Appendix G

Summary of 2013 Ecosite Classification and Rare Flora Surveys – Henvey Inlet Wind Energy Centre Study Area

Henvey Inlet Wind LP

Henvey Inlet Wind

Summary of 2013 Ecosite Classification and Rare Flora Survey s ±Henvey Inlet Wind Energy Centre Study Area

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Statement of Qualifications and Limitations

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Table of Contents

Statement of Qualifications and Limitations

page

1. Introduction 1
2. Methods 2
   - 2.1 Ecosite Classification Including Wetlands (May to July) Work Plan 2
   - 2.2 Rare Flora (May to July) Work Plan 2
3. Results 3
   - 3.1 Ecosite Classification and Rare Flora Survey Study Area 3
   - 3.2 Ecosite Classification and Rare Flora Survey Results 3
     - 3.2.1 Ecosite Classification Including Wetlands (May to July) Survey 3
     - 3.2.2 Rare Flora (May to July) Survey 6
4. Summary 8
5. Assumptions and Clarification 9
6. References 10

List of Figures

Figure 3-1: Ecosite Classification Wind Energy Centre 5

List of Tables

Table 2-1: Rare Plant Species and Flowering Period 2
Table 3-1: Ecosite Classification Surveys in the Henvey Inlet Wind Energy Centre Study Area 4
Table 3-2: Ecodistrict 5E-7 Regionally Important Species Recorded in the Henvey Inlet Wind Energy Centre Study Area 6

Appendices

Appendix A. Stantec 2013 Field Notes and Documentation
Appendix B. Stantec ¶ Terrestrial Survey Work Program (Stantec, 2013)
Appendix C. Results of Stantec 2013 Field Studies

1. Introduction

In 2013, Stantec Consulting Ltd. (Stantec) collected field data to determine baseline conditions within the Henvey Inlet Wind Energy Centre (HIWEC) study area. Data collected by Stantec included:

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

This report has been prepared by AECOM to summarize the Ecosite Classification and Rare Flora field data for the HIWEC study area. This is based on raw field and GIS data collected by Stantec during the 2013 season. This information was provided to AECOM by Stantec in October 2014. The following provides the work plan written by Stantec outlining data collection methods as well as AECOM's summary and analysis of the data collected, and assumptions made concerning the data.

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

- 6 F D Q Q H G K D Q G Z U L W W H Q 6 0 8 2 4 _ H E C _ B o t a n i c a l _ H e n v e y _ I n l e t . p d f ; H Q W L W O H G ³
- 6 F D Q Q H G K D Q G Z U L W W H Q 6 0 8 2 4 _ H E C _ E L C _ H e n v e y . p d f ; H Q W L W O H G ³
- $ S G I H Q H Z Q O H W 9 D V F X O D U 3 O D Q W / L V W ± 2 0 1 3 6 X U Y H \ V . p d f ; and
- $ P D S H Q W L W O H G 6 0 8 2 4 _ H E C _ E L C _ M a p b o o k _ 2 0 1 3 1 2 0 4 . p d f .

A copy of the above files is provided in Appendix A[1].

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

2. Methods

The following section provides a description of work plan methods written by Stantec for the Ecosite Classification and Rare Flora surveys. This description is taken directly from Stantec ¶ Terrestrial Survey Work Program (Stantec, 2013).

A complete copy of Stantec ¶ Terrestrial Survey Work Program (Stantec, 2013) is provided in Appendix B .

2.1 Ecosite Classification Including Wetlands (May to July) Work Plan

³9HJHWDWLRQ FRPPXQLWLHV ZLWKLQ WKH 6WXG\ $UHD ZLOO EH GHOLQHDWHG investigations. Community characterizations will be based on the Ecosites of Ontario system (Banton et al., 2009) and will be identified to the Vegetation Type unit level.

The Ecosites of Ontario classification system includes wetlands. Searches for wetlands not previously identified within the Study Area will be conducted as part of the Ecosite surveys. If encountered, previously unidentified wetlands will be recorded through field notes, photographs and geo- UHIHUHQFHG XVLQJ KDQGKHOG *36

2.2 Rare Flora (May to July) Work Plan

³6earches for rare plants and habitat supporting these plants will be conducted concurrent with Ecosite surveys, where possible, but may also require spring assessments for ephemeral species or mid-summer assessments for species where identification is dependent on the flowering period of the species. If encountered, rare plants or habitat will be recorded through field notes, photographs and geo-referenced using handheld GPS units.

A review of the MNR Natural Heritage Information Centre (NHIC) database (NHIC, 2012) indicates that two provincially rare vegetation communities are known to occur within the Study Area:

- Atlantic Coastal Plain Shallow Marsh Type; and
- Buttonbush Organic Thicket Swamp Type

The following rare plant species [Table 2-1] may also be encountered in the Study Area:

Table 2-1: Rare Plant Species and Flowering Period

	Common Name	Scientific Name	Flowering Period
Flowering Plants	St. Lawrence Grape Fern	Botrychium rugulosum	Mid-Spring
	Thread-like Naiad	Najas gracillima	Summer to Fall, seeds important to ID so survey at end of period
	Large Round-leaved Orchid	Plantathera macrophylla	June to August
	Snailseed Pondweed	Potamogeton bicupulatus	Early Summer to Fall, seeds important to ID so survey at end of period
	Alga Pondweed	Potamogeton confervoides	Summer, seeds important to ID so survey at end of period
	Twin-stemmed Bladderwort	Utricularia geminiscapa	July to August
Liverworts	Liverwort sp.		Unknown, best period for general identification is June-April

Note: This table was prepared by Stantec and describes a list of potentially rare plants obtained from the MNRF NHIC database (NHIC, 2012). ´

3. Results

3.1 Ecosite Classification and Rare Flora Survey Study Area

Based on a review of data provided, the spatial extent of the Ecosite classification and rare flora field surveys are unknown. Co-ordinates of only one location were included in the field notes provided. Some of the field notes provided for the rare flora inventory made reference to communities located along Bekanon Road, Groundhog Corners Road and Highway 69, Sandy Bay, and the north side of the Henvey Inlet shore across from the boat launch. It is assumed that a small portion of the HIWEC study area was studied in the field, and the remaining Ecosite delineations were made via aerial photo interpretation. Refer to Figure 3 -1 for the single location of the known field survey.

3.2 Ecosite Classification and Rare Flora Survey Results

3.2.1 Ecosite Classification Including Wetlands (May to July) Survey

Vegetation community surveys were conducted within the HIWEC study area from May to September, 2013. A total of 13 Ecological Land Classification (ELC) field data cards were provided by Stantec (refer to Appendix A). The remaining vegetation present in the HIWEC study area was mapped to the Site Series level based on the 13 field survey locations. The results of the Ecosite classification surveys are summarized in Table 3 -1 below. Vegetation community mapping provided by Stantec is mapped on Figure 3 -1.

As described in the methods above, wetlands that had not been previously identified were recorded through field notes, photographs and geo-referenced using handheld GPS units during the Ecosite surveys. It is assumed that the wetlands recorded in these field notes (without UTM co-ordinates) were encountered for the first time during the Ecosite survey. Based on the mapping provided by Stantec (refer to Figur e 3-1), the following wetland communities are present within the HIWEC study area:

- Open Fen (FEO);
- Shrub Fen (FES);
- Treed Fen (FET);
- Meadow Marsh (MAM);
- Open Aquatic (OAO);
- Coniferous Swamp (SWC);
- Deciduous Swamp (SWD);
- Mixed Swamp (SWM); and
- Thicket Swamp (SWT).

Stantec also provided a consolidated plant list for vegetated communities identified within the HIWEC study area in the document entitled Henvey Inlet 2 Vascular Plant List ±2013 Surveys.pdf, which is provided in Appendix C. The consolidated plant species list identifies which of 10 general types of vegetation communities each plant species was observed within. These include:

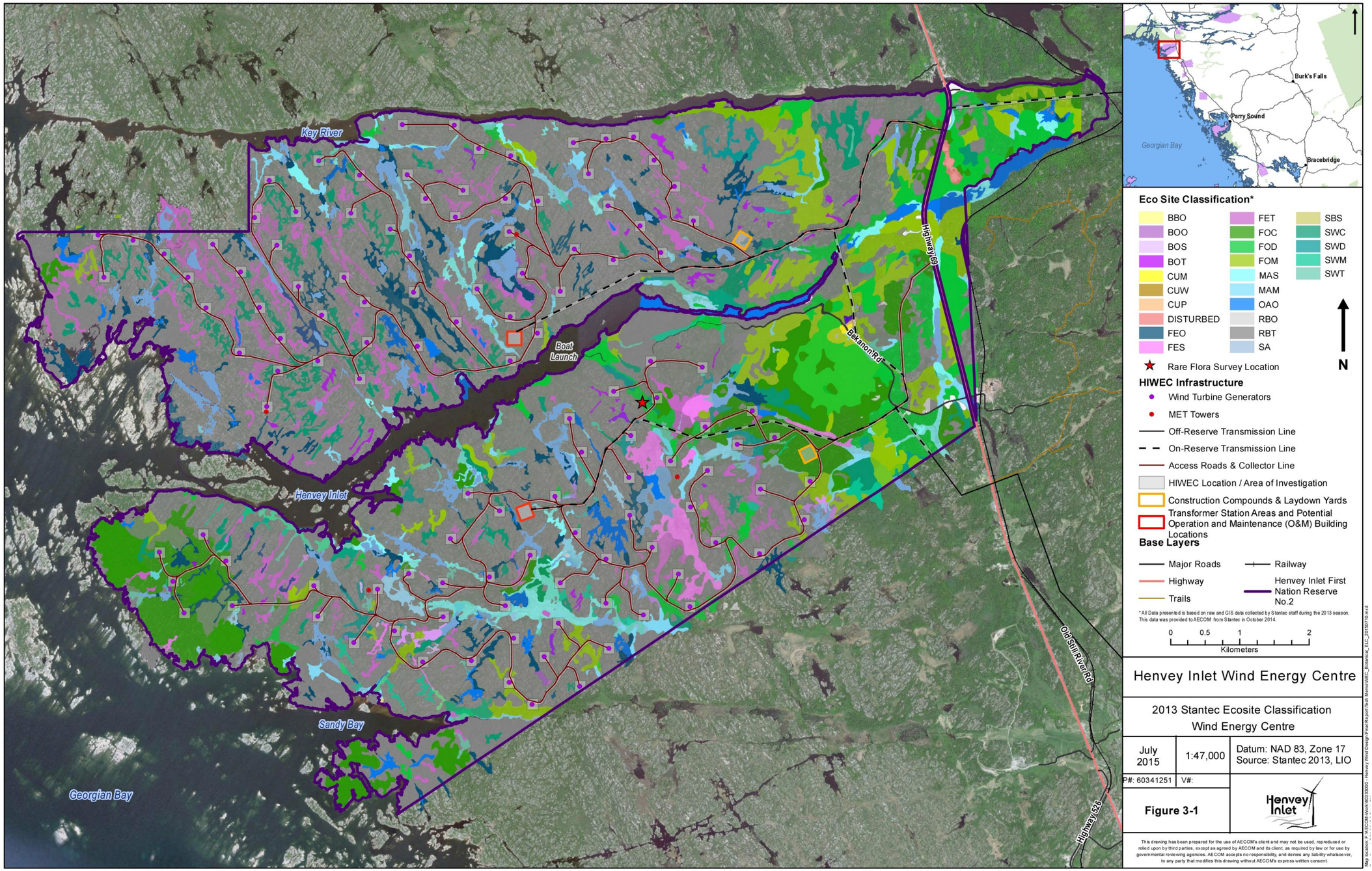
- Jack Pine Rock Barrens (RBT);
- Forest (White & Red Pine) (FOC);
- Forest (Mixed & Deciduous) (FOM & FOD);
- Swamp (Coniferous) (SWC);
- Swamp (Deciduous) (SWD);
- Fen (Treed, Shrub & Open) (FET, FES & FEO);
- Marshes (MAM & MAS);
- Coastal Marshes / Fens;
- Coastal Shallow Waters; and
- Sandy Openings & Roadsides.

Table 3-1: Ecosite Classification Surveys in the Henvey Inlet Wind Energy Centre Study Area

