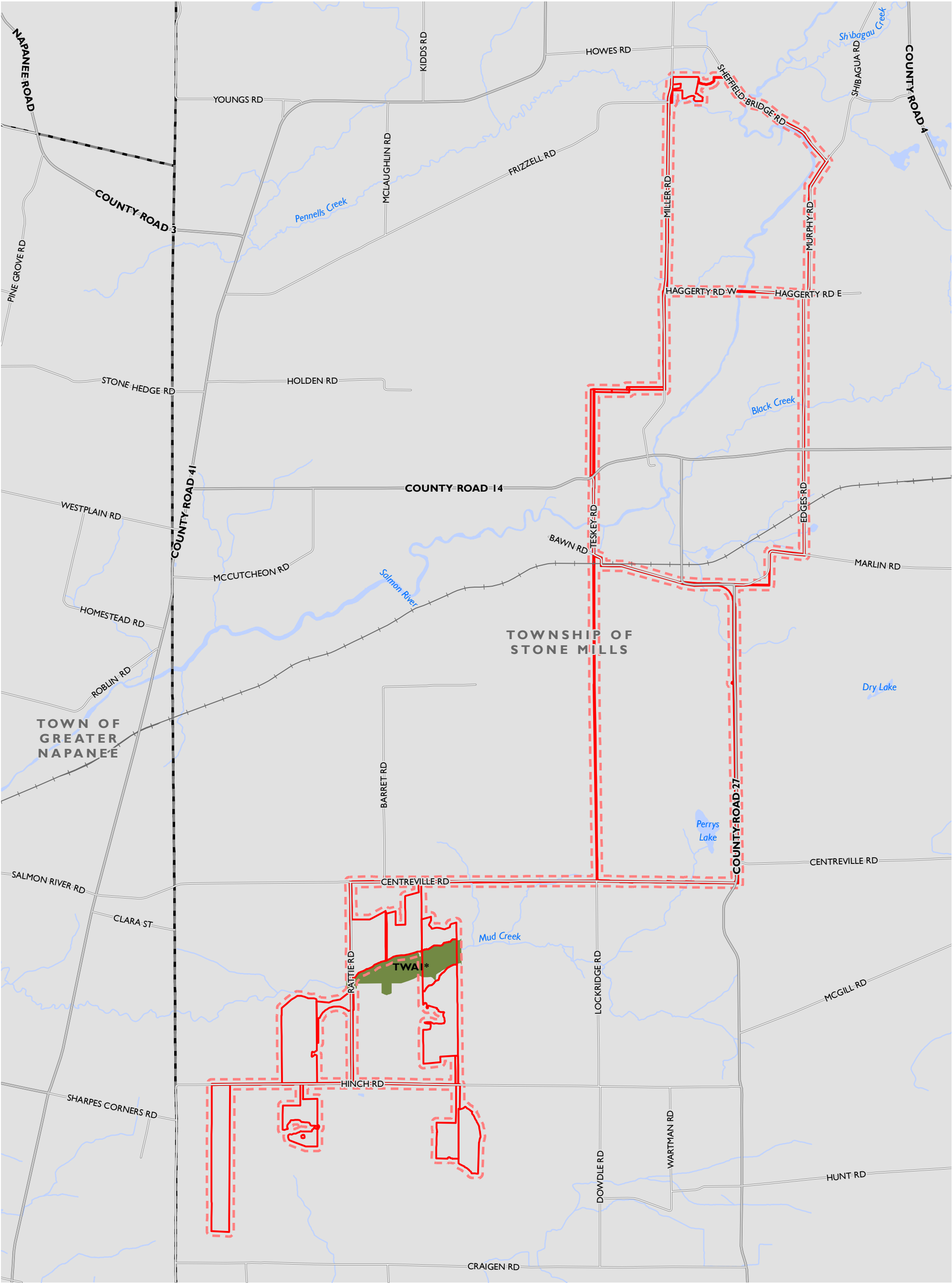
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PROJECT: 163674

STATUS: DRAFT

DATE: 11/25/2016

FILE LOCATION: I:\GIS\163674 - Loyalist Solar\mxd\EOS\Figure 5A Waterfowl Stopover and Staging Area.mxd



LOYALIST SOLAR PROJECT
LOYALIST SOLAR LP

TURTLE WINTERING AREA
FIGURE 5B

- Railway
- Project Location Boundary (subject to refinement)
- 50 m Setback
- Significant Turtle Wintering Area (TWA)
- Municipal Boundary
- Mapped Watercourse
- Mapped Water Body

*Treated as Significant

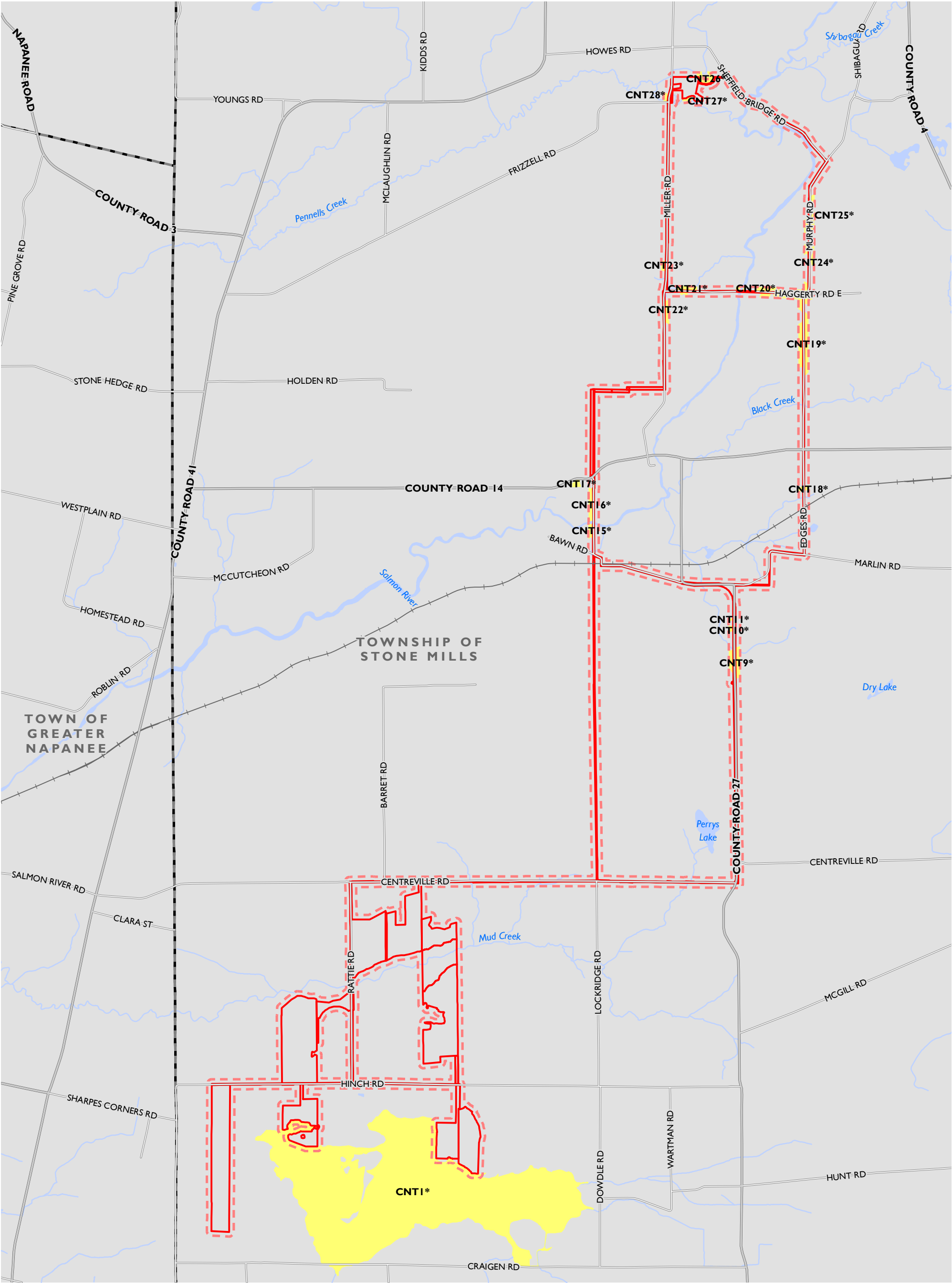
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DATA PROVIDED BY: MNRF
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PROJECT: 163674 STATUS: DRAFT DATE: 10/25/2016



LOYALIST SOLAR PROJECT

LOYALIST SOLAR LP

COLONIAALLY NESTING
BIRD BREEDING HABITAT
(TREES/SHRUBS)

FIGURE 5D

Railway

Project Location Boundary (subject to refinement)

50 m Setback

Significant Colonially Nesting Bird Breeding Habitat (Trees/Shrubs) (CNT)

Municipal Boundary

Mapped Watercourse

Mapped Water Body

* Treated as Significant

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MAP CHECKED BY: JP
DATA PROVIDED BY: MNRF
MAP PROJECTION: NAD 1983 UTM Zone 18N

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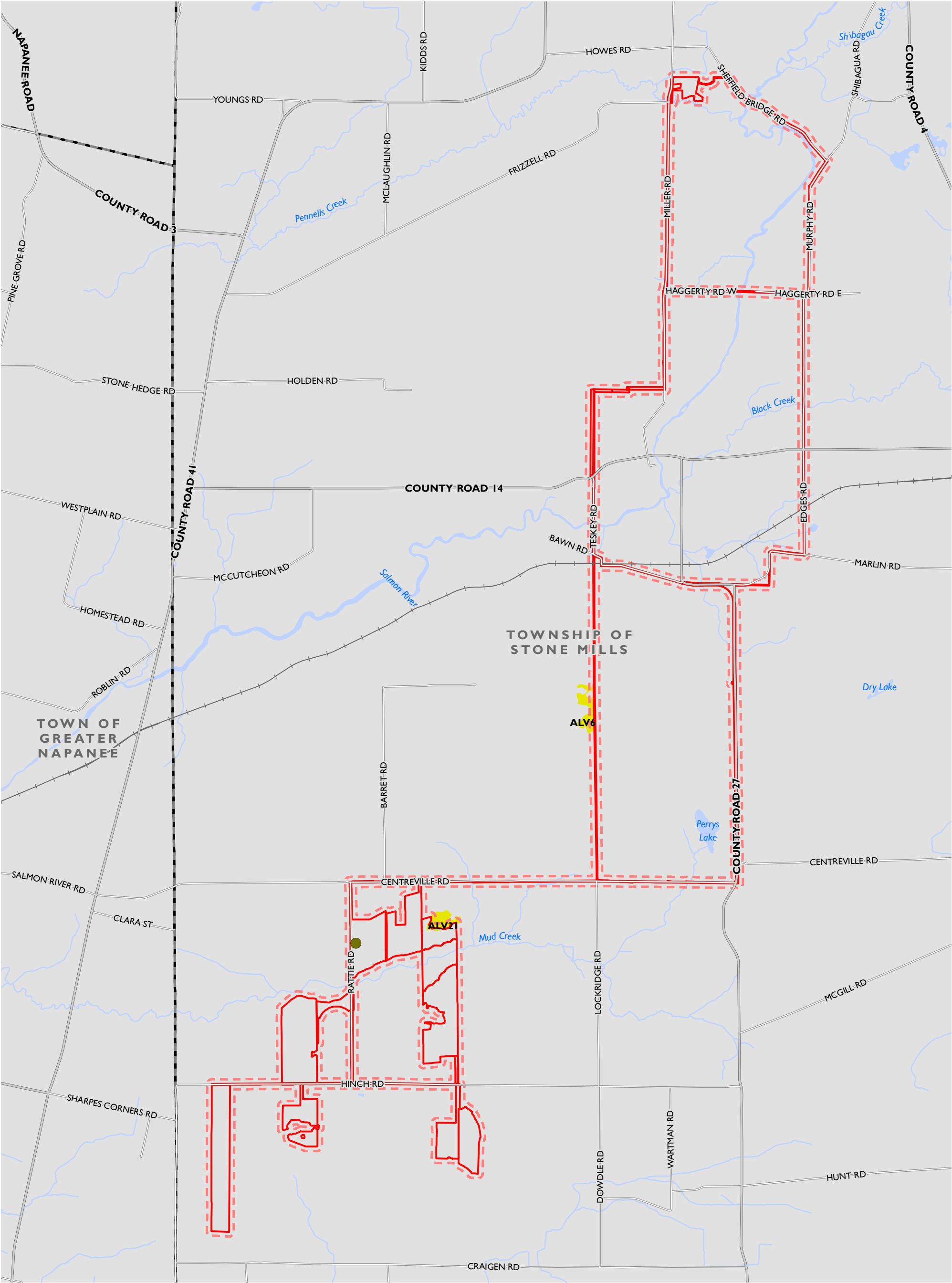
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PROJECT: 163674

STATUS: DRAFT

DATE: 10/25/2016

FILE LOCATION: I:\GIS\163674 - Loyalist Solar\mxd\EOS\Figure 5D Colonially Nesting Bird Breeding Habitat (Trees_Shrubs).mxd



LOYALIST SOLAR PROJECT

LOYALIST SOLAR LP

ALVAR

FIGURE 5E

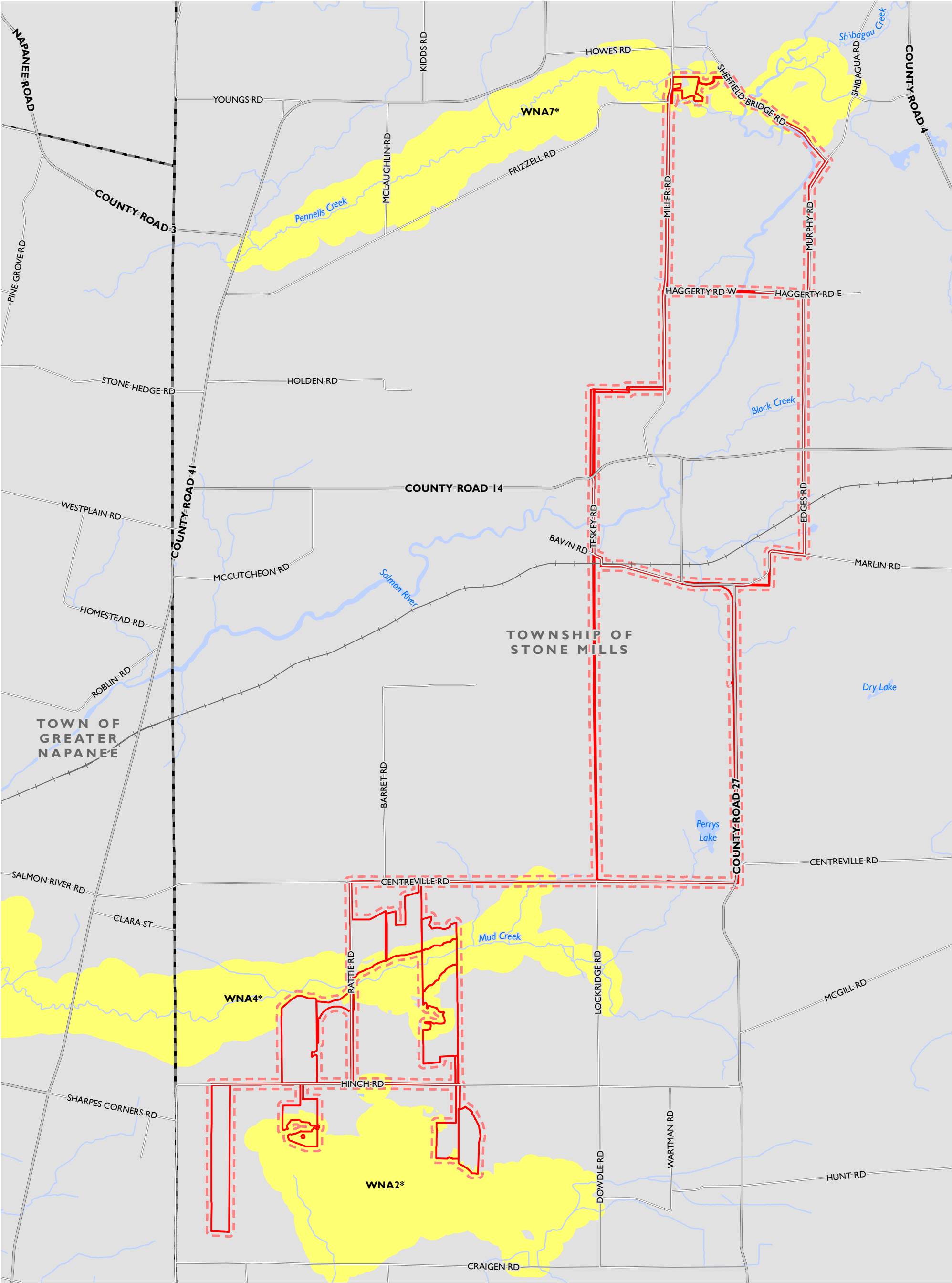
- Significant Carolina Whitlow Grass Habitat (Location is not to Scale)
- Railway
- Project Location Boundary (subject to refinement)
- - - 50 m Setback
- Alvar (ALV) (or Significant Other Rare Vegetation Community)
- ▭ Municipal Boundary
- Mapped Watercourse
- Mapped Water Body



MAP CREATED BY: GM
MAP CHECKED BY: JP
DATA PROVIDED BY: MNRF
MAP PROJECTION: NAD 1983 UTM Zone 18N



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LOYALIST SOLAR PROJECT
LOYALIST SOLAR LP

WATERFOWL NESTING AREA
FIGURE 5F

- Railway
- Project Location Boundary (subject to refinement)
- 50 m Setback
- Municipal Boundary
- Mapped Watercourse
- Mapped Water Body
- Significant Waterfowl Nesting Area (WNA)

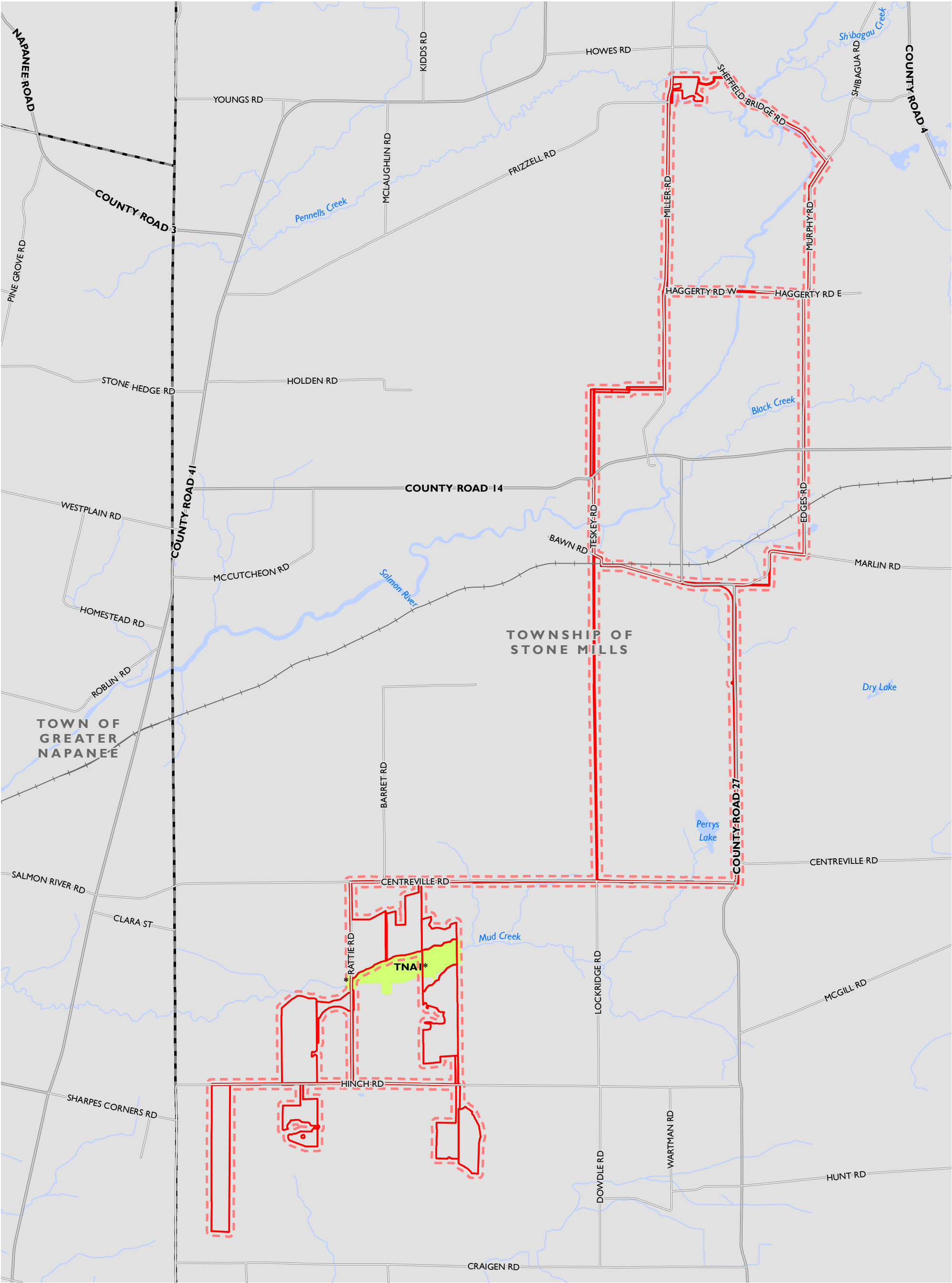
*Treated as Significant

MAP CREATED BY: GM
MAP CHECKED BY: JP
DATA PROVIDED BY: MNRF
MAP PROJECTION: NAD 1983 UTM Zone 18N

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PROJECT: 163674 STATUS: DRAFT DATE: 10/25/2016



LOYALIST SOLAR PROJECT
LOYALIST SOLAR LP

TURTLE NESTING SITE
FIGURE 5G

- Railway
- Project Location Boundary (subject to refinement)
- 50 m Setback
- Significant Turtle Nesting Area (TNA)
- Municipal Boundary
- Mapped Watercourse
- Mapped Water Body

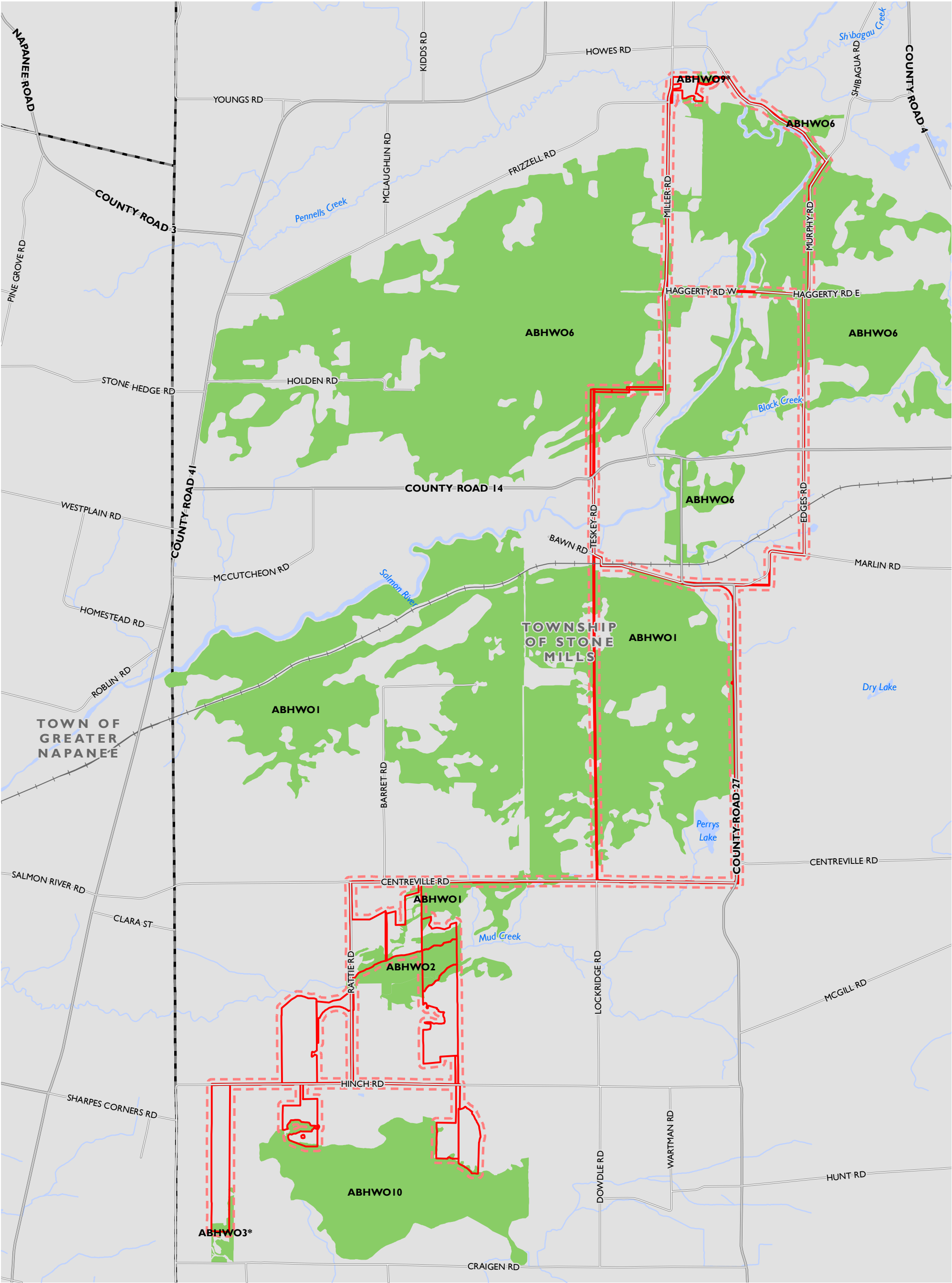
*Treated as Significant



MAP CREATED BY: GM
MAP CHECKED BY: JP
DATA PROVIDED BY: MNRF
MAP PROJECTION: NAD 1983 UTM Zone 18N



PROJECT: 163674 STATUS: DRAFT DATE: 10/25/2016



LOYALIST SOLAR PROJECT

LOYALIST SOLAR LP

AMPHIBIAN BREEDING HABITAT (WOODLAND)

FIGURE 5H

Railway

Project Location Boundary (subject to refinement)

50 m Setback

Significant Amphibian Breeding Habitat (Woodland) (ABHWO)

Municipal Boundary

Mapped Watercourse

Mapped Water Body

* Treated as Significant

Thunder Bay

Sault Ste. Marie

Temminis

North Bay

Ottawa

Peterborough

Barrie

Toronto

Kingston

Windsor

London

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MAP CREATED BY: GM

MAP CHECKED BY: JP

DATA PROVIDED BY: MNRF

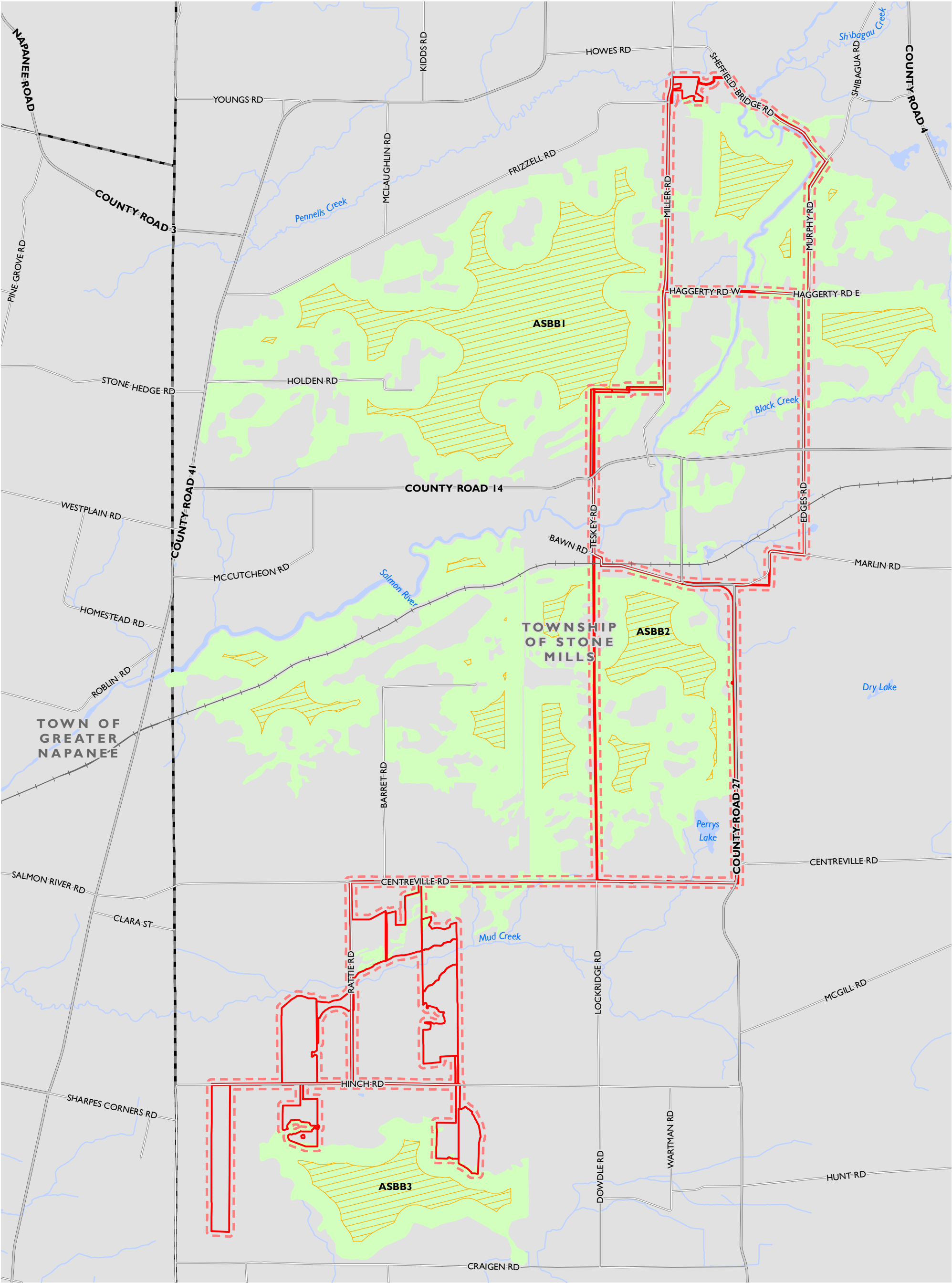
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PROJECT: 163674

STATUS: DRAFT

DATE: 10/25/2016

FILE LOCATION: I:\GIS\163674 - Loyalist Solar\mxd\EOS\Figure 5H Amphibian Breeding Habitat (Woodland).mxd



LOYALIST SOLAR PROJECT
LOYALIST SOLAR LP

**WOODLAND
AREA-SENSITIVE
BIRD BREEDING HABITAT**
FIGURE 5I

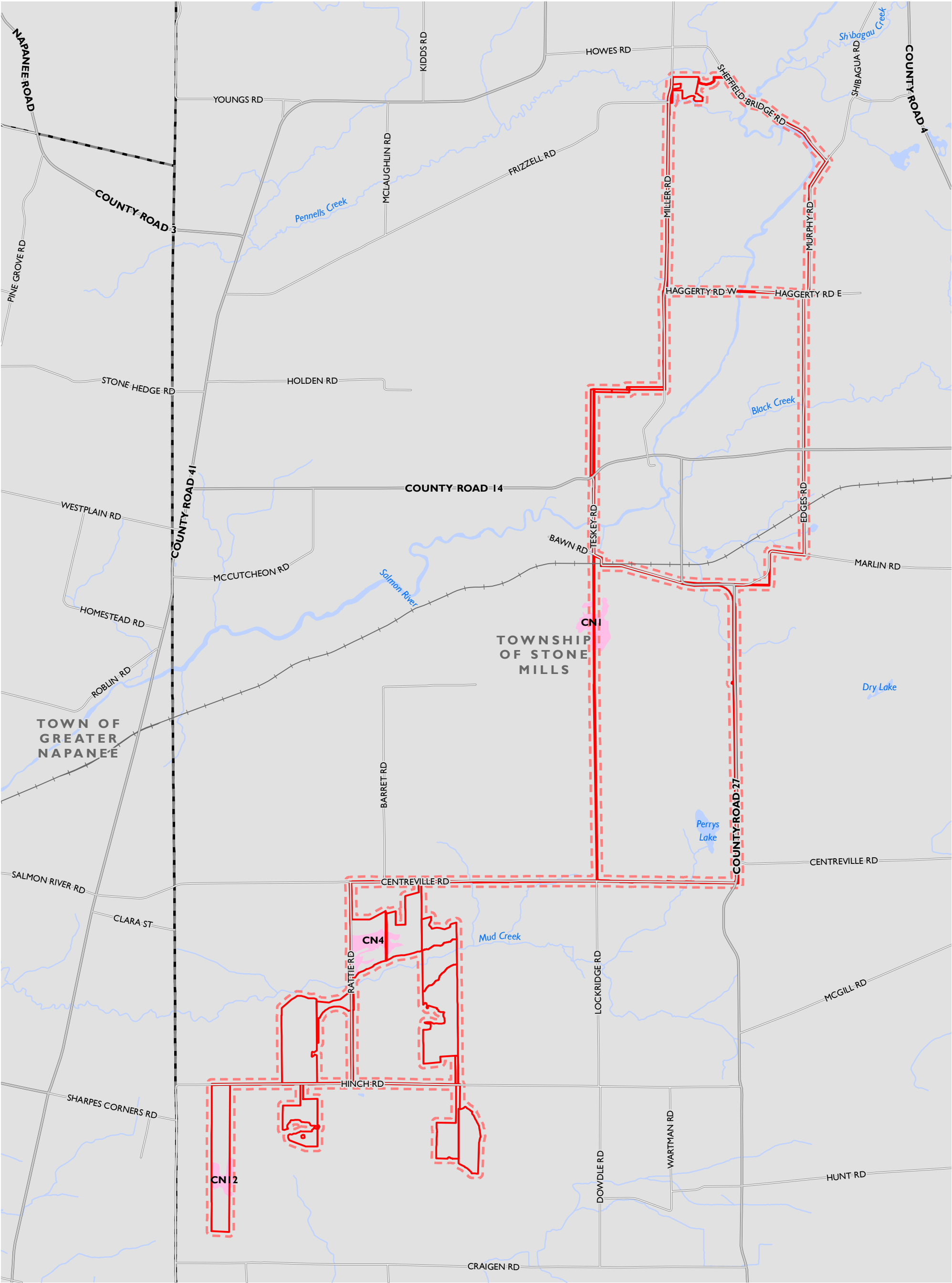
- Railway
- Project Location Boundary (subject to refinement)
- 50 m Setback
- 200 m Woodland Interior Habitat
- Significant Woodland Area-Sensitive Bird Breeding Habitat (ASBB)
- Municipal Boundary
- Mapped Watercourse
- Mapped Water Body



MAP CREATED BY: GM
MAP CHECKED BY: JP
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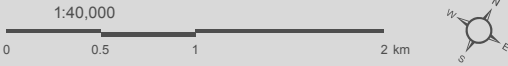
LOYALIST SOLAR PROJECT
LOYALIST SOLAR LP

COMMON NIGHTHAWK
FIGURE 5K

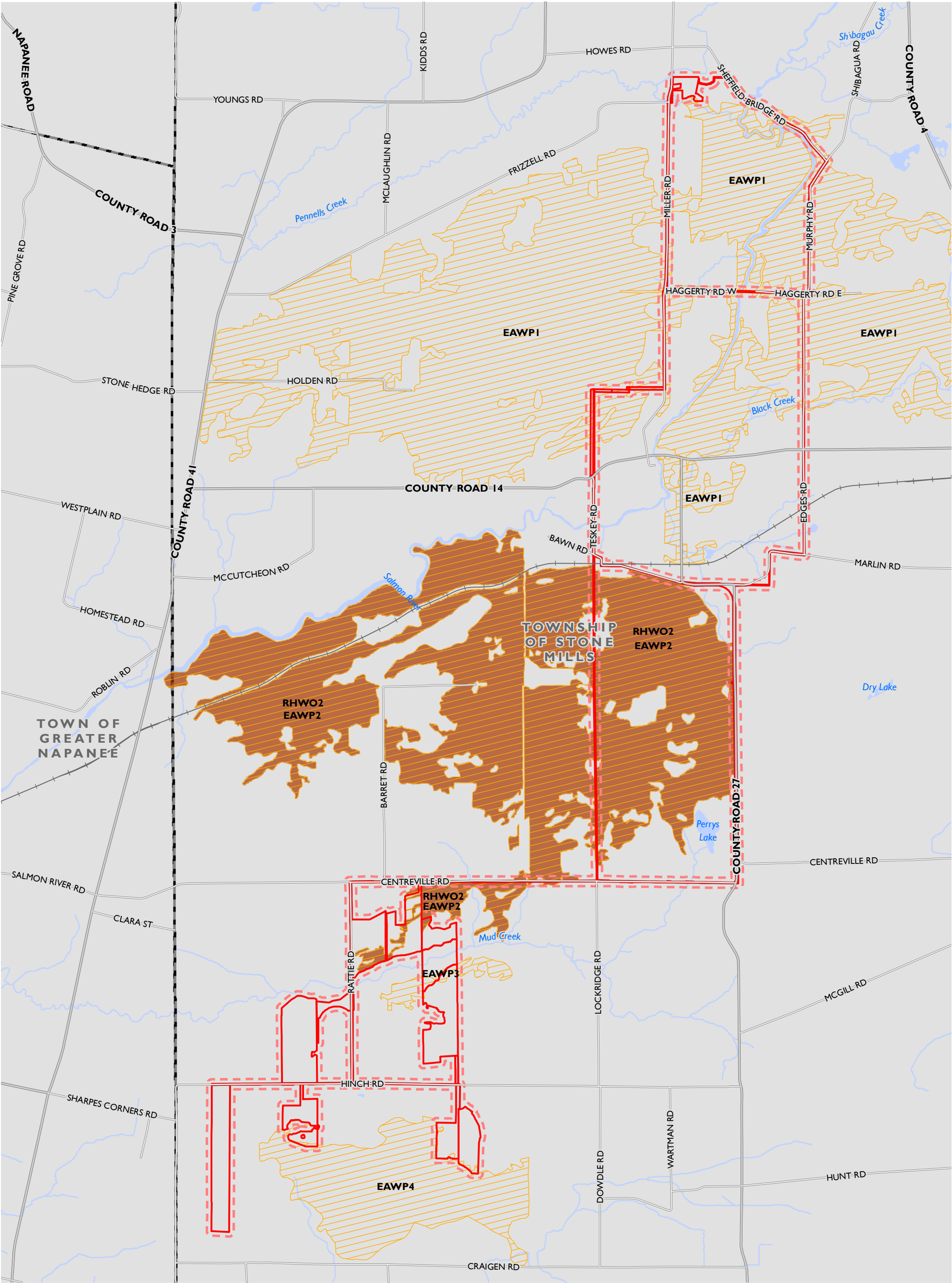
- Railway
- Project Location Boundary (subject to refinement)
- 50 m Setback
- Significant Common Nighthawk (CN)
- Municipal Boundary
- Mapped Watercourse
- Mapped Water Body



MAP CREATED BY: GM
MAP CHECKED BY: JP
DATA PROVIDED BY: MNRF
MAP PROJECTION: NAD 1983 UTM Zone 18N



PROJECT: 163674 STATUS: DRAFT DATE: 10/25/2016



LOYALIST SOLAR PROJECT
LOYALIST SOLAR LP

**WOODLAND SPECIFIC
BIRD SPECIES OF
SPECIAL CONCERN**
FIGURE 5L

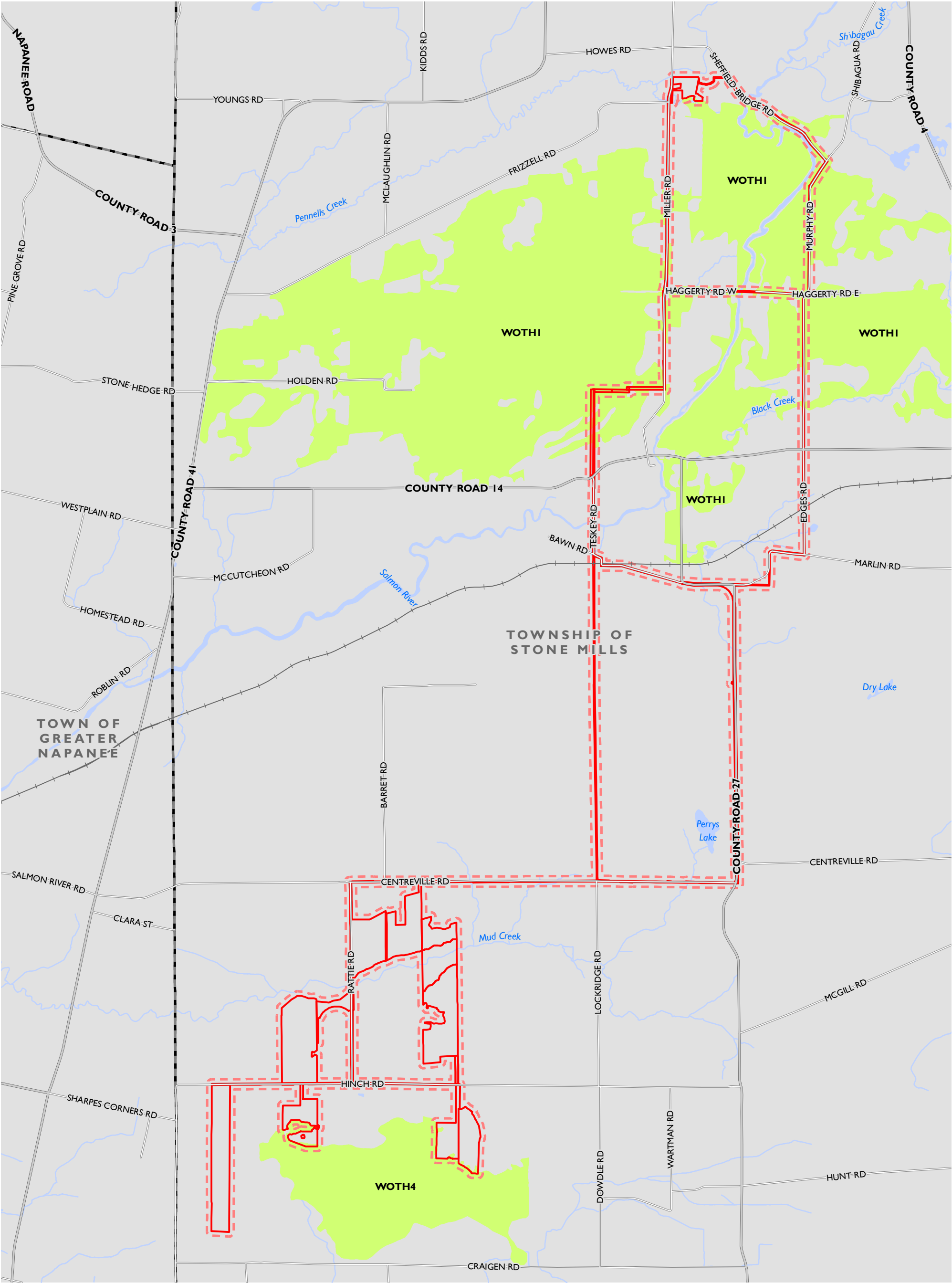
- Railway
- Project Location Boundary (subject to refinement)
- 50 m Setback
- Significant Eastern Wood-Pewee Habitat (EAWP)
- Significant Red-headed Woodpecker (RHWO)
- Municipal Boundary
- Mapped Watercourse
- Mapped Water Body



MAP CREATED BY: GM
MAP CHECKED BY: JP
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PROJECT: 163674 STATUS: DRAFT DATE: 12/1/2016



LOYALIST SOLAR PROJECT
LOYALIST SOLAR LP

WOOD THRUSH
FIGURE 5M

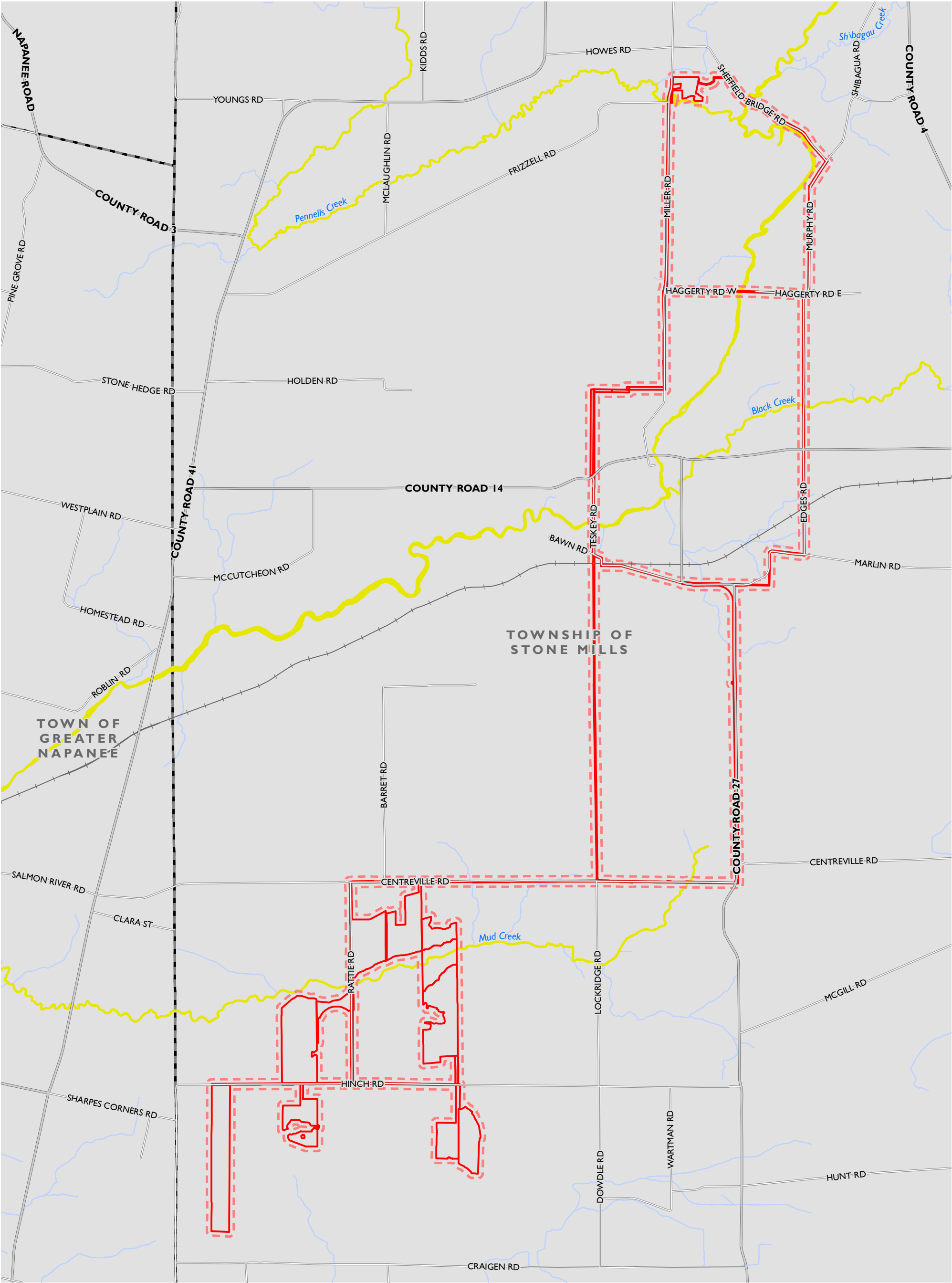
- Railway
- Project Location Boundary (subject to refinement)
- 50 m Setback
- Significant Wood Thrush (WOTH)
- Municipal Boundary
- Mapped Watercourse
- Mapped Water Body



MAP CREATED BY: GM
MAP CHECKED BY: JP
DATA PROVIDED BY: MNRF
MAP PROJECTION: NAD 1983 UTM Zone 18N



PROJECT: 163674 STATUS: DRAFT DATE: 10/25/2016



LOYALIST SOLAR PROJECT
LOYALIST SOLAR LP

LARGE YELLOW POND LILY
FIGURE 5N

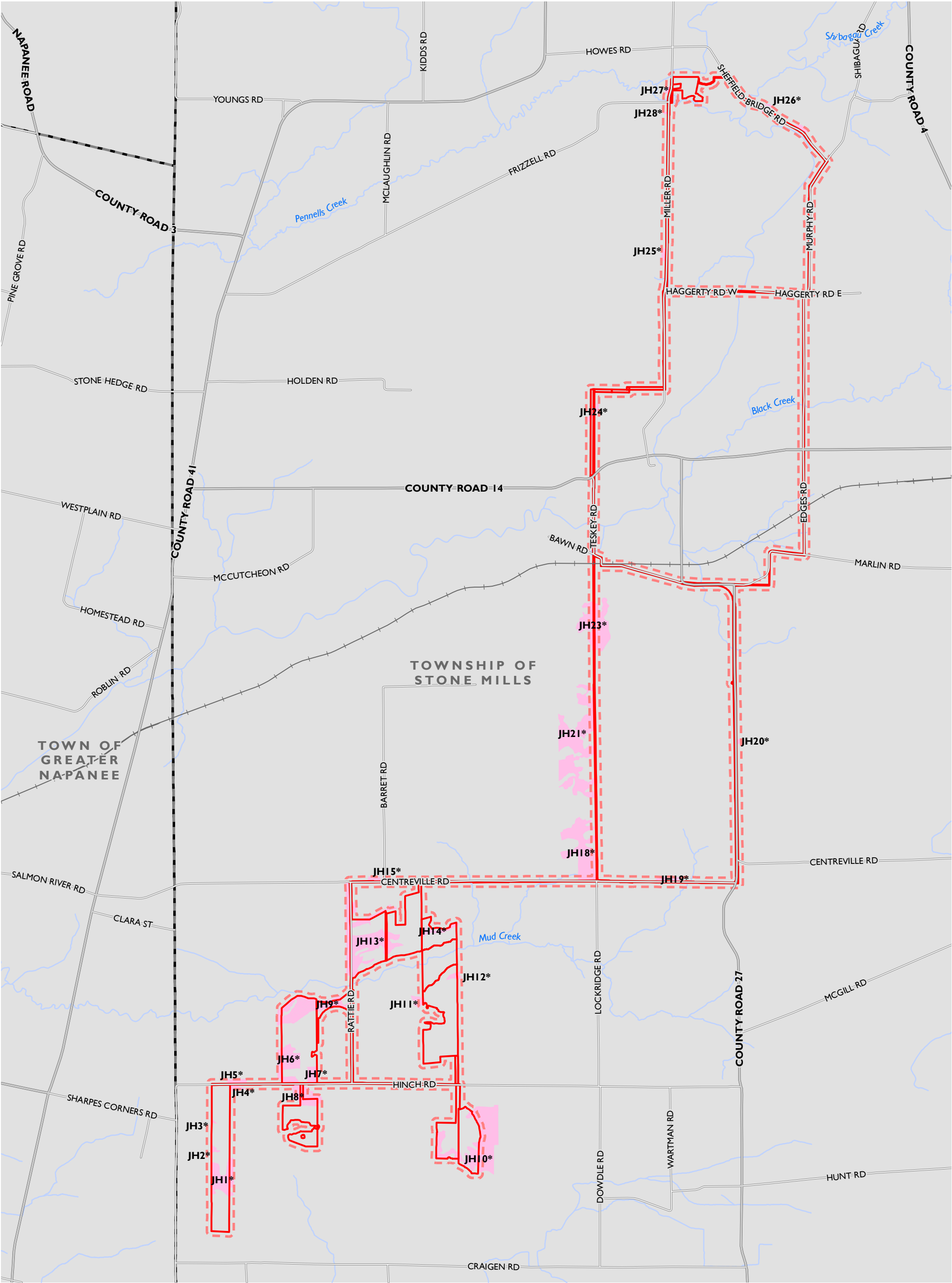
- Railway
- Project Location Boundary (subject to refinement)
- 50 m Setback
- Significant Large Yellow Pond Lily
- Municipal Boundary
- Mapped Watercourse



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DATA PROVIDED BY: MNRF
MAP PROJECTION: NAD 1983 UTM Zone 18N



PROJECT: 163674 STATUS: DRAFT DATE: 10/25/2016



LOYALIST SOLAR PROJECT

LOYALIST SOLAR LP

BUTTERFLY SPECIES OF CONSERVATION CONCERN

FIGURE 50

Railway

Project Location Boundary (subject to refinement)

50 m Setback

Significant Juniper Hairstreak Habitat (JH)

Municipal Boundary

Mapped Watercourse

* Treated as Significant

Thunder Bay

Sault Ste. Marie

Temminis

North Bay

Ottawa

Peterborough

Barrie

Toronto

Kingston

Windsor

London

DILLON CONSULTING

MAP CREATED BY: GM

MAP CHECKED BY: JP

DATA PROVIDED BY: MNRF

MAP PROJECTION: NAD 1983 UTM Zone 18N

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PROJECT: 163674

STATUS: DRAFT

DATE: 11/25/2016

FILE LOCATION: I:\GIS\163674 - Loyalist Solar\mxd\EOS\Figure 50 Butterfly Species of Conservation Concern.mxd

Table 7: Significant Wildlife Habitat Located in the Project Location and 50 m Setback

Wildlife Habitat	Defining Criteria for Significant Wildlife Habitat	Habitat Composition: Attributes, Condition, and Function	Location		Status			Relevant Evaluation Criteria Determining Status		
			Within Project Location	Within 50 m of Project Location	Significant	Treated as Significant	Not Significant			
Seasonal Concentration Areas										
Waterfowl Stopover and Staging Areas (Terrestrial)	<p>Fields with sheet water from spring melt and run-off which provide invertebrate foraging habitat for migrating waterfowl. Can be found in any Meadow (ME) (or CUM communities in the ELC first approximation codes) or Thicket (TH) (or CUT communities in the ELC first approximation codes) that are maintained through anthropogenic disturbances (i.e., planting or agriculture, clearing, recreation, soil movement, grazing or mowing). Agricultural fields with waste grains are commonly used by waterfowl, these are not considered SWH.</p> <p><u>Significant wildlife habitat defining criteria:</u></p> <ul style="list-style-type: none">Any mixed species aggregations of 100 or more individuals required.Annual use of habitatArea of habitat is the flooded field ecosite plus a 100-300 m radius area <p><u>Wildlife Species to be Considered</u></p> <table><tr><td><ul style="list-style-type: none">American Black DuckWood DuckGreen-winged TealBlue-winged TealGadwall</td><td><ul style="list-style-type: none">MallardNorthern PintailNorthern ShovelerAmerican Widgeon</td></tr></table>	<ul style="list-style-type: none">American Black DuckWood DuckGreen-winged TealBlue-winged TealGadwall	<ul style="list-style-type: none">MallardNorthern PintailNorthern ShovelerAmerican Widgeon	ID	ELC*	Figure 5A				
		<ul style="list-style-type: none">American Black DuckWood DuckGreen-winged TealBlue-winged TealGadwall	<ul style="list-style-type: none">MallardNorthern PintailNorthern ShovelerAmerican Widgeon							
		WSST1	Perennial Cover Crop (44); Open Pasture (45); Mixed Meadow (40)	✓	✓	---	✓	---	Surveys within this habitat did not occur during the spring migration period in 2016. Diurnal breeding bird survey stations BBS105-109 were surveyed on June 1, 15 & 30, 2016. One Wood Duck was observed at BBS105 on June 1, 2016. Habitat may be available during early spring or fall. Therefore, this habitat is treated as significant and carried forward to the <i>NHA EIS Report</i> .	
		WSST2	Perennial Cover Crop (44)	✓	✓	---	✓	---	Surveys within this habitat did not occur during the 2016 field season. However, habitat may be available during early spring or fall. Therefore, this habitat is treated as significant and carried forward to the <i>NHA EIS Report</i> .	
		WSST3	Perennial Cover Crop (44); Open Pasture (45)	✓	✓	---	✓	---	Surveys within this habitat did not occur during the spring migration period in 2016. Diurnal breeding bird survey stations BBS47-49 were surveyed on May 27, June 14 and June 28, 2016. Mallards were observed at BBS49 and 48 on May 27 and June 14, 2016, respectively. Habitat may be available during early spring or fall. Therefore, this habitat is treated as significant and carried forward to the <i>NHA EIS Report</i> .	
		WSST4	Open Pasture (45); Perennial Cover Crop (44)	✓	✓	---	✓	---	Surveys within this habitat did not occur during the spring migration period in 2016. Diurnal breeding bird survey stations BBS42-44 were surveyed on May 27, June 14 and June 28, 2016. No waterfowl species were observed. However, habitat may be available during early spring or fall. Therefore, this habitat is treated as significant and carried forward to the <i>NHA EIS Report</i> .	
		WSST5	Open Pasture (45); Perennial Cover Crop (44)	✓	✓	---	✓	---	Surveys within this habitat did not occur during the spring migration period in 2016. Diurnal breeding bird survey stations BBS31-33, 39 & 40 were surveyed on May 23, June 8 and June 20, 2016. Mallards were observed at BBS31 on June 8, 2016. Habitat may be available during early spring or fall. Therefore, this habitat is treated as significant and carried forward to the <i>NHA EIS Report</i> .	
		WSST6	Open Pasture (45)	✓	✓	---	✓	---	Surveys within this habitat did not occur during the spring migration period in 2016. Diurnal breeding bird survey stations BBS23 & 30 were surveyed on May 23, June 8 and June 20, 2016. No waterfowl species were observed during the 2016 field season. Therefore, this habitat is treated as significant and carried forward to the <i>NHA EIS Report</i> .	

Wildlife Habitat	Defining Criteria for Significant Wildlife Habitat	Habitat Composition: Attributes, Condition, and Function		Location		Status			Relevant Evaluation Criteria Determining Status
				Within Project Location	Within 50 m of Project Location	Significant	Treated as Significant	Not Significant	
(continued) Waterfowl Stopover and Staging Areas (Terrestrial)		WSST7	Open Pasture (45); Perennial Cover Crop (44)	✓	✓	---	✓	---	Surveys within this habitat did not occur during the spring migration period in 2016. Diurnal breeding bird survey stations BBS24 were surveyed on May 23, June 8 and June 20, 2016. No waterfowl species were observed during the 2016 field season. Therefore, this habitat is treated as significant and carried forward to the <i>NHA EIS Report</i> .
		WSST8	Open Pasture (45)	✓	✓	---	✓	---	Surveys within this habitat did not occur during the 2016 field season. Habitat may be available during early spring or fall. Therefore, this habitat is treated as significant and carried forward to the <i>NHA EIS Report</i> .
		WSST9	Perennial Cover Crop (44)	✓	✓	---	✓	---	Surveys within this habitat did not occur during the spring migration period in 2016. Diurnal breeding bird survey stations BBS24 were surveyed on May 23, June 7 and June 17, 2016. A Mallard was observed at BBS16 on June 17, 2016. Habitat may be available during early spring or fall. Therefore, this habitat is treated as significant and carried forward to the <i>NHA EIS Report</i> . Incidental observations of Mallards and Wood Ducks at station BBS18, 19 & 20 were recorded throughout the field season. These observations did not meet the minimum requirements to be considered significant.
		WSST10	Perennial Cover Crop (44)	✓	✓	---	✓	---	Surveys within this habitat did not occur during the 2016 field season. Habitat may be available during early spring or fall. Therefore, this habitat is treated as significant and carried forward to the <i>NHA EIS Report</i> .
Waterfowl Stopover and Staging Areas (Aquatic)	Ponds, marshes, lakes, bays, coastal inlets, and watercourses used during migration can be significant wildlife habitat for local and migrant waterfowl populations during migration. Sewage treatment ponds and stormwater ponds do not qualify as a significant wildlife habitat; however, a reservoir managed as a large wetland or pond/lake does qualify. These habitats have an abundant food supply (mostly aquatic invertebrates and vegetation in shallow water). Can be found in the following community types: Shallow Marsh (MAS), Shallow Aquatic (SA), and Deciduous Swamp (SWD). <u>Significant wildlife habitat defining criteria:</u> <ul style="list-style-type: none">• Aggregations of 100 or more listed species for 7 days, resulting in >700 waterfowl use days• Areas of annual staging of ruddy ducks, canvasbacks, and redheads <u>Wildlife species to be considered:</u> <ul style="list-style-type: none">• Canada Goose• Cackling Goose• Snow Goose• American Black Duck• Northern Pintail• Northern Shoveler• American Widgeon• Greater Scaup• Long-tailed Duck• Surf Scoter• White-winged Scoter• Black Scoter• Ring-necked Duck• Common Goldeneye	ID	ELC*				Figure 5A		
		WSSA1	This candidate habitat is made up of SWDM4-5: Poplar Deciduous Swamp.	✓	✓	---	✓	---	Surveys within this habitat did not occur during the spring migration period in 2016. Diurnal breeding bird survey station BBS62 was surveyed on May 30, June 09 and June 27. No waterfowl species were observed. However, habitat may be available during early spring or fall. Therefore, this habitat is treated as significant and carried forward to the <i>NHA EIS Report</i> .
		WSSA2	This candidate habitat is made up of SWDO2-3: Swamp Maple Organic Deciduous Swamp.	✓	✓	---	✓	---	Surveys within this habitat did not occur during the spring migration period in 2016. Diurnal breeding bird survey station BBS60 surveyed on May 30, June 09 and June 27. No waterfowl species were observed. However, habitat may be available during early spring or fall. Therefore, this habitat is treated as significant and carried forward to the <i>NHA EIS Report</i> .
		WSSA4	This candidate habitat is made up of MASO1-1 : Cattail Organic Meadow Marsh	✓	✓	---	✓	---	Surveys within this habitat did not occur during the spring migration period in 2016. Diurnal breeding bird survey stations BBS41, 42, 43, 53, 36, 37 & 38 surveyed on May 27, June 08, 14, 20 & 28. One waterfowl species, Mallard, was observed at BBS41 on June 28, 2016. Habitat may be available during early spring or fall. Therefore, this habitat is treated as significant and carried forward to the <i>NHA EIS Report</i> .

