

August 7, 2014

City of Greater Sudbury
P.O. Box 5000, Stn 'A'
200 Brady Street
Sudbury, ON P3A 5P3

Attn: Eric Taylor, Manager of Development Approvals
Department of Growth and Development

**Re: Jack Nicholas Business Innovation Park – The Kingsway, Sudbury
Species at Risk Assessment**

The following letter report has been prepared by N.A.R. Environmental Consultants Inc (NAR) on behalf of 1777222 Ontario Ltd. and 1777223 Ontario Ltd. with respect to their property located north of Levesque Street on The Kingsway, City of Greater Sudbury, known as the Jack Nicholas Business Innovation Park.

Following a submission by the proponent of a rezoning application to the City of Greater Sudbury Planning Department for Phase II of the development, the completion of a Species at Risk evaluation of the property was required for two species; Blanding's turtles (*Emydoidea blandingii*) and Eastern whip-poor-will (*Caprimulgus vociferus*).

This report provides the results of the surveys for the identified species, completed by NAR between June 4th and July 21st, 2014. Both Phase I (eastern half) and II (western half) of the proposed development were included in the SAR evaluations.

Nature of the Proposed Development and Local Site-Setting

The proposed area of development is approximately 68 ha (170 acres) in size, and lies due north of The Kingsway between Mid-North Motors to the west and Yollie Street to the east (see Figure 1). The property is described as part of Lots 9 and 10, Concession 4, Township of Neelon. The Draft Plan of Subdivision PIN 73561-0258 and PIN 73561-0264 provides for the creation of a total of 32 lots for the proposed development (see Figure 2).

Proposed access to the site is via two entrances off The Kingsway; one utilizing the existing access road opposite Levesque Street and a second new entrance to the west opposite the future location of Hazelton Drive. Current access to the site is opposite

Levesque Street and near the western edge of the property, however both accesses are restricted by cable barriers at this time.

Provisions have been made in the design for the construction of a stormwater management pond on Lot 22 of the development.

Currently, the site is undeveloped, consisting primarily of a mixed deciduous and coniferous forest cover with exposed bedrock ridges (Plate 1). Towards the eastern side of the property, there is an area of historic infilling of concrete demolition wastes both buried and on surface (Plate 2). Historic waste dumping was also noted along the western bank of a small creek on the western edge of the property (Plate 3).

Species at Risk Assessments

The status of both Blanding's turtles and Eastern Whip-poor-wills have been classified as Threatened under the Provincial *Species at Risk Act* (SARA), requiring the assessment and protection of populations and their habitat. The City of Greater Sudbury also has obligations for species and habitat protection when assessing development proposals (S. Monet, Manager – Environmental Initiatives – J. Linquist; pers. comm.).

Prior to the commencement of site inspections for either species, a review of available Federal and Provincial legislation for Species at Risk was completed, as well as information on individual species, habitats and protection.

As recommended in the survey protocols, the following websites were utilized for additional information on the identified species:

- Ontario Reptile and Amphibian Atlas (ORAA)
www.ontarionature.org/protect/species/herpetofaunal_atlas.php
- Natural Heritage Information Centre (NHIC)
www.nhic.mnr.gov.on.ca
- Committee on the Status of Endangered Wildlife in Canada (COSEWIC)
www.sararegistry.gc.ca

The *Seasonal Occurrence of Birds in the Sudbury District* (Sudbury District Ornithological Society 2013) indicated that Eastern Whip-poor-wills are commonly found in appropriate habitats in the Sudbury area between May and October.

The City of Greater Sudbury Environmental Initiatives website provides information on reports of Eastern Whip-poor-will calls within the city. In the vicinity of the Jack Nicholas Business Innovation Park, mapping indicated two occurrences of single calls reported in 2012; one call from two blocks south of The Kingsway and a second from the Bancroft Drive area, further south. No calls were reported north of The Kingsway near the project.

Blanding's Turtles

Habitat

Typical habitat for this species during the open water season includes a variety of wetland types, such as marshes, ponds, fens, slow-flowing streams and shallow bays of lakes or rivers. These habitats usually exhibit soft sediment bottoms and often have emergent vegetation, as described in the Ministry of Natural Resources and Forestry's (MNRF) Fact Sheet *General Habitat Description for the Blanding's Turtle (Emydoidea blandingii)*.

Nesting sites for Blanding's turtles are characterized by low vegetation cover and good sun exposure, and are typically proximal (250 m) to permanent wetlands. Basking sites are generally within 30 m of wetlands.

Overwintering sites require permanent ponds, channels or wetlands with an area of free (unfrozen) water. Based on the shallow and/or seasonal nature of the aquatic habitat within the boundaries of the Jack Nicholas Business Innovation Park area, there are no suitable overwintering sites. The southern portion of the large wetland meadow located approximately 80 m north of the project site (see Figures 1 and 3) includes a small fringing marsh area which would provide potential overwintering sites for this species.

Within the City of Greater Sudbury, populations of Blanding's turtles have been identified in the Junction Creek watershed. Based on the review of aerial imagery for this area, drainage appears to be towards the western portion of the Lake Ramsey watershed and/or the Coniston Creek watershed.

Survey Methods and Results

Assessment techniques were in accordance with *Occurrence Survey Protocol for Blanding's Turtle (Emydoidea blandingii) in Ontario* (MNRF 2013). The objective of these techniques is to determine the presences or probable absence of this species in the project area.

Prior to the initial site visit, Google Earth imagery and topographic maps were reviewed to determine areas within or adjacent to the Jack Nicholas Business Innovation Park that might support suitable habitat.

Site surveys were conducted by the author on five occasions between June 4th and July 21st, 2014. Individual survey dates were June 4th, June 10th, June 18th, July 10th and July 21st. All surveys were completed between the hours of 11:00 am and 4:00 pm. Conditions were generally warm and sunny, with light or zero wind.

During the initial survey, the majority of the site was walked to confirm the areas of suitable habitat as determined from the map reviews. The majority of the project site is comprised of exposed to thin soil covered bedrock ridges trending in a north-south

direction, with pockets of thin soil occurring between the ridges (Plate 1). The western two thirds of the site is rugged with significant elevation changes while the eastern one third is relatively flat in comparison. In better drained soils, tree cover consists of small jack pine with isolated juvenile white pines present, with some poplar, birch and maple noted. In fully saturated soils, alders dominate. None of the forested cover is of commercial value. The southeast area of the site is comprised of grasslands with infilling from deposited construction and demolition wastes (Plate 2).

Of the 68 ha site, areas of aquatic habitat were limited to two small, shallow ponds created by infilling during the construction of The Kingsway (Plates 4 and 5), one isolated pond near the eastern limit of the site (Plate 6), and a small drainage creek located along the western border (see Figure 3; Plate 7). The ponds vary in size from approximately 15 m² to 75 m² with water depths of 10 to 40 cm.

None of the shallow ponds had inflow or outlet discharges, indicating isolated systems not connected to any wetland complexes. As there were a number of rain events throughout the survey period, small areas of open water were evident during the surveys, however the ponds are likely transitory under normal seasonal weather conditions and potentially dry under normal summer conditions. Cattails were the dominant form of vegetation, with the edges occupied by grasses, rushes and sedges at all three ponds. Due to their shallow nature, all ponds would freeze to bottom under winter conditions.

There was no evidence of Blanding's turtle, or other turtle species, at these small ponds throughout the survey period. Due to their small isolated nature, potential disappearance under later summer conditions, and to freeze during winter months, these locations are not anticipated to be suitable habitat for Blanding's turtles.

Along the western edge of the property, there is a small creek situated between two bedrock ridges. The creek flows in a north to south direction for approximately 600 m (see Figure 3), discharging under The Kingsway via a concrete culvert (Plate 8). Flows were estimated at the culvert at 0.4 L/sec on June 10th. Flow immediately upstream of the roadway was often hyporheic (below ground).

Upper portions of the creek were typically pooled, stagnant, shallow and exhibited iron hydroxide accumulations, indicative of ground water inflow (Plate 9). Water depths in this area were estimated at 20 cm. Historic infilling of the western bank of the creek with domestic and automotive wastes was evident in the mid-creek area.

