

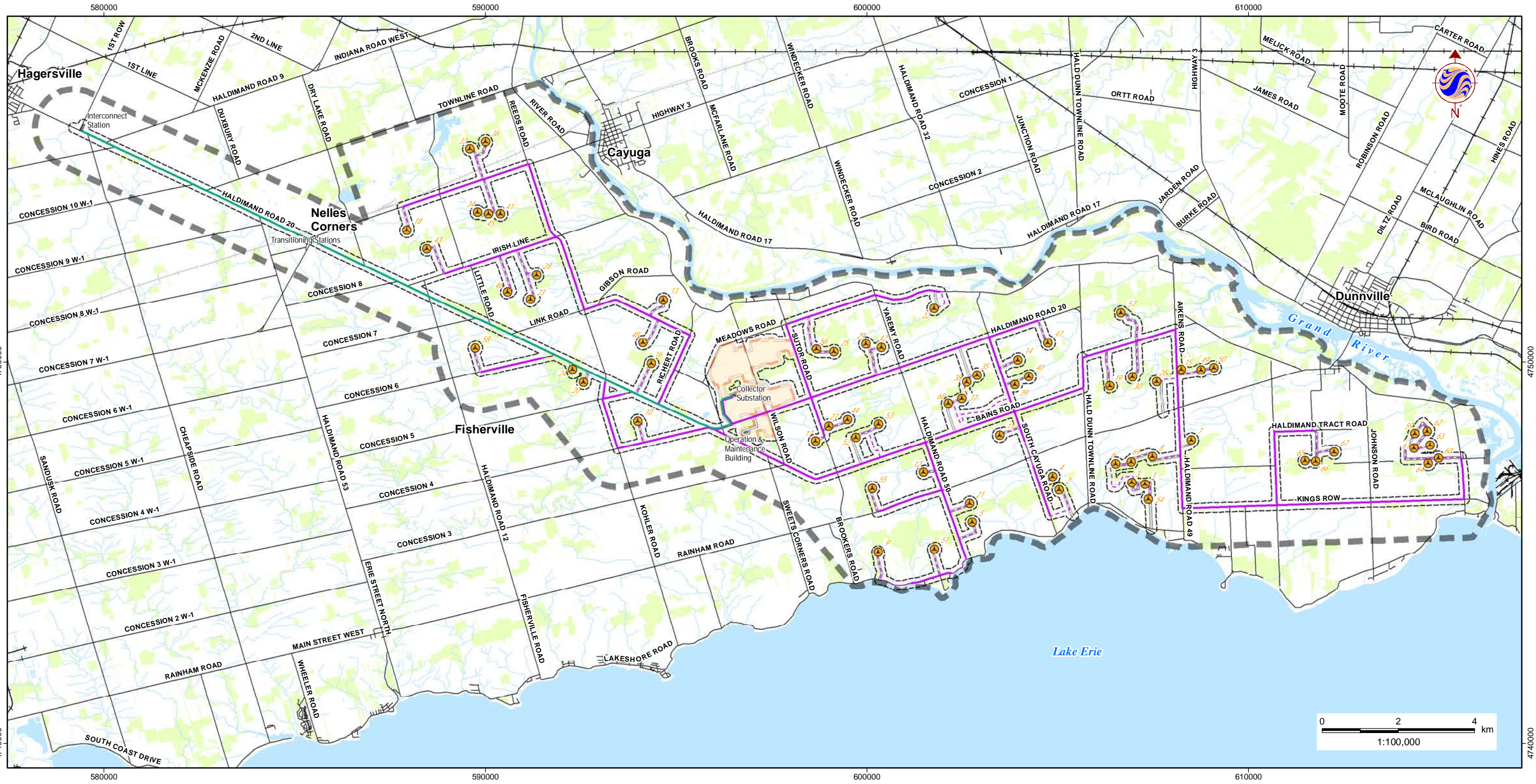
**Stantec**

**GRAND RENEWABLE ENERGY PARK**

**NATURAL HERITAGE ASSESSMENT AND ENVIRONMENTAL IMPACT STUDY**

# **Appendix A**

## **Figures**



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**Stantec**

**Legend**

- |                               |                            |                          |                                   |  |                   |
|-------------------------------|----------------------------|--------------------------|-----------------------------------|--|-------------------|
|                               | Study Area                 |                          | Transmission Line                 |  | Waterbody (MNR)   |
|                               | Zone of Investigation      |                          | Overhead Transmission Line        |  | Wooded Area (MNR) |
| <b>Wind Project Location</b>  |                            |                          | Underground Transmission Line     |  |                   |
|                               | Proposed Turbine Location  |                          | Electrical Transmission Component |  |                   |
|                               | Access Road                | <b>Existing Features</b> |                                   |  |                   |
|                               | Overhead Collector Line    |                          | Road                              |  |                   |
|                               | Underground Collector Line |                          | Railway                           |  |                   |
| <b>Solar Project Location</b> |                            |                          | Abandoned Railway                 |  |                   |
|                               | Solar Lands                |                          | Watercourse (MNR)                 |  |                   |