Wildlife Habitat	Defining Criteria for Significant Wildlife Habitat	Habitat Composition: Attributes, Condition, and Function		Location		Status			Relevant Evaluation Criteria Determining Status
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Waterfowl Stopover and Staging Areas (Aquatic) (Con'd)	<ul style="list-style-type: none"> Gadwall Green-winged Teal Blue-winged Teal Hooded Merganser Common Merganser Lessor Scaup <ul style="list-style-type: none"> Bufflehead Ruddy Duck Red-breasted Merganser Brant Canvasback Redhead 								Incidental observations of Mallards at station BBS49, 35, & 48 were recorded throughout the field season. Additionally, incidental observations of Canada Goose at stations BBS48, 49 & 51 were also recorded. These observations did not meet the minimum requirements to be considered significant.
Turtle Wintering Areas	<p>For most turtles, wintering areas are in the same general areas as their core habitat. Over-wintering sites are permanent water bodies, large wetlands, and bogs and fens with adequate dissolved oxygen. Water has to be deep enough not to freeze and have soft mud substrates. These habitats are found in the following Community Types: Swamp (SW), Marsh (MA), Open Water (OA), Shallow Water (SA), Open Fen (FEO), Open Bog (BOO).</p> <p><u>Significant wildlife habitat defining criteria:</u></p> <ul style="list-style-type: none"> Presence of 5 over-wintering Midland Painted Turtles One or more Northern Map or Snapping turtles overwintering in a wetland <p><u>Indicator/ Species of Conservation Concern:</u></p> <ul style="list-style-type: none"> Midland Painted Turtle Common Snapping Turtle Northern Map Turtle 	ID*	ELC*						Figure 5B
		TWA1	This candidate habitat is made up of MASO1-1 : Cattail Organic Meadow Marsh	✓	✓	---	✓	---	<p>Surveys within this habitat did not occur during the spring basking period between March and May or fall basking period between September and October in 2016. Therefore, this habitat is treated as significant and carried forward to the <i>NHA EIS Report</i>.</p> <p>Incidental observations of Painted Turtles were observed during other surveys. Ten and five Painted Turtles were observed from a vantage point on Rattie Road where Mud Creek crosses on May 12 and 27, 2016, respectively.</p>
Reptile Hibernaculum	<p>Hibernation occurs in sites located below frost lines in burrows, rock crevices, broken and fissured rock, wetlands such as conifer or shrub swamps and swales, poor fens, or depressions in bedrock terrain with sparse trees or shrubs with sphagnum moss or sedge hummock ground cover. Wetlands can also be important over-wintering habitat in conifer or shrub swamps and swales, poor fens, or depressions in bedrock terrain with sparse trees or shrubs with sphagnum moss or sedge hummock ground cover. Hibernacula can be found in any ecosite in central Ontario other than very wet ones. The following Community Types may be directly related to snake hibernacula: Talus (TA), Rock Barren (RB), Crevice (CCR), Cave (CCA), and Alvar (RBOA1, RBSA1, and RBTA1).</p>	ID	ELC*						Figure 5C.
		RH1	This candidate habitat is made up of RBTA1-7: Red Cedar Alvar Woodland.	✓	✓	---	✓	---	Deep fractures and fissures were observed in this habitat during 2016 field surveys. This habitat will be treated as significant and carried forward into the <i>NHA EIS Report</i> .
		RH2	This candidate habitat is made up of RBSA1-1: Common Juniper Shrub Alvar.	✓	✓	---	✓	---	Deep fractures and fissures were observed in this habitat during 2016 field surveys. This habitat will be treated as significant and carried forward into the <i>NHA EIS Report</i> .
		RH3	This candidate habitat is made up of SWCO1-1: White Cedar Organic Coniferous Swamp.	✓	✓	---	✓	---	Deep fractures and fissures were not observed in this habitat during 2016 field surveys. However, fractures could be present that were undetected during the 2016 field season. This habitat will be treated as significant and carried forward into the <i>NHA EIS Report</i> .
		RH4	This candidate habitat is made up of SWCO1-1: White Cedar Organic Coniferous Swamp.	✓	✓	---	✓	---	Deep fractures and fissures were not observed in this habitat during 2016 field surveys. However, fractures could be present that were undetected during the 2016 field season. This habitat will be treated as significant and carried forward into the <i>NHA EIS Report</i> .

Wildlife Habitat	Defining Criteria for Significant Wildlife Habitat	Habitat Composition: Attributes, Condition, and Function		Location		Status			Relevant Evaluation Criteria Determining Status
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Reptile Hibernaculum (con'd)	<p><u>Significant wildlife habitat defining criteria:</u></p> <ul style="list-style-type: none"> • Presences of snake hibernacula used by a minimum of five individuals of snake's sp. or; individuals of two or more snake spp. • Congregations of a minimum of five individuals of a snake sp. or; individuals of two of more snake spp. near potential hibernacula (e.g. foundation or rocky slope) on sunny warm days in Spring (Apr/May) and Fall (Sept/Oct) • If there is a Special Concern Species present, then site is SWH <p><u>Wildlife species to be considered:</u></p> <ul style="list-style-type: none"> • Eastern Gartersnake • Northern Brownsnake • Northern Watersnake • Smooth Green Snake • Northern Red-bellied Snake • Northern Ring-necked Snake <p><u>Species of Conservation Concern:</u></p> <ul style="list-style-type: none"> • Eastern Ribbonsnake • Five-line Skink 	RH5	This candidate habitat is made up of RBTA1-7: Red Cedar Alvar Woodland.	✓	✓	---	✓	---	Deep fractures and fissures were not observed in this habitat during 2016 field surveys. However, fractures could be present that were undetected during the 2016 field season. As such, this habitat will be treated as significant and carried forward into the <i>NHA EIS Report</i> .
		RH6	This candidate habitat is made up of RBTA1-7: Red Cedar Alvar Woodland.	N/A	N/A	N/A	N/A	N/A	The Project Location boundary has been revised. This habitat no longer occurs within the Project Location boundary or 50 m setback distance.
		RH7	This candidate habitat is made up of RBTA1-7: Red Cedar Alvar Woodland; RBOA1-1: Dry Lichen – Moss Open Alvar Pavement; RBOA1-4: Dry – Fresh Poverty Grass Open Alvar Meadow	✓	✓	---	✓	---	Deep fractures and fissures were observed in this habitat during 2016 field surveys. This habitat will be treated as significant and carried forward into the <i>NHA EIS Report</i> .
		RH8	This candidate habitat is made up of RBOA1: Open Alvar Rock Barren; RBTA1-7 : Red Cedar Alvar Woodland; RBTB1-1: Red Cedar Treed Alvar.	✓	✓	---	✓	---	Deep fractures and fissures were observed in this habitat during 2016 field surveys. This habitat will be treated as significant and carried forward into the <i>NHA EIS Report</i> .
		RH9	This candidate habitat is made up of RBSA1: Alvar Shrub Rock Barren.	✓	✓	---	✓	---	Deep fractures and fissures were observed in this habitat during 2016 field surveys. This habitat will be treated as significant and carried forward into the <i>NHA EIS Report</i> .
		RH10	This candidate habitat is made up of RBSA1: Alvar Shrub Rock Barren.	✓	✓	---	✓	---	Deep fractures and fissures were observed in this habitat during 2016 field surveys. This habitat will be treated as significant and carried forward into the <i>NHA EIS Report</i> .
		RH11	This candidate habitat is made up of RBTA1-7 : Red Cedar Alvar Woodland; RBSA1 : Alvar Shrub Rock Barren	✓	✓	---	✓	---	Deep fractures and fissures were observed in this habitat during 2016 field surveys. This habitat will be treated as significant and carried forward into the <i>NHA EIS Report</i> .
		RH12	This candidate habitat is made up of RBTA1-7: Red Cedar Alvar Woodland; RBSA1: Alvar Shrub Rock Barren.	✓	✓	---	✓	---	Deep fractures and fissures were not observed in this habitat during 2016 field surveys. However, fractures could be present that were undetected during the 2016 field season. This habitat will be treated as significant and carried forward into the <i>NHA EIS Report</i> .
		RH13	This candidate habitat is made up of RBTA1-7 : Red Cedar Alvar Woodland.	✓	✓	---	✓	---	Deep fractures and fissures were observed in this habitat during 2016 alternative field surveys. This habitat will be treated as significant and carried forward into the <i>NHA EIS Report</i> .

Wildlife Habitat	Defining Criteria for Significant Wildlife Habitat	Habitat Composition: Attributes, Condition, and Function		Location		Status			Relevant Evaluation Criteria Determining Status
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Reptile Hibernaculum (con'd)		RH14	This candidate habitat is made up of RBTA1-7: Red Cedar Alvar Woodland.	✓	✓	---	✓	---	Deep fractures and fissures were not observed in this habitat during 2016 alternative field surveys. However, fractures could be present that were undetected during the 2016 field season. This habitat will be treated as significant and carried forward into the <i>NHA EIS Report</i> .
		RH15	This candidate habitat is made up of FOCM2-2: White Cedar Coniferous Forest	✓	✓	---	✓	---	Deep fractures and fissures were observed in this habitat during 2016 field surveys. This habitat will be treated as significant and carried forward into the <i>NHA EIS Report</i> .
		RH16	This candidate habitat is made up of FOCM2-2: White Cedar Coniferous Forest	✓	✓	---	✓	---	Deep fractures and fissures were observed in this habitat during 2016 field surveys. This habitat will be treated as significant and carried forward into the <i>NHA EIS Report</i> .
Colonially Nesting Bird Breeding Habitat (Tree & Shrubs)	<p>Nests in live or dead standing trees in wetlands, lakes, islands and peninsulas. Shrubs and occasionally emergent vegetation may also be used. Most nests in trees are 11 to 15 m from ground, near the top of the tree. This habitat can be found in any of the following community types: Mixed Swamp (SWM); Deciduous Swamp (SWD), Coniferous Swamp (SWC).</p> <p><u>Significant wildlife habitat defining criteria:</u></p> <ul style="list-style-type: none"> • Presence of 5 or more active nests of Great Blue Heron or other listed species <p><u>Wildlife species to be considered:</u></p> <ul style="list-style-type: none"> • Great Blue Heron • Great Egret • Black-crowned Night-heron • Green Heron 	ID	ELC*						Figure 5D
		CNT1	This candidate habitat is made up of SWDO2-3: Swamp Maple Organic Deciduous Swamp.	---	✓	---	✓	---	This habitat consists of diurnal breeding bird survey stations BBS13, 14, 24, 26, 27 & 110 surveyed on May 23, June 7, 8, 17 & 20 2016. No wildlife species to be considered were observed during the 2016 field surveys. One incidental observation of a fly-over Great Blue Heron was made at BBS40 on May 23, 2016. As permission was not attainable for CNT1 (Hinch Swamp Complex PSW), it is assumed that habitat could exist for Great Blue Heron nesting and therefore this habitat will be treated as significant. PSW's provide optimal foraging habitat. Most breeding colonies are located within 3 to 6 km of foraging areas. Note: Based on access permissions, this habitat will not be further evaluated prior to construction and the habitat will be treated as significant in the <i>NHA EIS</i> .
		CNT2	This candidate habitat is made up of SWDO2-3: Swamp Maple Organic Deciduous Swamp; SWDM2-2: Green Ash Deciduous Swamp.	---	✓	---	---	✓	This habitat consists of diurnal breeding bird survey stations BBS34 surveyed on May 23, June 8 and 20. No wildlife species to be considered were observed during the 2016 field surveys. Therefore this habitat is not considered significant.
		CNT3	This candidate habitat is made up of SWDO2-3: Swamp Maple Organic Deciduous Swamp.	✓	✓	---		✓	This habitat consists of diurnal breeding bird survey stations BBS36, 37 & 38 surveyed on May 23, June 8 and 20 as well as BBS41, 42, 43 & 53 on May 27, June 14 & 28. No wildlife species to be considered were observed during the 2016 field surveys. An incidental observation of a fly-over Great Blue Heron was recorded on May 27 at station BBS52. This habitat is not considered significant. It should be noted that the greater Mud Creek PSW may provide habitat in swamp areas beyond the Project Location.

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Colonially Nesting Bird Breeding Habitat (Tree & Shrubs) (con'd)		CNT4	This candidate habitat is made up of SWDO2-3: Swamp Maple Organic Deciduous Swamp; SWDM4-5 : Poplar Deciduous Swamp ; SWCO1-1 : White Cedar Coniferous Swamp.	✓	✓	---	---	✓	This habitat consists of diurnal breeding bird survey stations BBS54 – BBS90 surveyed on May 30, 31, June 2, 3, 7, 9, 10, 16, 21, 27 & 30. One Great Blue Heron was observed on June 27, 2016, at stations BBS68. No nests were observed in the habitat. This habitat is not considered significant.
		CNT5	This candidate habitat is made up of SWDM4-5: Poplar Deciduous Swamp.	✓	✓	---	---	✓	This habitat consists of diurnal breeding bird survey stations BBS54 – BBS90 surveyed on May 30, 31, June 2, 3, 7, 9, 10, 16, 21, 27 & 30. One Great Blue Heron was observed on June 27, 2016, at stations BBS68. No nests were observed in the habitat. This habitat is not considered significant.
		CNT6	This candidate habitat is made up of SWDM2-2: Green Ash Deciduous Swamp.	✓	✓	---	---	✓	This habitat consists of diurnal breeding bird survey stations BBS54 – BBS90 surveyed on May 30, 31, June 2, 3, 7, 9, 10, 16, 21, 27 & 30. One Great Blue Heron was observed on June 27, 2016, at stations BBS68. No nests were observed in the habitat. This habitat is not considered significant.
		CNT7	This candidate habitat is made up of SWDM2-2: Green Ash Deciduous Swamp.	N/A	N/A	N/A	N/A	N/A	The Project Location boundary has been revised. This habitat no longer occurs within the Project Location boundary or 50 m setback distance.
		CNT8	This candidate habitat is made up of SWDM2-2: Green Ash Deciduous Swamp.	N/A	N/A	N/A	N/A	N/A	The Project Location boundary has been revised. This habitat no longer occurs within the Project Location boundary or 50 m setback distance.
		CNT9	This candidate habitat is made up of SWDM2-1: Black Ash Deciduous Swamp.	---	✓	---	✓	---	No diurnal breeding bird surveys were conducted in this habitat due to a lack of access permission. Therefore this habitat will be treated as significant and carried forward to the <i>NHA EIS Report</i> . Note: Based on access permissions, this habitat will not be further evaluated prior to construction and the habitat will be treated as significant.
		CNT10	This candidate habitat is made up of SWDM4: Deciduous Swamp.	---	✓	---	✓	---	No diurnal breeding bird surveys were conducted in this habitat due to a lack of access permission. Therefore this habitat will be treated as significant and carried forward to the <i>NHA EIS Report</i> . Note: Based on access permissions, this habitat will not be further evaluated prior to construction and the habitat will be treated as significant.
		CNT11	This candidate habitat is made up of SWDM4: Deciduous Swamp.	---	✓	---	✓	---	No diurnal breeding bird surveys were conducted in this habitat due to a lack of access permission. Therefore this habitat will be treated as significant and carried forward to the <i>NHA EIS Report</i> . Note: Based on access permissions, this habitat will not be further evaluated prior to construction and the habitat will be treated as significant.

Wildlife Habitat	Defining Criteria for Significant Wildlife Habitat	Habitat Composition: Attributes, Condition, and Function		Location		Status			Relevant Evaluation Criteria Determining Status
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Colonially Nesting Bird Breeding Habitat (Tree & Shrubs) (con'd)		CNT12	This candidate habitat is made up of SWDM3-3: Swamp Maple Deciduous Swamp	N/A	N/A	N/A	N/A	N/A	The Project Location boundary has been revised. This habitat no longer occurs within the Project Location boundary or 50 m setback distance.
		CNT13	This candidate habitat is made up of SWDM3-3: Swamp Maple Deciduous Swamp	N/A	N/A	N/A	N/A	N/A	The Project Location boundary has been revised. This habitat no longer occurs within the Project Location boundary or 50 m setback distance.
		CNT14	This candidate habitat is made up of SWDM3-3: Swamp Maple Deciduous Swamp	N/A	N/A	N/A	N/A	N/A	The Project Location boundary has been revised. This habitat no longer occurs within the Project Location boundary or 50 m setback distance.
		CNT15	This candidate habitat is made up of SWDM2-2: Green Ash Deciduous Swamp.	✓	✓	---	✓	---	No diurnal breeding bird surveys were conducted in habitats identified as CNT15-21 due to a lack of access permission. Therefore this habitat will be treated as significant and carried forward to the <i>NHA EIS Report</i> . Note: Based on access permissions, this habitat will not be further evaluated prior to construction and the habitat will be treated as significant.
		CNT16	This candidate habitat is made up of SWDM2-2: Green Ash Deciduous Swamp.	✓	✓	---	✓	---	
		CNT17	This candidate habitat is made up of SWDM2-2: Green Ash Deciduous Swamp.	✓	✓	---	✓	---	
		CNT18	This candidate habitat is made up of SWDM2-2: Green Ash Deciduous Swamp.	---	✓	---	✓	---	
		CNT19	This candidate habitat is made up of SWDM2-2: Green Ash Deciduous Swamp.	---	✓	---	✓	---	
		CNT20	This candidate habitat is made up of SWDM3-3: Swamp Maple Deciduous Swamp	✓	✓	---	✓	---	
		CNT21	This candidate habitat is made up of SWDM2-2: Green Ash Deciduous Swamp.	---	✓	---	✓	---	

Wildlife Habitat	Defining Criteria for Significant Wildlife Habitat	Habitat Composition: Attributes, Condition, and Function		Location		Status			Relevant Evaluation Criteria Determining Status
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Colonially Nesting Bird Breeding Habitat (Tree & Shrubs) (con'd)		CNT22	This candidate habitat is made up of SWDM3-3: Swamp Maple Deciduous Swamp	---	✓	---	✓	---	No diurnal breeding bird surveys were conducted in habitats identified as CNT22-25 due to a lack of access permission. Therefore this habitat will be treated as significant and carried forward to the <i>NHA EIS Report</i> . Note: Based on access permissions, this habitat will not be further evaluated prior to construction and the habitat will be treated as significant.
		CNT23	This candidate habitat is made up of SWDM2-2: Green Ash Deciduous Swamp.	---	✓	---	✓	---	
		CNT24	This candidate habitat is made up of SWDM2-2: Green Ash Deciduous Swamp.	---	✓	---	✓	---	
		CNT25	This candidate habitat is made up of SWDM2-2: Green Ash Deciduous Swamp.	---	✓	---	✓	---	
		CNT26	This candidate habitat is made up of SWDM2-1: Black Ash Deciduous Swamp.	✓	✓	---	✓	---	No diurnal breeding bird surveys were conducted in this habitat due to a lack of access permission. As this habitat is located on Pennell's Creek, it is assumed that habitat could exist for Great Blue Heron nesting and therefore this habitat will be treated as significant. Note: Based on access permissions, this habitat will not be further evaluated prior to construction and the habitat will be treated as significant.
		CNT27	This candidate habitat is made up of SWDM2-1: Black Ash Deciduous Swamp.	---	✓	---	✓	---	No diurnal breeding bird surveys were conducted in this habitat due to a lack of access permission. As this habitat is located on Pennell's Creek, it is assumed that habitat could exist for Great Blue Heron nesting and therefore this habitat will be treated as significant. Note: Based on access permissions, this habitat will not be further evaluated prior to construction and the habitat will be treated as significant.
		CNT28	This candidate habitat is made up of SWDM2-2: Green Ash Deciduous Swamp.	---	✓	---	✓	---	No diurnal breeding bird surveys were conducted in this habitat due to a lack of access permission. Therefore this habitat will be treated as significant and carried forward to the <i>NHA EIS Report</i> . Note: Based on access permissions, this habitat will not be further evaluated prior to construction and the habitat will be treated as significant.

Wildlife Habitat	Defining Criteria for Significant Wildlife Habitat	Habitat Composition: Attributes, Condition, and Function		Location		Status			Relevant Evaluation Criteria Determining Status
				Within Project Location	Within 50 m of Project Location	Significant	Treated as Significant	Not Significant	
Colonially Nesting Bird Breeding Habitat (Ground)	<p>Nesting colonies of gulls and terns on islands or peninsulas associated with open water or in marshy areas. Brewer’s Blackbird colonies are found loosely on the ground in low bushes in close proximity to streams and irrigation ditches within farm lands. Any rocky island or peninsula within a lake or large river, in close proximity to watercourses in open fields or pastures with scattered trees or shrubs found in any of the following Community Types: Meadow Marsh (MAM), Shallow Marsh (MAS), Meadow (ME), Thicket (TH), Savannah (SV).</p> <p><u>Significant wildlife habitat defining criteria:</u></p> <ul style="list-style-type: none">• The presence of >25 active nests for Herring Gulls or Ring-billed Gulls, >5 activeness for Common Tern, or > 2 active nests for Caspian Tern.• The presence of 5 or more pairs for Brewer’s Blackbird.• Any active nesting colony of one or more Little Gull and Great-black Back Gull is significant. <p><u>Wildlife species to be considered:</u></p> <ul style="list-style-type: none">• Herring Gull• Great Black-backed Gull• Little Gull• Ring-billed Gull• Common Tern• Caspian Tern• Brewer’s Blackbird <p><u>Species of Conservation Concern:</u></p> <ul style="list-style-type: none">• Black Tern Black Tern	ID	ELC*						<p>Species of terns and gulls were identified in the general area of the Loyalist Project Location through screening of background material, however, no terns or Brewer’s Blackbirds were observed during diurnal breeding bird surveys.</p> <p>One observation of a fly-over Herring Gull occurred on June 14, 2016, at BBS94. Habitat-specific to gull nesting was not identified in the Loyalist Project Location or surrounding 50 m. As such, candidate habitat areas have been evaluated as not significant.</p> <p>Note: Where N/A is indicated under “Not Significant”, this indicates the habitat no longer occurs within the Project Location boundary or 50 m setback distance.</p>
		CNG1	This candidate habitat is made up of MASO1-1: Cattail Shallow Marsh; OAGM4: Open Pasture.	✓	✓	---	---	✓	
		CNG2	This candidate habitat is made up of MEMM3: Mixed Meadow.	N/A	N/A	N/A	N/A	N/A	
		CNG3	This candidate habitat is made up of MEMM4: Mixed Meadow; MASO1-1 : Cattail Marsh.	✓	✓	---	---	✓	
		CNG4	This candidate habitat is made up of MEMM4: Mixed Meadow.	✓	✓	---	---	✓	
		CNG5	This candidate habitat is made up of MEMM4: Mixed Meadow.	✓	✓	---	---	✓	
		CNG6	This candidate habitat is made up of MEMM3: Mixed Meadow.	---	✓	---	---	✓	
		CNG7	This candidate habitat is made up of MEFM4: Forb Meadow; MEGM4: Graminoid Meadow.	✓	✓	---	---	✓	
		CNG8	This candidate habitat is made up of MEMM4: Mixed Meadow; MEMR2: Bedrock Mixed Meadow.	---	✓	---	---	✓	
		CNG9	This candidate habitat is made up of MEMR2: Bedrock Mixed Meadow.	---	✓	---	---	✓	
		CNG10	This candidate habitat is made up of MEMM3: Mixed Meadow.	---	✓	---	---	✓	
		CNG11	This candidate habitat is made up of MEMM3: Mixed Meadow.	---	✓	---	---	✓	

Wildlife Habitat	Defining Criteria for Significant Wildlife Habitat	Habitat Composition: Attributes, Condition, and Function		Location		Status			Relevant Evaluation Criteria Determining Status
				Within Project Location	Within 50 m of Project Location	Significant	Treated as Significant	Not Significant	
Colonially Nesting Bird Breeding Habitat (Ground) (con'd)		CNG12	This candidate habitat is made up of MEMM3: Mixed Meadow.	✓	✓	---	---	✓	One observation of a fly-over Herring Gull occurred on June 14, 2016, at BBS94. Habitat-specific to gull nesting was not identified in the Loyalist Project Location or surrounding 50 m. As such, candidate habitat areas have been evaluated as not significant. Note: Where N/A is indicated under “Not Significant”, this indicates the habitat no longer occurs within the Project Location boundary or 50 m setback distance.
		CNG13	This candidate habitat is made up of MEMM3: Mixed Meadow.	✓	✓	---	---	✓	
		CNG14	This candidate habitat is made up of OAGM2: Perennial Cover Crop.	N/A	N/A	N/A	N/A	N/A	
		CNG15	This candidate habitat is made up of OAGM2: Perennial Cover Crop.	N/A	N/A	N/A	N/A	N/A	
		CNG16	This candidate habitat is made up of OAGM4: Open Pasture.	✓	✓	---	---	✓	
Rare Vegetation Communities									
Alvar	An Alvar is typically a level, mostly unfractured calcareous bedrock feature with a mosaic of rock pavements and bedrock overlain by a thin veneer of soil. The hydrology of Alvar is complex, with alternating periods of inundation and drought. This habitat is associated with any of the following ELC communities: ALO1(Open Alvar Rock Barren Ecosite), ALS1 (Alvar Shrub Rock Barren Ecosite), ALT1 (Treed Alvar Rock Barren Ecosite), FOC1 (Dry Pine Calcareous Shallow Coniferous Forest Ecosite), FOC2 (Dry Cedar Calcareous Shallow Coniferous Forest Ecosite), CUM2 (Bedrock Cultural Meadow Ecosite), CUS2 (Bedrock Cultural Savannah Ecosite), CUT2-1 (Common Juniper Cultural Alvar Thicket Type), CUW2 (Bedrock Cultural Woodland Ecosite) that are >0.5 ha in size. <u>Significant wildlife habitat defining criteria:</u> <ul style="list-style-type: none">Field studies that identify four of the five Alvar Indicator Species at a Candidate Alvar site are Significant.Site must not be dominated by exotic or introduced species (<50% vegetative cover area exotic sp.)The Alvar must be in excellent condition and fit in with surrounding landscape with few conflicting land uses	ID	ELC*						Figure 5E.
		ALV1	This candidate habitat is made up of FOCM2-2 : White Cedar Coniferous Forest.	✓	✓	---	---	✓	No Alvar indicator species or Species of Conservation Concern were observed within this habitat during 2016 field surveys. Further, this community is not identified as a rare vegetation community (SRank of S1, S2 or S3). This habitat is not considered significant as it did not meet the minimum requirements of the defining criteria.
		ALV2	This candidate habitat is made up of FOCM2-2: White Cedar Coniferous Forest.	✓	✓	---	---	✓	No Alvar indicator species or Species of Conservation Concern were observed within this habitat during 2016 field surveys. Further, this community is not identified as a rare vegetation community (SRank of S1, S2 or S3). This habitat is not considered significant as it did not meet the minimum requirements of the defining criteria.
		ALV3	This candidate habitat is made up of FOCM2-2: White Cedar Coniferous Forest; MEMR2: Bedrock Mixed Meadow	✓	✓	---	---	✓	No Alvar indicator species or Species of Conservation Concern were observed within this habitat during 2016 field surveys. Further, this community is not identified as a rare vegetation community (SRank of S1, S2 or S3). This habitat is not considered significant as it did not meet the minimum requirements of the defining criteria.
		ALV4	This candidate habitat is made up of FOCS3-1: White Cedar Bedrock Coniferous Forest; RBTA1-7: Red Cedar Alvar Woodland.	✓	✓	---	---	✓	No Alvar indicator species or Species of Conservation Concern were observed within this habitat during 2016 field surveys. Further, this community is not identified as a rare vegetation community (SRank of S1, S2 or S3). This habitat is not considered significant as it did not meet the minimum requirements of the defining criteria.

Wildlife Habitat	Defining Criteria for Significant Wildlife Habitat	Habitat Composition: Attributes, Condition, and Function		Location		Status			Relevant Evaluation Criteria Determining Status
				Within Project Location	Within 50 m of Project Location	Significant	Treated as Significant	Not Significant	
Alvar (con'd)	<p><u>Alvar Indicator Plants:</u></p> <ol style="list-style-type: none"> <i>Carex crawei</i> <i>Panicum philadelphicum</i> <i>Eleocharis compressa</i> <i>Scutellaria parvula</i> <i>Trichostema brachiatum</i> <p><u>Provincially Rare Vegetation Communities of Special Concern listed in Appendix M of the SWHTG:</u></p> <ul style="list-style-type: none"> Dry Lichen – Moss Open Alvar Pavement Type (ALO1-1) Red Cedar Early Buttercup Treed Alvar Type (ALT1-5) Common Juniper Shrub Alvar Type (ALS1-1) Dry-Fresh Poverty Grass Open Alvar Meadow (ALO1-4) <p><u>Species of Conservation Concern:</u></p> <ul style="list-style-type: none"> Tiny Mouse-tail Second Rush/ One-sided Rush Few-fruited Sedge Carolinia Whitlow-grass/ Creeping Draba 	ALV5	This candidate habitat is made up of RBTA1-7: Red Cedar Alvar Woodland.	✓	✓	---	---	✓	No Alvar Indicator species, species of Special Concern or Provincial Rare vegetation Communities existed within this habitat during 2016 field surveys. This habitat is not considered significant as it did not meet the minimum requirements of the defining criteria.
		ALV6	This candidate habitat is made up of FOCS3-1: White Cedar Bedrock Coniferous Forest; RBSA1-1: Common Juniper Shrub Alvar.	✓	✓	✓	---	---	A Provincially Rare Vegetation Community of Special Concern (listed in Appendix M of the SWHTG) ALS1-1 exists within this habitat (specifically ELC polygon 49-1: See Figure 4 in the <i>NHA Site Investigation Report</i>). As such this habitat has been refined to include only this rare community and has been evaluated as significant as an “Other Rare Vegetation Community” as per the Ecoregion 6E Criteria Schedule (MNRF 2015). Within the remainder of the delineated candidate habitat, no alvar indicators or species of conservation concern were observed during the 2016 field surveys and therefore is not considered significant.
		ALV7	This candidate habitat is made up of FOCS3-1: White Cedar Bedrock Coniferous Forest.	✓	✓	---	---	✓	No Alvar indicator species or Species of Conservation Concern were observed within this habitat during 2016 field surveys. Further, this community is not identified as a rare vegetation community (SRank of S1, S2 or S3). This habitat is not considered significant as it did not meet the minimum requirements of the defining criteria.
		ALV8	This candidate habitat is made up of RBTA1-7: Red Cedar Alvar Woodland; FOCS3-1: White Cedar Bedrock Coniferous Forest; Cultural Alvar.	✓	✓	---	---	✓	One Alvar Indicator species, Flat-stemmed Spike Rush was observed in this habitat. No species of conservation concern or Provincial Rare vegetation Communities existed within this habitat during 2016 field surveys. This habitat is not considered significant as it did not meet the minimum requirements of the defining criteria, it is heavily disturbed by cattle and agricultural practices as well as a high concentration of invasive species were present during spring and fall surveys.
		ALV9	This candidate habitat is made up of FOCS3-1: White Cedar Bedrock Coniferous Forest.	N/A	N/A	N/A	N/A	N/A	The Project Location boundary has been revised. This habitat no longer occurs within the Project Location boundary or 50 m setback distance.
		ALV10	This candidate habitat is made up of FOCM2-2: White Cedar Coniferous Forest; FOCS3-1: White Cedar Bedrock Coniferous Forest.	N/A	N/A	N/A	N/A	N/A	The Project Location boundary has been revised. This habitat no longer occurs within the Project Location boundary or 50 m setback distance.

Wildlife Habitat	Defining Criteria for Significant Wildlife Habitat	Habitat Composition: Attributes, Condition, and Function		Location		Status			Relevant Evaluation Criteria Determining Status
				Within Project Location	Within 50 m of Project Location	Significant	Treated as Significant	Not Significant	
Alvar (con'd)		ALV11 <i>Revised to Carolina Whitlow Grass Habitat</i>	This candidate habitat is made up of RBTA1-7: Red Cedar Alvar Woodland; RBTB1-1: Red Cedar Calcareous Treed Alvar; Cultural Alvar.	✓	✓	✓	---	---	A Provincially Rare Species of Special Concern (listed in Appendix G of the SWHTG) Carolina Whitlow-grass was reported to occur in this habitat (specifically ELC polygon 51-17: See Figure 4 in the <i>NHA Site Investigation Report</i>). This observation was not verified by the biologists identified in Table 3 when a return field visit occurred with the original observer. However, the small area of ALV11 (approximately 5 m * 5 m) where this species (up to five individual plants) was observed will be considered significant for "Species of Conservation Concern Habitat" and carried forward into the <i>NHA EIS Report</i> . The entire alvar polygon is not determined to be significant as it is heavily disturbed by cattle and agricultural practices as well as a high concentration of invasive species were present during spring and fall surveys.
		ALV12	This candidate habitat is made up of RBTA1-7: Red Cedar Alvar Woodland; RBTB1-1: Red Cedar Treed Alvar.	✓	✓	---	---	✓	Three alvar Indicator species (<i>Eleocharis compressa</i> , <i>Trichostema brachiatum</i> and <i>Panicum philadelphicum</i>) were observed within this habitat; therefore this habitat does not meet the minimum criteria to be considered significant habitat. No species of Special Concern or Provincial Rare vegetation Communities existed within this habitat during 2016 field surveys. This habitat is not considered significant as it did not meet the minimum requirements of the defining criteria, it is heavily disturbed by cattle and agricultural practices as well as a high concentration of invasive species were present during spring and fall surveys.
		ALV13	This candidate habitat is made up of RBSA1 : Alvar Shrub Rock Barren	✓	✓	---	---	✓	No Alvar indicator species or Species of Conservation Concern were observed within this habitat during 2016 field surveys. Further, this community is not identified as a rare vegetation community (SRank of S1, S2 or S3). This habitat is not considered significant as it did not meet the minimum requirements of the defining criteria.
		ALV14	This candidate habitat is made up of RBSA1 : Alvar Shrub Rock Barren	✓	✓	---	---	✓	No Alvar indicator species or Species of Conservation Concern were observed within this habitat during 2016 field surveys. Further, this community is not identified as a rare vegetation community (SRank of S1, S2 or S3). This habitat is not considered significant as it did not meet the minimum requirements of the defining criteria.
		ALV15	This candidate habitat is made up of RBSA1: Alvar Shrub Rock Barren; RBTB1-7: Red Cedar Alvar Woodland; MEMR2: Bedrock Mixed Meadow.	✓	✓	---	---	✓	Three alvar Indicator species(<i>Eleocharis compressa</i> , <i>Trichostema brachiatum</i> and <i>Panicum philadelphicum</i>) were observed within this habitat, however this did not meet the minimum criteria to be considered significant habitat. No species of conservation concern or Provincial Rare vegetation Communities existed within this habitat during 2016 field surveys. This habitat is not considered significant as it did not meet the minimum requirements of the defining criteria.

Wildlife Habitat	Defining Criteria for Significant Wildlife Habitat	Habitat Composition: Attributes, Condition, and Function		Location		Status			Relevant Evaluation Criteria Determining Status
				Within Project Location	Within 50 m of Project Location	Significant	Treated as Significant	Not Significant	
Alvar (con'd)		ALV16	This candidate habitat is made up of Cultural Alvar; RBTA1-7: Red Cedar Alvar Woodland; SAGM6: Shrub Pasture; MEMR2: Bedrock Mixed Meadow	✓	✓	---	---	✓	Three alvar Indicator species (<i>Eleocharis compressa</i> , <i>Trichostema brachiatum</i> and <i>Panicum philadelphicum</i>) were observed within this habitat, however this did not meet the minimum criteria to be considered significant habitat. No species of conservation concern or Provincial Rare vegetation Communities existed within this habitat during 2016 field surveys. This habitat is not considered significant as it did not meet the minimum requirements of the defining criteria, it is heavily disturbed by cattle and agricultural practices as well as a high concentration of invasive species were present during spring and fall surveys.
		ALV17	This candidate habitat is made up of RBTA1-7: Red Cedar Alvar Woodland; Cultural Alvar.	✓	✓	---	---	✓	No Alvar Indicator species, species of conservation concern or Provincial Rare vegetation Communities existed within this habitat during 2016 field surveys. This habitat is not considered significant as it did not meet the minimum requirements of the defining criteria, it is heavily disturbed by cattle and agricultural practices as well as a high concentration of invasive species were present during spring and fall surveys.
		ALV18	This candidate habitat is made up of MEMR2: Bedrock Mixed Meadow.	✓	✓	---	---	✓	No Alvar Indicator species, species of conservation concern or Provincial Rare vegetation Communities existed within this habitat during 2016 field surveys. This habitat is not considered significant as it did not meet the minimum requirements of the defining criteria.
		ALV19	This candidate habitat is made up of MEMR2: Bedrock Mixed Meadow.	✓	✓	---	---	✓	No Alvar Indicator species, species of conservation concern or Provincial Rare vegetation Communities existed within this habitat during 2016 field surveys. This habitat is not considered significant as it did not meet the minimum requirements of the defining criteria.
		ALV20	This candidate habitat is made up of MEMR2: Bedrock Mixed Meadow.	✓	✓	---	---	✓	No Alvar Indicator species, conservation concern or Provincial Rare vegetation Communities existed within this habitat during 2016 field surveys. This habitat is not considered significant as it did not meet the minimum requirements of the defining criteria.
		ALV21	This candidate habitat is made up of RBOA1-4 : Poverty Oat Grass Alvar; RBTA1-7: Red Cedar Alvar Woodland; RBOA1-1: Lichen-Moss Alvar Pavement	✓	✓	✓	---	---	Three Provincially Rare Vegetation Communities of Special Concern (listed in Appendix M of the SWHTG) exists within this habitat. ALO1-1, ALO1-4 and ALT1-5 (see ELC polygon 47-1 [includes ALT1-5 as an inclusion] & 73-1 on Figure 4d in the <i>NHA Site Investigation Report</i>). As such these portions of the habitat are considered significant and will be carried forward into the <i>NHA EIS Report</i> (see "Other Rare Vegetation Communities" in the Ecoregion 6E Criteria Schedule (MNRF 2015)).

Wildlife Habitat	Defining Criteria for Significant Wildlife Habitat	Habitat Composition: Attributes, Condition, and Function		Location		Status			Relevant Evaluation Criteria Determining Status
				Within Project Location	Within 50 m of Project Location	Significant	Treated as Significant	Not Significant	
Old Growth Forest	Old Growth Forests are characterized by heavy mortality or turnover of over-storey trees resulting in a mosaic of gaps that encourage development of a multi-layered canopy and an abundance of snags and downed woody debris. Stands ≥30 ha with at least 10 ha interior assuming 100 m buffer at edge of forest, and are associated with the following Community Types: FOD (Deciduous Forest), FOM (Mixed Forest), FOC (Coniferous Forest). The stand will have experienced no recognizable forestry activities. Forests with a wide range of tree sizes, uneven canopy and canopy gaps, abundant fallen logs in varying states of decomposition, trees in older age classes (often 50-140 years;).	ID							During ELC classification, areas of the woodlands were surveyed where access was provided. It is assumed that Old Growth characteristics may occur in the larger woodland areas. Within the Project Location, projections of woodlands or the area within the proposed connection line that bisects a woodland (see OG1 on Figure 7G in the <i>NHA Site Investigation Report</i>) did not include trees greater than 140 years old. As such, this habitat was determined to not be significant as old growth forest.
		OG1	Please refer to Table 6 for Vegetation Communities associated with Woodland AD	✓	✓	---	---	✓	
		OG2	Please refer to Table 6 for Vegetation Communities associated with Woodland AP	✓	✓	---	---	✓	
		OG3	Please refer to Table 6 for Vegetation Communities associated with Woodland BD	---	✓	---	---	✓	
		OG4	Please refer to Table 6 for Vegetation Communities associated with Woodland BM	✓	✓	---	---	✓	
		OG5	Please refer to Table 6 for Vegetation Communities associated with Woodland DB	✓	✓	---	---	✓	
		OG6	Please refer to Table 6 for Vegetation Communities associated with Woodland L	✓	✓	---	---	✓	
		OG7	Please refer to Table 6 for Vegetation Communities associated with Woodland I	✓	✓	---	---	✓	

Wildlife Habitat	Defining Criteria for Significant Wildlife Habitat	Habitat Composition: Attributes, Condition, and Function	Location		Status			Relevant Evaluation Criteria Determining Status	
			Within Project Location	Within 50 m of Project Location	Significant	Treated as Significant	Not Significant		
Specialized Habitat for Wildlife									
Waterfowl Nesting Area	Upland habitats of any kind located adjacent to a wetland. The upland areas should be at least 120 m wide so predators have difficulty finding nests. The extent of the habitat extends 120 m from a wetland >0.5 ha or any small wetland within 120 m of a cluster of 3 or more smaller wetlands (<0.5 ha) within 120 m of each other where waterfowl nesting occurs. Wood ducks and hooded mergansers utilize large diameter trees (>40 cm dB) in woodlands for cavity nest sites. <u>Significant wildlife habitat defining criteria:</u> <ul style="list-style-type: none">• Presence of 3 or more nesting pairs for listed species excluding Mallard, or;• Presence of 10 or more nesting pair for listed species including Mallard;• Any active nesting site of an American Black Duck is considered significant; <u>Wildlife species to be considered:</u> <ul style="list-style-type: none">• American Black Duck• Northern Pintail• Northern Shoveler• Gadwall• Blue-winged Teal• Green-winged Teal• Wood Duck• Hooded Merganser• Mallard <u>Species of Conservation Concern:</u> <ul style="list-style-type: none">• Canvasback• Redhead	ID							Figure 5F
		WNA1	This candidate habitat is made up of Deciduous Swamp; Deciduous Forest, and Mixed Forest.	✓	✓	---	---	✓	Diurnal breeding bird surveys were conducted at point count stations BBS08 & 09 on May 31, June 10 & 21. No waterfowl species were observed during the surveys. Therefore the habitat is not considered significant.
		WNA2	This candidate habitat is made up of Deciduous Swamp, Coniferous Forest, and Cultural Meadow.	✓	✓	---	✓	---	Diurnal breeding bird surveys were conducted at point count stations BBS13, 14, 24, 26, 27 & 110 on May 23, June 7, 8, 17 & 20 2016. One Wood Duck was observed on May 23, 2016, at BBS14. As permission was not attainable for the full extent of WNA2 (Hinch Swamp Complex PSW), it is assumed that habitat could exist for Waterfowl nesting and therefore this habitat will be treated as significant. Note: Based on access permissions, this habitat will not be further evaluated prior to construction and the habitat will be treated as significant.
		WNA3	This candidate habitat is made up of Deciduous Swamp, and Cultural Meadow.	✓	✓	---	---	✓	Diurnal breeding bird surveys were conducted at point count stations BBS15 & 16 on May 23, June 7, 8, 17 & 20 2016.Four incidental observations of Mallards were recorded on May 23 at BBS19 & 21; June 7 at BBS16 and June 17 at BBS18.These observations do not meet the minimum presence of 10 or more nesting pairs and therefore this habitat is not significant.
		WNA4	This candidate habitat is made up of Cultural Woodland, Coniferous Woodland, and Deciduous Swamp.	✓	✓	---	✓	---	This habitat consists of diurnal breeding bird survey stations BBS36, 37 & 38 surveyed on May 23, June 8 and 20; BBS41, 42, 43 & 53 on May 27, June 14 & 28. As well as BBS18 & 19 on May 23, June 7 and 17. One observation of a Mallard and Wood Duck was recorded on June 17 at BBS18. Additionally, eight incidental observations of Mallards (7) and Wood Ducks (1) were recorded in close proximity to WNA4 (Mud Creek PSW) during the 2016 field season. As permission was not attainable for the full extent of WNA4 (Mud Creek PSW), it is assumed that habitat could exist for Waterfowl nesting and therefore this habitat will be treated as significant. Note: Based on access permissions, this habitat will not be further evaluated prior to construction and the habitat will be treated as significant.
		WNA5	This candidate habitat is made up of Coniferous Forest, Deciduous Swamp, and Deciduous Forest.	✓	✓	---	---	✓	Diurnal breeding bird surveys were conducted at point count stations BBS54 – BBS90 on May 30, 31, June 2, 3, 7, 9, 10, 16, 21, 27 & 30. One Mallard exhibiting aggressive territorial behaviour was observed on May 30 at BBS61.This observed does not meet the minimum requirements for habitat to be considered significant. Therefore, this habitat is no considered significant.

Wildlife Habitat	Defining Criteria for Significant Wildlife Habitat	Habitat Composition: Attributes, Condition, and Function		Location		Status			Relevant Evaluation Criteria Determining Status
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Waterfowl Nesting Area (con'd)		WNA6	This candidate habitat is made up of Cultural Thicket, Deciduous Swamp, and Coniferous Forest.	✓	✓	---	---	✓	Diurnal breeding bird surveys were conducted at point count stations BBS82-90 on June 3, 10, 16, 21, 24 & 28. No Waterfowl species were observed during field surveys. Therefore, this habitat is not considered significant as it did not meet the minimum requirements to be considered.
		WNA7	This candidate habitat is made up of Deciduous Forest, Cultural Meadow, and Deciduous Swamp.	---	✓	---	✓	---	Diurnal breeding bird surveys were conducted at point count stations BBS104-108 on June 1, 15 & 30. Two Wood Duck fly-overs were observed on June 1 at BBS105. As permission was not attainable for the full extent of WNA7 (Pennell's Creek PSW), it is assumed that habitat could exist for Waterfowl nesting and therefore this habitat will be treated as significant. Note: Based on access permissions, this habitat will not be further evaluated prior to construction and the habitat will be treated as significant.
Bald Eagle & Osprey Nesting, Foraging and Perching Habitat	Nests are associated with lakes, ponds, rivers or wetlands along forested shorelines, islands or on structures over water. Osprey nests are usually at the top of a tree whereas Bald Eagle nests are typically in super-canopy trees in a notch within the tree's canopy. Nests located on man-made structures are not included as significant wildlife habitat. Forest (FO) or Swamp (SW) that are immediately adjacent to rivers, lakes, ponds, and wetlands should be considered. <u>Significant wildlife habitat defining criteria:</u> • One or more active Osprey or Bald Eagle nests in an area	ID							Diurnal breeding bird surveys were conducted on May 23, 30, 31, June 1, 2, 3, 4, 8, 9, 10, 14, 15, 16, 20, 21, 24, 27, 28, 30 and July 7 2016 within Woodland AD, AE, BM, CY, I and EA (BBS 13, 14, 24, 26, 27, 36-38; 41, 46, 49-51; 53-90; 95-97, 101, 104, 105, 108, & 110) during the 2016 breeding bird season. Bald Eagle and Osprey were not observed during these surveys. In addition to diurnal breeding bird surveys, during surveys of woodland areas before leaf out occurred in April /May of 2016, no stick nests were identified. Therefore, all Candidate BEOS habitat is not considered significant.
		BEOS1	Please refer to Table 6 for Vegetation Communities associated with Woodland AD.	✓	✓	---	---	✓	
		BEOS2	Please refer to Table 6 for Vegetation Communities associated with Woodland AE.	✓	✓	---	---	✓	
		BEOS3	Please refer to Table 6 for Vegetation Communities associated with Woodland BI	✓	✓	---	---	✓	
		BEOS4	Please refer to Table 6 for Vegetation Communities associated with Woodland BM.	✓	✓	---	---	✓	
		BEOS5	Please refer to Table 6 for Vegetation Communities associated with Woodland BS.	✓	✓	---	---	✓	
		BEOS6	Please refer to Table 6 for Vegetation Communities associated with Woodland BT.	✓	✓	---	---	✓	

Wildlife Habitat	Defining Criteria for Significant Wildlife Habitat	Habitat Composition: Attributes, Condition, and Function		Location		Status			Relevant Evaluation Criteria Determining Status
				Within Project Location	Within 50 m of Project Location	Significant	Treated as Significant	Not Significant	
Bald Eagle & Osprey Nesting, Foraging and Perching Habitat <i>(con'd)</i> Woodland Raptor Nesting Area	All natural or conifer plantation woodland. Forest stands >30 ha with >10 ha of interior habitat. Interior habitat is determined with a 200 m buffer the edge of the woodland. <u>Significant wildlife habitat determining criteria:</u> <ul style="list-style-type: none"> The presence of 1 or more active nests from species list is considered significant. <u>Wildlife species to be considered:</u> <ul style="list-style-type: none"> Northern Goshawk Cooper's Hawk Sharp-shinned Hawk Red-shouldered Hawk Barred Owl Broad-winged Hawk 	BEOS7	Please refer to Table 6for Vegetation Communities associated with Woodland CY.	✓	✓	---	---	✓	Diurnal breeding bird surveys were conducted on May 23, 30, 31, June 1, 2, 3, 4, 8, 9, 10, 14, 15, 16, 20, 21, 24, 27, 28, 30 and July 7 2016 within Woodland AD, AE, BM, CY, I and EA (BBS 13, 14, 24, 26, 27, 36-38; 41, 46, 49-51; 53-90; 95-97, 101, 104, 105, 108, & 110) during the 2016 breeding bird season. Bald Eagle and Osprey were not observed during these surveys. In addition to diurnal breeding bird surveys, during surveys of woodland areas before leaf out occurred in April /May of 2016, no stick nests were identified. Therefore, all Candidate BEOS habitat is not considered significant.
		BEOS8	Please refer to Table 6for Vegetation Communities associated with Woodland I.	✓	✓	---	---	✓	
		BEOS9	Please refer to Table 6for Vegetation Communities associated with Woodland EA	✓	✓	---	---	✓	
		ID							Diurnal breeding bird surveys were conducted within Woodland I, AD and BM (BBS13, 14, 110, 24, 26, 27, 41, 46, 54-90, 95-97, 101 & 104) during the 2016 breeding bird season on May 23, 27, 30, 31, June 1, 2, 3, 4, 7, 8, 9, 10, 14, 15, 16, 17, 20, 21, 27, 28, 30 and July 7 2016. Wildlife species specific to this habitat were not observed during these surveys. Therefore, this habitat is not significant.
		WRN1	Please refer to Table 6for Vegetation Communities associated with Woodland I.	✓	✓	---	---	✓	
		WRN2	Please refer to Table 6for Vegetation Communities associated with Woodland AD.	✓	✓	---	---	✓	
		WRN3	Please refer to Table 6for Vegetation Communities associated with Woodland BM.	✓	✓	---	---	✓	

Wildlife Habitat	Defining Criteria for Significant Wildlife Habitat	Habitat Composition: Attributes, Condition, and Function		Location		Status			Relevant Evaluation Criteria Determining Status
				Within Project Location	Within 50 m of Project Location	Significant	Treated as Significant	Not Significant	
Turtle Nesting Areas	<p>For an area to function as a turtle nesting area, it must provide sand and gravel that turtles are able to dig in and are located in open, sunny areas. Nesting areas on the sides of municipal or provincial road embankments and shoulders are not significant wildlife habitat. Sand and gravel beaches adjacent to undisturbed shallow weedy areas of marshes, lakes and rivers are most frequently used. Exposed mineral soil (sand or gravel) areas <100 m from or within the following Community Types: Mineral or Organic Meadow Marsh (MAM or MAO), Shallow Marsh (MAS), Shallow Aquatic (SA), Open Bog (BOO), Open Fen (FEO).</p> <p><u>Significant wildlife habitat defining criteria:</u></p> <ul style="list-style-type: none"> • Presence of 5 or more nesting Midland Painted Turtles • One or more Northern Map or Snapping Turtle nesting • The area or collection of sites within nesting area plus a radius of 30-100 m around the nesting area, depending on habitat condition. <p><u>Indicator/Species of Conservation Concern:</u></p> <ul style="list-style-type: none"> • Midland Painted Turtle • Northern Map Turtle • Common Snapping Turtle 	ID	ELC*						<p>Figure 5G</p> <p>During Turtle Surveys in 2016, Mud Creek PSW was surveyed from Rattie Road on May 12, 27 and June 1, 2016. A total of 10 Painted turtles were observed basking on May 12 and 5 were observed on May 27, 2016. Although the entire area was not surveyed for nesting characteristics due to lack of access permission and safety concerns in the wetland areas, potential nesting habitat is assumed to occur at TNA1. Based on this and the observations of sufficient numbers of turtles, this habitat is therefore considered significant and will carried forward into the <i>NHA EIS Report</i>.</p>
		TNA1	This candidate habitat is made up of MASO1-1: Cattail Shallow Marsh.	✓	✓	---	✓	---	
Amphibian Breeding Habitat (Wetland)	<p>Wetlands and pools isolated from woodlands with the presence of shrubs, logs available for calling, foraging, and escape/concealment from predators. Bullfrogs require permanent water bodies with an abundance of emergent vegetation. Associated with any of the following ELC communities: Swamp (SW), Marsh (MA), Fen (FE), Bog (BO), Open Water (OA), Shallow Aquatic (SA), including vernal pools, that are >500 m² or 25 m in diameter, and located >120 m from woodlands.</p> <p><u>Significant wildlife habitat defining criteria:</u></p> <ul style="list-style-type: none"> • Presence of breeding population of 1 or more of the listed salamander species or 2 or more of the listed frog or toad species and with at least 20 breeding individuals (adults, juveniles, eggs/larval masses) or; • Wetland with confirmed breeding Bullfrogs is significant. <p><u>Wildlife species to be considered:</u></p> <ul style="list-style-type: none"> • Eastern Newt • American Toad • Spotted Salamander • Four-toed Salamander • Blue-spotted Salamander • Gray Treefrog • Western Chorus Frog • Northern Leopard Frog • Pickerel Frog • Green Frog • Mink Frog • Bullfrog <p><u>Species of Conservation Concern:</u></p> <ul style="list-style-type: none"> • Northern Map Turtle • Common Snapping Turtle 	ABHWE1	This candidate habitat is made up of MAMM1-9: Narrow-leaved Sedge Graminoid Meadow Marsh.	---	✓	---	---	✓	<p>ABHWE1 was surveyed on April 27, 28, May 23 and 24 2016 (ABH22 & 23) during the 2016 monitoring period; during the survey period, no standing water was observed to persist through the breeding season. Therefore, this habitat does not meet the minimum requirements to be considered significant.</p>

Wildlife Habitat	Defining Criteria for Significant Wildlife Habitat	Habitat Composition: Attributes, Condition, and Function		Location		Status			Relevant Evaluation Criteria Determining Status
				Within Project Location	Within 50 m of Project Location	Significant	Treated as Significant	Not Significant	
Amphibian Breeding Habitat (Woodland)	<p>The presence of a wetland, pond or woodland pool (including vernal pools) > 500 m2 within or adjacent to (within 120 m) a woodland. Woodlands that contain permanent ponds or contain water in most years until mid-July are most likely to be used as breeding habitat.</p> <p><u>Significant wildlife habitat defining criteria:</u></p> <ul style="list-style-type: none">• Presence of breeding population of 1 or more of the listed newt/salamander species• Two or more of the listed frog species with at least 20 individuals (adults, juveniles, eggs/larval masses)• Two or more of the listed frog species with Call Level Code 3 <p><u>Wildlife species to be considered:</u></p> <ul style="list-style-type: none">• Eastern Newt• Blue-spotted Salamander• Spotted Salamander• Gray Treefrog• Spring Peeper• Wood Frog• Western Chorus Frog	ID	ELC*						Figure 5H
		ABHWO1	Please refer to Table 6 for Vegetation Communities associated with Woodland AD	✓	✓	✓	---	---	This woodland consisted of eight amphibian breeding survey station (ABH17, 18, 34, 36, 37, 38, 42 & 43). These stations were surveyed three times between April 27 and June 16, 2016. During each visit, >20 individuals were recorded of Gray Treefrog and Spring Peeper. This habitat is considered significant and carried forward into the <i>NHA EIS Report</i> .
		ABHWO2	Please refer to Table 6 for Vegetation Communities associated with Woodland AE & EA	✓	✓	✓	---	---	This woodland consists of one amphibian breeding survey station; ABH23. This station was surveyed April 28, May 24 & June 16, 2016. More than 20 individuals of Spring Peeper and two Gray Treefrog and a Northern Leopard Frog were recorded, meaning at least 20 individuals were observed. As such, this habitat is considered significant and carried forward to the <i>NHA EIS Report</i> .
		ABHWO3	Please refer to Table 6 for Vegetation Communities associated with Woodland B	✓	✓	---	✓	---	This woodland did not consist of an amphibian breeding survey station. This woodland was composed of Red Cedar Coniferous Woodland; White Cedar Calcareous Bedrock and Oak-Hardwood Deciduous Forest. This woodland surrounds a Willow Deciduous Thicket Swamp. Due to the lack of amphibian information, this woodland will be treated as significant and carried forward into the <i>NHA EIS Report</i> . Note: as the wetland area that may support amphibian breeding is located wholly outside the Project Location boundary, this habitat will not be further evaluated prior to construction.
		ABHWO4	Please refer to Table 6 for Vegetation Communities associated with Woodland BD	✓	✓	---	---	✓	This woodland consisted of two amphibian breeding survey station; ABH17 & ABH18. This station was surveyed on (April 27, 28 and May 23, 2016). Spring Peepers were observed only on April 28; however, the number of individuals was less than 20. As such, this habitat does not meet the minimum requirements to be considered significant. Note, this determination applies to the area of habitat able to be surveyed from the County Road 27 right-of-way only.
		ABHWO5	Please refer to Table 6 for Vegetation Communities associated with Woodland BI	✓	✓	---	---	✓	This woodland consisted of two amphibian breeding survey stations; ABH30 & 31. These stations were surveyed April 28, May 23, and June 15. During these surveys, Spring Peppers and Gray Treefrogs were observed, however, the number of individuals was less than 20. As such, this habitat does not meet the minimum requirements to be considered significant.
		ABHWO6	Please refer to Table 6 for Vegetation Communities associated with Woodland BM	✓	✓	✓	---	---	This woodland consisted of seven amphibian breeding survey stations; ABH09, 08, 14, 15, 16, 32 & 33. These stations were surveyed on April 27, 28, May 23 and June 15, 2016. There were more than 20 individual Gray Treefrogs on May 23 and June 15, 2016, surveys and Spring Peepers on April 27 and May 23, 2016, surveys. Additionally, 6 individual Bullfrogs were observed during the June 13, 2016, survey. Therefore this habitat is considered significant and carried forward to the <i>NHA EIS Report</i>

Wildlife Habitat	Defining Criteria for Significant Wildlife Habitat	Habitat Composition: Attributes, Condition, and Function		Location		Status			Relevant Evaluation Criteria Determining Status
				Within Project Location	Within 50 m of Project Location	Significant	Treated as Significant	Not Significant	
Amphibian Breeding Habitat (Woodland) (con'd)		ABHWO7	Please refer to Table 6 for Vegetation Communities associated with Woodland BS	✓	✓	---	---	✓	This woodland consisted of one amphibian breeding survey station; ABH11. This station was surveyed on April 27, May 23 and June 15, 2016. Spring Peepers and Gray Treefrogs were observed during station visits, however, the number of individuals were less than 10. As such, this habitat does not meet the minimum requirements to be considered significant.
		ABHWO8	Please refer to Table 6 for Vegetation Communities associated with Woodland BT	✓	✓	---	---	✓	This woodland consisted of one amphibian breeding survey station; ABH11. This station was surveyed on April 27, May 23 and June 15, 2016. Spring Peepers and Gray Treefrogs were observed during station visits, however, the number of individuals were less than 10. As such, this habitat does not meet the minimum requirements to be considered significant.
		ABHWO9	Please refer to Table 6 for Vegetation Communities associated with Woodland CY	✓	✓	---	✓	---	This woodland did not consist of an amphibian breeding survey station. This woodland is composed of Black Ash Deciduous swamp and border a Reed Canary Grass Meadow Marsh. As habitat is available for breeding amphibians, this woodland will be treated as significant and carried forward into the <i>NHA EIS Report</i> . Note: as the wetland area that may support amphibian breeding is located wholly outside the Project Location boundary, this habitat will not be further evaluated prior to construction.
		ABHWO10	Please refer to Table 6 for Vegetation Communities associated with Woodland I	✓	✓	✓	---	---	This woodland consisted of four amphibian breeding survey station; ABH19, 24, 25 & 26. This station was surveyed on April 27, May 23 and June 15/16 2016. Spring Peepers and Gray Treefrogs were observed during station visits, and the number of individuals was greater than 20. As such, this habitat will be considered significant and carried forward into the <i>NHA EIS</i> .
		ABHWO11	Please refer to Table 6 for Vegetation Communities associated with Woodland DZ	✓	✓	---	---	✓	This woodland consisted of one amphibian breeding survey station; ABH20. This station was surveyed on April 27 and May 24, 2016. Spring Peeper and Green Frog were observed during station visits, however, the number of individuals were less than 10. As such, this habitat does not meet the minimum requirements to be considered significant.
Woodland Area-Sensitive Bird Breeding Habitat	<p>This habitat includes all ecosites associated with Forest (FOC, FOM & FOD) and Swamp (SWC, SWM & SWD). The habitat where interior forest breeding birds are breeding, typically mature (>60 years old) forest stands or woodlots (>30 ha).</p> <p><u>Significant wildlife habitat determining criteria:</u></p> <ul style="list-style-type: none"> • Presence of nesting to breeding pair of three or more of the listed wildlife species • Any site with breeding Cerulean Warbler or Canada Warblers is to be considered SWH. <p><u>Wildlife species to be considered:</u></p> <ul style="list-style-type: none"> • Yellow-bellied Sapsucker • Red-breasted Nuthatch • Veery • Blue-headed Vireo • Northern Parula • Black-throated Green Warbler 	ID	ELC*						Figure 5I
		ASBB1	Please refer to Table 6 for Vegetation Communities associated with Woodland BM	✓	✓	✓	---	---	Diurnal breeding bird surveys were conducted at point count stations BBS95- 101; 104 & 105. These stations were surveyed on June 1, 3, 14, 15, 24, 28 and 30, 2016. Species observed at these survey stations included Blackburnian Warbler, Black-throated Green Warbler, Ovenbird, Red-breasted Nuthatch, Scarlet Tanager and Veery. This habitat is considered significant and carried forward into the <i>NHA EIS Report</i> .
		ASBB2	Please refer to Table 6 for Vegetation Communities associated with Woodland AD	✓	✓	✓	---	---	Diurnal breeding bird surveys were conducted at point count stations BBS54-BBS90. These stations were surveyed on May 30, 31, June 2, 3, 9, 10, 14, 16, 21, 27, 28, and 30 2016. Species observed at these survey stations included Blackburnian Warbler, Black-throated Green Warbler, Ovenbird, Red-breasted Nuthatch, Scarlet Tanager, Veery, Winter Wren and Yellow-bellied Sapsucker. This habitat is considered significant and carried forward into the <i>NHA EIS Report</i> .