The upper drainage reaches were relatively flatter and not as tightly bounded by bedrock ridges (Plate 10). Surrounding vegetation was predominantly grasses, sedges and blueberry bushes.

Similar to the ponds described previously, flow in the creek and water levels in the pools are likely transitory under normal seasonal weather conditions and potentially dry during later summer periods.

Throughout the five survey periods, there was no evidence of Blanding's turtle, or other turtle species, utilizing the creek. Areas with soft soils along the pools were examined for evidence of footprints or shell scraping marks, but none were noted. Suitable areas for basking were limited along the mid- and upper sections of the creek, while tree cover over the lower reaches would not provide sun exposure. It is anticipated that nesting sites would be limited due to the thin soil cover and bedrock ridges dominating the area.

A large wetland meadow to the north of the property was inspected during the June 10th, July 10th and 21st survey periods (Plate 11). The area is evident on maps and imagery (Figures 1 and 3), but open water areas are limited to a narrow band along the southern perimeter (Plate 12). The wetland meadow was dominated by grasses, sedges and herbaceous plants while the fringing marsh at the southern perimeter was comprised of grasses, rushes and reeds. This complex appeared to be hydraulically disconnected from the creek to the south by a bedrock ridge located approximately at the corner of proposed Lots 9, 15 and 16 (Figure 2). It is anticipated that drainage of this wetland meadow area is to the west.

Eastern Whip-poor-will

Habitat

The Ministry of Natural Resources and Forestry (MNRF) SARA registry indicates that Eastern Whip-poor-will breeding habitat is based on forest structure rather than preferred tree species composition, although they are often associated with pine and oak trees. Breeding birds prefer a mixture of open space and forest cover, such as patchy tree cover with clearings. In the Sudbury area, bedrock ridges also provide appropriate clearings.

Based on these habitat preferences, survey stations at the Jack Nicholas Business Innovation Park were established along the perimeter of the open clearing and forested areas (see Figure 2). These areas are predominantly located along the southern portion of the proposed development. The fringes of the clearings were in grassed areas with some shrub coverage or wetlands. Georeferences for the stations and a brief description are provided in Table 1. Photos of selected station locations are provided in Plates 13 to 15.

Survey Methods and Results

The assessment methods used followed MNRF's *DRAFT Survey Protocol for Eastern Whip-poor-will (Caprimulgus vociferous) in Ontario* (August 2012).

The protocols suggest that the best dates for Eastern Whip-poor-will surveys occur between May 18th and June 30th. With the late arrival of spring in 2014, generally cooler conditions this year and the more northern location of the project site, survey dates from June 18th to July 14th were considered representative. Survey periods were also timed around the occurrence of the full moon, which occurred on June 13th and July 12th in 2014, and suitable weather conditions.

A total of three surveys were conducted by the author; June 18th, July 10th and July 14th. In accordance with the protocols, surveys were completed when there was no precipitation, winds were light, clear skies and temperatures were around 18 to 20 °C.

Surveys commenced approximately 10 to 15 minutes following sunset. Five minutes were allotted at each station to listen for calling birds.

Results and a summary of survey conditions are presented in Table 2. No Eastern Whip-poor-will calls were heard at any station during the three survey periods. Other bird species were noted at a number of the stations during each survey. As an indication that the conditions were suitable for birds calling on the survey dates, the observer noted Eastern Whip-poor-will calls in the McFarlane Lake area of Sudbury on all three nights.

As such, the survey found no evidence of calling by Eastern Whip-poor-wills in areas of suitable habitat under favourable conditions at the Jack Nicholas Business Innovation Park site.

Summary of Survey Results

Species at Risk surveys for both species were conducted in accordance with the MNRF protocols in the areas of identified suitable habitat on the Jack Nicholas Business Innovation Park. There was no evidence of either species present during the survey periods.

Habitat for Blanding's turtles was limited due to the potential intermittent nature of the aquatic resources on site. Under the proposed park development, construction of a stormwater management pond has been planned for Lot 22 (see Figure 2). There is potential for the incorporation of suitable habitat protection elements within the pond should turtle species be identified utilizing the area at a future date.

Statement of Qualifications

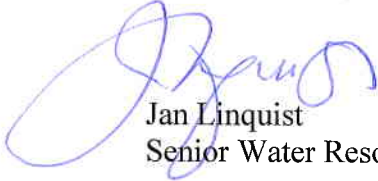
The site surveys and reporting were completed by Jan Linquist, Senior Water Resources Scientist with NAR. Jan has a work history of 20 years with the Ontario Ministry of the Environment and 17 years in the consulting sector. She has been able to combine a strong scientific knowledge and expertise with an understanding of the regulatory processes of the Federal, Provincial and Municipal levels.

In addition to conducting numerous Level I and II Natural Science Surveys, Jan has completed two similar surveys for Species at Risk in the past two years; one in Sudbury and a second in the French River Delta area, both involving Blanding's turtles.

Closure

Should the City or review agencies have any questions regarding these surveys, please contact our office.

Yours truly



Jan Linquist
Senior Water Resources Scientist

Cc: Stephen Monet – Manager, Environmental Initiatives, City of Greater Sudbury

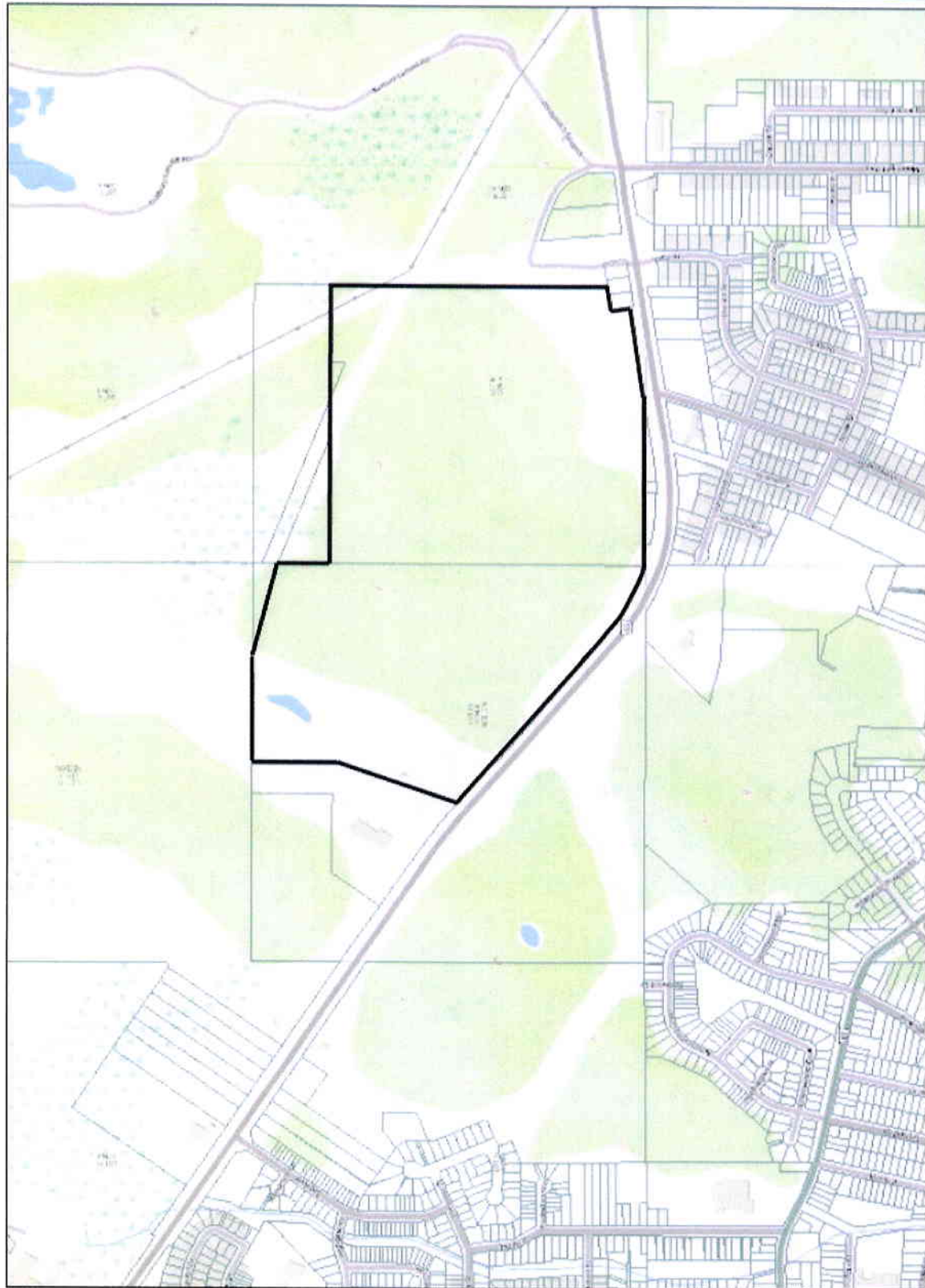
References:

Ministry of Natural Resources. August 2012. *DRAFT Survey Protocol for Eastern Whip-poor-will (Caprimulgus vociferous) in Ontario.*

Ministry of Natural Resources. 2013. *Occurrence Survey Protocol for Blanding's Turtle (Emydoidea blandingii) in Ontario.*

Sudbury Ornithological Society. 2013. *Seasonal Occurrence of Birds in the Sudbury District.* Laurentian University Press, Sudbury, Ontario.

Jack Nicholas Business Innovation Park



0.9 0 0.44 0.9 Kilometers

Scale: 1 : 17,370

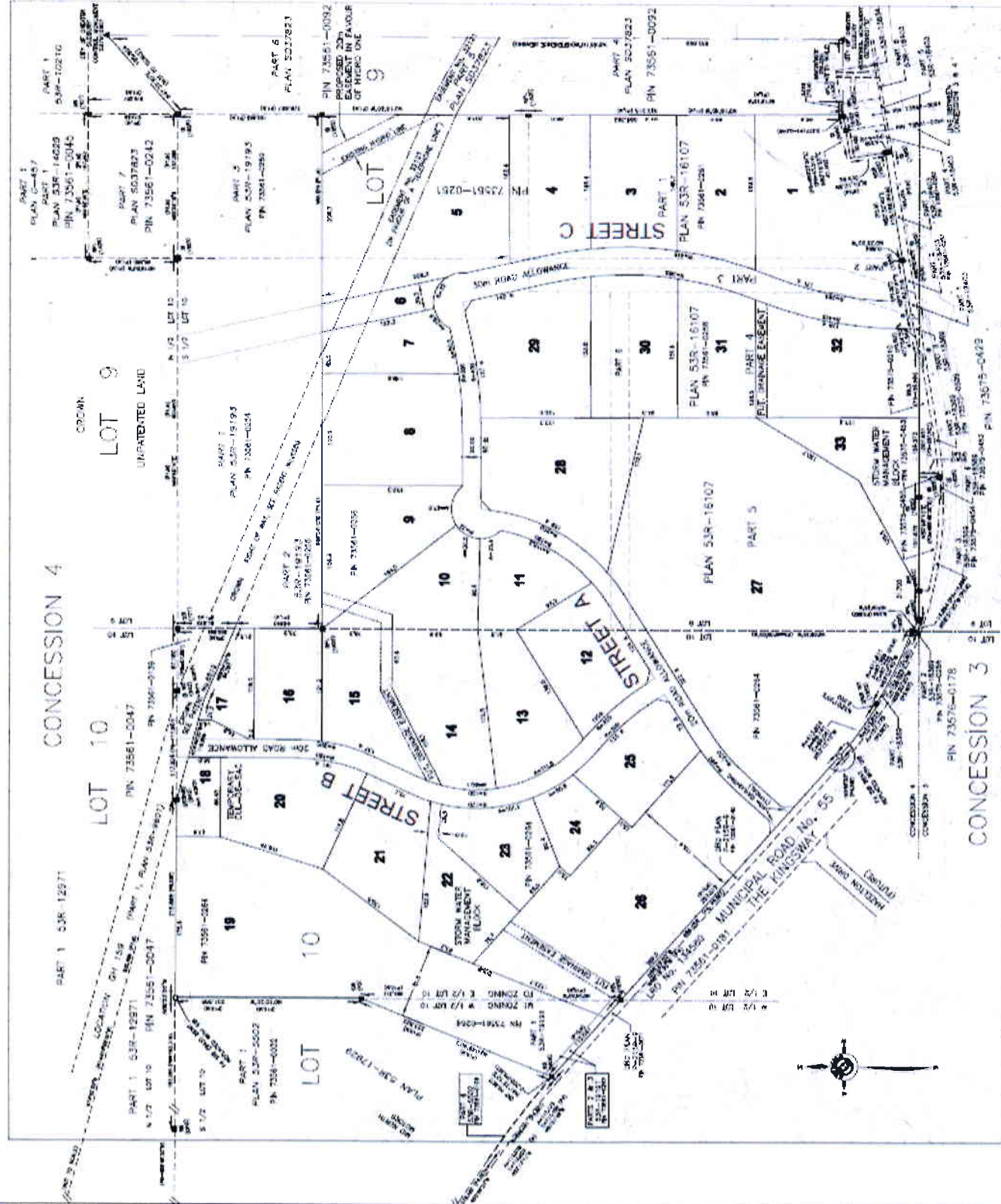
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Figure 1: Jack Nicholas Development boundary overlay

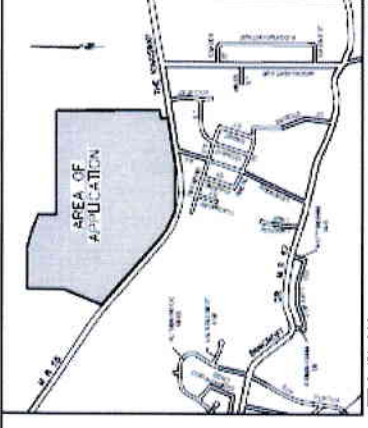
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KEY PLAN
 SCALE 1:10,000
 AREA OF APPLICATION
 MUNICIPAL ROAD NO. 55
 THE KINGSWAY

NOTES:
 1. ALL LOTS ARE TO BE SUBDIVIDED INTO 1/2 ACRE LOTS.
 2. ALL LOTS ARE TO BE SUBDIVIDED INTO 1/4 ACRE LOTS.
 3. ALL LOTS ARE TO BE SUBDIVIDED INTO 1/8 ACRE LOTS.
 4. ALL LOTS ARE TO BE SUBDIVIDED INTO 1/16 ACRE LOTS.
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 30. ALL LOTS ARE TO BE SUBDIVIDED INTO 1/1073741824 ACRE LOTS.
 31. ALL LOTS ARE TO BE SUBDIVIDED INTO 1/2147483648 ACRE LOTS.
 32. ALL LOTS ARE TO BE SUBDIVIDED INTO 1/4294967296 ACRE LOTS.