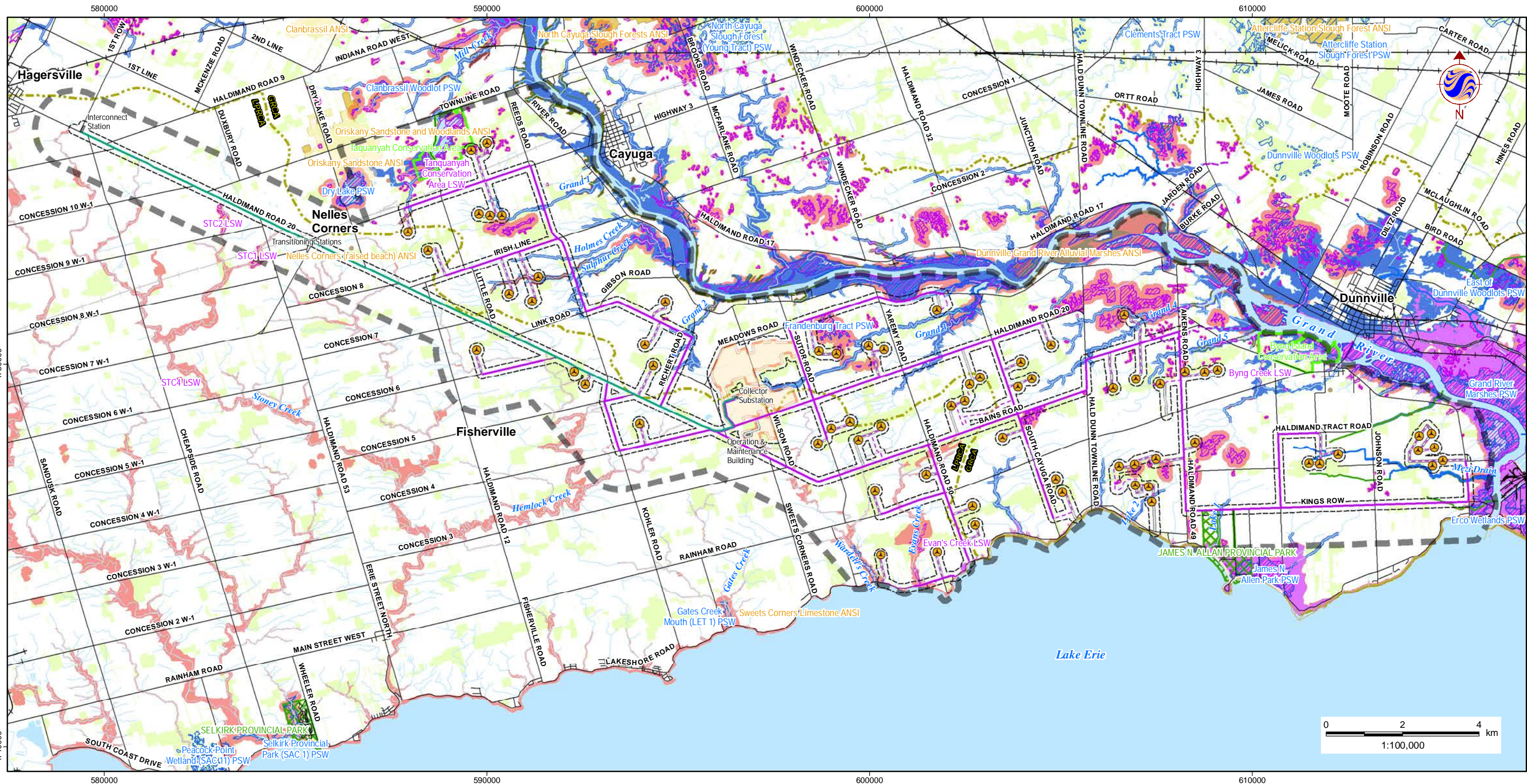
**Notes**

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Figure No.  
1.0

Title  
**STUDY AREA**



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**Legend**

- |                               |                                   |  |  |
|-------------------------------|-----------------------------------|--|--|
|                               | Study Area                        |  | Road                                       |
|                               | Zone of Investigation             |  | Railway                                    |
| <b>Wind Project Location</b>  |                                   |  |  |
|                               | Proposed Turbine Location         |  | Abandoned Railway                          |
|                               | Access Road                       |  | Watercourse (MNR)                          |
|                               | Overhead Collector Line           |  | Waterbody (MNR)                            |
|                               | Underground Collector Line        |  | Wooded Area (MNR)                          |
| <b>Solar Project Location</b> |                                   |  |  |
|                               | Solar Lands                       |  | Provincial Park (MNR)                      |
| <b>Transmission Line</b>      |                                   |  |  |
|                               | Overhead Transmission Line        |  | Regulation Limit (GRCA/LPRCA)              |
|                               | Underground Transmission Line     |  | Conservation Authority (GRCA)              |
|                               | Electrical Transmission Component |  | Wetland (GRCA)                             |
|                               |                                   |  | Regulatory Floodplain (GRCA)               |
|                               |                                   |  | River Slopes and Erosion Allowances (GRCA) |

- |                                       |                                  |   |   |
|---------------------------------------|----------------------------------|---|---|
|                                       | Watershed Boundary               | <b>Area of Natural and Scientific Interest - ANSI (MNR)</b> |   |
|                                       | River Valley Slope (GRCA)        |   | Life Science, Provincially Significant  |
|                                       | Dynamic Beach (GRCA)             |   | Earth Science, Provincially Significant |
|                                       | Lake Erie Flood Hazard (GRCA)    |   | Earth Science, Regionally Significant   |
|                                       | Shoreline Erosion Hazard (GRCA)  | <b>Wetland (MNR)</b>  |   |
| <b>Wetland (MNR)</b>                  |                                  |   |   |
|                                       | Provincially Significant Wetland |   | Non-Provincially Significant Wetland    |
| <b>Drainage Classification (GRCA)</b> |                                  |   |   |
|                                       | Cool/Coldwater                   |   | Warmwater                               |
|                                       | Intermittent                     |   |   |

**Notes**

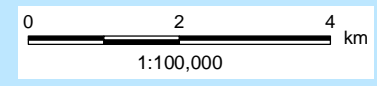
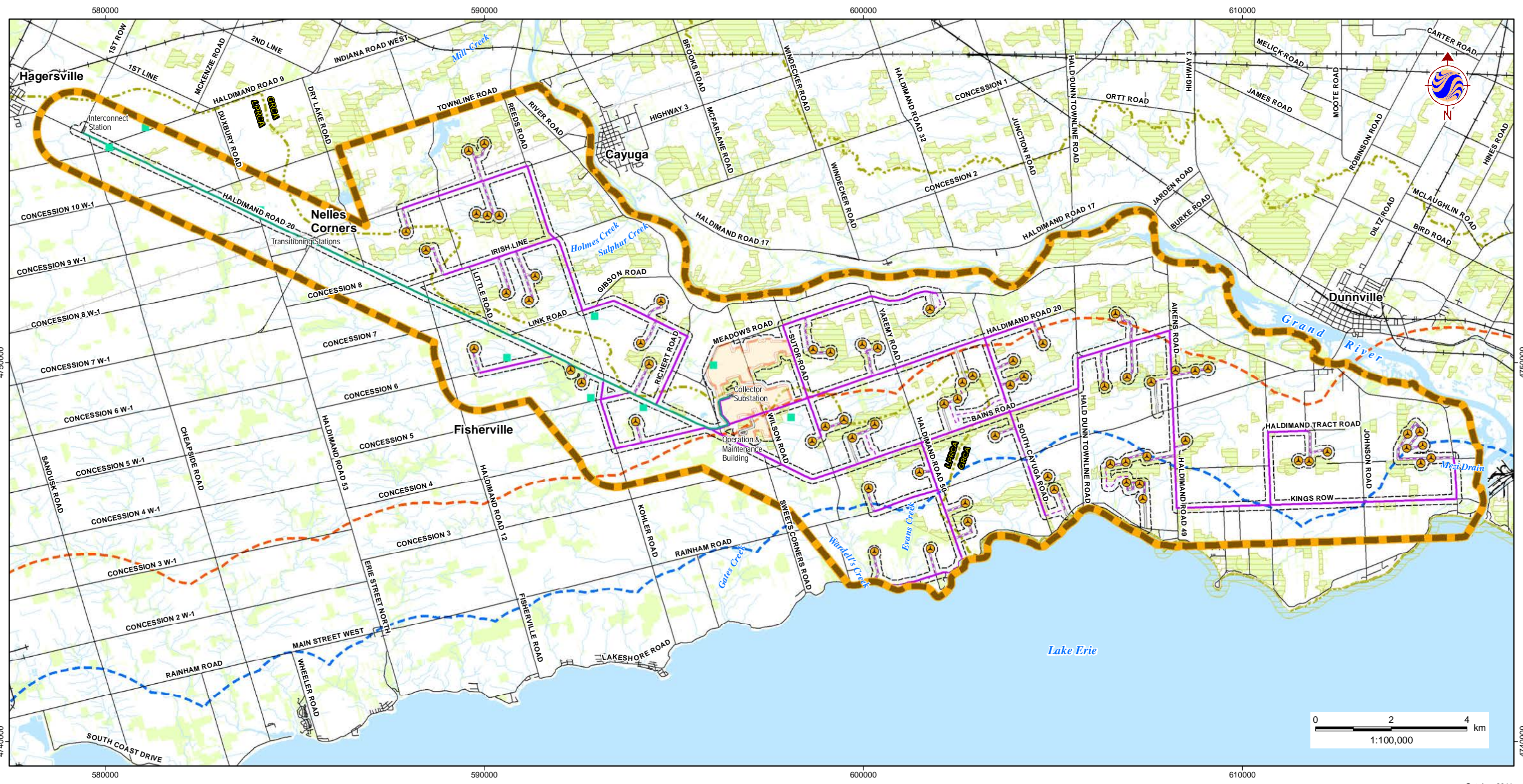
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GRAND RENEWABLE ENERGY PARK

