

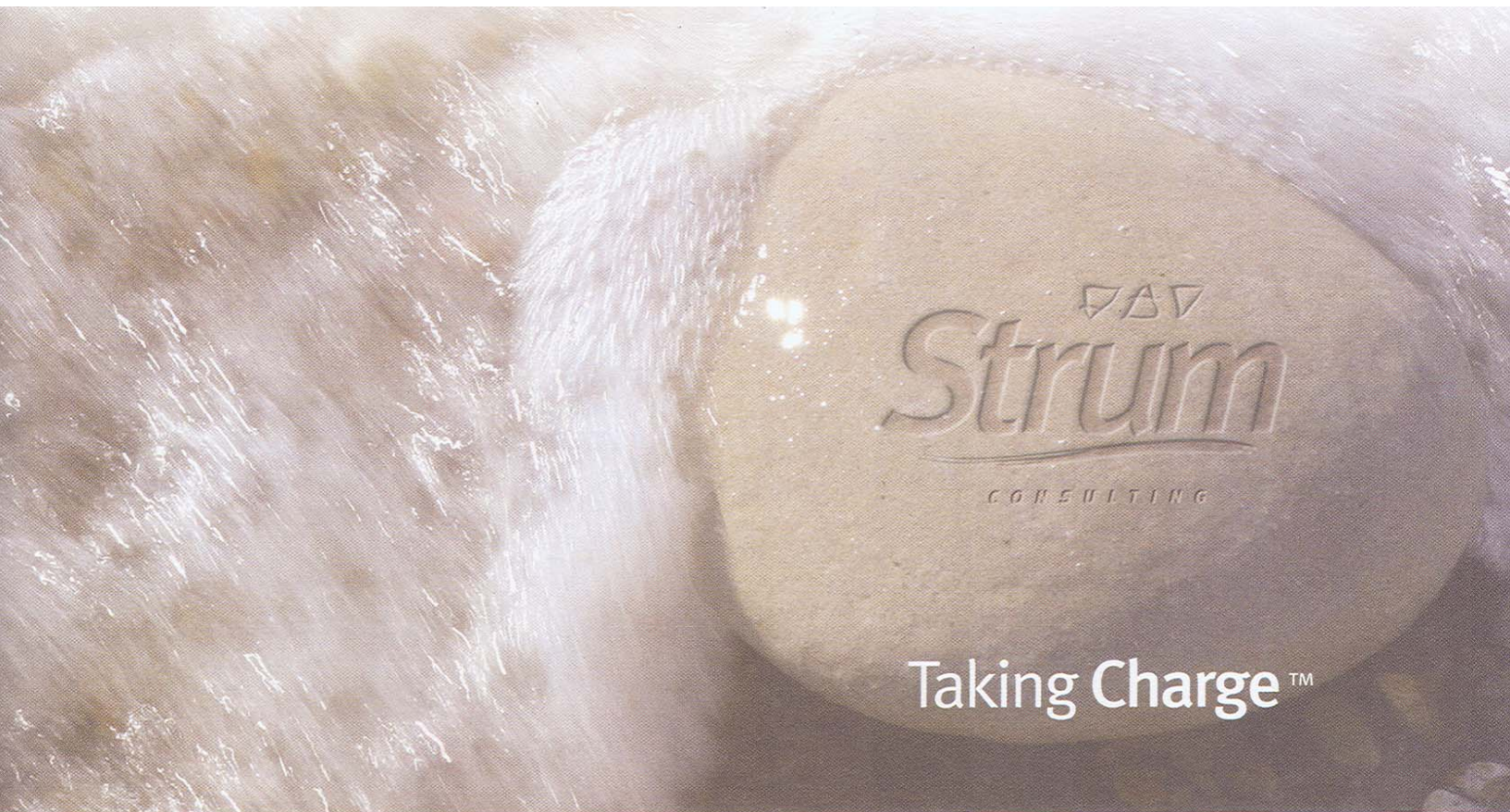
Appendix G

STRUM CONSULTING / 2020a. L8001/L8005 TRANSMISSION LINE AVIAN ASSESSMENT



L8001 / L8005 TRANSMISSION LINE AVIAN ASSESSMENT

December 4, 2020



Taking Charge™



December 4, 2020

Mr. Dan Thompson
NS Power Inc.
1223 Lower Water Street
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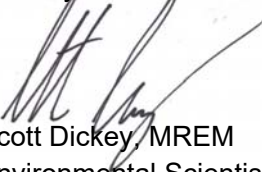
Dear Mr. Thompson

Re: L8001 / L8005 TRANSMISSION LINE AVIAN ASSESSMENT

Attached is the L8001 / L8005 Transmission Line Avian Assessment report.

We trust this to be satisfactory at this time. Once you have had an opportunity to review this correspondence, please contact us to address any questions you may have.

Thank you,



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Environmental Scientist
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Shawn Duncan, BSc.
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1.0 INTRODUCTION

Nova Scotia Power Inc. (NSPI) is proposing the construction of a new Transmission Line (the L8005) running from the Onslow, Nova Scotia (NS) substation to the New Brunswick border near Amherst, NS (the Project). The proposed L8005 Transmission Line will run in its own right-of-way (ROW) adjacent to the existing L8001 Transmission Line.

Strum Consulting was retained to complete Avian Assessments along the L8001 and L8005 ROWs in locations which were identified as being important bird habitat; as well as areas where there was some likelihood of avian interaction with the existing and proposed infrastructure. The Avian Assessment was comprised of breeding bird/habitat utilization surveys and spring and fall migration season infrastructure interactions surveys. The results of this Avian Assessment will aid in planning avian management mitigations during the design and construction of the proposed L8005 Transmission Line.

1.1 Study Areas

Two sections of the L8001 and L8005 ROWs were identified by NSPI as being high priority for the avian assessment owing to their proximity to important bird habitat features.