DRAFT PLAN OF SUBDIVISION OF
PN 73561-0259 AND
PN 73561-0284
BENEFIT PART OF LOTS 9 & 10
CONCESSION 4
TOWNSHIP OF NEELON
CITY OF GREATER SUDBURY
DISTRICT OF SUDBURY

NOTES:
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Figure 2: Jack Nicholas Business Innovation Park (Provided by J.L. Richards & Associates Limited)



Figure 3: Blanding's Turtle survey - Areas of aquatic habitat



Figure 4: Station locations for Eastern Whip-Poor-Will survey

Table 1: Eastern Whip-poor-will Survey Locations; June - July, 2014

Station Name	UTM	Description
S1	17 507201 E 5149055 N	Along eastern edge of project area; at boundary of open grassed area and mixed bush; adjacent to small isolated wetland
S2	17 507125 E 5148975 N	Northern edge of grasslands; mixed bush to north; demolition wastes to the south
S3	17 507080 E 5148945 N	At northwest corner of open grasslands; bounded by mixed forest to the north and small wetland to the west
S4	17 507019 E 5148863 N	Adjacent to small wetland area, at primary site access across from Levesque Street, open area with some shrubs and small tree cover
S5	17 506680 E 5149082 N	Edge of mixed bush, bedrock ridges along western side, adjacent to highway
S6	17 506389 E 5149082 N	Proximal to small isolated wetland, mixed bush and open area around wetland, adjacent to highway
S7	17 506261 E 5149219 N	2nd major access, more upland at open field; highway visible from location
S8	17 506238 E 5149375 N	Base of cell tower, north of car dealership, elevated area along the western side of project; roadway and area around tower open, mixed species forest surrounding site

Table 2: Eastern Whip-poor-will Survey Results; June - July, 2014

Station	Survey Date	Start Time	Wind	Temp.	Precip.	Sky	Traffic Noise	Calls
S1	6/18/2014	21:40	Calm	20 °C	None	Clear	High	0
	10/07/2014*							0
	14/07/2014*							0
S2	6/18/2014	21:50	Calm	20 °C	None	Clear	High	0
	7/10/2014	21:23	Light air	18 °C	None	Clear	High	0
	7/14/2014	21:31	Calm	18 °C	None	Clear	Moderate	0
S3	6/18/2014	22:00	Calm	20 °C	None	Clear	High	0
	7/10/2014	21:15	Light air	18 °C	None	Clear	High	0
	7/14/2014	21:40	Calm	18 °C	None	Clear	Moderate	0
S4	6/18/2014	22:10	Calm	20 °C	None	Clear	High	0
	7/10/2014	21:35	Light air	18 °C	None	Clear	High	0
	7/14/2014	21:48	Calm	18 °C	None	Clear	Moderate	0
S5	6/18/2014	22:20	Calm	20 °C	None	Clear	High	0
	7/10/2014	21:43	Light air	18 °C	None	Clear	High	0
	7/14/2014	21:55	Calm	18 °C	None	Clear	Moderate	0
S6	6/18/2014	22:30	Calm	20 °C	None	Clear	High	0
	7/10/2014	21:52	Light air	18 °C	None	Clear	High	0
	7/14/2014	22:03	Calm	18 °C	None	Clear	Moderate	0
S7	6/18/2014	22:40	Calm	20 °C	None	Clear	High	0
	7/10/2014	22:00	Light air	18 °C	None	Clear	High	0
	7/14/2014	22:12	Calm	18 °C	None	Clear	Moderate	0
S8	6/18/2014	22:50	Calm	20 °C	None	Clear	High	0
	7/10/2014	22:08	Light air	18 °C	None	Clear	High	0
	7/14/2014	22:21	Calm	18 °C	None	Clear	Moderate	0

* Station not surveyed on this date due to constraints



Plate 1: Typical site setting of undeveloped lands in project area



Plate 2: Demolition waste materials located in south-east corner of site



Plate 3: Historic waste materials in western creek



Plate 4: Small isolated wetland adjacent to The Kingsway



Plate 5: Small isolated wetland adjacent to The Kingsway



Plate 6: Isolated wetland along western edge of site



Plate 7: Lower reach of creek along western side of site



Plate 8: Creek culvert at The Kingsway showing low flows



Plate 9: Mid-section of creek, pooled area



Plate 10: Upper reaches of western creek



Plate 11: Large wetland meadow north of subject property



Plate 12: Fringing marsh along southern edge of wetland meadow



Plate 13: Whip-poor-will survey site S3



Plate 14: Whip-poor-will survey site S4



Plate 15: Whip-poor-will survey site S8

September 19, 2014

City of Greater Sudbury
P.O. Box 5000, Stn 'A'
200 Brady Street
Sudbury, ON P3A 5P3

Attn: Stephen Monet
Manager – Environmental Initiatives

Re: Jack Nicholas Business Innovation Park – Response to Ministry of Natural Resources and Forestry Review Comments on Species at Risk Assessment

The following is provided in response to the review comments by Jean Enneson, Species at Risk Biologist, Sudbury District MNRF that you forwarded on September 5th, 2014.

Eastern Whip-poor-will

Jean's first paragraph indicates that while the timing for the survey may not have been ideal, it was acceptable due to the late arrival of spring this year and the confirmation of whip-poor-will activity at McFarlane Lake on the survey nights. The July survey periods were centered around the occurrence of the full moon during the first week of the month. Interestingly, I have heard calls this past week at McFarlane Lake during the full moon.

The survey stations were established along the open field – forest transition areas which were indicated in the *DRAFT Survey Protocol for Eastern Whip-poor-will (Caprimulgus vociferous) in Ontario* as preferred habitat. On this property, these areas are located along the southern portion of the site. The remainder of the property is primarily composed of a mixed forest cover.

There are no paths that provide access deeper into the forest, however we did notice an error on our Figure 4 with respect to the location of S8. The station was located at the cell tower on the height of land immediately north of the car dealership. A revised figure is appended.

With respect to concerns regarding traffic noise, the noise was noted but was not constant throughout the five minute survey period. Winds were generally zero to light on those evenings and one was certainly able to hear other bird calls on the property.

Blanding's Turtles

With respect to timing of the survey, the property owners were only advised by the City of Greater Sudbury planning department in mid-May that an assessment for Blanding's turtle habitat was required for the rezoning application. With the late arrival of spring conditions this year, it was felt that a preliminary survey for this Species at Risk could be completed in 2014.

Maps and satellite imagery were initially used to determine potential habitat areas within the property boundaries, however the entire property was walked to confirm there were no additional suitable areas. Survey methods focused on the identification of suitable habitat as well as observations for turtles. During the individual surveys, open wetland or creek areas were initially observed from a distance so as not to disturb any basking turtles. Once confirmed that turtles were not present, the area was inspected for potential basking sites and footprints or shell dragging signs in the soft sediments.

Wetland or creek characteristics and GPS readings were recorded for the sites observed, as well as weather conditions, including air temperatures, during each survey period (see provided table for the latter). Water temperatures were not recorded during any of the surveys, however it would be anticipated that they would be warm ($>18^{\circ}\text{C}$) based on open exposure to sunlight, shallow depth, limited to no flow conditions and June air temperatures.

As presented in MNRF's Survey Protocols, basking sites are usually within 30 m of a permanent wetland. The wetland to the north was estimated at 80 m from the property while those to the east and west are approximately 300 and 450 m distant, respectively. Based on these estimates, the use of the property for basking sites for turtles resident in these areas would not be anticipated. Nesting sites may be located within 250 m of permanent wetlands, which would include the wetland to the north. The majority of the property within this distance is comprised of bedrock outcrops with limited soil cover.

Going Forward


As indicated above, the Species at Risk surveys for both species were conducted in 2014 as a requirement of a rezoning application of the Jack Nicholas Business Innovation Park. Phase I, which was included in the survey, is appropriately zoned for the proposed development.

The property owners, 1777222 Ontario Ltd. and 1777223 Ontario Ltd., will consider undertaking future Species at Risk assessments prior to the commencement of the Phase II development of the property. Phase I, the eastern portion of the business park, would be developed initially prior to work on Phase II, the western portion. It is anticipated that development of Phase I would commence within one to two building seasons.

Closure

I hope these comments provide some clarification with respect to MNR's comments.