Survey Date	Ecosite or Vegetation Community [1]	Description	Location
May to September 2013	RBT3-2: Jack Pine Acidic Treed Rock Barren	x Young to mid-aged community; x Canopy and sub-canopy dominated by Jack Pine (Pinus banksiana); x Understorey includes Common Juniper (Juniperus communis); x Ground layer includes berries (Vaccinium species) and grasses (Danthonia spicata and Avenella flexuosa); and x Bedrock mostly at the surface.	Unknown
May to September 2013	RBT3-3: Jack Pine ±White Pine Acidic Treed Rock Barren	x Mid- aged community; x Canopy includes White Pine (Pinus strobus) and Red Pine (Pinus resinosa); x Sub-canopy includes White Pine (Pinus strobus) and Jack Pine (Pinus banksiana); x Understorey includes Common Juniper (Juniperus communis) and Jack Pine (Pinus banksiana); x Ground layer includes Blueberry species (Vaccinium spp.), Common Hairgrass (Avenella fexuosa) and Poverty Oat Grass (Danthonia spicata); x Bedrock mostly at the surface.	Unknown
May to September 2013	SBOB1-8: Poverty Oat Grass Open Sand Barren	x Understorey dominated by Common Juniper (Juniperus communis); x Ground layer includes Poverty Oat Grass (Danthonia spicata), Rough Goldenrod (Solidago nemoralis var. nemoralis), Kalm ¶ St.John ¶-wort (Hypericum kalmianum) and Balsam Groundsel (Packera paupercula).	Unknown
May to September 2013	FOC1: Dry ±Fresh Pine Coniferous Forest	x Mature community; x Canopy and sub-canopy dominated by White Pine (Pinus strobus), Red Pine (Pinus resinosa), Jack Pine (Pinus banksiana) and White Birch (Betula papyrifera); x Understorey dominated by Common Juniper (Juniperus communis); x Ground layer included Low Sweet Blueberry (Vaccinium angustifolium), Eastern Bracken Fern (Pteridium aquilinum), Wild Sarsaparilla (Aralia nudicaulis) and Wintergreen (Gaultheria procumbens); x Shallow soil over bedrock.	Unknown
May to September 2013	FOM5: Dry ±Fresh White Birch ±Poplar ±Conifer Mixed Forest	x Mid-aged to mature community; x Canopy includes Trembling Aspen (Populus tremuloides), Large-tooth aspen (Populus grandidentata), White Birch (Betula papyrifera), Red Maple (Acer rubrum) and White Pine (Pinus strobus); x Understorey includes Northern Wild Raisin (Viburnum cassinoides), Fly Honeysuckle (Lonicera canadensis) and Bunchberry (Cornus canadensis); x Ground layer includes Eastern Bracken Fern (Pteridium aquilinum), Canada Mayflower (Maianthemum canadense), Bunchberry (Cornus canadensis) and Club Moss species (Lycopodium spp.).	Unknown
May to September 2013	FOD7-2: Fresh ±Moist Lowland Deciduous Forest	x Mid-aged to mature community; x Canopy includes Green Ash (Fraxinus pennsylvanica), White Birch (Betula papyrifera) and Balsam poplar (Populus balsamifera); x Sub-canopy includes Green Ash (Fraxinus pennsylvanica), White Birch (Betula papyrifera), Balsam Poplar (Populus balsamifera) and Black Ash (Fraxinus nigra); x Understorey includes Bunchberry (Cornus canadensis), Northern Wild Raisin (Viburnum cassinoides) and Speckled Alder (Alnus incana spp. rugosa); x Ground layer includes Rough Goldenrod (Solidago rugosa), Sensitive Fern (Onoclea sensibilis), Lady Fern (Athyrium filix-femina) and Northern Short-husk (Brachyelytrum aristosum).	Unknown
May to September 2013	FOD8-1: Fresh ±Moist Poplar Deciduous Forest	x Young to mid-aged community; x Canopy includes Trembling Aspen (Populus tremuloides), Balsam Poplar (Populus balsamifera), American Elm (Ulmus Americana) and White Birch (Betula papyrifera); x Ground layer includes Ostrich Fern (Matteuccia struthiopteris), Tall Meadow-rue (Thalictrum pubescens) and Wild Black Current (Ribes americanum).	Unknown
May to September 2013	SWC4: Tamarak ±Black Spruce Organic Coniferous Swamp	x Young to mid-aged community; x Canopy and sub-canopy includes Black Spruce (Picea mariana) and Tamarack (Larix laricina); x Understorey includes Mountain-holly (Ilex mucronata) and Winterberry (Ilex verticillata); x Ground layer includes Fern species (Osmunda spp.), Virginia Chain Fern (Woodwardia virginica), Three-leaf Solomon ¶-seal (Maianthemum trifolium) and Large Cranberry (Vaccinium macrocarpon).	Unknown
July to August 2013	FEO1: Open Fen	x Canopy and sub-canopy includes Tamarack (Larix laricina); x Understorey includes Sparse-fruited Sedge (Carex oligocarpa), Boreal Bog Sedge (Carex magellanica), Beaked Sedge (Carex utriculata) and Cotton-grass species (Eriphorum spp); x Ground layer includes Three-leaf Solomon ¶-seal (Maianthemum trifolium), White Beaked-rush (Rhynchospora alba), Club-spur Orchid (Platanthera clavellata), Rose Pogonia (Pogonia ophioglossoides) and Pitcher plant (Sarracenia purpurea);	Unknown
May to September 2013	FEO1-2: Slender Sedge Open Fen	x Ground layer includes Slender Sedge (Carex lasiocarpa), Mud Sedge (Carex limosa), Pitcher Plant (Sarracenia purpurea), Water Horsetail (Equisetum fluviatile) and White Beaked-rush (Rhynchospora alba).	Unknown
May to September 2013	FEO1-5: Beaked Sedge Open Fen	x Ground layer includes Beaked Sedge (Carex utriculata), Marsh Cinquefoil (Comarum palustre), Large Cranberry (Vaccinium macrocarpon) and Rough Cotton-grass (Eriophorum tenellum).	Unknown
July 2013	FET1-1: Tamarack Treed Fen	x Young to mid-aged community; x Understorey includes Tamarack (Larix laricina); x Ground layer includes Leatherleaf (Chamaedaphne calyculata), Cotton-grass species (Eriophorum spp.), Fewseed Sedge (Carex oligosperma) and Beaked Sedge (Carex utriculata).	Next to Bekanon Road
May to September 2013	MAM5-1: Mineral Fen Meadow Marsh	x Ground layer includes Carolina Spring Beauty (Claytonia caroliniana), Small-headed Beaked-rush (Rhynchospora capitellata), Kalm ¶ Lobelia (Lobelia kalmia), Bog Goldenrod (Solidago uliginosa) and One-flowered Satin Grass (Muhlenbergia uniflora).	Unknown

Notes: 1. Data are transcribed as provided in field notes.

Figure 3-1: Ecosite Classification Wind Energy Centre



3.2.2 Rare Flora (May to July) Survey

Plant lists provided in the document entitled 60824_Botanical_Henvey_lands.pdf were completed by Stantec on the following dates in 2013:

- May 7, 2013;
- May 9, 2013;
- May 16, 2013;
- Week of June 3, 2013;
- June 3 to 7, 2013;
- Week of July 8, 2013;
- June 3 to 7, 2013;
- July 8, 2013;
- July 9, 2013;
- July 11, 2013;
- August 22, 2013;
- August 23, 2013;
- Week of August 27 to 30, 2013; and
- September 17 to 19, 2013.

Rare flora surveys were conducted from May to September. Spring assessments for ephemeral species and mid-summer assessments for late blooming species were completed in 2013 by Stantec and both ephemeral and late blooming plants would have been captured by the rare flora surveys.

Based on the data provided, a total of 417 plant species were recorded within the HIWEC study area. No Provincial or Federal Species at Risk, or species of conservation concern, were recorded within the HIWEC study area.

A total of 22 species that are regionally important in Ecodistrict 5E-7 (Crins, 1997 and 2004) and 63 species that are rare in the District of Parry Sound (Oldham, 2001) were recorded, representing 16% of the overall species diversity. These species are summarized in Table 3-2 below.

Table 3-2: Ecodistrict 5E -7 Regionally Important Species Recorded in the Henvey Inlet Wind Energy Centre Study Area

Scientific Name	Common Name	Rare in District of Parry Sound (Oldham, 2001)	Regionally Important in Ecodistrict 5E-7 (Crins, 1997 and 2014)
Equisetum variegatum	Variegated Horsetail	Yes	Yes
Heracleum lanatum	Cow-parsnip	Yes	Yes
Sanicula marilandica	Black Snakeroot	Yes	No
Erigeron strigosus	Daisy Fleabane	Yes	No
Hieracium kalmii	Canada Hawkweed	Yes	No
Lactuca biennis	Biennial Lettuce	Yes	No
Prenanthes racemosa	Glaucous Rattlesnake-root	Yes	No
Solidago nemoralis var. nemoralis	Gray Goldenrod	Yes	No
Caulophyllum thalictroides	Blue Cohosh	Yes	Yes
Boechera stricta	Drummond ¶ Rock-cress	Yes	No
Cardamine parviflora	Small-flowered Bitter-cress	Yes	No
Cardamine pensylvanica	Pensylvania Bitter-cress	Yes	No
Lobelia kalmii	Kalm ¶ Lobelia	Yes	Yes
Lonicera hirsuta	Hairy Honeysuckle	Yes	No
Silene antirrhina	Sleepy Catchfly	Yes	No
Lechea intermedia	Large-podded Pinweed	Yes	No
Kalmia angustifolia	Sheep Laurel	Yes	Yes
Pyrola asarifolia	Pink Pyrola	Yes	Yes
Lathyrus palustris	Marsh Vetchling	Yes	No
Gentiana andrewsii	Closed Gentian	Yes	Yes
Ribes americanum	Wild Black Currant	Yes	Yes
Ribes triste	Wild Red Currant	Yes	No
Scutellaria parvula var. parvula	Small Skullcap	Yes	No
Utricularia intermedia	Flat-leaved Bladderwort	Yes	No
Lysimachia thyrsiflora	Tufted Loosestrife	Yes	No
Epilobium ciliatum	Hairy Willow-herb	Yes	No

Table 3-2: Ecodistrict 5E -7 Regionally Important Species Recorded in the Henvey Inlet Wind Energy Centre Study Area

Scientific Name	Common Name	Rare in District of Parry Sound (Oldham, 2001)	Regionally Important in Ecodistrict 5E-7 (Crins, 1997 and 2014)
Oenothera perennis	Perennial Evening-primrose	Yes	No
Chelone glabra	Turtlehead	Yes	No
Persicaria pensylvanica	Pennsylvania Smartweed	Yes	Yes
Polygonum douglasii	Douglas ¶Knotweed	Yes	No
Rumex britannica	Great Water Dock	Yes	No
Rumex triangulivalvis	Willow-leaved Dock	Yes	No
Anemone canadensis	Canada Anemone	Yes	No
Caltha palustris	Marsh-marigold	Yes	Yes
Ranunculus pensylvanicus	Bristly Buttercup	Yes	No
Physocarpus opulifolius	Ninebark	Yes	Yes
Prunus pumila cf. var. susquehanae	Susquehanna Cherry	Yes	No
Rosa acicularis	Prickly Rose	Yes	No
Rosa blanda	Smooth Rose	Yes	No
Laportea canadensis	Wood Nettle	Yes	Yes
Viola nephrophylla	Northern Bog Violet	Yes	No
Carex bebbii	Bebb ¶ Sedge	Yes	No
Carex billingsii	Billing ¶ Three-seeded Sedge	Yes	No
Carex buxbaumii	Brown Sedge	Yes	Yes
Carex cryptolepis	Small Yellow Sedge	Yes	No
Carex cumulata	Clustered Sedge	Yes	No
Carex deflexa	Northern Sedge	Yes	Yes
Carex houghtoniana	Houghton ¶ Sedge	Yes	Yes
Carex hystericina	Porcupine Sedge	Yes	Yes
Carex interior	Inland Sedge	Yes	Yes
Carex limosa	Mud Sedge	Yes	Yes
Carex lupulina	Hop Sedge	Yes	Yes
Carex peckii	Peck ¶ Sedge	Yes	No
Carex viridula	Greenish Sedge	Yes	No
Eleocharis cf. flavescens	Bright-green Spike-rush	Yes	No
Eriophorum cf. tenellum	Rough Cotton-grass	Yes	No
Rhynchospora capitellata	Small-headed Beaked-rush	Yes	No
Juncus balticus	Baltic Rush	Yes	No
Platanthera psycodes	Smaller Purple-fringed Orchid	Yes	Yes
Elymus canadensis	Canada Wild Rye	Yes	Yes
Muhlenbergia mexicana var. mexica	Mexican Satin Grass	Yes	No
Phragmites australis ssp. americanus	American Reed	Yes	No
Scheuchzeria palustris	Marsh Scheuchzeria	Yes	Yes

4. Summary

Stantec conducted the following Ecosite classification and rare flora surveys in 2013 within the HIWEC study area:

- Ecosite surveys were conducted between May and September 2013 at unspecified locations. Thirteen (13) Ecosites were identified during the Ecosite surveys.
- Rare flora surveys were conducted from May to September 2013, generally at unspecified locations. A total of 417 plant species were recorded within the HIWEC study area.
- No Federal Species at Risk, Provincial Species at Risk or species of conservation concern were identified in the HIWEC study area; however, 22 regionally important plant species in Ecodistrict 5E-7 and 63 rare plant species in the District of Parry Sound were recorded.

5. Assumptions and Clarific ation

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

- It was unknown how the list of rare plants cited in Table 2-1 was identified as potentially present by Stantec. Stantec provided comments to AECOM on February 26, 2015 that confirmed that this table is a list of potentially rare plants within the HIWEC study area that was prepared through a review of the MNRF NHIC database.
- It was assumed that Stantec completed ephemeral spring and mid-summer surveys for rare flora based on the dates provided in the field notes. Stantec provided comments to AECOM on February 26, 2015 that confirmed that these surveys occurred.
- It was assumed that the consolidated plant list provided in the document entitled Henvey Inlet 2 Vascular Plant List ±2013 Surveys.pdf includes only the plant species found within the HIWEC study area. Stantec provided comments to AECOM on February 26, 2015 that confirmed that all surveys were conducted in the HIWEC study area.
- A survey date of June 3, 2012 was recorded on Page 5 of 21 of the document entitled 60824_Botanical_Henvey_lands.pdf. AECOM assumed it to be an error and has indicated a survey date of June 3, 2013. Stantec provided comments to AECOM on February 26, 2015 that confirmed this assumption.
- A survey date of September is recorded on page 19 of 21 of the document entitled 60824_Botanical_Henvey_lands.pdf. No specific dates or range of dates are provided in September. Stantec provided comments to AECOM on February 26, 2015 that confirmed that these surveys were conducted from September 17 to 19, 2013.
- For those wetlands identified during the Ecosite surveys, it was assumed that the wetland delineations made were incorporated in the ELC Boundary Shapefile provided in 160960770_ANSIE_ELC_Mapbook_20131204.pdf by Stantec.