The first area is an 8 km section that stretches from the New Brunswick border to Tyndal Road, north of Amherst, NS (the Amherst Section) (Drawing 1, Appendix A). The second area is a 5 km section that extends from Crows Mills Road near Belmont, NS, to the Onslow substation on the Old Tatamagouche Road in Upper Onslow, NS (the Onslow Section) (See Drawing 1, Appendix A).

1.2 Project Scope

The Avian Assessment consisted of three components to aid in informing NSPI's avian management programs:

1. Desktop habitat review: The objective of this review was to identify habitat features within and near the study areas that may be important for birds; these areas would then be targeted during the subsequent surveys.
2. Breeding bird/habitat utilization surveys: The objective of these surveys was to assess the composition of the breeding bird community and their utilization of the habitat within the study areas, focusing on Species of Conservation Interest (SOCI).
3. Spring and fall migration season infrastructure interaction surveys: The objective of these surveys was to assess areas of the proposed transmission line where large scale bird movements may occur during the spring and fall migration season, and to quantify these movements to aid in NSPI's avian mitigation strategy planning for the Project.

Field work for the Avian Assessment surveys was completed in the spring and fall of 2020.

2.0 METHODOLOGY

2.1 Desktop Habitat Review

A review of relevant desktop resources was conducted to identify areas of potential important bird habitat within and near the study areas. Additionally, areas where high bird movement activity was likely (such as areas between important habitat features, topographic funnels, or migratory concentration points) were also identified. Resources included:

- Important Bird Areas (IBA) Canada database;
- The Nova Scotia Significant Species and Habitats database;
- The e-bird database;
- The Nova Scotia Wetland Inventory database; and
- Topographic and Satellite maps.

Once potential areas were identified, a field reconnaissance trip was completed to assess access and confirm the presence of the habitat features.

2.2 Breeding Bird/Habitat Utilization Surveys

Breeding bird/habitat utilization surveys were completed twice during the early summer breeding bird season (mid-June to mid-July). Two surveys were completed to cover variations in the breeding bird community that occur during the breeding season (e.g. early season breeders versus late season breeders). Due to the presence of impassible watercourses in the Amherst Section, surveys were completed over two days. The Onslow Section surveys were completed within one day. Surveys were completed on the following dates:

- Amherst Section: June 23 and 24, and July 16 and 17.
- Onslow Section: June 19 and July 13.

Several transects of approximately 300 m to 600 m along the length of the study areas were assessed by a biologist with demonstrated experience in avian identification and ecology (Drawings 2 and 3, Appendix A). All auditory and visual bird observations along these transects were recorded, along with the habitat types within the transects. Bird breeding evidence was also recorded. Surveys occurred within 4 hours of sunrise when bird activity is highest.

2.3 Spring and Fall Migration Season Infrastructure Interaction Surveys

Infrastructure interaction surveys were completed at both study areas three times during the spring migration season (April 16 to June 7), and five times during the fall migration season (August 15 to October 31). Surveys were conducted from pre-identified vantage points where large sections of the proposed transmission line was visible and where large-scale bird movements were likely to occur (Drawings 4 and 5, Appendix A). Each survey consisted of a morning watch (conducted within 4 hours after sunrise) and an evening watch (beginning within 4 hours prior to dusk). Surveys were completed on the following dates:

- Amherst Section
 - Spring Migration: May 7 (evening), May 8 (morning), May 20 (evening), May 21 (morning), and June 5 (morning and evening).
 - Fall Migration: August 23 (evening), August 24 (morning), September 10 (evening), September 11 (morning), September 24 (evening), September 25 (morning), October 6 (evening), October 7 (morning), October 21 (evening), and October 22 (morning).
- Onslow Section
 - Spring Migration: May 7 (Evening), May 8 (Morning), May 20 (evening), May 21 (morning), June 4 (morning), and June 6 (evening).
 - Fall Migration: August 23 (evening), August 24 (morning), September 10 (evening), September 11 (morning), September 24 (evening), September 25 (morning), October 6 (evening), October 7 (morning), October 21 (evening), and October 22 (morning).

The watch count locations were identified during the site reconnaissance visit conducted in April 2020. These locations afford views of different parts of the L8001 transmission line. Surveys took place from several watch count locations to ensure coverage of the entirety of the study areas. The locations of the watch counts are shown on Drawings 4 and 5 (Appendix A).

During each survey, observations on bird movements in the Study areas and their interaction with the existing L8001 powerline infrastructure were recorded. Each observation consisted of recording the following information:

- The bird species and abundance (e.g. the number of birds in the flock);
- The flight direction (as the powerline corridor generally runs from north to south, the direction of bird movements was simplified to east to west or west to east);
- The location in the Study Area where the bird crossed (Drawings 4 and 5, Appendix A);
- The estimated height the bird was traveling at when crossing powerlines;
- If the bird interacted with the powerlines (i.e. changed their behavior as a result of powerline presence); and
- Weather conditions including wind speed and direction.

3.0 RESULTS

3.1 Desktop Habitat Review

3.1.1 Amherst Section

The results of the desktop review show a considerable amount of wetland habitat near the Amherst Section (Drawing 6, Appendix A). The Study Area crosses a large marsh complex that extends north along the New Brunswick Border. Additionally, a large marsh/bog complex exists immediately to the south of the center section of the study area, which adjoins a series of marsh/swamp/bog features extending northward towards Long Lake and Round Lake.

The Significant Species and Habitat database review identified two large areas designated as important to waterfowl. These areas are associated with the wetland complexes described above (Drawing 7, Appendix A).

Additionally, Long Lake and Round Lake to the north of the Study Area host populations of Delicate Lamp Mussel.

Finally, a habitat feature associated with Bald Eagles is located to the east of the Study Area.