Figure No.  
2.1

**RECOGNIZED NATURAL FEATURES**

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**Legend**

- |  |   |   |
|--|---|---|
| <ul style="list-style-type: none"> <li> Study Area</li> <li> Zone of Investigation</li> <li><b>Wind Project Location</b></li> <li> Proposed Turbine Location</li> <li> Access Road</li> <li> Overhead Collector Line</li> <li> Underground Collector Line</li> <li><b>Solar Project Location</b></li> <li> Solar Lands</li> <li><b>Transmission Line</b></li> <li> Overhead Transmission Line</li> <li> Underground Transmission Line</li> <li> Electrical Transmission Component</li> </ul> | <ul style="list-style-type: none"> <li><b>Existing Features</b></li> <li> Road</li> <li> Railway</li> <li> Abandoned Railway</li> <li> Watercourse (MNR)</li> <li> Waterbody (MNR)</li> <li> Wooded Area (MNR)</li> <li> Watershed Boundary</li> <li><b>Wildlife Habitat Features</b></li> <li> Historical Short-eared Owl Records (Miles, 1996)</li> <li> Deer Wintering Yard (MNR)</li> <li> Candidate Winter Raptor Feeding &amp; Roosting Area</li> </ul> | <ul style="list-style-type: none"> <li><b>Lake Erie Shoreline Buffer</b></li> <li> 2km from Shoreline</li> <li> 5km from Shoreline</li> </ul> |
|--|---|---|

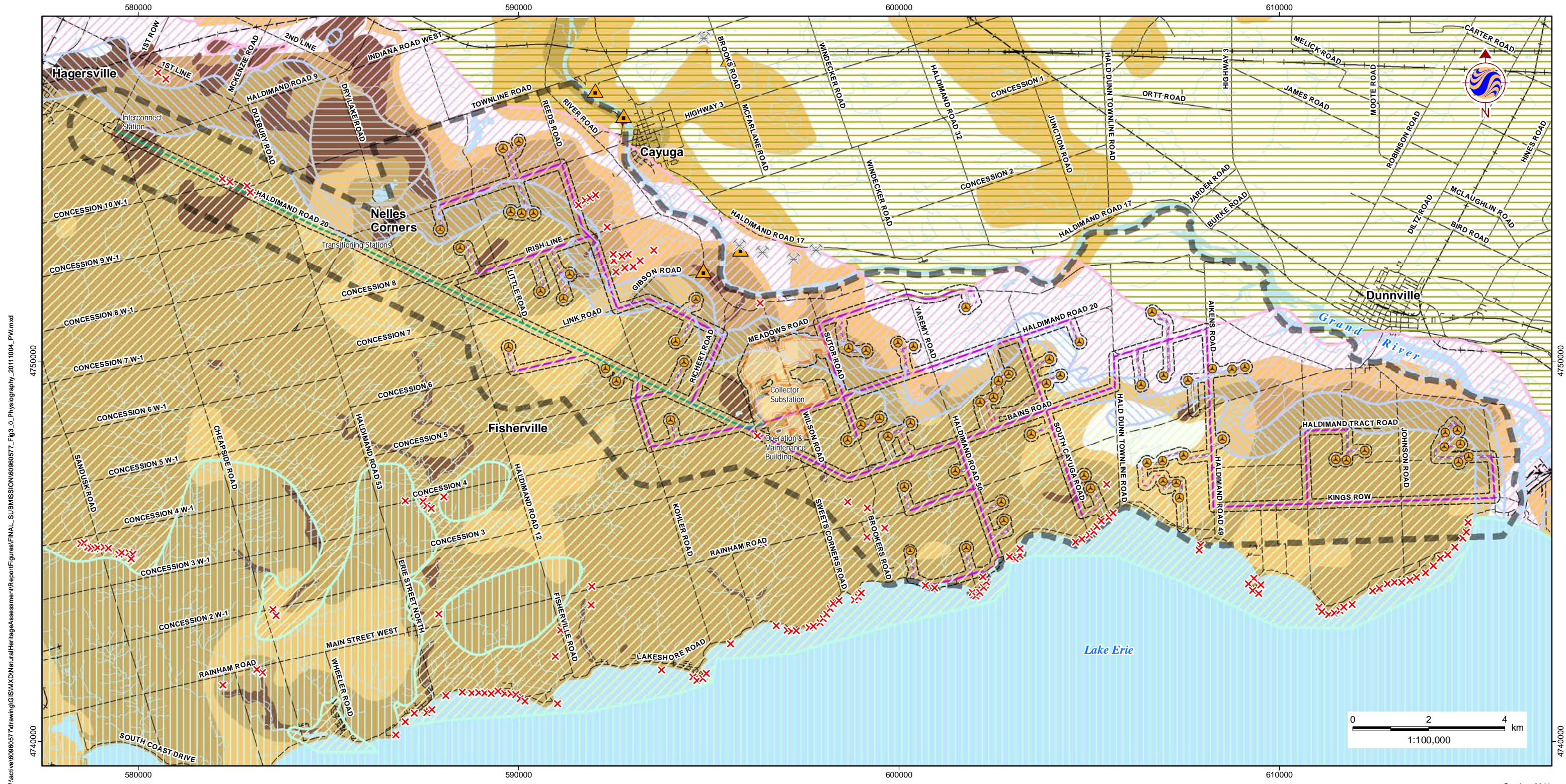
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Figure No.  
2.2

Title  
**RECOGNIZED WILDLIFE  
HABITAT FEATURES**



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**Legend**

- |                              |                                   |                          |  |
|------------------------------|-----------------------------------|--------------------------|--|
|                              | Study Area                        |                          | Solar Project Location                   |
|                              | Zone of Investigation             |                          | Solar Lands                              |
| <b>Wind Project Location</b> |                                   | <b>Existing Features</b> |  |
|                              | Proposed Turbine Location         |                          | Road                                     |
|                              | Access Road                       |                          | Railway                                  |
|                              | Overhead Collector Line           |                          | Abandoned Railway                        |
|                              | Underground Collector Line        |                          | Watercourse (MNR)                        |
|                              | Overhead Transmission Line        |                          | Waterbody (MNR)                          |
|                              | Underground Transmission Line     |                          | Abandoned Mine Site (MNDM)               |
|                              | Electrical Transmission Component |                          | Abandoned Mine Features/Structure (MNDM) |
|                              |                                   |                          | Isolated Bedrock Outcrop                 |

**Geological Formation (MNDM)**

- |                        |  |
|------------------------|--|
|                        | Bertie   |
|                        | Bois Blanc   |
|                        | Dundee   |
|                        | Onondaga   |
|                        | Oriskany   |
|                        | Salina   |
| <b>Drift Thickness</b> |  |
|                        | Bedrock covered by more than 50 feet of overburden |
|                        | Bedrock covered by 25-50 feet of overburden        |
|                        | Bedrock covered by 3-25 feet of overburden         |
|                        | Bedrock covered by less than 3 feet of overburden  |