Wildlife Habitat	Defining Criteria for Significant Wildlife Habitat	Habitat Composition: Attributes, Condition, and Function		Location		Status			Relevant Evaluation Criteria Determining Status
				Within Project Location	Within 50 m of Project Location	Significant	Treated as Significant	Not Significant	
Woodland Area-Sensitive Bird Breeding Habitat <i>(con’d)</i>	<ul style="list-style-type: none">Blackburnian WarblerBlack-throated Blue WarblerOvenbirdScarlet TanagerWinter Wren	ASBB3	Please refer to Table 6 for Vegetation Communities associated with Woodland I	✓	✓	✓	---	---	Diurnal breeding bird surveys were conducted at point count stations BBS13, 14, 110, 24, 26 & 27. These stations were surveyed on May 23, June 7, 8, 17 and 20, 2016. Species observed at these survey stations included Ovenbird, Scarlet Tanager, Veery and Yellow-bellied Sapsucker. This habitat is considered significant and carried forwards into the <i>NHA EIS Report</i> .
	<u>Species of Conservation Concern:</u> <ul style="list-style-type: none">Canada Warbler	ASBB4	Please refer to Table 6 for Vegetation Communities associated with Woodland L	✓	✓	---	---	✓	Diurnal breeding bird surveys were conducted at point count stations BBS01, 02, & 03. These stations were surveyed May 31, June 10 and 21, 2016. Species recorded at these survey stations included Red-breasted Nuthatch. The portion of habitat that extends into the Project Location habitat is not considered significant. Further, the area of woodland within the Project Location that is part of this habitat does not contribute to the interior habitat.
		ASBB5	Please refer to Table 6 for Vegetation Communities associated with Woodland AP	✓	✓	---	---	✓	This woodland did not consist of diurnal breeding bird survey stations. However, this woodland is 130 m west of BBS46 & 41 survey stations which were located in a similar ELC community (#72:WOCM1-1 Red Cedar Coniferous Woodland). Species recorded at BBS46 & 41 survey stations included Blackburnian Warbler. The area of woodland within the Project Location that is part of this habitat does not contribute to the interior habitat. As such, this habitat will not be considered significant.
Habitat of Species of Conservation Concern									
Marsh Breeding Bird Habitat (General)	This habitat includes all wetlands as long as there is shallow water with emergent aquatic vegetation present. For Green Heron, habitat is at the edge of water such as sluggish streams, ponds, and marshes sheltered by shrubs and trees. Less frequently it may be found in upland shrubs or forest a considerable distance from water. The following ELC communities should be considered: Meadow Marsh (MAM), Shallow Aquatic (SA), Open Bog (BOO), Open Fen (FEO), or for Green Heron: SW (Swamp), MA (Marsh) and Meadow (ME). <u>Significant wildlife habitat defining criteria:</u> <ul style="list-style-type: none">Presence of 5 or more nesting pairs of Sedge Wren or Marsh Wren1 pair of Sandhill Cranes;Breeding by any combination of 5 or more of the listed species.Note: any wetland with the breeding of 1 or more Black Terns,Trumpeter Swan, Green Heron or Yellow Rail is SWH.	ID	ELC*						No presence of five or more nesting pairs of Marsh Wren or a combination of five or more wildlife species to be considered were observed within any of the candidate habitat areas during diurnal breeding bird surveys on June 1, 4, 15, 28 and 30 2016 (BBS94 & 108) . Note: Where N/A is indicated under “Not Significant”, this indicates the habitat no longer occurs within the Project Location boundary or 50 m setback distance.
		MBBH1	This habitat is composed of MAMM1-3: Reed Canary Grass Meadow Marsh	✓	✓	---	---	✓	
		MBBH2	This habitat is composed of MAMM1-2 : Cattail Meadow Marsh	✓	✓	---	---	✓	
		MBBH3	This habitat is composed of MAMO1-3: Reed Canary Grass Meadow Marsh	✓	✓	---	---	✓	

Wildlife Habitat	Defining Criteria for Significant Wildlife Habitat	Habitat Composition: Attributes, Condition, and Function		Location		Status			Relevant Evaluation Criteria Determining Status
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Marsh Breeding Bird Habitat (General) (con'd)	Wildlife Species to be considered: <ul style="list-style-type: none"> American Bittern Virginia Rail Sora Common Moorhen American Coot Pied-billed Grebe Marsh Wren Sedge Wren Common Loon Sandhill Crane Green Heron Trumpeter Swan Species of Conservation Concern: <ul style="list-style-type: none"> Black Tern Yellow Rail 	MBBH4	This habitat is composed of MAMM1-3 : Reed Canary Grass Meadow Marsh	N/A	N/A	N/A	N/A	N/A	
		MBBH5	This habitat is composed of MASO1-1: Cattail Organic Shallow Marsh.	✓	✓	---	---	✓	
Marsh Breeding Bird Habitat (Green Heron)		ID	ELC*						
		GRHE1	This habitat is composed of SWDM2-1: Black Ash Deciduous Swamp; MAMM1-3: Reed Canary Grass Meadow Marsh.	✓	✓	---	---	✓	
		GRHE2	This habitat is composed of MAMM1-2: Cattail Meadow Marsh.	✓	✓	---	---	✓	
		GRHE3	This habitat is composed of MAMO1-3: Reed Canary Grass Meadow Marsh; SWDM2-2: Green Ash Deciduous Swamp; SWTO2: Willow Deciduous Thicket Swamp.	✓	✓	---	---	✓	No presence of Green Heron was observed within any of the candidate habitat areas during diurnal breeding bird surveys in 2016 (i.e., GRHE1-6). In addition to diurnal breeding bird surveys, during woodland surveys before leaf out occurred in April /May of 2016, no stick nests were identified. Therefore, all Candidate GRHE SWH is not considered significant.
		GRHE4	This habitat is composed of SWDM3-3: Maple Deciduous Swamp; MAMM1-3: Reed Canary Grass Meadow Marsh.	N/A	N/A	N/A	N/A	N/A	
		GRHE5	This habitat is composed of MEMM3: Mixed Meadow.	N/A	N/A	N/A	N/A	N/A	Note: Where N/A is indicated under “Not Significant”, this indicates the habitat no longer occurs within the Project Location boundary or 50 m setback distance.
		GRHE6	This habitat is composed of SWDM3-3: Maple Deciduous Swamp.	✓	✓	---	---	✓	

Wildlife Habitat	Defining Criteria for Significant Wildlife Habitat	Habitat Composition: Attributes, Condition, and Function		Location		Status			Relevant Evaluation Criteria Determining Status
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Marsh Breeding Bird Habitat (Green Heron) (con'd)		GRHE7	This habitat is composed of SWDO2-3: Swamp Maple Deciduous Swamp.	✓	✓	---	---	✓	No presence of Green Heron was observed within any of the candidate habitat areas during diurnal breeding bird surveys in 2016 (i.e., GRHE7-12). In addition to diurnal breeding bird surveys, during woodland surveys before leaf out occurred in April /May of 2016, no stick nests were identified. Therefore, all Candidate GRHE SWH is not considered significant. Note: Where N/A is indicated under “Not Significant”, this indicates the habitat no longer occurs within the Project Location boundary or 50 m setback distance.
		GRHE8	This habitat is composed of MEMM3: Mixed Meadow.	N/A	N/A	N/A	N/A	N/A	
		GRHE9	This habitat is composed of Cattail MAMO1-2: Meadow Marsh; SWDM2-2: Green Ash Deciduous Swamp; MEMM4: Mixed Meadow; SWDO2-3: Maple Deciduous Swamp; MAMR3: Bedrock Meadow Marsh.	✓	✓	---	---	✓	
		GRHE10	This habitat is composed of SWDO2-3: Maple Deciduous Swamp; MEMM4: Mixed Meadow; MEGM4: Graminoid Meadow.	✓	✓	---	---	✓	
		GRHE11	This habitat is composed of MEMM3: Mixed Meadow.	✓	✓	---	---	✓	
		GRHE12	This habitat is composed of MASO1-1: Cattail Organic Shallow Marsh.	✓	✓	---	---	✓	
Terrestrial Crayfish	Terrestrial crayfish are typically found within south-western Ontario in Canada and their habitats are very rare. In general, crayfish are known to construction burrows in wet meadows and the edges of shallow marshes. These species can often be found far from water in soil that isn't too moist and allows for tunnels/burrows to be formed. <u>Significant wildlife habitat defining criteria:</u> <ul style="list-style-type: none"> • Presence of 1 or more individuals of species listed or their chimneys (burrows) in suitable habitat <u>Wildlife Species to be considered:</u> <ul style="list-style-type: none"> • Chimney or Digger Crayfish • Devil or Meadow Crayfish 	ID	ELC*						Figure 5J
		TC1	This habitat is composed of MAMO1-3: Cattail Organic Meadow Marsh	✓	✓	---	✓	---	This habitat was not surveyed during the 2016 field season due to health and safety concerns associated with accessing the full wetland area. As such, habitat will be treated as significant and will be carried forward into the NHA EIS Report. Note: Given the safety considerations associated with surveying this area of the wetland, this habitat will not be further evaluated prior to construction.

Wildlife Habitat	Defining Criteria for Significant Wildlife Habitat	Habitat Composition: Attributes, Condition, and Function		Location		Status			Relevant Evaluation Criteria Determining Status
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Common Nighthawk	Traditional Common Nighthawk habitat consists of open areas with little to no ground vegetation, such as logged or burned-over areas, forest clearings, rock barrens, peat bogs, lakeshores, and mine tailings. Although the species also nests in cultivated fields, orchards, urban parks, mine tailings and along gravel roads and railways, they tend to occupy natural sites.	ID							Figure 5K
		CN1	This habitat is composed of RBTA1-7: Red Cedar Alvar Woodland.	✓	✓	✓	---	---	On June 16, 2016, a Common Nighthawk nest containing two eggs was observed 30 m south of BBS station 79. This habitat is considered significant and will be carried forward into the <i>NHA EIS Report</i> .
		CN2	This habitat is composed of RBTA1-7: Red Cedar Alvar Woodland.	N/A	N/A	N/A	N/A	N/A	The Project Location boundary has been revised. This habitat no longer occurs within the Project Location boundary or 50 m setback distance.
		CN3	This habitat is composed of RBOA1-1 : Dry Lichen-Moss Open Alvar Pavement	✓	✓	---	---	✓	Crepuscular surveys were conducted on the nights of May 26, 2016, and June 13, 2016, from point count BBS49. Auditory surveys typically cover an area of 400- 500 m in radius and no Common Nighthawks were observed during either survey in the community that had been delineated at candidate Significant Wildlife Habitat (CN3) for Common Nighthawk.
		CN4	This habitat is composed of RBOA1 : Open Alvar Rock Barren	✓	✓	✓	---	---	Crepuscular surveys were conducted on the nights of May 26, 2016, and June 13, 2016, from point count BBS44, 47 & 48. Auditory surveys typically cover an area of 400- 500 m in radius. One Common Nighthawk was heard during May 26, 2016 in the community that had been delineated at candidate Significant Wildlife Habitat (CN4) for Common Nighthawk. Additionally, during diurnal breeding bird surveys on June 28, 2016, one Common Nighthawk was observed from BBS47 approximately 300 m south in the habitat considered candidate Significant Wildlife Habitat for Common Nighthawk. Therefore, this habitat is considered Significant Wildlife Habitat for Common Nighthawk and will be carried forward to the <i>NHA EIS Report</i> .
		CN5	This habitat is composed of RBSA1 : Alvar Shrub Rock Barren	✓	✓	---	---	✓	Crepuscular surveys were conducted on the nights of May 31, 2016, and June 29, 2016, from point count BBS35 & 39. Auditory surveys typically cover an area of 400- 500 m in radius and no Common Nighthawks were observed during either survey in the community that had been delineated at candidate Significant Wildlife Habitat (CN5) for Common Nighthawk.
		CN6	This habitat is composed of RBSA1 : Alvar Shrub Rock Barren	✓	✓	---	---	✓	Crepuscular surveys were conducted on the nights of May 31, 2016, and June 29, 2016, from point count BBS35 & 39. Auditory surveys typically cover an area of 400- 500 m in radius and no Common Nighthawks were observed during either survey in the community that had been delineated at candidate Significant Wildlife Habitat (CN6) for Common Nighthawk.

Wildlife Habitat	Defining Criteria for Significant Wildlife Habitat	Habitat Composition: Attributes, Condition, and Function		Location		Status			Relevant Evaluation Criteria Determining Status
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Common Nighthawk (con'd)		CN7	This habitat is composed of RBTA1-1: Red Cedar Calcareous Treed Alvar; RBOA1: Open Alvar Rock Barren; SWDM3-3: Red Cedar Alvar Woodland; FOMM5-2: Fresh Poplar Mixed Forest; RBSA1: Alvar Shrub Rock Barren; RBTA1-7: Red Cedar Alvar Woodland.	✓	✓	---	---	✓	Crepuscular surveys were conducted on the nights of May 30, 2016, and June 16, 2016, from point count BBS17, 18 & 19. Auditory surveys typically cover an area of 400- 500 m in radius and no Common Nighthawks were observed during either survey in the community that had been delineated at candidate Significant Wildlife Habitat (CN7) for Common Nighthawk.
		CN8	This habitat is composed of RBTA1-7: Red Cedar Alvar Woodland.	✓	✓	---	---	✓	Crepuscular surveys were conducted on the nights of May 30, 2016, and June 16, 2016, from point count BBS17 & 20. Auditory surveys typically cover an area of 400- 500 m in radius and no Common Nighthawks were heard during either survey in the community that had been delineated at candidate Significant Wildlife Habitat (CN8) for Common Nighthawk.
		CN9	This habitat is composed of RBTA1-7: Red Cedar Alvar Woodland.	✓	---	---	---	✓	Crepuscular surveys were conducted on the nights of May 30, 2016, and June 16, 2016, from point count BBS15. Auditory surveys typically cover an area of 400- 500 m in radius and no Common Nighthawks were heard during either survey in the community that had been delineated at candidate Significant Wildlife Habitat (CN9) for Common Nighthawk.
		CN10	This habitat is composed of RBTA1-7: Red Cedar Alvar Woodland; RBOA1: Open Alvar Rock Barren.	✓	✓	---	---	✓	Crepuscular surveys were conducted on the nights of June 9, 2016, and June 28, 2016, from point count BBS30. Auditory surveys typically cover an area of 400- 500 m in radius and no Common Nighthawks were heard during either survey in the community that had been delineated at candidate Significant Wildlife Habitat (CN10) for Common Nighthawk.
		CN11	This habitat is composed of RBTA1-7: Red Cedar Alvar Woodland; FOCS3-1: White Cedar Calcareous Bedrock Coniferous Forest.	✓	✓	---	---	✓	Crepuscular surveys were conducted on the nights of June 1, 2016, and June 27, 2016, from point count BBS04. Auditory surveys typically cover an area of 400- 500 m in radius and no Common Nighthawks were heard during either survey in the community that had been delineated at candidate Significant Wildlife Habitat (CN11) for Common Nighthawk.
		CN12	This habitat is composed of FODM3-1: Bedrock Mixed Meadow.	✓	✓	✓	---	---	Crepuscular surveys were conducted on the nights of June 1, 2016, and June 27, 2016, from point count BBS04, 05, 06 & 07. Auditory surveys typically cover an area of 400- 500 m in radius. One Common Nighthawk was heard during June 1, 2016, a survey in the direction of community CN12 that had been delineated at candidate Significant Wildlife Habitat (CN12) for Common Nighthawk. Therefore, this habitat is considered Significant Wildlife Habitat for Common Nighthawk and will be carried forward to the NHA EIS Report.

Wildlife Habitat	Defining Criteria for Significant Wildlife Habitat	Habitat Composition: Attributes, Condition, and Function		Location		Status			Relevant Evaluation Criteria Determining Status
				Within Project Location	Within 50 m of Project Location	Significant	Treated as Significant	Not Significant	
Common Nighthawk (con'd)		CN13	This habitat is composed of RBTA1-7: Red Cedar Alvar Woodland; RBOA1-1: Dry Lichen-Moss Open Alvar Pavement.	✓	✓	---	---	✓	Crepuscular surveys were conducted on the nights of May 30, 2016, and June 16, 2016, from point count BBS12 & 13. Auditory surveys typically cover an area of 400- 500 m in radius and no Common Nighthawks were heard during either survey in the community that had been delineated at candidate Significant Wildlife Habitat (CN13) for Common Nighthawk.
Woodland Specific Bird Species of Special Concern	<p><u>Species of Special Concern:</u></p> <p>Red-headed Woodpecker (RHWO): The Red-headed Woodpecker lives in open deciduous woodland and woodland edges with oak, oak-hickory, and maple. They are often found in parks, golf courses, and cemeteries. These areas typically have many dead trees, which the bird uses for nesting and perching. They require cavity trees with at least a 40 cm dbh and 4 ha for a territory.</p> <p>Eastern Wood-Pewee (EAWP) The Eastern Wood-Pewee lives in forest clearings and forest edges predominated by oak with little understory including mature woodlands, roadsides, woodlots, farm woodlots and orchards.</p>	ID							Figure 5L
		RHWO1	Please refer to Table 6 for Vegetation Communities associated with Woodland BM	✓	✓	---	---	✓	Diurnal breeding bird surveys were conducted at point count stations BBS94-101 & 104 on June 1, 3, 14, 15, 24, 28 & 30. No Red-headed Woodpeckers were observed or heard during the surveys. Therefore, this habitat is not considered Significant Wildlife Habitat for Red-Headed Woodpeckers.
		RHWO2	Please refer to Table 6 for Vegetation Communities associated with Woodland AD	✓	✓	✓	---	---	Diurnal breeding bird surveys were conducted at point count stations BBS54 – BBS90 on May 30, 31, June 2, 3, 7, 9, 10, 16, 21, 27 & 30. A Red-headed Woodpecker was heard calling during the June 30, 2016 survey from station BBS63. Therefore, this habitat is considered Significant Wildlife Habitat for Red-headed Woodpecker and will be carried forward to the NHA EIS.
		RHWO3	Please refer to Table 6 for Vegetation Communities associated with Woodland AE	✓	✓	---	---	✓	Diurnal breeding bird surveys were conducted at point count stations BBS36, 37 & 38 on May 23, June 8 & 20, 2016. No Red-headed Woodpeckers were observed or heard during the surveys. Therefore, this habitat is not considered Significant Wildlife Habitat for Red-Headed Woodpeckers.
		RHWO4	Please refer to Table 6 for Vegetation Communities associated with Woodland I	✓	✓	---	---	✓	Diurnal breeding bird surveys were conducted at point count stations BBS13, 14, 24, 26, 27 & 110 on May 23, June 7, 8, 17 & 20 2016. No Red-headed Woodpeckers were observed or heard during the surveys. Therefore, this habitat is not considered Significant Wildlife Habitat for Red-Headed Woodpeckers.
		RHWO5	Please refer to Table 6 for Vegetation Communities associated with Woodland L	✓	✓	---	---	✓	Diurnal breeding bird surveys were conducted at point count stations BBS01, 02 & 03 on May 31, June 10 & 21. No Red-headed Woodpeckers were observed or heard during the surveys. Therefore, this habitat is not considered Significant Wildlife Habitat for Red-Headed Woodpeckers.
		RHWO6	Please refer to Table 6 for Vegetation Communities associated with Woodland F	✓	✓	---	---	✓	Diurnal breeding bird surveys were conducted at point count stations BBS07 on May 31, June 10 & 21. No Red-headed Woodpeckers were observed or heard during the surveys. Therefore, this habitat is not considered Significant Wildlife Habitat for Red-Headed Woodpeckers.

Wildlife Habitat	Defining Criteria for Significant Wildlife Habitat	Habitat Composition: Attributes, Condition, and Function		Location		Status			Relevant Evaluation Criteria Determining Status
				Within Project Location	Within 50 m of Project Location	Significant	Treated as Significant	Not Significant	
Woodland Specific Bird Species of Special Concern (con'd)		RHW07	Please refer to Table 6for Vegetation Communities associated with Woodland B	✓	✓	---	---	✓	Diurnal breeding bird surveys were conducted at point count stations BBS08 & 09 on May 31, June 10 & 21. No Red-headed Woodpeckers were observed or heard during the surveys. Therefore, this habitat is not considered Significant Wildlife Habitat for Red-Headed Woodpeckers.
		EAWP1	Please refer to Table 6for Vegetation Communities associated with Woodland BM	✓	✓	✓	---	---	Diurnal breeding bird surveys were conducted at point count stations BBS94-101 & 104 on June 1, 3, 14, 15, 24, 28 & 30. Eastern Wood-Pewees were heard calling during the June 1 & 3, 2016 surveys from station BBS104 & 95, respectively. Therefore, this habitat is considered Significant Wildlife Habitat for Eastern Wood-Pewee and will be carried forward to the <i>NHA EIS</i> .
		EAWP2	Please refer to Table 6for Vegetation Communities associated with Woodland AD	✓	✓	✓	---	---	Diurnal breeding bird surveys were conducted at point count stations BBS54 – BBS90 on May 30, 31, June 2, 3, 7, 9, 10, 16, 21, 27 & 30. A total of 27 auditory observations of Eastern Wood-Pewee were recorded during the 2016 field surveys, specifically at stations BBS56, 60, 64, 65, 66, 67, 69, 70, 71, 72, 76, 77, 85, 90 & 95. Therefore, this habitat is considered Significant Wildlife Habitat for Eastern Wood-Pewee and will be carried forward to the <i>NHA EIS</i> .
		EAWP3	Please refer to Table 6for Vegetation Communities associated with Woodland AE	✓	✓	✓	---	---	Diurnal breeding bird surveys were conducted at point count stations BBS36, 37 & 38 on May 23, June 8 & 20, 2016. Two Eastern Wood-Pewees were heard from station BBS37 on June 7 & 17, 2016. Therefore, this habitat is considered Significant Wildlife Habitat for Eastern Wood-Pewee and will be carried forward to the <i>NHA EIS</i> .
		EAWP4	Please refer to Table 6for Vegetation Communities associated with Woodland I	✓	✓	✓	---	---	Diurnal breeding bird surveys were conducted at point count stations BBS13, 14, 24, 26, 27 & 110 on May 23, June 7, 8, 17 & 20 2016. A total of seven auditory observations were made of Eastern Wood-Pewee during the 2016 field season, specifically at stations BBS 13, 14, 26 & 110. Therefore, this habitat is considered Significant Wildlife Habitat for Eastern Wood-Pewee and will be carried forward to the <i>NHA EIS</i> .
		EAWP5	Please refer to Table 6 for Vegetation Communities associated with Woodland L	✓	✓	---	---	✓	Diurnal breeding bird surveys were conducted at point count stations BBS01, 02 & 03 on May 31, June 10 & 21. No Eastern Wood-Pewee was observed or heard during the surveys. Therefore, this habitat is not considered Significant Wildlife Habitat for Eastern Wood-Pewee.
		EAWP6	Please refer to Table 6for Vegetation Communities associated with Woodland F	✓	✓	---	---	✓	Diurnal breeding bird surveys were conducted at point count stations BBS07 on May 31, June 10 & 21. No Eastern Wood-Pewee was observed or heard during the surveys. Therefore, this habitat is not considered Significant Wildlife Habitat for Eastern Wood-Pewee.
		EAWP7	Please refer to Table 6for Vegetation Communities associated with Woodland B	✓	✓	---	---	✓	Diurnal breeding bird surveys were conducted at point count stations BBS08 & 09 on May 31, June 10 & 21. No Eastern Wood-Pewee was observed or heard during the surveys. Therefore, this habitat is not considered Significant Wildlife Habitat for Eastern Wood-Pewee.

Wildlife Habitat	Defining Criteria for Significant Wildlife Habitat	Habitat Composition: Attributes, Condition, and Function		Location		Status			Relevant Evaluation Criteria Determining Status
				Within Project Location	Within 50 m of Project Location	Significant	Treated as Significant	Not Significant	
Wood Thrush	The Wood Thrush lives in Carolinian and Great Lakes-St. Lawrence forest zones with undisturbed moist mature deciduous or mixed forest with deciduous sapling growth. Habitat is generally near ponds or swamps along hardwood forest edges.	ID							Figure 5M
		WOTH1	Please refer to Table 6 for Vegetation Communities associated with Woodland BM	✓	✓	✓	---	---	Diurnal breeding bird surveys were conducted at point count stations BBS94-101 & 104 on June 1, 3, 14, 15, 24, 28 & 30. A total of 13 Wood Thrush observations were made during the surveys. Therefore, this habitat is considered Significant Wildlife Habitat for Wood Thrush and will be carried forward into the <i>NHA EIS Report</i> .
		WOTH2	Please refer to Table 6 for Vegetation Communities associated with Woodland BI	✓	✓	---	---	✓	No diurnal breeding bird surveys were conducted within this Woodland due to access permission. However, survey station BBS94 and BBS81 are 250m and 600 m north and south of the Woodland, respectively. No Wood Thrush observation was made during the surveys at those stations. Therefore, this habitat is not considered Significant Wildlife Habitat for Wood Thrush.
		WOTH3	Please refer to Table 6 for Vegetation Communities associated with Woodland AE	✓	✓	---	---	✓	Diurnal breeding bird surveys were conducted at point count stations BBS36, 37 & 38 on May 23, June 8 & 20, 2016. No Wood Thrush observation was made during the surveys. Therefore, this habitat is not considered Significant Wildlife Habitat for Wood Thrush.
		WOTH4	Please refer to Table 6 for Vegetation Communities associated with Woodland I	✓	✓	✓	---	---	Diurnal breeding bird surveys were conducted at point count stations BBS13, 14, 24, 26, 27 & 110 on May 23, June 7, 8, 17 & 20 2016. Two Wood Thrush observations were made on May 23, 2016, at station BBS13 and BBS14. Therefore, this habitat is considered Significant Wildlife Habitat for Wood Thrush and will be carried forward into the <i>NHA EIS Report</i> . Note: Based on access permissions, this habitat will not be further evaluated prior to construction and the habitat will be treated as significant.
		WOTH5	Please refer to Table 6 for Vegetation Communities associated with Woodland B	✓	✓	---	---	✓	Diurnal breeding bird surveys were conducted at point count stations BBS08 & 09 on May 31, June 10 & 21. No Wood Thrush observation was made during the surveys. Therefore, this habitat is not considered Significant Wildlife Habitat for Wood Thrush.
Yellow Pond Lily	The habitat of this species includes alkaline and neutral water 0.5 to 2 m deep. Blooming occurs from May to October, particularly opening in the morning and closing at night	The habitat of this species includes alkaline and neutral water 0.5 to 2 m deep. Blooming occurs from May to October, particularly opening in the morning and closing at night		✓	✓	✓	---	---	Yellow Pond Lily was observed in watercourses where access was permitted. For those areas where access was not permitted, but the watercourse is connected to where observations were recorded, the full extent of the habitat is considered significant. See Figure 5N
Juniper Hairstreak	The habitat of this species includes old fields, bluffs, barrens, juniper and cedar breaks. This species prefers juniper species during the breeding season as their caterpillar host.	Potential habitat for this species exists ubiquitously throughout the Project Location and 50 m setback		✓	✓	---	✓	---	There are several areas within Project Location where applicable habitat was recorded. Given that surveys for butterfly species were not conducted in 2016, these habitats will be treated as significant and brought forward to the <i>NHA EIS Report</i> . See Figure 5O .

Wildlife Habitat	Defining Criteria for Significant Wildlife Habitat	Habitat Composition: Attributes, Condition, and Function	Location		Status			Relevant Evaluation Criteria Determining Status
			Within Project Location	Within 50 m of Project Location	Significant	Treated as Significant	Not Significant	
Animal Movement Corridors								
Amphibian Movement Corridors	Corridors are determined based on the identification of significant breeding habitat for amphibians. Movement corridors between breeding habitat and summer habitat must be determined when amphibian breeding habitat (wetland) is confirmed as significant wildlife habitat and the species observed within the significant amphibian breeding habitat (wetland) relay on woodland habitat for a portion of their life cycle. Corridors may be found in all ecosites associated with water. Corridors should be at least 200 m wide with gaps <20 m, and, if following riparian area, with at least 15 m of vegetation on both sides of the waterway.	Habitat does not exist with the Project Location boundary.	✓	✓	---	---	✓	Since the wetland Amphibian Breeding Habitat was evaluated as not significant, there are no applicable candidate amphibian movement corridors associated with the Project.

*ELC as per Table 6 in the NHA Site Investigation Report.

Significant wildlife habitat within the Project Location and 50 m setback includes (please note that “*” next to the wildlife habitat code indicates the habitat is being treated as significant):

- Seasonal Concentration Areas
 - Waterfowl Stopover and Staging Area Terrestrial (WSST1*, WSST2*, WSST3*, WSST4*, WSST5*, WSST6*, WSST7*, WSST8*, WSST9*, WSST10*)
 - Waterfowl Stopover and Staging Area Aquatic (WSSA1*, WSSA2*, WSSA4*)
 - Turtle Wintering Areas (TWA1*)
 - Reptile Hibernaculum (RH1*, RH2*, RH3*, RH4*, RH5*, RH7*, RH8*, RH9*, RH10*, RH11*, RH12*, RH13*, RH14*, RH15*, RH16*)
 - Colonially Nesting Bird Breeding Habitat (Tree & Shrubs) (CNT1*, CNT9*, CNT10*, CNT11*, CNT15*, CNT16*, CNT17*, CNT18*, CNT19*, CNT20*, CNT21*, CNT22*, CNT23*, CNT24*, CNT25*, CNT26*, CNT27*, CNT28*)
- Rare Vegetation Communities
 - Alvar
 - ALV6 (Significant Other Rare Vegetation Community)
 - Significant Carolina Whitlow Grass Habitat (previously ALV11; only the approximately 25 m² portion that was reported to support Carolina Whitlow Grass is significant)
 - ALV21 (Significant Other Rare Vegetation Community)
- Specialised Wildlife Habitat
 - Waterfowl Nesting Area (WNA2*, WNA4*, WNA7*)
 - Turtle Nesting Areas (TN1)
 - Amphibian Breeding Habitat (Woodland) (ABHWO1, ABHWO2, ABHWO3*, ABHWO6, ABHWO9*, ABHWO10)
 - Woodland Area-Sensitive Bird Breeding Habitat (ASBB1, ASBB2, ASBB3)
 - Terrestrial Crayfish (TC1*)
- Habitat For Species of Conservation Concern
 - Common Nighthawk (CN1, CN4, CN12)
 - Woodland Specific Bird Species of Special Concern Red-headed Woodpecker (RHW02); Eastern Wood Pe-wee (EAWP1, EAWP2, EAWP3, EAWP4)
 - Wood Thrush (WOTH1, WOTH4)
 - Yellow Pond Lily
 - Juniper Hairstreak *

See **Figures 5A- 50**.

In addition, the MNRF has scoped the applicable wildlife habitat that may be impacted if a renewable energy project is developed within 50 m. All other wildlife habitat that may occur entirely within 50 m can be assumed to exist and categorized as “Generalized Candidate Significant Wildlife Habitat” and must be treated as significant in the *NHA EIS Report*.

The applicable scoped wildlife habitat identified within 50 m of the Project Location and identified as “Generalized Candidate Significant Wildlife Habitat” is outlined in the *NHA Site Investigation Report*. In addition to these habitats, candidate habitat associated with Hinch Swamp is included for Olive-sided Flycatcher, a Species of Conservation Concern. A male of this species was recorded singing during breeding bird surveys. Although this individual may have been a migrant, it has been included for the purposes of this NHA reporting.

9.0

Conclusion

This report evaluated the significance of natural features determined to occur within 50 m of the Project Location. The natural features evaluated for their significance in this report were identified previously as part of the records review and site investigation and are subject to consultation with relevant agencies, stakeholders and the public. The evaluation of significance was undertaken according to the criteria and procedures currently accepted by the MNRF. **Figures 3, 4, and 5A-50 and Table 8** below summarize the results of the evaluations.

This report is intended to fulfill the requirements for the *NHA Evaluation of Significance Report* under *Ontario Regulation 359/09*. This *NHA Evaluation of Significance Report* is the third report in a series that will fulfill the *NHA* component of the *REA* process. An *NHA Environmental Impact Study Report*, which examines potential impacts, mitigation, and other relevant items to protect these natural features, will be required for those natural features evaluated to be significant within 50 m of the Project Location.

Table 8: Natural Features Evaluation of Significance Summary

Natural Feature	Details			
	Type	Minimum Setback Provided from Project Location (m)	Significant/ Provincially Significant	Treated as Significant/ Assumed Significant
Wetlands				
	4	5	✓	
	11	0	✓	
	18	Within		✓
	26	0		✓
	31	0		✓
	34	0		✓
	40	0		✓
	43	0		✓
	44	0		✓
	45	0		✓
	49	Within		✓
	54	0		✓
	61	0		✓
	62	0		✓
	71	0		✓
	72	0		✓
	73	0		✓
	75	0		✓
	77	0		✓
	78	0		✓
	83	0		✓
	85	0		✓
	86	5		✓
	88	0	✓	
	92	0		✓
	94	0	✓	
	96	0		✓
	99	5		

Natural Feature	Details			
Type	Minimum Setback Provided from Project Location (m)	Significant/ Provincially Significant	Treated as Significant/ Assumed Significant	Not Significant
100	5			✓
101	5			✓
102	0	✓		
103	5	✓		
104	Within	✓		
105	0			✓
106	0			✓
108	0			✓
109	0		✓	
114	Within		✓	
115	25			✓
116	0			✓
117	9		✓	
118	0		✓	
119	0			✓
120	0			✓
121	0			✓
122	0		✓	
123	0		✓	
124	0			✓
125	0		✓	
126	0		✓	
127	12		✓	
Woodlands				
AB	0	✓		
AD	Within	✓		
AE	Within	✓		
AP	Within	✓		
AQ	0	✓		
B	Within	✓		

Natural Feature	Details			
Type	Minimum Setback Provided from Project Location (m)	Significant/ Provincially Significant	Treated as Significant/ Assumed Significant	Not Significant
BC	0	✓		
BD	Within	✓		
BH	Within	✓		
BI	Within	✓		
BM	Within	✓		
BP	0			✓
BS	Within			✓
BT	Within			✓
BU	0			✓
CA	0	✓		
CN	0			✓
CW	1	✓		
CX	0	✓		
CY	Within			✓
CZ	0			✓
DB	Within	✓		
DD	Within			✓
DF	Within			✓
DI	Within			✓
DL	Within			✓
DM	5			✓
DN	0			✓
DO	0			✓
DP	0			✓
DQ	0			✓
DR	0			✓
DT	30			✓
DU	0			✓
DX	31			✓
DY	0			✓

Natural Feature	Details			
Type	Minimum Setback Provided from Project Location (m)	Significant/ Provincially Significant	Treated as Significant/ Assumed Significant	Not Significant
DZ	Within			✓
EA	Within	✓		
F	Within			✓
I	Within	✓		
L	Within	✓		
Wildlife Habitat				
Seasonal Concentration Areas				
Waterfowl Stopover and Staging Areas (Terrestrial) WSST1	Within		✓	
Waterfowl Stopover and Staging Areas (Terrestrial) WSST2	Within		✓	
Waterfowl Stopover and Staging Areas (Terrestrial) WSST3	Within		✓	
Waterfowl Stopover and Staging Areas (Terrestrial) WSST4	Within		✓	
Waterfowl Stopover and Staging Areas (Terrestrial) WSST5	Within		✓	
Waterfowl Stopover and Staging Areas (Terrestrial) WSST6	Within		✓	
Waterfowl Stopover and Staging Areas (Terrestrial) WSST7	Within		✓	
Waterfowl Stopover and Staging Areas (Terrestrial) WSST8	Within		✓	
Waterfowl Stopover and Staging Areas (Terrestrial) WSST9	Within		✓	
Waterfowl Stopover and Staging Areas (Terrestrial) WSST10	Within		✓	

Natural Feature	Details			
Type	Minimum Setback Provided from Project Location (m)	Significant/ Provincially Significant	Treated as Significant/ Assumed Significant	Not Significant
Waterfowl Stopover and Staging Areas (Aquatic) WSSA1	Within		✓	
Waterfowl Stopover and Staging Areas (Aquatic) WSSA2	Within		✓	
Waterfowl Stopover and Staging Areas (Aquatic) WSSA4	Within		✓	
Turtle Wintering Areas TWA1	Within		✓	
Reptile Hibernaculum RH1	Within		✓	
Reptile Hibernaculum RH2	Within		✓	
Reptile Hibernaculum RH3	Within		✓	
Reptile Hibernaculum RH4	Within		✓	
Reptile Hibernaculum RH5	Within		✓	
Reptile Hibernaculum RH7	Within		✓	
Reptile Hibernaculum RH8	Within		✓	
Reptile Hibernaculum RH9	Within		✓	
Reptile Hibernaculum RH10	Within		✓	
Reptile Hibernaculum RH11	Within		✓	
Reptile Hibernaculum RH12	Within		✓	
Reptile Hibernaculum RH13	Within		✓	
Reptile Hibernaculum RH14	Within		✓	
Reptile Hibernaculum RH15	Within		✓	
Reptile Hibernaculum RH16	Within		✓	
Colonially Nesting Bird Breeding Habitat (Tree & Shrubs) CNT1	5		✓	
Colonially Nesting Bird Breeding Habitat (Tree & Shrubs) CNT2	5			✓
Colonially Nesting Bird Breeding Habitat (Tree & Shrubs) CNT3	Within			✓
Colonially Nesting Bird Breeding Habitat (Tree & Shrubs) CNT4	Within			✓

Natural Feature	Details			
Type	Minimum Setback Provided from Project Location (m)	Significant/ Provincially Significant	Treated as Significant/ Assumed Significant	Not Significant
Colonially Nesting Bird Breeding Habitat (Tree & Shrubs) CNT5	Within			✓
Colonially Nesting Bird Breeding Habitat (Tree & Shrubs) CNT6	Within			✓
Colonially Nesting Bird Breeding Habitat (Tree & Shrubs) CNT9	0		✓	
Colonially Nesting Bird Breeding Habitat (Tree & Shrubs) CNT10	0		✓	
Colonially Nesting Bird Breeding Habitat (Tree & Shrubs) CNT11	0		✓	
Colonially Nesting Bird Breeding Habitat (Tree & Shrubs) CNT15	Within		✓	
Colonially Nesting Bird Breeding Habitat (Tree & Shrubs) CNT16	Within		✓	
Colonially Nesting Bird Breeding Habitat (Tree & Shrubs) CNT17	Within		✓	
Colonially Nesting Bird Breeding Habitat (Tree & Shrubs) CNT18	0		✓	
Colonially Nesting Bird Breeding Habitat (Tree & Shrubs) CNT19	0		✓	
Colonially Nesting Bird Breeding Habitat (Tree & Shrubs) CNT20	Within		✓	
Colonially Nesting Bird Breeding Habitat (Tree & Shrubs) CNT21	0		✓	
Colonially Nesting Bird Breeding Habitat (Tree & Shrubs) CNT22	0		✓	

Natural Feature	Details			
Type	Minimum Setback Provided from Project Location (m)	Significant/ Provincially Significant	Treated as Significant/ Assumed Significant	Not Significant
Colonially Nesting Bird Breeding Habitat (Tree & Shrubs) CNT23	0		✓	
Colonially Nesting Bird Breeding Habitat (Tree & Shrubs) CNT24	0		✓	
Colonially Nesting Bird Breeding Habitat (Tree & Shrubs) CNT25	0		✓	
Colonially Nesting Bird Breeding Habitat (Tree & Shrubs) CNT26	Within		✓	
Colonially Nesting Bird Breeding Habitat (Tree & Shrubs) CNT27	5		✓	
Colonially Nesting Bird Breeding Habitat (Tree & Shrubs) CNT28	0		✓	
Colonially Nesting Bird Breeding Habitat (Ground) CNG1	Within			✓
Colonially Nesting Bird Breeding Habitat (Ground) CNG3	Within			✓
Colonially Nesting Bird Breeding Habitat (Ground) CNG4	Within			✓
Colonially Nesting Bird Breeding Habitat (Ground) CNG5	Within			✓
Colonially Nesting Bird Breeding Habitat (Ground) CNG6	0 m			✓
Colonially Nesting Bird Breeding Habitat (Ground) CNG7	Within			✓
Colonially Nesting Bird Breeding Habitat (Ground) CNG8	0 m			✓

Natural Feature	Details			
Type	Minimum Setback Provided from Project Location (m)	Significant/ Provincially Significant	Treated as Significant/ Assumed Significant	Not Significant
Colonially Nesting Bird Breeding Habitat (Ground) CNG9	0 m			✓
Colonially Nesting Bird Breeding Habitat (Ground) CNG10	0 m			✓
Colonially Nesting Bird Breeding Habitat (Ground) CNG11	0 m			✓
Colonially Nesting Bird Breeding Habitat (Ground) CNG12	Within			✓
Colonially Nesting Bird Breeding Habitat (Ground) CNG13	Within			✓
Colonially Nesting Bird Breeding Habitat (Ground) CNG16	Within			✓
Rare Vegetation Communities				
Alvar ALV1	Within			✓
Alvar ALV2	Within			✓
Alvar ALV3	Within			✓
Alvar ALV4	Within			✓
Alvar ALV5	Within			✓
Alvar ALV6 (Other Rare Vegetation Community)	Within	✓		
Alvar ALV7	Within			✓
Alvar ALV8	Within			✓
Alvar ALV11. This habitat is not significant. Revised to Habitat for Carolina Whitlow Grass	Within	✓		
Alvar ALV12	Within			✓
Alvar ALV13	Within			✓
Alvar ALV14	Within			✓
Alvar ALV15	Within			✓
Alvar ALV16	Within			✓

Natural Feature	Details			
Type	Minimum Setback Provided from Project Location (m)	Significant/ Provincially Significant	Treated as Significant/ Assumed Significant	Not Significant
Alvar ALV17	Within			✓
Alvar ALV18	Within			✓
Alvar ALV19	Within			✓
Alvar ALV20	Within	✓		✓
Alvar ALV21 (Other Rare Vegetation Community)	Within			
Old Growth Forest (OG1)	Within			✓
Old Growth Forest (OG2)	Within			✓
Old Growth Forest (OG3)	0 m			✓
Old Growth Forest (OG4)	Within			✓
Old Growth Forest (OG5)	Within			✓
Old Growth Forest (OG6)	Within			✓
Old Growth Forest (OG7)	Within			✓
Specialised Wildlife Habitat				
Waterfowl Nesting Area WNA1	Within			✓
Waterfowl Nesting Area WNA2	Within		✓	
Waterfowl Nesting Area WNA3	Within			✓
Waterfowl Nesting Area WNA4	Within		✓	
Waterfowl Nesting Area WNA5	Within			✓
Waterfowl Nesting Area WNA6	Within			✓
Waterfowl Nesting Area WNA7	Within		✓	
Bald Eagle & Osprey Nesting, Foraging and Perching Habitat BEOS1	Within			✓
Bald Eagle & Osprey Nesting, Foraging and Perching Habitat BEOS2	Within			✓
Bald Eagle & Osprey Nesting, Foraging and Perching Habitat BEOS3	Within			✓
Bald Eagle & Osprey Nesting, Foraging and Perching Habitat BEOS4	Within			✓

Natural Feature	Details			
Type	Minimum Setback Provided from Project Location (m)	Significant/ Provincially Significant	Treated as Significant/ Assumed Significant	Not Significant
Bald Eagle & Osprey Nesting, Foraging and Perching Habitat BEOS5	Within			✓
Bald Eagle & Osprey Nesting, Foraging and Perching Habitat BEOS6	Within			✓
Bald Eagle & Osprey Nesting, Foraging and Perching Habitat BEOS7	Within			✓
Bald Eagle & Osprey Nesting, Foraging and Perching Habitat BEOS8	Within			✓
Bald Eagle & Osprey Nesting, Foraging and Perching Habitat BEOS9	Within			✓
Woodland Raptor Nesting Area WRN1	Within			✓
Woodland Raptor Nesting Area WRN2	Within			✓
Woodland Raptor Nesting Area WRN3	Within			✓
Turtle Nesting Areas	Within		✓	
Amphibian Breeding Habitat (Wetland) ABHWE1	5			✓
Amphibian Breeding Habitat (Woodland) ABHWO1	Within	✓		
Amphibian Breeding Habitat (Woodland) ABHWO2	Within	✓		
Amphibian Breeding Habitat (Woodland) ABHWO3	Within		✓	
Amphibian Breeding Habitat (Woodland) ABHWO4	Within			✓
Amphibian Breeding Habitat (Woodland) ABHWO5	Within			✓
Amphibian Breeding Habitat (Woodland) ABHWO6	Within	✓		
Amphibian Breeding Habitat (Woodland) ABHWO7	Within			✓

Natural Feature	Details			
Type	Minimum Setback Provided from Project Location (m)	Significant/ Provincially Significant	Treated as Significant/ Assumed Significant	Not Significant
Amphibian Breeding Habitat (Woodland) ABHWO8	Within			✓
Amphibian Breeding Habitat (Woodland) ABHWO9	Within		✓	
Amphibian Breeding Habitat (Woodland) ABHWO10	Within	✓		
Amphibian Breeding Habitat (Woodland) ABHWO11	Within			✓
Woodland Area-Sensitive Bird Breeding Habitat ASBB1	Within	✓		
Woodland Area-Sensitive Bird Breeding Habitat ASBB2	Within	✓		
Woodland Area-Sensitive Bird Breeding Habitat ASBB3	Within	✓		
Woodland Area-Sensitive Bird Breeding Habitat ASBB4	Within			✓
Woodland Area-Sensitive Bird Breeding Habitat ASBB5	Within			✓
Habitat of Species of Conservation Concern				
Marsh Breeding Bird Habitat General MBBH1	Within			✓
Marsh Breeding Bird Habitat General MBBH2	Within			✓
Marsh Breeding Bird Habitat General MBBH3	Within			✓
Marsh Breeding Bird Habitat General MBBH5	Within			✓
Marsh Breeding Bird Habitat Green Heron GRHE1	Within			✓
Marsh Breeding Bird Habitat Green Heron GRHE2	Within			✓
Marsh Breeding Bird Habitat Green Heron GRHE3	Within			✓
Marsh Breeding Bird Habitat Green Heron GRHE6	Within			✓
Marsh Breeding Bird Habitat Green Heron GRHE7	Within			✓

Natural Feature	Details			
Type	Minimum Setback Provided from Project Location (m)	Significant/ Provincially Significant	Treated as Significant/ Assumed Significant	Not Significant
Marsh Breeding Bird Habitat Green Heron GRHE9	Within			✓
Marsh Breeding Bird Habitat Green Heron GRHE10	Within			✓
Marsh Breeding Bird Habitat Green Heron GRHE11	Within			✓
Marsh Breeding Bird Habitat Green Heron GRHE12	Within			✓
Terrestrial Crayfish (TC1)	Within		✓	
Common Nighthawk CN1	Within	✓		
Common Nighthawk CN3	Within			✓
Common Nighthawk CN4	Within	✓		
Common Nighthawk CN5	Within			✓
Common Nighthawk CN6	Within			✓
Common Nighthawk CN7	Within			✓
Common Nighthawk CN8	Within			✓
Common Nighthawk CN9	Within			✓
Common Nighthawk CN10	Within			✓
Common Nighthawk CN11	Within			✓
Common Nighthawk CN12	Within	✓		
Common Nighthawk CN13	Within			✓
Woodland Specific Bird Species of Special Concern RHW01	Within			✓
Woodland Specific Bird Species of Special Concern RHW02	Within	✓		
Woodland Specific Bird Species of Special Concern RHW03	Within			✓
Woodland Specific Bird Species of Special Concern RHW04	Within			✓
Woodland Specific Bird Species of Special Concern RHW05	Within			✓
Woodland Specific Bird Species of Special Concern RHW06	Within			✓

Natural Feature	Details			
Type	Minimum Setback Provided from Project Location (m)	Significant/ Provincially Significant	Treated as Significant/ Assumed Significant	Not Significant
Woodland Specific Bird Species of Special Concern RHW07	Within			✓
Woodland Specific Bird Species of Special Concern EAWP1	Within	✓		
Woodland Specific Bird Species of Special Concern EAWP2	Within	✓		
Woodland Specific Bird Species of Special Concern EAWP3	Within	✓		
Woodland Specific Bird Species of Special Concern EAWP4	Within	✓		
Woodland Specific Bird Species of Special Concern EAWP5	Within			✓
Woodland Specific Bird Species of Special Concern EAWP6	Within			✓
Woodland Specific Bird Species of Special Concern EAWP7	Within			✓
Wood Thrush WOTH1	Within	✓		
Wood Thrush WOTH2	Within			✓
Wood Thrush WOTH3	Within			✓
Wood Thrush WOTH4	Within	✓		
Wood Thrush WOTH5	Within			✓
Yellow Pond Lily	Within	✓		
Juniper Hairstreak Note: JH16,17 and 22 are no longer in Project Location Boundary	Within Project Location or within 0 m of Project Location. See <i>NHA Site Investigation Report</i> Figure 7V		✓	
Animal Movement Corridors				
Amphibian Movement Corridors	Within			✓

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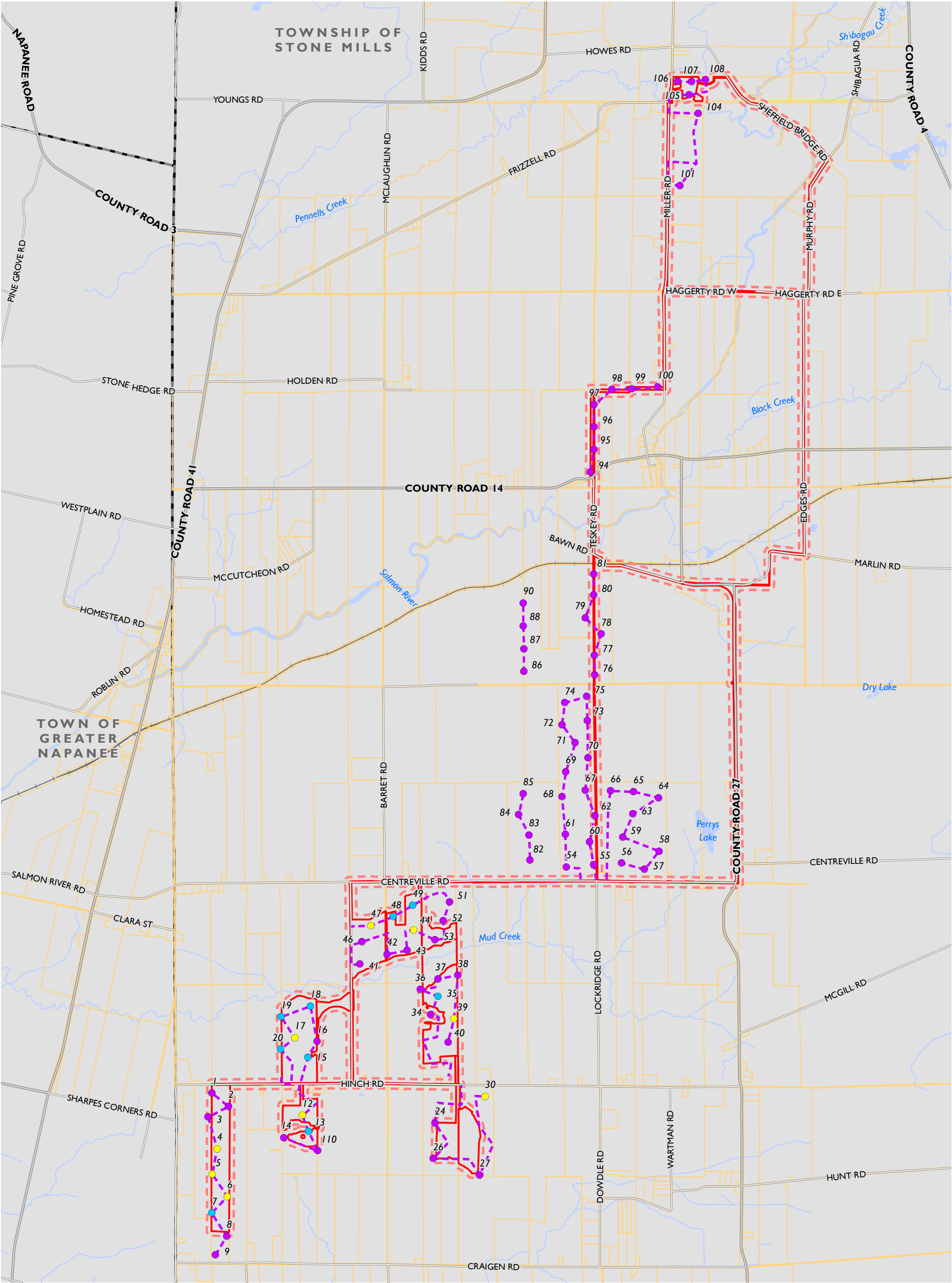
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Appendix A

Areas of Alternative Site Investigation

Appendix B

Field Surveys



LOYALIST SOLAR PROJECT
LOYALIST SOLAR LP
**BREEDING BIRD
SURVEY LOCATIONS**
FIGURE B1

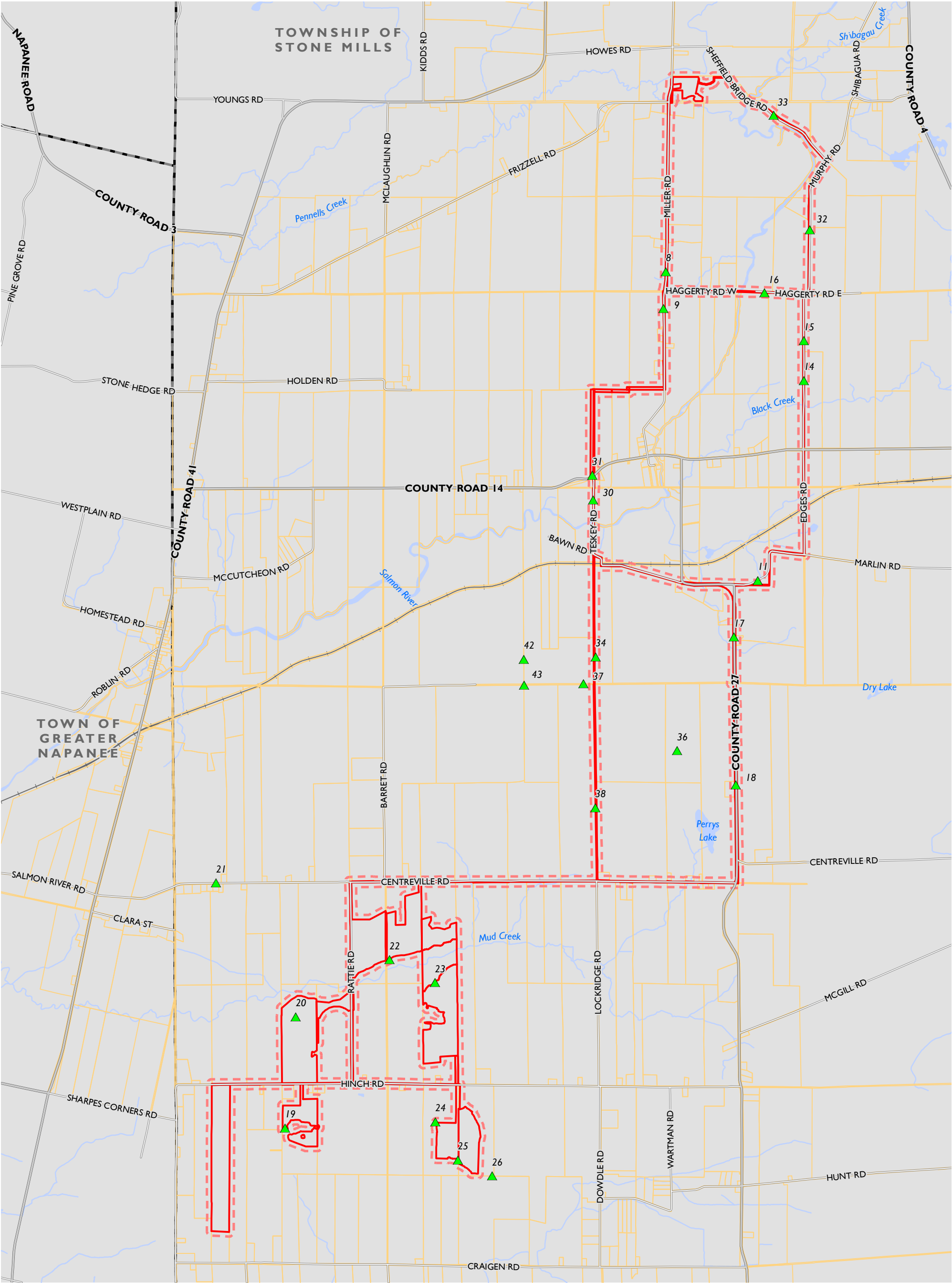
- Breeding Bird Survey Station
- Breeding Bird/Crepuscular Bird Survey Station
- Crepuscular Bird Survey Station
- Breeding Bird Search Route
- Project Location Boundary (subject to refinement)
- 50 m Setback
- Parcel Boundary
- Municipal Boundary
- Railway



MAP CREATED BY: GM
MAP CHECKED BY: JP
MAP PROJECTION: NAD 1983 UTM Zone 18N



PROJECT: 163674 STATUS: DRAFT DATE: 10/25/2016



LOYALIST SOLAR PROJECT
LOYALIST SOLAR LP

**AMPHIBIAN
SURVEY LOCATIONS**
FIGURE B2

Amphibian Monitoring Station

Project Location Boundary (subject to refinement)

50 m Setback

Parcel Boundary

Municipal Boundary

Railway

MAP CREATED BY: GM
MAP CHECKED BY: JP
MAP PROJECTION: NAD 1983 UTM Zone 18N

1:40,000

0 0.5 1 2 km

PROJECT: 163674 STATUS: DRAFT DATE: 10/25/2016

Appendix C

Field Notes

Breeding Bird Survey: 10 minute Point Count

Project # 16-3674 Project Name Loyalist Solar - NAPA013 (south of SW)

Date: 23 / 05 / 2016 Observer: Jonathan Harris (JWH) Visit # 1

Wind (Beaufort scale): 0 CloudCover: 0 % Precipitation: none Temp: 15 °C

Start Time: 05:03 End Time: 09:42 Point Count# BBS38

UTM: _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
AMCR	.	o	.	S	.			
Veery	..			S				
AMRO	.			S				
YWAR			.	S				
WITV							.	S
NOCA					.			S
GRCA						.		S
RIPH							.	S
BCCH						.		S
EATO	.			S				
MoDO						.		S
BCCH							.	S
YWAR		.					.	S
CAGO			o	S				
COYE		.		S	..			P
RWBL	.		.	S				
SWSP		..	.	S				
A. Bittern		.		S				
AMRO	.							
Virginia Rail						.		S
MoDO						.		S
Ruffed Grouse						.		S
COGR	..			F/O				

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

BBS37 Comments:

Treeed Alvar/
OAG-MH
MAM
row csp/fallow.

red squirrel

BBS38

- SWD
- MAM
- FOC
- OAGMA

Date data entered: _____ Corresponding Report #: _____

Date checked: _____ Checked by: _____

Breeding Bird Survey: 10 minute Point Count

2 of 5

Project # 16-3674 Project Name Loyalist solar

Date: 23 / 05 / 2016 Observer: JWH Visit # 1

Wind (Beaufort scale): _____ CloudCover: _____ % Precipitation: _____ Temp: _____ °C

Start Time: _____ End Time: _____ Point Count# _____

UTM: _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
COYE	•	•		S				
YWAR		•		S				
AMRO	•			S				
SWSP		••	•	S				
BLJA		•		S				
RUFF			•	S				
RIPH			•	S				
PIWO			•	H				
PHVI					•			S
AMRO	•			S				
BOBO		•		S				
BWWA			•	S			•	S
CAGO	•			F/O				
COGR	••			F/O				
EATO							•	S

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

BBS 36

-SWD, MAM
- FOD

BBS 35

-TAGMS
-FOC
-OAGM2
-OAGM1

* see additional notes for BOBO details

FIELD NOTES THAT ARE NO LONGER APPLICABLE TO THE PROJECT LOCATION OR CONTAIN NOTES ABOUT SPECIES AT RISK HAVE BEEN OMITTED

AMGO	••			S				
COYE	••			S,P			•	S
RWBL		•		S	•			S
AMCR	••			S				
BCCH		••		S				
RUFF	•			S				
SOSP	•			S				
YWAR		•		S				
RIPH	•			S				

BBS 27

- MAM /SWD
- MEMM4

* moved to
18T 0343006
4913914

Date data entered: _____ Corresponding Report #: _____
Date checked: _____ Checked by: _____

Breeding Bird Survey: 10 minute Point Count

3 of 4

Project # 16-3674 Project Name Loyalist Solar

Date: 23 / 05 / 2016 Observer: JWH Visit # 1

Wind (Beaufort scale): _____ CloudCover: _____ % Precipitation: _____ Temp: _____ °C

Start Time: _____ End Time: _____ Point Count# _____

UTM: _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

Comments:

BBS40
06:59
07:09

GRCA	•			S			•	S
GBITE	•			F/O				
AMCR						•		S
SOSP							•	S

BBS33
- Pasture
- TAG-M5
-SWD

BBS40
- Pasture
- TAG-M5
-

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

BBS32
- pasture
- TAG-M5

BBS31
07:26
07:36
on N40013

CHSP					•			S
Kill	•			S				
AMRO	•	••		S				
BCH		•		S				
COGR	••							
SOSP					•			S
UPSA						•		S

BBS31
- CUL-4
- Pasture
- TAG-M5
- CAG-M2
- High Row within 77m.