Yours truly



Jan Linquist
Senior Water Resources Scientist

Cc: Andrew Dale



locations for Eastern Whip-Poor-Will survey

Weather conditions during survey periods for Blanding's turtles

Date	Start Time	Temp. (°C)	Daily High (°C)	Precip. (mm)	Wind (km/h)	Comments
6/4/2014	12:30	13	14	0	20	Cool, overcast and windy
6/10/2014	15:15	25	27	0	15	Sunny, warm, moderate wind from the south
6/18/2014	16:00	20	21	0	20	Warm, 20-22 C, clear skies, no wind
7/10/2014	13:30	21	22	0	10	Warm and sunny, light wind
7/21/2014	13:00	25	27	0	20	Moderate wind, very warm

June 29, 2015

City of Greater Sudbury
P.O. Box 5000, Stn 'A'
200 Brady Street 3767
Sudbury, ON P3A 5P3
Attn: Eric Taylor

Manager of Development Approvals

Ministry of Natural Resources and Forestry
Sudbury District Office
Hwy 69S, Site 5
Sudbury, ON P3G 1E7
Attn: Mike Hall

Management Biologist

**Re: Jack Nicholas Business Innovation Park – The Kingsway, Sudbury
Species at Risk Assessment 2015 – Blanding's Turtles**

The following letter report has been prepared by N.A.R. Environmental Consultants Inc. (NAR) on behalf of the newly amalgamated company 1916596 Ontario Ltd. (formerly 1777222 Ontario Ltd. and 1777223 Ontario Ltd.), owners of the subject lands located primarily on **PIN 73561 - 0258 and PIN 73561 - 0264**. In spring 2014, Species at Risk surveys were conducted by NAR on the property located north of Levesque Street on The Kingsway, City of Greater Sudbury, known as the Jack Nicholas Business Innovation Park, for the presence of Blanding's turtles (*Emydoidea blandingii*) and Eastern whip-poor-will (*Caprimulgus vociferus*). A report of the survey findings was submitted to the City of Greater Sudbury and Ministry of Natural Resources and Forestry (MNRF) in August 2014.

On Dec. 8th, 2014, MNRF provided review comments on that report which indicated they were satisfied that Eastern whip-poor-wills were not present on the property, however, the results of the Blanding's turtle survey were considered inconclusive. As such, a second survey was conducted by NAR in Spring 2015. Both Phase I (eastern half) and II (western half) of the proposed development were included in the SAR evaluations.

Survey Methods and Results

A total of five surveys were completed between May 1st and 20th, 2015, in accordance with *Occurrence Survey Protocol for Blanding's Turtle (Emydoidea blandingii) in Ontario* (MNRF 2013). Weather conditions during each survey period are provided in the following table.

Date	Start Time	Temp (°C)	Daily High (°C)	Precip. (mm)	Cloud Cover	Wind (km/hr)
5/1/2015	12:40	17	20	0	Clear	10
5/5/2015	10:40	11	21	0	Clear	14
5/8/2015	11:00	22	25	0	Partly cloudy	27
5/13/2015	9:50	11	14	0	Clear	5
5/20/2015	13:15	13	18	0	Clear	15

Prior to the May 13th survey, there were significant rains for the two days prior, which resulted in a 10 to 15 cm rise in the ponded areas on the property and an increase in flows in the western drainage creek from 0.5 L/sec to 300 L/sec. Water levels returned to previous levels by the May 20th survey.

Similar to 2014, warmer weather and ice off conditions in local lakes did not occur until April in 2015. Spring peeper (*Pseudacris crucifer*) calls were first heard by the author three days prior to the commencement of the survey, indicative of early spring conditions.

As described in MNRF's Fact Sheet *General Habitat Description for the Blanding's Turtle (Emydoidea blandingii)*, nesting sites for Blanding's turtles are typically proximal (250 m) to permanent wetlands, while basking sites are generally within 30 m of wetlands. Overwintering sites require permanent ponds, channels or wetlands with an area of free (unfrozen) water. Based on the shallow and/or seasonal nature of the aquatic habitat within the boundaries of the Jack Nicholas Business Innovation Park area, there were determined to be no suitable overwintering sites. Therefore, suitable areas for nesting and basking were evaluated during the early spring 2015 surveys. Mapping provided by MNRF (Jean Ennison, A/Biologist) indicated areas within 250 m and 500 m of potential wetlands (appended).

Surveys were conducted on both the Phase 1 and 2 areas of the industrial park, with particular emphasis on the areas highlighted in the MNRF map. Figure 1 indicates the two areas of potential habitat (suitable ponds) and a 250 m radius from these sites.

On the Phase 1 (eastern) site, the area between the property and the northwest part of the wetland was traversed during each survey. While the map provided by MNRF shows the wetland covering a large area off the end of the dirt roadway on the adjacent property, drainage improvements at the Sudbury landfill have significantly changed the nature of this area. The area is predominately grasses with a shallow (< 0.3 m deep), intermittent pond (Plate 1) located in the middle of the area. Under dry late summer conditions, this pond may potentially disappear. This area is accessed via the adjacent property (Plate 2), which has a significant bedrock hill along the eastern property line, isolating it from the wetland to the east. This wetland receives leachate from the landfill site and flows to the south then east to Romford Creek.

One May 5th and 8th, a small Midland painted turtle (*Chrysemys picta marginata*) was noted in the pond located along the fence line (Plates 3, 4 and 5). It was assumed to be the same individual seen on both days as it were basking on the same rock on both occasions. There was no evidence of Blanding's turtle, or other turtles with the above noted exception, at this small pond on the Phase 1 site or adjacent properties throughout the survey period.

Along the western edge of the property, the small creek (on property) and wetland meadow to the north (off property) were surveyed on all dates in May. Portions of the

creek were typically pooled, stagnant, shallow and exhibited iron hydroxide accumulations, indicative of ground water inflow (Plate 6). Water depths in this area were estimated at 20 cm. Historic infilling of the western bank of the creek with domestic and automotive wastes was evident in the mid-creek area. Upstream of these pools, the drainage reach is relatively flat and not as tightly bounded by bedrock ridges as the lower portion of the creek (Plate 7). There is no distinct flow channel with thick surrounding vegetation of predominantly grasses, sedges and blueberry bushes.

Throughout the five survey periods, there was no evidence of Blanding's turtle, or other turtle species, utilizing the creek or upstream reaches.

Summary of Survey Results

Species at Risk surveys for Blanding's turtles were conducted in accordance with the MNRF protocols in the areas of identified suitable habitat on the Jack Nicholas Business Innovation Park property. 2015 surveys were conducted earlier in the year than those completed in 2014, which was raised as a concern by MNRF in their review of the previous evaluation. There was no evidence of this species present during the survey periods. Habitat for Blanding's turtles was limited due to the potential intermittent nature of most of the aquatic resources on site.

Statement of Qualifications

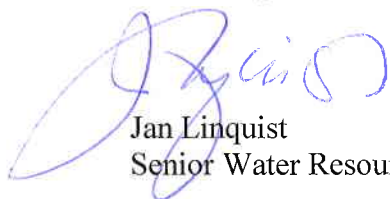
The site surveys and reporting were completed by Jan Linquist, Senior Water Resources Scientist with NAR. Jan has a work history of 20 years with the Ontario Ministry of the Environment and 18 years in the consulting sector. She has been able to combine a strong scientific knowledge and expertise with an understanding of the regulatory processes of the Federal, Provincial and Municipal levels.

In addition to conducting numerous Level I and II Natural Science Surveys, Jan has completed two similar surveys for Species at Risk; one in Sudbury and a second in the French River Delta area, both involving Blanding's turtles.

Closure

Should the City or review agencies have any questions regarding these surveys, please contact our office.

Yours truly



Jan Linquist
Senior Water Resources Scientist

cc: Stephen Monet – Manager, Environmental Initiatives, City of Greater Sudbury

References:

Ministry of Natural Resources and Forestry. 2013. *Occurrence Survey Protocol for Blanding's Turtle (Emydoidea blandingii) in Ontario*.

Ministry of Natural Resources and Forestry. Undated. Fact Sheet: General Habitat Description for the Blanding's Turtle (*Emydoidea blandingii*).