3.1.2 Onslow Section

The results of the desktop review indicate relatively scant distribution of wetlands in the Onslow Section. Staples Brook flows from north to southwest of the Study Area, and McCurdy Brook flows from north to south east of the Study Area. A swamp/bog complex is present within the Study Area approximately 1 km west of Crows Mills Road (See Drawing 8, Appendix A).

The Significant Species and Habitats database review indicated the presence of deer wintering habitat to the north of the Study Area associated with a coniferous forest. Staples Brook is known to host Wood Turtle habitat and a habitat feature associated with Bald Eagle is also present to the southwest of the Study Area on the east bank of Staples Brook (See Drawing 9, Appendix A)

3.2 Breeding Bird/Habitat Utilization Surveys

3.2.1 Amherst Section

The results of the breeding bird surveys are presented in Table B1 (Appendix B). A total of 1,247 birds comprised of 47 species were observed in the Amherst Section Study Area during the breeding bird surveys.

Breeding evidence indicated that thirty-two (32) of these species were assessed as “Possible” breeders (indicating that they may possibly breed within or near the Study Area); Nine (9) species were assessed as “Probable” breeders (indicating that they probably breed within the Study Area), and six (6) species were assessed as “Confirmed” breeders (indicating that they do breed within or near the Study Area).

Six SOCI species were observed in the Amherst Section during the breeding bird surveys, results are summarized in Table 1 below.

Table 1. SOCI Observations – Amherst Section

Common Name	Locations Observed (Transect ID)	Dates Observed (Year 2020)
American Kestrel	43	July 16
Boreal Chickadee	57	July 16
Eastern Wood-Pewee	43	July 16, July 23
Gray Jay	55, 56	July 16
Olive-sided Flycatcher	53, 55, 47, 56, 57, 61	July 16, July 23, July 24

Common Name	Locations Observed (Transect ID)	Dates Observed (Year 2020)
Red-breasted Nuthatch	55, 50, 52	July 16, July 23

3.2.2 Onslow Section

The results of the breeding bird surveys are presented in Table B2 (Appendix B). A total of 573 birds comprised of 41 species were observed in the Onslow Section Study Area during the breeding bird surveys.

Breeding evidence indicated that twenty-nine (29) species were assessed as “Possible” breeders, ten (10) species were assessed as “Probable” breeders, and two (2) species were assessed as “Confirmed” breeders in the Study Area.

Six SOCI species were observed in the Onslow Section Study Area during the breeding bird surveys, results are summarized in Table 2 below.

Table 2. SOCI Observations – Onslow Section

Common Name	Location Observed (Transect ID)	Dates Observed (Year 2020)
American Kestrel	32	July 19
Eastern Wood-Pewee	35	July 19
Olive-sided Flycatcher	33	July 19
Red-breasted Nuthatch	33	July 13
Ruby-crowned Kinglet	34, 41	July 19
Swainson's Thrush	30, 33, 40	July 19

3.3 Spring and Fall Migration Season Infrastructure Interaction Surveys

3.3.1 Amherst Section

The results of the infrastructure interaction surveys conducted at the Amherst Section are presented in Table C1 (Appendix C).

Tables 3 and 4 below show the abundance and diversity of the birds observed during the spring and fall infrastructure interaction surveys conducted at the Amherst Section.

Table 3. Species Observations – Spring Infrastructure Interaction Surveys – Amherst Section

Species	Number Observed
American Crow	12
Bald Eagle	4
Barred Owl	1
Black Duck	1
Canada Goose	25
Common Loon	1
Common Raven	1
Duck spp.	5
Osprey	3
Rock Pigeon	1

Species	Number Observed
Sharp-shinned Hawk	1
Tree Swallow	10
White-winged Crossbill	20
Total	85

Table 4. Species Observations – Fall Infrastructure Interaction Surveys – Amherst Section

Species	Number Observed
American Black Duck	3
American Crow	26
American Wigeon	108
Bald Eagle	13
Blue Jay	8
Blue-wing Teal	2
Broadwing Hawk	3
Canada Goose	112
Common Grackle	249
Common Raven	6
Double-crested Cormorant	154
Duck spp.	331
European Starling	10
Herring Gull	2
Mallard	72
Osprey	1
Red-tailed Hawk	2
Red-winged Blackbird	28
Rock Pigeon	3
Semipalmated Plover	5
Turkey Vulture	1
Total	1,139

Table 5 shows the movement direction that the observed birds were traveling as they crossed the existing L8001 transmission line in the Amherst Section.

Table 5. Movement Direction – Infrastructure Interaction Surveys – Amherst Section

Flight Direction	West to East	East to West
Spring	17	51
Fall	864	189

Table 6 shows the area where birds were observed to cross the L8001 transmission line within the Amherst Section Study Area (Drawing 4, Appendix A).

Table 6. Area of Crossing – Infrastructure Interaction Surveys – Amherst Section

Area of Crossing	West	Center West	Center	Center east	East
Spring	2	22	22	7	15
Fall	462	6	347	218	20

Table 7 shows the proportion of the birds that were observed to “interact” with the L8001 transmission line within the Amherst Section Study Area during the infrastructure interaction surveys in the spring and fall.

Table 7. Interactions – Infrastructure Interaction Surveys – Amherst Section

Interaction	Yes	No
Spring	11	57
Fall	638	465

3.3.2 Onslow Section

The results of the infrastructure interaction surveys conducted at the Onslow Section are presented in Table C2 (Appendix C).

Tables 8 and 9 below show the abundance and diversity of the birds observed during the spring and fall infrastructure interaction surveys.