Date data entered: _____ Corresponding Report #: _____

Date checked: _____ Checked by: _____

Breeding Bird Survey: 10 minute Point Count

Project # 16-3674 Project Name Loyalist Solar

Date: 23 / 05 / 2016 Observer: JWH Visit # 1

Wind (Beaufort scale): CloudCover: % Precipitation: Temp: °C

Start Time: End Time: Point Count#

UTM: Field Staff Sign-off

NAP
18/023

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence

- OBSERVED**
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

Comments:

BBS 23
Pasture, hay,
cultural (alvar) (COW2)

BBS 24
07:59
08:09

BWWA		•		S				
COYE	••			S				
SO SP		••		S				
BOCH			••	S				
YWARL					•	•		S
NAWA					•			S

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

BBS 26
08:27
08:37

WTSP								
NAWA		•		S				
BWWA		•		S				
OSFL - same as #25	•			S				
SWSP		•		S				
AMRO		•		S				
REVI					••			S
AMCQ					•			S

BBS 24
-SWD
-MGM
-FOL

Moved
to
18T
344495
4912599
- deep
water
pic
35

BBS 26
-SWD
-COW2

Date data entered: Corresponding Report #: Date checked:

Checked by: Coordinator Sign-off

* quick free beers -

Breeding Bird Survey: 10 minute Point Count

5 of 5

Project # 16-3674 Project Name Loyalist Solar

Date: 23 / 05 / 2016 Observer: SWH Visit # 1

Wind (Beaufort scale): 0-1 CloudCover: 0 % Precipitation: None Temp: 15 °C

Start Time: _____ End Time: _____ Point Count# _____

UTM: _____

Area
Search
08:37
08:53
CW2
BBS27
08:53
09:03

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
FISP	••			S				
EATO	•			S				
NACA	•			S				
GRCA	•			S				
BHCO	•			S				
OVEN	•		•	S				
REVI		•		S				
YWAL		••		S				
COYE		•		S				
SOSP		•		S				
FISP							•	S
NVWA						••		S
BLJA					••			S

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

BBS27
- FOC operation
- SWD
- CW2

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED



Date data entered: _____ Corresponding Report #: _____
Date checked: _____ Checked by: _____

Breeding Bird Survey: 10 minute Point Count

Project # 163674 Project Name LOYALIST

Date: MAY 23 2016 Observer: Dayna Leclair Visit # 1

Wind (Beaufort scale): 0 CloudCover: 0 % Precipitation: — Temp: 15°C

Start Time: 0725 End Time: 0842 Point Count# — Sunrise 0533

UTM: NAP120

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
BBS014 REVI	:							
COVE	:	.						
RBWD	.							
WDDU		.						
WOTH		:						
SWSP	.	.						
LEPL	.							
BCCH		:						
SOSP					.			
RUGR							.	
BWA							.	
AMGO							.	
BBS013 NOCA	:	.						
SOSP		:						
WAVI		:						
VEWA		:						
CSWA	.							
AMCR			:					
WOTH					.			
BBS110 OVEN	.							
WIFL		.						
SWSP		:						
EAWP		.						
RBWD		.						
COVE	.							
VEWA	:							
WIWA	.							
REVI	.	.						
YSFL		:						
AMRO	.							
BCCH	.							
WTSP			.					

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

Date data entered: _____ Corresponding Report #: _____
Date checked: _____ Checked by: _____

DILLON

Field Form Based on Wind Turbines & Birds - Monitoring Protocols, page 32 April 2007

* all birds listed are singing ♂ and/or ♀ unless otherwise listed

Breeding Bird Survey: 10 minute Point Count

Project # 163674 Project Name LOYALIST

Date: May/23/2016 Observer: Dayna LeClair Visit # 1

Wind (Beaufort scale): 0 CloudCover: 0 % Precipitation: — Temp: 10° °C

Start Time: 0502 End Time: 0710 Point Count# — Sunrise 0533

UTM: NAPO21 BBS Survey Plots

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
BBS018 EWPW			.				.	
BRTH	.							
RUGR			.					
MODO	.	..						
Yewa	:	.	.					
BCCH	..							
AMBI			.					
EWCS	.	.						
RWBL		..	>50m			:		
COGR						:		
CSWA	.							
GRCA	.							
PIWD		.						
NOCA					:		.	
CANG							:	F/O
SOSP					.	.		
TRES							..	
AMCR							..	
BAWW						.		
NOFL						.	.	
AMRO					.	.		
GBHE							..	F/O
BBS019 BLJA	:	:						
EATO	:		.					
BRTH	.							
FLSP	.	:	.					
MODO		:						
NOCA	.							
GRCA	.							
AMRO	:							
COYE		.						
RUGR			.					
WOHH	.							
EUST			..	F/O				

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

EWPW - 1st Nof Marsh of NPO21
- 2nd Nof Point BBS018 250m

Date data entered: _____ Corresponding Report #: _____
Date checked: _____ Checked by: _____

DILLON

Field Form Based on Wind Turbines & Birds - Monitoring Protocols, page 32 April 2007

*all birds noted are singing ♂ and/or ♀ unless otherwise listed

Breeding Bird Survey: 10 minute Point Count

Project # _____ Project Name _____

Date: ____/____/20____ Observer: _____ Visit # _____

Wind (Beaufort scale): ____ CloudCover: ____% Precipitation: _____ Temp: ____°C

Start Time: _____ End Time: _____ Point Count# _____

UTM: _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
RWBL		L		F/O				
AMBI			.					
BCCH	.	:						
AMCR			.					
MALL			.	F/O				
SOSP	:	.						
BAWW	.	.						
AMCR	.	:						
NOCA	:							
MODO		::						
YENA	:							
FISP		:						
SOSP	.							
EUST			□	F/O				
DOWO		:						
EATO	.	.						
AMRO		:						
RTHU	.							
RUGR			.				.	
AMBI							.	
VEER						.		
COVE					.			
MALL							:	F/O
RBWO						.		

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

Date data entered: _____ Corresponding Report #: _____

Date checked: _____ Checked by: _____

DILLON

Field Form Based on Wind Turbines & Birds - Monitoring Protocols, page 32 April 2007

☐ ☐ ☐ ☐ ☐ 3 of 4

Date: May / 23 / 2016 Observer: Dayna Le Clair Visit # 1

Start Time: 0607 End Time: 0710 Point Count#

UTM: _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/dwiny young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

GRSP	.	.						
EATO		:						
FISP		:	.					
KILL			.					
AMBI			.					
AMRO		:						
SAVS		:	.					
AMCR			:					
RUGR			.					
KILL			:					
SAVS	:	.						
EATO			.					
FISP	.							
AMCR			:					
Yewa		.						
COYE		.						
AMBI			.					
BRTT		.						
RUGR			.					
VEER		.						
EAME						.	.	
NOCA						.		

Date data entered: _____ Corresponding Report #: _____
Date checked: _____ Checked by: _____

Breeding Bird Survey: 10 minute Point Count ☐ ☐ ☐ ☐ ☐ ☐ 4 of 4

Project # _____ Project Name _____

Date: ____/____/20____ Observer: _____ Visit # _____

Wind (Beaufort scale): ____ CloudCover: ____% Precipitation: _____ Temp: ____°C

Start Time: _____ End Time: _____ Point Count# _____

UTM: _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding	<50 m	>50m	>100m	Breeding

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

Date data entered: _____ Corresponding Report #: _____

Date checked: _____ Checked by: _____

Breeding Bird Survey: 10 minute Point Count ☐ ☐ ☐ ☐ ☐ ☐ 1 of 2

Project # 163674 Project Name LOYALIST

Date: 27/05/2016 Observer: Danyu LeClair Visit # 1

Wind (Beaufort scale): 0 CloudCover: 40% Precipitation: / Temp: 18°C

Start Time: 0620 End Time: 0720 Point Count# NAPO13(N)

UTM: _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

GBHE	.	.	F/O				
WISN	.	.	S				
BAWW	.		S				
YTVI		.	S				
FISP		:	S				
EATO	:	.	S				
NAWA	.	.	S				
BCCH	:		H				
PIWO		.	H				
BRTH				.			S
RBNH		.	H				
CDW		L	F/O				

Date data entered: _____ Corresponding Report #: _____

Date checked: _____ Checked by: _____

2 of 2

UTM: _____ Field Staff Sign-off _____

[illegible]

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/dowmy young
AE - Adult leaving or entering nest sites
CF - Adult carrying fecal sac
FS - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

Date data entered:		Corresponding Report #:		Date checked:	
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Checked by: _____ Coordinator Sign-off _____

□ □ □ □ □ 2 of 3

Date: 27 / 05 / 2016 Observer: Dayna Leclair Visit # 1

Start Time: 0544 End Time: 0822 Point Count# NAP012

UTM: _____ Field Staff Sign-off _____

[illegible]

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FV - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

Date data entered: _____ Corresponding Report #: _____ Date checked: _____

Checked by: _____ Coordinator Sign-off _____

☐ ☐ ☐ ☐ ☐ 3 of 3

Date: 27/05/2016 Observer: Dayna LeClair Visit # 1

Start Time: 0544 End Time: 0822 Point Count# NAP012

UTM: _____

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

Date data entered: _____ Corresponding Report #: _____
Date checked: _____ Checked by: _____

Breeding Bird Survey: 10 minute Point Count ☐ ☐ ☐ ☐ ☐ ☐ 1 of 2

Project # 163674 Project Name LOYALIST

Date: 27/05/2016 Observer: Dayna LeClair Visit # 1

Wind (Beaufort scale): 0 CloudCover: 80 % Precipitation: Fog Temp: 14 °C

Start Time: 0503 End Time: _____ Point Count# NAP011

UTM: _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
AMBI			.	H				
CONI		:		P/D				
MOD0	::	'	.	H				
AMCR			:	H				
EATO	:	.		S				
FISP	::	:	.	S/H				
BAWW		:	.	S				
AMRO	:	.		P/S				
BRTH					.			S
CANW						.		S
BLNW							.	S

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

Date data entered: _____ Corresponding Report #: _____
Date checked: _____ Checked by: _____

Breeding Bird Survey: 10 minute Point Count ☒ ☐ ☐ ☐ ☐ ☐ 2 of 2

Project # 163674 Project Name LOYALIST

Date: 27/05/2016 Observer: Dayna Leclair Visit # 1

Wind (Beaufort scale): 0 CloudCover: 80 % Precipitation: Fog Temp: 14 °C

Start Time: 5:08 End Time: 8:40 Point Count# NAPO11

UTM: _____

[illegible]

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

Date data entered: _____ Corresponding Report #: _____

Date checked: _____ Checked by: _____

Breeding Bird Survey: 10 minute Point Count ☐ ☐ ☐ ☐ ☒ ☐ 2 of 3

Project # 163674 Project Name LOYALIST

Date: 30 / 05 / 2016 Observer: Dayna LeClair Visit # 1

Wind (Beaufort scale): _____ CloudCover: _____ % Precipitation: _____ Temp: _____ °C

Start Time: _____ End Time: _____ Point Count# NAP492

UTM: _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
BLJA	✓	:		D				
AMCR		∴		S				
FISP	.	.		S				
BCCH	:			S				
OVEN		.		S				
WTSP	.	.		S				
EATO	.			S				
SOSP	:			A				
MALL	.			A				
AMGD	∴			S				
YELWA		.		S				
WODU			∴	F/O				
BTNW	:			S				
BLJA		:	.	S				
REVI		.		S				
EAWP		.		S				
SOSP	.	.		S/V				
WTSP	:			S				
BCCH	.			S				
AMCR			:	S				
YSFL							.	S
CHSP						.	.	NB/S
FISP						.		S
BRTH	.		.	S				
BCCH	:	:		S				
EUST	✗:			D				
CHSP		.		S				
FISP	.			S				
AMRO	:	∴		S/D/V				

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

Date data entered: _____ Corresponding Report #: _____

Date checked: _____ Checked by: _____

☐ ☐ ☐ ☐ ☐ 3 of 3

Date: 30 / 05 / 2016 Observer: Dayna LeClair Visit # 1

Start Time: 0500 End Time: 0855 Point Count# NAP492

UTM: _____

[illegible]

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

Date data entered: _____ Corresponding Report #: _____
Date checked: _____ Checked by: _____



Breeding Bird Survey: 10 minute Point Count

Project # 163674 Project Name LOYALIST

Date: 30 / 05 / 2016 Observer: Dayna Leclair Visit # 1

Wind (Beaufort scale): 0 CloudCover: 90% Precipitation: — Temp: 18 °C

Start Time: 0500 End Time: 0855 Point Count# NAP493

UTM: _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
BBS66 OSEN	:	.		S				
OSSO- HETH	:	.		S				
O600 RBWO	.			S				
EAWP	.	:	.	S				
FODM CORA			.	S				
YSFL			.	S				
REVI	.		.	S				
PIWO	.			S				
WIWR		.		S				
WOTH						.		S
GCFL							.	S
BBS65 BCCH	:	.		S				
603-613 REVI		.		S				
PIWO		.		S				
OSEN			.	S				
FODM EAWP		.		S				
BLWA			.	S				
FISP							.	S
BBS64 BTNW	.	:		S				
0617- OSEN	:	.		S				
0627 VEER	.			S				
MODO	.	.		S				
YENW	.			A				
BANW	:	.		S				
NAWA	:	.		S				
CANG			☒☒	F/O				
REVI		.		S				
AMGO		.		S				
CSWA		.		S				
YSFL					.	.		S
BLWA							:	D
BCCH					:		.	S
GCFL					.	.		S

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

Date data entered: _____ Corresponding Report #: _____
Date checked: _____ Checked by: _____

Breeding Bird Survey: 10 minute Point Count

Project # _____ Project Name _____

Date: ____/____/20____ Observer: _____ Visit # _____

Wind (Beaufort scale): ____ CloudCover: ____% Precipitation: ____ Temp: ____°C

Start Time: _____ End Time: _____ Point Count# _____

UTM: _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
Revl		.		S				
Yewa	::	.		D/S				
BAWW	::	:		D/S				
AMCR			::	S				
BRTH		.		S				
AMRO		.		V				
BTNN	.	.		S				
EATO	.	.		S				
OVEN		:	.	S				
BAOR		:		S				
FISP		:		S				
BLJA		.	::	3 F/O S				
RBNU					.			S
GCFL					:			S
CSWA					.			S
cedw					::			F/O
FISP	:	.		S				
BAWW	:			S				
CHSP		:		S				
GCFL			.	S				
WTSP		.		S				
VSFL		::		D				
EATO		.		S				
BLJA							:	D
PIWO							.	S
SOSP	:	.		S/V				
AMRO		.		V				
CANG			.	F/O				
BAWW	.	:		S				
TRES			::	F/O				
VSFL		.		S				
AMCR		.		F/O				
Revl		.		S				

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

Date data entered: _____ Corresponding Report #: _____
Date checked: _____ Checked by: _____

Breeding Bird Survey: 10 minute Point Count

Project # 163674 Project Name LOYALIST

Date: 30/05/2016 Observer: Dayna LeClair Visit # 1

Wind (Beaufort scale): 1 Cloud Cover: 90 % Precipitation: 1 Temp: 18 °C

Start Time: 0500 End Time: 0855 Point Count# NAP493

UTM: _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
AMGO		:		S				
CHSP			.	S				
FISP		:		S				
MALL			::	F/O				
GCKI		.		S				
CORA							.	S
BOCH						.		A
COGR						::		F/O
BTNW					.			
WITU	:			P				
SOSP	.		:	A				
BRTH		.		S				
BLWA			:	P				
FISP	.	:		S				
REVI	.			S				
AMRO		:		✓				
VSFL		.		S				
EUST	☒			D				
VSFL	.			S				
AMRO		.		V				
FISP		:		✓				
EATO	.	:		S				
SOSP	:			A				
BLWA			:	S				
BOCH	.			S				
COGR	.		:	2 F/O 1 X				
BRTH	.			S				
LEFL					.			S
CEW							:	F/O

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

Date data entered: _____ Corresponding Report #: _____
Date checked: _____ Checked by: _____

Breeding Bird Survey: 10 minute Point Count

Project # 1163674 Project Name LOYALIST

Date: 31/05/2016 Observer: Dayna Leclair Visit # 1

Wind (Beaufort scale): SW 1 Cloud Cover: 0 % Precipitation: — Temp: 13 °C

Start Time: 0510 End Time: 0650 Point Count# —

UTM: —

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
BBS 69 510-520 FODM -maple nonwood	AMCR	::	:	□	S			
	REVI	:	.		S			
	BCCH	:			S			
	AMRO	:	.		S			
	EAWP	.		.	S			
	OVEN	.	.		S			
	BRCR	.			S			
	GCFL	.	.		S			
	SCTA	.			S			
BBS 70 0523- 0533 FODM maple nonwood	GCFL	.		.	A			
	EAWP	:	.		S			
	REVI	.			S			
	WAVI	.		.	S			
	BTNW		:		S			
	OVEN	.			S			
	WOTH		.		S			
	NOWA					.		S
	BLPW					.		S
	NAWA						.	S
BBS 71 534- 544 FODM	WOTH	:	.		S			
	EAWP	:	.		S			
	REVI	:			S			
	BCCH	.			S			
	CAN6		:		F/O			
	OVEN					.		S
BBS 72 545-555 FODM	EAWP	:			S			
	OVEN	.	.		S			
	WOTH	.	.		S			
	AMCR	.			S			
	BAWW	.			S			
	GCFL	.			S			
	EATO		.		S			

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

Date data entered: _____ Corresponding Report #: _____
Date checked: _____ Checked by: _____

Breeding Bird Survey: 10 minute Point Count

Project # 163674 Project Name LOYALIST

Date: 31/05/2016 Observer: Dayna Leclair Visit # 1

Wind (Beaufort scale): 1 CloudCover: 0 % Precipitation: / Temp: 13 °C

Start Time: 0510 End Time: 0650 Point Count# NAP492

UTM: _____ Field Staff Sign-off _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
Revi	:	.		S				
AMGO						:		FIO
FISP							.	S
BCCH						.		S
RBNV	.			S				
EATO	.			S				
GCPL	:	.		S				
FISP	:	.		S				
BTNW	.	.		S				
COYE	.			S				
BAWW	.	.		S				
Revi		.			:			S
BAWW	:	.		S				
BTNW	:	.	.	S				
Revi	.	.		S				
NAWA		.		S				
NAVI		.		S				
VBCU			.	S				
AMCR							.	FIO
NOCA						.		
WOTH							.	
WWR							.	
BCCH							.	
COYE	:	.		S				
NAWA	.	.		S				
BCCH	::			S				
PIVO	.			S				
WBNV	.			S				
RUGR			.	X				
GCFL	.	.		S				
OVEN	:			S				
FISP		.	.	S				

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

Date data entered: _____ Corresponding Report #: _____ Date checked: _____

Checked by: _____ Coordinator Sign-off _____

☐ ☐ ☐ ☐ ☐ 3 of 3

Date: 31/05/2016 Observer: Dany Leclair Visit # 1

Start Time: 0510 End Time: 0650 Point Count# NAP492

[illegible]

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

Date data entered: _____ Corresponding Report #: _____
Date checked: _____ Checked by: _____

Breeding Bird Survey: 10 minute Point Count ☐ ☐ ☐ ☐ ☐ ☐ of /

Project # 163674 Project Name LOYALIST

Date: 31 / 05 / 2016 Observer: Dayna LeClair Visit # 1

Wind (Beaufort scale): 1 CloudCover: 0 % Precipitation: / Temp: 16 °C

Start Time: 0650 End Time: 0710 Point Count# NAP45.4

UTM: _____

[illegible]

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

Date data entered: _____ Corresponding Report #: _____

Date checked: _____ Checked by: _____

Breeding Bird Survey: 10 minute Point Count ☐ ☐ ☐ ☐ ☐ ☐ 1 of 3

Project # 163674 Project Name LOYALIST

Date: 31/05/2016 Observer: Dayna LeClair Visit # 1

Wind (Beaufort scale): 2 CloudCover: 0 % Precipitation: — Temp: 18 °C

Start Time: 0750 End Time: 0930 Point Count# NAP038

UTM: _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
BBS01 0740 - 0750 FOD	WOTH	.		S				
	SOSP	.		A				
	BCCH	:		S				
	RBSB		.	✓				
	REVI	.		S				
	EAPH		.	S				
	WBMM					.		S
	WIFL					.		S
	BLWA					.		✓
BBS02 0750 - 0800	VEWA	:	.	S				
	WAVI		.	S				
	TEWA		.	S				
	WOTH	.	.	S				
	SOSP	:		S				
	NOCA	.	.	S				
	CHSP		.	S				
	AMCR						:	F/O
	AMBO					:		F/O
	RBMM				.	:		S
BBS03 800-810 FOD ash buckthorn ironwood basswood	BRT+H	:		S				
	BAWW	.		S				
	EUST	.		S				
	FISP	.		S				
	MODO	.		S				
	AMRO	.		S				
	VESP				.	.		S
	NOCA					.		S

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

Date data entered: _____ Corresponding Report #: _____
Date checked: _____ Checked by: _____

Breeding Bird Survey: 10 minute Point Count

Project # 163674 Project Name LOYALIST

Date: 31 / 05 / 2016 Observer: Dayna LeClair Visit # 1

Wind (Beaufort scale): 2 CloudCover: 0 % Precipitation: — Temp: 18 °C

Start Time: 0750 End Time: 0930 Point Count# NAP038

UTM: _____

BBS07
853-903
old field
thatch

BBS08
903-913
shrubland

BBS09
915-925

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
EAPH	.			S				
YENW		.		S				
AMRO	.			S				
VEER		.		S				
REVI		.	.	S				
EAKI	:			D				
AMGO	:		::	F0-4 S-2				
SOSP	.			S				
MODO		:		S				
EATO		.		S				
SOSP	:	:		S				
CCSP	.			S				
FISP		:	.	S				
YSFL	.	.		S				
NAWA		.		S				
AMRO		.		S				
AMGO	:			S				
COYE	.			S				
BCCH	:		.	S				
CEDW		::		F/O				
MODO			:	F/O				
BRTH	.			S				
SOSP	:			S				
RWBL		:	.	S/F/O				
BLWA			:	S				
AMRO		:		S				
BHCO	.			X				
EATO		.		S				
EAKI					:			S
TUVU							.	F/O
AMGO					::			S

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

Date data entered: _____ Corresponding Report #: _____
Date checked: _____ Checked by: _____

□ □ □ □ □ 1 of 3

UTM: _____

YELLOW TRANSMISSION LINE

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Before surveys began
@ the parking spot,
1 CONI was heard
overhead #
2 EWPW @ 410 ~ 300m

DILLON
CITY, MISSOURI

UTM: _____

[illegible]

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

☐ ☐ ☐ ☐ ☐ of ☐

Project # 163674 Project Name LOYALIST

Date: 02/06/2016 Observer: Dayna LeClair Visit # 1

Wind (Beaufort scale) SEQ2 Cloud Cover: 100 % Precipitation: — Temp: 17°C

Start Time: 0650 End Time: _____ Point Count# Orange T-Line

UTM: _____

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

Date data entered: _____ Corresponding Report #: _____

Date checked: _____ Checked by: _____

1 of 2

Date: 01/06/2016 Observer: Danyla Leclair Visit # _____

Start Time: 603 End Time: 710 Point Count# NAP161

UTM: _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
GWWA	.	.		S				
GRCA	.		.	S				
HETH	..	.		S				
TRES			:::	F/O				
CSWA	.			S				
REVI	.	.		S				
WOTH			.	S				
SOSP	.			V				
LEPL		.		S				
MODO		:		S				
HETH							.	S
EAWP						.		S
RBBR							.	A

OBSERVED
X - Observed in breeding season

POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)

PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance

CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/dowry young
AE - Adult leaving or entering nest sites
CF - Adult carrying fecal sac
FS - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

Date data entered: _____ Corresponding Report #: _____
Date checked: _____ Checked by: _____

Field Form Based on *Wind Turbines & Birds - Monitoring Protocols*, page 32 April 2007

□ □ □ □ □ 2 of 2

Date: 01/10/2016 Observer: Dayna LeClair Visit # 1

Start Time: 603 End Time: 710 Point Count# NAP161

UTM: _____ Field Staff Sign-off _____

[illegible]

OBSERVED
X - Observed in breeding season

POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)

PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance

CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

Date data entered: _____ Corresponding Report #: _____ Date checked: _____

Checked by: _____ Coordinator Sign-off _____

Breeding Bird Survey: 10 minute Point Count

Project # 163674 Project Name LOYALIST

Date: 11/06/2016 Observer: Dayna LeClair Visit # 1

Wind (Beaufort scale): NE Cloud Cover: 0 % Precipitation: — Temp: 8 °C

Start Time: 0500 End Time: 553 Point Count# NAP160

UTM: _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
AMBI	.			S				
RWBL	L			S				
WAVI	.			S				
COYE	:			S				
AMCR		.		S				
SOSP		.		S				
BLJA		.	.	S				
GBHE			.	F/O				
MODD	:	:	.	S				
EATO	.			S				
AMRO	.			S				
WDTH	.			S				
COYE	:	.		S				
RWBL		::		S				
AMCR			.	F/O				
KILL		.		S				
GRCA	.			S				
CDW		::		F/O				
AMBI	.			S				
MODD	:	:						
WTSP					.			S
ALPL					.			S
EUST							::	F/O
CANG							□	F/O
WBNI	.			A				
COYE	.	.		S				
AMRO		:		D				
AMCR			.	S				
SOSP		:		D				
EAHE			.	S				
AMBI		.		S				
RTHA	.			X				

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

Date data entered: _____ Corresponding Report #: _____
Date checked: _____ Checked by: _____

Breeding Bird Survey: 10 minute Point Count

Project # 163674 Project Name LOYALIST

Date: 01 / 06 / 2016 Observer: Dayna Leclair Visit # 1

Wind (Beaufort scale): Ne1 Cloud Cover: 0 % Precipitation: — Temp: 16 °C

Start Time: 500 End Time: 553 Point Count# NAPI60

UTM: _____

BBS108
10nt

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
YBCU						.		S
AMGO						::		S
BTBW							.	S
BLWA						.		A

BBS109
533-543

gravel
i dec.
hedgerow

EOL	.	.		Y				
AMCR			::	F/O				
BLWA		::		S				
SOSP	.			S				
RWBL		::		P				
EATO		.		S				
WOTH		.		S				
AMRO		:	.	P				
WBNU			.	S				

BBS165
543-553

open
grass
land
i dec.
forest
SW

EAWP	.							
GRCA	.							
AMCR			.	F/O				
MOOO	.	::						
VEWA	.							
CSWA		.						
CCSP		:						
BLWA		:						
SOSP	:	.						
RBNU	.	:						
WODU		:		F/O				
VEER	:			D				
WOTH			.					
SCTA		.						

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

Date data entered: _____ Corresponding Report #: _____

Date checked: _____ Checked by: _____

Breeding Bird Survey: 10 minute Point Count

1 of 1

Project # 163674 Project Name Loyalist

Date: 06/03/2016 Observer: Dayna Leclair & Sean Robinson Visit # 1

Wind (Beaufort scale): 0 CloudCover: 0 % Precipitation: 0 Temp: 14 °C

Start Time: 0650 End Time: 0740 Point Count# Yellow T-Line

UTM: _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
BBS83 0650- 0700 AMRE	:	.		S				
OVEN	.	.		S				
BLNW			.	S				
CDNW		:		S				
BAWN	.	:		S				
BLJA	.	.		S				
FISP		.	.	S				
AMER			:	S				
SOSP	.			A				
WTSP	.	:		S				
WOTH		.		S				
YPSA			.	S				
EATO		.		S				
COYE		.		S				
BBS84 700-710 OVEN	.			S				
MODO	:			S				
RBGR	:			A				
EATO	.	.		S				
AMRO	:			V				
BLJA	:		:	4F/O 2A				
FISP	:		:	1NB 2S				
BAWN	.			S				
WTSP					:		.	S
SOSP					.			A
SCTA							.	S
BBS85 711- 721 EAWP		.	.	S				
OVEN	.		.	S				
EATO	.		.	S				
BLJA			:	S				
WTSP		.		S				
BOCH	:			S				
MODO	:	.		S				

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

Date data entered: _____ Corresponding Report #: _____
Date checked: _____ Checked by: _____

2 of 2

UTM: _____ Field Staff Sign-off _____

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed In suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

Checked by: _____ Coordinator Sign-off _____

Breeding Bird Survey: 10 minute Point Count

Project # 163674 Project Name LOYALIST

Date: 03/06/2016 Observer: Dayna Leclair Visit # 1

Wind (Beaufort scale): 0 CloudCover: 0 % Precipitation: 0 Temp: 10 °C

Start Time: 0455 End Time: 0622 Point Count# Yellow T-Line

UTM: _____ Field Staff Sign-off _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
AMRO	:			S				
BAWW	.		.	S				
BCCH		.	.	S				
NAWA	.	.		S				
HOWR	.			S				
AMCR			::	F/O				
EATO		.		S				
YSFL						.		S
WAVI					.			S
DDWO						.		S
INBU						.		S
WOTH	.		.	S				
NAWA	::			S				
BLWA			.	S				
OVEN		.		S				
BLNW	:			P				
BCCH	.	.		S				
AMCR			:	F/O				
RTHU		.		F/O				
BTNW		.		S				
EATO					:	.		A
RBWD						.		S
HETH							.	S
BAWW					.			S
FISP							.	S
WIWA					.			S
GCFL						.		S
SCTA	.	.		S				
AMBI		.		S				
WTSP	:	.		D/S				
RRGR		.		A				
MODD	:	.		S				

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

habitat characteristics
recorded by
Sean Robinson

Date data entered: _____ Corresponding Report #: _____ Date checked: _____

Checked by: _____ Coordinator Sign-off _____

Breeding Bird Survey: 10 minute Point CountProject # 163674 Project Name LOYALISTDate: 03 106 12016 Observer: Dayna LeChir & Sean Robinson Visit # 1Wind (Beaufort scale): 0 Cloud Cover: 0 % Precipitation: 0 Temp: 10 °CStart Time: 0455 End Time: 0622 Point Count# Yellow T-Line

UTM: _____

Species	0-5 min				5-10 min			Breeding Evidence
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	
BBS98 Cont								
BLJA			.					
GCFL		.						
OVEN					.	.		S
MAWA						.	.	S
PINW						.		S
BTNW						.		S
NAWA					:			D
BAWW						.		S
BBS97 542- 552								
WOTH	.	.		S				
VEER	.			S				
BAWW	.	.		S				
SCTA	:			S				
GRCA		.		S				
BLJA	.		:	S				
REVI		.		S				
CEOW							:	F/O
OVEN						.		S
BBS96 555- 605								
GCFL	:	.		A/S				
BTNW	:	.						
BLJA	.		::	V/F-O				
GWNA	:			P				
AMBI		.						
OVEN	.							
FISP		.						
AMCR			:	F/O				
CEOW			::	F/O				
BAWW					:			P
BBS95 612- 622								
EAME			::	S				
BLJA	.	.	.	3 F/O				
GRSP		:		S				
LEFL	.			S				
WIFL		.		S				

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:-fields to E & W
of trail

Date data entered: _____ Corresponding Report #: _____

Date checked: _____ Checked by: _____

UTM:

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed In suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

Breeding Bird Survey: 10 minute Point Count -

1 of 1

Project # 163674 Project Name Coyalist

Date: 16/06/2016 Observer: DLA + LMG Visit # 2

Wind (Beaufort scale): 5e/ Cloud Cover: 30% Precipitation: — Temp: 18 °C

Start Time: 705 End Time: 805 Point Count# T-Line Middle

UTM: _____ Field Staff Sign-off _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
BBS90 765- 715				S				
FISP	.	.		↓				
PIWB			.					
MAWA		.						
OVEN		.	.	↓				
SCTA	.			AE				
BBS88 718- 728			.	S				
veer		.		↓				
FISP		.						
OVEN		.						
SCTA		.						
REVI			:	↓				
GBHR							.	FIO
EATO					.			S
WOTH						:		S
BBS87 728- 738	.	:		S				
EATO		.		↓				
RBGR	.			↓				
BCCH			.	S				
AMCR	:			A/FY?				
BTNV	:			FY				
CHSP	.			S				
BBS86 743- 753	.			↓				
CHSP			:	↓				
SDSP	.			S				
BWA			:	S				
HOWA	.			S				
BTNV		:	.	S				
BAWW			.	S				

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

Date data entered: _____ Corresponding Report #: _____ Date checked: _____

Checked by: _____ Coordinator Sign-off _____

Breeding Bird Survey: 10 minute Point Count

1 of 2

Project # 103674 Project Name Loyalist

Date: 16/06/2016 Observer: DLA + RMB Visit # 2

Wind (Beaufort scale): 50/1 CloudCover: 30 % Precipitation: — Temp: 18 °C

Start Time: 510 End Time: — Point Count# Orang T-Like

UTM: —

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
BBS76 510- 520 WOTH			•	S				
BTNW		•		↓				
FSP		•						
Amre	•							
VPR			•					
BAWH	•	•						
OVEN		•	•	↓				
REVI		•						
Amro					•	•		S
AmBO			•	,			::	FIO
SOSP					•			S
BBS77 526- 536 EAWP	:		•	FY/S				
RBGR	•			A				
GCFL		•		A				
OVEN	•			from BBS76 ① 50m IV				
BTNW		:		A/S				
FSP			•	S				
EATO		•		↓				
GWWT			•	↓				
BBS78 537- 549 WTSP		•		S				
EATO	•	•		↓				
FSP	•		•					
BLWA	•							
SCTA		•						
REVI			•					
BBS79 EATO	:							
SCTA		•	•					
FSP		•						
OVEN	•							
AmCR			:					
RBNI			•					
GRCA		•						
REVI					•			
Woodpecker Sp							:	
WITU							•	

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

Date data entered: _____ Corresponding Report #: _____

Date checked: _____ Checked by: _____

2 of 2

UTM:

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

Breeding Bird Survey: 10 minute Point Count

1 of 2

Project # 163674 Project Name Loyalist

Date: 16 1 06/2016 Observer: DLA + RMB Visit # _____

Wind (Beaufort scale): — CloudCover: 0 % Precipitation: — Temp: 7 °C

Start Time: 606 End Time: 646 Point Count# NAP 161

UTM: _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
BBS104 BTNW	.	.		S				
606- WOTH	.	.						
616 GWWA		.						
AMRO	.		.					
RPBR	.							
BRTH		.						
GRCA	.							
AMCR			.					
CSHA		.		↓				
veer						.	.	S
SAYS							.	↓

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

BBS101	FISP	.	.		S				
700-	AMRE	.	:		↓				
710	BWA		:						
	AMRO	..			↓				
	NOCA								

Date data entered: _____ Corresponding Report #: _____

Date checked: _____ Checked by: _____

2 of 2

UTM:

[illegible]

NY - Nest with young

Field Form Based on *Wind Turbines & Birds - Monitoring Protocols*, page 32 April 2007

657 1 of 2

UTM: _____

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

AMWD - nest c
~~the range~~

DILLON
CONSERVING

2 of 2

UTM: _____

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

Breeding Bird Survey: 10 minute Point Count

2 of 3

Project # 163674 Project Name LOYALIST

Date: 07/06/2016 Observer: Dayna LeClair Visit # 2

Wind (Beaufort scale): 0 CloudCover: 80 % Precipitation: Fog Temp: 14 °C

Start Time: 500 End Time: 645 Point Count# BXAP120

UTM: _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

BBS13 541- 551 2 fields i hedgrows along edges meadow grasses	EAKI	.			S			
	AMRE	.			S			
	SOSP		1:		T			
	BWA	.			S			
	BRTN			.	S			
	AMCR			L:	F/O			
	EAWP		.		P			
	WOTH				.			S
	VEER				:			S
	BACO				.			X
BBS110 554- 604	RBWO				.			S
	NOCA				:			P
	SWSP		:		S			
	SCTA	.			S			
	REVI	.			S/V			
	NDWA		.		S			
	AMRO		.	::	S			
	CSWA		:		S			
	COYE					.		NB
	LEFL					.		S
BBS14 616- 626	BCCH					:		S
	Yewa					.		NB
	EAWP		:		P			
	LEFL	.			NB			
	SOSP		.		S			
	COYE	:	.		P/S			
	AMRO		:		P			
	CDW			:	P			
	SWSP	.			S			
	REVI		.		S			

Date data entered: _____ Corresponding Report #: _____
Date checked: _____ Checked by: _____

Breeding Bird Survey: 10 minute Point Count

Project # 163674 Project Name Loyalist

Date: 10/06/2016 Observer: D. Leclair & S. Robinson Visit # 2

Wind (Beaufort scale): NW Cloud Cover: 0 % Precipitation: — Temp: 10 °C

Start Time: 805 End Time: 910 Point Count# NAP491

UTM: T-Line

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
BBS85 GCFL	:			P/A				
805-815 MODO		:		S				
BAWV	.	.		S				
BLJA		:	.	S				
SOSP		:		P/A				
WTSP			.	S				
AMBO	:	:		S				
CEOW			L	F/O				
COBR							:	F/O
EAWP						:		P/D
KBWD							.	S
BTNW					.			A
BBS85 EATO	.	.		A				
825-835 NOCA		.		A				
OVEN	.			A				
AMBO	.		:	S				
BLJA		:	:	S				
REVI		.		S				
COBR	:		:	CF				
CEOW			:	S				
MERL	.			F/O				
CANG							☒:	
WTSP							.	
SOSP					.			CF
BCCH					.	.	:	
BBS83 AMRO	.			S				
MODO	.	.		S				
FISP	.		.	S				
BTNW			.	S				
COBR	.	.		S				
BAWV			.	S				
EAKI		.	.	S				
BCCH	.	:		S				
BRTH	.			A				

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

BBS84 - edited by
DLC August 23, 2016

Date data entered: _____ Corresponding Report #: _____
Date checked: _____ Checked by: _____

1 of 3

UTM: _____ **Field Staff Sign-off**

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

BBS21 (EAME)
→ not in habitat.

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

Checked by: _____ Coordinator Sign-off _____

Breeding Bird Survey: 10 minute Point Count

2 of 3

Project # 163674 Project Name LOYALIST

Date: 07/06/2016 Observer: Dayna Le Clair Visit # 2

Wind (Beaufort scale): 0 CloudCover: 100 % Precipitation: — Temp: 14 °C

Start Time: 0645 End Time: 0837 Point Count# NAP021

UTM: _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
BBS19 724- 734 FISP	.	.			S			
COGR	.				S			
EATO	:	.			P/S			
NOCA		:			P			
COYE	.				S			
VENA	.	.		✓				
BCCH			:		S			
BLJA						.		S
SOSP					:			V
AMGO							.	F/I
BBS18 742- 752 open meadow cedar COGR	:		:	P/F-O				
BRTH	.			S				
SOSP	:		.	P/S				
BTBW			.	S				
EATO	.	.		S				
BCCH	:		.	S				
BHCO	.			X				
BBS16 800- 810 SAVS	:			P				
FISP	.	.		S				
BRTH		.		S				
WITU			.	X				
MALL			.	F/I				
BLJA					.	:		F/I
NOCA					.	.		S
AMRO					.			S

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

Date data entered: _____ Corresponding Report #: _____
Date checked: _____ Checked by: _____

Breeding Bird Survey: 10 minute Point Count

Project # 163674 Project Name Loyalist

Date: 07/06/2016 Observer: Dayna LeClair Visit # 2

Wind (Beaufort scale): 0 CloudCover: 100% Precipitation: — Temp: 14 °C

Start Time: 645 End Time: 837 Point Count# NAPO21

UTM: _____

[illegible]

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed In suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

[illegible]

Date data entered: _____ Corresponding Report #: _____

Date checked: _____ Checked by: _____

Breeding Bird Survey: 10 minute Point Count

1 of 2

Project # 163674 Project Name Loyalist

Date: 08/06/2016 Observer: Dayna LeClair & Cole Visit # 2

Wind (Beaufort scale): W@1 CloudCover: 100 % Precipitation: — Temp: 10 °C

Start Time: 0710 End Time: 0835 Point Count# NAP118

UTM: _____ Field Staff Sign-off _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence

OBSERVED
X - Observed in breeding season
POSSIBLE
i - Observed in suitable nesting habitat
i - Singing male(s)
PROBABLE
i - Pair observed
i - Permanent territory presumed
i - Courtship or display
i - Visiting probable nest site
i - Agitated behaviour/anxiety calls
i - Brood Patch/cloacal protuberance
CONFIRMED
IB - Nest-building
ID - Distraction display
IU - Used nest or egg shells
Y - Fledged/downy young
iE - Adult leaving or entering nest sites
S - Adult carrying fecal sac
F - Adult carrying food
iE - Nest containing eggs
iY - Nest with young

FIELD NOTES THAT ARE NO LONGER APPLICABLE TO THE PROJECT LOCATION OR CONTAIN NOTES ABOUT SPECIES AT RISK HAVE BEEN OMITTED

Comments:

88524 733- 743	AMCR	::			F/O			
	SOSP	.			S			
	NOCA	.	.		S			
	CORA			.	S			
rain 745- 810	AMRO					.		S
	COSN					.		S
	FISP						.	S

FIELD NOTES THAT ARE NO LONGER APPLICABLE TO THE PROJECT LOCATION OR CONTAIN NOTES ABOUT SPECIES AT RISK HAVE BEEN OMITTED

Date data entered: _____ Corresponding Report #: _____ Date checked: _____

Checked by: _____ Coordinator Sign-off _____



Breeding Bird Survey: 10 minute Point Count

Project # 163674 Project Name Loyalist

Date: 08 / 06 / 2016 Observer: Dayna Leclair & Cole Visit # 2

Wind (Beaufort scale): W@1 CloudCover: 100 % Precipitation: - Temp: 10 °C

Start Time: 0710 End Time: 0835 Point Count#

UTM: _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
EAPH	.			V				
FISP	.	.	:	T/S				
EAWP			.	S				
BAWW	:		.	S				
ReVI		.		S				
MAWA		.	.	S				
RWBL							:	F/O
WTSP						.		S
CEOW						:		S
YBSA							.	H
YehA						.		S

OBSERVED

X - Observed in breeding season

POSSIBLE

H - Observed in suitable nesting habitat

S - Singing male(s)

PROBABLE

P - Pair observed

T - Permanent territory presumed

D - Courtship or display

V - Visiting probable nest site

A - Agitated behaviour/anxiety calls

8 - Brood Pa

CONFIRMED

NB - Nest-building

DD - Distraction display

NU - Used nest or egg shells

FY - Fledged/downy young

AE - Adult leaving or entering nest sites

FS - Adult carrying fecal sac

CF - Adult carrying food

NE - Nest containing eggs

NY - Nest with young

Comments:

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

[illegible]

Date data entered: _____ Corresponding Report #: _____

Date checked: _____ Checked by: _____

Breeding Bird Survey: 10 minute Point Count.

1 of 4

Project # 163674 Project Name Loyalist

Date: 09/06/2016 Observer: Dayna LeClair & Sean Robins Visit # 2

Wind (Beaufort scale): W@1 Cloud Cover: 100 % Precipitation: — Temp: 7 °C

Start Time: 0500 End Time: 920 Point Count# NAP492

UTM: _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
BBS54 500-510 open field & hedgerow		:		S				
	:	:		S				
			.	F/O				
		L:		S				
	.	:	::	S				
	.	::		V/S				
		.	:	S				
			.	S				
		:	.	S				
			:	P				
						.	.	S
						.	:	S
							.	S
						:		S
							.	S
BBS61 515-525	.	.		S				
		.	:	S				
		.	.	S				
			.	S				
		.		S				
	::	:::		S/T				
			.	S				
		:		S				
		.		S				
		.		S			.	S
					.			S
Woodpecker Sp.							.	X
Veelr							.	
BBS68 535-545	.	.		S				
		.		S				
		.	.	S				
			.	S				

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

Date data entered: _____ Corresponding Report #: _____
Date checked: _____ Checked by: _____

Breeding Bird Survey: 10 minute Point Count

2 of 4

Project # 163674 Project Name Loyalist

Date: 1 / 120 Observer: _____ Visit # 2

Wind (Beaufort scale): WGL CloudCover: 100 % Precipitation: — Temp: 7 °C

Start Time: 500 End Time: 920 Point Count# NAP492

UTM: _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
<u>68 cont</u> WLR CEDW	.	.	:	S 2 F/O 2 S				
BLWA			:	S				
<u>BBS69</u> <u>563-603</u> EAWP	:			S/V				
WOTH			.	S				
BCCH	:	.		S				
WAVI		.		CF				
SCTA							.	S
OVEN							.	S
SWTH							.	S
<u>BBS71</u> <u>612-622</u> EAWP	.	.		S				
OVEN		:		NE/NY				
BLWA		.	:	S				
RBGR		.		S				
SCTA	:		.	P/S				
REVI	.	:		S				
<u>BBS72</u> <u>630-640</u> RBGR	.			S				
EAWP		:		P				
CEDW							:	S
<u>BBS74</u> <u>648-658</u> BAWW		.	.	S				
HAWD	.			S				
RBNV	.			S				
BTNW						.	.	S
BLWA							::	F/O
OVEN						.	.	S
BCCH						:		S
<u>BBS75</u> <u>703-713</u> BTNW	.	.		S				
GCFL	.		.	S				
EATO	.	.		S				
BAWW		.		S				
AMGO			:	F/O				

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
OD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

BBS71 oven
> nest found 45m S of point
> 3 eggs & 2 nestling @ ~1-2 days old

Date data entered: _____ Corresponding Report #: _____
Date checked: _____ Checked by: _____

Breeding Bird Survey: 10 minute Point Count

3 of 4

Project # 163674 Project Name Loyalist

Date: 09/06/2016 Observer: Dayna Leclair & Sean Robinson Visit # 2

Wind (Beaufort scale): W 1 Cloud Cover: 100 % Precipitation: — Temp: 7 °C

Start Time: 0500 End Time: 920 Point Count# NAP492

UTM: _____ Field Staff Sign-off _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
BBS73 725- 735	BTNW		.	S				
	FISP	.		S				
	EATO	.		S				
	BAWW	.	.	S				
	WOTH	.		S				
	OVEN		.	S				
	WLR	.		S				
	CMWA						.	S
	BWA					:		S
BBS70 748- 758	OVEN	:		NE				
	WOTH	.		S				
	REVI	.		A				
	RBR	.		S				
	BWA					:	.	S
	EAWP					:	.	S
	CDW					:		F/O
BBS67 807- 817	EAWP	.	.	S				
	REVI	:	.	P/S				
	OVEN	.		A				
	RBR					.		A
	NOVA						.	S
BBS60 837- 847	BTNW	:	.	P/S				
	AMGO	:	.	P				
	CHSP	.	:	S/V				
	WOTH		.	S				
	BWA		:	S				
	SOSP	:	.	S				
	BTBW						.	S
	BCCH				:	.		S
	AMGO						:	F/O
	CDW						L	F/O

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

BBS70 OVEN
> nest found 25m north of point
> 4 eggs.

Date data entered: _____ Corresponding Report #: _____ Date checked: _____

Checked by: _____ Coordinator Sign-off _____

Breeding Bird Survey: 10 minute Point Count.

1 of 4

Project # 163674 Project Name Coyalist

Date: 14 106 12016 Observer: DLA + Ryan Godfrey Visit # 2

Wind (Beaufort scale): NW Cloud Cover: 0 % Precipitation: — Temp: 5 °C

Start Time: 445 End Time: 810 Point Count# NAP11,12,13

UTM: _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
EWPW				S				

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

BBS48	FISP	:	.		S				
603-53	EAKI	:			A				
	AMBI			.	S				
	SAVS	.			S				
	AMRO			.	S				
	BRTH			.	S				
	COSV						.		X
	BCCH					:	:		S
	EATO					.	.		S
	MALL						L		FID
* BBS49	UPSA					.			
520-530	BRTH	:							
	AMCR			.					
	FISP		:						
	AMBI		.						
	EATO	.	.						
	CEOV		:						

Date data entered: _____ Corresponding Report #: _____

Date checked: _____ Checked by: _____

Breeding Bird Survey: 10 minute Point Count

2 of 4

Project # 163674 Project Name Coyalist

Date: 14 106 12016 Observer: DLA + RMB Visit # 2

Wind (Beaufort scale) NW Cloud Cover: 0 % Precipitation: — Temp: 5 °C

Start Time: 445 End Time: 810 Point Count# NAP 11, 12, 13

UTM: _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
nging male(s)
TABLE
ir observed
rmanent territory presumed
ourtship or display
siting probable nest site
gitated behaviour/anxiety calls
ood Patch/cloacal protuberance
IRMED
Nest-building
Distraction display
Used nest or egg shells
ledged/downy young
adult leaving or entering nest sites
adult carrying fecal sac
adult carrying food
Nest containing eggs
Nest with young

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

Comments:

BBS52 608- 618	GCF L	.	.	.	A				
	OVEN	.	.	.	S				
	EATD	.	.	.	S				
	COBR		.	.	CF				
	PISP		.	.	S				
	COLO			.	S				
	MOCA	.		.	S				
	EAWP			.	S				
	BRTH						.		S
	RWBL						.		F/O
	BCCH					.			S
	WTSP						.		S
	REVI						.		F/O

Date data entered: _____ Corresponding Report #: _____

Date checked: _____ Checked by: _____

Breeding Bird Survey: 10 minute Point Count

3 of 4

Project # 163674 Project Name Loyalist

Date: 14 1 06 2016 Observer: DLG + RMB Visit # 2

Wind (Beaufort scale): NW Cloud Cover: 0 % Precipitation: — Temp: 5 °C

Start Time: 445 End Time: 810 Point Count# NAP11,12,13

UTM: _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
BBS53 628 638 EAWP	.			A				
SWSP	.	:	.	S				
RWBL	:	L	:	S/X				
COYE	.	.		S				
LEFL		.		S				
MARW		.	.	S				
AMCR			:	S				
EATO		.		S				
AMRO					.	:		S
WAVI						.		S
BAWW						.		S
WVBN					.			S

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

BBS43 657- 867 ALFL		.		S				S
LEFL	.	.		S				
VEWA	.			S				
RWBL	L	□		S/X				
CHSP	.	:		S/A				
AM60	:	:	.	IF/IO S				
BCCW	.			A				
COBW	:			P				
COBR	:			P				
FISP	.	.		S				

Date data entered: _____ Corresponding Report #: _____

Date checked: _____ Checked by: _____

Breeding Bird Survey: 10 minute Point Count

4 of 4

Project # 163674 Project Name Loyalist

Date: 14/06/2016 Observer: DLC RMG Visit # 2

Wind (Beaufort scale): 1/2 Cloud Cover: 0 % Precipitation: — Temp: 5 °C

Start Time: 445 End Time: 810 Point Count# NAP 11, 12, 13

UTM: _____ Field Staff Sign-off _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
BBS42 CHSP	.	.		A				
712- ALPL		.	.	S				
722 BCGH	.			S				
FISP		:		S				
EAST			.	F/D				
EAKI			.	F/D				
AM60		::		S				
AMRO		.		S				
NOCA		:	.	S				
BLJA							.	S
GRCA					.			A
COSN						.		X
WAVI						.		S

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

BBS46 BAWW	.			S				
741- FISP	.			S				
751 EAST		.	.	S				
AMRO		.		S				
BLJA		.	.	S				
VIRA							.	S
BBS41 COYE	:			P				
800- SWSP		.	.	S				
810 YELWA	.	:		S/P				
BAWW			.	S				
BRTH			.	S				
AM60		:		S/P				
CEOW	:		::	4-F/D				

Date data entered: _____ Corresponding Report #: _____ Date checked: _____

Checked by: _____ Coordinator Sign-off _____

Breeding Bird Survey: 10 minute Point Count

1 of 2

Project # 163674 Project Name Loyalist

Date: 14/10/2016 Observer: DLC + RMG Visit # 2

Wind (Beaufort scale): NE CloudCover: — % Precipitation: — Temp: 9 °C

Start Time: 820 End Time: 940 Point Count# NAP284

UTM: _____ Field Staff Sign-off _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
BBS94 820- 830 GROA	.			A				
REVI	:			S				
CHSP	:			S				
RWBL	.	:	.	S				
MODD	:	.		S				
KILL	.			A				
UEWA	.			S				
COHW					.	:		S
HERB							.	F/O
CANB							:	X
AMCR							:	S
SWSP					.			S
AMRE					.			S
BBS95 832- 842 CHSP			.	S				
SWSP		.		S				
AMRO	.			S				
REVI		:		S				
AMCR			.	S				
BCCH	.	.		S				
OVEN		.		S				
BBS96 846- 856 AMRE	.			S				
UEWA		.		S				
FISP			.	S				
AMRO	.			S				
RBOR	.			S				
GCP L					.	.		A
BCCH					.	.		S
BAWW						.		S
EATD						.		S
OVEN			.				.	S
BBS97 858- 908 OVEN		:		S				
FISP			.	S				
SCTA	.		.	A/S				

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

AME
fields on E & W
sides 50-75m

Date data entered: _____ Corresponding Report #: _____ Date checked: _____

Checked by: _____ Coordinator Sign-off _____

Breeding Bird Survey: 10 minute Point Count

Project # 163674 Project Name Loyalist

Date: 14/06/2016 Observer: DLA RMG Visit # _____

Wind (Beaufort scale): NE / CloudCover: % Precipitation: Temp: 9 °C

Start Time: 820 End Time: 940 Point Count# NAP284

UTM: _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
DDWD			.	S				
WOTH			.	S				
GCFL			.	S				
EATD	:			A				
BTNW	.	.		S				
BAWN		.		S				
WTSP		.		S				
COYE		.		S				
BCCH	.	::		S				
OVEN					.		.	S
BCCH	::	.		S				
CSWA	.	.		S				
EATD	.	.		S				
BAWN		.	.	S				
AMGO		::		S				
RUGR							.	X
VEWA						.		S
AMGO	:	::		S				
WITU	.			Ae				
EATD		:	.	S				
EAME			.	S				
PIWD	.			S				
WAVI		.		S				
ENST			.	F/O				
HDWR						.		S
VEWA					.	.		S
NAWA						.		S

OBSERVED

X - Observed in breeding season

POSSIBLE

H - Observed in suitable nesting habitat

S - Singing male(s)

PROBABLE

P - Pair observed

T - Permanent territory presumed

D - Courtship or display

V - Visiting probable nest site

A - Agitated behaviour/anxiety call:

B - Brood Patch/cloacal protuberance

CONFIRMED

NB - Nest-building

DD - Distraction display

NU - Used nest or egg shells

FY - Fledged/downy young

AE - Adult leaving or entering nest sites

FS - Adult carrying fecal sac

CF - Adult carrying food

NE - Nest containing eggs

NY - Nest with young

Comments:

NAME

east side of road

WITH

♀ near (X)

Date data entered: _____ Corresponding Report #: _____

Date checked: _____ Checked by: _____

Breeding Bird Survey: 10 minute Point Count

Project # 163674 Project Name Loyalist

Date: 08/06/2016 Observer: Dayna LeClair & Cole Visit # 2

Wind (Beaufort scale): 102 Cloud Cover: 100 % Precipitation: — Temp: 10 °C

Start Time: 0845 End Time: 0925 Point Count# NAP023

UTM: _____

BBS27
835-
845

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
OVEN	.		.	S				
REVI		:		S/P				
BLWA			L	3 S ¹⁰				
COYE	:		.	A/S				
FISP		:		S/P				
BRTH					.			S
SWSP					:	.		S
NOWA							.	S

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED



Date data entered: _____ Corresponding Report #: _____
Date checked: _____ Checked by: _____

1 of 4

UTM: _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
COSN			.	S				
KILL	.			S				
SAVS	:	:		P / S				
SOSP	.			V				
GRSP			.	S				
AMRO	.	.		S				
Yewa		.		S				
MALL			:	F/O				
RUGR							.	S
MOD0						:		P

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

Date data entered: _____ Corresponding Report #: _____
Date checked: _____ Checked by: _____

Breeding Bird Survey: 10 minute Point Count

2 of 4

Project # 163674 Project Name Loyalist

Date: 08/06/2016 Observer: Dayna LeClair & Lale Visit # 2

Wind (Beaufort scale): N01 CloudCover: 100 % Precipitation: — Temp: 10 °C

Start Time: 446 End Time: 710 Point Count# NAPI3S

UTM: _____ Field Staff Sign-off _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
BBS34 526-536 VEER'	:	.		S				
YENA	:			AE				
SOEP	.			A				
EATO	.		:	A/S				
AMBI			.	S				
COYE	:	.		S				
GRCA			.	V				
BRTH					.	.		S
MODD						.		S
CSWA						.		S
RWBL						:	.	S
CHSP					.			S
BEKI							.	F/O
AMCR							:	F/O
Woodpecker Sp.							.	H
AMWD					.			AE
BBS35 540-550 fields hedgerow			:	F/O				
MALL			:	F/O				
BRTH		.	.	S				
EAME	.	.	.	S				
COYE			.	S				
COGR		.		S				
AMCR		:	:	S/2-F/O				
SCTA		.		S				
RWBL			L:	2 F/O				
BCCH		.		S				
EATO						.	.	S
MODD						.	.	F/O
BHCO					.			X

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

Date data entered: _____ Corresponding Report #: _____ Date checked: _____

Checked by: _____ Coordinator Sign-off _____

Breeding Bird Survey: 10 minute Point Count

3 of 4

Project # 163674 Project Name Loyalist

Date: 08/06/2016 Observer: Dayna Leclair & Cole Visit # 2

Wind (Beaufort scale): NE Cloud Cover: 100 % Precipitation: / Temp: 10 °C

Start Time: 0446 End Time: 710 Point Count# NAP013S

UTM: _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
BBS36 553- 603 OVEN	.			AE				
LEFL		:		A/AE				
AMRO	.	:		CF/S				
EAWP		.		S				
SWSP	.	.		S				
RWBL	:	.	:	P/S				
GCFL	.			S				
CEOW						.		S
YENW						.		S
SOSP					.		.	A/S
WEVI						.		S
BLWA							:	S
CORA							.	
BBS37 608- 618 wetland AMWO			.	S				
RWBL	::	:	.	S/T/D				
CEOW			::	F/O				
SOSP		:		S				
SWSP	.	:		S				
MARW		.		S				
ALFL		.		S				
BOCH	:		.	S				
YENW	::	.		S				
HOWR							.	S
BLWA							::	S
COGR					.			S
AMGO						:		F/O
BBS38 625- 635 alvar treed GRCA	.			S				
AMGO	:	.		S				
RWBL			.	F/O				
EATO	:	.		S				
CEOW		:		F/O				
SOSP							.	S

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

heard on walk out.