Figure 1: 250m zones from onsite ponds, Jack Nicholas Business Innovation Park



Plate 1: Former wetland area northeast of Phase 1. Note: small shallow pond in center background



Plate 2: Dirt roadway on adjacent eastern property looking south



Plate 3: Pond located along fence with suitable basking rocks and logs



Plate 4: Location of pond along fence, west of dirt roadway. Note: high bedrock ridge in background



Plate 5: Midland painted turtle basking on log seen in Plate 3

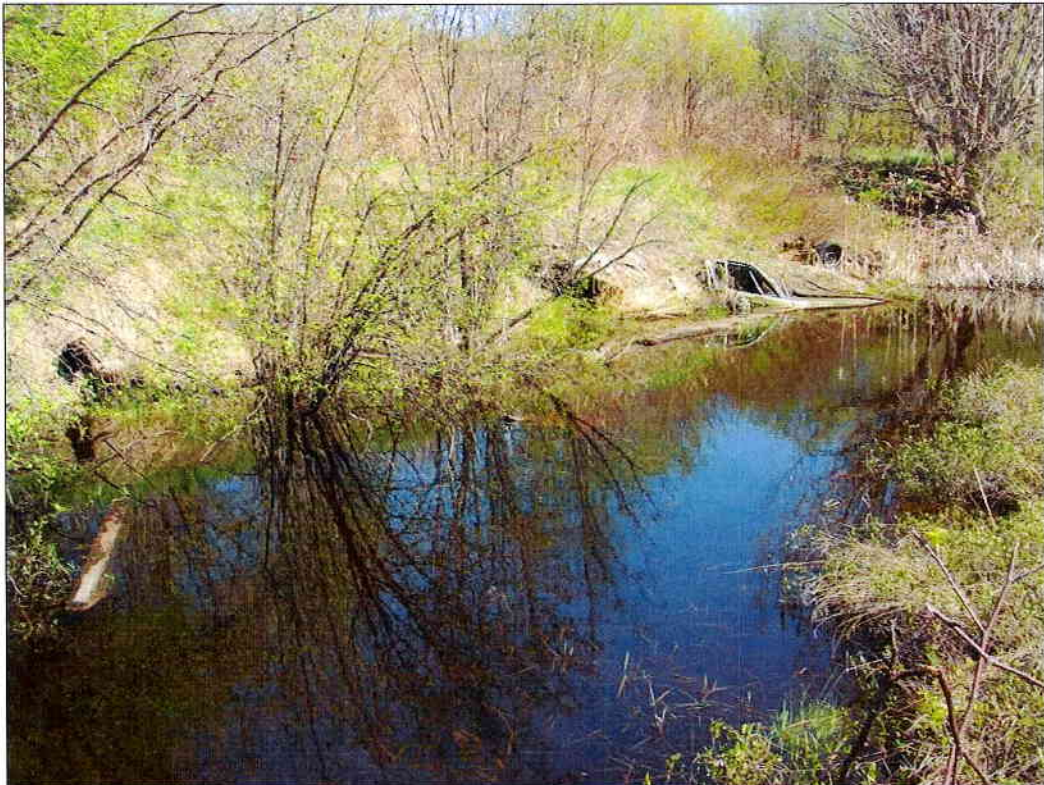


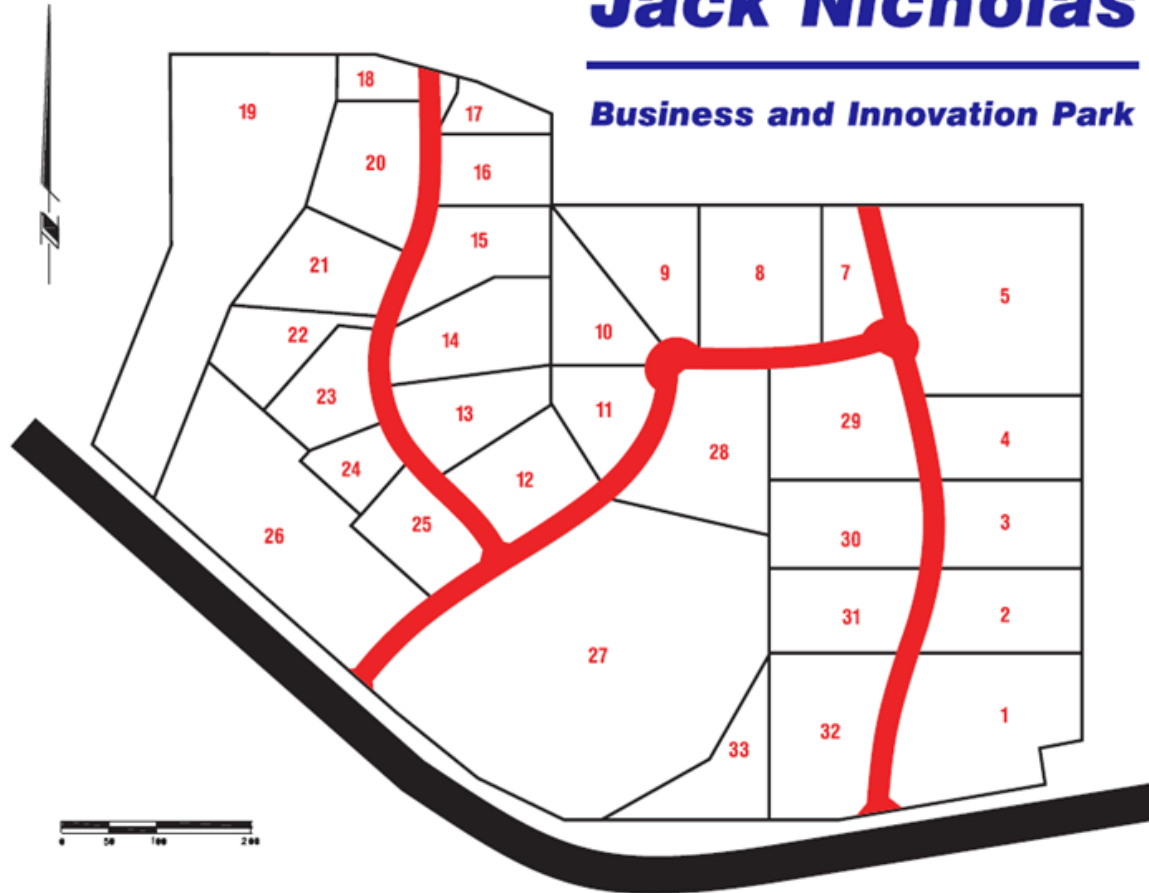
Plate 6: Pond located on the west side of property (Phase 2). Note: presence of historic waste infilled along creek



Plate 7: Drainage area to the north of ponds shown in Plate 6

Jack Nicholas

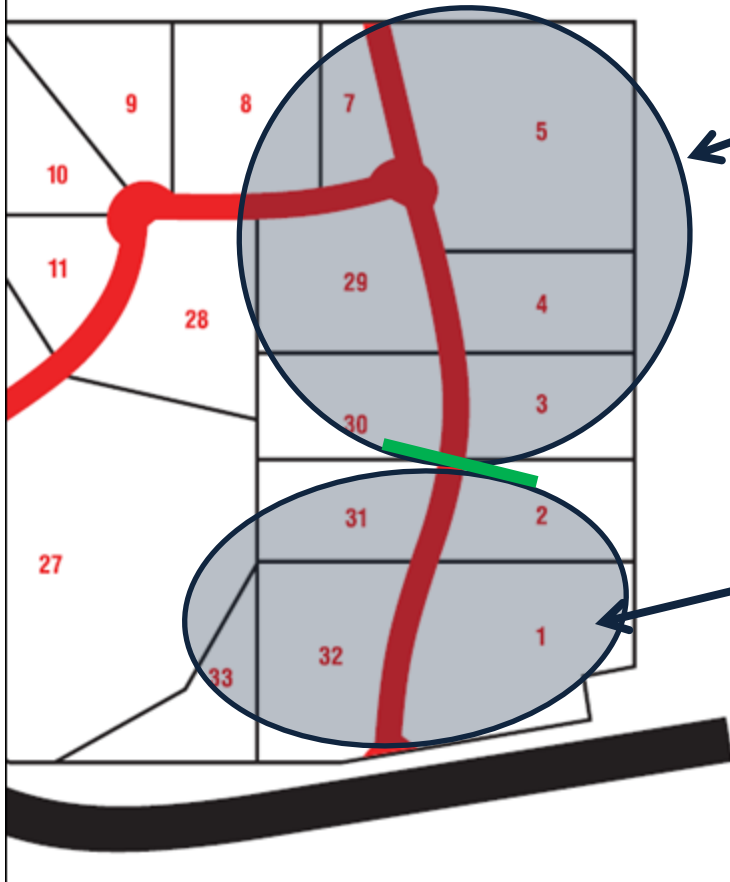
Business and Innovation Park



Lot	Area (hectares)	Area (acres)
1	2.71	6.69
2	1.34	3.31
3	1.38	3.41
4	1.35	3.33
5	3.77	9.31
6	0.38	0.94
7	0.83	2.05
8	1.84	4.54
9	1.42	3.51
10	1.08	2.67
11	0.89	2.20
12	1.28	3.16
13	1.19	2.94
14	1.48	3.66
15	1.23	3.04
16	0.88	2.17
17	0.47	1.16
18	0.38	0.94
19	5.27	13.02
20	1.44	3.56
21	1.27	3.14
22	0.92	2.27
23	0.97	2.40
24	0.56	1.38
25	0.98	2.42
26	4.04	9.98
27	9.36	23.12
28	2.00	4.94
29	1.81	4.47
30	1.46	3.61
31	1.20	2.96
32	1.87	4.62
33	1.22	3.01