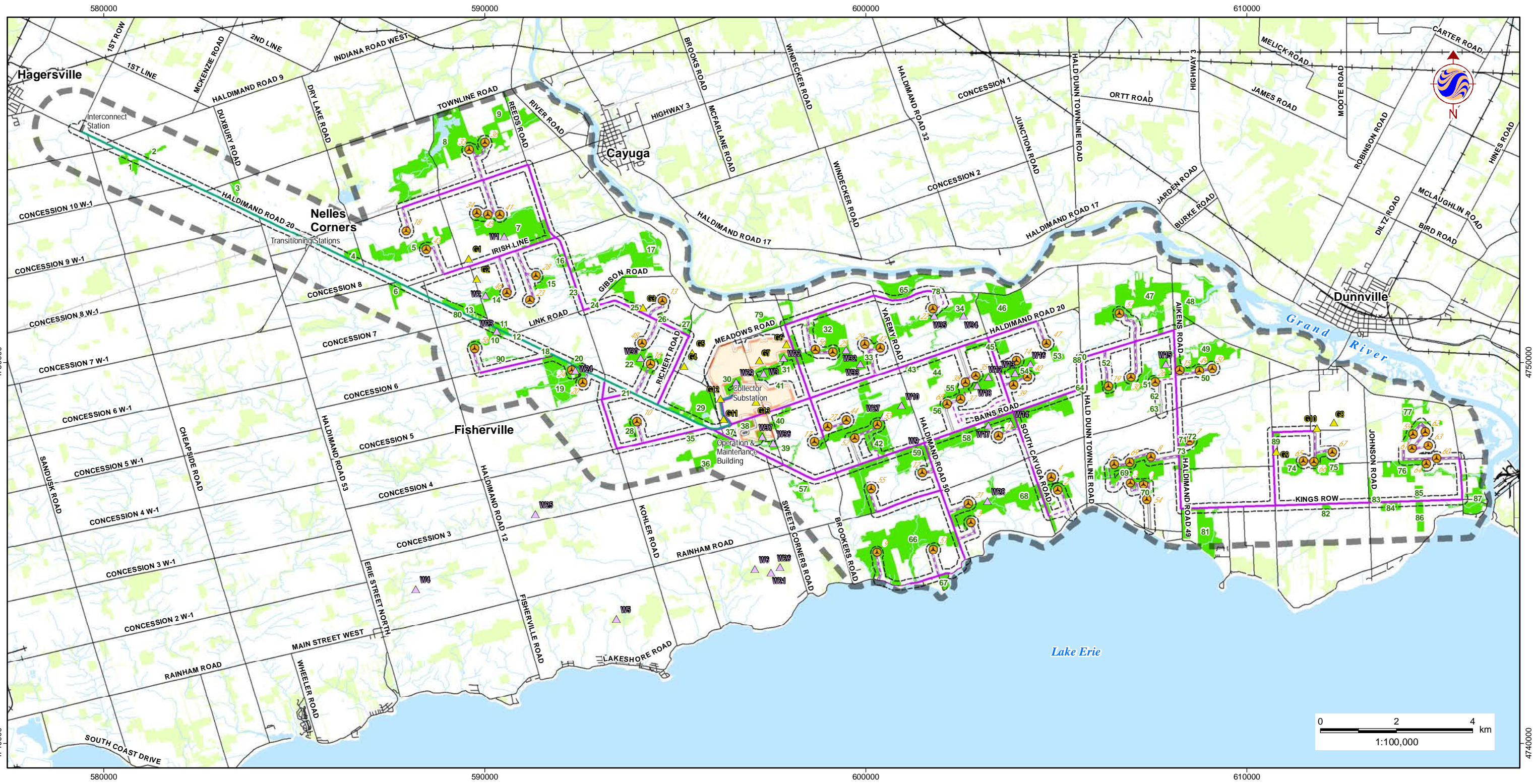
**Notes**

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- Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2011; © Samsung, 2011.
- All bedrock data illustrated on this map were derived from OGS Aggregate Resources Inventory Papers 059, 064, and 067 published from 1984-1985.

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Figure No.  
3.0

Title  
**PHYSIOGRAPHY**



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**Legend**

- |                               |                            |  |                               |                                   |                                 |
|-------------------------------|----------------------------|--|-------------------------------|-----------------------------------|---------------------------------|
|                               | Study Area                 |  | Overhead Transmission Line    |                                   | Waterbody (MNR)                 |
|                               | Zone of Investigation      |  | Underground Transmission Line |                                   | Wooded Area (MNR)               |
| <b>Wind Project Location</b>  |                            |  |                               | Electrical Transmission Component |                                 |
|                               | Proposed Turbine Location  |  | Road                          |                                   | Grassland Point Count (Stantec) |
|                               | Access Road                |  | Railway                       |                                   | Woodland Point Count (Stantec)  |
|                               | Overhead Collector Line    |  | Abandoned Railway             |                                   |                                 |
|                               | Underground Collector Line |  | Watercourse (MNR)             |                                   |                                 |
| <b>Solar Project Location</b> |                            |  |                               |                                   |                                 |
|                               | Solar Lands                |  |                               |                                   |                                 |

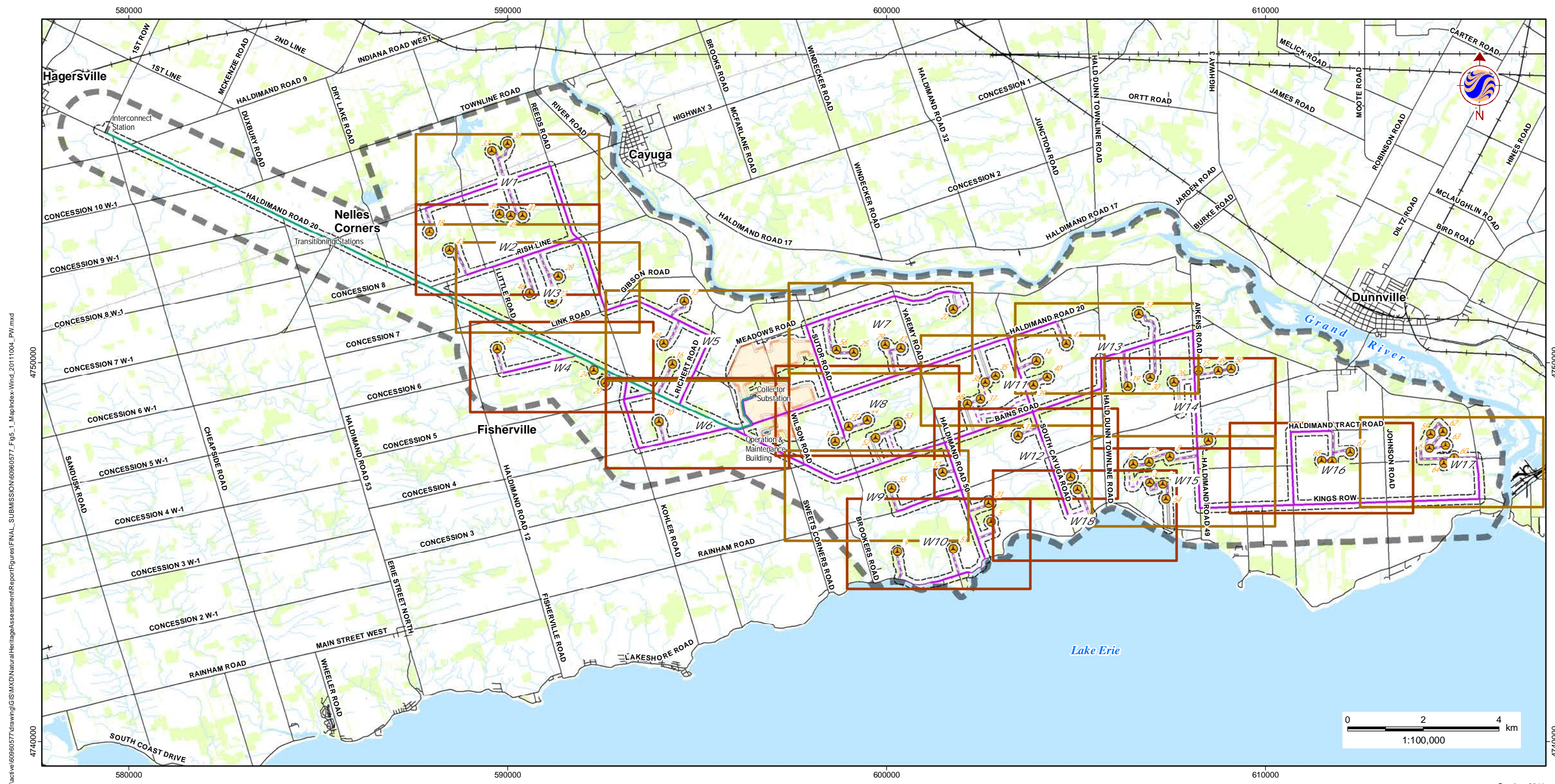
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Figure No.  
4.0