Date data entered: _____ Corresponding Report #: _____
Date checked: _____ Checked by: _____

4 of 4

UTM: _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence

H - Observed in suitable nesting habitat

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

BBS40
655-
705

[illegible]

Date checked: _____ Checked by: _____



Breeding Bird Survey: 10 minute Point Count

1 of 4

Project # 163674 Project Name Loyalist

Date: 10 / 06 / 2016 Observer: Danya LeClair & Sean Robinson Visit # 2

Wind (Beaufort scale): W@ Cloud Cover: 0 % Precipitation: — Temp: 7 °C

Start Time: 505 End Time: — Point Count# MAP038

UTM: —

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
BBS01 505-515 SOSP	:			P				
CHSP		.		S				
AMRO	.	:		S/P				
EATO	.	.		S				
WOTH		:		S				
WBWU			.	S				
MODD	:	:	.	S/P				
FISP			.	S				
YBCU							.	S
AMCR							:	S
BRTH							.	S
ENST							:	F/O
BBS02 518-528 BRTH	.			A				
SOSP	:			P/V				
FISP	.	.	.	S				
WOTH			:	S				
AMCR			:	S				
EATO	.	.		S				
BAWU			.	S				
MODD			.	F/O				
REVI						.		S
LEFL							.	S
YENW						.		S
AMRO					.			V
BBS03 535-548 EATO		.		S				
MODD	:			CE				
RWBL		.		S				
GRCA	.			S				
FISP			.	S				
RUGR			.	S				
WOTH			.	S				
COBR			.	F/O				
SOSP						.		S

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

BBS01 - EAME
west of field in other property

BBS03 - EAME
west of pt in other property

Date data entered: — Corresponding Report #: —

Date checked: — Checked by: —

Breeding Bird Survey: 10 minute Point Count

Project # 163674 Project Name Loyalist

Date: 10/06/2016 Observer: D. LeClair & S. Robinson Visit # 2

Wind (Beaufort scale): we / CloudCover: 0 % Precipitation: - Temp: 7 °C

Start Time: 505 End Time: Point Count# 14038

UTM: _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
HAWO					:			V/A

OBSERVED
X - Observed in breeding season

POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)

PROBABLE
P - Pair observed

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

Date data entered: _____ Corresponding Report #: _____

Date checked: _____ Checked by: _____

Breeding Bird Survey: 10 minute Point Count

3 of 4

Project # 163674 Project Name Loyalist

Date: 10/06/2016 Observer: D. LeClair & S. Robinson Visit # 2

Wind (Beaufort scale): we 1 CloudCover: 0 % Precipitation: 0 Temp: 7 °C

Start Time: 505 End Time: 730 Point Count# NAP038

UTM: _____ Field Staff Sign-off _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
BBS07 641-651 COYE	.	.		S				
YELWA	:	.		S				
CSWA		.		S				
SOSP	:			V				
AMBO			::	F/I				
BLWA			:	S				
SWSP			.	S				
RWBL		.	.	S				
GCPL							.	S
VEER							.	S
GBHE							.	F/I
SAVS						.		NE
BBS08 700- 710 BANW		.		S				
COYE		.		S				
SOSP	.	.		A/S				
RENU		.	.	S				
RBR	.		.	S				
FISP		.	.	S				
DCCO							:	F/I
EATO					:	.		A/S
BCLH					:	.		P/I
PIWD						.		S
CCSP						.		S
BBS09 720- 730 GRCA	.			A				
BANW	.	.	.	A/S				
AMBO		::	::	3 P/I 3 S				
SOSP	.			V				
COGR		.		S				
BHCO			.	S				
FISP		.		S				
AMRO	.			V				

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

BBS07-EAME
> east of point in
diff. property

BBS07-SAVS
> ~50m S of point

BBS09-BOBO
> field to west.

Date data entered: _____ Corresponding Report #: _____ Date checked: _____

Checked by: _____ Coordinator Sign-off _____

4 of 4

UTM: _____

[illegible]

NY - Nest with young

Comments:

Breeding Bird Survey: 10 minute Point Count

1 of 3

Project # 163674 Project Name Loyalist

Date: 28/06/2016 Observer: DLA + RMG Visit # 3

Wind (Beaufort scale): — Cloud Cover: 100 % Precipitation: — Temp: 19 °C

Start Time: 455 End Time: 730 Point Count# NAPII, 12, 13

UTM: —

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

1348	CONI				300m S				
506 -	SOSP	.	:		S				
516	GRSP	:	.		↓				
	EATD	:	.						
	CHSP		:	.					
	FISP		:		↓				
	AMRO					.	.		S
49	EATD	.	.		S				
518 -	SOSP		:		↓				
528	FISP		:	:					
	AMCR			:					
	GRSP		:						
	BAWW		.	.	↓				
	SAYS						.		S
	BRTH					.			S

Comments:

hayfield
NN @ 300m

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

Date data entered: _____ Corresponding Report #: _____
Date checked: _____ Checked by: _____

Breeding Bird Survey: 10 minute Point Count

2 of 3

Project # 163674 Project Name Loyalist

Date: 28/06/2016 Observer: DCA + RMB Visit # _____

Wind (Beaufort scale): Cloud Cover: 100 % Precipitation: Temp: 19 °C

Start Time: 455 End Time: 730 Point Count# NAP 11, 12, 13

UTM: _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
AMRO		.		S				
BTNW	.	.						
GCFL			.					
EATO	.	.						
EAWP			.					
BAWN			.					
BCCH		.	.					
MOOD		.	.					
BRTH			.					
FISP			.	▽				

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

43	SWSP		:	:	S			
638-	RWBL			⊠				
648	DOOD			:				
	LEFL		.					
	BCCH		:	.				
	SOSP		.	.				
	LOYE	.	.		▽			
	AmRO		:	:	L F I O			

Date data entered: _____ Corresponding Report #: _____

Date checked: _____ Checked by: _____



Breeding Bird Survey: 10 minute Point Count

3 of 3

Project # 163674 Project Name Loyalist

Date: 28/06/2016 Observer: DLA + RMB Visit # _____

Wind (Beaufort scale): Cloud Cover 100 % Precipitation: Temp: 19 °C

Start Time: 455 End Time: 730 Point Count# NAP 11, 12, 13

UTM: _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
WIFL			.	S				
FISP		.	:	↓				
AMBO			..	↓				
CHSP	.			S				
EATO	.	:		↓				
GRCA	.	.		↓				
AMRO		.		↓				
MODO		:		↓				
FISP			.				.	S
AMBO			F/O
AMCR					.			S
TRTH							.	S

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

46	BCCH	..			FY			
708-	BEKI	.			F/O			
718	EATO	:	.		S			
	SDSP	.	.		S			
	FISP		:	.	S			
	AMRO	.			A			
41	CDNV	..		□	4-S 5-F/O			
720-	YUWA	:	:		S			
730	COYE	.	:	.	↓			
	SNWP	.	.					
	RWBL		□	:				
	COBR		..		↓			
	MALL						..	F/O
	GBHE						.	F/O

Date data entered: _____ Corresponding Report #: _____

Date checked: _____ Checked by: _____



Breeding Bird Survey: 10 minute Point Count.

1 of 3

Project # 163674 Project Name Loyalist

Date: 27/06/2016 Observer: DLA + RMB Visit # 3

Wind (Beaufort scale): SW2 Cloud Cover: 10 % Precipitation: — Temp: 22 °C

Start Time: 505 End Time: 830 Point Count# NAP492

UTM: _____ Field Staff Sign-off _____

8854
509-
519

61
525-
535

68
542-
552

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
BAWH		:		S				
AMRO	:	:	.					
BCCH	.	.	:					
WTSP		.						
RB6R			.					
SOSP		:						
BRTH			.					
FISP			.					
CORA		.						
EATO					.	:	.	S
NANA							.	
AMRE						:		
BRWA							.	
AMCR							:	
MONO					.	.		
BCCH		:		S				
BTNW		:						
EATO		:						
OVEN		.	.					
NANA			.					
WTSP		.	.					
MONO	:	.						
SOSP					:	.		FY
BAWH							.	S
AMCR							:	S
AMRO					:	.		A/FY
WBVA							.	S
OVEN	.	.		S				
GCFL		.						
BAWH		.						
BLJA			.					
COYE		.	.					
REVI	.		:					
GBHE							.	F/O
AMRO					:	:		S

- OBSERVED**
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

Date data entered: _____ Corresponding Report #: _____ Date checked: _____

Checked by: _____ Coordinator Sign-off _____



Breeding Bird Survey: 10 minute Point Count

2 of 3

Project # 163674 Project Name Loyalist

Date: 27/06/2016 Observer: DLA + RMG Visit # 3

Wind (Beaufort scale): SW@2 Cloud Cover: 10 % Precipitation: — Temp: 22°C

Start Time: 505 End Time: 830 Point Count# NAP492

UTM:

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
BB56r can't							.	S
VEER							.	
PIWO							.	
BLJA							.	
CSWA							.	↓
69 600- 610			:	S				
BLJA								
OVEN		.						
RB6R			.					
EAWP		.	.					
OVEN			.					
REVI		.		↓				
71 615- 625	.		:	S				
WOTH								
EAWP	.	:	.					
REVI		:	.					
OVEN		.	.	↓				
YSFL							.	S
72 630- 640			::	S				
CDOW								
RB6R	.	.						
EAWP		:						
NDWA >				↓		.		
74 640- 650			.	S				
OVEN								
WOTH		.	.					
BLJA		:	:					
NAWA			.					
EATO		:						
FISP			.	↓				
75 651- 701	.	.	.	S				
BTNW								
BLJA			:					
EATO	.	.	.					
WOTH			.					
CSWA	.	.						
BAWN		:						
GCFL		.	.	↓				
FISP						:		S
PIWO			.				.	S

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

noise level ↑
to 3-4 as
moved N through
property

Date data entered: Corresponding Report #:

Date checked: Checked by:

Breeding Bird Survey: 10 minute Point Count

3 of 3

Project # 163674 Project Name Loyalist

Date: 27/06/2016 Observer: DLA + RMB Visit # 3

Wind (Beaufort scale): SW 3 Cloud Cover: 10 % Precipitation: — Temp: 22 °C

Start Time: 055 End Time: 030 Point Count# NAP492

UTM: _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
73 BTNW		:	.	S				
702- WOTH	.		:	↓				
712 REVI		.						
FISP	.	.	.	↓				
YSFL							.	S
VEER					.	.		↓
RBNH							.	
BRTH						.		
NOWA							.	↓
70 OVEN	.	:		S				
720- CSWA		.		↓				
730 WIWA			.					
REVI		.						
EAWP			:	↓				
AMRO					.	:		S
PIWD							.	↓
SCTA							.	↓
67 SCTA	::			FY				
737- EAWP		.		S				
747 ROWO			.	↓				
OVEN			.					
NOWA		:		↓				
60 BTNW	:	.		AI				
800- SOSP	:	.		FY				
810 BCCH		:		S				
BLJA			:	↓				
AMRO	.	:						
WBNU			.	↓				
FISP		.	.	↓				
55 AMRO	:	.	.	S				
817- SOSP		:		↓				
827 CHSP		:						
BLJA		.	:	↓				
GRCA						.		S
VEER							.	S
BRTH								S

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

Date data entered: _____ Corresponding Report #: _____
Date checked: _____ Checked by: _____

Breeding Bird Survey: 10 minute Point Count.

1 of 1

Project # 163674 Project Name Loyalist

Date: 24/06/2016 Observer: DIA Visit # 3

Wind (Beaufort scale): — CloudCover: 20 % Precipitation: — Temp: 18 °C

Start Time: 530 End Time: 630 Point Count# —

UTM: —

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
BBY100 536- 546 WITU	L			FY				
AMGO	L			S				
HOWR	.	.						
CSWA		:						
WAVI		.	.					
EATO		.	.					
BBY99 553- 603 RUGR			.	S				
VEWA		..						
BAWW		.	.					
BBCCCH	..	.						
FISP							.	S
RBNV						..		
PIWD						.		
BBY98 611- 621 WTSP			..	S				
COYE	.	.						
SCTA			.					
GCPL			.					
BTNV		:						
OVEN		.						
BCCH	..	.						
EATO					.			A

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

Date data entered: _____ Corresponding Report #: _____

Date checked: _____ Checked by: _____

Breeding Bird Survey: 10 minute Point Count

1 of 1

Project # 163674 Project Name Loyalist

Date: 22/06/2016 Observer: DLA + Cale Martin Visit # 3

Wind (Beaufort scale): 102 Cloud Cover: 30 % Precipitation: — Temp: 16 °C

Start Time: — End Time: — Point Count# T-Line Existing ROW

UTM: —

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
BBS85 630- 640 SCTA	:			S				
GCFL			.					
BAWW	.	.						
BLJA			:					
PINO		.						
OVEN			.					
BEKI			.					
SOSP		:						
EATO		.	.	↓				
RWBL							L	F/I
MOBO							.	F/I
BBS84 645- 655 EATO	.	.		S				
OVEN			.					
REVI	.	.						
BLJA			:					
BAWW	:		.					
NOCA	.	.						
BAOW*			.	↓				
BBS83 700- 710 FISP	:		.	S				
OVEN			.					
REVI		.	.					
AMRO	.	:						
SOSP		:						
WIWA			.	↓				
BBS82 713- 723 EATO	:			S				
NAWA		.	.	S				
GRCA		:		S				
AMBO		:	::	4 F/I				
AMRO		.		S				
CEOW			::	F/I				
YENW	.	.		S				
BCCH	::			FY				

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
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DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

Date data entered: — Corresponding Report #: —
Date checked: — Checked by: —

of

UTM: _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
RWBL	..			FY				
TRES	.			S				
SDSP		.		↓				
REVI		.		↓				
HAWD	.			S				
COYE		:	.	↓				
PIWD			.	↓				
BLJA			:	↓				
HOWR		.		↓				
FISP			.	↓				
RBWD						.		S
REVI					:			FY
WTSP					..			FY
ETAT	.		.	S				
BAWW		.		↓				
OVEN		:		↓				
CSWA		.		↓				
GCFL			.	↓				
BCCH							:	S
RBGR	.			S				
BLJA		:	.	↓				
SCTA			:	↓				
OVEN	.	.		↓				
VEER			.	↓				
WOTH						.		S
RBNU					.			↓

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed In suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

Date checked: _____ Checked by: _____

Breeding Bird Survey: 10 minute Point Count

1 of 3

Project # 163674 Project Name Loyalist

Date: 17/06/2016 Observer: DIA + RMB Visit # 3

Wind (Beaufort scale): 0 CloudCover: 20 % Precipitation: — Temp: 11 °C

Start Time: 0500 End Time: 701 Point Count# NAP021

UTM: _____ Field Staff Sign-off _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding	<50 m	>50m	>100m	Breeding

- OBSERVED**
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

Comments:

BBS20	PLSP	:	.	.	S				
518-									
528	EATD		:	.	S				
	BRTH		.	.	↓				
	EAPH			:	↓				
	GUPL						.		S
	BCEH						.	:	↓
	MODU						:		↓

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

--	--	--	--	--	--	--	--	--	--

Date data entered: _____ Corresponding Report #: _____ Date checked: _____

Checked by: _____ Coordinator Sign-off _____



Breeding Bird Survey: 10 minute Point Count

2 of 3

Project # 163674 Project Name loyalist

Date: 17/06/2016 Observer: DLA + RMG Visit # 3

Wind (Beaufort scale): — CloudCover: 20 % Precipitation: — Temp: 11 °C

Start Time: 0500 End Time: 701 Point Count# NAP021

UTM: _____ Field Staff Sign-off _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
BBS19 545- 555 GRCA	.			A				
PISP	:			S				
EATO	.	.						
MARN		.						
BAWN	.							
RWBL		L	::					
MODD	:							
YENW		:		↓				
BBCU							.	S
NCCA							:	
Amck							.	
CME						:		↓
BBS18 600- 610 MALL			.	F/O				
WADD			::	F/O				
EATO	:	.		S				
BRTH	.			S				
GCPL		::		FY				
COBR			::	F/O				
RWBL							:	F/O
CEOW					::			FY
PISP						.		S
CHSP							.	S
BBS16 620- 630 GRSP	.			S				
SAVS	:			↓				
PISP		.		↓				
KILL	.			A				
BRTH		.		S				
WIWR	:			S				
BBS15 632- 642 BRTH			.	S				
SAVS			.					
FISP			.					
EARH			.					
GBHE			.				.	F/O

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

Date data entered: _____ Corresponding Report #: _____ Date checked: _____

Checked by: _____ Coordinator Sign-off _____



Breeding Bird Survey: 10 minute Point Count

Project # 163674 Project Name Journalist

Date: 1710612016 Observer: DLA + RMG Visit # 3

Wind (Beaufort scale): — CloudCover: 20% Precipitation: — Temp: 1/°C

Start Time: 6500 End Time: 701 Point Count# NA021

UTM: _____ Field Staff Sign-off _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
SOSP				S		:	.	S
FAH				S			:	S

OBSERVED

X - Observed in breeding season

POSSIBLE

H - Observed in suitable nesting habitat

S - Singing male(s)

PROBABLE

P - Pair observed

T - Permanent territory presumed

D - Courtship or display

V - Visiting probable nest site

A - Agitated behaviour/anxiety calls

B - Brood Patch/cloacal protuberance

CONFIRMED

NB - Nest-building

DD - Distraction display

NU - Used nest or egg shells

FY - Fledged/downy young

AE - Adult leaving or entering nest sites

ES - Adult carrying fecal sac

CE = Adult carrying food

CF - Adult carrying food
NE - Nest containing eggs

NY - Nest with young

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

Comments:[illegible]

Date data entered: _____ Corresponding Report #: _____ Date checked: _____

Checked by: _____ Coordinator Sign-off _____

Breeding Bird Survey: 10 minute Point Count

1 of 2

Project # 163674 Project Name Loyalist

Date: 1710612016 Observer: DIA + RMG Visit # 3

Wind (Beaufort scale): NW1 CloudCover: 0 % Precipitation: — Temp: 12°C

Start Time: 705 End Time: 841 Point Count# NAP120

UTM: _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed In suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

BBS13
750-
800

BCCH	••			FY				
Revi	•			S				
YENH	•			↓				
SOSP		•						

Date data entered: _____ Corresponding Report #: _____

Date checked: _____ Checked by: _____



Breeding Bird Survey: 10 minute Point CountProject # 163674 Project Name LoyalistDate: 17 1 06 2016 Observer: DLA + RMB Visit # _____Wind (Beaufort scale): NE 1 Cloud Cover: — % Precipitation: — Temp: 12°CStart Time: 705 End Time: 841 Point Count# _____

UTM: _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
AMGO			:	FIO				
AMRP					.			
WTH						:		
BAOR								LP flushed @ walk out
BBSH 811- 821	BAOR	o	:	S				
	CSWA	:						
	SCJA	.	.					
	LEFL	.	.					
	SWSP	:	.					
	VEOR		.					
	CEOW		:					
	HAOW	:		P/A				
	RBWO		.	S				
	BMARW					.	.	S
	WOTH						.	
	EAUPH					.		
	ODWD				.		.	
	RWB					:	.	
	COME					:	.	
BBSH 810	SWSP	:	.	S				
	NUWA		.	S				
	COME	:	.	S				
	LEFL	.	:	S				
	BCCH		:	FY				
	RWB		:	S				
	BAOR				.			S
	REVI				.			S
	COBR						:	FIO
	WAVI				.	.	.	S
	EAUP					.	.	S
	MARW				.			S

OBSERVED

X - Observed in breeding season

POSSIBLE

H - Observed in suitable nesting habitat

S - Singing male(s)

PROBABLE

P - Pair observed

T - Permanent territory presumed

D - Courtship or display

V - Visiting probable nest site

A - Agitated behaviour/anxiety calls

B - Brood Patch/cloacal protuberance

CONFIRMED

NB - Nest-building

DD - Distraction display

NU - Used nest or egg shells

FY - Fledged/downy young

AE - Adult leaving or entering nest sites

FS - Adult carrying fecal sac

CF - Adult carrying food

NE - Nest containing eggs

NY - Nest with young

Comments:

Date data entered: _____ Corresponding Report #: _____

Date checked: _____ Checked by: _____

Breeding Bird Survey: 10 minute Point Count

1 of 3

Project # 163674 Project Name Coyalist

Date: 20 106 120/6 Observer: DLA + Cale Hanton Visit # 3

Wind (Beaufort scale): — CloudCover: 20 % Precipitation: — Temp: 17 °C

Start Time: 450 End Time: 930 Point Count# NAP135

UTM: _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
SAVS	:			S				
UPSA		.		S				
CHSP	.			S				
AMRO		::		S				
MODD		:	.	S				
GRSP			.	S				
EAPH			.	S				
AMCR							1:	1 F/O 4 S
RNPH						.		field to N
SOSP						.		S
PRTH						.		S

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

BBS34 530 - 540	GCFL		:		S				
	SWSP	:							
	COYE	:	.						
	SOSP	.	:						
	CHSP			.					

Date data entered: _____ Corresponding Report #: _____
Date checked: _____ Checked by: _____

Breeding Bird Survey: 10 minute Point Count

2 of 3

Project # _____ Project Name _____

Date: ____/____/20____ Observer: _____ Visit # _____

Wind (Beaufort scale): ____ CloudCover: ____% Precipitation: _____ Temp: ____°C

Start Time: _____ End Time: _____ Point Count# _____

UTM: _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
FISP			:	S				
MARW					.	.		S
AMBI						.		↓
YSFL							.	
RBNM						.	.	↓
BBS35 548- 558 RWBL			::	K/O				
RNPH			.	east				
SOSP	.	.		AE				
SWSP			:	S				
YWA			.	↓				
COYE			:					
SCA						.		S
BHCO							:	S
AMBI							.	F/O
YSFL							.	S
MALL							:	S
BBS36 603- 613 EDWP	.	.	.	S			:	F/O
WAVI		.		↓				
SWSP	:	:						
AMBL			::					
LEFL		.						
MARW			.					
CSWA		:						
CENW		:						
COYE	.			↓				
AMBI							.	S
OVEN						.		↓
REVI					.			
GCFL					.			↓
BBS37 618- 628 SWSP	.	:		S				
GRCA		.		↓				
COYE	:							
RWBL	:	.	.					
MARW	.	.						
AMBU	:	:		↓				

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

Date data entered: _____ Corresponding Report #: _____

Date checked: _____ Checked by: _____



Breeding Bird Survey: 10 minute Point Count .Project # 163674 Project Name LoyalistDate: 20106 12016 Observer: DLA + Cole Martin Visit # 3Wind (Beaufort scale): — CloudCover: 20% Precipitation: — Temp: 17°CStart Time: 450 End Time: 930 Point Count# NAP13CS

UTM: _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
AMBI		.		S				
COBR							::	F10
NOCA							:	S
VEER						.		
BLJA							.	↓
BBS38 633- 643 EATO	.	.		S				
BAWN	.			↓				
GRCA	.							
NOCA	.		.	↓				
SOSP							.	S
AmRO							.	↓

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

BBS40 704- 714	SAVS	:			S				
	WUWR	.	:		↓				
	EUST			⊗	↓				
	COYE		.						
	BRTH					.	:		S
	AmGO						::	:	S
	GBHE						.	.	F10
	SOSP					.	.		S

Date data entered: _____ Corresponding Report #: _____
Date checked: _____ Checked by: _____

Breeding Bird Survey: 10 minute Point Count

1 of 2

Project # 163674 Project Name Loyalist

Date: 20/06/2016 Observer: DLA + Cole Hunter Visit # 3

Wind (Beaufort scale): — Cloud Cover: 30% Precipitation: — Temp: 18°C

Start Time: 725 End Time: 905 Point Count# NAP118/023

UTM: _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

135524	AMRO			.	S				
735-	GCFL			.					
748	KILL			.					
	EATO			.					
	SNWP		.						
	AMCR			□	▽				
	RWBL					:			S

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

135526	EAWP		.	.	S				
805-	GCFL		.	.					
815	YTVI		.						
	WLWA			.					
	REVI		.	.					
	KILL						.		S
	Veer						.		
	PIWD						.		
	NAWA					.			
	FISP						.		▽

Date data entered: _____ Corresponding Report #: _____
Date checked: _____ Checked by: _____

Breeding Bird Survey: 10 minute Point Count

Project # 163674 Project Name Loyalist

Date: 20/06/2016 Observer: DLA + Catherine Martin Visit # 3

Wind (Beaufort scale): 1403 Cloud Cover: 30 % Precipitation: — Temp: 20°C

Start Time: 725 End Time: 915 Point Count# NAP118/023

UTM: _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

BBS27 815- 825	OVEN				3				
	YENW	.	.						
	REVI		.						
	NAWA		.						
	COYE	.	.						
	RUBL						..		F10
	NDCA					.	.		S
	EATD						.		S

Date data entered: _____ Corresponding Report #: _____

Date checked: _____ Checked by: _____

Breeding Bird Survey: 10 minute Point Count

NAP038

1 of 3

Project # 163674 Project Name Loyalist

Date: 21/06/2016 Observer: DLA + Calie Martin Visit # 3

Wind (Beaufort scale): WD/ Cloud Cover: 20 % Precipitation: — Temp: 12 °C

Start Time: 453 End Time: 800 Point Count# NAP038

UTM: _____ Field Staff Sign-off _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
BBS01 453- SD3 SOSP	.			S				
CHSP	.							
BWA			.					
EAPH		.						
COSN			.					
BRTH	.							
EATO		.	.	↓				
MODD					.	:		S
AMRO					.			
AMCK							::	↓
BBS02 SD7- S17 FLSP	.		.	S				
NOLA	.	:		S				
AMRO	::			FY				
BLJA	:		.	S				
EATO			.	↓				
SOSP			.					
BRTH		.		↓				
BBS03 SD0- SD3 MODD	L			FY				
BRTH	:							
EAST			18	in trees				
NOLA							.	
BADR						.		
CORR							L	FIO
AMRO							2:	FY
BLJA						:		
UPSA							.	

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

BBS01 - no EAPH/BWA
West of Pt plc
field cut & barbed

from BBS02?

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

Date data entered: _____ Corresponding Report #: _____ Date checked: _____

Checked by: _____ Coordinator Sign-off _____



Breeding Bird Survey: 10 minute Point CountProject # 163674 Project Name LoyalistDate: 21 106 12016 Observer: DLA + Cale Kartin Visit # 3Wind (Beaufort scale): W@1 Cloud Cover: 30 % Precipitation: — Temp: 14 °CStart Time: 453 End Time: 800 Point Count# NAP038

UTM: _____ Field Staff Sign-off _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence

OBSERVED

X - Observed in breeding season

POSSIBLE

H - Observed in suitable nesting habitat

S - Singing male(s)

PROBABLE

P - Pair observed

T - Permanent territory presumed

D - Courtship or display

V - Visiting probable nest site

A - Agitated behaviour/anxiety calls

B - Brood Patch/cloacal protuberance

CONFIRMED

NB - Nest-building

DD - Distraction display

NU - Used nest or egg shells

FY - Fledged/downy young

AE - Adult leaving or entering nest sites

FS - Adult carrying fecal sac

CF - Adult carrying food

NE - Nest containing eggs

NY - Nest with young

Comments:

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

BB507	SAYS	.			S				
622-	COYE		:		S				
632	YSFL			.	S				
	WITU			.	X				
	FISP			.	S				
	COSN			.	S				
	BCC H		Δ	(::)	FV				
	RESP			.	S				
	DOWO			.	S				
	AMB0		::		S				

Date data entered: _____ Corresponding Report #: _____ Date checked: _____

Checked by: _____ Coordinator Sign-off _____

1 of 1

UTM: _____

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

Breeding Bird Survey: 10 minute Point Count

1 of 2

Project # 163674 Project Name Loyalist

Date: 30/06/2016 Observer: DLA+RMB Visit # 3

Wind (Beaufort scale): — Cloud Cover: 0 % Precipitation: — Temp: 14 °C

Start Time: 457 End Time: 643 Point Count# NAP493

UTM:

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
38556 CHSP	:	:		S				
457- EATO	:	:						
507 SOSP					
NDCA			:					
MODD			:					
WTSP		.		↓				
AMCR							:	S
AMRO						..	:	
57 AMRO	:	.		S		..	:	↓
509- GRCA	:	.						
519 EATO			.					
CHSP		..	:					
BRTH			.	↓				
EAPH							:	S
RRBR						:		A
58 EATO	.	:	.	S				
522- SOSP	:	.		↓				
532 FISP		.	:	↓				
NAWA					.	.		S
DOWD							.	↓
BAWW					.		.	
WTSP							:	↓
MALL							12	F10
HOWR						:		S
MODD					:	.		S
AMCR					:			landed
59 oven		.	.	S				
535- BAWW	:	.		↓				
545 RRBR	.	.						
BTNW		..						
FISP			.	↓				
WTSP							.	S
WAVI					.	.		S

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

Date data entered: Corresponding Report #:

Date checked: Checked by:

Breeding Bird Survey: 10 minute Point Count

2 of 2

Project # 163674 Project Name Loyalist

Date: 30/06/2016 Observer: DLA + RMG Visit # 3

Wind (Beaufort scale): 1 CloudCover: 0 % Precipitation: 1 Temp: 14 °C

Start Time: 457 End Time: 643 Point Count# NAP493

UTM: _____

Species	0-5 min				5-10 min			
	<50 m	>50m	>100m	Breeding Evidence	<50 m	>50m	>100m	Breeding Evidence
63 BTNW		.		S				
549- BAWW		.						
559 OVEN		:	.					
BCCH		:						
COYE		:	.					
REVI		.		↓				
MODD							:	S
AMCR							:	
CORA							.	
RHWD							.	
VSFL							.	↓
64 BWA	.	.		S				
607- SCTA	:			FY / CF				
617 OVEN		.		S				
EATO		:		↓				
DOWD	.							
WBNU	:			↓				
EAWP							.	S
REVI					:			
CSWA							.	
MODD					.			↓
65 WOTH		:		S				
620- EAWP		:	.					
630 OVEN		.	.					
SCTA			.	↓				
RBNU						:		S
BWA							.	
BBCU							.	↓
66 RBNU	:	:		S				
633- OVEN			.	S				
643 EAWP			.	S				
RBWD						.		S
WOTH							.	S
BCCH					:			S
DOWD						.		S

OBSERVED
X - Observed in breeding season
POSSIBLE
H - Observed in suitable nesting habitat
S - Singing male(s)
PROBABLE
P - Pair observed
T - Permanent territory presumed
D - Courtship or display
V - Visiting probable nest site
A - Agitated behaviour/anxiety calls
B - Brood Patch/cloacal protuberance
CONFIRMED
NB - Nest-building
DD - Distraction display
NU - Used nest or egg shells
FY - Fledged/downy young
AE - Adult leaving or entering nest sites
FS - Adult carrying fecal sac
CF - Adult carrying food
NE - Nest containing eggs
NY - Nest with young

Comments:

Date data entered: _____ Corresponding Report #: _____

Date checked: _____ Checked by: _____

Project# _____

Marsh Monitoring Program - Amphibian Data Form

Return by 31 July

Please write legibly (in pen).



VISIT INFORMATION

Sunset = 20:14

Route #: Loyalist Route Name: Jonathan Harris Station (A - H): 19-25

Observer #: JWH Observer Name: Jonathan Harris

Visit #: 1 Day: 27 Month: April Year: 2016

Cloud Cover (10th): 0 Temperature (°C) or °F: 10 Beaufort Wind Scale (0-6): 0-2

Precipitation (check one): ☒ None/Dry ☐ Damp/Haze/Fog ☐ Drizzle ☐ Rain

CALL LEVEL CODES

Code 1: Calls not simultaneous, number of individuals can be accurately counted

Code 2: Some calls simultaneous, number of individuals can be reliably estimated

Code 3: Full chorus, calls continuous and overlapping, number of individuals cannot be reliably estimated

Amphdfm2008.cdr, rev 02/2008

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		
GRFR		
MIFR		
NLFR		
PIFR		
SPPE		✓
WOFR		

* Check if species is calling
from inside 100-metre station area.

** Check if species is calling from outside
100-metre station area.

Survey Point#

ABH 20

(SSW)

220N

Station Start

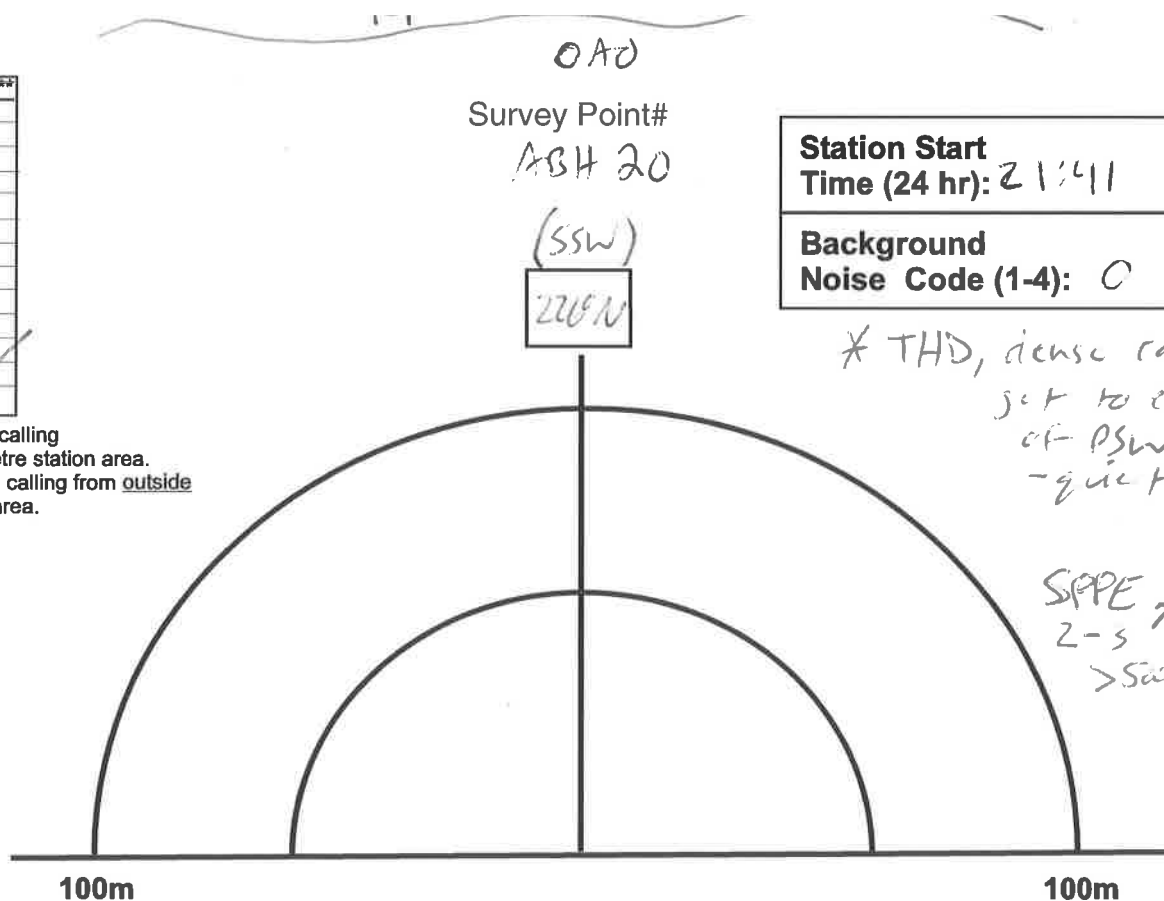
Time (24 hr): 21:41

Background

Noise Code (1-4): 0

* THD, dense can't
get to edge
of PSW.
- quiet

SPPE A
2-3
> 50m



Station Start
Time (24 hr): 22:41

Background
Noise Code (1-4): 0

Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		
GRFR		
MIFR	✓	✓
NLFR	✓	
PIFR	✓	
SPPE		
WOFR		

* Check if species is calling from inside 100-metre station area.

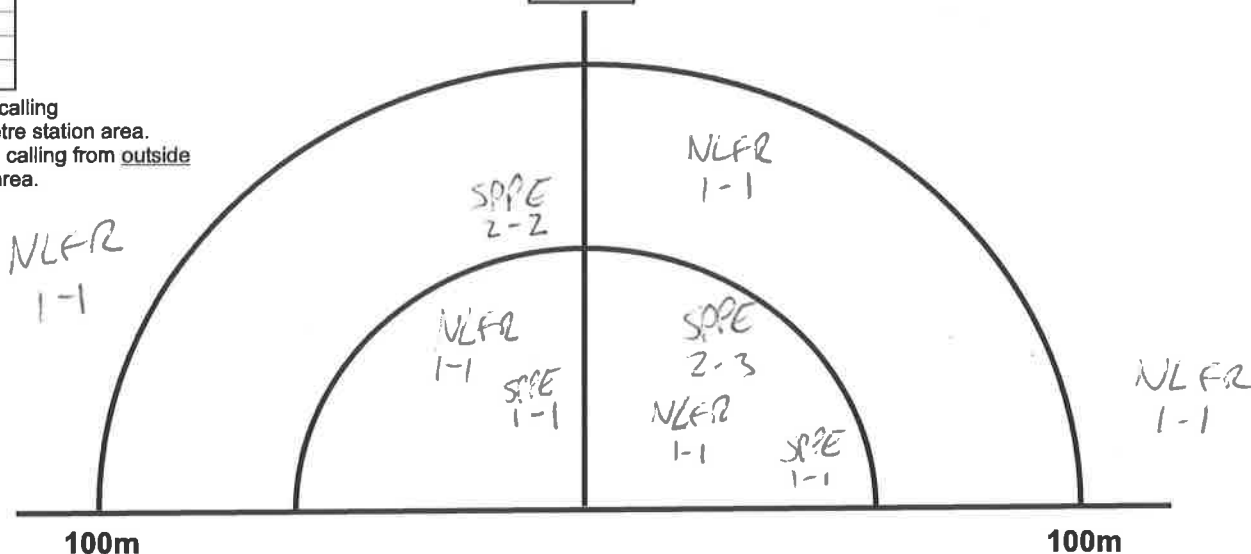
** Check if species is calling from outside 100-metre station area.

Survey Point#
ABH 24

(S)

182°N

SWD



Station Start
Time (24 hr): 22:53

Background
Noise Code (1-4): 0

Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		
GRFR		
MIFR		
NLFR		
PIFR	✓	✓
SPPE		
WOFR		

* Check if species is calling from inside 100-metre station area.

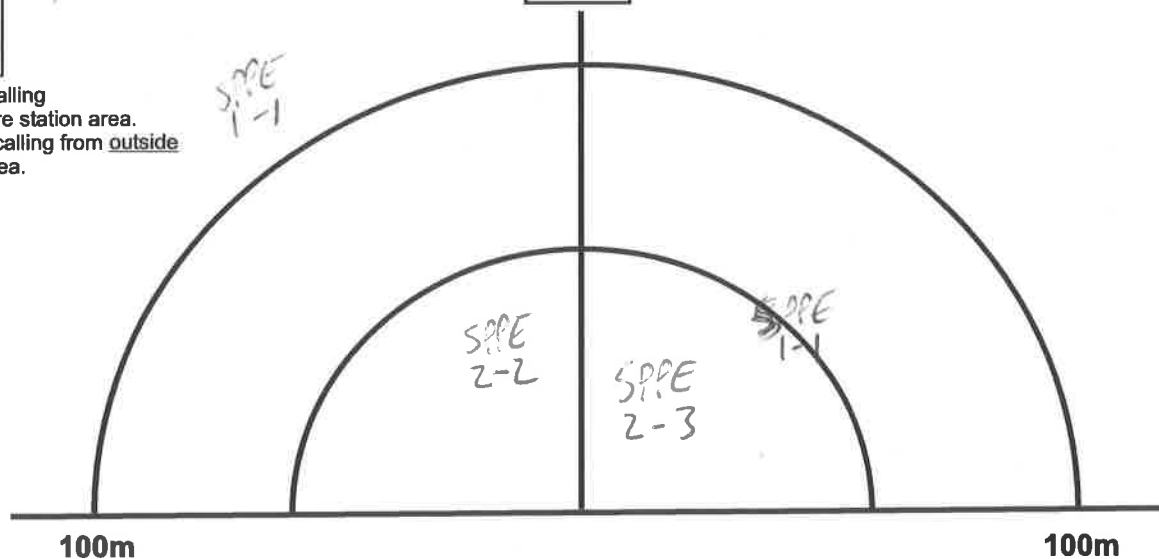
** Check if species is calling from outside 100-metre station area.

Survey Point#
ABH 25

(S)

197°N

SWD



Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		
GRFR		
MIFR		
NLFR		
PIFR		
SPPE		
WOFR		

- * Check if species is calling from inside 100-metre station area.
 ** Check if species is calling from outside 100-metre station area.

Survey Point#

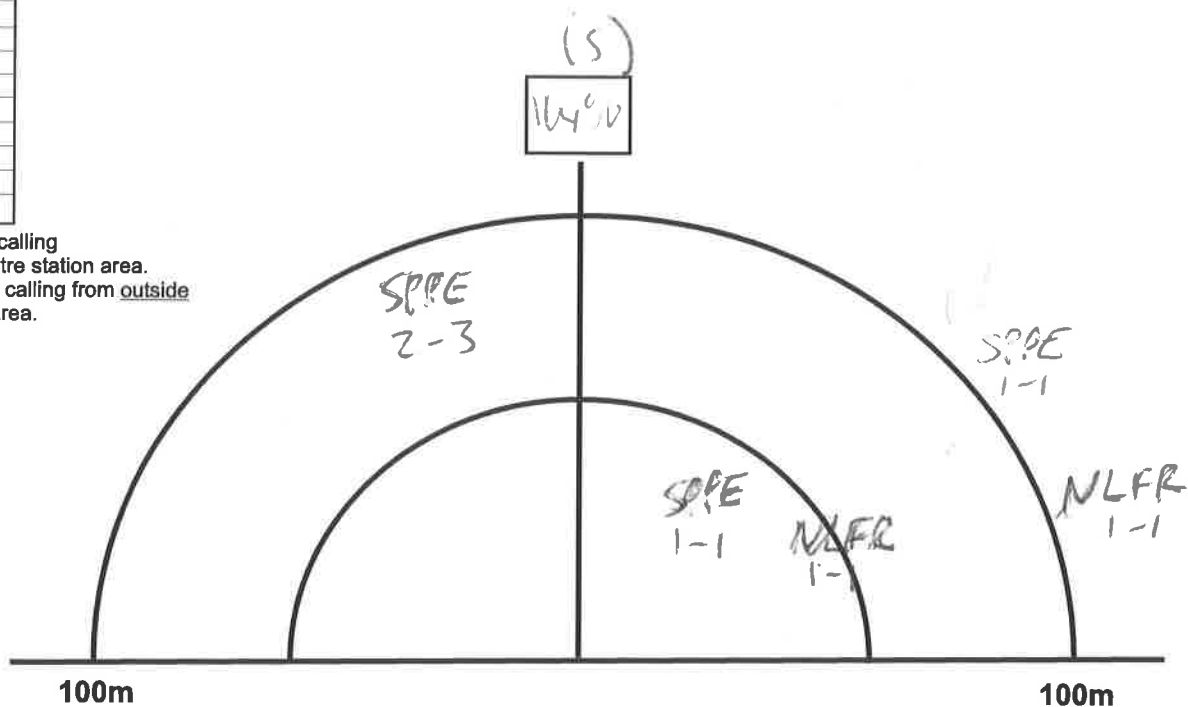
23H 26

Station Start

Time (24 hr): 2304

Background

Noise Code (1-4): 0



Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		
GRFR		
MIFR		
NLFR		
PIFR		
SPPE		
WOFR		

- * Check if species is calling from inside 100-metre station area.
 ** Check if species is calling from outside 100-metre station area.

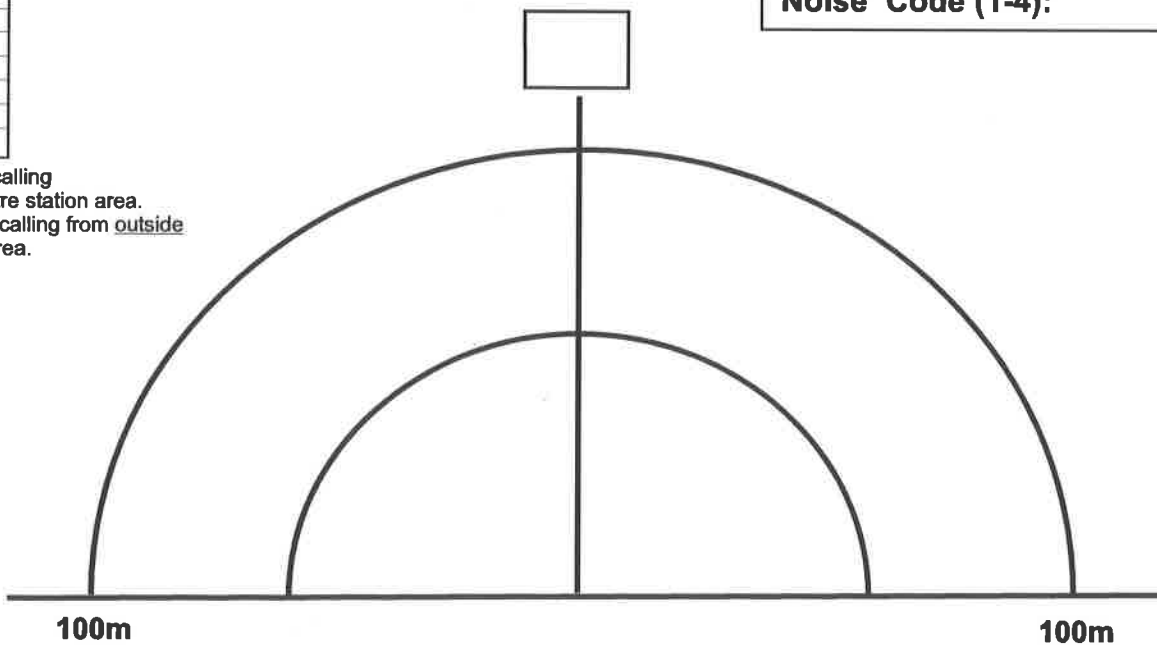
Survey Point#

Station Start

Time (24 hr):

Background

Noise Code (1-4):



Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		
GRFR		
MIFR		
NLFR		
PIFR		
SPPE	✓	✓
WOFR		

* Check if species is calling from inside 100-metre station area.
 ** Check if species is calling from outside 100-metre station area.

Survey Point#

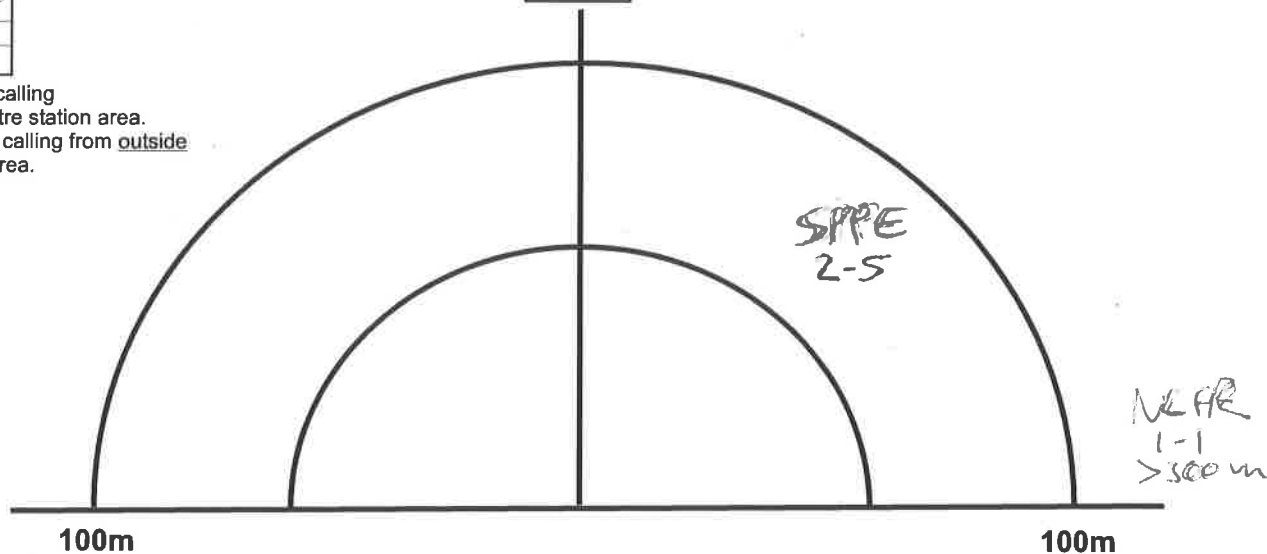
AGH 19

(5)

172°N

Station Start
Time (24 hr): 22:01

Background
Noise Code (1-4): 0



Field Staff Sign-off: _____ Project Coordinator Sign-off: _____

Amphibian Species Codes

Species	Code
American Toad	AMTO
Northern (Blanchard's) Cricket Frog	BCFR
Bullfrog	BULL
Chorus Frog	CHFR
Cope's (Diploid) Gray Treefrog	CGTR
Fowler's Toad	FOTO
Gray (Tetraploid) Treefrog	GRTR
Green Frog	GRFR
Mink Frog	MIFR
Northern Leopard Frog	NLFR
Pickerel Frog	PIFR
Spring Peeper	SPPE
Wood Frog	WOFR

Background Noise Codes

Index	Description
0	No appreciable effect (e.g., owl calling)
1	Slightly affecting sampling (e.g., distant traffic, dog barking, car passing)
2	Moderately affecting sampling (e.g., distant traffic, 2-5 cars passing)
3	Seriously affecting sampling (e.g., continuous traffic nearby, 6-10 cars passing)
4	Profoundly affecting sampling (e.g., continuous traffic passing, construction noise)

24 Hour Time			
12 Hour	24 Hour	12 Hour	24 Hour
7:00 PM	1900	10:00 PM	2200
8:00 PM	2000	11:00 PM	2300
9:00 PM	2100	12:00 PM	2400

Beaufort Wind Scale

Number	Wind Speed		Indicators
	Km/h	Mph	
0	0-2	0-1	Calm, smoke rises vertically
1	3-5	2-3	Light air movement, smoke drifts
2	6-11	4-7	Slight breeze, wind felt on face
3	12-19	8-12	Gentle breeze, leaves and small twigs in constant motion
4*	20-30	13-18	Moderate breeze, small branches are moving, raises dust and loose paper

* Winds over Beaufort 3 are unacceptable for amphibian surveys.

Project# 16-3674



Marsh Monitoring Program - Amphibian Data Form

Return by 31 July

Please write legibly (in pen).

VISIT INFORMATION

Route #: _____ Route Name: LS ABH 16-3674 Station (A - H): _____
 Observer #: km Observer Name: Kelly McLean
 Visit #: 1 Day: 27 Month: April Year: 2016
 Cloud Cover (10th): 0 Temperature (°C or °F): 7°C Beaufort Wind Scale (0-6): 0
 Precipitation (check one): ☒ None/Dry ☐ Damp/Haze/Fog ☐ Drizzle ☐ Rain

CALL LEVEL CODES

Code 1: Calls not simultaneous, number of individuals can be accurately counted

Code 2: Some calls simultaneous, number of individuals can be reliably estimated

Code 3: Full chorus, calls continuous and overlapping, number of individuals cannot be reliably estimated

Amphdfrm2008.cdr, rev 02/2008

Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		
GRFR		
MIFR		
NLFR		
PIFR		
SPPE		
WOFR		

Survey Point#

ABH18

Station Start

Time (24 hr): 21:02

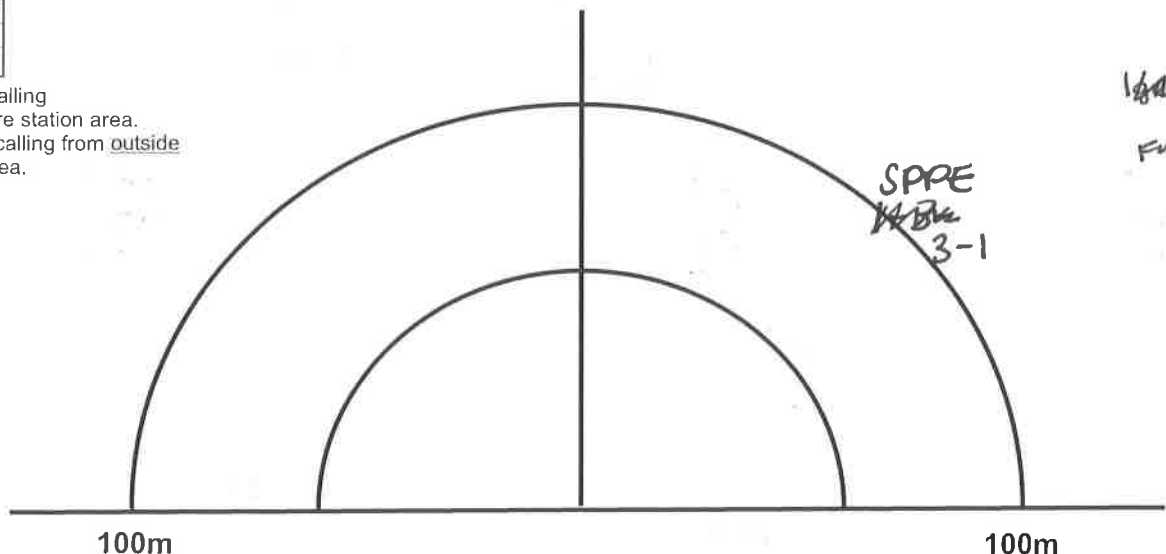
Background

Noise Code (1-4): 1

E

* Check if species is calling from inside 100-metre station area.

** Check if species is calling from outside 100-metre station area.



Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		
GRFR		
MIFR		
NLFR		
PIFR		
SPPE		
WOFR		

* Check if species is calling from inside 100-metre station area.

** Check if species is calling from outside 100-metre station area.

Survey Point#

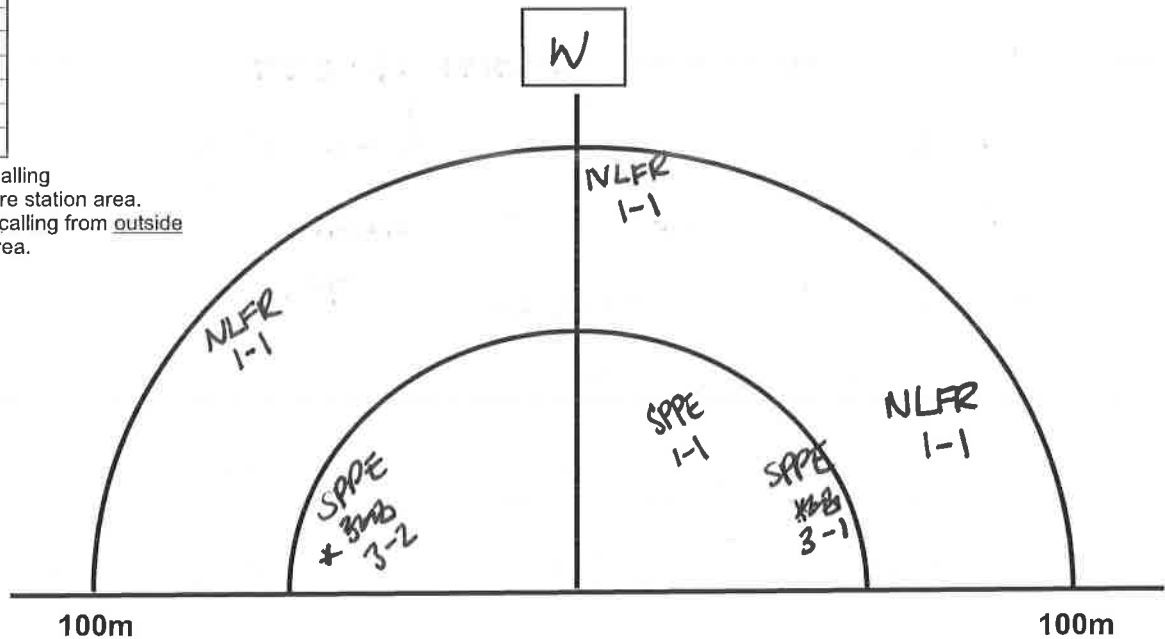
ABH17

Station Start

Time (24 hr): 21:13

Background

Noise Code (1-4): 1



Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		
GRFR		
MIFR		
NLFR		
PIFR		
SPPE		
WOFR		

* Check if species is calling from inside 100-metre station area.

** Check if species is calling from outside 100-metre station area.

Survey Point#

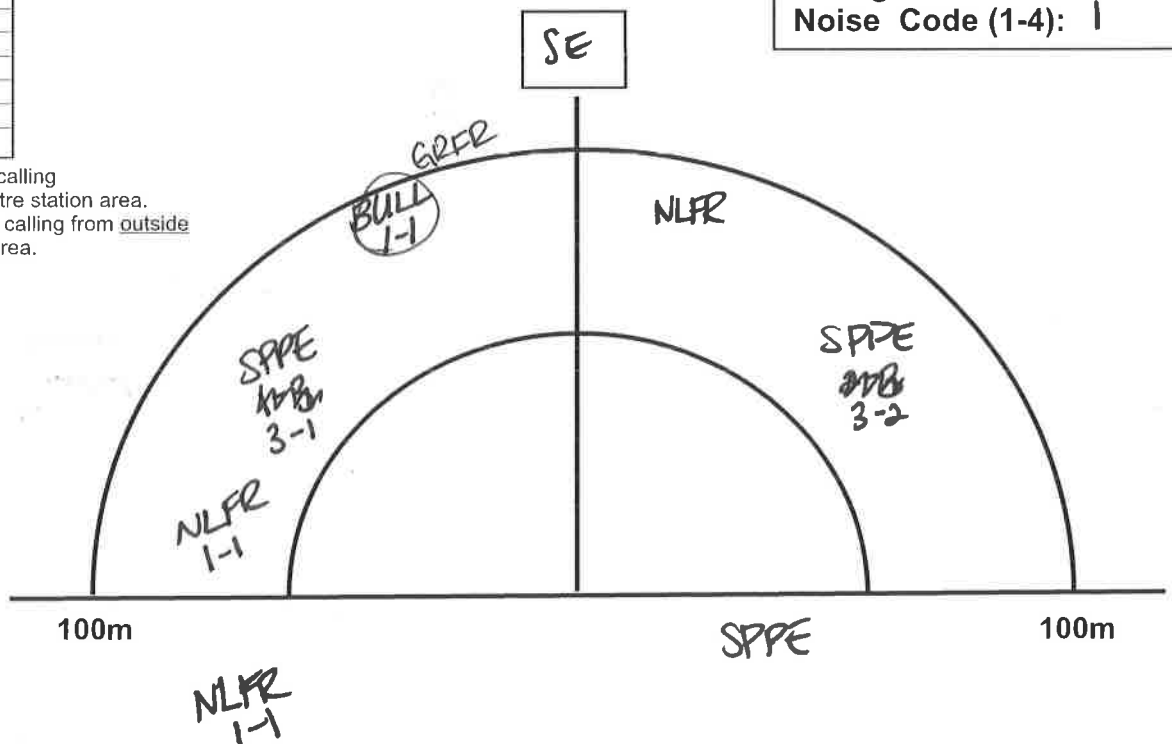
ABH11

Station Start

Time (24 hr): 21:26

Background

Noise Code (1-4): 1



Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		
GRFR		
MIFR		
NLFR		
PIFR		
SPPE		
WOFR		

* Check if species is calling from inside 100-metre station area.

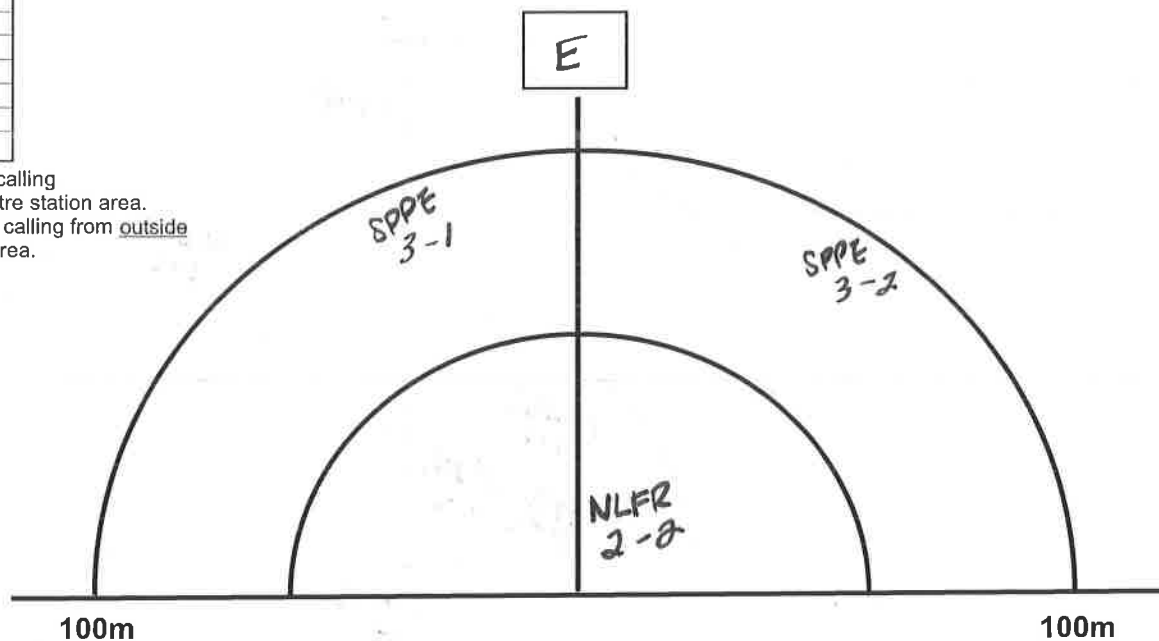
** Check if species is calling from outside 100-metre station area.