6. References

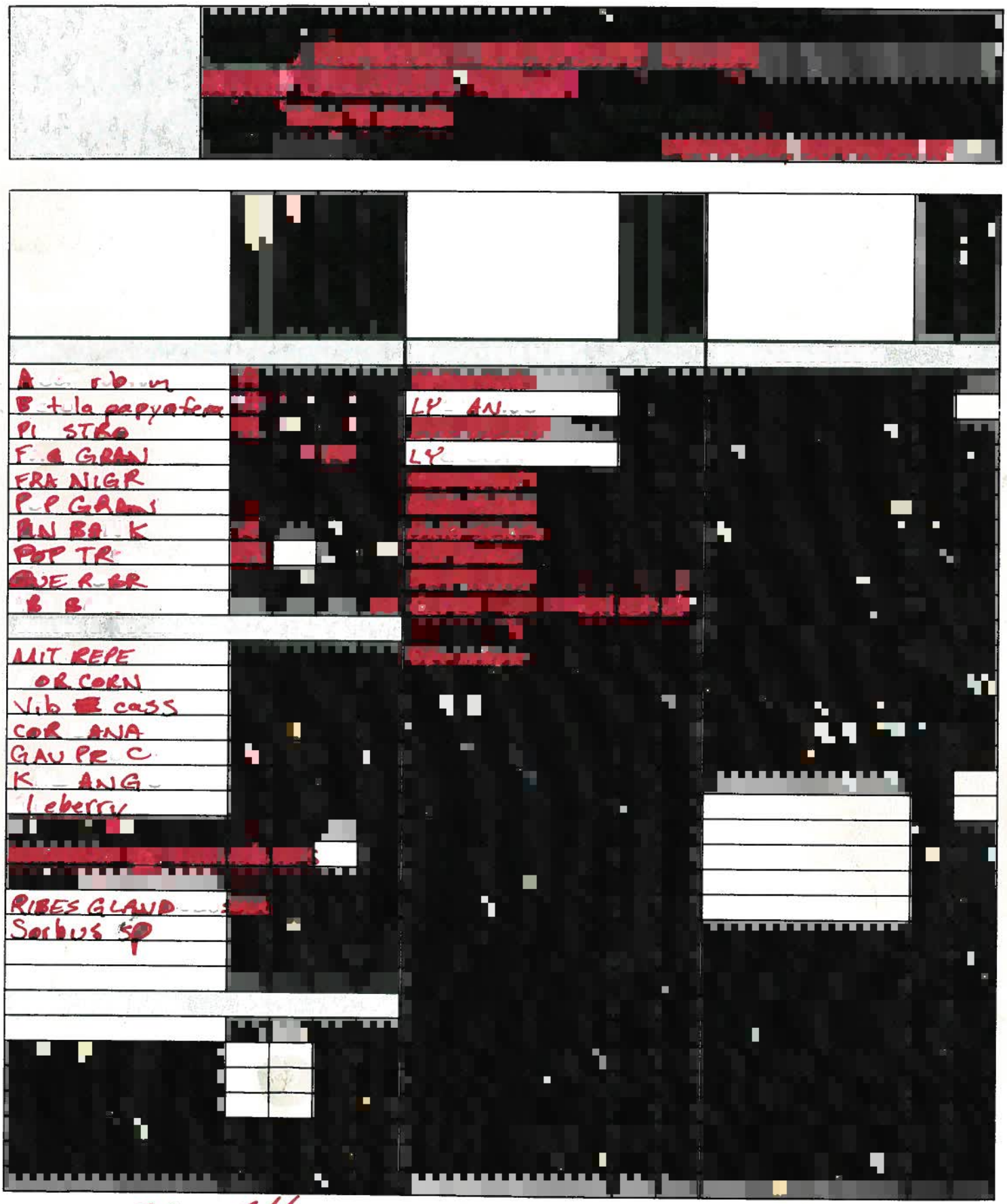
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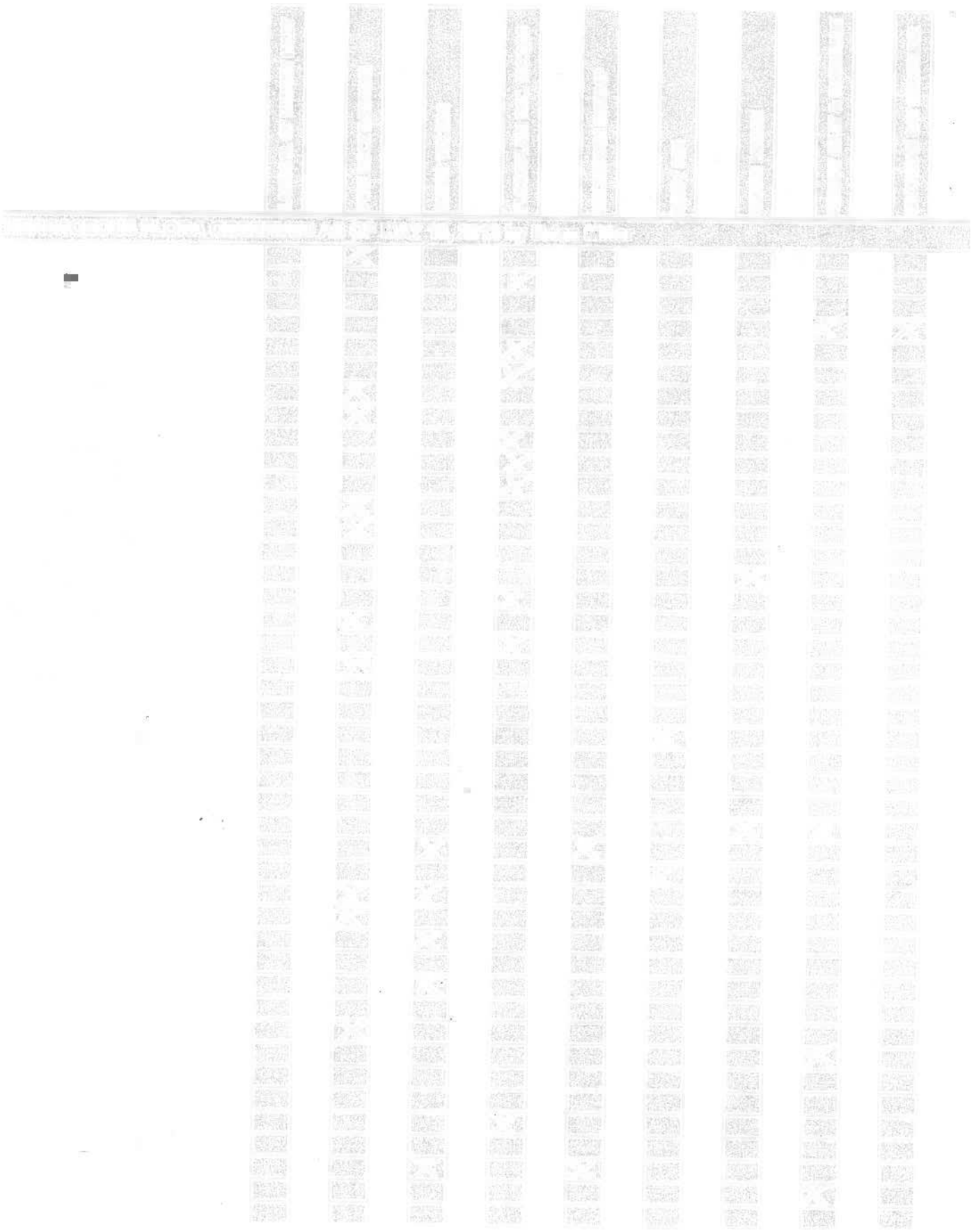
Appendix A

Stantec 2013 Field Notes and Documentation


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Sorbus SP

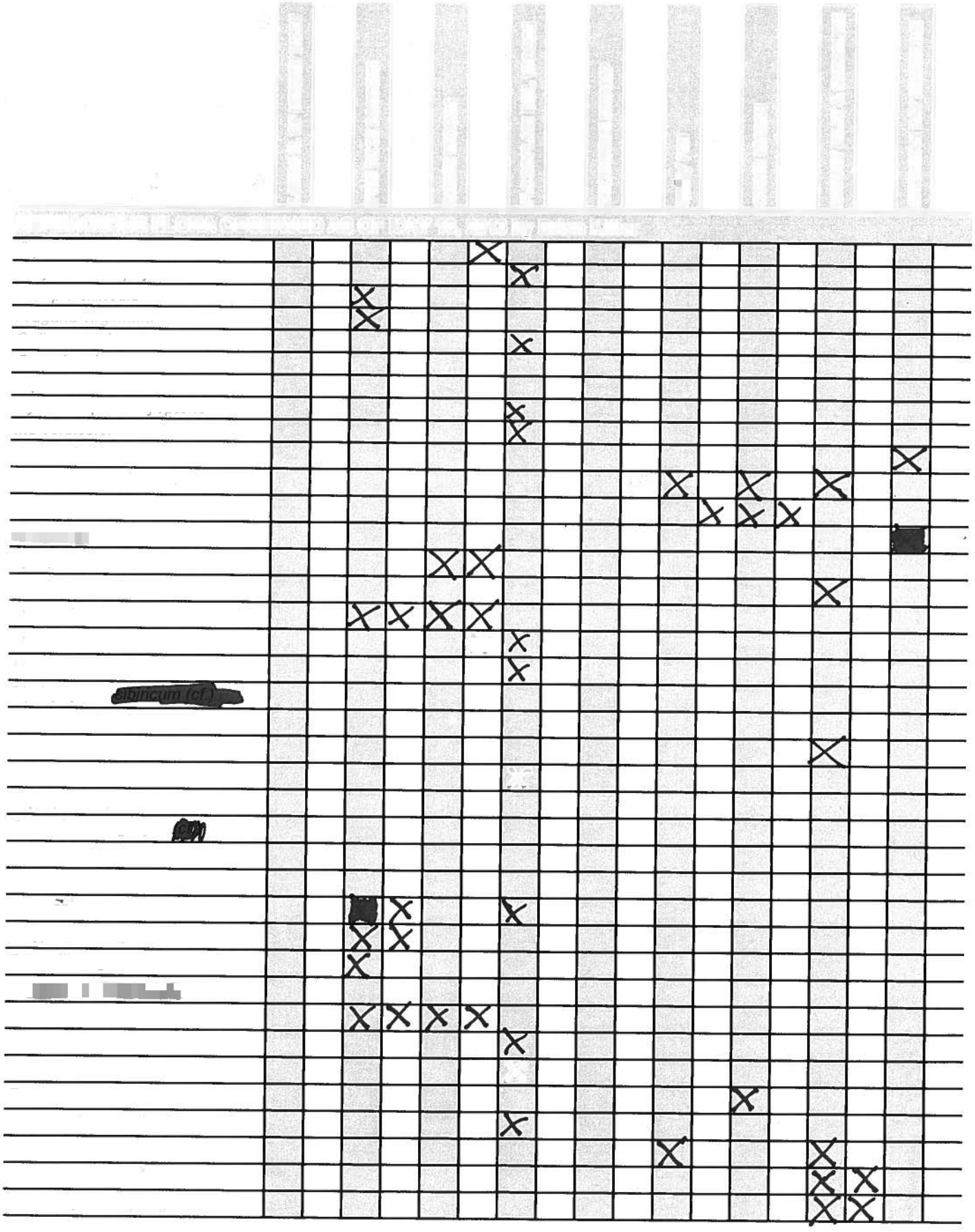
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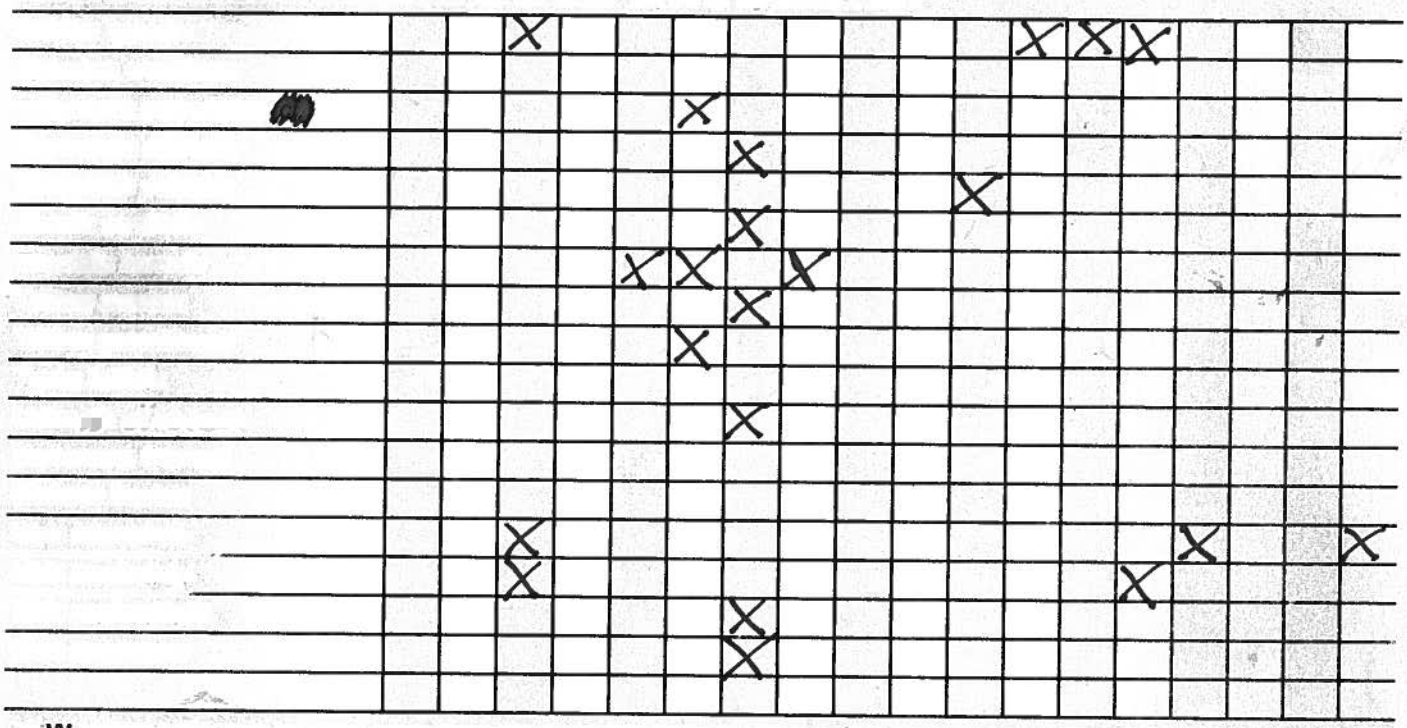


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Carex intumescens						X	X												
DRY RIS								X	X										
OSMUNDA NAMOMEA											X		X						
Carex t spe m								X			X								
Menya t trifoliata											X								
Medeola virginiana						X													
Phagopteris c nectilis				X	X														
Carex gracilima							X												
Solidago rug sa							X												
ymphyotrichum pun um												X	X	X	X				
Impatiens capensi							X		X			X	X						

[redacted]																			
Maianthemum trifolium																			
Polygala paucifolia			X																
Calla palustris											X								
Carex magellanica																			
Carex utriculata											X	X	X						
Eutrochium maculatum							X						X						
[redacted] Eupatorium perfoliatum													X		X				
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[redacted] Mentha canadensis							X								X				
Mitella nuda							X												
Galium asprellum							X												
Galium triflorum						X	X												
Chelone glabra							X												
Carex stipata							X												
Thalictrum cf. pubescens							X												
Geum sp.																			
canadense							X												
Cardamine pensylvanica							X					X							
Carex lasiocarpa												X	X						
Carex stricta												X	X	X	X				
Carex exilis		X													X				
Comandra umbellata		X																X	
Woodwardia virginica											X								
horum vaginatum											X								
isolepis cullata																			
Carex leptonervia																			
Rumex acetosella		X																	
Carex crinita (may be intermediate between C. crinita C. gynandra) - along Beckmannia Rd.																			
Carex arctata					X														
Heracleum lanatum					X														
Milium effusum							X												
Thelypteris noveboracensis					X														
Carex umbellata		X																	
Dicentra cucullaria				X	X	X													