Title  
**BIRD SURVEY  
LOCATIONS - 2010**



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**Legend**

- |                               |                            |                          |                                   |  |                   |
|-------------------------------|----------------------------|--------------------------|-----------------------------------|--|-------------------|
|                               | Study Area                 |                          | Overhead Transmission Line        |  | Waterbody (MNR)   |
|                               | Zone of Investigation      |                          | Underground Transmission Line     |  | Wooded Area (MNR) |
| <b>Wind Project Location</b>  |                            |                          |                                   |  |                   |
|                               | Proposed Turbine Location  |                          | Electrical Transmission Component |  |                   |
|                               | Access Road                | <b>Existing Features</b> |                                   |  |                   |
|                               | Overhead Collector Line    |                          | Road                              |  | Railway           |
|                               | Underground Collector Line |                          | Abandoned Railway                 |  | Watercourse (MNR) |
| <b>Solar Project Location</b> |                            |                          |                                   |  |                   |
|                               | Solar Lands                |                          |                                   |  |                   |

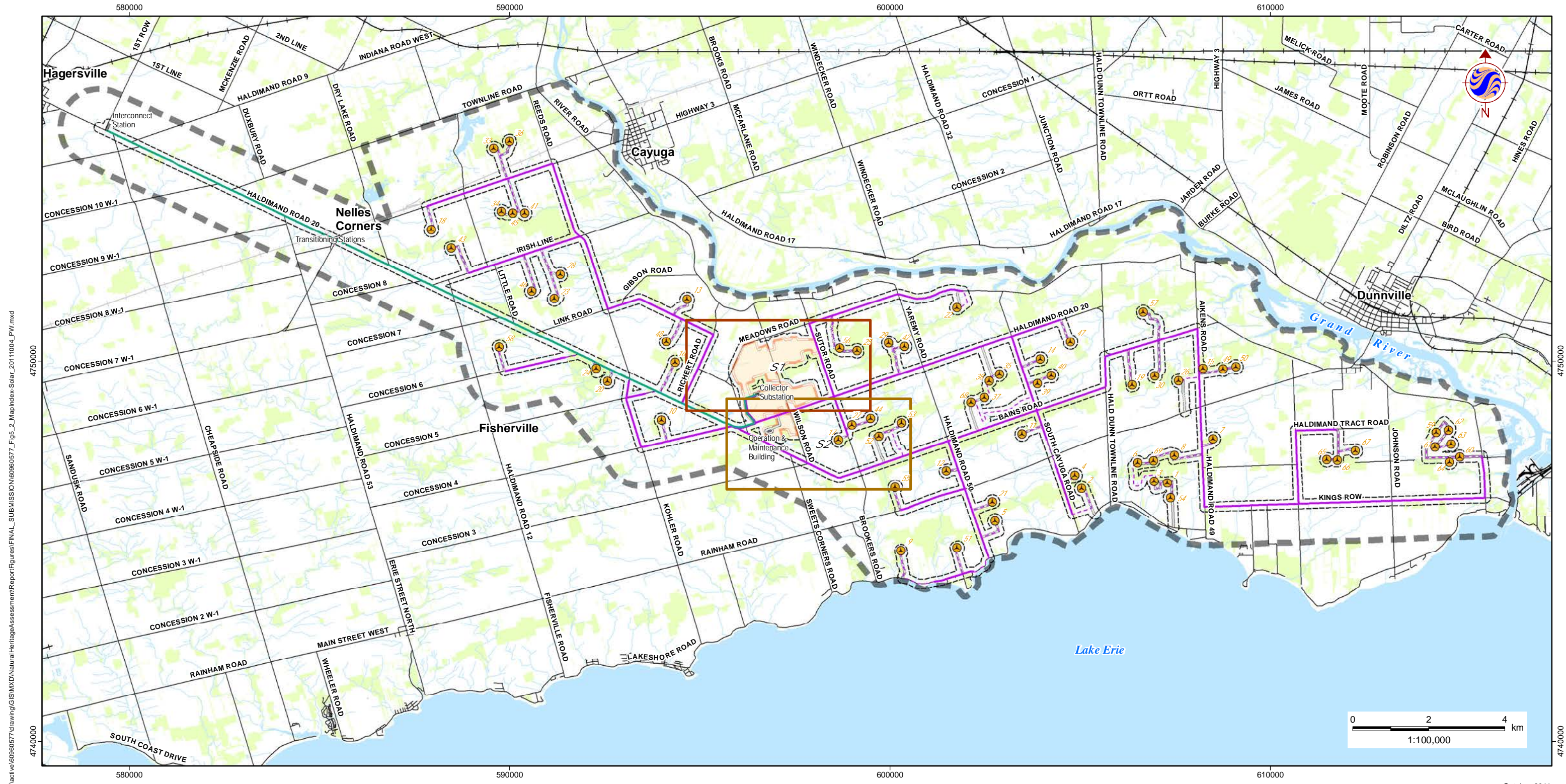
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Figure No.  
5.1

Title  
**MAPPING INDEX -  
WIND PROJECT**



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**Legend**

- |                               |                            |                          |                                   |  |                   |
|-------------------------------|----------------------------|--------------------------|-----------------------------------|--|-------------------|
|                               | Study Area                 |                          | Overhead Transmission Line        |  | Waterbody (MNR)   |
|                               | Zone of Investigation      |                          | Underground Transmission Line     |  | Wooded Area (MNR) |
| <b>Wind Project Location</b>  |                            |                          |                                   |  |                   |
|                               | Proposed Turbine Location  |                          | Electrical Transmission Component |  |                   |
|                               | Access Road                | <b>Existing Features</b> |                                   |  |                   |
|                               | Overhead Collector Line    |                          | Road                              |  | Railway           |
|                               | Underground Collector Line |                          | Abandoned Railway                 |  | Watercourse (MNR) |
| <b>Solar Project Location</b> |                            |                          |                                   |  |                   |
|                               | Solar Lands                |                          |                                   |  |                   |