Table 8. Species Observations – Spring Infrastructure Interaction Surveys – Onslow Section

Species	Number Observed
American Crow	5
American Eagle	1
Bald Eagle	4
Black Duck	3
Broadwing Hawk	3
Common Grackle	6
Common Raven	7
Duck spp.	2
Merlin	2
Redtail Hawk	4
Total	37

Table 9. Species Observations – Fall Infrastructure Interaction Surveys – Onslow Section

Species	Number Observed
American Crow	27
American Robin	6
Bald Eagle	11
Black-backed Gull	2
Blue Jay	14
Canada Goose	360
Greater Black-backed Gull	2
Merlin	7

Species	Number Observed
Sharp Shinned Hawk	2
Total	431

Table 10 shows the movement direction that the birds were traveling as they crossed the existing L8001 transmission.

Table 10. Movement Direction – Infrastructure Interaction Surveys – Onslow Section

Flight Direction	West to East	East to West
Spring	26	11
Fall	208	23

Table 11 shows the area where the birds were observed to cross the L8001 transmission line (Drawing 5, Appendix A).

Table 11. Area of Crossing – Infrastructure Interaction Surveys – Onslow Section

Area of Crossing	West	Center West	Center	Center east	East
Spring	8	0	14	3	12
Fall	15	0	5	4	207

Table 12 shows the proportion of the birds that were observed to “interact” with the L8001 transmission line within the Onslow Section Study Area during the infrastructure interaction surveys in the spring and fall.

Table 12. Interactions – Infrastructure Interaction Surveys – Onslow Section

Interactions	Yes	No
Spring	11	26
Fall	9	433

4.0 DISCUSSION

4.1 Desktop Review

4.1.1 Amherst Section

The ubiquity of wetlands that are known concentration points for waterfowl near the Amherst Section Study Area indicate that a large number of birds may frequent the area, especially during the migration season. The marsh complexes in the Amherst Section are known to host stopover migrant waterfowl flocks during the spring and fall migration seasons. There is a high likelihood that large movements of birds may cross the L8001/L8005 Transmission Line corridor as waterfowl travel between different foraging areas during these migration stopovers. Raptors such as eagles and hawks are known to prey upon large waterfowl flocks, so raptors may also be abundant in the area. Furthermore, the wetlands in this area are likely associated with bog and swamp wetland habitats as well, which can be important habitats for a variety of songbird species during the breeding season.

4.1.2 Onslow Section

The desktop review did not reveal a large extent of important bird habitat near the Onslow Section Study Area, however the proximity of a few rivers and small wetlands would indicate that the presence of some waterfowl is likely. The forest cover in the area also suggests that passerine and raptor bird species may occur in relative abundance in this area, especially during the summer breeding season.

4.2 Breeding Bird/Habitat Utilization Surveys

4.2.1 Amherst Section

The breeding bird surveys revealed a relatively high abundance and diversity of passerine and raptor species in and near the Amherst Section. Olive-sided Flycatchers, which are globally imperiled (S2B) were particularly abundant near the Study Area, owing to the presence of large open bog complexes which these birds prefer as breeding habitat.

Other notable observations of SOCI included the Eastern-wood Pewee, which indicates the presence of mature forest in the area, as well as the Boreal Chickadee and the Grey Jay, which indicates the presence of softwood forest interior habitat (which is becoming increasingly rare in Nova Scotia).

Breeding evidence collected during these surveys shows that a variety of species (from passerines to fowl to raptors) breed, or are highly likely to breed, within or near the Study Area.

4.2.2 Onslow Section

The breeding bird surveys conducted in the Onslow Section Study Area indicate a diverse bird community as well and also include the presence of a number of SOCI. Olive-sided Flycatchers were observed here as well, albeit in lower abundance than the Amherst Section owing to the lesser prevalence of open bog habitat.

The diverse species composition observed indicates a variety of habitats to support the robust breeding bird community, including mature softwood and mixed wood stands, swamps, open bogs, and riparian areas. Breeding evidence collected indicates that many common and rare species do, or are highly likely to, breed within or near the Study Area.

A noteworthy trend is the ubiquity of raptor breeding evidence that was observed in the Onslow Section Study Area during both the breeding bird surveys and the infrastructure interaction surveys. A variety of raptors including Merlins, Red-tailed Hawks, American Kestrels, and Bald Eagles were observed to exhibit breeding behaviour, and in some cases fledged young were observed learning to hunt within the powerline corridor.

4.3 Spring and Fall Migration Season Infrastructure Interaction Surveys

4.3.1 Amherst Section

The infrastructure interaction surveys conducted in the Amherst Section show a relatively low level of bird activity in the spring. Only a few observations of waterfowl movements were noted, with the most active species being the Canada Goose. A few observations of passerine bird

movements were made, including small flocks of White-winged Crossbills, and Tree Swallows.

There were considerably more birds observed in the fall, owing to the presence of very large flocks of waterfowl in the area, especially in the wetland complex in the far west of the Study Area where the powerlines cross a marsh complex near the New Brunswick border. This is evidence that the wetlands in the area support large numbers of migrant waterfowl stopovers in the fall season. Raptors, including Red-tailed Hawks, Bald Eagles, and Sharp Shinned Hawks were observed preying upon congregating waterfowl flocks during this season. Blackbird species including Common Grackles and Red-Winged Blackbirds were also ubiquitous in the wetland habitats during the fall. A large flock of Double-crested Cormorants was also observed traveling over the Study area on October 22. These birds were likely traveling from the Bay of Fundy to the Northumberland Strait to prey upon migrating schools of fish which tend to concentrate in the many bays and river estuaries of Nova Scotia's north shore during October.

The general movement direction of birds crossing over the powerlines was biased towards an east to west trajectory in the spring, and west to east in the fall.

Most birds were observed to cross over the powerlines in the western extent of the Study Area, but many were observed to cross in the center and center east as well. These areas are associated with wetland habitat.