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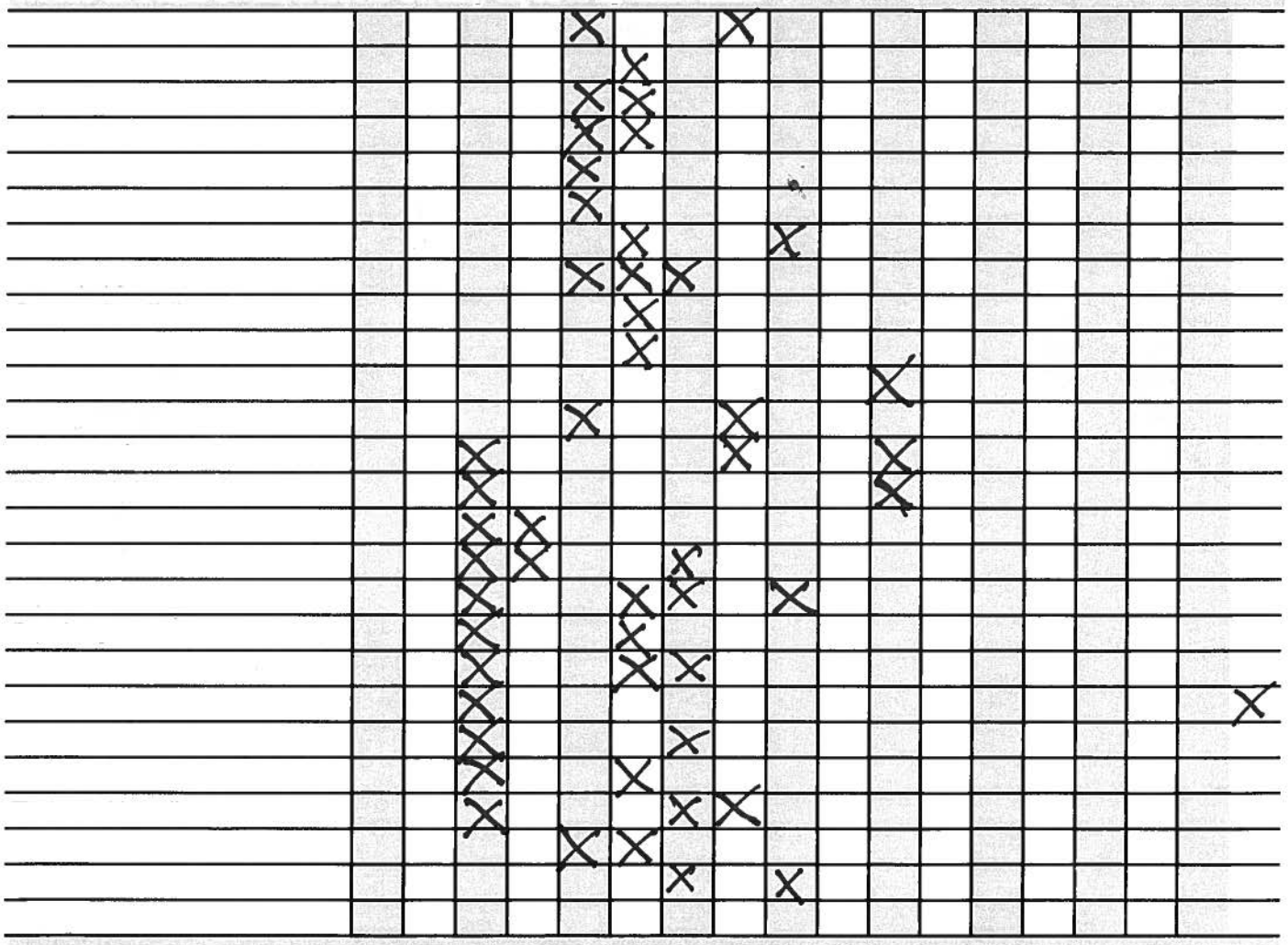
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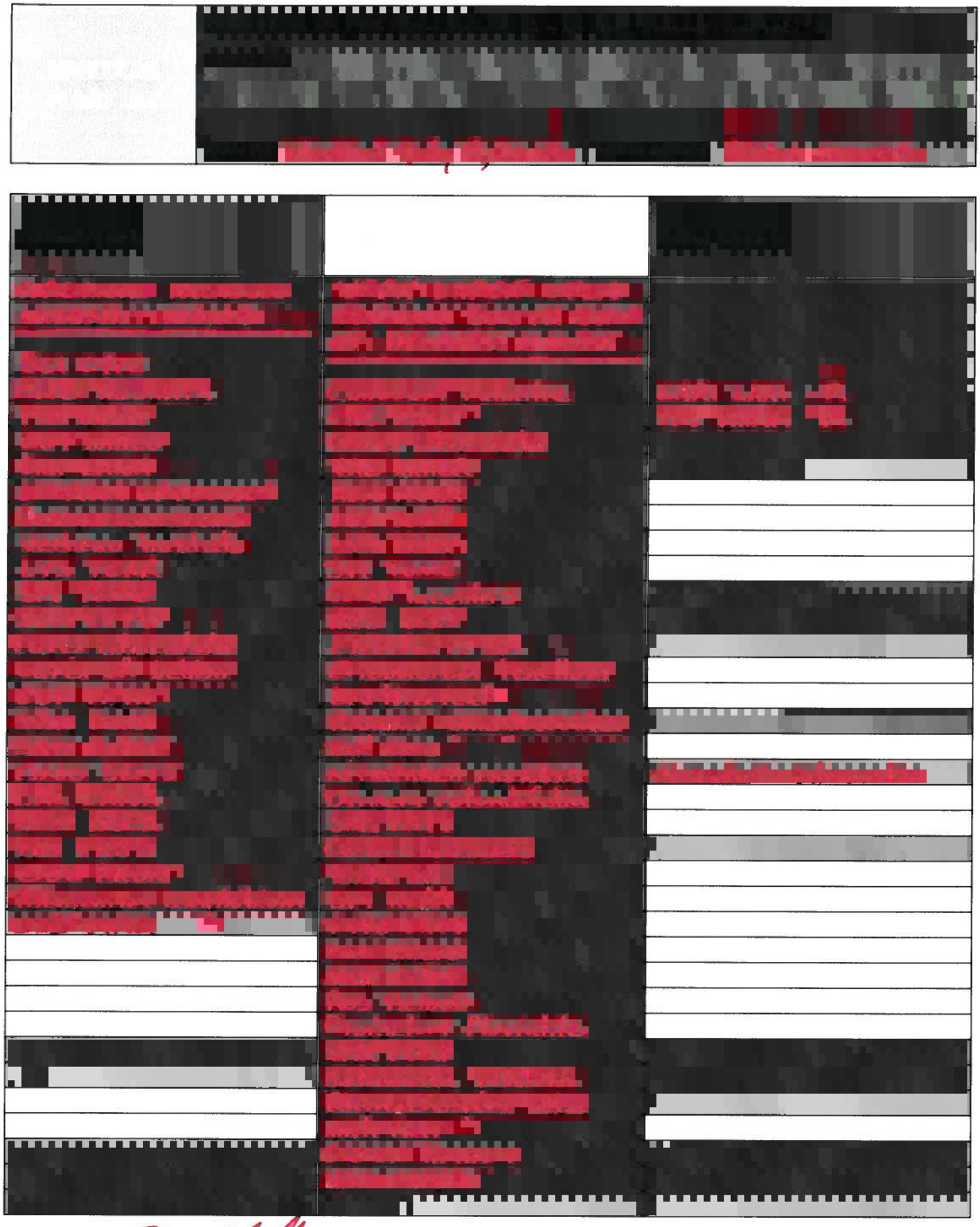


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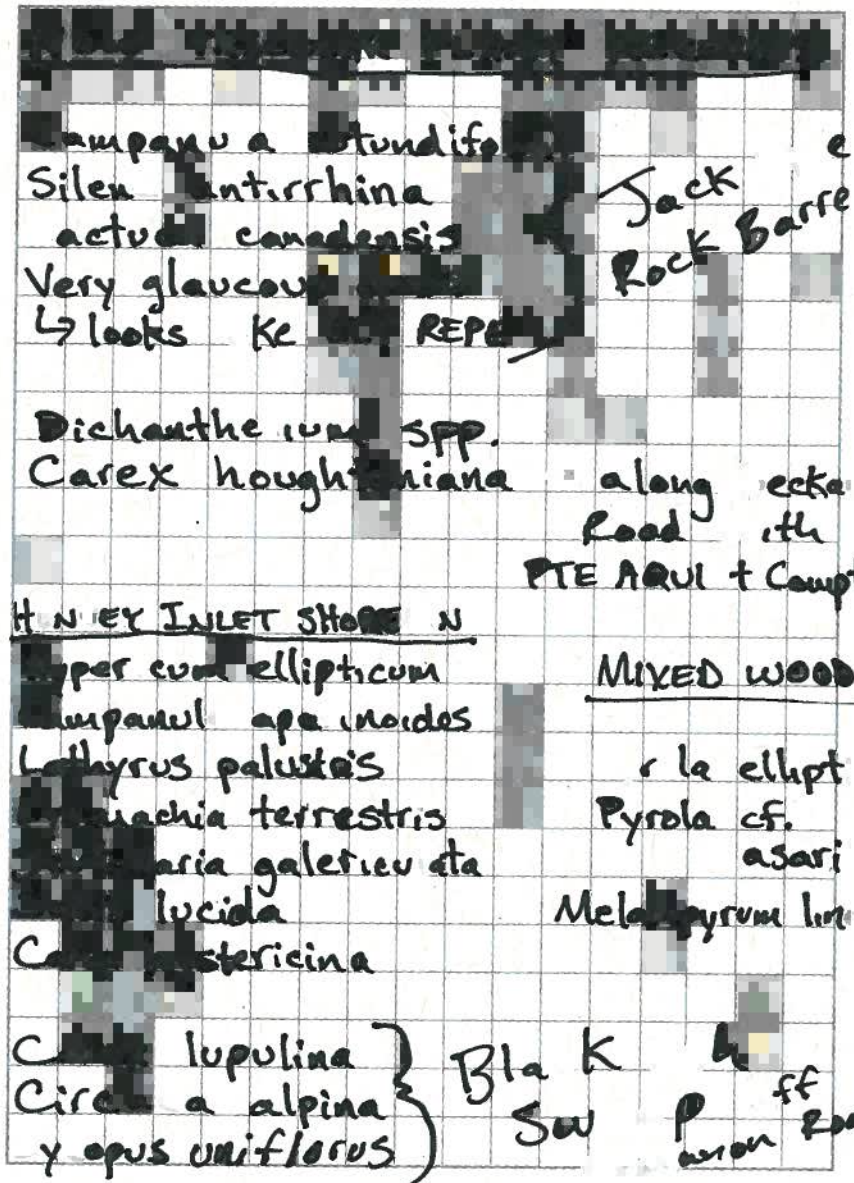
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Hie chloe odor ta													X			
[redacted]			[redacted]													
Dichanthelium																
th phy m	a ong	Be Kanon Road										X				
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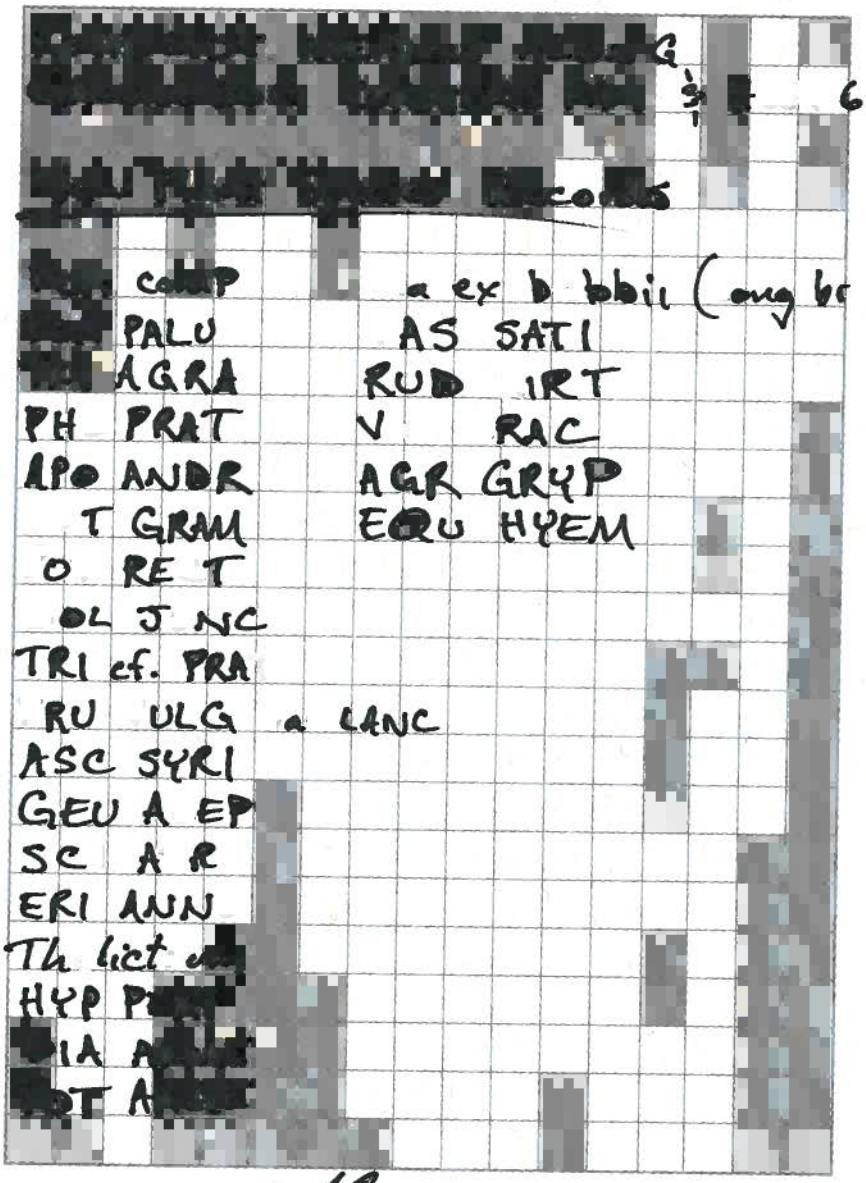
Dichanthe ium [redacted] spp.
Carex hough[redacted]niana — along ecka Road ith
PTE AQUI + Camptonia

H[redacted]N EY INLET SHORE N

[redacted]per cum ellipticum — MIXED WOOD
[redacted]umanul apa inoides
Lathyrus palustris — r la ellipt
[redacted]achia terrestris — Pyrola cf. asari
[redacted]aria galericulata
[redacted] lucida — Mela[redacted]pyrum lin
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C[redacted] lupulina
Circa[redacted]a alpina
y opus uniflorus
} Bla K Sw P[redacted] ff Road.