**Notes**

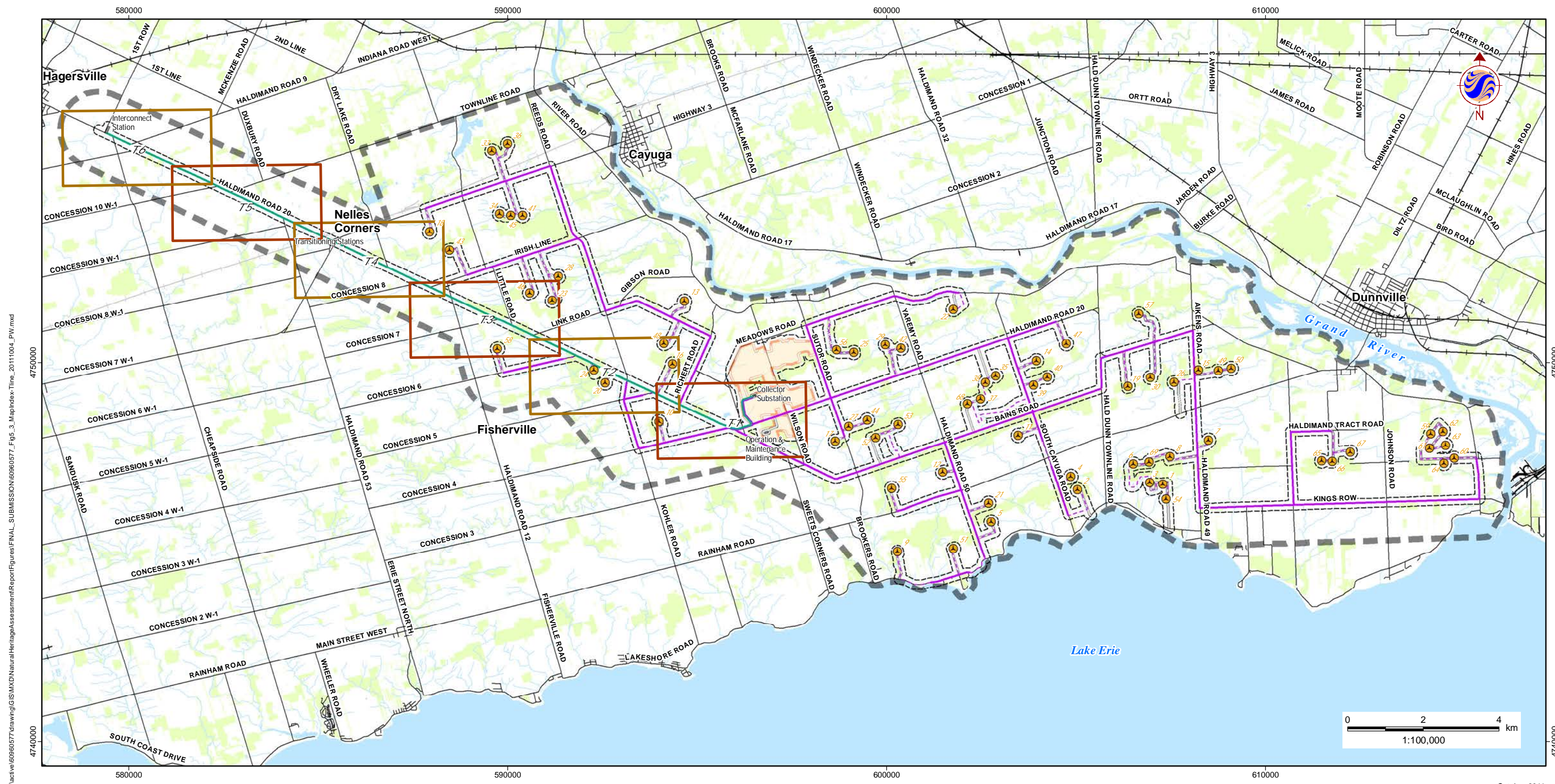
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GRAND RENEWABLE ENERGY PARK

Figure No.  
5.2

Title  
**MAPPING INDEX -  
SOLAR PROJECT**





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**Legend**

- |                               |                            |                          |                                   |  |                   |
|-------------------------------|----------------------------|--------------------------|-----------------------------------|--|-------------------|
|                               | Study Area                 |                          | Overhead Transmission Line        |  | Waterbody (MNR)   |
|                               | Zone of Investigation      |                          | Underground Transmission Line     |  | Wooded Area (MNR) |
| <b>Wind Project Location</b>  |                            |                          |                                   |  |                   |
|                               | Proposed Turbine Location  |                          | Electrical Transmission Component |  |                   |
|                               | Access Road                | <b>Existing Features</b> |                                   |  |                   |
|                               | Overhead Collector Line    |                          | Road                              |  |                   |
|                               | Underground Collector Line |                          | Railway                           |  |                   |
| <b>Solar Project Location</b> |                            |                          |                                   |  |                   |
|                               | Solar Lands                |                          | Abandoned Railway                 |  | Watercourse (MNR) |

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GRAND RENEWABLE ENERGY PARK

Figure No.  
5.3

Title  
**MAPPING INDEX -  
TRANSMISSION LINE**



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**Legend**

- Study Area
- Zone of Investigation
- Constructable Area
- Wind Project Location**
- Proposed Turbine Location
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Solar Project Location**
- Solar Lands
- Transmission Line**
- Overhead Transmission Line
- Underground Transmission Line
- Electrical Transmission Component
- Existing Features**
- Road
- Railway
- Abandoned Railway
- Transmission Line (MNR)
- Watercourse (MNR)
- Waterbody (MNR)
- Natural Feature
- Vegetation Community (ELC)
- AREA**
- Potential Bobolink Habitat
- Grassland Point Count Station**
- Bobolink Sited
- No Bobolink Sited

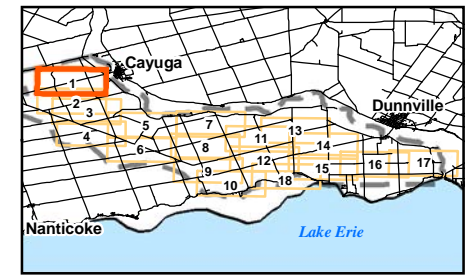
- Forest Communities (FO)**
- FOM-2 - Dry-fresh White Pine - Sugar Maple Mixed Forest
  - FOD - Deciduous Forest
  - FOD1-1 - Dry-fresh Red Oak Deciduous Forest
  - FOD2-1 - Dry-fresh Oak - Red Maple Deciduous Forest
  - FOD2-2 - Dry-fresh Oak - Hickory Deciduous Forest
  - FOD2-4 - Dry-fresh Oak - Hardwood Deciduous Forest
  - FOD3-1 - Dry-fresh Poplar Deciduous Forest
  - FOD4-1 - Dry-fresh Beech Deciduous Forest
  - FOD4-2 - Dry-fresh White Ash Deciduous Forest
  - FOD5 - Dry-fresh Sugar Maple Deciduous Forest Ecosite
  - FOD5-1 - Dry-fresh Sugar Maple Deciduous Forest
  - FOD5-2 - Dry-fresh Sugar Maple - Beech Deciduous Forest
  - FOD5-3 - Dry-fresh Sugar Maple - Oak Deciduous Forest
  - FOD5-8 - Dry-fresh Sugar Maple - White Ash Deciduous Forest
  - FOD5-9 - Dry-fresh Sugar Maple-Red Maple Deciduous Forest
  - FOD5-11 - Dry-fresh Sugar Maple - Oak - Beech Deciduous Forest
  - FOD5-12 - Dry-fresh Sugar Maple - Hickory - Beech Deciduous Forest
  - FOD6-1 - Fresh-moist Sugar Maple - Lowland Ash Deciduous Forest
  - FOD6-5 - Fresh-moist Sugar Maple - Hardwood Deciduous Forest
  - FOD6-6 - Fresh-moist Sugar Maple - Hickory Deciduous Forest
  - FOD7-1 - Fresh - moist White Elm Lowland Deciduous Forest
  - FOD7-2 - Fresh-moist Ash Lowland Deciduous Forest
  - FOD7-4 - Fresh-moist Black Walnut Lowland Deciduous Forest
  - FOD9-1 - Fresh-moist Oak - Sugar Maple Deciduous Forest
  - FOD9-3 - Fresh-moist Bur Oak Deciduous Forest
  - FOD9-4 - Fresh-moist Shagbark Hickory Deciduous Forest
  - FOD9-6 - Fresh-moist Red Oak - Shagbark Hickory Deciduous Forest