Few birds were observed to interact with the existing L8001 powerlines in the spring, however there were significantly more instances of interaction observed in the fall. This is almost exclusively due to large mixed species waterfowl flocks (comprised of mostly American Wigeon and American Black Duck) congregating in the wetland complex in the far west of the Study Area near the New Brunswick Border. These birds frequently crossed under the powerlines as they avoided predation from Hawks and Eagles. No instances of collisions with the powerlines were observed.

4.3.2 Onslow Section

The movement of birds in the Onslow Section Study Area during the spring migration season was considerably low, limited to a few observations of hawks and common passerines including American Crows and Common Ravens.

During the fall migration season, the movement of birds in the Onslow Section was relatively low when compared to the survey results from the Amherst Section, except for a few observations of large flocks of Canada Geese. The geese appeared to be attracted to the area to forage in freshly harvested corn fields around the Study Area. Also noteworthy was the relative abundance of newly fledged and mature raptor species, including Merlins and Sharp-shinned Hawks that were observed foraging within the L8001 powerline corridor. This indicates that these species likely breed nearby, and the powerline corridor appears to be suitable habitat for the fledglings to learn to hunt.

In both the spring and fall seasons the movement direction of birds was biased in the west to east direction. Most birds were observed crossing in the eastern section of the Study Area, owing mostly to the movement of the large flocks of Canada Geese. Other species (raptors and passerines) did not appear to favour any particular corridor for the movements.

The proportion of birds that interacted with the powerlines was low in the Onslow Section, and was mostly limited to instances where crows and raptors passed close to the wires while traveling. These species have excellent eyesight and were observed to navigate the powerlines with confidence.

5.0 CLOSURE

This report (the "Report") has been prepared by Strum Consulting ("Consultant") for the benefit of Nova Scotia Power Inc. ("Client") in accordance with the agreement between Consultant and Client, including the scope of work detailed therein (the "Agreement").

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

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

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

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

The Report is to be treated as confidential and may not be used or relied upon by third parties, except:

- As agreed in writing by Consultant and Client;
- As required by law; and
- For use by governmental reviewing agencies.

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

thereof shall be borne by the party making such use.

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

Should additional information become available, Strum requests that this information be brought to our attention immediately so that we can re-assess the conclusions presented in this report. This report was prepared by Scott Dickey, MREM, Environmental Scientist and was reviewed by Shawn Duncan, BSc., Vice President.

6.0 REFERENCES

NSDNR (Nova Scotia Department of Natural Resources). 2018a. *Wet Areas Mapping and Flow Accumulation Channels*. Retrieved from <http://novascotia.ca/natr/forestry/gis/wamdownload.asp>.

NSDNR (Nova Scotia Department of Natural Resources). 2018b. *Nova Scotia Significant Species and Habitats Database*. Retrieved from <http://www.gov.ns.ca/natr/wildlife/habitats/hab-data/>

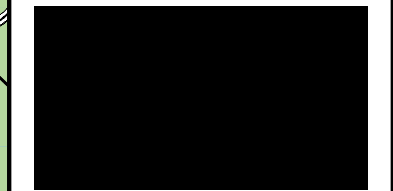
APPENDIX A
DRAWINGS



Notes:
 1. Data Sources: GeoNOVA, NSTD.
 2. Projection: NAD83 UTM Zone 20 North.

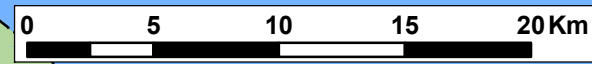
- Legend:**
- Study Areas
 - Existing L8001 and Proposed L8005 ROW
 - NB/NS Border
- Transportation**
- Trans-Canada Highway
 - Highway
 - Arterial Road
 - Collector Road
 - Local Road

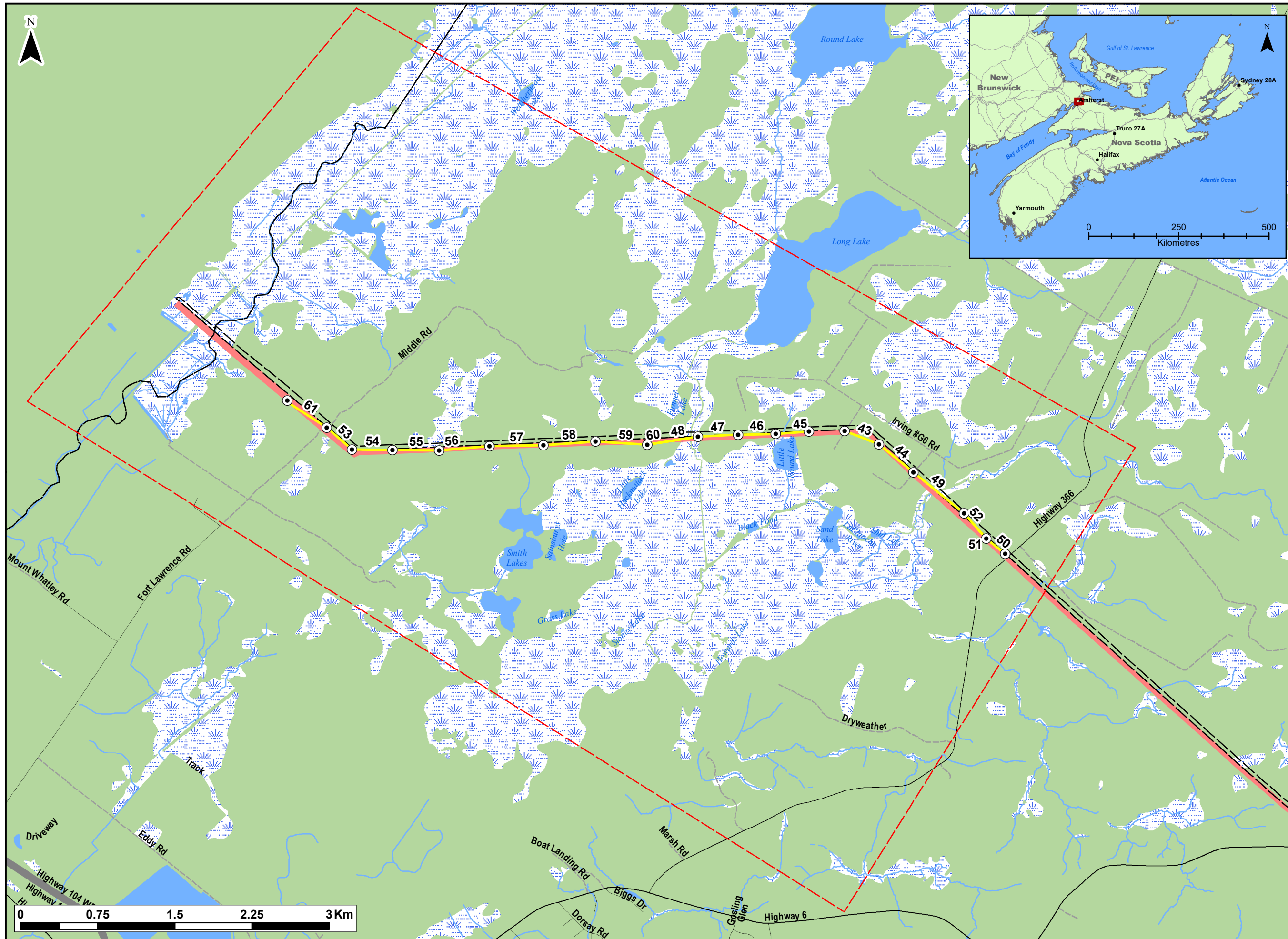
Transmission Line L8001/8005 Avian Assessment - Study Area Locations