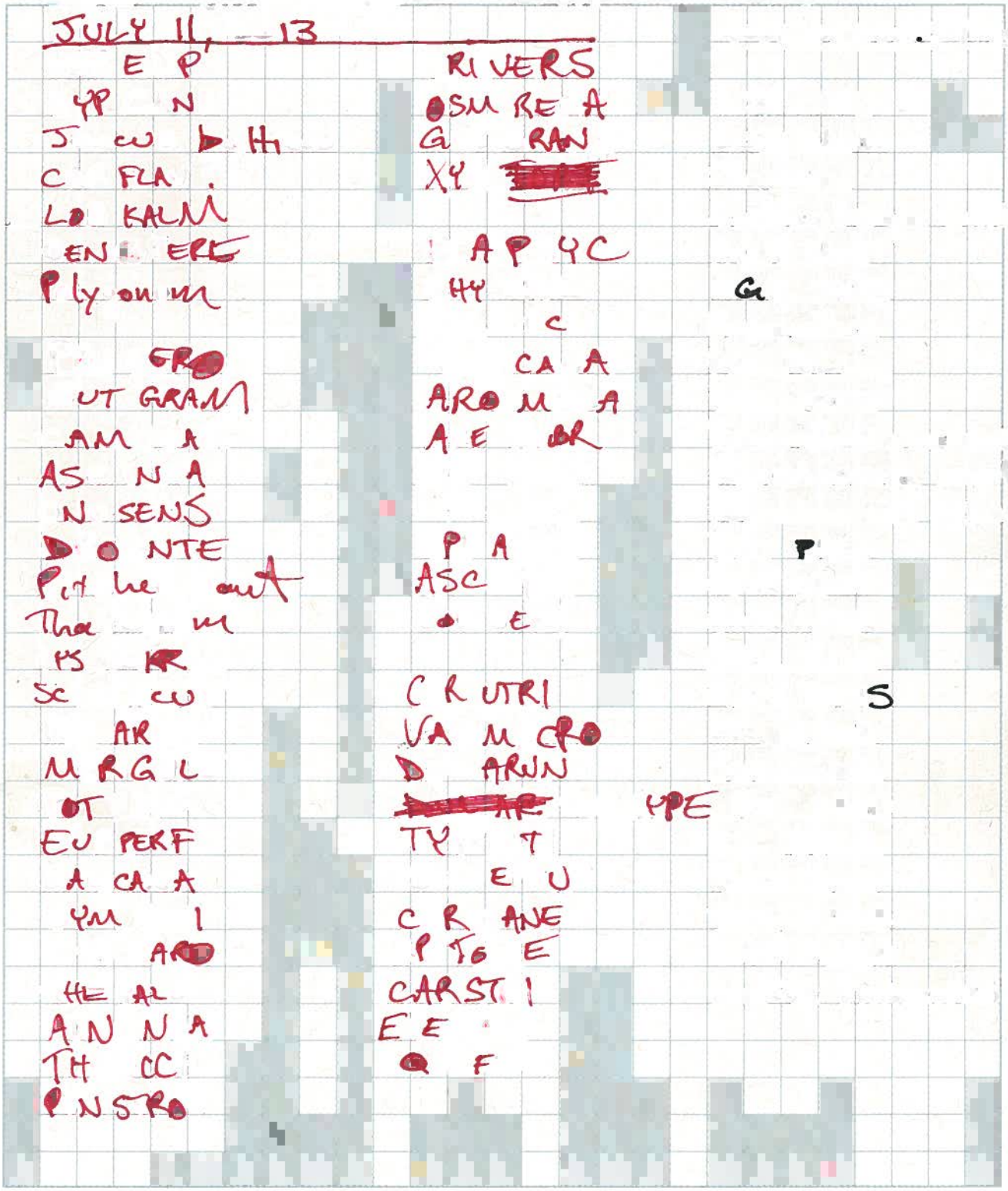
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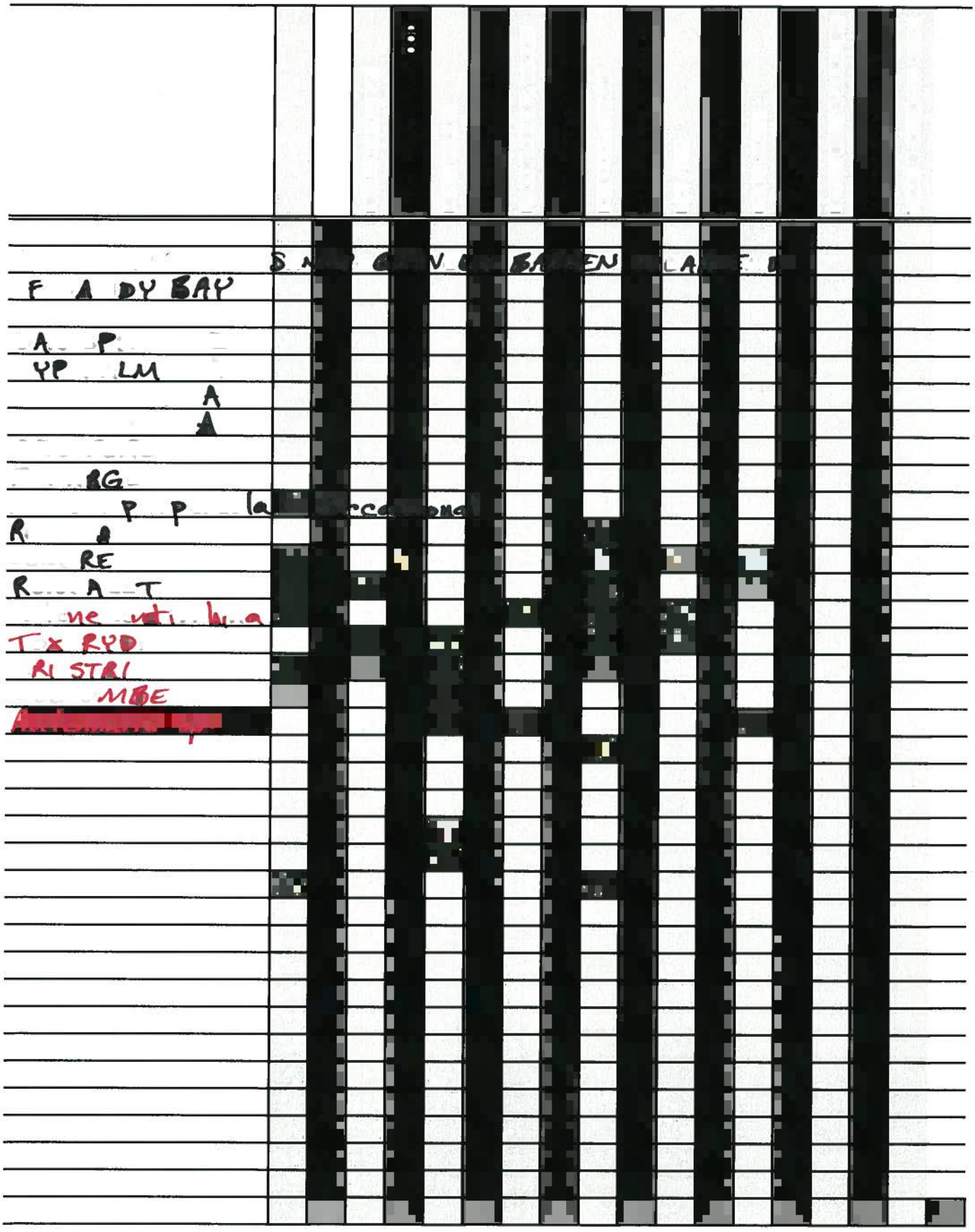

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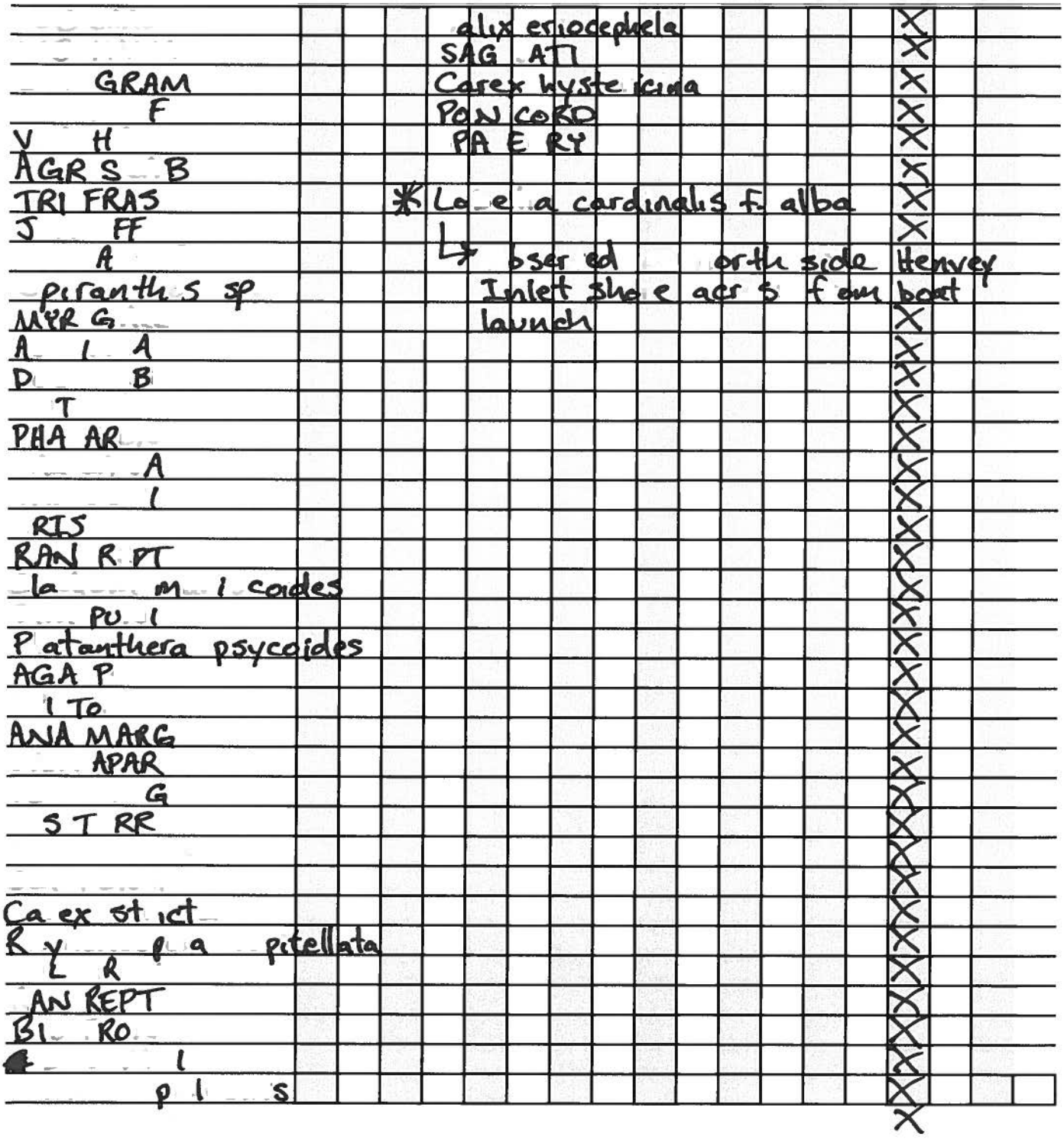
JULY 11, 13





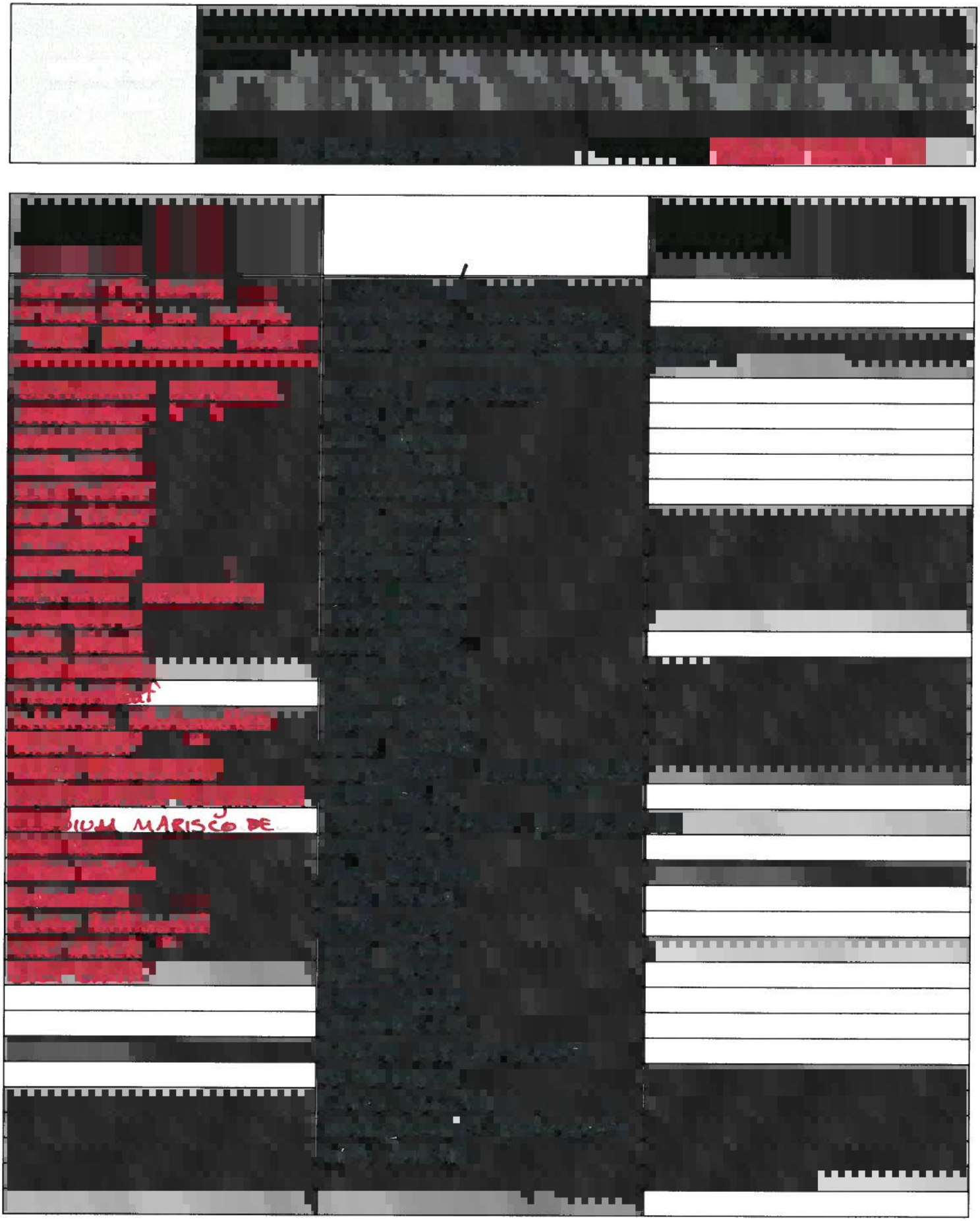
Agalis sp.																		
Alisma sp.																		
Anaphalis margaritacea																		
Melampyr[redacted]e																		
ch[redacted]folia																		
pilobium sp.																		
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ti dioi																		
Rumex o bic. [redacted]																		
[redacted] ech intermedia	X																	
H RA M ABR M																		
HIERACIUM KALMII	X																	
olidago rugosa		X																
Pani m pillar		X																
xalis stri ta.		X																
Spirea l ifol		X																
obelia infl t																		
hlenbe gia mexicana																		
Stel ia sp		X																
B m s iat s		X																
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Pseudognaphali m obt sifolium																		
Bidens c n a		X																
Hyp i m majus		X																
Solidago jun a		X																
Bulbostylis capillaris																		
Solidago sq rosa																		