Jack Nicholas

Business and Innovation Park



PHASE 1) B

Approximately 27 Acres
Zoned M2 and M3 and 1
Acre of through Road

PHASE 1) A

Approximately 17 Acres in
Lots 1,2,31,32 as well as 3
Acres in Lot 33 (Dedicated
MOE Approved SWMP)
Zoned M1-1

Schedule: Planning →

Potential →

Fall 2017

Spring 2017

Fall 2016

Spring 2016

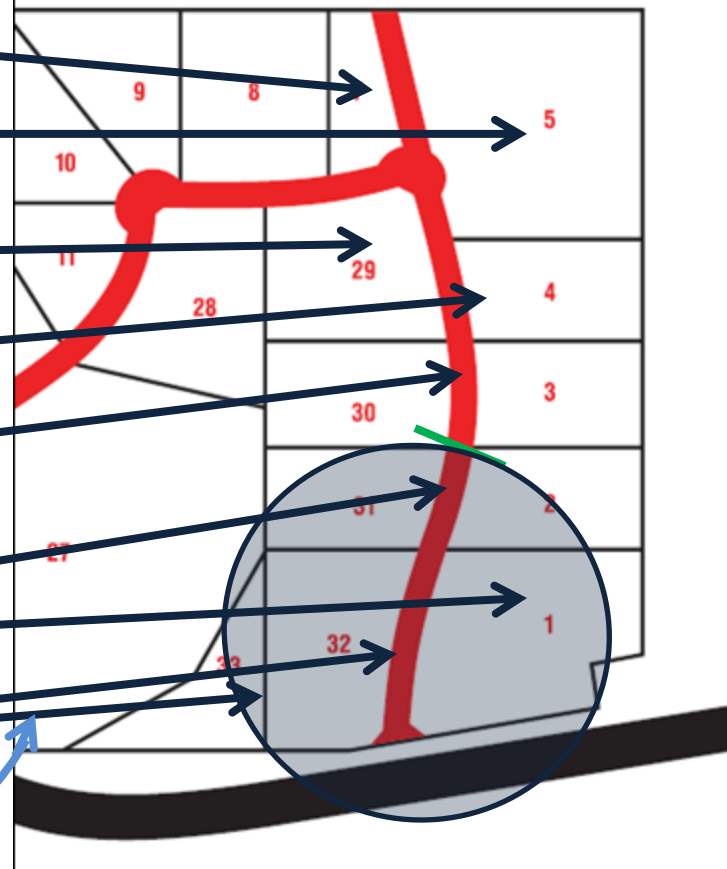
Fall 2015

Spring 2015

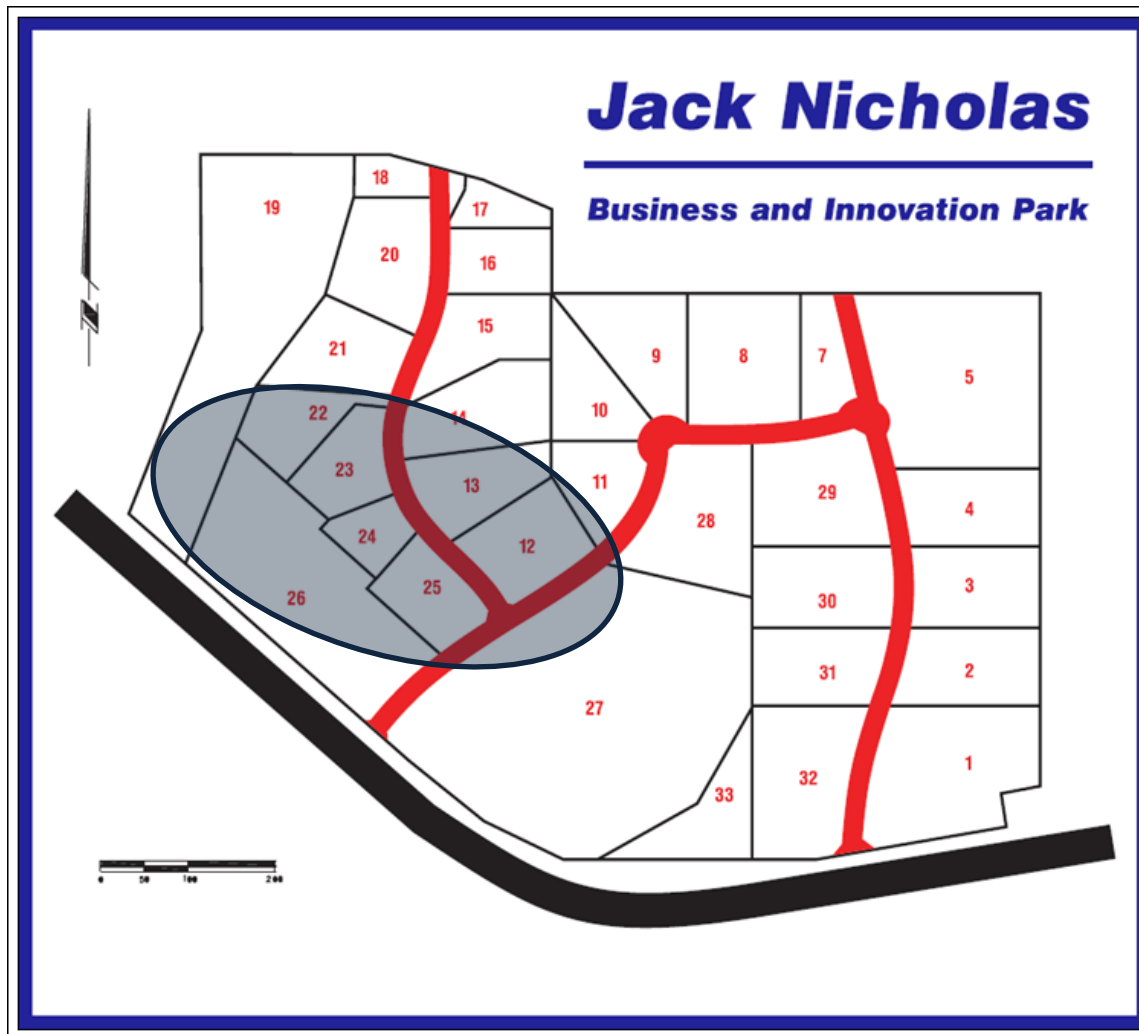
Fall 2014

Jack Nicholas

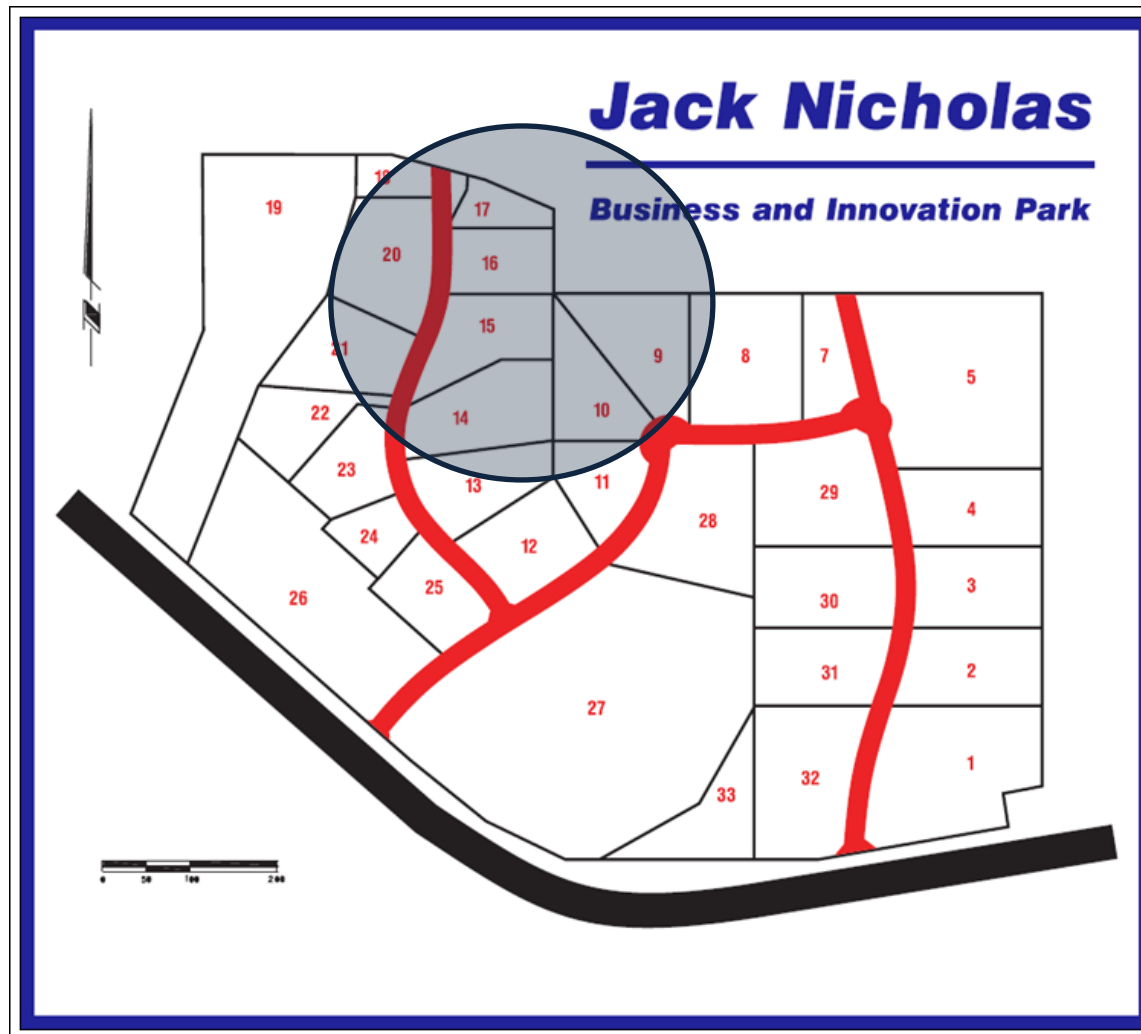
Business and Innovation Park



PHASE 2 – Future Development (As early as 2016 – 2020)



PHASE 3 – Future Development (as early as 2019 or beyond 2020)



**Ministry of Natural Resources
and forests**

Sudbury District Office
Northeast Region
Regional Operations Division

3767 Highway 69 South, Suite 5
Sudbury, ON P3G 1E7
Tel.: 705-564-7823
Fax: 705-564-7879

**Ministère des Richesses naturelles
et des Forêts**

Bureau de district Sudbury
Région Nord-Est
Division des services sur le terrain

3767 Route 69 Sud, bureau 5
Sudbury ON P3G 1E7
Tél. : 705-564-7823
Téléc. : 705-564-7879



September 23, 2015

SUD-L5-006-15

Dear Mr. Dale,

**RE: Proposed Jack Nicholas Business and Innovation Park and the
Endangered Species Act**

The Ministry of Natural Resources and Forestry has reviewed the information provided on your proposed project, Jack Nicholas Business and Innovation Park, to assess the potential impacts of the proposal on Blanding's Turtle (Threatened), and Whip-poor-will (Threatened). This information included a Species at Risk (SAR) report dated August 18, 2014, a schedule and master plan provided October 16, 2014, and a Species at Risk Assessment dated June 29, 2015. It is our understanding that the proposed project falls within these parameters:

- a) The Jack Nicholas Business and Innovation Park involves the phased development of a property to the northwest of the Kingsway and Moonlight Ave. in the City of Greater Sudbury as shown on the document provided to this office on October 16, 2014 entitled "Schedule MNR Timeline"
- b) Observations of Blanding's Turtle and Whip-poor-will exist within the limits of the City of Greater Sudbury;
- c) As provincially threatened species, Blanding's Turtle and Whip-poor-will individuals are protected from killing, harm and harassment under Section 9 of the *Endangered Species Act*, 2007 (ESA). Their habitat is also protected from damage and destruction under Section 10 of the ESA.
- d) Blanding's Turtles inhabit a variety of wetlands and waterways, nest in June and July in open habitats that may include road shoulders and soil collected in rock crevices and spend significant portions of time in upland areas moving between wetlands. This species overwinters in wetlands generally from September through mid-May.

- e) Whip-poor-will generally lay their eggs directly on leaf litter within sparsely vegetated habitat in late May to early July. The young birds are generally hatched and fully fledged by the end of August.
- f) Surveys for Whip-poor-will were conducted in the spring of 2014 using protocols consistent with advice from MNRF. Subsequent clarification of methods confirmed that the surveys were likely to have detected the birds if they were present. No Whip-poor-will were heard.