*Engineering * Surveying * Environmental
 Bedford * Antigonish * Moncton * St. John's*

Date: Nov. 2020	Project #: 20-7343
Scale: 1:300,000	Drawing #: 1
Drawn By: M. Savelle	
Checked By: S. Dickey	





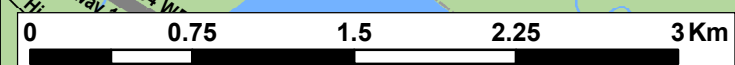
Notes:
 1. Data Sources: GeoNOVA, NSTD.
 2. Projection: NAD83 UTM Zone 20 North.

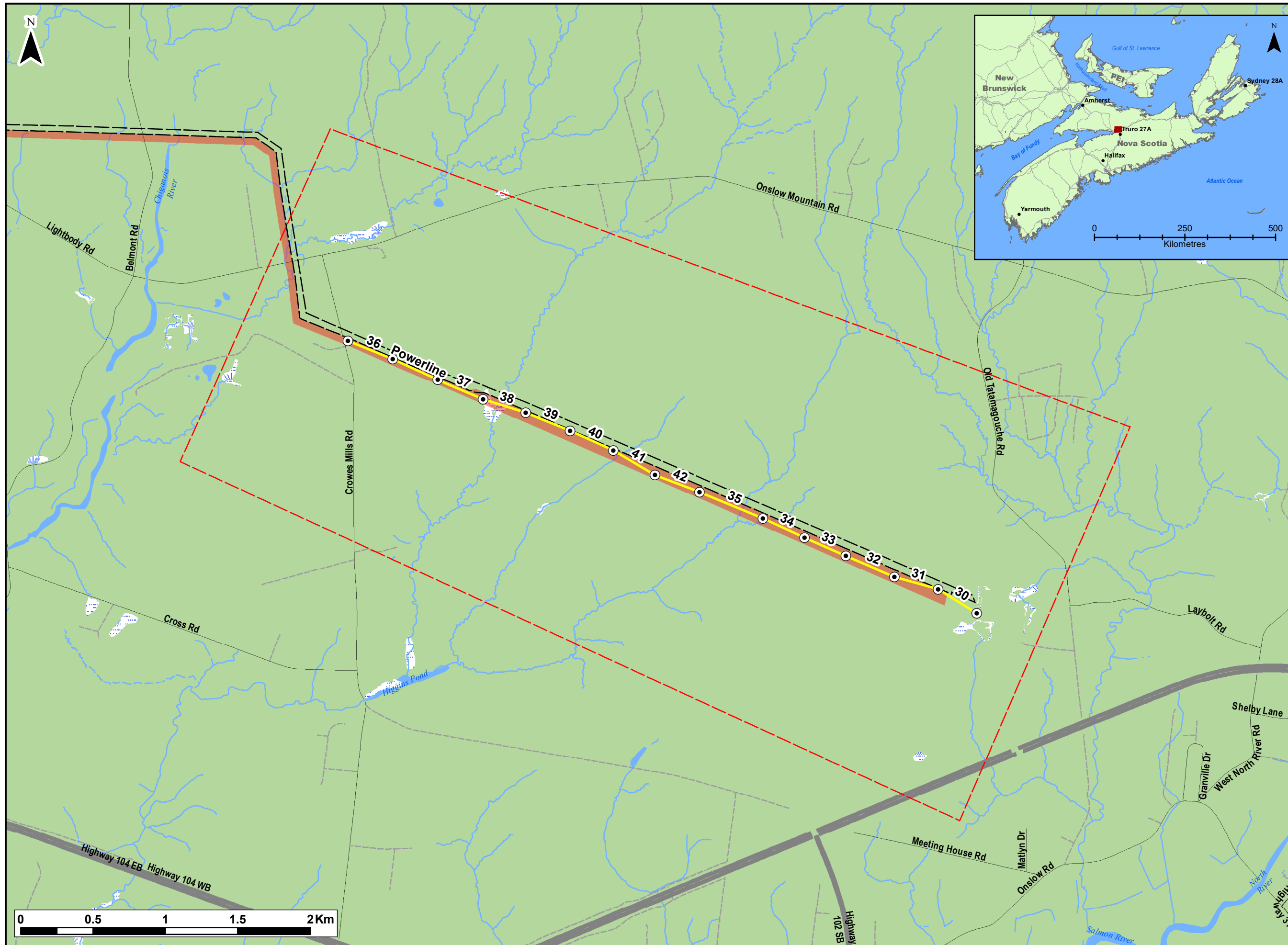
- Legend:**
- Bird Breeding Survey Transect
 - Start/ End Transect Location
 - Amherst Study Area
 - Proposed L8005 ROW
 - Existing L8001 ROW
 - NB/NS Border
- Transportation**
- Highway
 - Arterial Road
 - Collector Road
 - Local Road
 - Unpaved Road
- Water Features**
- Mapped Stream
 - Mapped Indefinite Stream
 - Mapped Wet Area