U d fol.						X	●												
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port dens.s					X	X													
Glyc ia st.iet						X													
Tilia americana					X														
olidago uliginosa											X				X				
Schevchzeria palustris																			
D oser intermedia											X								
Rhyn ospora alba											X								
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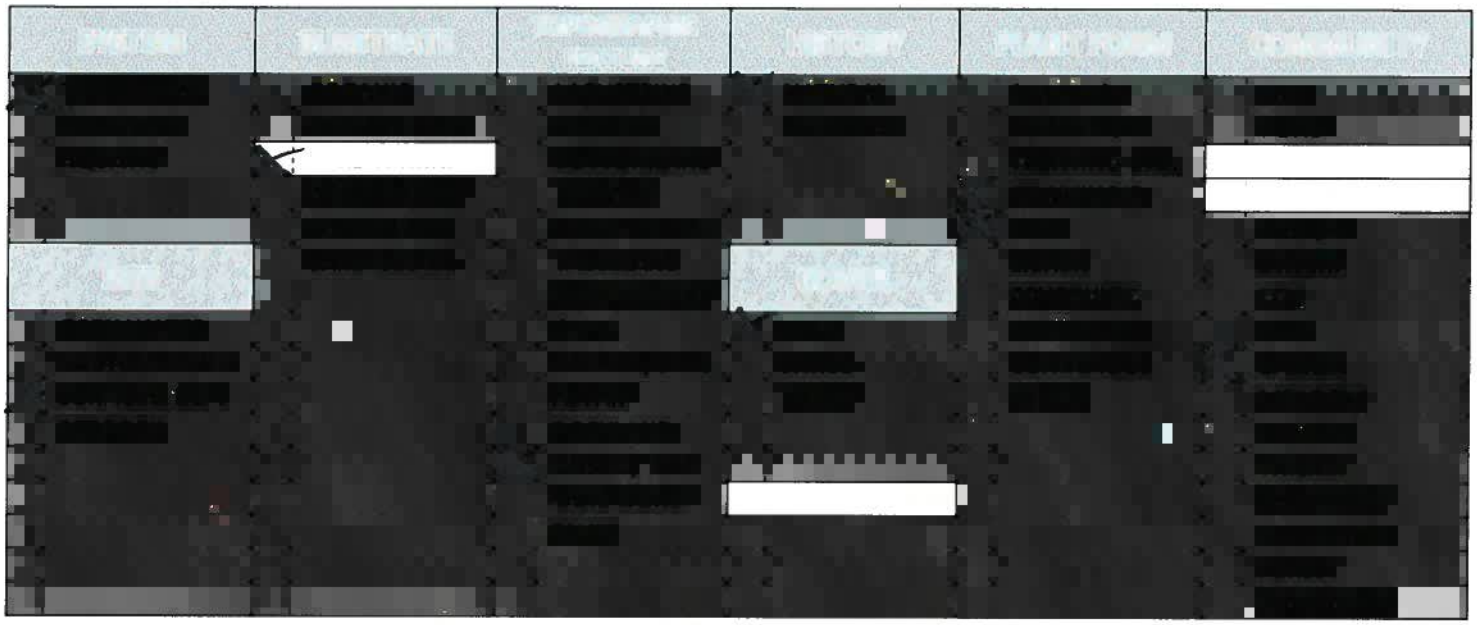
BOTANICAL INVENTORY FORM	PROJECT: *Henvey Inlet First Nation – Reserve No. 2 Lands*	Project No: 160960824
	SURVEY PERIOD: May to September 2014	
	SURVEYOR(S) / SPECIMEN COLLECTOR: Brian Miller	

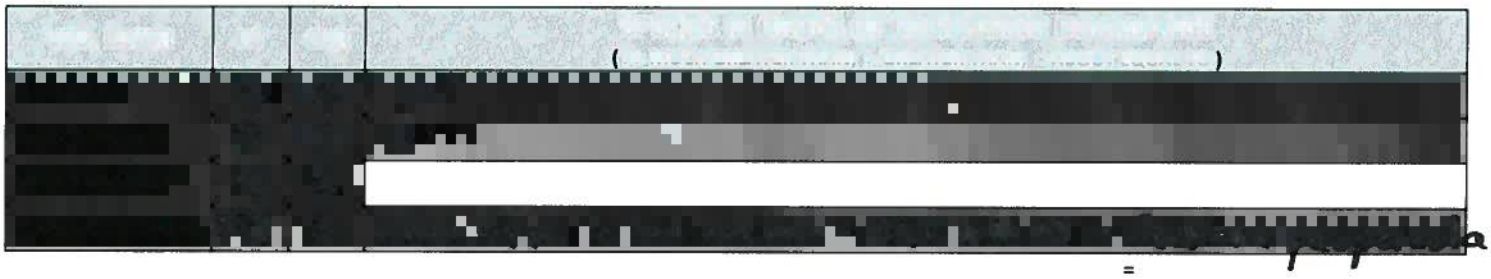
COLLECTED AND KEYED OUT PLANT SPECIMENS:

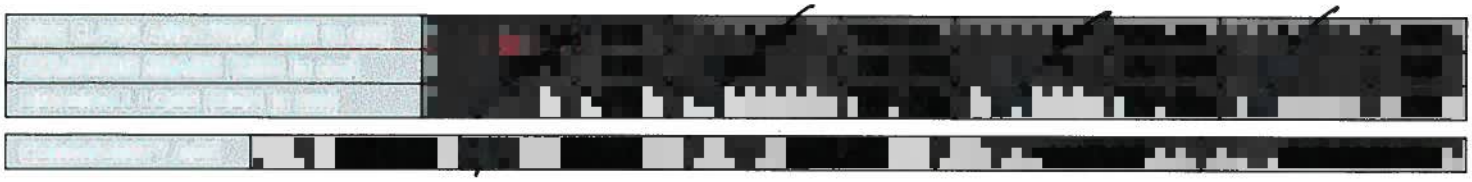
Agrimonia gryposepala - Floodplain Deciduous Forest
Bidens frondosa - Henvey Inlet shore
Botrychium multifidum - Sandy shore at east end of Sandy Bay
Brachyelytrum aristosum - Moist forests
Carex billingsii – Poor fens
Carex cf. brevior – Sandy roadside
Carex cryptolepis - shoreline fens
Carex cumulata - small moist patches in rocky pine barrens, common
Cinna latifolia - deciduous swamp
Claytonia caroliniana - Deciduous Oak Forest near Groundhog Corners trail
Conyza canadensis - Beckanon roadside
Drosera intermedia - peatland shore on north side of Henvey Inlet
Eleocharis cf. flavescens - Fen shore with Xyris, Cladium, Lobelia kalmii, Agalinis on north shore of Henvey Inlet
Eleocharis obtusa - along Beckanon Road in the Alder/Tamarack thicket
Epilobium ciliatum - deciduous swamp
Epilobium leptophyllum - Shoreline marshes and other marshes
Epipactis helleborine - deciduous swamp
Erigeron strigosus - Beckanon roadside
Eriophorum virginicum – Poor fens
Euphorbia maculata - Beckanon Road
Fallopia scandens – Open rock near shoreline
Hackelia virginiana - Floodplain Deciduous Forest
Hypericum ellipticum - shoreline marshes, common
Juncus alpinoarticulatus - Milton's Bay
Juncus brevicaudatus - Milton's Bay marsh next to slow stream
Juncus canadensis - Abundant in shoreline marshes and other marshes throughout
Juncus pelocarpus - Milton's Bay and other shoreline marshes
Lycopodiella inundata - Poor Fens
Muhlenbergia mexicana - along Beckanon Road
Muhlenbergia uniflora - coastal fens
Persicaria pensylvanica - Milton's Bay marsh
Persicaria punctata - Edge of beaver pond and along Beckonon Road
Alisma triviale - in pond
Phragmites australis subsp. americanus – Costal fens
Polygonum douglasii - Sandy opening at Milton's Bay
Pyrola asarifolia - trail to Joe's cabin
Pyrola elliptica - coniferous / mixed forests
Rhynchospora alba – Coastal and inland fens
Rosa acicularis - Jack Pine Rock Barrens and rocky shorelines
Rosa palustris - Marshes
Rumex triangulivalvis - Sandy beach in Sandy Bay
Scutellaria parvula var. parvula - Exposed rock across from Flash's cabin growing near Woodsia ilvensis
Sedum acre - Sandy Bay beach
Solidago cf. hispida
Sorbus americana - rocky outcrop adjacent Henvey Inlet
Sparganium eurycarpum - Henvey Inlet shore
Sparganium fluctuans - Shallow waters near Henvey shore, Milton's Bay
Spiranthes cernua - abundant along shoreline marshes and fens.
Symphyotrichum boreale
Symphyotrichum lateriflorum - Alder thicket / Henvey shoreline
Trifolium aureum - Roadsides
Utricularia intermedia - large fen on south side of inlet
Woodsia ilvensis - Exposed rock across from Flash's cabin
Zizania palustris - Shallow slow waters of Henvey Inlet, Key River and Sandy Bay and some tributaries

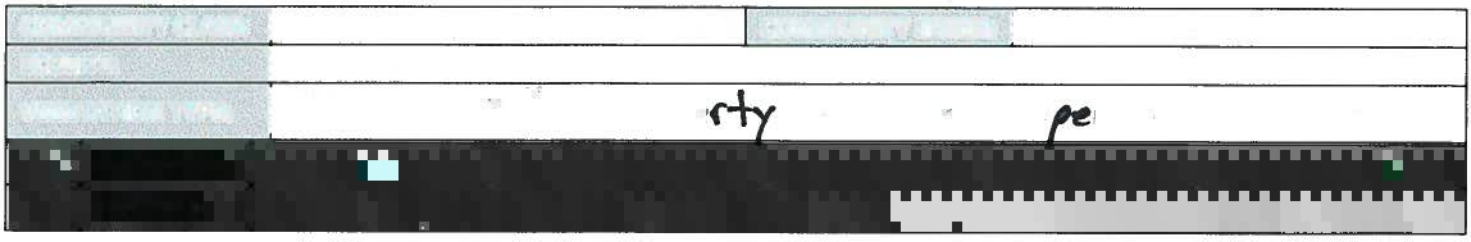
Name and Signature of personnel conducting plant specimen identification: BRIAN MILLER