Survey Point#

ABH14

Station Start 22:00
Time (24 hr): 21:48

Background
Noise Code (1-4): 1



Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		
GRFR		
MIFR		
NLFR		
PIFR		
SPPE		
WOFR		

* Check if species is calling from inside 100-metre station area.

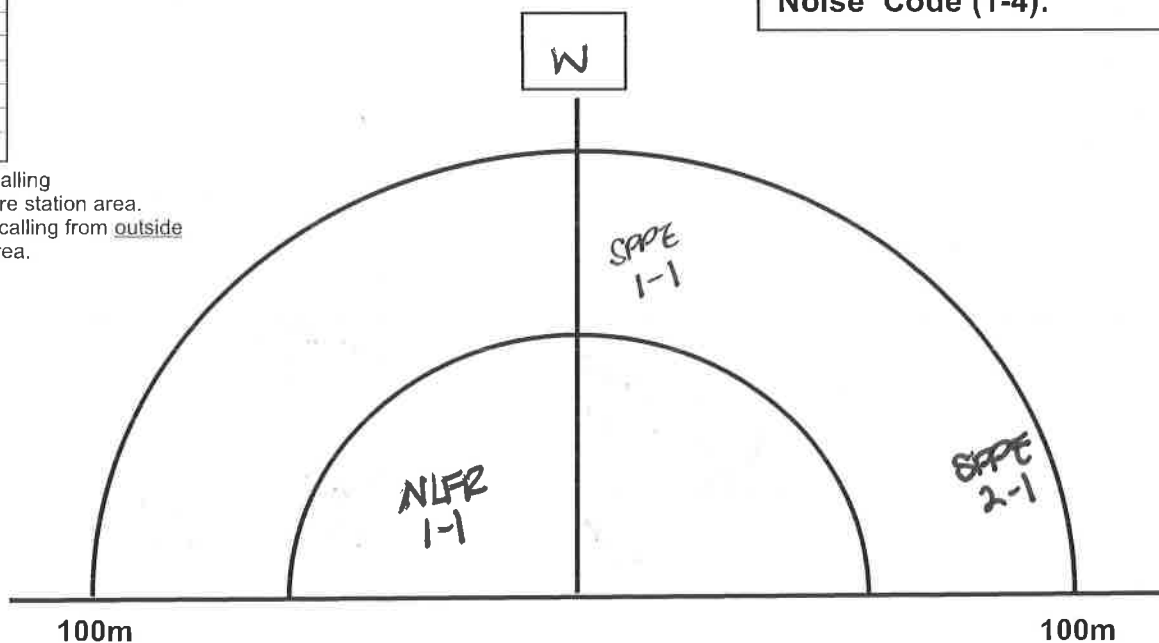
** Check if species is calling from outside 100-metre station area.

Survey Point#

ABH15

Station Start
Time (24 hr): 22:10

Background
Noise Code (1-4):



Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		
GRFR		
MIFR		
NLFR		
PIFR		
SPPE		
WOFR		

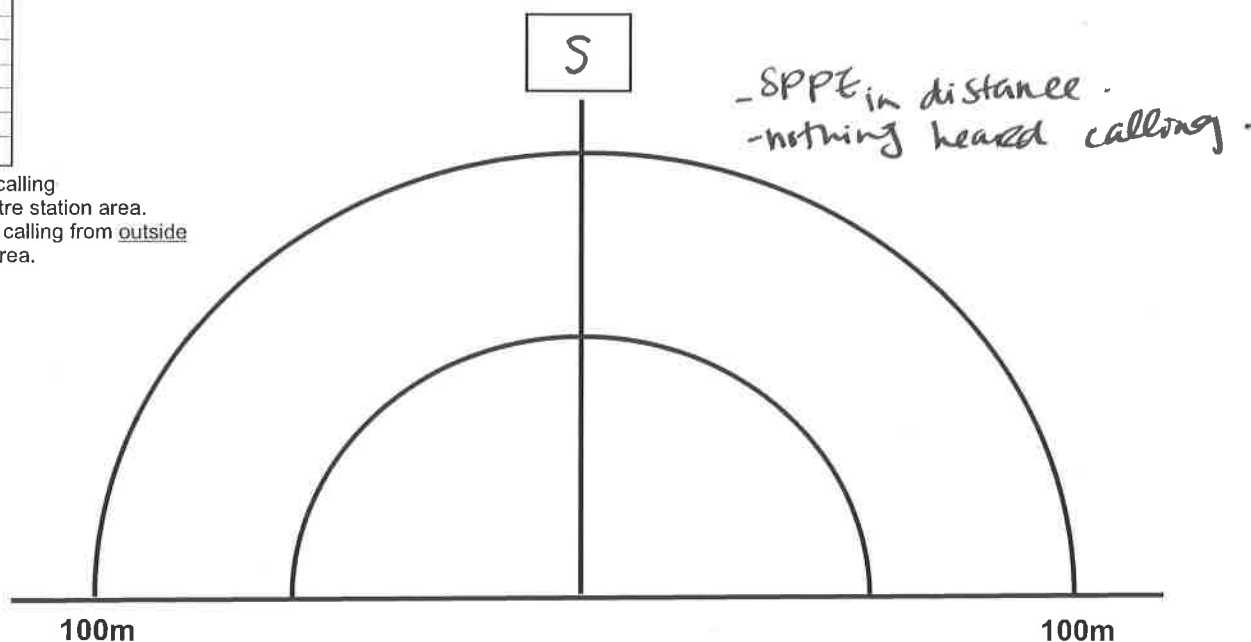
* Check if species is calling from inside 100-metre station area.
 ** Check if species is calling from outside 100-metre station area.

Survey Point#

PBH16

Station Start
Time (24 hr): 21:25

Background
Noise Code (1-4): 1



Field Staff Sign-off: _____ Project Coordinator Sign-off: _____

Amphibian Species Codes

Species	Code
American Toad	AMTO
Northern (Blanchard's) Cricket Frog	BCFR
Bullfrog	BULL
Chorus Frog	CHFR
Cope's (Diploid) Gray Treefrog	CGTR
Fowler's Toad	FOTO
Gray (Tetraploid) Treefrog	GRTR
Green Frog	GRFR
Mink Frog	MIFR
Northern Leopard Frog	NLFR
Pickerel Frog	PIFR
Spring Peeper	SPPE
Wood Frog	WOFR

Background Noise Codes

Index	Description
0	No appreciable effect (e.g., owl calling)
1	Slightly affecting sampling (e.g., distant traffic, dog barking, car passing)
2	Moderately affecting sampling (e.g., distant traffic, 2-5 cars passing)
3	Seriously affecting sampling (e.g., continuous traffic nearby, 6-10 cars passing)
4	Profoundly affecting sampling (e.g., continuous traffic passing, construction noise)

24 Hour Time			
12 Hour	24 Hour	12 Hour	24 Hour
7:00 PM	1900	10:00 PM	2200
8:00 PM	2000	11:00 PM	2300
9:00 PM	2100	12:00 PM	2400

Beaufort Wind Scale

Number	Wind Speed		Indicators
	Km/h	Mph	
0	0-2	0-1	Calm, smoke rises vertically
1	3-5	2-3	Light air movement, smoke drifts
2	6-11	4-7	Slight breeze, wind felt on face
3	12-19	8-12	Gentle breeze, leaves and small twigs in constant motion
4*	20-30	13-18	Moderate breeze, small branches are moving, raises dust and loose paper

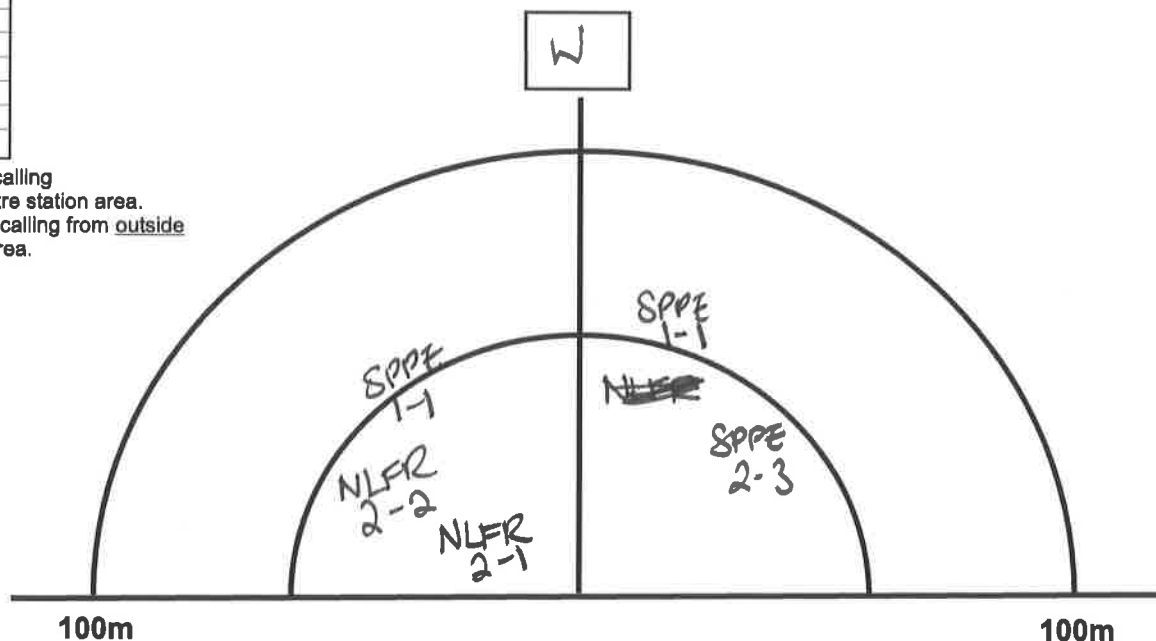
* Winds over Beaufort 3 are unacceptable for amphibian surveys.

APRIL 27, 2016

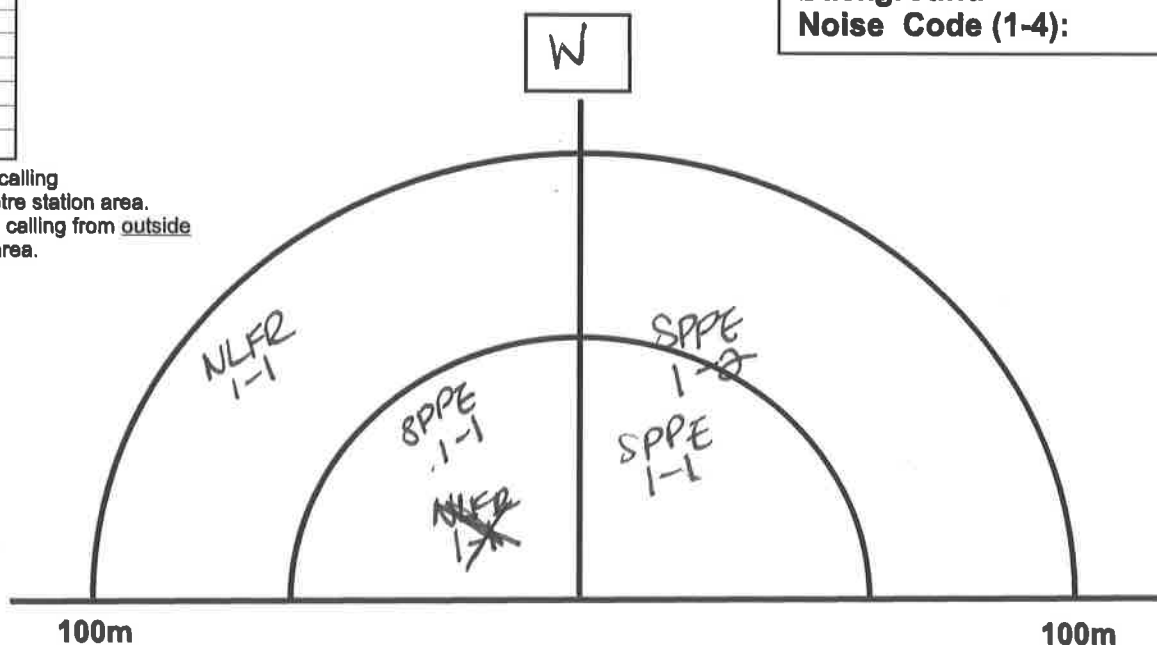
LS-ABH

Station Start 20:42
Time (24 hr): 10Background
Noise Code (1-4): 1Survey Point#
ABH8

Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		
GRFR		
MIFR		
NLFR		
PIFR		
SPPE		
WOFR		

* Check if species is calling from inside 100-metre station area.** Check if species is calling from outside 100-metre station area.

Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		
GRFR		
MIFR		
NLFR		
PIFR		
SPPE		
WOFR		

* Check if species is calling from inside 100-metre station area.** Check if species is calling from outside 100-metre station area.Survey Point#
ABH9Station Start
Time (24 hr): 20:53Background
Noise Code (1-4):NLFR
1-1

Project# _____

Marsh Monitoring Program - Amphibian Data Form**Return by 31 July***Please write legibly (in pen).***VISIT INFORMATION**

Sunset = 20:14

Route #: _____ Route Name: Loyalist Station (A - H): _____Observer #: JWH Observer Name: Jonathan HarrisVisit #: 1 Day: 28 Month: April Year: 2016Cloud Cover (10th): 50 Temperature (°C or °F): 7 Beaufort Wind Scale (0-6): 0-1Precipitation (check one): ☒ None/Dry ☐ Damp/Haze/Fog ☐ Drizzle ☐ Rain**CALL LEVEL CODES**

Code 1: Calls not simultaneous, number of individuals can be accurately counted

Code 2: Some calls simultaneous, number of individuals can be reliably estimated

Code 3: Full chorus, calls continuous and overlapping, number of individuals cannot be reliably estimated

Amphdfm2008.cdr, rev 02/2008

Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		
GRFR		
MIFR		
NLFR		
PIFR		
SPPE	✓	✓
WOFR		

* Check if species is calling from inside 100-metre station area.** Check if species is calling from outside 100-metre station area.

-Wilson's Snipe *

Survey Point#

ABH 23

(N)

C12EN

Station Start

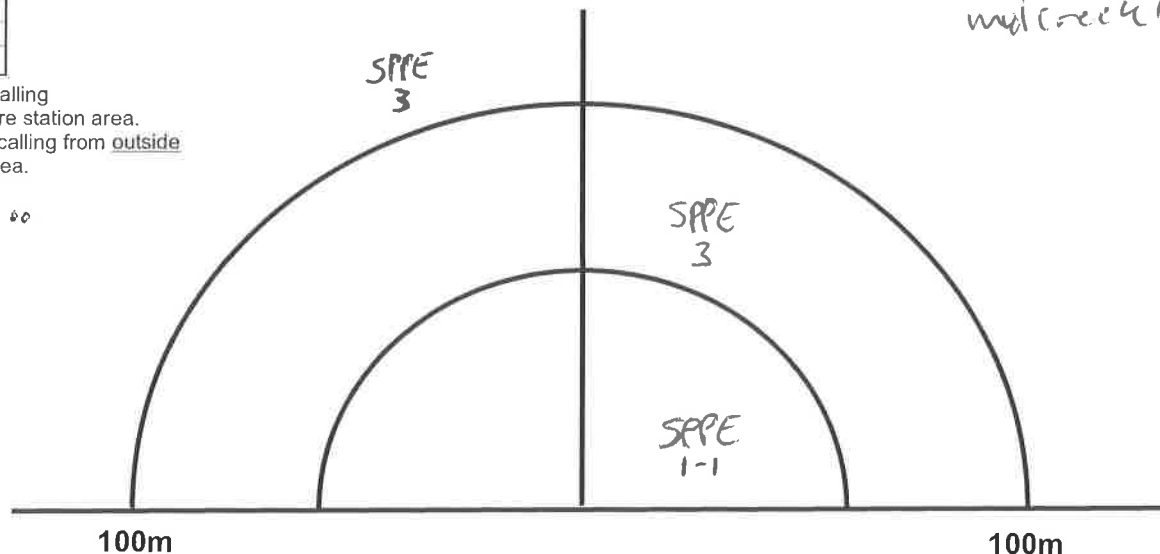
Time (24 hr): 20:48

Background

Noise Code (1-4): 0

MAM/SLWD

mid creek PSW



FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		
GRFR		
MIFR		
NLFR		
PIFR		
SPPE	✓	✓
WOFR		

* Check if species is calling
from inside 100-metre station area.

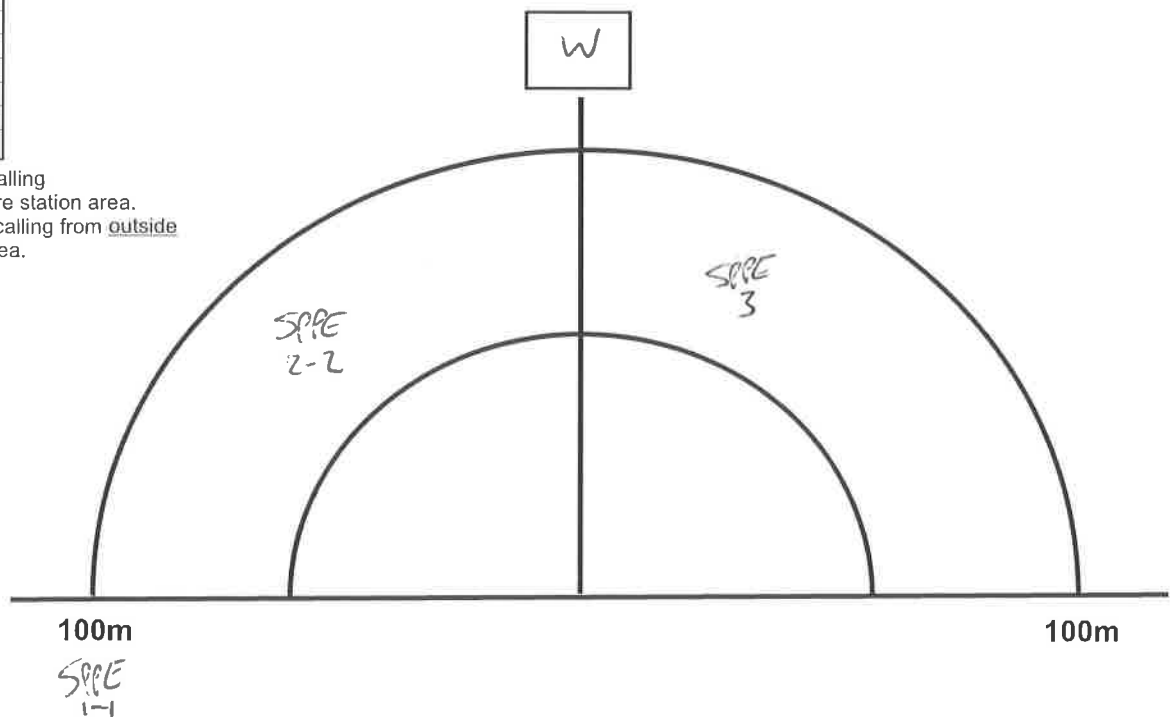
** Check if species is calling from outside
100-metre station area.

Survey Point#

Abt 30

Station Start
Time (24 hr): 21:43

Background
Noise Code (1-4): 0



Station Start
Time (24 hr): 21:38

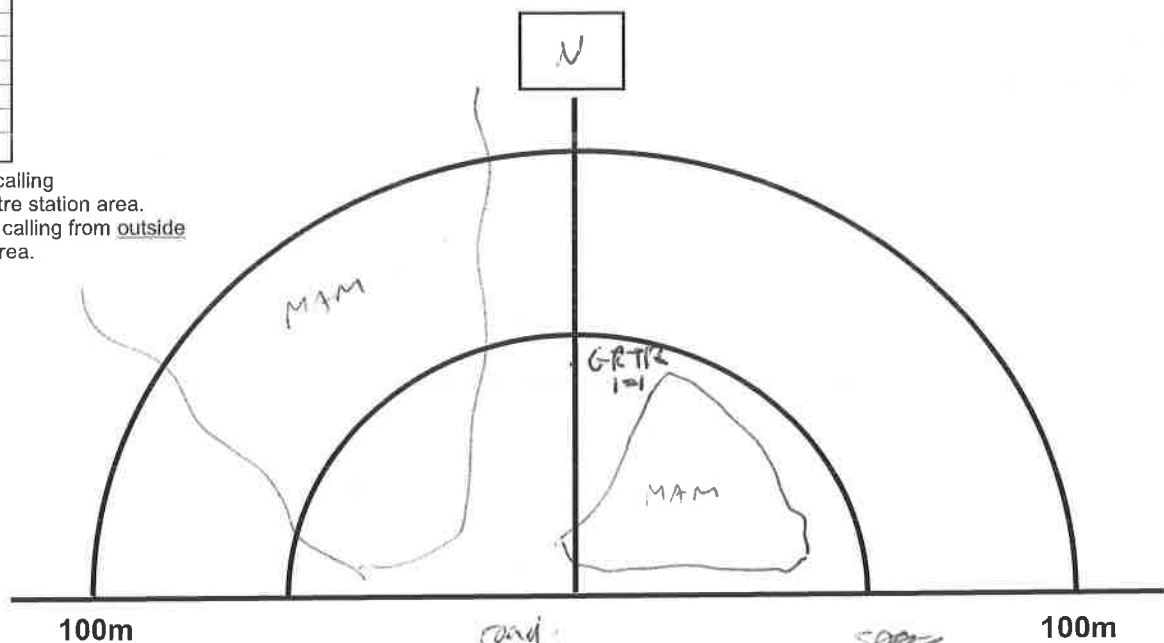
Background
Noise Code (1-4): 0

Survey Point#
A04 31

Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR	✓	
GRFR		
MIFR		
NLFR		
PIFR		
SPPE		✓
WOFR		

* Check if species is calling from inside 100-metre station area.

** Check if species is calling from outside 100-metre station area.



NLFR
1-1

SPPE
2-5 & ~30m

SPPE
2-4

SPPE
2-3
300m

Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		
GRFR		
MIFR	✓	
NLFR	✓	
PIFR	✓	✓
SPPE	✓	✓
WOFR		

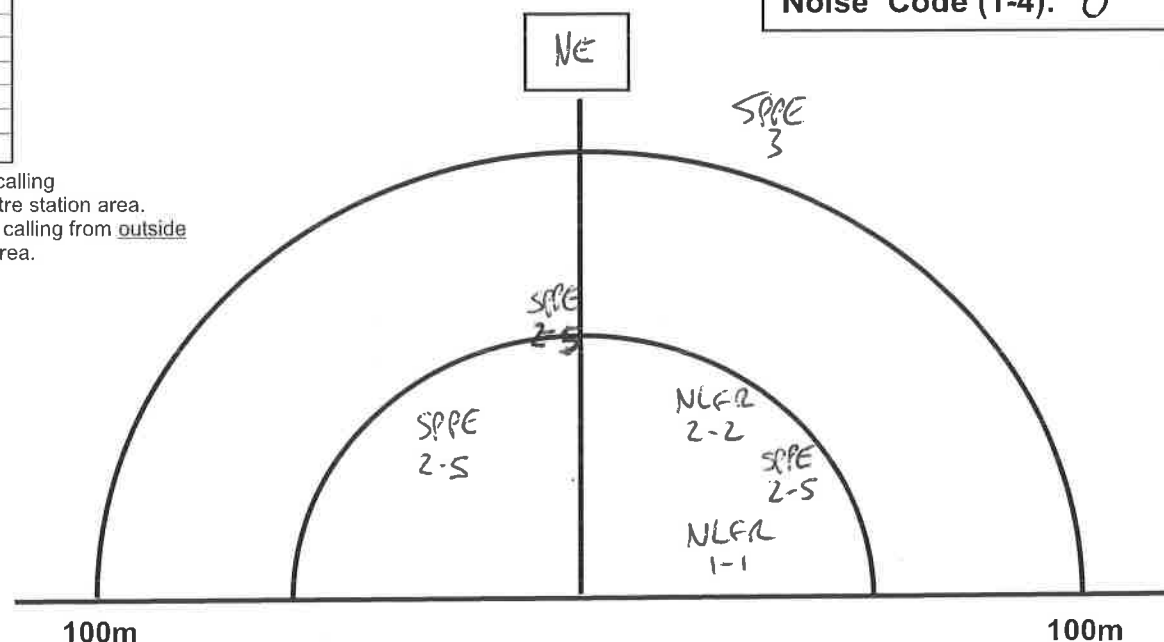
* Check if species is calling from inside 100-metre station area.

** Check if species is calling from outside 100-metre station area.

Survey Point#
A04 33

Station Start
Time (24 hr): 22:00

Background
Noise Code (1-4): 0



100m

100m

Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		
GRFR		
MIFR		
NLFR	✓	
PIFR		
SPPE	✓	✓
WOFR		

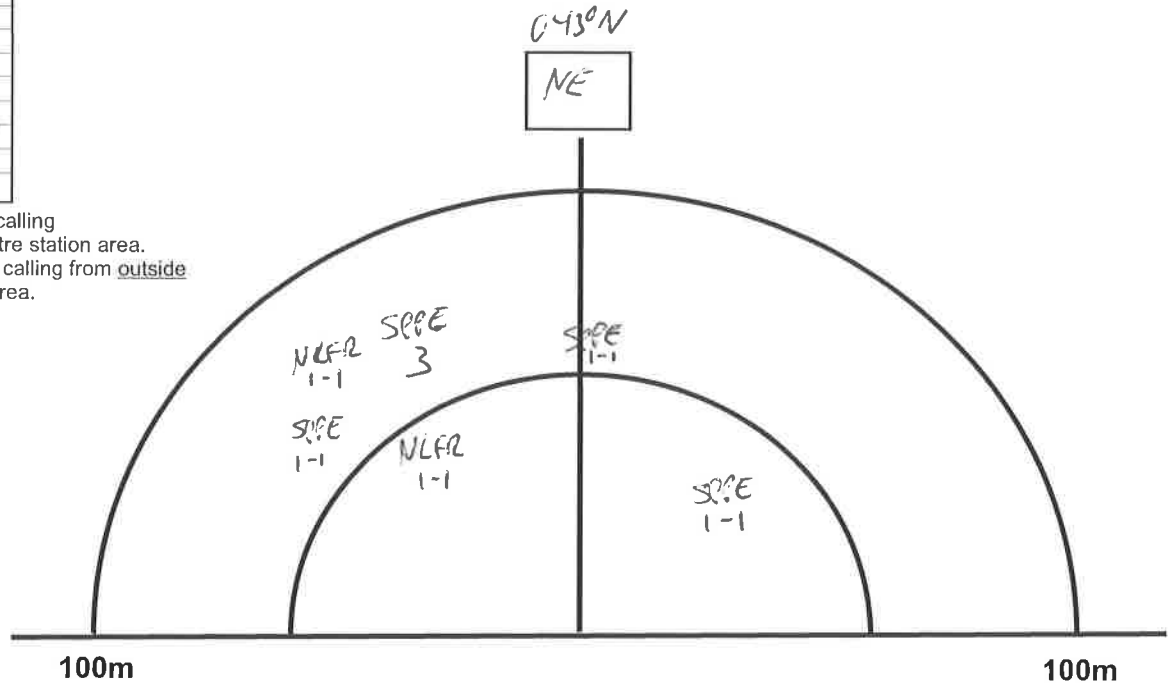
* Check if species is calling from inside 100-metre station area.

** Check if species is calling from outside 100-metre station area.

Survey Point#
ABH32

Station Start
Time (24 hr): 22:07

Background
Noise Code (1-4): 0



Field Staff Sign-off: _____ Project Coordinator Sign-off: _____

Amphibian Species Codes		Background Noise Codes			
Species	Code	Index	Description		
American Toad	AMTO	0	No appreciable effect (e.g., owl calling)		
Northern (Blanchard's) Cricket Frog	BCFR	1	Slightly affecting sampling (e.g., distant traffic, dog barking, car passing)		
Bullfrog	BULL	2	Moderately affecting sampling (e.g., distant traffic, 2-5 cars passing)		
Chorus Frog	CHFR	3	Seriously affecting sampling (e.g., continuous traffic nearby, 6-10 cars passing)		
Cope's (Diploid) Gray Treefrog	CGTR	4	Profoundly affecting sampling (e.g., continuous traffic passing, construction noise)		
Fowler's Toad	FOTO				
Gray (Tetraploid) Treefrog	GRTR				
Green Frog	GRFR				
Mink Frog	MIFR				
Northern Leopard Frog	NLFR				
Pickerel Frog	PIFR				
Spring Peeper	SPPE				
Wood Frog	WOFR				

24 Hour Time			
<u>12 Hour</u>	<u>24 Hour</u>	<u>12 Hour</u>	<u>24 Hour</u>
7:00 PM	1900	10:00 PM	2200
8:00 PM	2000	11:00 PM	2300
9:00 PM	2100	12:00 PM	2400

Beaufort Wind Scale			
Number	Wind Speed		Indicators
	Km/h	Mph	
0	0-2	0-1	Calm, smoke rises vertically
1	3-5	2-3	Light air movement, smoke drifts
2	6-11	4-7	Slight breeze, wind felt on face
3	12-19	8-12	Gentle breeze, leaves and small twigs in constant motion
4*	20-30	13-18	Moderate breeze, small branches are moving, raises dust and loose paper

* Winds over Beaufort 3 are unacceptable for amphibian surveys.

Project# 16-3674

Marsh Monitoring Program - Amphibian Data Form

Return by 31 July

Please write legibly (in pen).

VISIT INFORMATION

Route #: _____ Route Name: LS-ATBH 16-3674 Station (A - H): _____

Observer #: Km Observer Name: Kelly McLean

Visit #: 1 Day: 28 Month: April Year: 2016

Cloud Cover (10th): 20% Temperature (°C or °F): 6°C Beaufort Wind Scale (0-6): _____

Precipitation (check one): ☒ None/Dry ☐ Damp/Haze/Fog ☐ Drizzle ☐ Rain

CALL LEVEL CODES

Code 1: Calls not simultaneous, number of individuals can be accurately counted

Code 2: Some calls simultaneous, number of individuals can be reliably estimated

Code 3: Full chorus, calls continuous and overlapping, number of individuals cannot be reliably estimated

Amphdfrm2008.cdr, rev 02/2008

Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		
GRFR		
MIFR		
NLFR		
PIFR		
SPPE		
WOFR		

* Check if species is calling from inside 100-metre station area.** Check if species is calling from outside 100-metre station area.

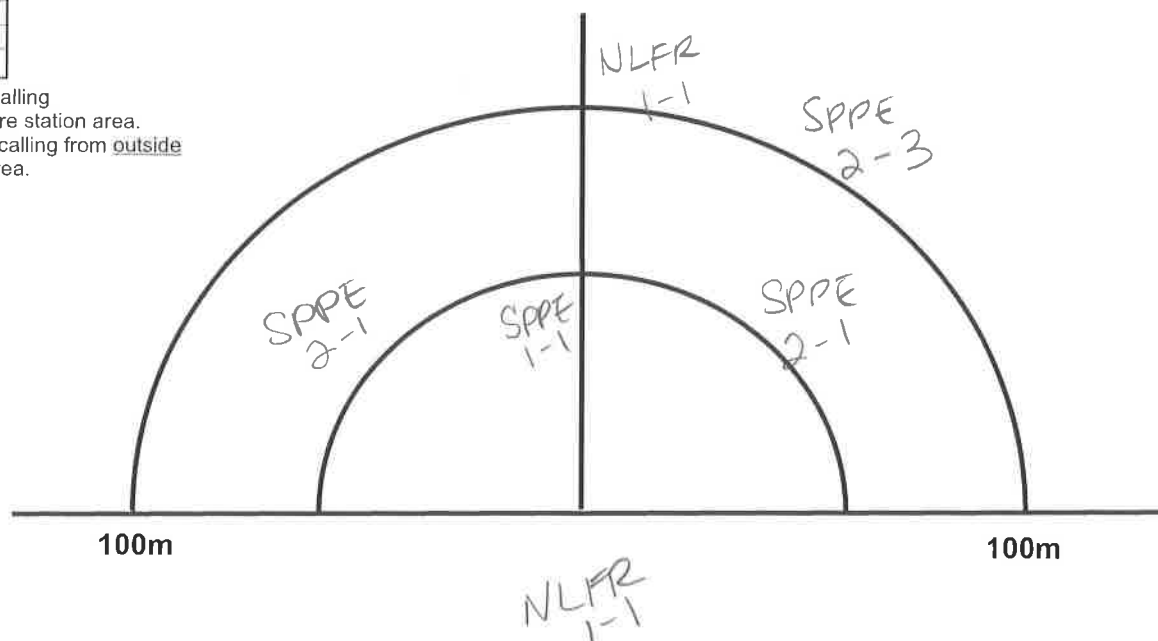
Survey Point#

ATBH 7E

Station Start

Time (24 hr): 21:10

Background

Noise Code (1-4): 2

Project# 16-3674**Marsh Monitoring Program - Amphibian Data Form****Return by 31 July***Please write legibly (in pen).***VISIT INFORMATION**Sunset: 20:22Route #: _____ Route Name: Loyalist solar Station (A - H): _____Observer #: JWH Observer Name: Jonathan HarrisVisit #: 1 Day: 04 Month: May Year: 2016Cloud Cover (10th): 50 Temperature (°C or °F): 12 Beaufort Wind Scale (0-6): 1-3Precipitation (check one): ☒ None/Dry ☐ Damp/Haze/Fog ☐ Drizzle ☐ Rain**CALL LEVEL CODES**

Code 1: Calls not simultaneous, number of individuals can be accurately counted

Code 2: Some calls simultaneous, number of individuals can be reliably estimated

Code 3: Full chorus, calls continuous and overlapping, number of individuals cannot be reliably estimated

Amphdfm2008.cdr, rev 02/2008

Species	In*	Out**
AMTO	<input checked="" type="checkbox"/>	
BCFR		
BULL	<input checked="" type="checkbox"/>	
CHFR		
CGTR		
FOTO		
GRTR		
GRFR		
MIFR		
NLFR		
PIFR		
SPPE	<input checked="" type="checkbox"/>	
WOFR		

* Check if species is calling from inside 100-metre station area.** Check if species is calling from outside 100-metre station area.

Survey Point#

AB1136(S)MAM

Station Start

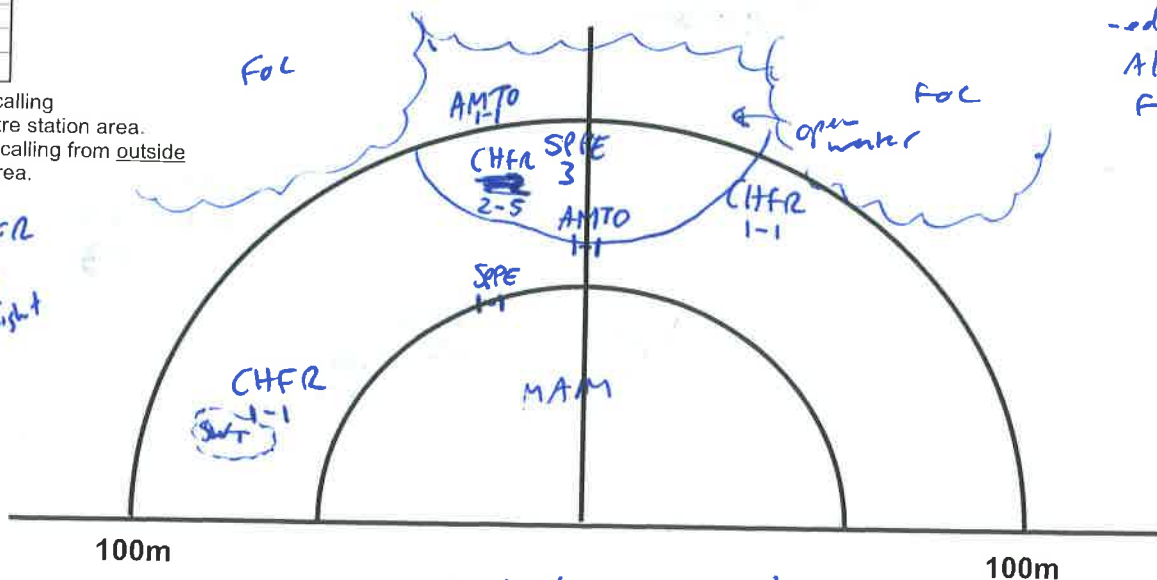
Time (24 hr): 20:52

Background

Noise Code (1-4): 0MAM/OAO-edge of
Alvar &
FOC

AMTO/CHFR
also heard earlier
during daylight
hours

-woodcock
-AMTO
-Towhee

bedrock pavement

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR	✓	
CGTR		
FOTO		
GRTR		
GRFR		
MIFR		
NLFR		
PIFR		
SPPE	✓	
WOFR		

* Check if species is calling
from inside 100-metre station area.

** Check if species is calling from outside
100-metre station area.

Survey Point#

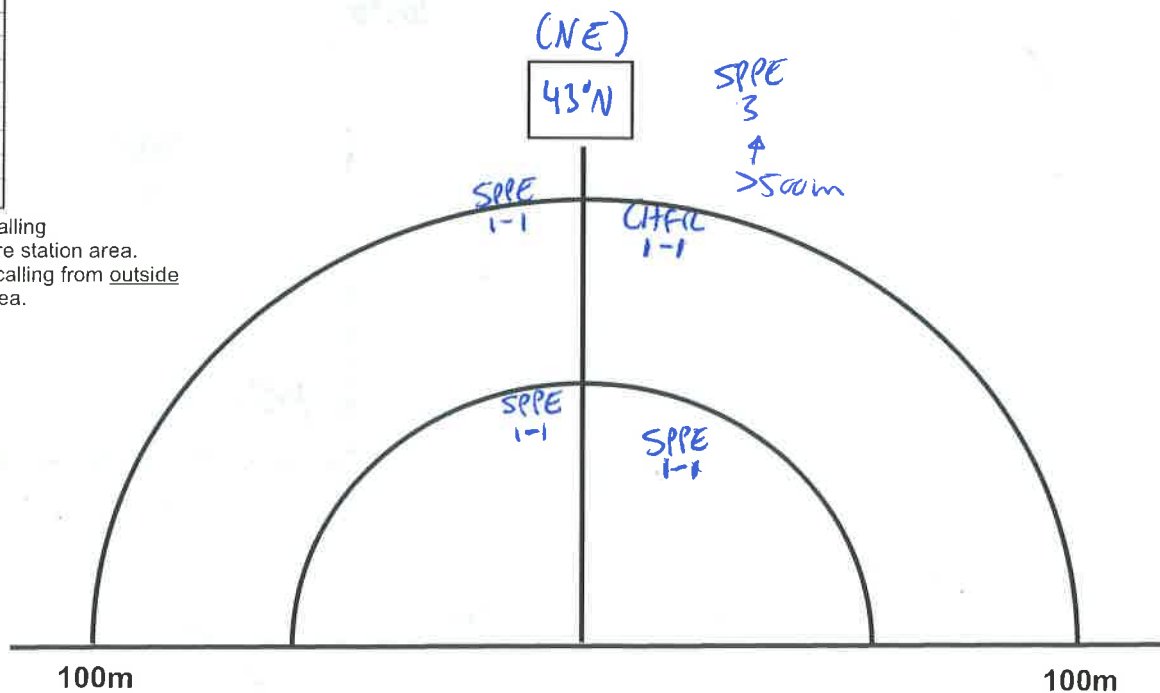
ABH40⁰⁴
ABH34

Station Start

Time (24 hr): 22:38

Background

Noise Code (1-4): 0



Station Start
Time (24 hr): 22:47

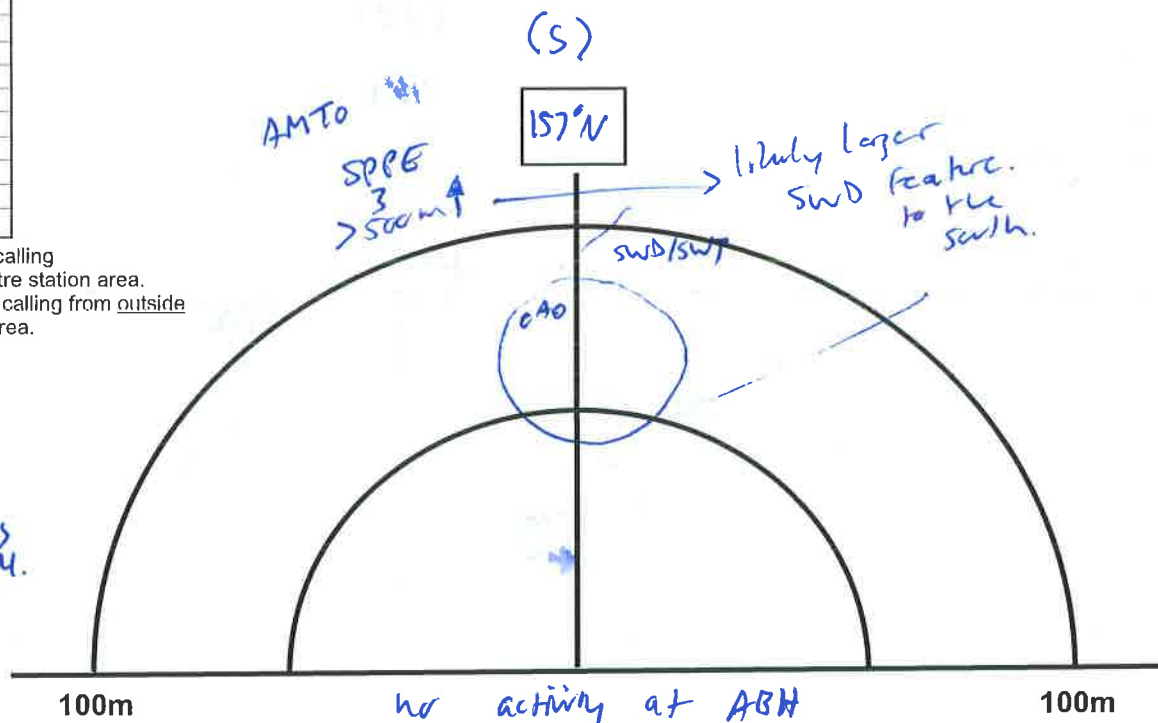
Background
Noise Code (1-4): 0

Survey Point#
ABH37

Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		
GRFR		
MIFR		
NLFR		
PIFR		
SPPE		
WOFR		

- * Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.

SPPE (x1)
heard earlier
when passing
by to ABH34.



Station Start
Time (24 hr): 22:59

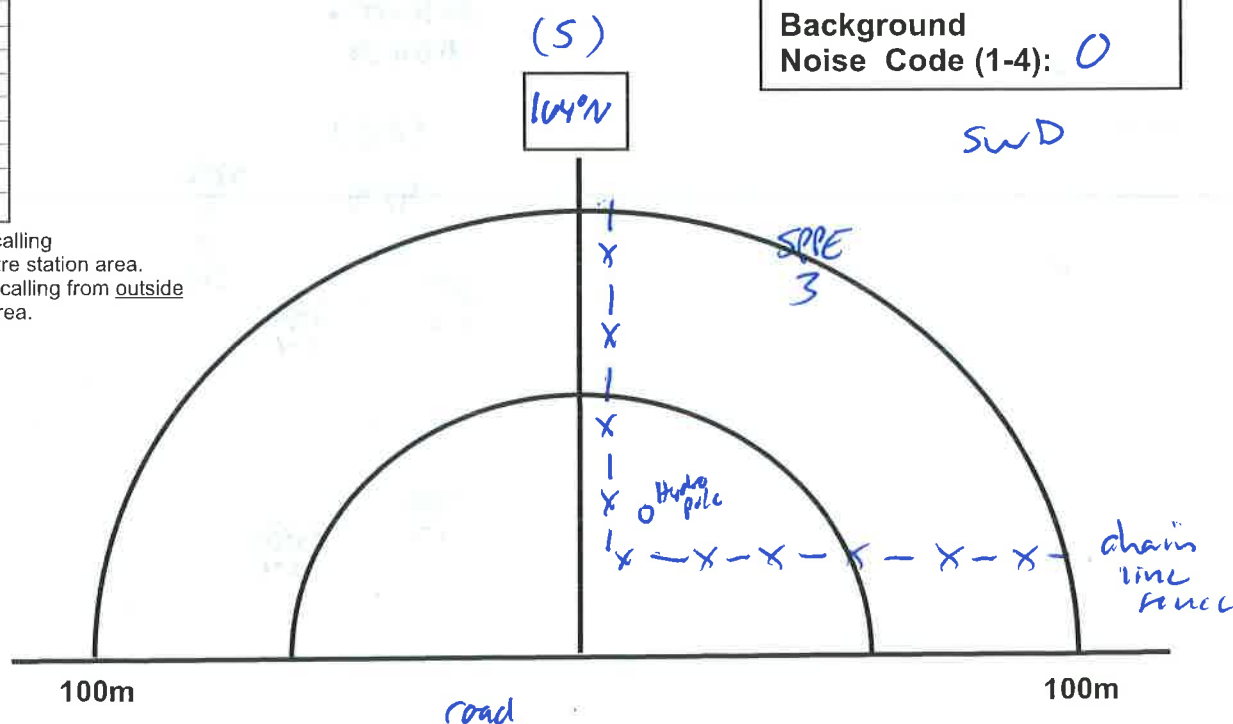
Background
Noise Code (1-4): 0

Survey Point#
ABH43

Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		
GRFR		
MIFR		
NLFR		
PIFR		
SPPE	✓	
WOFR		

- * Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.

swd



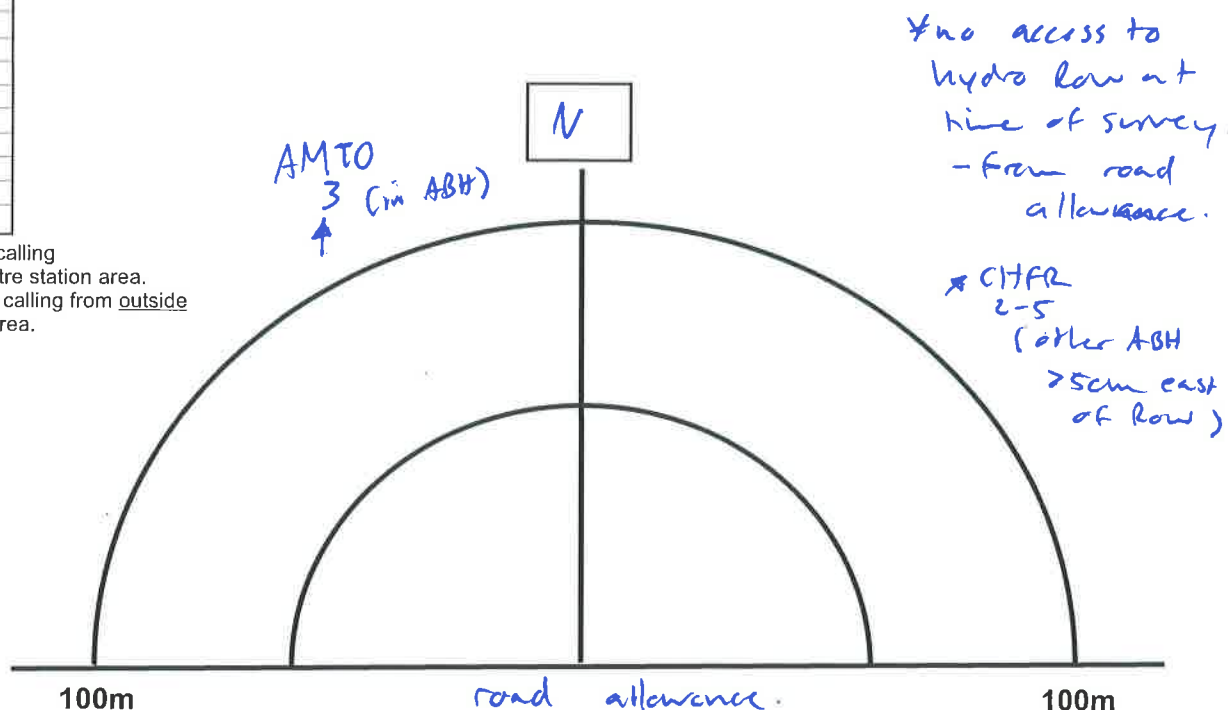
Species	In*	Out**
AMTO	✓	
BCFR		
BULL		
CHFR		✓
CGTR		
FOTO		
GRTR		
GRFR		
MIFR		
NLFR		
PIFR		
SPPE		
WOFR		

* Check if species is calling from inside 100-metre station area.
 ** Check if species is calling from outside 100-metre station area.

Survey Point#
 ABH 42

Station Start
 Time (24 hr): 23:05

Background
 Noise Code (1-4): 0



Field Staff Sign-off: _____ Project Coordinator Sign-off: _____

Amphibian Species Codes

Species	Code
American Toad	AMTO
Northern (Blanchard's) Cricket Frog	BCFR
Bullfrog	BULL
Chorus Frog	CHFR
Cope's (Diploid) Gray Treefrog	CGTR
Fowler's Toad	FOTO
Gray (Tetraploid) Treefrog	GRTR
Green Frog	GRFR
Mink Frog	MIFR
Northern Leopard Frog	NLFR
Pickrel Frog	PIFR
Spring Peeper	SPPE
Wood Frog	WOFR

Background Noise Codes

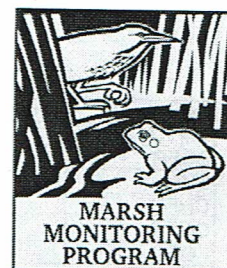
Index	Description
0	No appreciable effect (e.g., owl calling)
1	Slightly affecting sampling (e.g., distant traffic, dog barking, car passing)
2	Moderately affecting sampling (e.g., distant traffic, 2-5 cars passing)
3	Seriously affecting sampling (e.g., continuous traffic nearby, 6-10 cars passing)
4	Profoundly affecting sampling (e.g., continuous traffic passing, construction noise)

24 Hour Time			
12 Hour	24 Hour	12 Hour	24 Hour
7:00 PM	1900	10:00 PM	2200
8:00 PM	2000	11:00 PM	2300
9:00 PM	2100	12:00 PM	2400

Beaufort Wind Scale

Number	Wind Speed		Indicators
	Km/h	Mph	
0	0-2	0-1	Calm, smoke rises vertically
1	3-5	2-3	Light air movement, smoke drifts
2	6-11	4-7	Slight breeze, wind felt on face
3	12-19	8-12	Gentle breeze, leaves and small twigs in constant motion
4*	20-30	13-18	Moderate breeze, small branches are moving, raises dust and loose paper

* Winds over Beaufort 3 are unacceptable for amphibian surveys.

Marsh Monitoring Program - Amphibian Data Form**Return by 31 July***Please write legibly (in pen).***VISIT INFORMATION**

Route #: 20:37 Route Name: Loyalist Station (A - H): _____
 Observer #: JWH Observer Name: Jon Harris + Kate Roper
 Visit #: 2 Day: 25 Month: May Year: 2016
 Cloud Cover (10th): 20% Temperature (°C or °F): 23°C Beaufort Wind Scale (0-6): 0
 Precipitation (check one): ☒ None/Dry ☐ Damp/Haze/Fog ☐ Drizzle ☐ Rain

CALL LEVEL CODES

Code 1: Calls not simultaneous, number of individuals can be accurately counted

Code 2: Some calls simultaneous, number of individuals can be reliably estimated

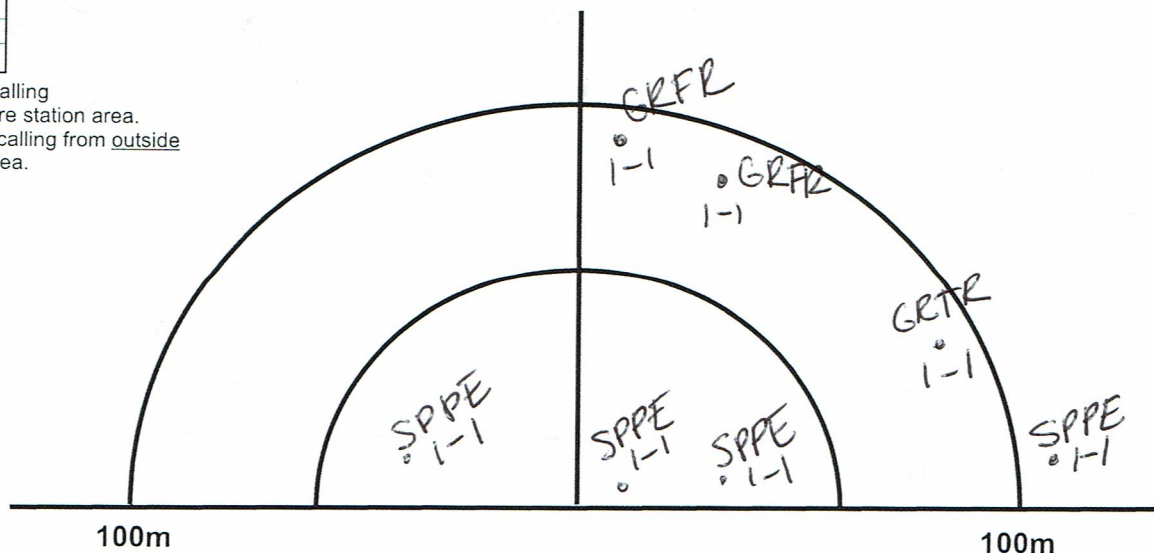
Code 3: Full chorus, calls continuous and overlapping, number of individuals cannot be reliably estimated

Amphdfrm2008.cdr, rev 02/2008

Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR	✓	
GRFR	✓	
MIFR		
NLFR		
PIFR		
SPPE	✓	✓
WOFR		

* Check if species is calling from inside 100-metre station area.** Check if species is calling from outside 100-metre station area.Survey Point#
ABH 38Station Start
Time (24 hr): 21:11Background
Noise Code (1-4): 0

N



Arrived at site early, ~5 GRTR calling

Scarlet tanager
 Wood thrush
 E. Wood Pewee
 muskrat

Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		
GRFR		
MIFR		
NLFR		
PIFR		
SPPE		
WOFR		

* Check if species is calling from inside 100-metre station area.

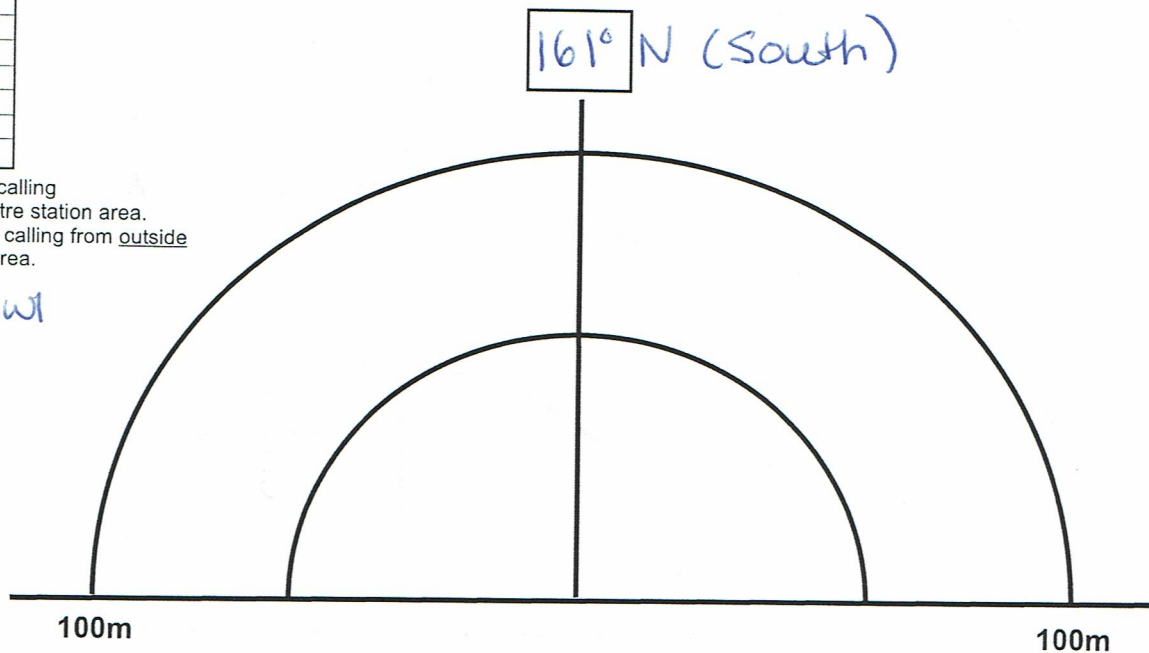
** Check if species is calling from outside 100-metre station area.

Barred owl

Survey Point# 37
ABH37

Station Start
Time (24 hr): 22:10

Background
Noise Code (1-4): 0



Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		✓
GRFR		
MIFR		
NLFR		
PIFR		
SPPE		✓
WOFR		

* Check if species is calling from inside 100-metre station area.

** Check if species is calling from outside 100-metre station area.

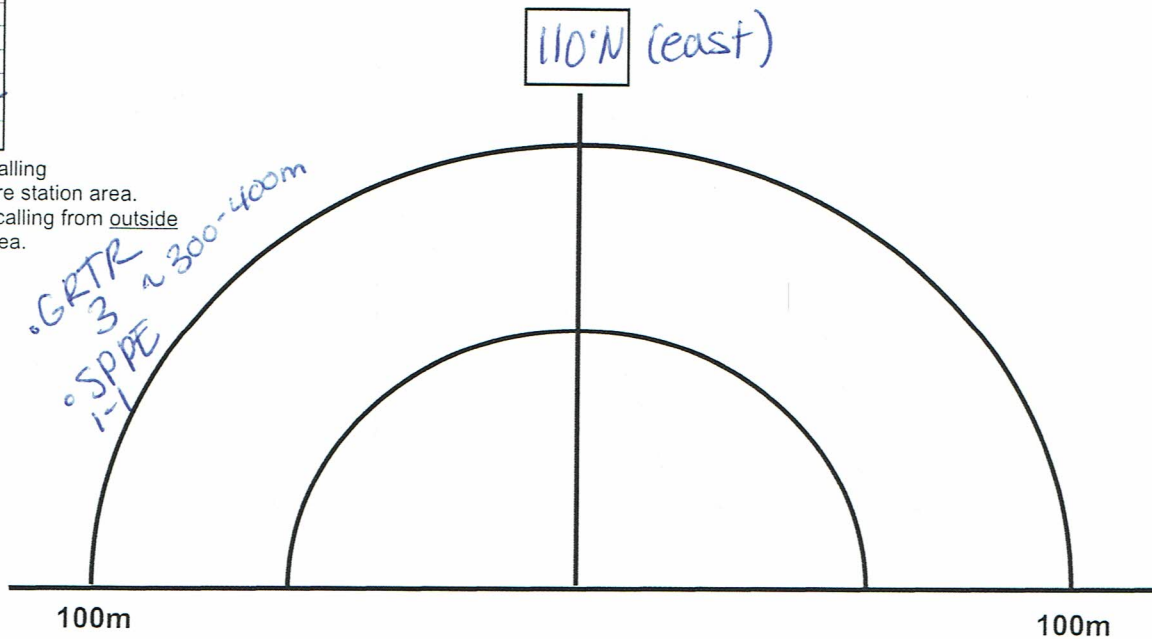
• E&WPH
(whip-poor-will)

• GRTR
3 ~ 300-400m
• SPPE
1-1

Survey Point#
ABH34

Station Start
Time (24 hr): 22:20

Background
Noise Code (1-4): 0



Project# _____

Marsh Monitoring Program - Amphibian Data Form

Return by 31 July

Please write legibly (in pen).



VISIT INFORMATION

Route #: _____ Route Name: LOYALIST Station (A - H): _____

Observer #: _____ Observer Name: Dayne Bellair & Kate Roper

Visit #: 2 Day: 24 Month: May Year: 2016

Cloud Cover (10th): 1/10 Temperature (°C or °F): 22 Beaufort Wind Scale (0-6): 0

Precipitation (check one): ☒ None/Dry ☐ Damp/Haze/Fog ☐ Drizzle ☐ Rain

CALL LEVEL CODES

Code 1: Calls not simultaneous, number of individuals can be accurately counted

Code 2: Some calls simultaneous, number of individuals can be reliably estimated

Code 3: Full chorus, calls continuous and overlapping, number of individuals cannot be reliably estimated

Amphdfm2008.cdr, rev 02/2008

Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR	✓	✓
GRFR		
MIFR		
NLFR		
PIFR		
SPPE	✓	✓
WOFR		

* Check if species is calling from inside 100-metre station area.