**Transmission Line
 L8001/8005
 Avian Assessment -
 Amherst Section
 Breeding Bird Transect
 Locations**



Date: Nov. 2020	Project #: 20-7343
Scale: 1:35,000	Drawing #: 2
Drawn By: M. Savelle	
Checked By: S. Dickey	





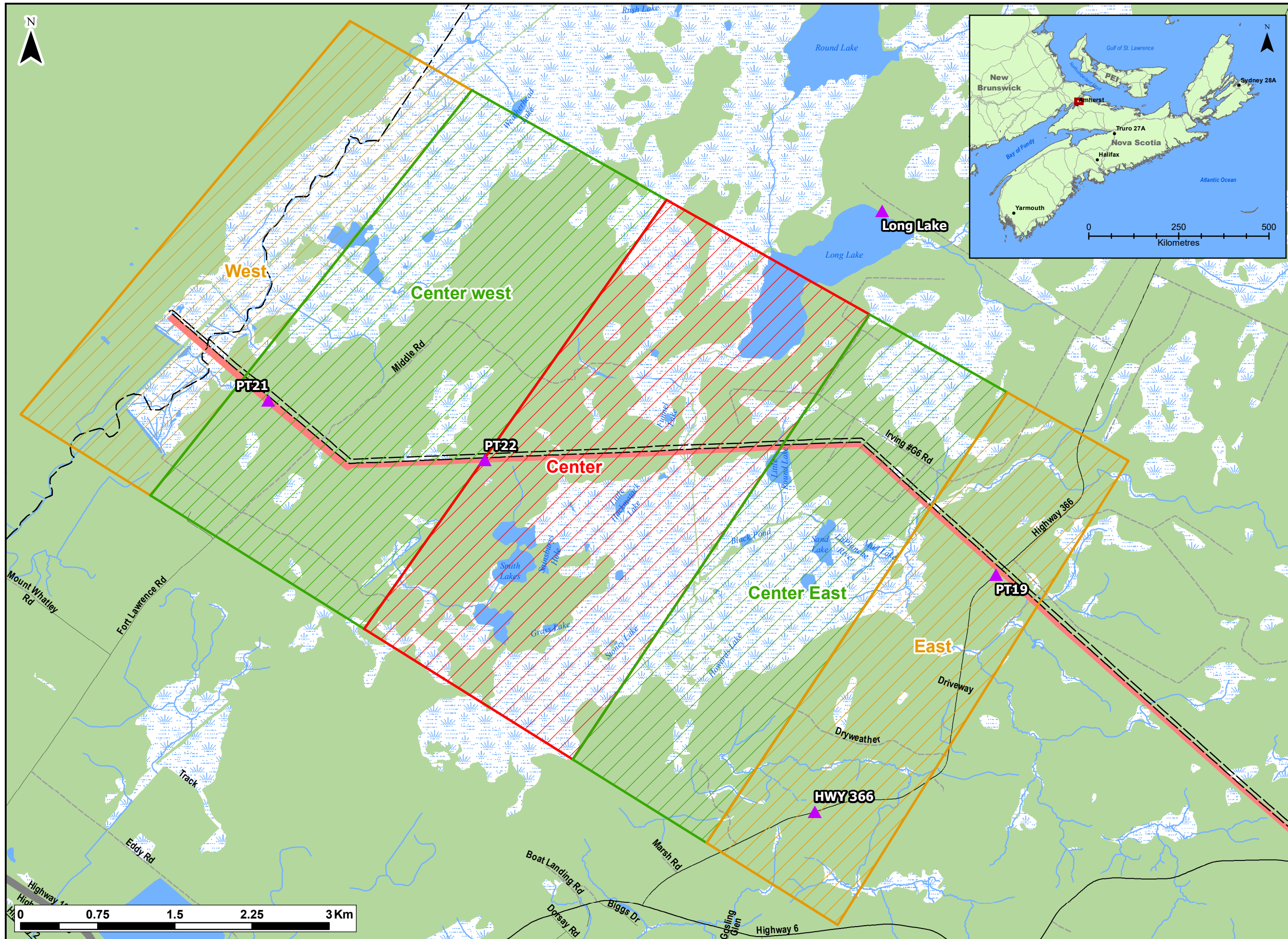
Notes:
 1. Data Sources: GeoNOVA, NSTD.
 2. Projection: NAD83 UTM Zone 20 North.

- Legend:**
- Bird Breeding Survey Transect
 - Start/ End Transect Location
 - Onslow Study Area
 - Existing L8001 ROW
 - Proposed L8005 ROW
- Transportation**
- Highway
 - Arterial Road
 - Collector Road
 - Local Road
 - Unpaved Road
- Water Features**
- Mapped Stream
 - Mapped Indefinite Stream
 - Mapped Wet Area

**Transmission Line
 L8001/8005
 Avian Assessment -
 Onslow Section
 Breeding Bird Transect
 Locations**



Date: Nov. 2020	Project #: 20-7343
Scale: 1:25,000	Drawing #: 3
Drawn By: M. Savelle	
Checked By: S. Dickey	



Notes:
 1. Data Sources: GeoNOVA, NSTD.
 2. Projection: NAD83 UTM Zone 20 North.