- g) Preliminary surveys were conducted in spring and early summer of 2014 for Blanding's Turtles. These surveys are considered inconclusive due to the time of year during which they were conducted.
- h) Additional surveys for Blanding's Turtles were conducted in spring of 2015. These studies included all wetlands and watercourses on site and any surrounding wetlands that could be legally accessed. No Blanding's Turtles were found.

Based on a review of the above information, Ministry staff have determined that the activities associated with development of the site, as currently proposed, **have a low probability of contravening** section 9 (species protection) and/or section 10 (habitat protection) of the *Endangered Species Act, 2007* (ESA 2007) for Blanding's Turtle and Whip-poor-will.

If the following conditions are implemented, the development of the site would likely not be prohibited under section 9 (species protection) or section 10 (habitat protection) of the *Endangered Species Act, 2007*:

1. Workers are educated on the potential to encounter SAR during their work, particularly Whip-poor-will and Blanding's Turtle, and how to identify these species.
2. If any endangered or threatened species are encountered, work will stop immediately and MNRF will be contacted for direction.

Should any of the project parameters change, or if it is not possible to comply with the above conditions, please notify the District office immediately to obtain advice on whether the changes require authorization under the ESA 2007. Please be advised that applying for a permit does not guarantee approval and processes can take several months.

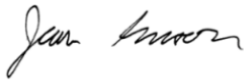
Please be advised that it is also your responsibility to be aware of and comply with all other relevant provincial or federal legislation, municipal by-laws, other MNR approvals or required approvals from other agencies.

It is important to be aware that changes may occur in both species and habitat protection. The ESA 2007 applies to species listed on the Species at Risk in Ontario List.

(www.mnr.gov.on.ca/en/Business/Species/2ColumnSubPage/246809.html). The Committee on the Status of Species at Risk in Ontario (COSSARO) meets regularly to evaluate species for listing and/or re-evaluate species already listed. As a result, species' designations may change that could in turn change the level of protection they receive under the ESA 2007. Also, habitat protection provisions for a species may change e.g. if a species-specific habitat regulation comes into effect. The regulation would prescribe the area as the habitat of the species.

If you have any concerns or questions please contact Mike Hall at 705-564-7862, by fax 705-564-7879 or at mike.hall@ontario.ca.

Sincerely,

A handwritten signature in black ink, appearing to read "Jean Enneson".

Jean Enneson A/Management Biologist
MNRF Sudbury District Office

Cc: Mike Hall, Management Biologist, MNRF Sudbury
Jan Linqvist, N.A.R. Environmental