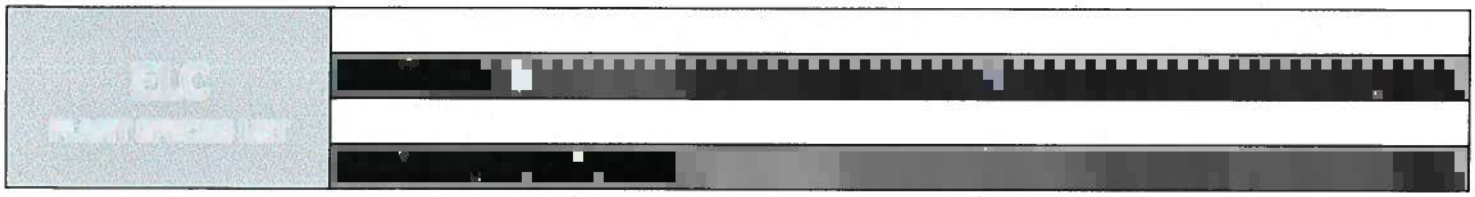




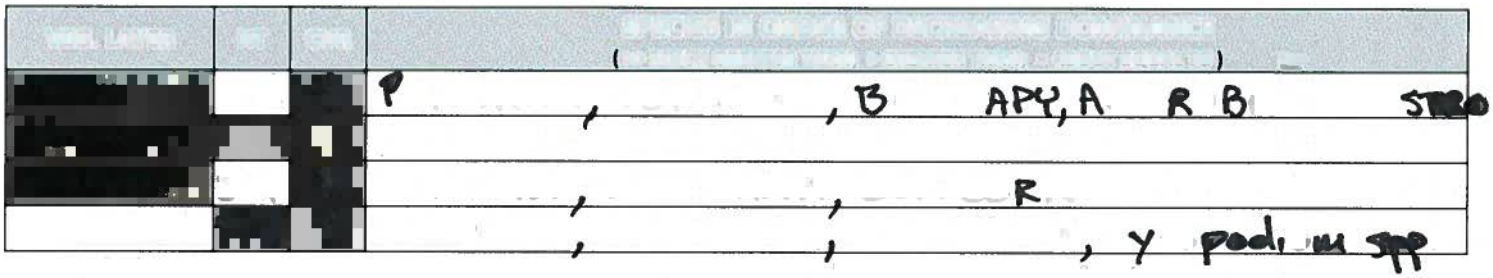


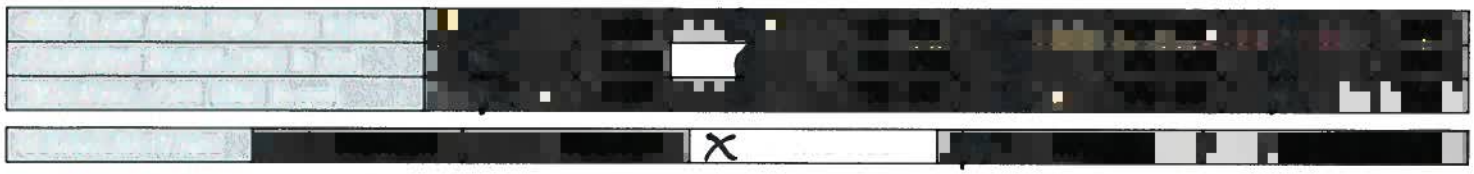

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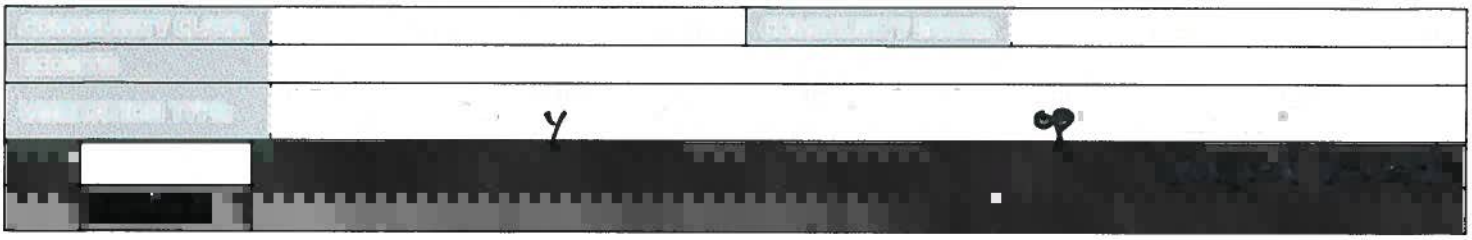
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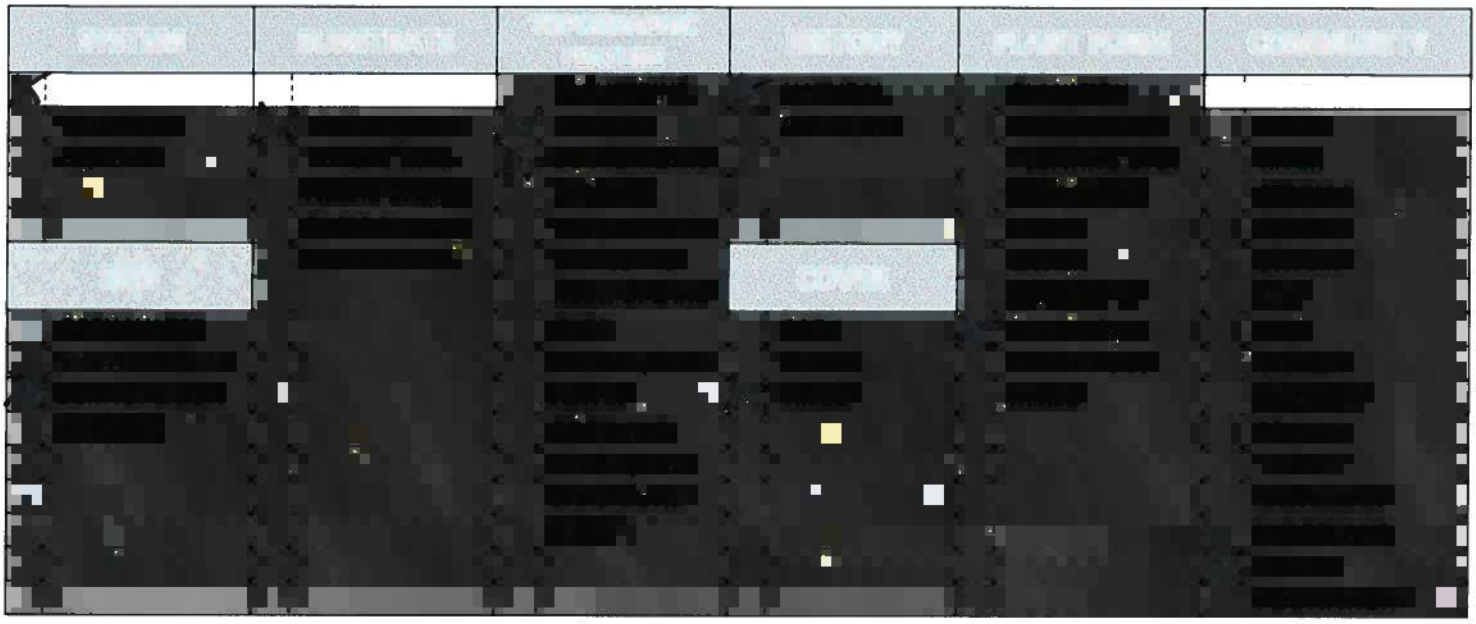


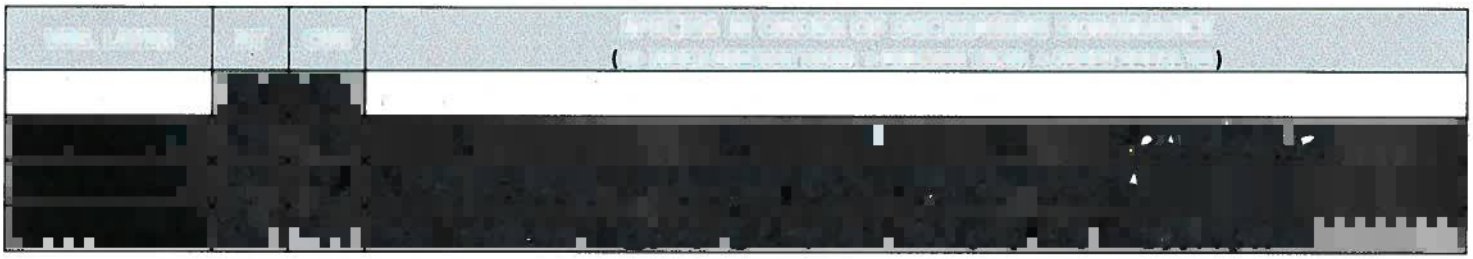

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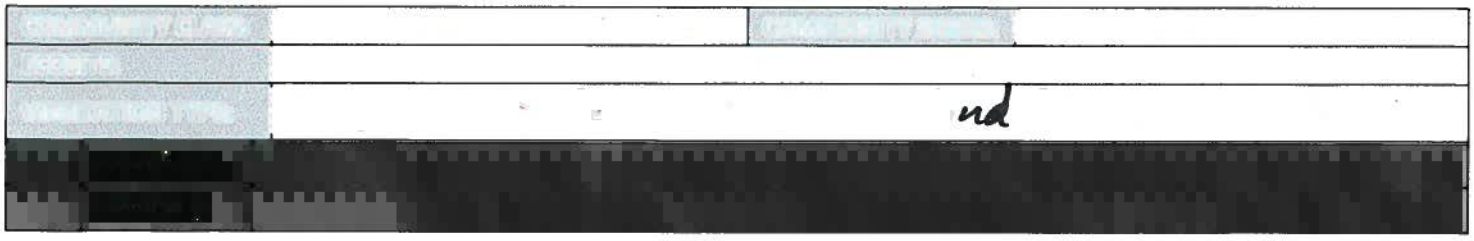




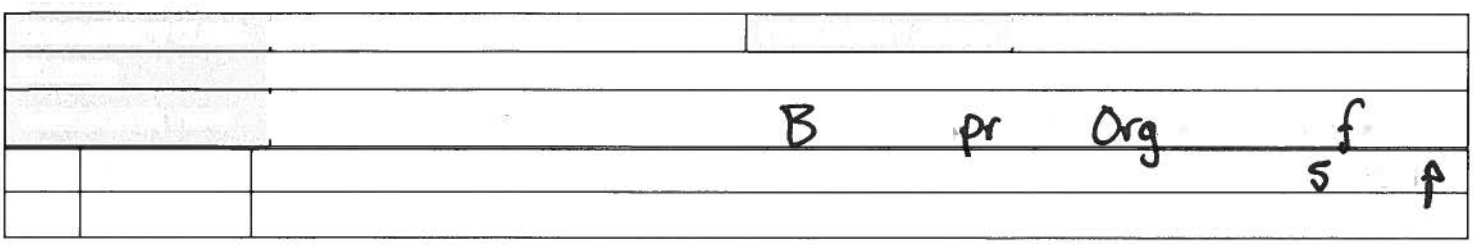



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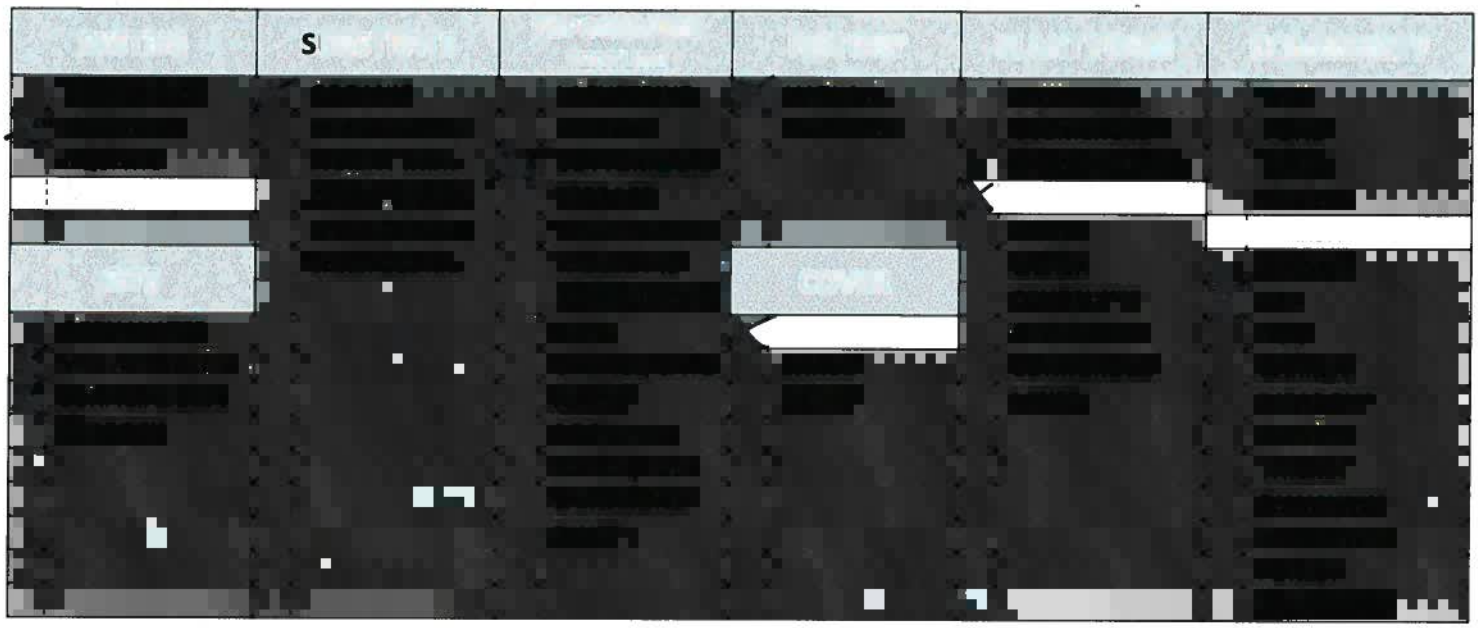


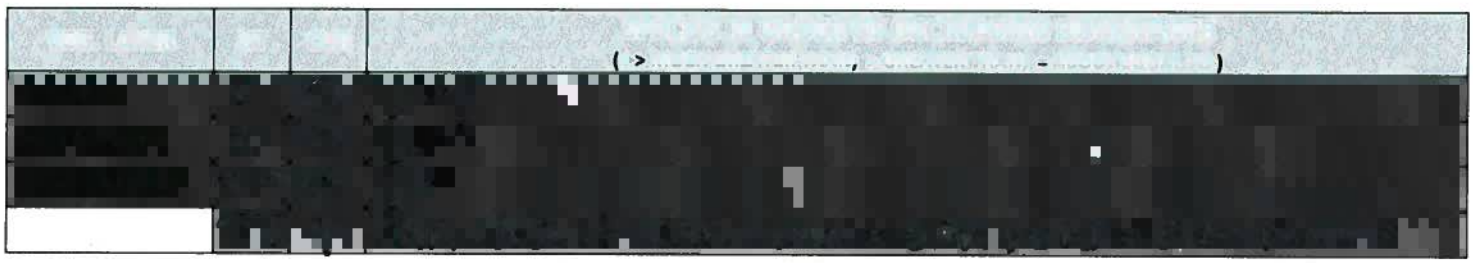

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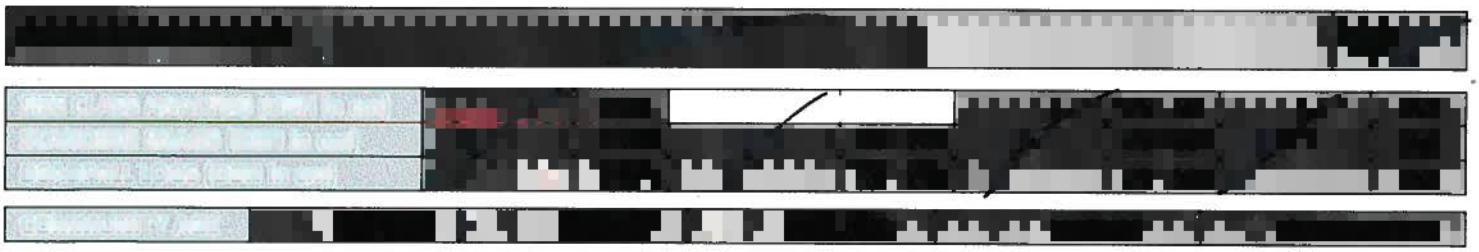
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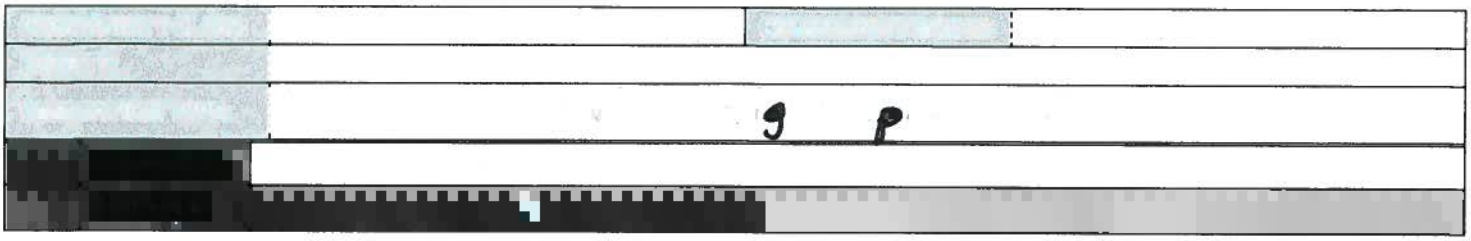