- Cultural Communities (CU)**
- CUP1-4 - Hybrid Poplar Deciduous Plantation
  - CUP2 - Mixed Plantation
  - CUP3-1 - Red Pine Coniferous Plantation
  - CUP3-2 - White Pine Coniferous Plantation
  - CUP3-12 - White Pine - White/Norway Spruce Coniferous Plantation
  - CUP3-13 - White Spruce Coniferous Plantation
  - CUM1 - Mineral Cultural Meadow
  - CUS1-1 - Hawthorn Cultural Savannah
  - CUT1 - Mineral Cultural Thicket
  - CUT1-1 - Sumac Cultural Thicket
  - CUT1-4 - Gray Dogwood Cultural Thicket
  - CUT1-7 - European Buckthorn - Sweet Cherry Cultural thicket
  - CUM1 - Mineral Cultural Woodland
  - CUM1-1 - Red Cedar Mineral Cultural Woodland
  - CUM1-3 - Ash - Sumac Mineral Cultural Woodland
  - CUM1-4 - Green Ash Mineral Cultural Woodland
  - CUM1-5 - Norway Maple Mineral Cultural Woodland
  - CUM1-6 - White Elm Cultural Woodland
  - CUM1-7 - Red maple Mineral Cultural Woodland
  - CUM1-11 - White Pine Cultural Woodland
- Swamp Communities (SW)**
- SWD - Deciduous Swamp
  - SWD1-1 - Swamp Oak Mineral Deciduous Swamp
  - SWD1-2 - Bur Oak Mineral Deciduous Swamp
  - SWD2-2 - Green Ash Mineral Deciduous Swamp
  - SWD2-3 - Ash - Hardwood Mineral Deciduous Swamp
  - SWD2-4 - Green Ash - Red Maple Mineral Deciduous Swamp
  - SWD3-1 - Red Maple Mineral Deciduous Swamp
  - SWD3-2 - Silver Maple Mineral Deciduous Swamp
  - SWD3-3 - Swamp Maple Mineral Deciduous Swamp

- Swamp Communities (SW)**
- SWD4-1 - Willow Mineral Deciduous Swamp
  - SWD4-2 - White Elm Mineral Deciduous Swamp
  - SWD4-6 - Green Ash - Swamp Maple Mineral Deciduous Swamp
  - SWT - Thicket Swamp
  - SWT2 - Mineral Thicket Swamp
  - SWT2-4 - Buttonbush Mineral Thicket Swamp
  - SWT2-5 - Red Osier Dogwood Mineral Thicket Swamp
  - SWT2-8 - Silky Dogwood Mineral Thicket Swamp
  - SWT2-9 - Gray Dogwood Mineral Thicket Swamp
  - SWT2-13 - Willow - Dogwood Mineral Thicket Swamp
  - SWT2-14 - Winterberry - Buttonbush Mineral Thicket Swamp
  - SWT2-15 - Red Maple Mineral Thicket Swamp
  - SWT3-7 - Winterberry Organic Thicket Swamp
- Marsh Communities (MA)**
- MAM2 - Mineral Meadow Marsh
  - MAM2-2 - Reed Canary Grass Mineral Meadow Marsh
  - MAM2-9 - Jewelweed Mineral Meadow Marsh
  - MAM2-10 - Forb Mineral Meadow Marsh
  - MAM2-11 - Forb - Graminoid Mineral Meadow Marsh
  - MAS2-1 - Cattail Mineral Shallow Marsh
  - MAS2-8 - Rice Cut-grass Mineral Shallow Marsh
- Open Water (OA)**
- OA - Open Aquatic
- Shallow Water (SA)**
- SAM1-2 - Duckweed Mixed Shallow Aquatic
- Other Features:**
- HR - Hedgerow
  - D - Disturbed
  - Res - Residential

**Notes**

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3. Image Source: © Terrapoint, 2011 - Imagery Date: July 2009; Grand River Conservation Authority © First Base Solutions, 2011 - Imagery Date: Spring 2006.



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GRAND RENEWABLE ENERGY PARK**

Figure No.  
**6.1**

**ELC VEGETATION  
COMMUNITIES - W1**

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Legend	
	Study Area
	Zone of Investigation
	Constructable Area
Wind Project Location	
	Proposed Turbine Location
	Access Road
	Overhead Collector Line
	Underground Collector Line
Solar Project Location	
	Solar Lands
Transmission Line	
	Overhead Transmission Line
	Underground Transmission Line
	Electrical Transmission Component
Existing Features	
	Road
	Railway
	Abandoned Railway
	Transmission Line (MNR)
	Watercourse (MNR)
	Waterbody (MNR)
	Natural Feature
	Vegetation Community (ELC)
AREA	
	Potential Bobolink Habitat
Grassland Point Count Station	
	Bobolink Sited
	No Bobolink Sited

Forest Communities (FO)	
FOM 2-2	Dry-fresh White Pine - Sugar Maple Mixed Forest
FOD	Deciduous Forest
FOD1-1	Dry-fresh Red Oak Deciduous Forest
FOD2-1	Dry-fresh Oak - Red Maple Deciduous Forest
FOD2-2	Dry-fresh Oak - Hickory Deciduous Forest
FOD2-4	Dry-fresh Oak - Hardwood Deciduous Forest
FOD3-1	Dry-fresh Poplar Deciduous Forest
FOD4-1	Dry-fresh Beech Deciduous Forest
FOD4-2	Dry-fresh White Ash Deciduous Forest
FOD5	Dry-fresh Sugar Maple Deciduous Forest Ecosite
FOD5-1	Dry-fresh Sugar Maple Deciduous Forest
FOD5-2	Dry-fresh Sugar Maple - Beech Deciduous Forest
FOD5-3	Dry-fresh Sugar Maple - Oak Deciduous Forest
FOD5-8	Dry-fresh Sugar Maple - White Ash Deciduous Forest
FOD5-9	Dry-fresh Sugar Maple-Red Maple Deciduous Forest
FOD5-11	Dry-fresh Sugar Maple - Oak - Beech Deciduous Forest
FOD5-12	Dry-fresh Sugar Maple - Hickory - Beech Deciduous Forest
FOD6-1	Fresh-moist Sugar Maple - Lowland Ash Deciduous Forest
FOD6-5	Fresh-moist Sugar Maple - Hardwood Deciduous Forest
FOD6-6	Fresh-moist Sugar Maple - Hickory Deciduous Forest
FOD7-1	Fresh - moist White Elm Lowland Deciduous Forest
FOD7-2	Fresh-moist Ash Lowland Deciduous Forest
FOD7-4	Fresh-moist Black Walnut Lowland Deciduous Forest
FOD9-1	Fresh-moist Oak - Sugar Maple Deciduous Forest
FOD9-3	Fresh-moist Bur Oak Deciduous Forest
FOD9-4	Fresh-moist Shagbark Hickory Deciduous Forest
FOD9-6	Fresh-moist Red Oak - Shagbark Hickory Deciduous Forest