** Check if species is calling from outside 100-metre station area.

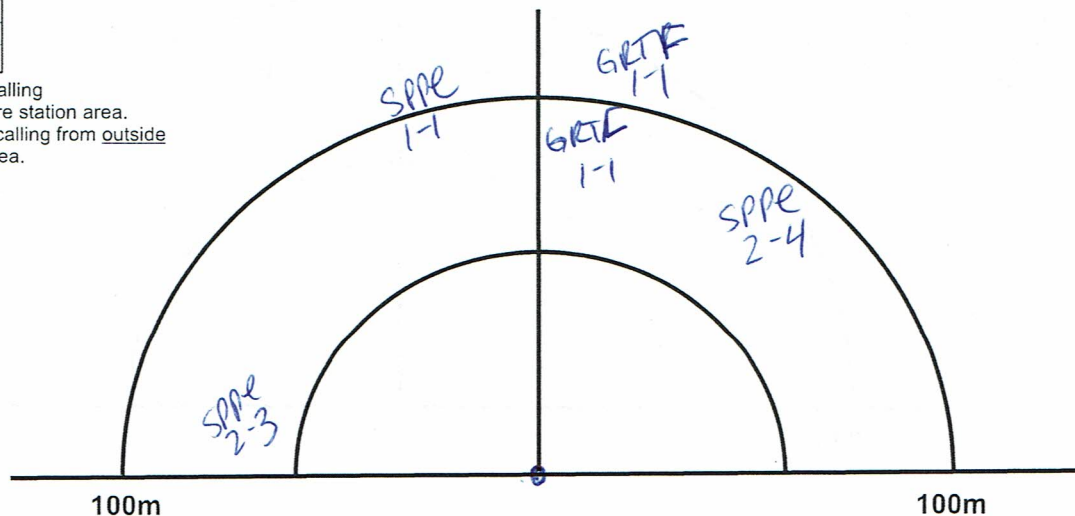
Survey Point#

ABH23

296°

Station Start Time (24 hr): 2114

Background Noise Code (1-4): 0



Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		
GRFR		
MIFR		
NLFR		
PIFR		
SPPE		
WOFR		

* Check if species is calling from inside 100-metre station area.

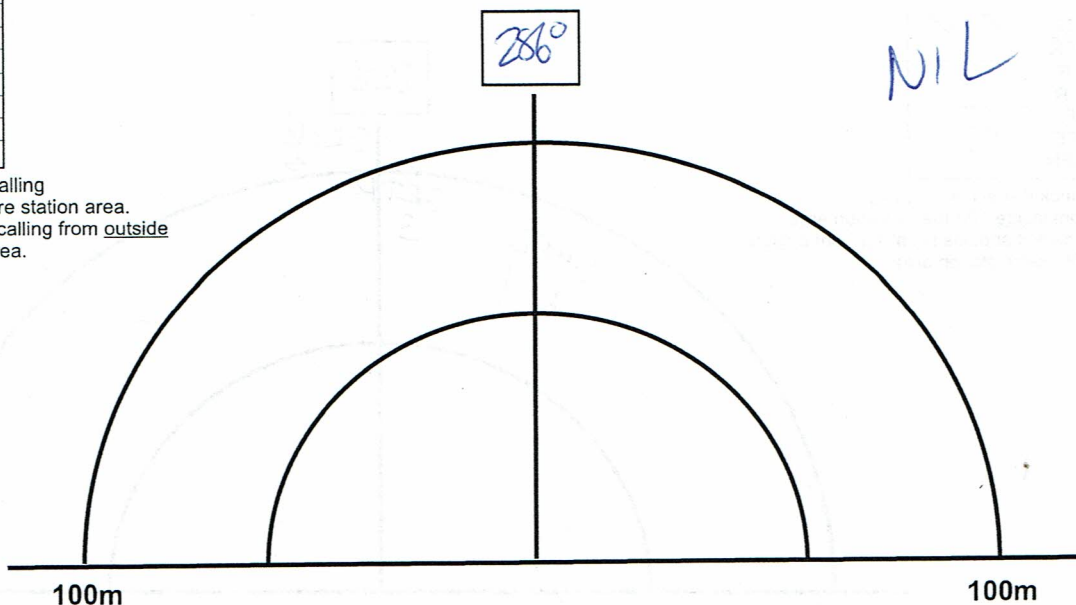
** Check if species is calling from outside 100-metre station area.

Survey Point#

ABH 19

Station Start Time (24 hr): 2242

Background Noise Code (1-4): ϕ



Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		✓
GRFR		
MIFR		
NLFR		
PIFR		
SPPE	✓	
WOFR		

* Check if species is calling from inside 100-metre station area.

** Check if species is calling from outside 100-metre station area.

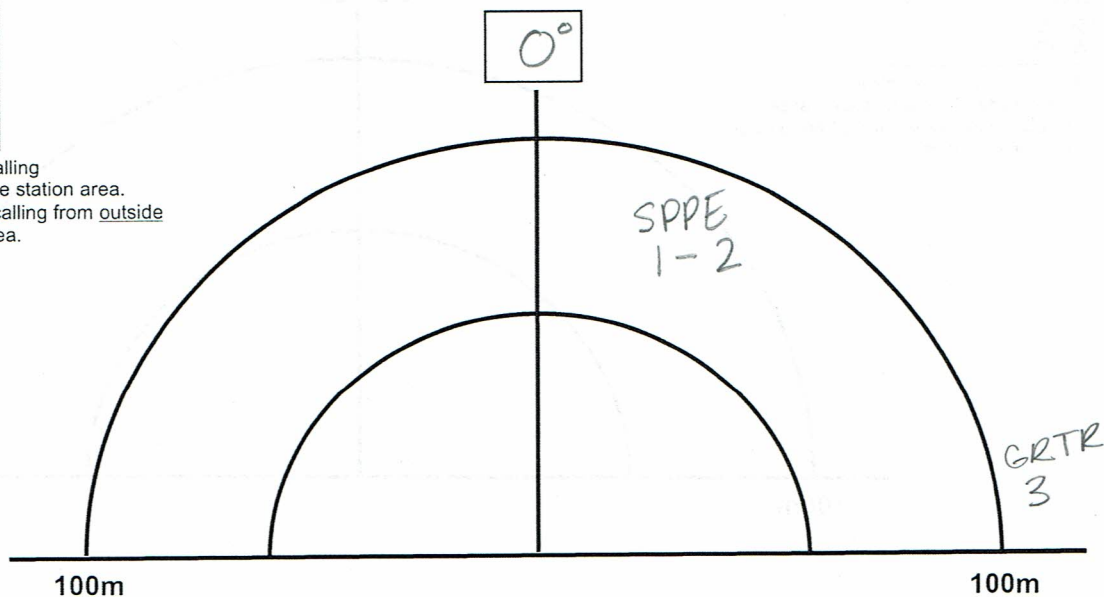
Survey Point#

ABH 43

Station Start Time (24 hr): 23:15

Background Noise Code (1-4): 2

(Train)



FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		
GRFR		✓
MIFR		
NLFR		
PIFR		
SPPE	✓	
WOFR		

* Check if species is calling
from inside 100-metre station area.

** Check if species is calling from outside
100-metre station area.

Survey Point#

AB1120

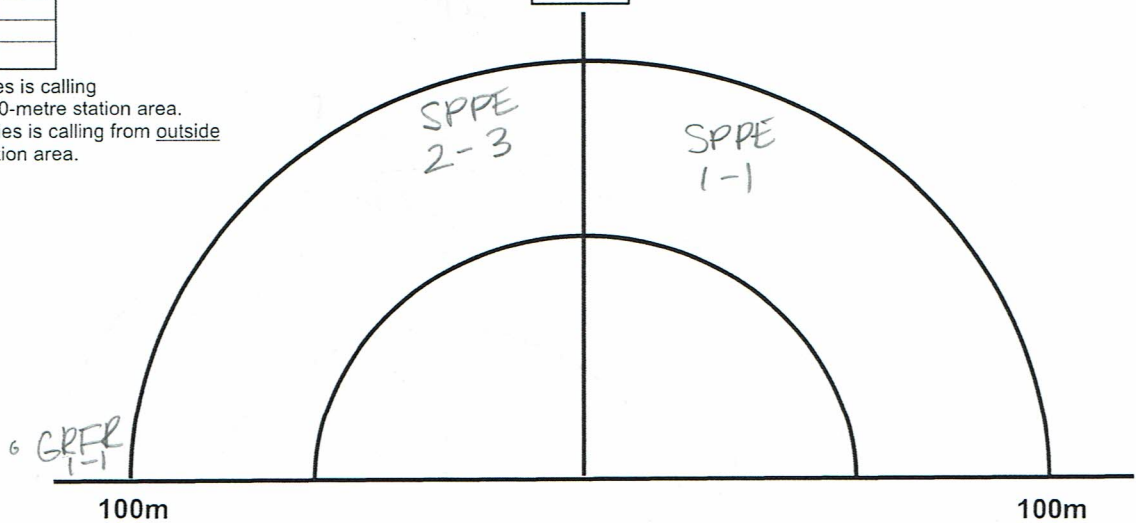
Station Start

Time (24 hr): 22:11

Background

Noise Code (1-4): 0

352°



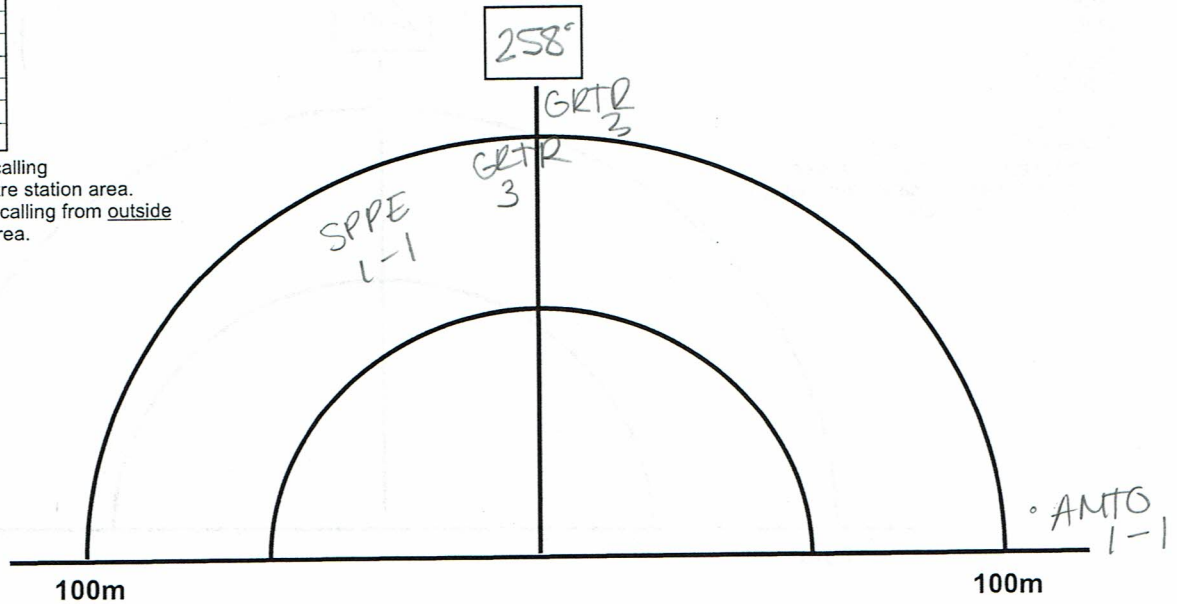
Station Start
Time (24 hr): 23:28

Background
Noise Code (1-4): 2

Survey Point# 42
AMPH 42

Species	In*	Out**
AMTO		✓
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR	✓	✓
GRFR		
MIFR		
NLFR		
PIFR		
SPPE	✓	
WOFR		

* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.



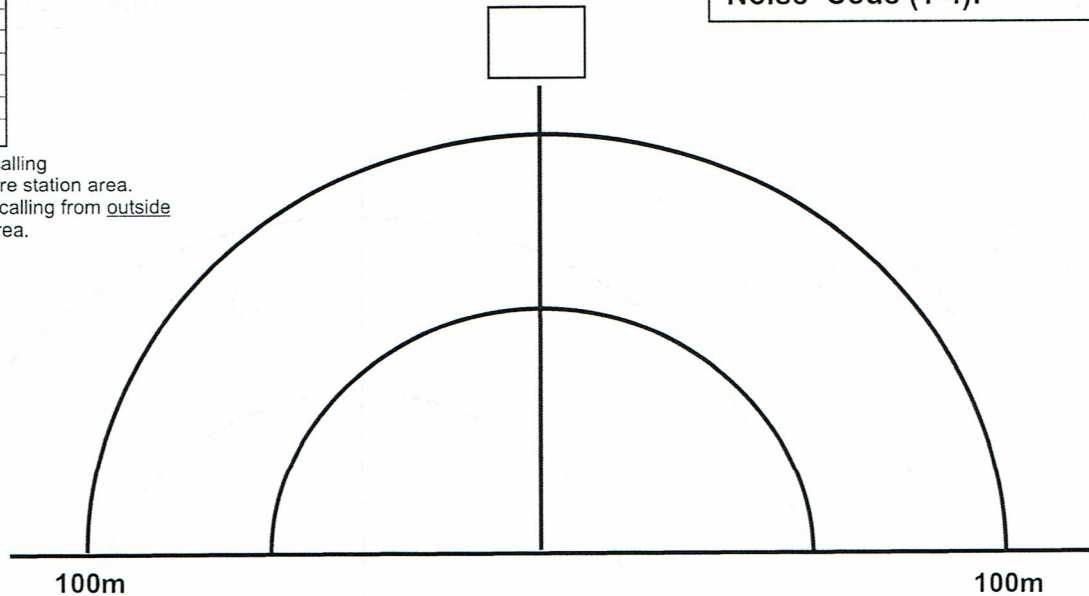
Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		
GRFR		
MIFR		
NLFR		
PIFR		
SPPE		
WOFR		

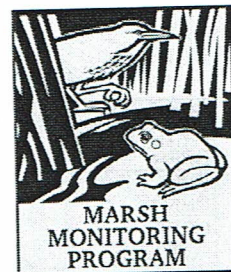
* Check if species is calling from inside 100-metre station area.
** Check if species is calling from outside 100-metre station area.

Survey Point#

Station Start
Time (24 hr):

Background
Noise Code (1-4):



Project# 16-3674**Marsh Monitoring Program - Amphibian Data Form****Return by 31 July***Please write legibly (in pen).***VISIT INFORMATION**

Route #: 20:35 Route Name: Loyalist Solar Station (A - H):
 Sunset:
 Observer #: SWH Observer Name: Jonathan Harris
 Visit #: 2 Day: 23 Month: 05 Year: 2016
 Cloud Cover (10th): 10% Temperature (°C or °F): 26 Beaufort Wind Scale (0-6): 0-1
 Precipitation (check one): ☒ None/Dry ☐ Damp/Haze/Fog ☐ Drizzle ☐ Rain

CALL LEVEL CODES

Code 1: Calls not simultaneous, number of individuals can be accurately counted

Code 2: Some calls simultaneous, number of individuals can be reliably estimated

Code 3: Full chorus, calls continuous and overlapping, number of individuals cannot be reliably estimated

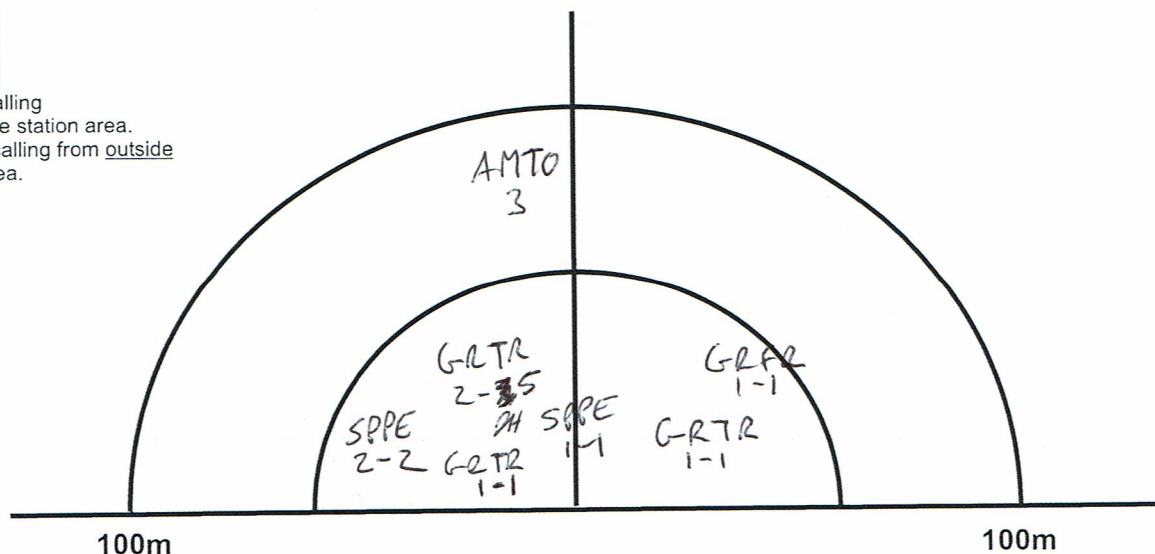
Amphdfrm2008.cdr, rev 02/2008

Species	In*	Out**
AMTO	<input checked="" type="checkbox"/>	<input type="checkbox"/>
BCFR	<input type="checkbox"/>	<input type="checkbox"/>
BULL	<input type="checkbox"/>	<input type="checkbox"/>
CHFR	<input type="checkbox"/>	<input type="checkbox"/>
CGTR	<input type="checkbox"/>	<input type="checkbox"/>
FOTO	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
GRTR	<input checked="" type="checkbox"/>	<input type="checkbox"/>
GRFR	<input checked="" type="checkbox"/>	<input type="checkbox"/>
MIFR	<input type="checkbox"/>	<input type="checkbox"/>
NLFR	<input type="checkbox"/>	<input type="checkbox"/>
PIFR	<input type="checkbox"/>	<input type="checkbox"/>
SPPE	<input checked="" type="checkbox"/>	<input type="checkbox"/>
WOFR	<input type="checkbox"/>	<input type="checkbox"/>

* Check if species is calling from inside 100-metre station area.** Check if species is calling from outside 100-metre station area.Survey Point#
ABH33

(N)

016°N

Station Start
Time (24 hr): 21:05Background
Noise Code (1-4): 0

Station Start
Time (24 hr): 21:27

Background
Noise Code (1-4): 0

Survey Point#

ABH15

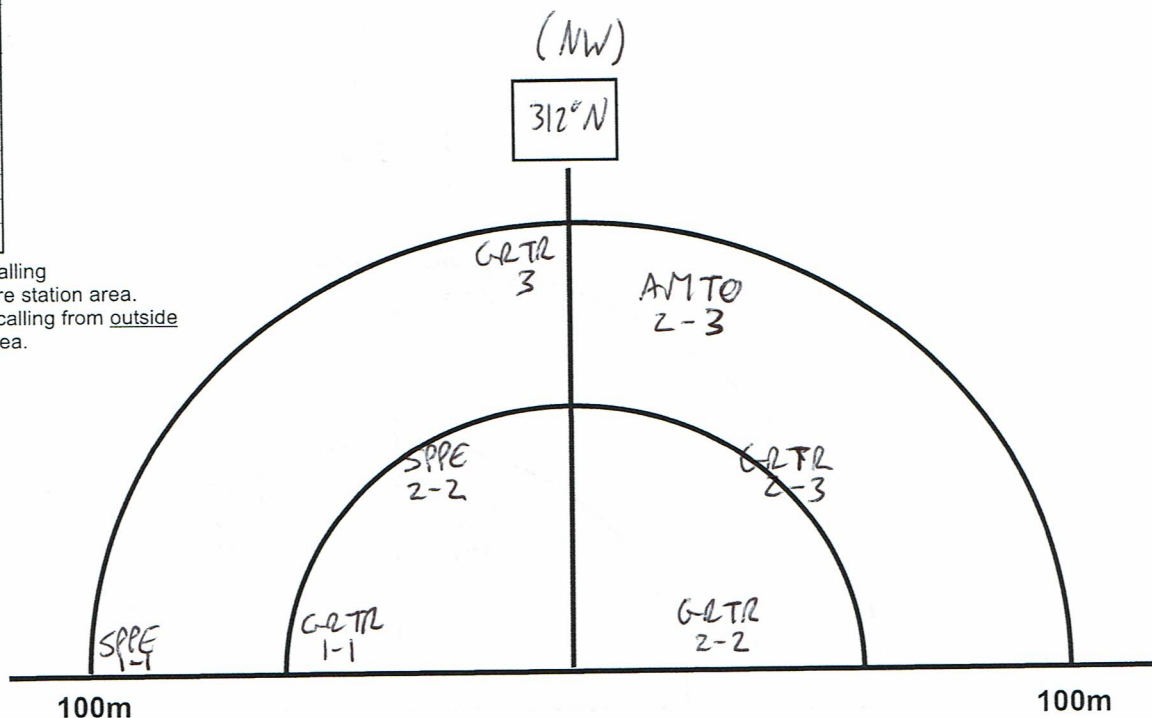
(NW)

312°N

Species	In*	Out**
AMTO	✓	
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR	✓	
GRFR		
MIFR		
NLFR		
PIFR		
SPPE	✓	
WOFR		

* Check if species is calling from inside 100-metre station area.

** Check if species is calling from outside 100-metre station area.



Station Start
Time (24 hr): 21:34

Background
Noise Code (1-4): 0

Survey Point#

ABH14

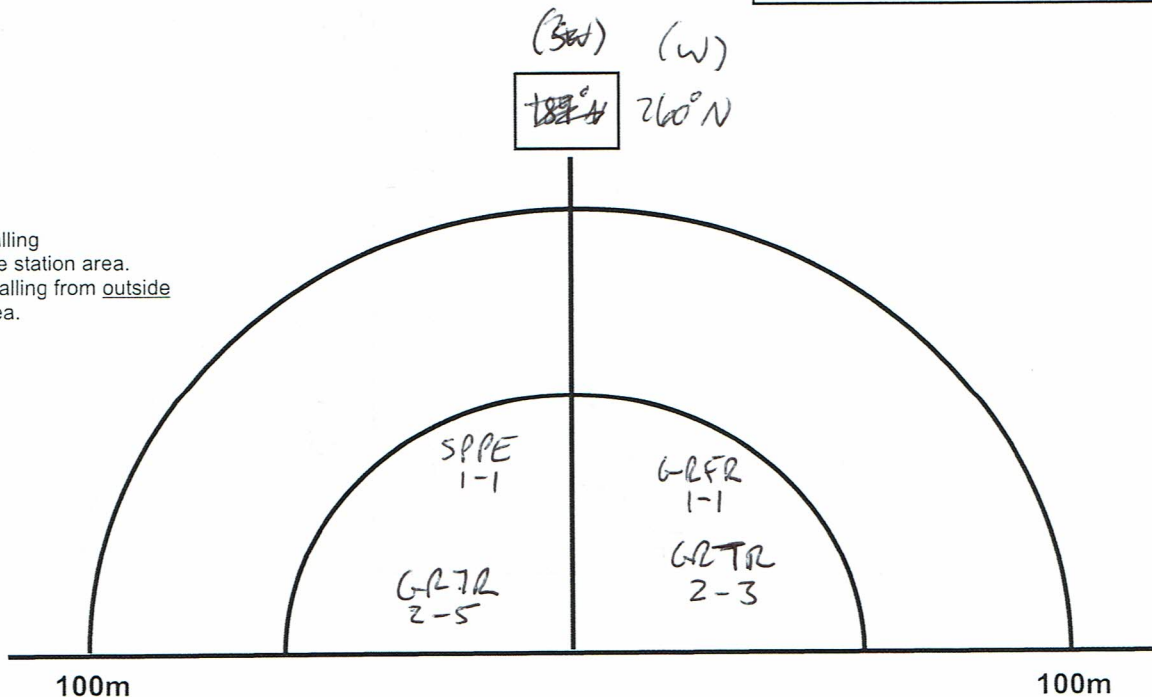
(SW) (W)

~~182°N~~ 260°N

Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR	✓	
GRFR	✓	
MIFR		
NLFR		
PIFR		
SPPE	✓	
WOFR		

* Check if species is calling from inside 100-metre station area.

** Check if species is calling from outside 100-metre station area.



Station Start
Time (24 hr): 21:54

Background
Noise Code (1-4): 0

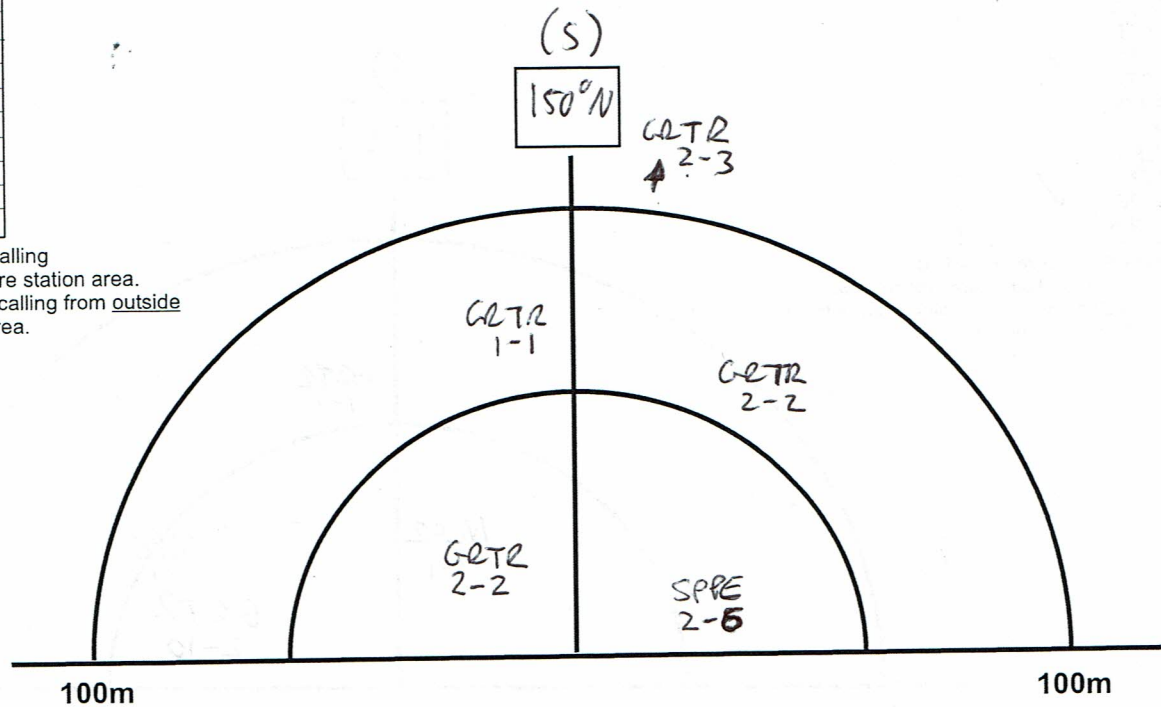
Survey Point#

ABH 11

Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO	✓	✓
GRTR	✓	✓
GRFR		
MIFR		
NLFR		
PIFR	✓	
SPPE	✓	
WOFR		

* Check if species is calling from inside 100-metre station area.

** Check if species is calling from outside 100-metre station area.



FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		
GRFR		
MIFR		
NLFR		
PIFR		
SPPE		
WOFR		

* Check if species is calling from inside 100-metre station area.

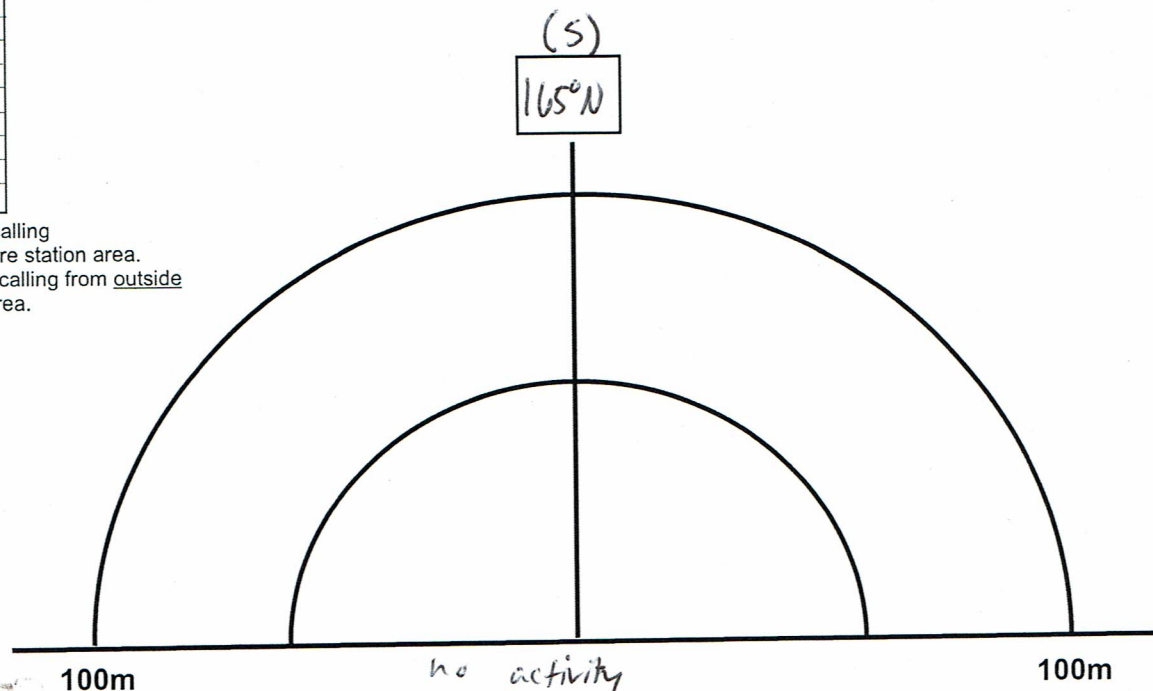
** Check if species is calling from outside 100-metre station area.

Survey Point#

ABH26

Station Start
Time (24 hr): 22:58

Background
Noise Code (1-4): 0



Field Staff Sign-off: _____ Project Coordinator Sign-off: _____

Amphibian Species Codes

Species	Code
American Toad	AMTO
Northern (Blanchard's) Cricket Frog	BCFR
Bullfrog	BULL
Chorus Frog	CHFR
Cope's (Diploid) Gray Treefrog	CGTR
Fowler's Toad	FOTO
Gray (Tetraploid) Treefrog	GRTR
Green Frog	GRFR
Mink Frog	MIFR
Northern Leopard Frog	NLFR
Pickerel Frog	PIFR
Spring Peeper	SPPE
Wood Frog	WOFR

Background Noise Codes

Index	Description
0	No appreciable effect (e.g., owl calling)
1	Slightly affecting sampling (e.g., distant traffic, dog barking, car passing)
2	Moderately affecting sampling (e.g., distant traffic, 2-5 cars passing)
3	Seriously affecting sampling (e.g., continuous traffic nearby, 6-10 cars passing)
4	Profoundly affecting sampling (e.g., continuous traffic passing, construction noise)

24 Hour Time			
12 Hour	24 Hour	12 Hour	24 Hour
7:00 PM	1900	10:00 PM	2200
8:00 PM	2000	11:00 PM	2300
9:00 PM	2100	12:00 PM	2400

Beaufort Wind Scale

Number	Wind Speed		Indicators
	Km/h	Mph	
0	0-2	0-1	Calm, smoke rises vertically
1	3-5	2-3	Light air movement, smoke drifts
2	6-11	4-7	Slight breeze, wind felt on face
3	12-19	8-12	Gentle breeze, leaves and small twigs in constant motion
4*	20-30	13-18	Moderate breeze, small branches are moving, raises dust and loose paper

* Winds over Beaufort 3 are unacceptable for amphibian surveys.

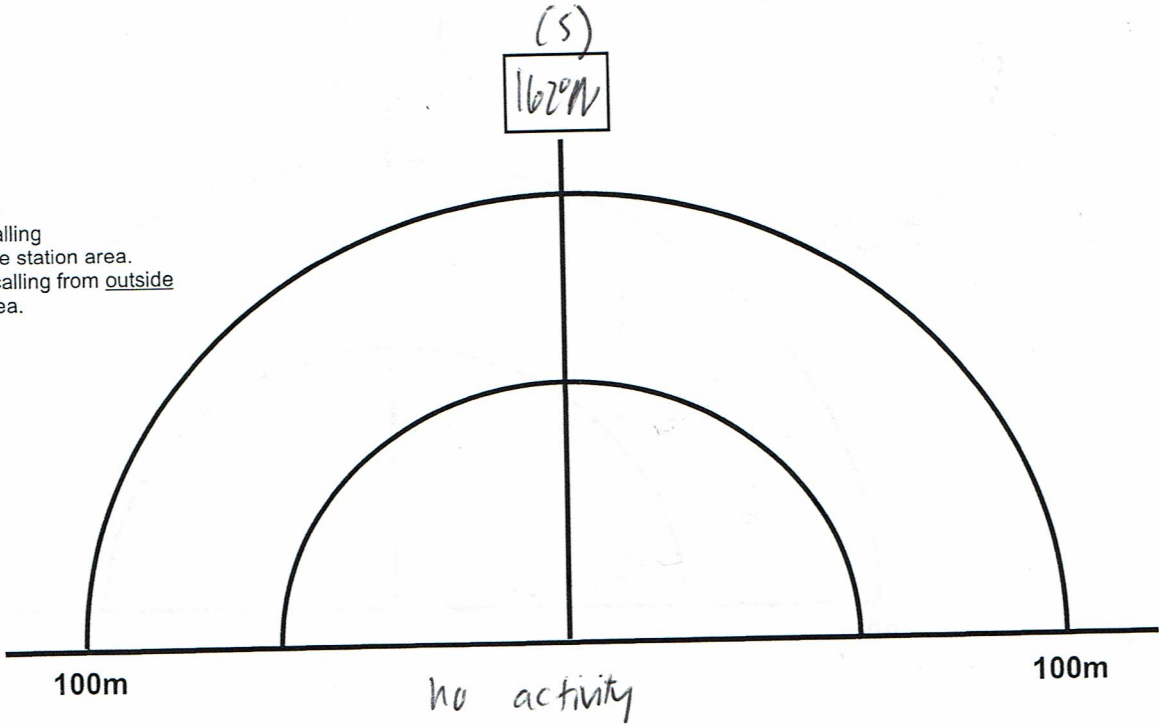
Station Start
Time (24 hr): 23:30
Background
Noise Code (1-4): 0

Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		
GRFR		
MIFR		
NLFR		
PIFR		
SPPE		
WOFR		

* Check if species is calling from inside 100-metre station area.

** Check if species is calling from outside 100-metre station area.

Survey Point#
ABH19



FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

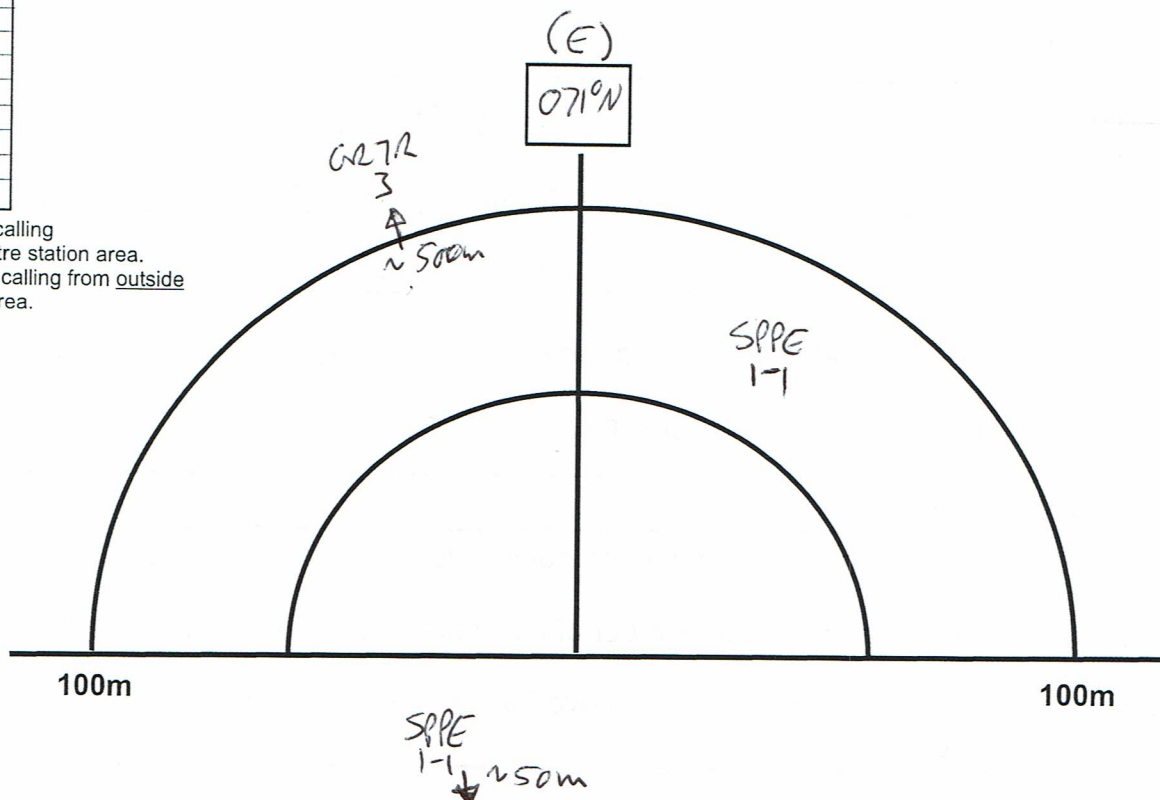
Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		✓
GRFR		
MIFR		
NLFR		
PIFR		
SPPE	✓	✓
WOFR		

* Check if species is calling from inside 100-metre station area.
 ** Check if species is calling from outside 100-metre station area.

Survey Point#
 ABH32

Station Start
 Time (24 hr): 21:13

Background
 Noise Code (1-4): 0



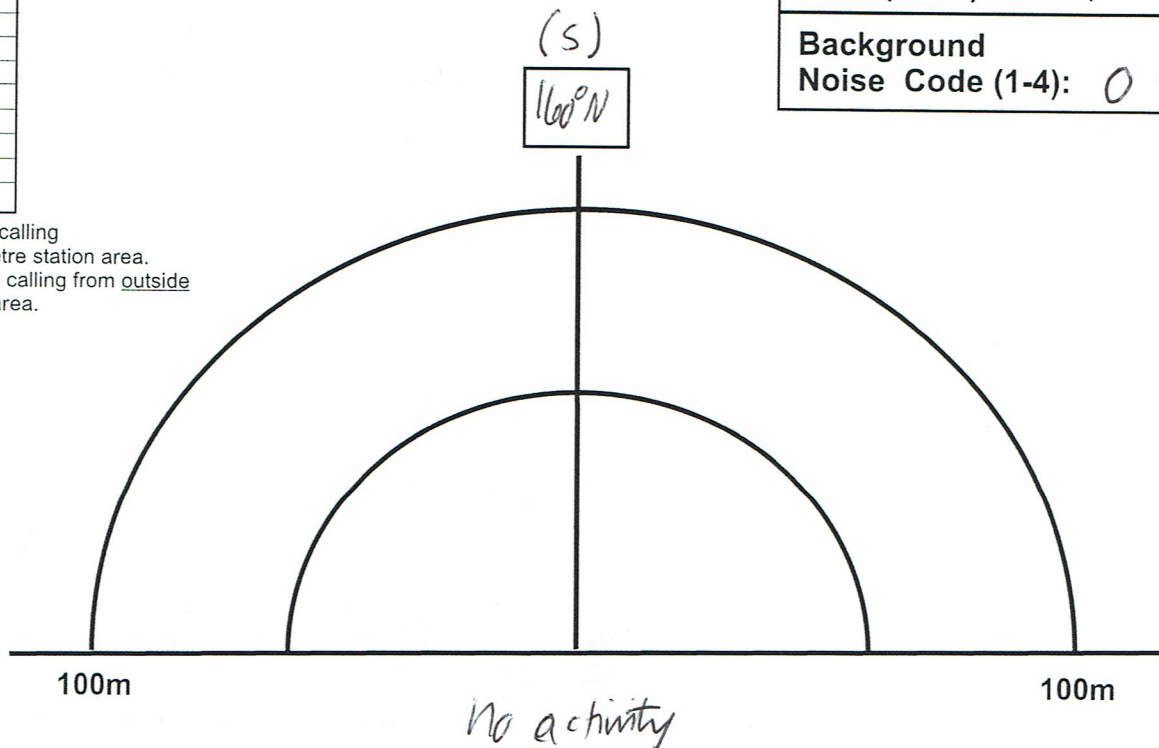
Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		
GRFR		
MIFR		
NLFR		
PIFR		
SPPE		
WOFR		

* Check if species is calling from inside 100-metre station area.
 ** Check if species is calling from outside 100-metre station area.

Survey Point#
 ABH16

Station Start
 Time (24 hr): 21:21

Background
 Noise Code (1-4): 0



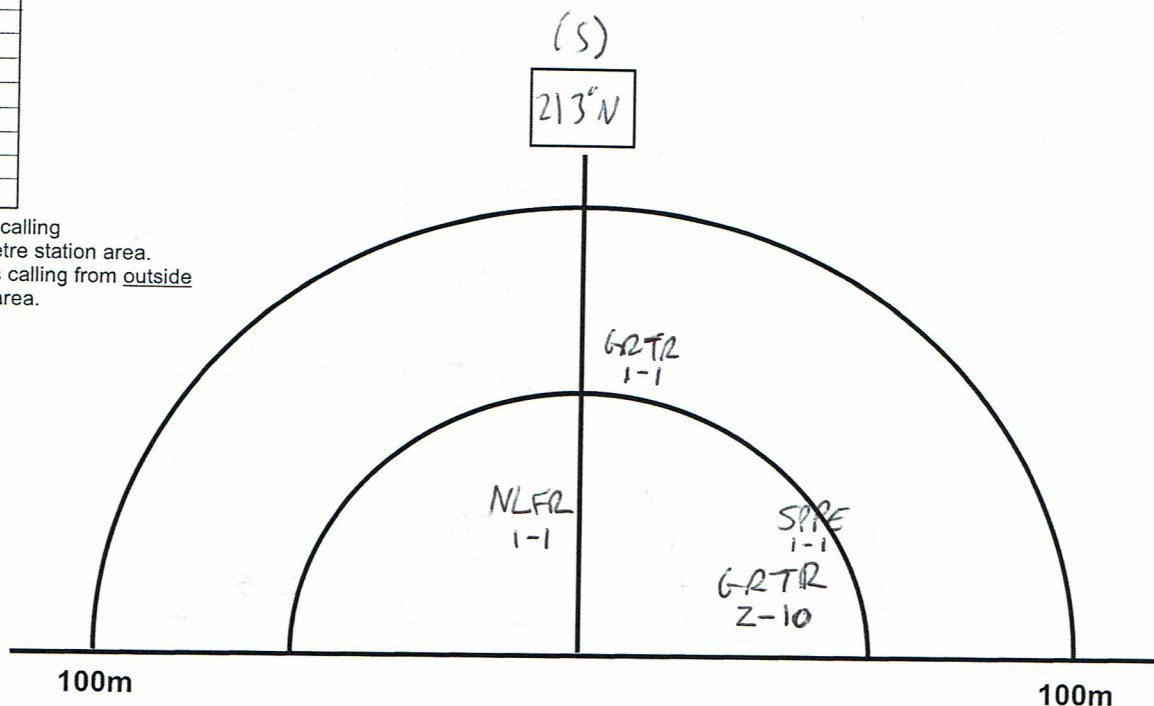
Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR	✓	
GRFR		
MIFR		
NLFR		
PIFR		
SPPE	✓	
WOFR		

- * Check if species is calling from inside 100-metre station area.
 ** Check if species is calling from outside 100-metre station area.

Survey Point#
ABH24

Station Start
Time (24 hr): 22:32

Background
Noise Code (1-4): 0



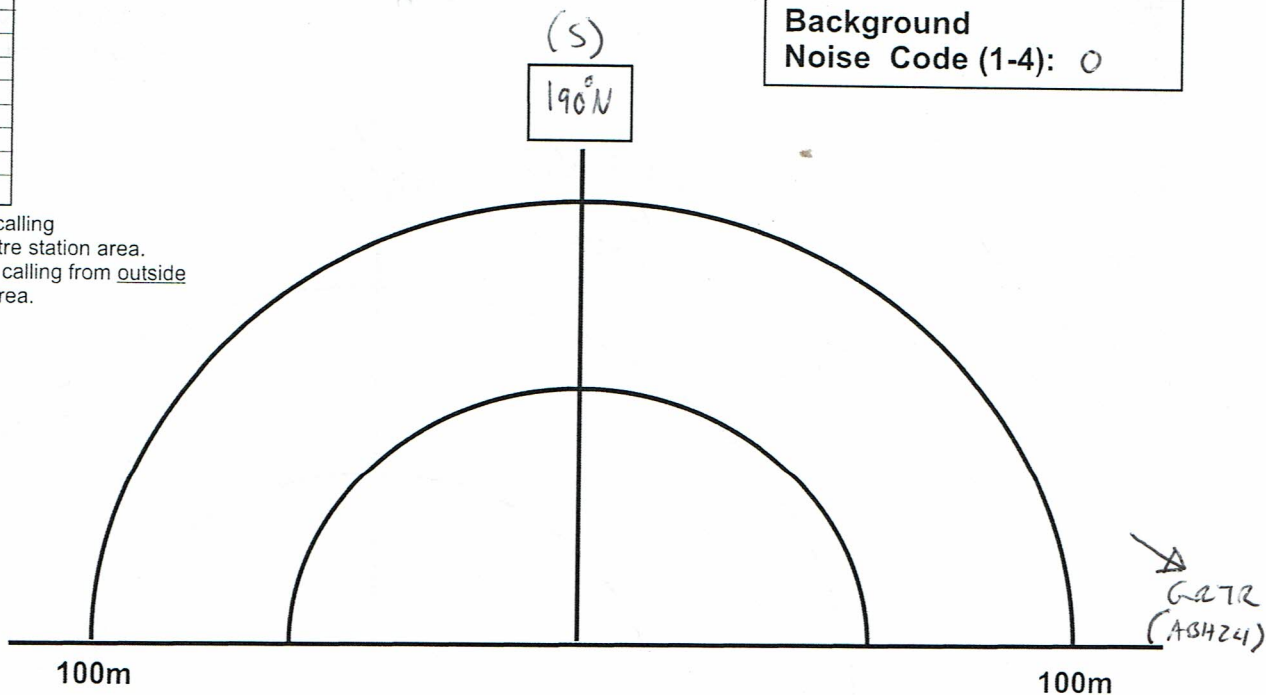
Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		✓
GRFR		
MIFR		
NLFR		
PIFR		
SPPE		
WOFR		

- * Check if species is calling from inside 100-metre station area.
 ** Check if species is calling from outside 100-metre station area.

Survey Point#
ABH25

Station Start
Time (24 hr): 22:45

Background
Noise Code (1-4): 0



Project# _____

Marsh Monitoring Program - Amphibian Data Form

Return by 31 July
Please write legibly (in pen).



VISIT INFORMATION

Sunset: 2103

Route #: Loyalist Route Name: _____ Station (A - H): _____

Observer #: DLL Observer Name: Dayna LeClair

Visit #: 2 Day: 23 Month: May Year: 2016

Cloud Cover (10th): 0 Temperature (°C or °F): 19° Beaufort Wind Scale (0-6): 1

Precipitation (check one): ☒ None/Dry ☐ Damp/Haze/Fog ☐ Drizzle ☐ Rain

CALL LEVEL CODES

Code 1: Calls not simultaneous, number of individuals can be accurately counted

Code 2: Some calls simultaneous, number of individuals can be reliably estimated

Code 3: Full chorus, calls continuous and overlapping, number of individuals cannot be reliably estimated

Amphdfm2008.cdr, rev 02/2008

Species	In*	Out**
AMTO		✓
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		
GRFR		
MIFR		
NLFR		
PIFR		
SPPE	✓	
WOFR		

* Check if species is calling from inside 100-metre station area.

** Check if species is calling from outside 100-metre station area.

Survey Point#

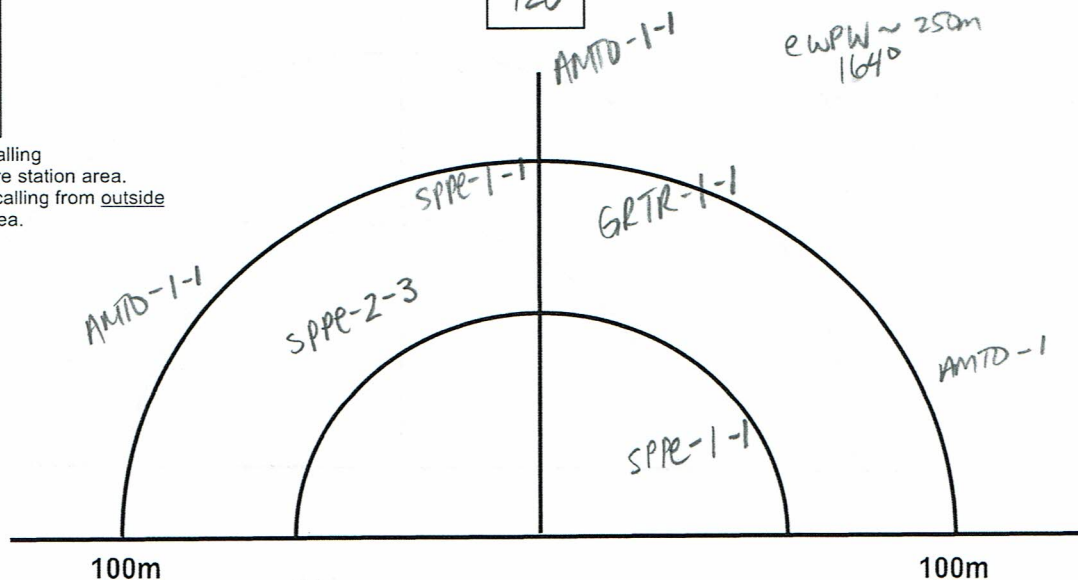
ABH08

120°

Station Start Time (24 hr): 2106

Background Noise Code (1-4): 2

eWPW ~ 250m
164°



Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		
GRFR		
MIFR		
NLFR		
PIFR		
SPPE		
WOFR		

* Check if species is calling from inside 100-metre station area.

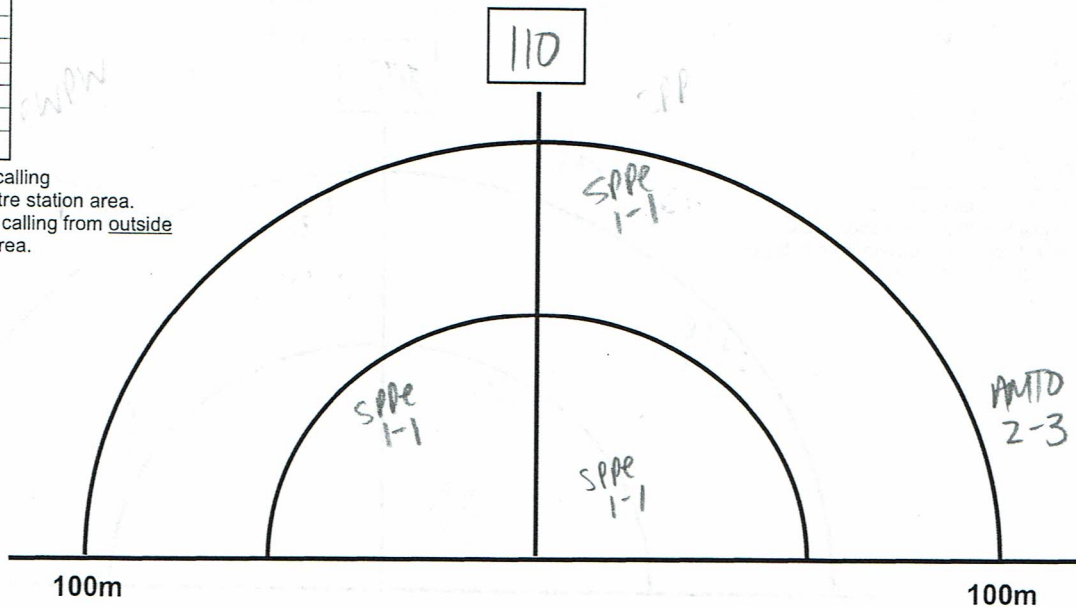
** Check if species is calling from outside 100-metre station area.

Survey Point#

ABH31

Station Start
Time (24 hr): 2131

Background
Noise Code (1-4): 2



Species	In*	Out**
AMTO	✓	✓
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		
GRFR	✓	
MIFR		
NLFR		
PIFR		
SPPE		
WOFR		

* Check if species is calling from inside 100-metre station area.

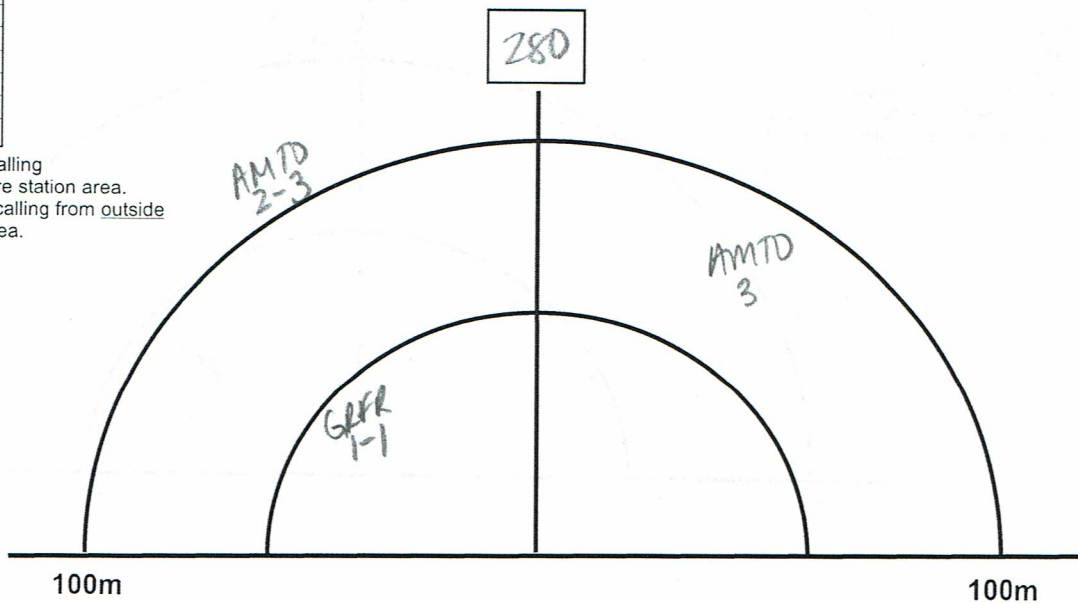
** Check if species is calling from outside 100-metre station area.

Survey Point#

ABH30

Station Start
Time (24 hr):

Background
Noise Code (1-4):



Species	In*	Out**
AMTO		✓
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		✓
GRFR		
MIFR		
NLFR		
PIFR		
SPPE	✓	
WOFR		

* Check if species is calling from inside 100-metre station area.

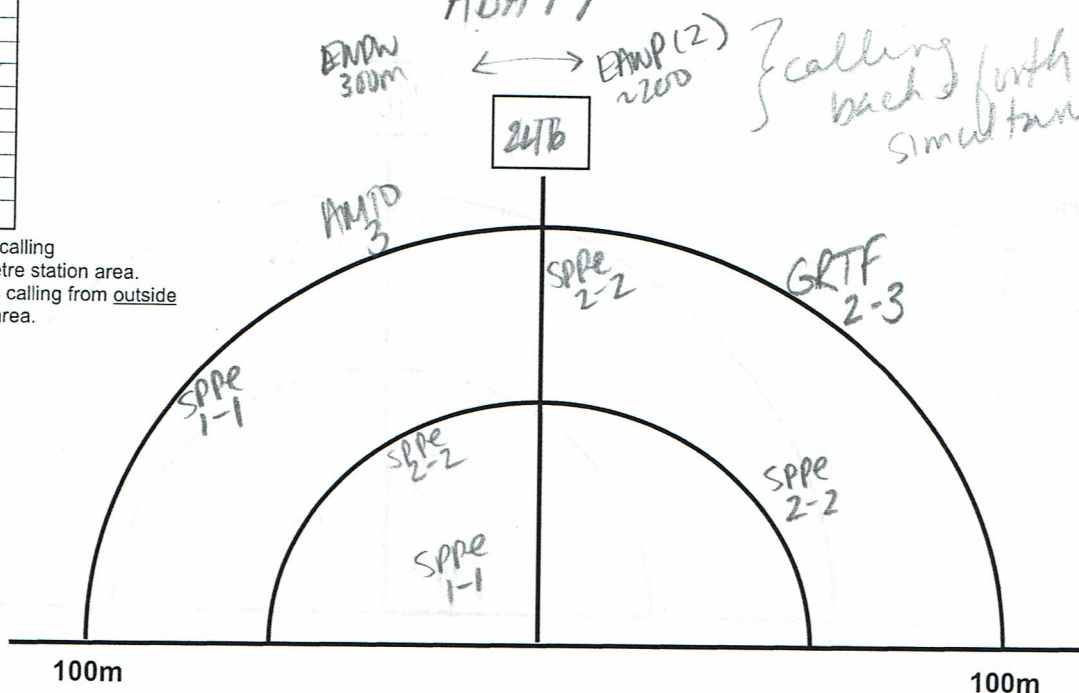
** Check if species is calling from outside 100-metre station area.

Survey Point#

ABH 17

Station Start
Time (24 hr): 2146

Background
Noise Code (1-4): 1



Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		
GRFR		
MIFR		
NLFR		
PIFR		
SPPE		
WOFR		

* Check if species is calling from inside 100-metre station area.

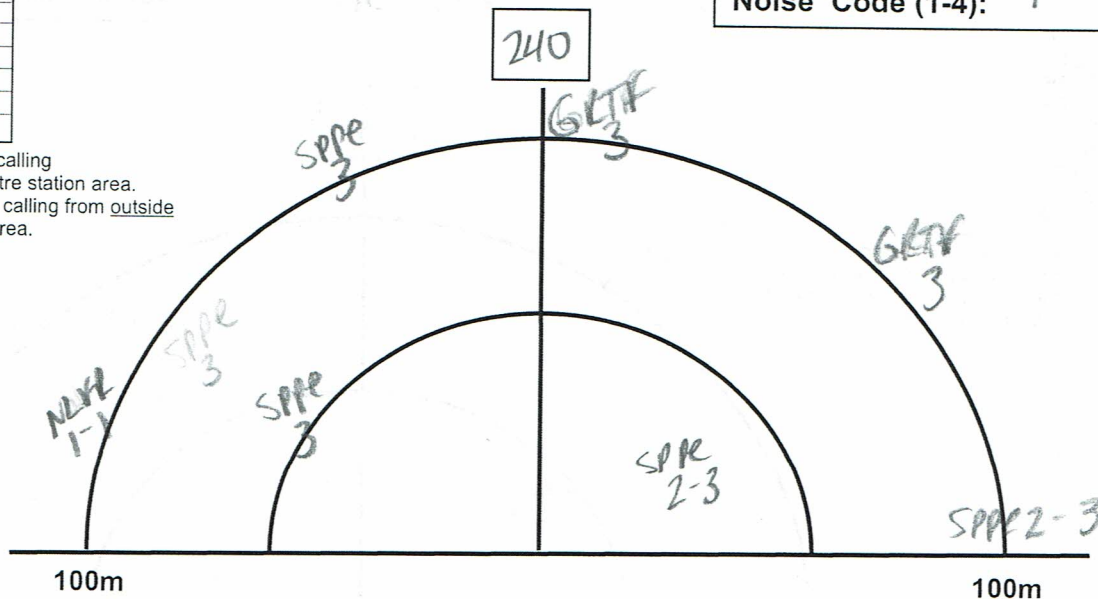
** Check if species is calling from outside 100-metre station area.

Survey Point#

ABH 18

Station Start
Time (24 hr): 2153

Background
Noise Code (1-4): 1



Species	In*	Out**
AMTO	✓	✓
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR	✓	✓
GRFR		✓
MIFR		
NLFR		
PIFR		
SPPE	✓	
WOFR		

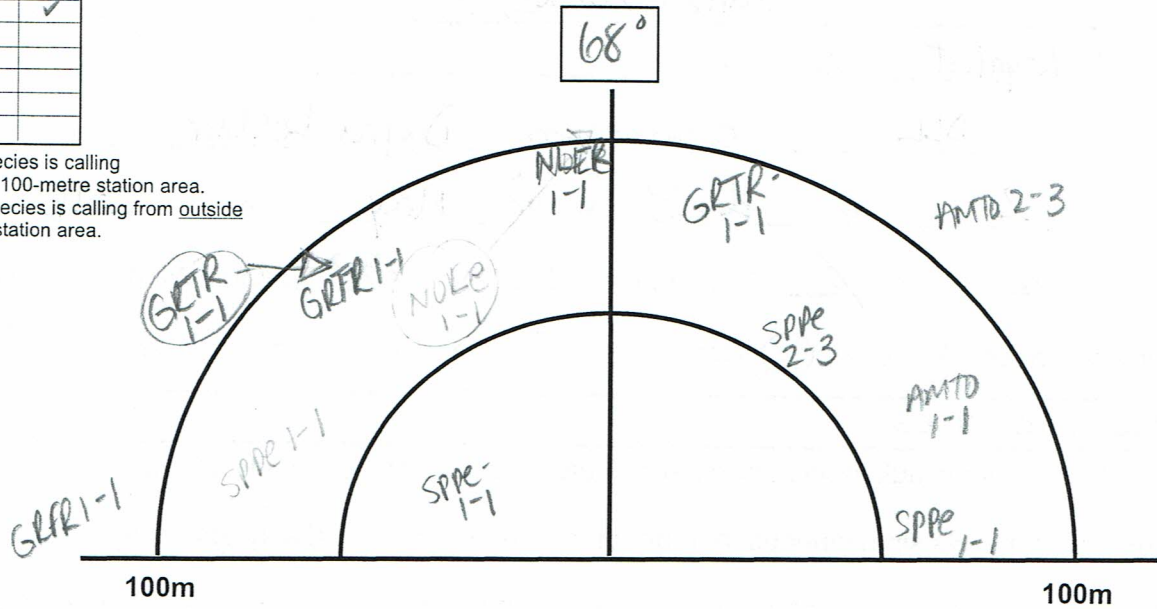
- * Check if species is calling from inside 100-metre station area.
 ** Check if species is calling from outside 100-metre station area.