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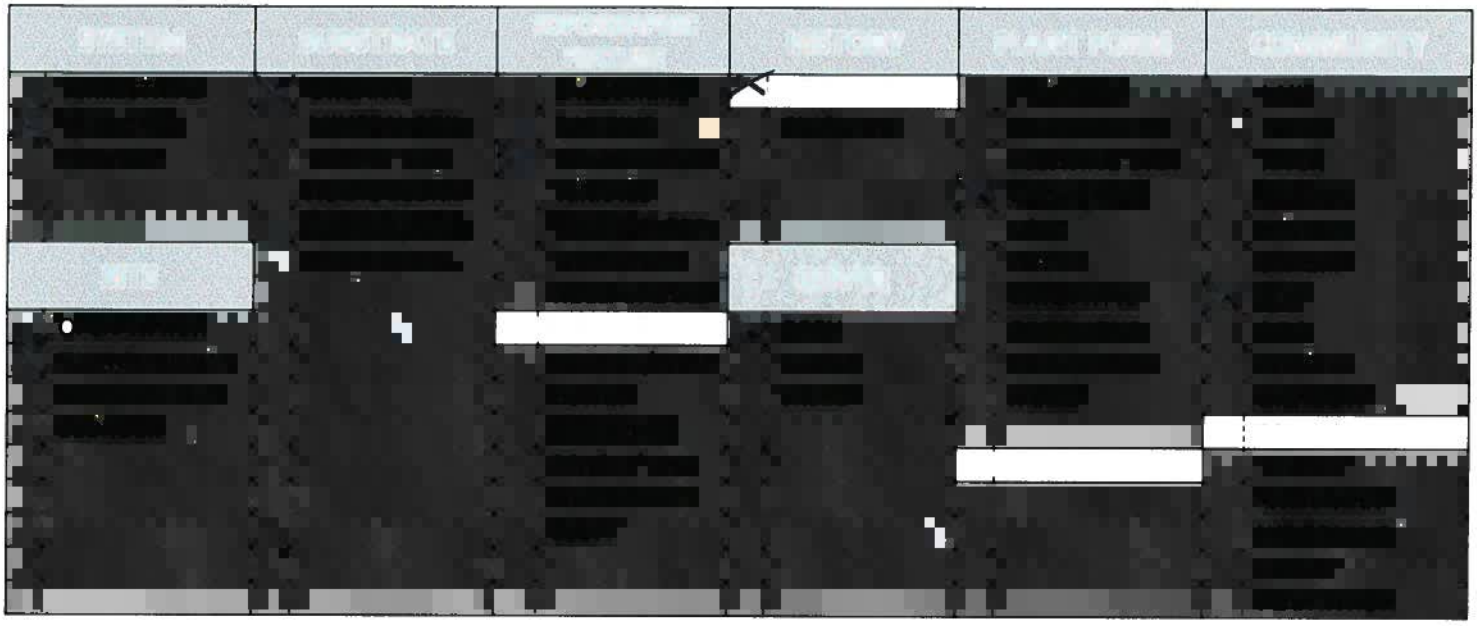


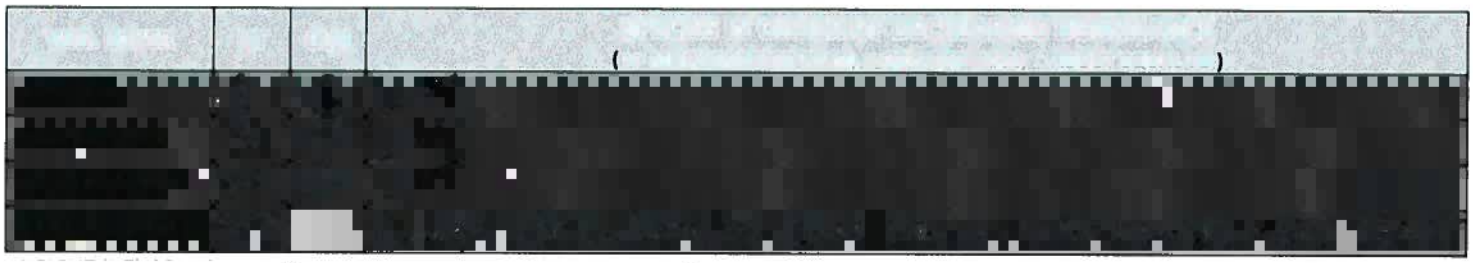






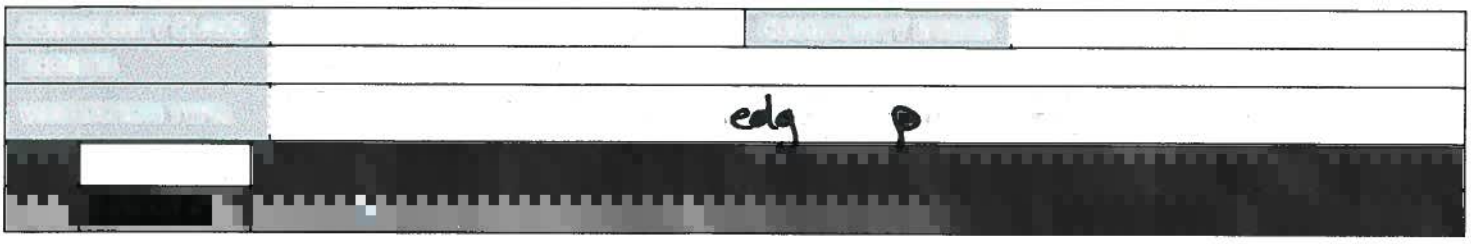






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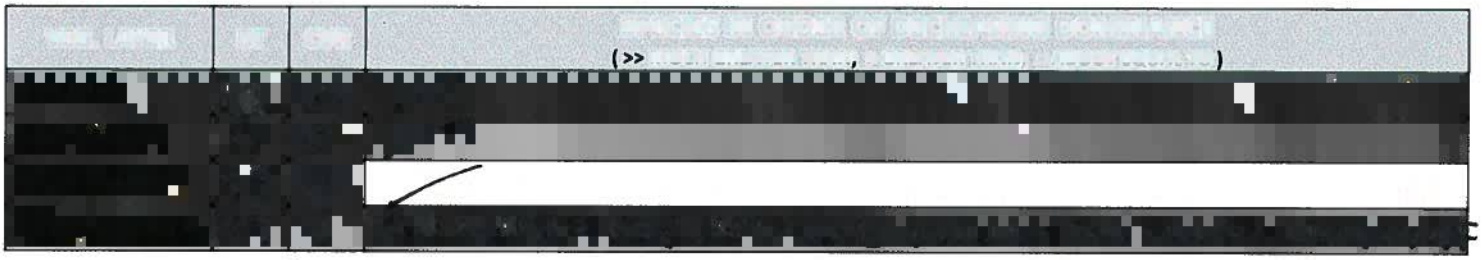

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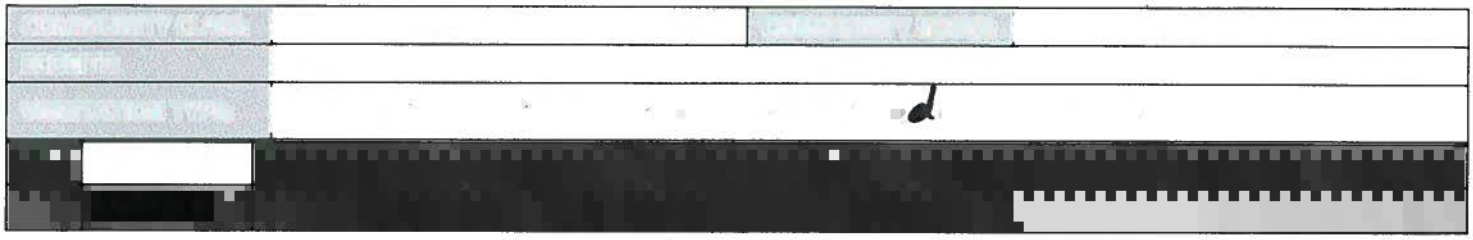
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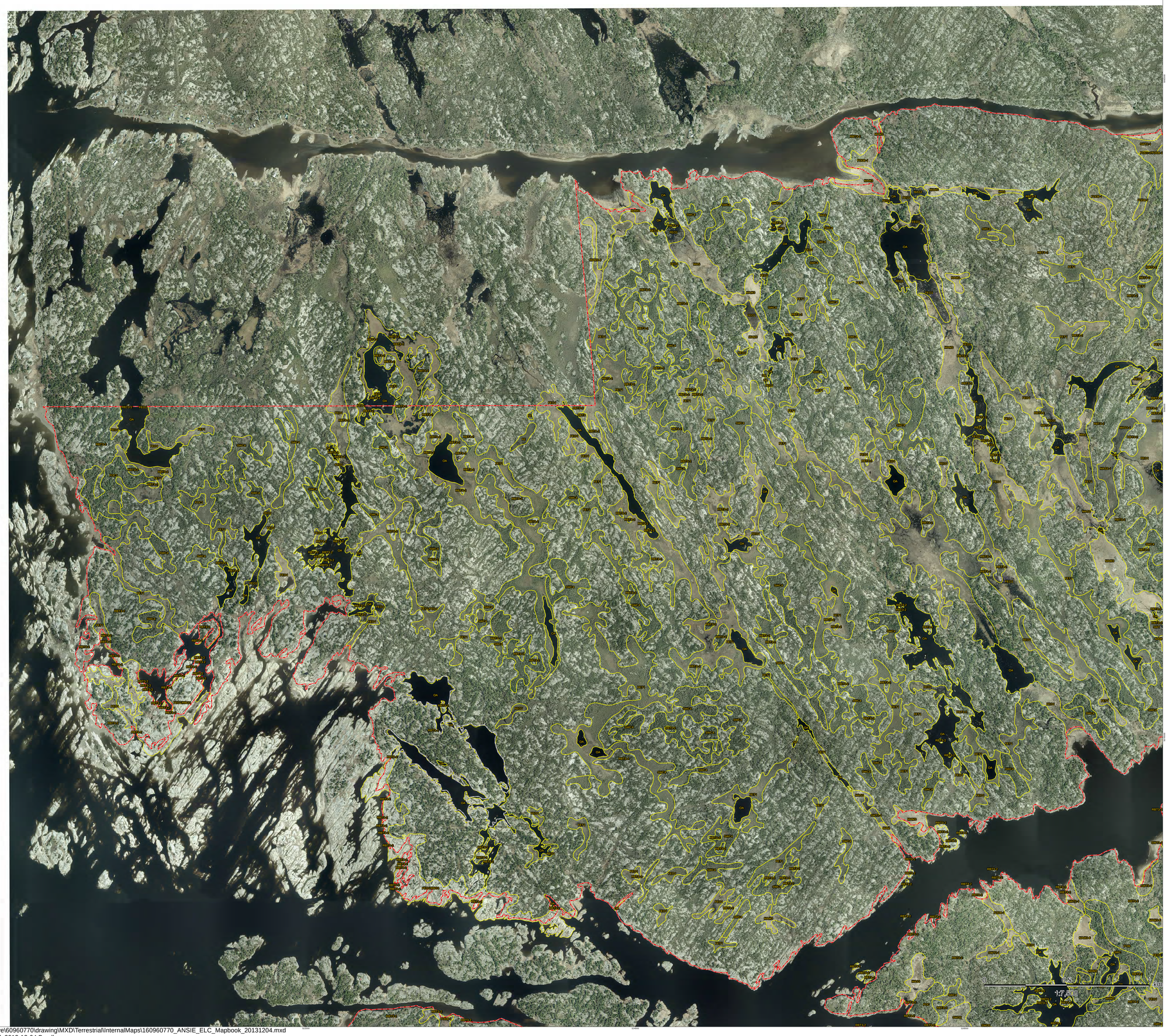








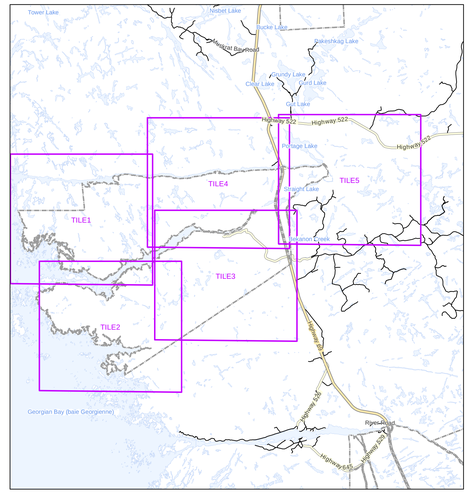




Legend

Type

- Federal Lands Study Area (Wind)
- Henvey Inlet First Nation Reserve Boundary
- Highway
- Major Road
- Local Road
- Watercourse
- Waterbody
- ELC Boundary



Notes

1. Coordinate System: NAD 1983 UTM Zone 17N
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2012.
3. Imagery Sources: Blue Earth, 2013
   Imagery Date- 2013

December 2013
160960770

Client/Project

NIGIG POWER CORP.
HENVEY INLET WIND PROJECT

Figure No.

Tile 1

DRAFT

Title

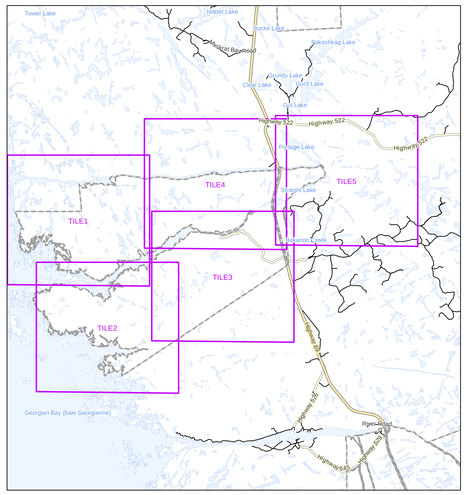
Airphoto Base Mapbook

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Revised: 2013-12-04 By: dharvey

Legend

Type

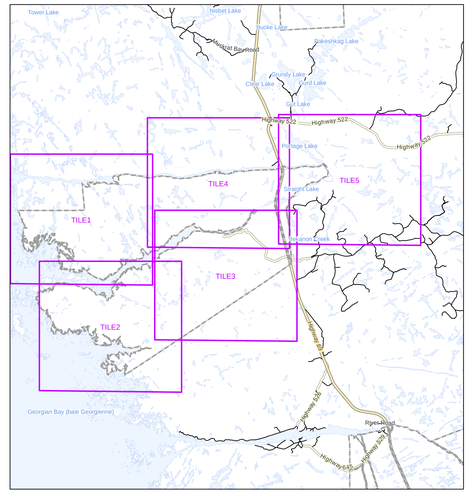
- Federal Lands Study Area (Wind)
- Henvey Inlet First Nation Reserve Boundary
- Highway
- Major Road
- Local Road
- Watercourse
- Waterbody
- ELC Boundary


Tower Lake
Trebet Lake
Locke Lake
Trout Bayshed
Lakeshead Lake
Windy Lake
Cliff Lake
Bird Lake
Owl Lake
Highway 522
Highway 522
Highway 522
Pumpkin Lake
Beaver Lake
TILE4
TILE5
TILE1
Thompson Creek
TILE3
TILE2
Georgian Bay (baie Georgienne)
Pigeon River
Pigeon River
Highway 637
Pigeon River
Pigeon River
Pigeon River

Legend

Type

- Federal Lands Study Area (Wind)
- Henvey Inlet First Nation Reserve Boundary
- Highway
- Major Road
- Local Road
- Watercourse
- Waterbody
- ELC Boundary



Notes

1. Coordinate System: NAD 1983 UTM Zone 17N
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3. Imagery Sources: Blue Earth, 2013
   Imagery Date- 2013

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NIGIG POWER CORP.
HENVEY INLET WIND PROJECT

Figure No.

Tile 3

DRAFT

Title

Airphoto Base Mapbook

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Revised: 2013-12-04 By: dharvey