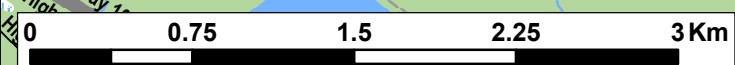
- Legend:**
- Bird Watch Count Location
 - Proposed L8005 ROW
 - Existing L8001 ROW
 - NB/NS Border
- Transportation**
- Highway
 - Arterial Road
 - Collector Road
 - Local Road
 - Unpaved Road
- Water Features**
- Mapped Stream
 - Mapped Indefinite Stream
 - Mapped Wet Area

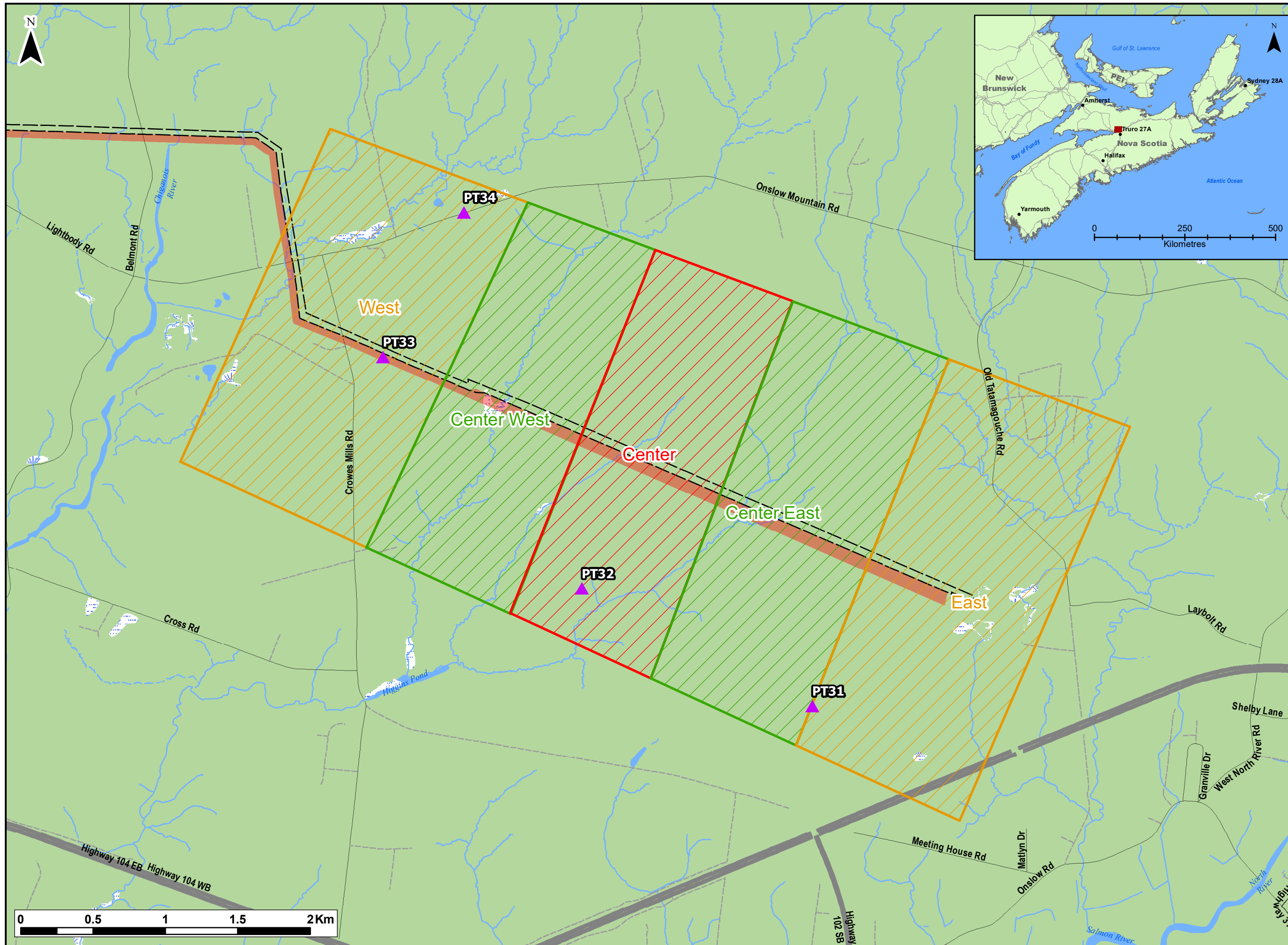


**Transmission Line
 L8001/8005
 Avian Assessment -
 Amherst Section
 Study Area - Area of
 Crossings**



Date: Nov. 2020	Project #: 20-7343
Scale: 1:35,000	Drawing #: 4
Drawn By: M. Savelle	
Checked By: S. Dickey	





Notes:
 1. Data Sources: GeoNOVA, NSTD.
 2. Projection: NAD83 UTM Zone 20 North.

- Legend:**
- Bird Watch Count Location
 - Proposed L8005 ROW
 - Existing L8001 ROW
- Transportation**
- Highway
 - Arterial Road
 - Collector Road
 - Local Road
 - Unpaved Road
- Water Features**
- Mapped Stream
 - Mapped Indefinite Stream
 - Mapped Wet Area

**Transmission Line
 L8001/8005
 Avian Assessment -
 Onslow Section
 Study Area - Area of
 Crossings**



Date: Nov. 2020	Project #: 20-7343
Scale: 1:25,000	Drawing #: 5
Drawn By: M. Savelle	
Checked By: S. Dickey	