Survey Point#

ABH09

Station Start
Time (24 hr): 2113

Background
Noise Code (1-4): 1



FIELD NOTES THAT ARE NO LONGER
 APPLICABLE TO THE PROJECT LOCATION OR
 CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
 BEEN OMITTED

Project# 16-3674**Marsh Monitoring Program - Amphibian Data Form****Return by 31 July***Please write legibly (in pen).***VISIT INFORMATION**Route #: _____ Route Name: Loyalist Station (A - H): _____Observer #: JWH Observer Name: Jonathan HarrisVisit #: 3 Day: 15 Month: June Year: 2016Cloud Cover (10th): 100 Temperature (°C or °F): 17 Beaufort Wind Scale (0-6): 0Precipitation (check one): ☒ None/Dry ☐ Damp/Haze/Fog ☐ Drizzle ☐ Rain**CALL LEVEL CODES**

Code 1: Calls not simultaneous, number of individuals can be accurately counted

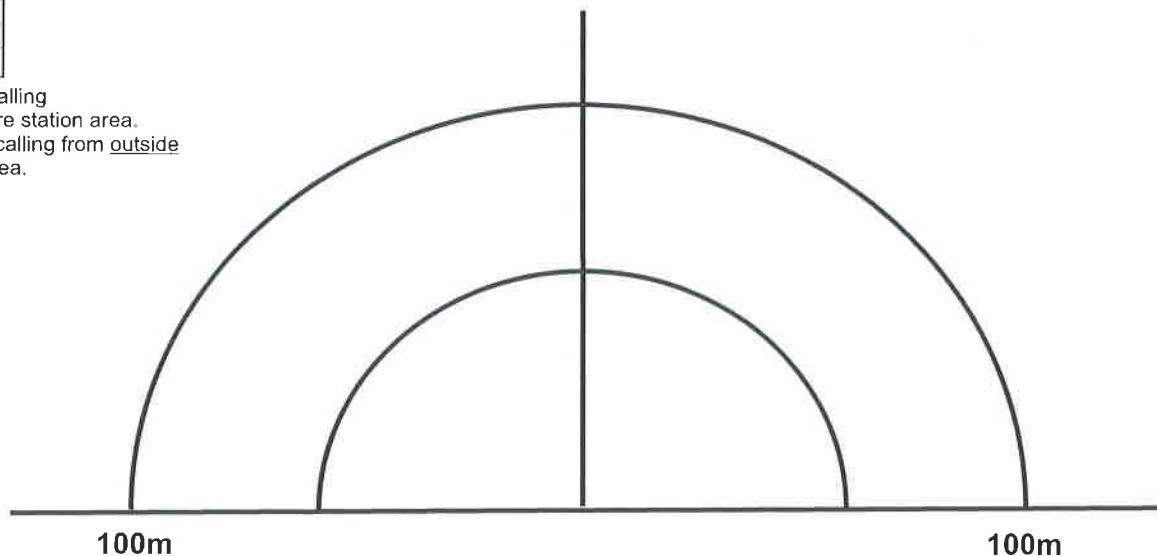
Code 2: Some calls simultaneous, number of individuals can be reliably estimated

Code 3: Full chorus, calls continuous and overlapping, number of individuals cannot be reliably estimated

Amphdfm2008.cdr, rev 02/2008

Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		
GRFR		
MIFR		
NLFR		
PIFR		
SPPE		
WOFR		

Survey Point#

ABH19326°NStation Start
Time (24 hr): 22:12Background
Noise Code (1-4): 0* Check if species is calling
from inside 100-metre station area.** Check if species is calling from outside
100-metre station area.

Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR	✓	
GRFR	✓	
MIFR		
NLFR		
PIFR		
SPPE		
WOFR		

* Check if species is calling from inside 100-metre station area.

** Check if species is calling from outside 100-metre station area.

Survey Point#

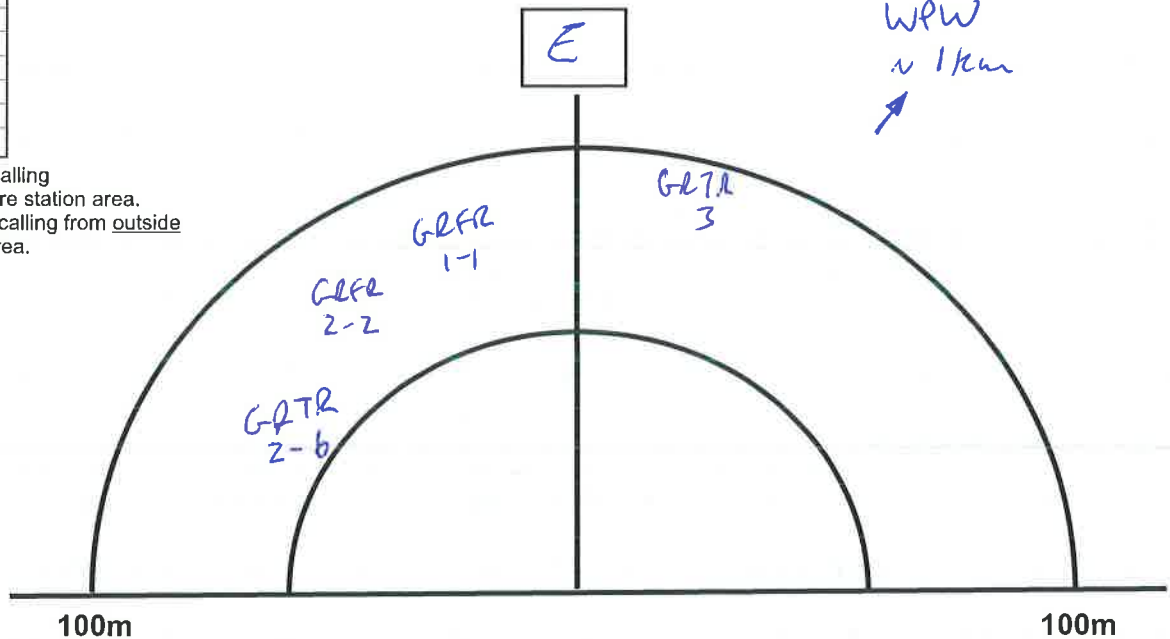
ABH17

Station Start

Time (24 hr): 22:27

Background

Noise Code (1-4): 0



Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR	✓	
GRFR	✓	
MIFR		
NLFR		
PIFR		
SPPE		
WOFR		

* Check if species is calling from inside 100-metre station area.

** Check if species is calling from outside 100-metre station area.

Survey Point#

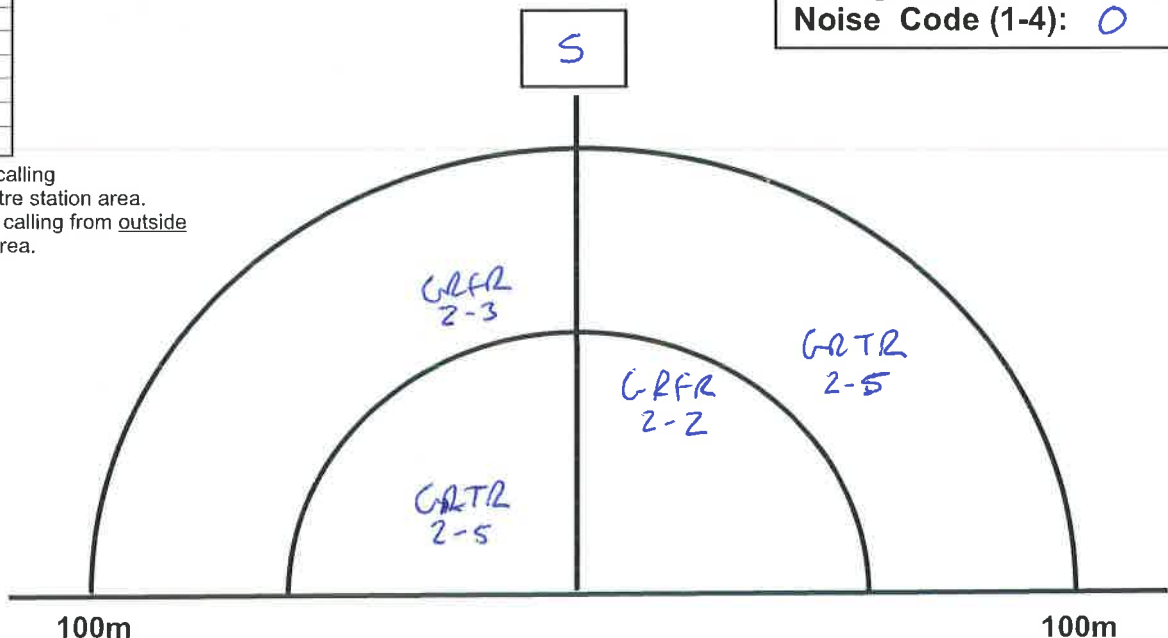
ABH11

Station Start

Time (24 hr): 22:27

Background

Noise Code (1-4): 0



Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		✓
GRFR		
MIFR		
NLFR		
PIFR		
SPPE		
WOFR		

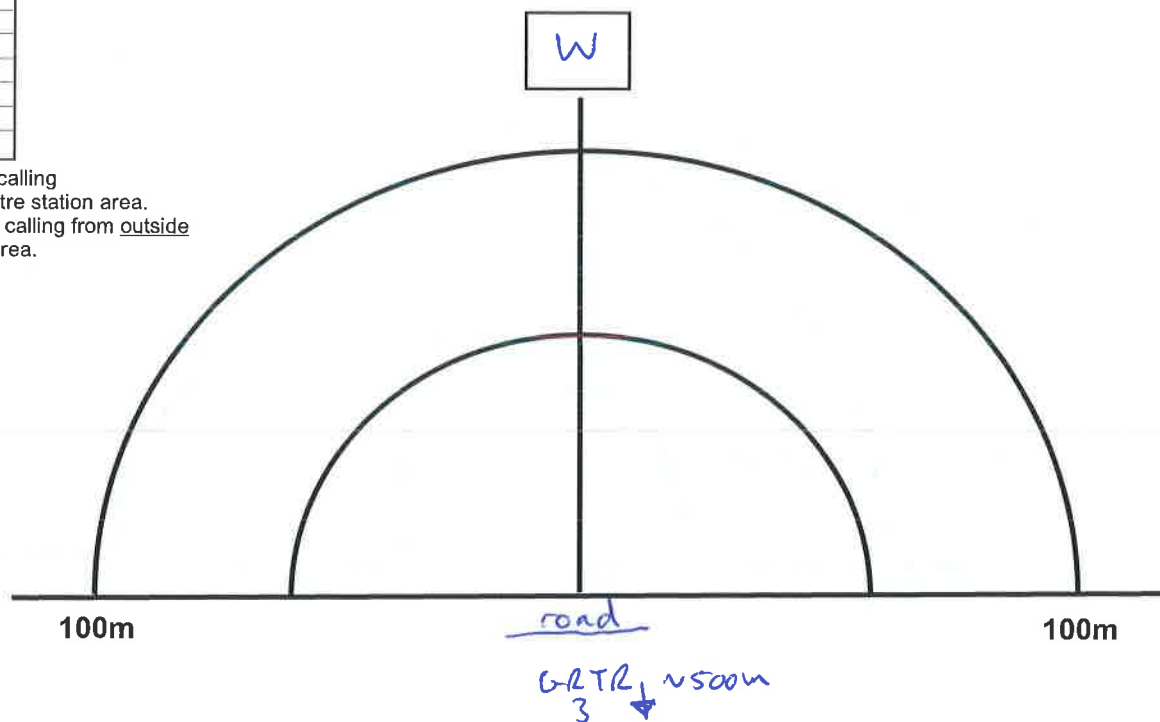
* Check if species is calling from inside 100-metre station area.

** Check if species is calling from outside 100-metre station area.

Survey Point#
ABH14

Station Start
Time (24 hr): 22:43

Background
Noise Code (1-4): 0



Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR	✓	
GRFR		
MIFR		
NLFR		
PIFR		
SPPE		
WOFR		

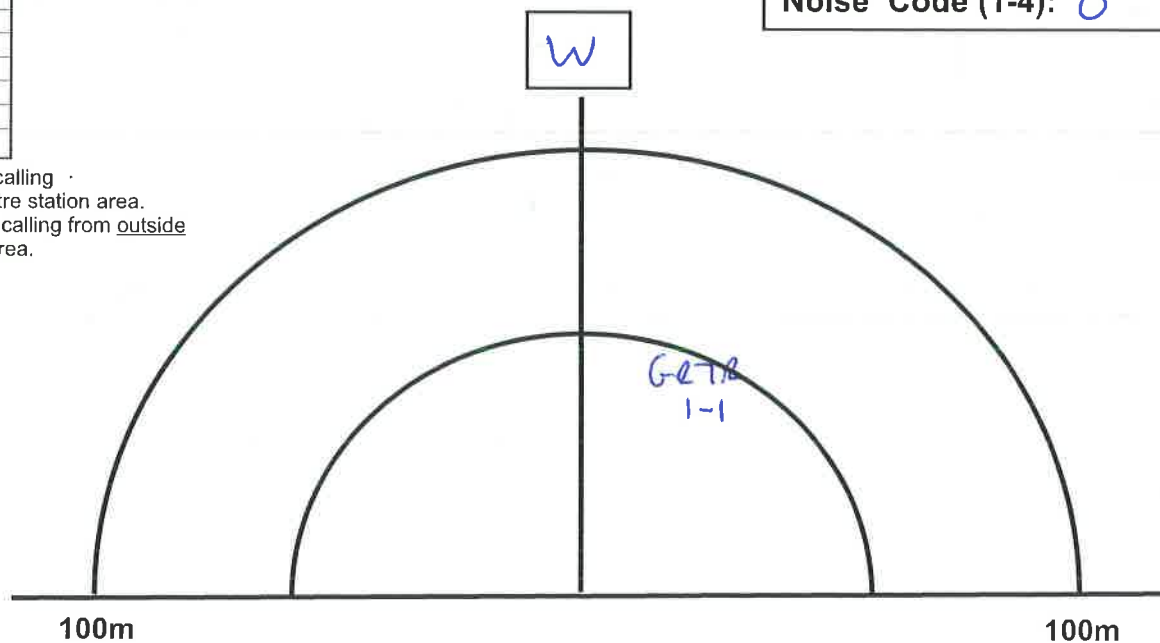
* Check if species is calling from inside 100-metre station area.

** Check if species is calling from outside 100-metre station area.

Survey Point#
ABH 15

Station Start
Time (24 hr): 22:49

Background
Noise Code (1-4): 0



Species	In*	Out**
AMTO		
BCFR		
BULL		✓
CHFR		
CGTR		
FOTO		
GRTR		
GRFR		
MIFR		
NLFR		
PIFR		
SPPE		
WOFR		

* Check if species is calling from inside 100-metre station area.

** Check if species is calling from outside 100-metre station area.

Survey Point#

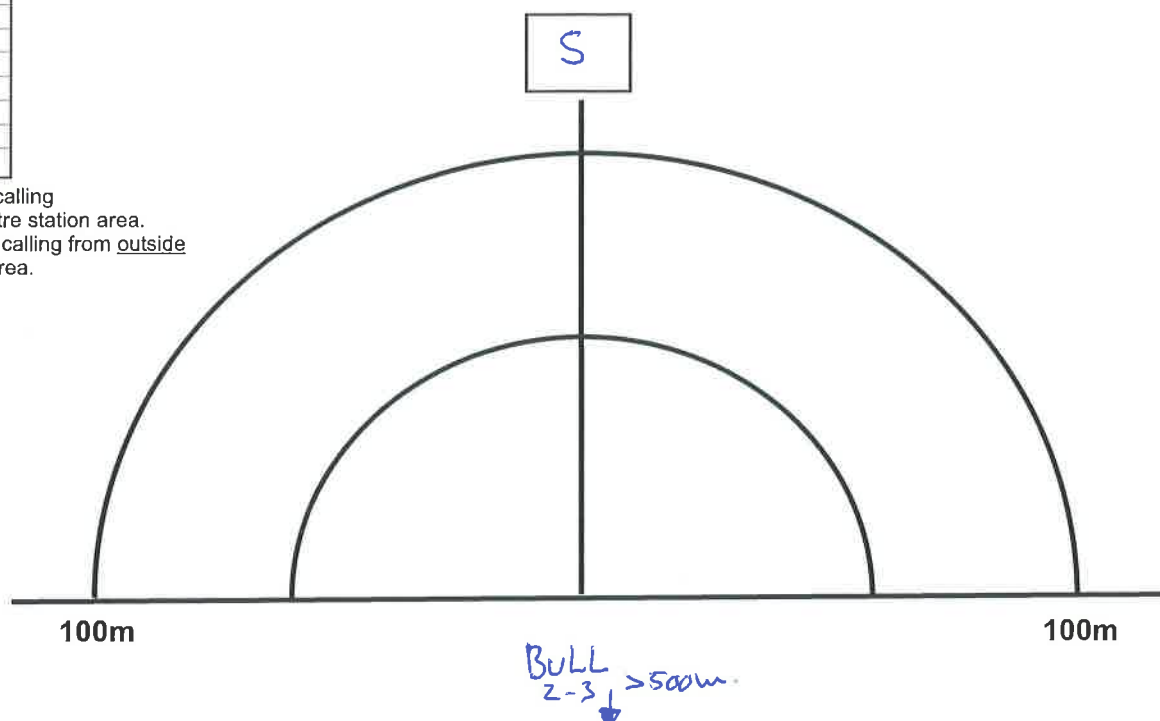
ABH16

Station Start

Time (24 hr): 22:55

Background

Noise Code (1-4): 0



Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		✓
GRTR		✓
GRFR		
MIFR		
NLFR		
PIFR		
SPPE		
WOFR		

* Check if species is calling from inside 100-metre station area.

** Check if species is calling from outside 100-metre station area.

Survey Point#

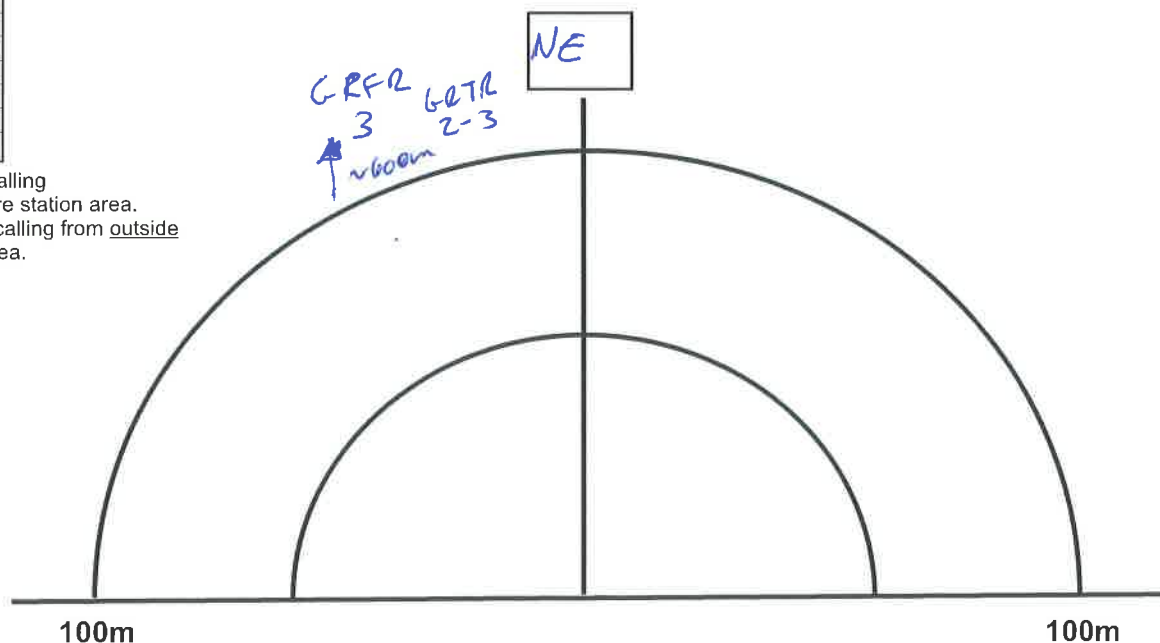
ABH 32

Station Start

Time (24 hr): 23:02

Background

Noise Code (1-4): 0



Station Start
Time (24 hr): 23:07

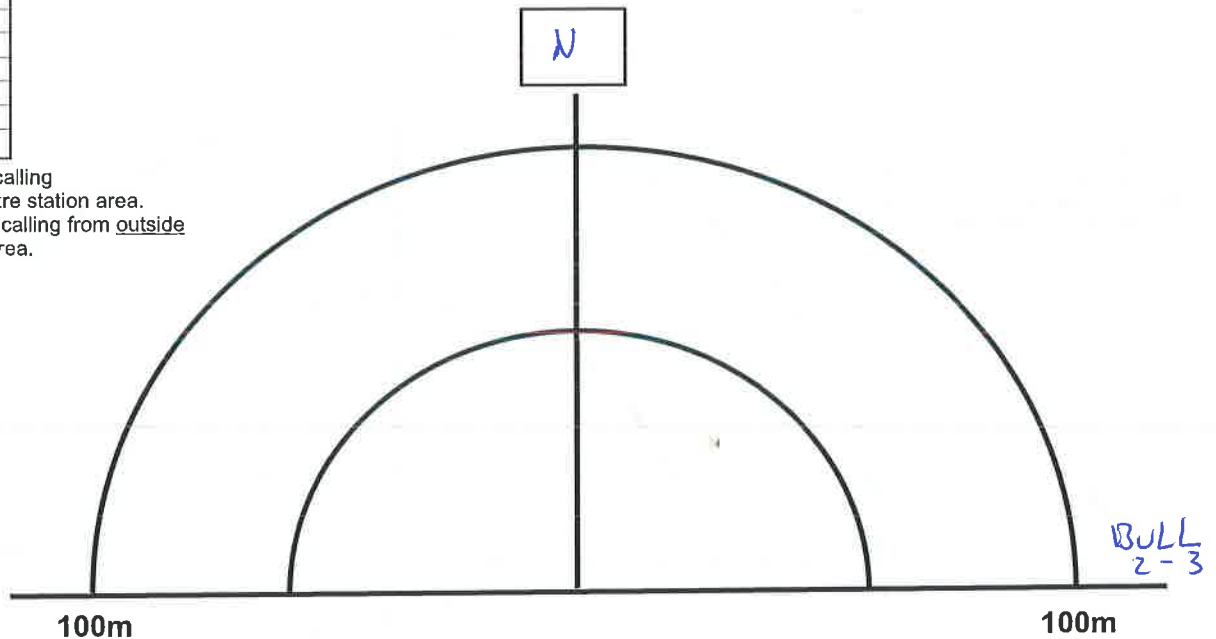
Background
Noise Code (1-4): 0

Survey Point#
ACH 33

Species	In*	Out**
AMTO		
BCFR		
BULL		✓
CHFR		
CGTR		
FOTO		
GRTR		
GRFR		
MIFR		
NLFR		
PIFR		
SPPE		
WOFR		

* Check if species is calling
from inside 100-metre station area.

** Check if species is calling from outside
100-metre station area.



Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		✓
GRFR		
MIFR		
NLFR		
PIFR		
SPPE		
WOFR		

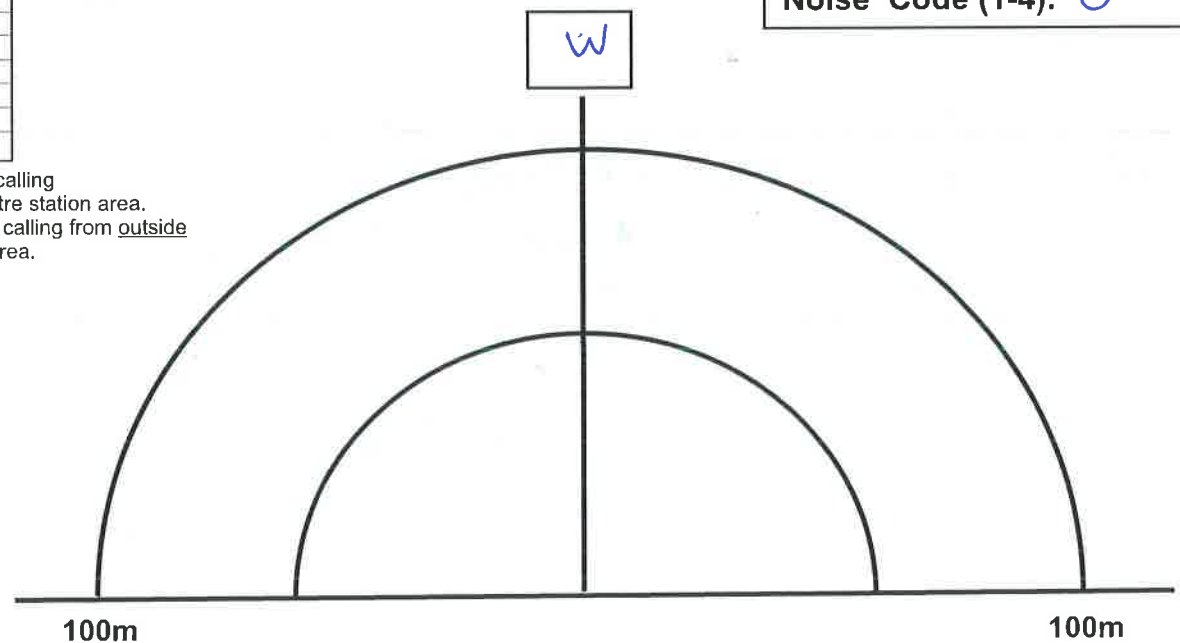
* Check if species is calling
from inside 100-metre station area.

** Check if species is calling from outside
100-metre station area.

Survey Point#
ACH 18

Station Start
Time (24 hr): 23:23

Background
Noise Code (1-4): 0



GATR
3 → 2500m

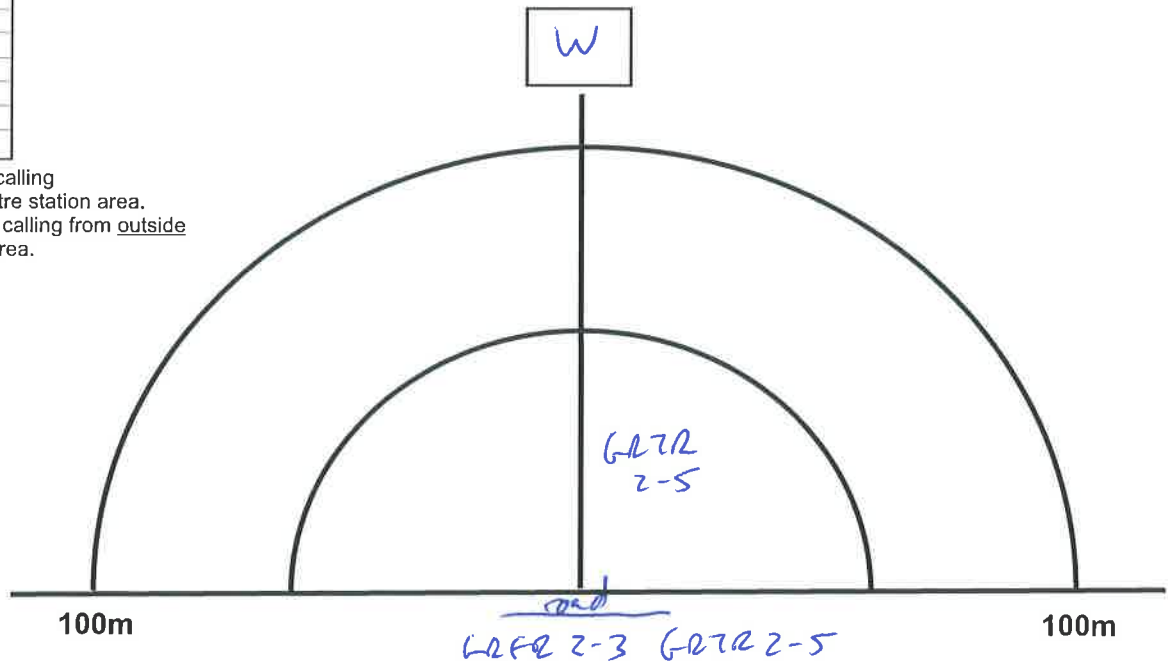
Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR	✓	✓
GRFR		
MIFR		
NLFR		
PIFR		
SPPE		
WOFR		

* Check if species is calling from inside 100-metre station area.
 ** Check if species is calling from outside 100-metre station area.

Survey Point#
 ASH9

Station Start
 Time (24 hr): 23:28

Background
 Noise Code (1-4): 0



Field Staff Sign-off: _____ Project Coordinator Sign-off: _____

Amphibian Species Codes

Species	Code
American Toad	AMTO
Northern (Blanchard's) Cricket Frog	BCFR
Bullfrog	BULL
Chorus Frog	CHFR
Cope's (Diploid) Gray Treefrog	CGTR
Fowler's Toad	FOTO
Gray (Tetraploid) Treefrog	GRTR
Green Frog	GRFR
Mink Frog	MIFR
Northern Leopard Frog	NLFR
Pickerel Frog	PIFR
Spring Peeper	SPPE
Wood Frog	WOFR

Background Noise Codes

Index	Description
0	No appreciable effect (e.g., owl calling)
1	Slightly affecting sampling (e.g., distant traffic, dog barking, car passing)
2	Moderately affecting sampling (e.g., distant traffic, 2-5 cars passing)
3	Seriously affecting sampling (e.g., continuous traffic nearby, 6-10 cars passing)
4	Profoundly affecting sampling (e.g., continuous traffic passing, construction noise)

24 Hour Time			
12 Hour	24 Hour	12 Hour	24 Hour
7:00 PM	1900	10:00 PM	2200
8:00 PM	2000	11:00 PM	2300
9:00 PM	2100	12:00 PM	2400

Beaufort Wind Scale

Number	Wind Speed		Indicators
	Km/h	Mph	
0	0-2	0-1	Calm, smoke rises vertically
1	3-5	2-3	Light air movement, smoke drifts
2	6-11	4-7	Slight breeze, wind felt on face
3	12-19	8-12	Gentle breeze, leaves and small twigs in constant motion
4*	20-30	13-18	Moderate breeze, small branches are moving, raises dust and loose paper

* Winds over Beaufort 3 are unacceptable for amphibian surveys.

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

Species	In*	Out**
AMTO		
BCFR		
BULL	✓	
CHFR		
CGTR		
FOTO		
GRTR	✓	
GRFR		
MIFR		
NLFR		
PIFR		
SPPE		
WOFR		

* Check if species is calling
from inside 100-metre station area.

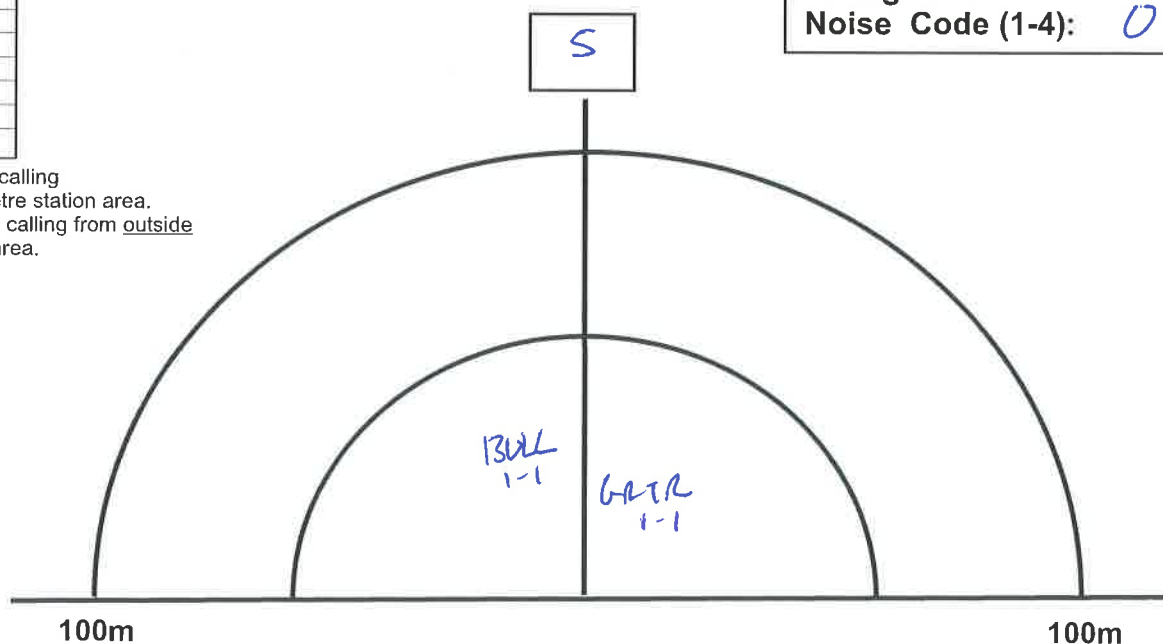
** Check if species is calling from outside
100-metre station area.

Survey Point#

ADH31

Station Start
Time (24 hr): 23:46

Background
Noise Code (1-4): 0



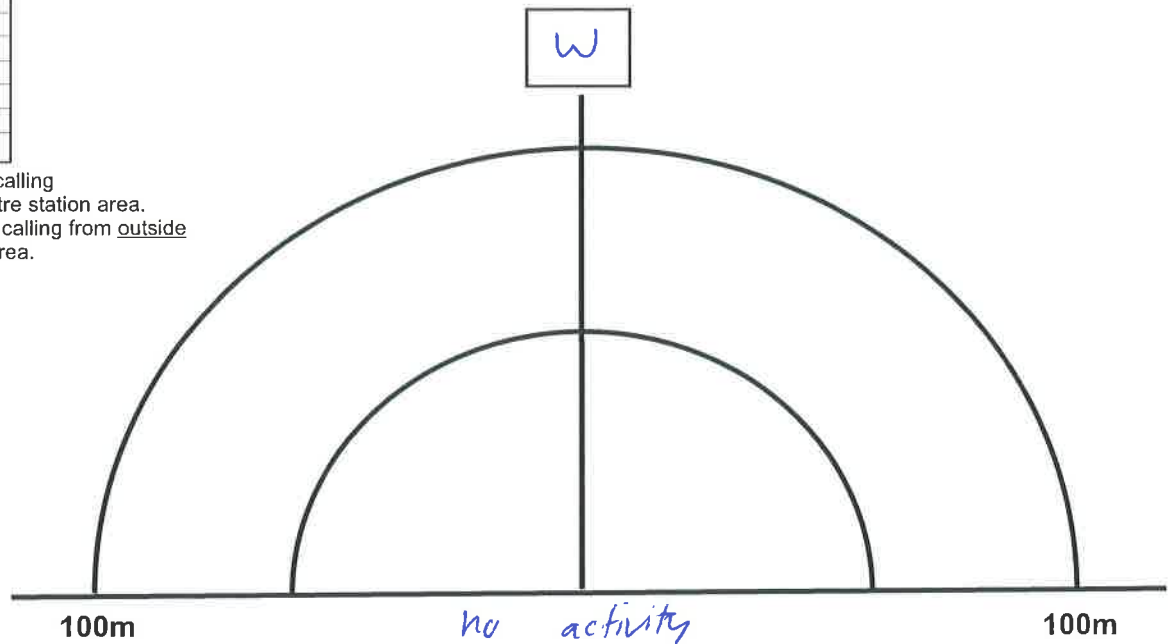
Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		
GRFR		
MIFR		
NLFR		
PIFR		
SPPE		
WOFR		

* Check if species is calling from inside 100-metre station area.
 ** Check if species is calling from outside 100-metre station area.

Survey Point#
 A0430

Station Start
 Time (24 hr): 23:57

Background
 Noise Code (1-4): 0



Field Staff Sign-off: _____ Project Coordinator Sign-off: _____

Amphibian Species Codes

Species	Code
American Toad	AMTO
Northern (Blanchard's) Cricket Frog	BCFR
Bullfrog	BULL
Chorus Frog	CHFR
Cope's (Diploid) Gray Treefrog	CGTR
Fowler's Toad	FOTO
Gray (Tetraploid) Treefrog	GRTR
Green Frog	GRFR
Mink Frog	MIFR
Northern Leopard Frog	NLFR
Pickerel Frog	PIFR
Spring Peeper	SPPE
Wood Frog	WOFR

Background Noise Codes

Index	Description
0	No appreciable effect (e.g., owl calling)
1	Slightly affecting sampling (e.g., distant traffic, dog barking, car passing)
2	Moderately affecting sampling (e.g., distant traffic, 2-5 cars passing)
3	Seriously affecting sampling (e.g., continuous traffic nearby, 6-10 cars passing)
4	Profoundly affecting sampling (e.g., continuous traffic passing, construction noise)

24 Hour Time

12 Hour	24 Hour	12 Hour	24 Hour
7:00 PM	1900	10:00 PM	2200
8:00 PM	2000	11:00 PM	2300
9:00 PM	2100	12:00 PM	2400

Beaufort Wind Scale

Beaufort Wind Scale			
Number	Wind Speed		Indicators
	Km/h	Mph	
0	0-2	0-1	Calm, smoke rises vertically
1	3-5	2-3	Light air movement, smoke drifts
2	6-11	4-7	Slight breeze, wind felt on face
3	12-19	8-12	Gentle breeze, leaves and small twigs in constant motion
4*	20-30	13-18	Moderate breeze, small branches are moving, raises dust and loose paper

* Winds over Beaufort 3 are unacceptable for amphibian surveys.

Project# _____

Marsh Monitoring Program - Amphibian Data Form

Return by 31 July

Please write legibly (in pen).



VISIT INFORMATION

Route #: _____ Route Name: Loyalist Station (A - H): _____

Observer #: _____ Observer Name: Jonathan Harris/Kate Roper

Visit #: _____ Day: 16 Month: June Year: 2016

Cloud Cover (10th): _____ Temperature (°C or °F): 21 Beaufort Wind Scale (0-6): _____

Precipitation (check one): ☒ None/Dry ☐ Damp/Haze/Fog ☐ Drizzle ☐ Rain

CALL LEVEL CODES

Code 1: Calls not simultaneous, number of individuals can be accurately counted

Code 2: Some calls simultaneous, number of individuals can be reliably estimated

Code 3: Full chorus, calls continuous and overlapping, number of individuals cannot be reliably estimated

Amphdfm2008.cdr, rev 02/2008

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR	✓	✓
GRFR	✓	
MIFR		
NLFR		
PIFR		
SPPE		
WOFR		

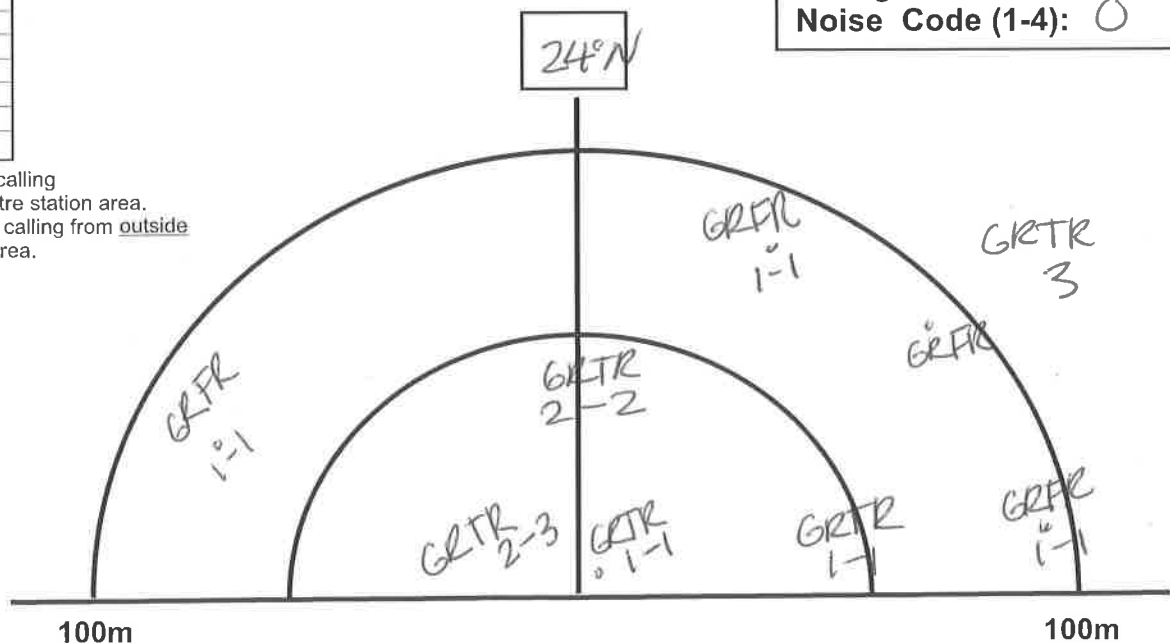
* Check if species is calling
from inside 100-metre station area.

** Check if species is calling from outside
100-metre station area.

Survey Point#
AB14 38

Station Start
Time (24 hr): 22:03

Background
Noise Code (1-4): 0



FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

Species	In*	Out**
AMTO		
BCFR		
BULL		✓
CHFR		
CGTR		
FOTO		
GRTR		✓
GRFR		
MIFR		
NLFR		
PIFR		
SPPE		
WOFR		

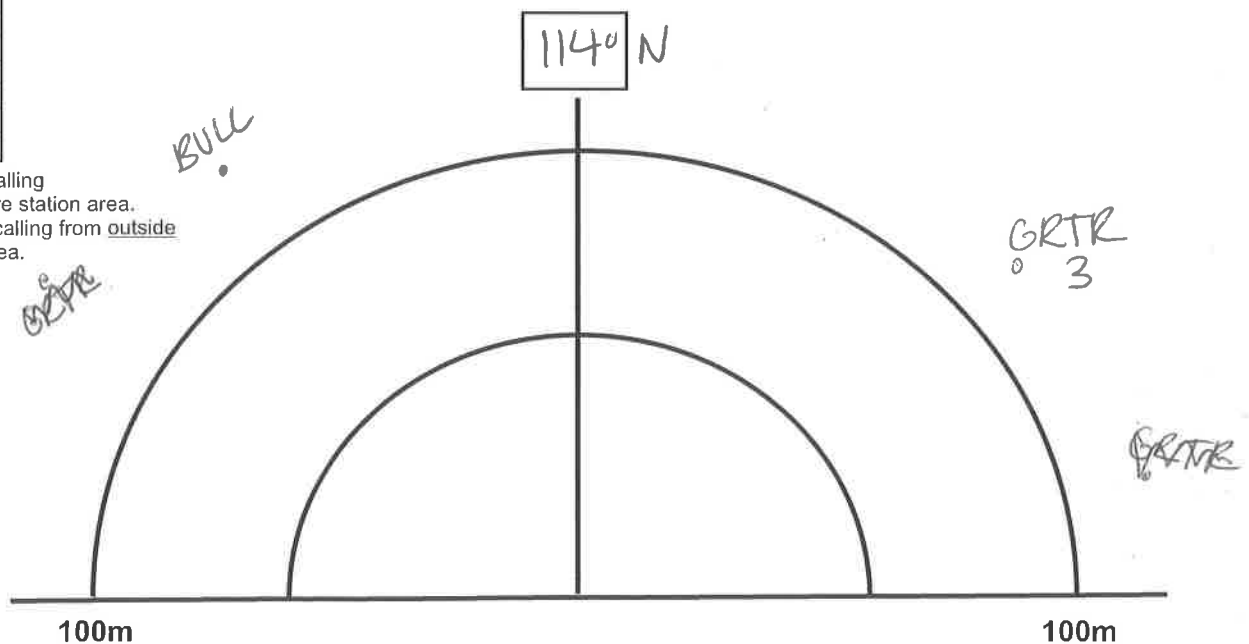
* Check if species is calling
from inside 100-metre station area.

** Check if species is calling from outside
100-metre station area.

Survey Point#
ABH26

Station Start
Time (24 hr): 22:46

Background
Noise Code (1-4): 0



Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		
GRFR		
MIFR		
NLFR		
PIFR		
SPPE		
WOFR		

* Check if species is calling

from inside 100-metre station area.

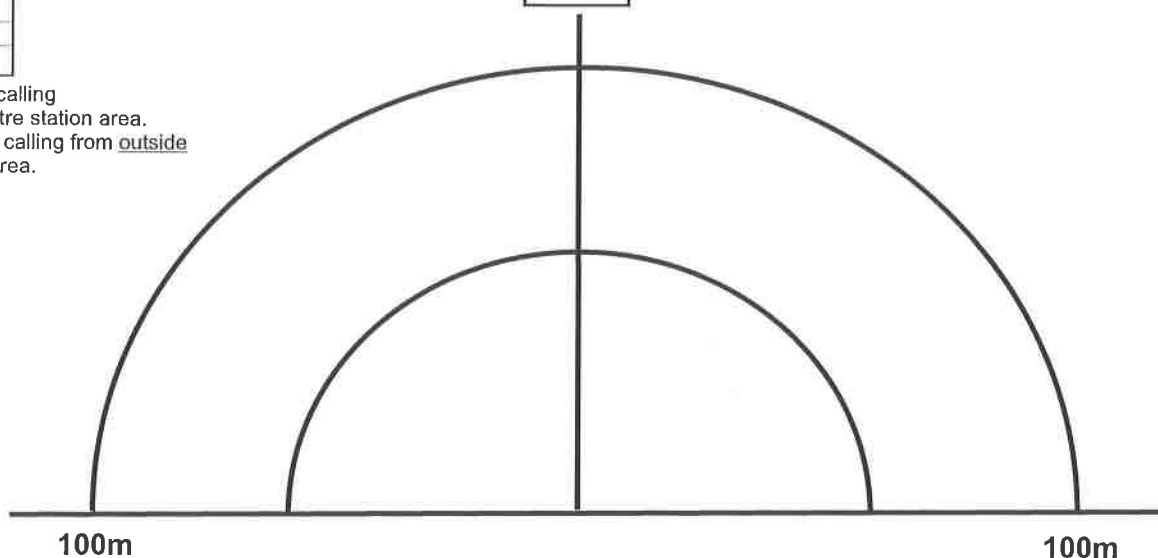
** Check if species is calling from outside 100-metre station area.

Survey Point#

ABH 25

No activity

74° N



Station Start

Time (24 hr): 22:57

Background

Noise Code (1-4): 0

Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR	✓	
GRFR	✓	✓
MIFR		
NLFR		
PIFR		
SPPE		
WOFR		

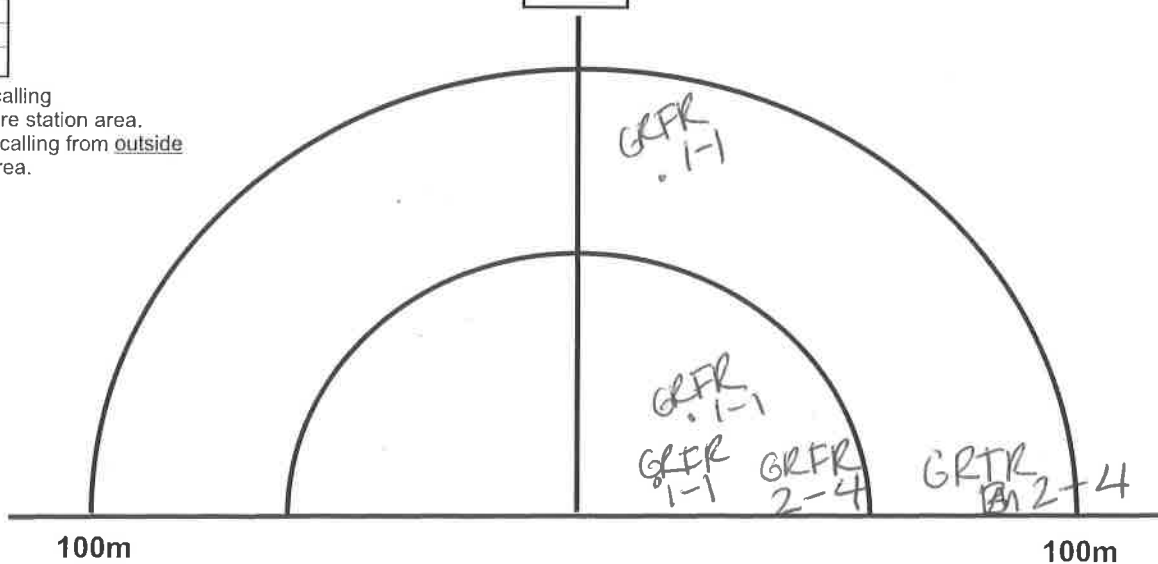
* Check if species is calling from inside 100-metre station area.

** Check if species is calling from outside 100-metre station area.

Survey Point#

ABH 24

145° N



Station Start

Time (24 hr): 23:09

Background

Noise Code (1-4): 0

Station Start
Time (24 hr): 23:42

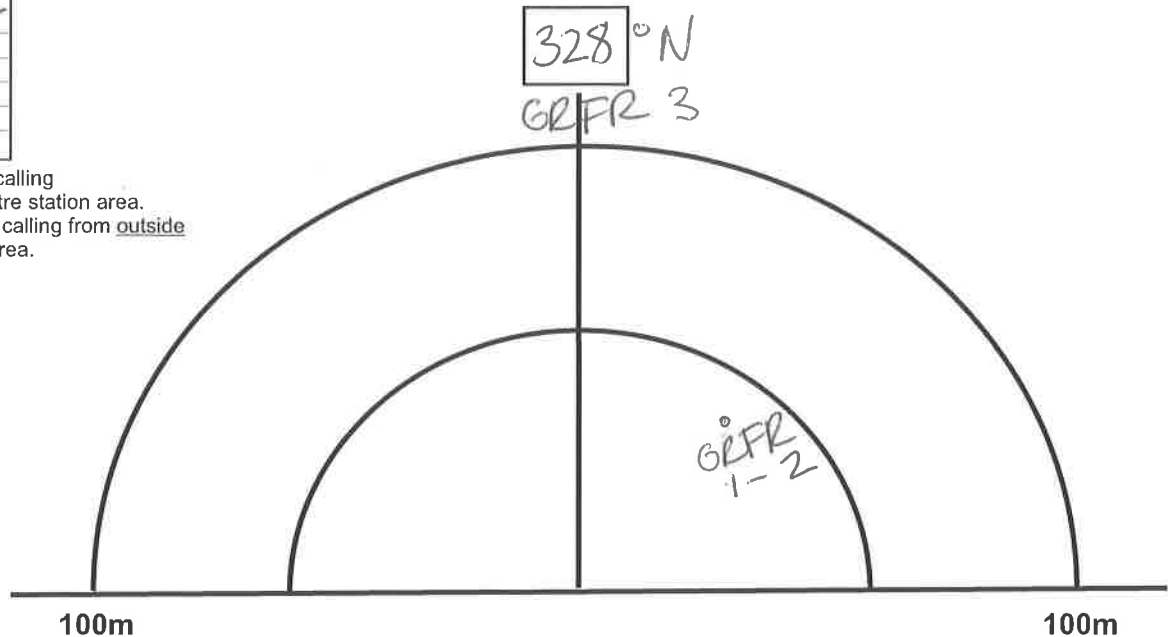
Background
Noise Code (1-4): 0

Survey Point#
ABH 23

Species	In*	Out**
AMTO		
BCFR		
BULL		
CHFR		
CGTR		
FOTO		
GRTR		
GRFR	✓	✓
MIFR		
NLFR		
PIFR		
SPPE		
WOFR		

* Check if species is calling
from inside 100-metre station area.

** Check if species is calling from outside
100-metre station area.



Field Staff Sign-off: _____ Project Coordinator Sign-off: _____

Amphibian Species Codes

Species	Code
American Toad	AMTO
Northern (Blanchard's) Cricket Frog	BCFR
Bullfrog	BULL
Chorus Frog	CHFR
Cope's (Diploid) Gray Treefrog	CGTR
Fowler's Toad	FOTO
Gray (Tetraploid) Treefrog	GRTR
Green Frog	GRFR
Mink Frog	MIFR
Northern Leopard Frog	NLFR
Pickerel Frog	PIFR
Spring Peeper	SPPE
Wood Frog	WOFR

Background Noise Codes

Index	Description
0	No appreciable effect (e.g., owl calling)
1	Slightly affecting sampling (e.g., distant traffic, dog barking, car passing)
2	Moderately affecting sampling (e.g., distant traffic, 2-5 cars passing)
3	Seriously affecting sampling (e.g., continuous traffic nearby, 6-10 cars passing)
4	Profoundly affecting sampling (e.g., continuous traffic passing, construction noise)

24 Hour Time			
12 Hour	24 Hour	12 Hour	24 Hour
7:00 PM	1900	10:00 PM	2200
8:00 PM	2000	11:00 PM	2300
9:00 PM	2100	12:00 PM	2400

Beaufort Wind Scale

Number	Wind Speed		Indicators
	Km/h	Mph	
0	0-2	0-1	Calm, smoke rises vertically
1	3-5	2-3	Light air movement, smoke drifts
2	6-11	4-7	Slight breeze, wind felt on face
3	12-19	8-12	Gentle breeze, leaves and small twigs in constant motion
4*	20-30	13-18	Moderate breeze, small branches are moving, raises dust and loose paper

* Winds over Beaufort 3 are unacceptable for amphibian surveys.

JOB Coyalist
DATE May 26 PAGE 1/3

Crepuscular Survey
NAP011, 012 + 013(N)
BBS PTS 47, 48, 49 & 44

May 26, 2016

26° / 6/10 / -

RN in Tamworth

Chasey

[BBS47] 8/2014-2024

239°

CONI - 1 ind ~ 250m away flying over
Rattie road & mud creek

AMSN 1 doing aerial displays S of
1 ~~Survey point~~ over the mud
142° area w cont to mud creek

WISN corrected Au-
gust 23, 2016 by DLC

COGR 28 BARS 7 - fly

BOBO :: EAME :: AMB :: AMGO ::

deer in Southern hedge row @ ~ 50m

(ONI) 2 ind @ 300m NW @ 326°
calling

RSP EAKI TRES MODO EATO
AMRO

PARTY CHIEF

WEATHER

JOB Coyalist
DATE May 26 PAGE 2/3

[BBS 48] 2030-2040

stopped calling @ 1037
CONT - 1 heard from same Rattie/
MC area

- 2nd CONI to N of BBS47 no
longer heard

- during walk to point con
flew over heading S to
MC/PSW

AMWD - 1 flew from choke cherry
shrub @ hedgerow ~ 20m
74° & flew to Red Cedar
clump S @ 121°

[BBS49] 2048-2058

ENPW - 1 ind heard during cont
152° ~ 400m-500m

AMWD - flew within 20m of me & into
Red cedar wood lot in
SE corner of property
- called once @ end of
Survey.

PARTY CHIEF

WEATHER

JOB

Ceryalist

DATE

May 2.6

PAGE

3/3

BBS44

2102 - 2112

EWPH 73° 1st ~ 300m

178° 2nd ~ 200m

AMWD

from BBS49
> same ind heard calling
was cont from

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

PARTY CHIEF

WEATHER

JOB LOYALIST Crepuscular
DATE MAY 30, 2016 PAGE 1/2
CREPUSCULAR: NAP021 ~~18, 19, 20, 22~~
NAP120 13, 12

start 2013 temp 26° / 0/1000/W@3
NAP021 (WV = 20km W)

BBS18 2013-2023

> no crepuscular species obs.

BBS19 2023-2033

> no crepuscular species obs.

BBS15 2033-2043

> no crepuscular species obs.

> 1 COSN F/O @ end of survey

~~BBS20~~ → came in from east
field & flew SW

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

NAP120

BBS13 2053-2103

> no crepuscular sp. obs.

PARTY CHIEF

WEATHER

JOB Loyalist - Crepuscular
DATE May 30, 2016 PAGE 2/2

BBS12 2103-2113

> LEB1 @ 200m @ 249°

end 2113 temp =

CC = 0/10

Wind = W @ 4

PARTY CHIEF

WEATHER

JOB
DATE

LOYALIST

MAY 31 2016

PAGE

1 / 2

CREPUSCULAR NAPI 13(S)

35, 39, 40, 33, 32, 31

Temp = 20° CC = 3/10 W = SW @ 3-4

BBS 352004-2014

> no crepuscular obs.

> a bit too windy to hear > 300m
but obs. by sight

BBS 39 2014-2024

AMWD > one flew over from NE to
SW

> heard calling ~100m away
@ 219°

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

PARTY CHIEF

WEATHER

JOB W Crystallist Crepuscular
DATE June 01 2016 PAGE 11

Crepuscular NAO38 4, 5, 6

BBS04 > 0835-0845 // 2035-2045
(ONI) > heard @ 184° ~ 200m
> called 4x // then stopped

BBS05 > 0850-0900 // 2050-2100
> no crepuscular sp. obs

BBS06 > 900-910 // 2100-2110
> no crep. observations

PARTY CHIEF

WEATHER

JOB W Crystallist Crepuscular
DATE June 01 2016 PAGE 11

Crepuscular NAPO38 4, 5, 6

BBS04 > 0835-0845 // 2035-2045
(CON) > heard @ 184° ~ 200m
> called 4x // then stopped

BBS05 > 0850-0900 // 2050-2100
> no crepuscular sp. obs

BBS06 > 900-910 // 2100-2110
> no crep. observations

PARTY CHIEF

WEATHER

JOB Loyalist
DATE June 07 2016 PAGE 1/2

CREPUSCULAR NAP012, 120
BBS ~~58, 57, 56~~ (54 + 61)
temp = 16° CC = 8/10 Wind 403

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

BBS 54 > 20:40 - 20:50
no crepuscular species
observed

PARTY CHIEF

WEATHER

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

CREPUSCULAR NAP 118 1023

BBS ☐ # 30 June 09

start: 820 temp: 15° cc= 2/10w= NW@3

end: 840

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

BBS 30 830-840

> no crepuscular species
obs.

PARTY CHIEF

WEATHER

JOB

DATE

PAGE

NAP11/12/13: 46, 47, 48, 49, 50, 51,
52, 53, 43, 44, 45, 42, 41

CREPUSCULAR JUNE 13 2016

NAP 11, 12, 13 → 47, 48, 49, 44

temp 19° / N@3 / 7/10

~~NAP 4~~

BBS47 2020-2030

> barn swallows shimmering over grass

> no crepuscular species observed

BBS48 2030-2040

> no crepuscular species obs.

BBS49 2042-2052

> COSN @ NNW ~ 200m

BBS44 2054-2104

> no crepuscular species obs.

PARTY CHIEF

WEATHER

JOB

DATE PAGE

BBS82	905-915	
EATO	1/1	
NANA	1/1	
GRCA	1/1	
AMGO	1/1	4/10
AMRO	1/1	
CEOW	1/1	F10
YPUA	1/1	
BCCH	1/1	FY

Crepuscular
 June 21 2016
 start 2020
 23°/4/10/NWC3
 NAP493

FIELD NOTES THAT ARE NO LONGER
 APPLICABLE TO THE PROJECT LOCATION OR
 CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
 BEEN OMITTED

BBS54 2100-2110
 > no crepuscular sp. observed.

BBS61 2110-2120
 no crepuscular species
 observed

PARTY CHIEF

WEATHER

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

CREPUSCULAR @ NAPO38

BBS05 2030-2040

2030 June 27 2016 28°/7/10/-

BBS05 2030-2040

no crepuscular activity/obs.

BBS06 2045-2055

no crepuscular activity/obs.

BBS07 2100-2110

> CORN heard @ ~300m NW

> CORN heard @

*BBS04 @ 2115

> CORN heard @ walk out

@ 200m NW

PARTY CHIEF

WEATHER

JOB ... *Crepuscular #2* ...
DATE ... *June 28 2016* ... PAGE ... *NAP118/023* ...

BBS30 - 2024-2034

> no crepuscular species

> not hay

** EABL + 1 fledglings obs @
house @ north side of Nitch
bin (x) box in front yard*

FIELD NOTES THAT ARE NO LONGER
APPLICABLE TO THE PROJECT LOCATION OR
CONTAIN NOTES ABOUT SPECIES AT RISK HAVE
BEEN OMITTED

PARTY CHIEF

WEATHER