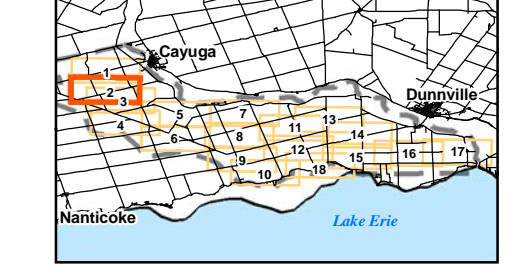
Cultural Communities (CU)	
CUP1-4	Hybrid Poplar Deciduous Plantation
CUP2	Mixed Plantation
CUP3-1	Red Pine Coniferous Plantation
CUP3-2	White Pine Coniferous Plantation
CUP3-12	White Pine - White/Norway Spruce Coniferous Plantation
CUP3-13	White Spruce Coniferous Plantation
CUM1	Mineral Cultural Meadow
CUS1-1	Hawthorn Cultural Savannah
CUT1	Mineral Cultural Thicket
CUT1-1	Sumac Cultural Thicket
CUT1-4	Gray Dogwood Cultural Thicket
CUT1-7	European Buckthorn - Sweet Cherry Cultural thicket
CUM1	Mineral Cultural Woodland
CUM1-1	Red Cedar Mineral Cultural Woodland
CUM1-3	Ash - Sumac Mineral Cultural Woodland
CUM1-4	Green Ash Mineral Cultural Woodland
CUM1-5	Norway Maple Mineral Cultural Woodland
CUM1-6	White Elm Cultural Woodland
CUM1-7	Red maple Mineral Cultural Woodland
CUM1-11	White Pine Cultural Woodland

Swamp Communities (SW)	
SWD	Deciduous Swamp
SWD1-1	Swamp Oak Mineral Deciduous Swamp
SWD1-2	Bur Oak Mineral Deciduous Swamp
SWD2-2	Green Ash Mineral Deciduous Swamp
SWD2-3	Ash - Hardwood Mineral Deciduous Swamp
SWD2-4	Green Ash - Red Maple Mineral Deciduous Swamp
SWD3-1	Red Maple Mineral Deciduous Swamp
SWD3-2	Silver Maple Mineral Deciduous Swamp
SWD3-3	Swamp Maple Mineral Deciduous Swamp

Marsh Communities (MA)	
MAM2	Mineral Meadow Marsh
MAM2-2	Reed Canary Grass Mineral Meadow Marsh
MAM2-9	Jewelweed Mineral Meadow Marsh
MAM2-10	Forb Mineral Meadow Marsh
MAM2-11	Forb - Graminoid Mineral Meadow Marsh
MAS2-1	Cattail Mineral Shallow Marsh
MAS2-8	Rice Cut-grass Mineral Shallow Marsh

**Notes**

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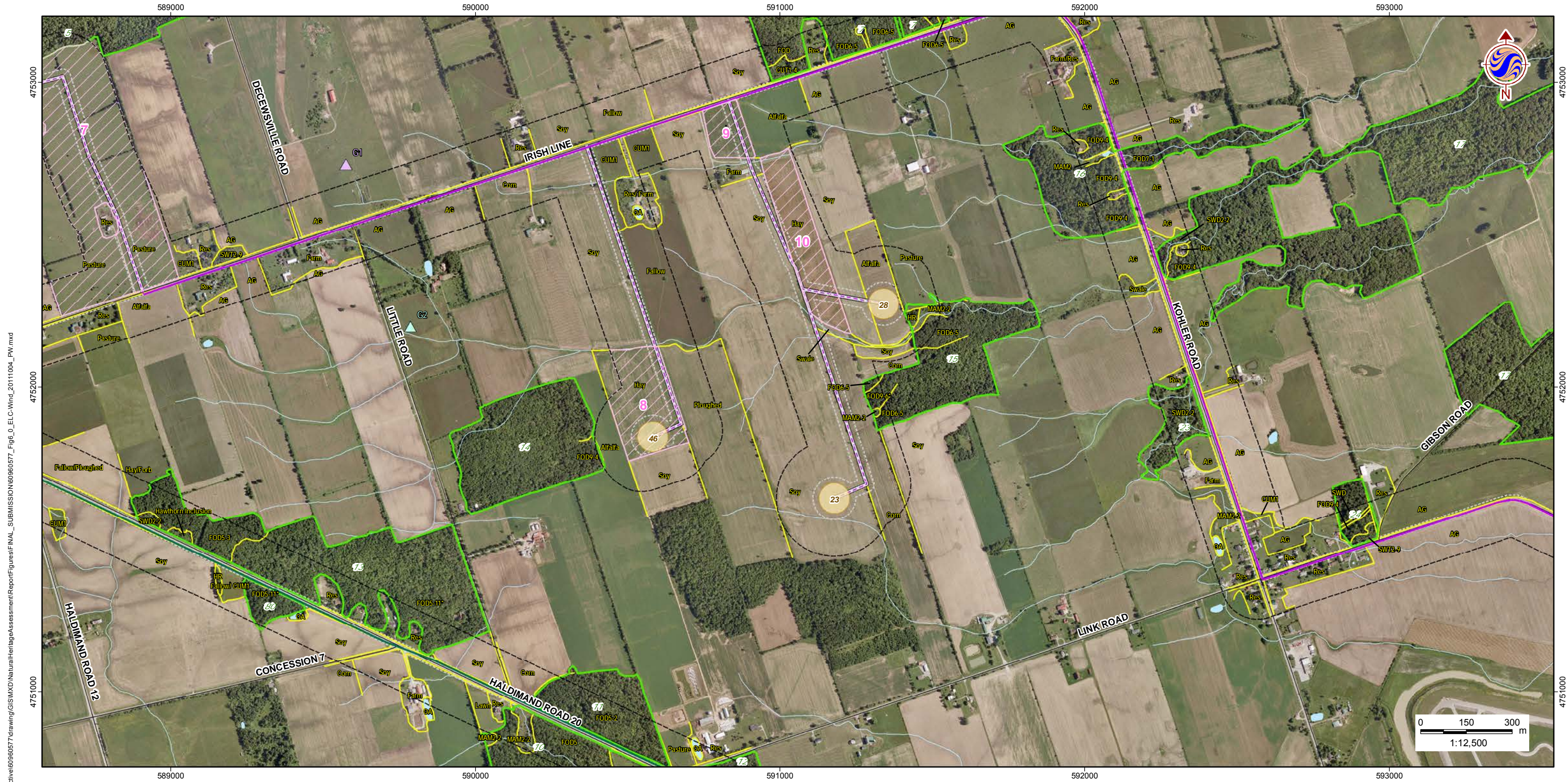


Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**6.2**

Title  
**ELC VEGETATION  
COMMUNITIES - W2**

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**Legend**

- Study Area
- Zone of Investigation
- Constructable Area
- Wind Project Location**
- Proposed Turbine Location
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Solar Project Location**
- Solar Lands
- Transmission Line**
- Overhead Transmission Line
- Underground Transmission Line
- Electrical Transmission Component
- Existing Features**
- Road
- Railway
- Abandoned Railway
- Transmission Line (MNR)
- Watercourse (MNR)
- Waterbody (MNR)
- Natural Feature
- Vegetation Community (ELC)
- AREA**
- Potential Bobolink Habitat
- Grassland Point Count Station**
- Bobolink Sited
- No Bobolink Sited

- Forest Communities (FO)**
- FOM 2-2 - Dry-fresh White Pine - Sugar Maple Mixed Forest
  - FOD - Deciduous Forest
  - FOD1-1 - Dry-fresh Red Oak Deciduous Forest
  - FOD2-1 - Dry-fresh Oak - Red Maple Deciduous Forest
  - FOD2-2 - Dry-fresh Oak - Hickory Deciduous Forest
  - FOD2-4 - Dry-fresh Oak - Hardwood Deciduous Forest
  - FOD3-1 - Dry-fresh Poplar Deciduous Forest
  - FOD4-1 - Dry-fresh Beech Deciduous Forest
  - FOD4-2 - Dry-fresh White Ash Deciduous Forest
  - FOD5 - Dry-fresh Sugar Maple Deciduous Forest Ecosite
  - FOD5-1 - Dry-fresh Sugar Maple Deciduous Forest
  - FOD5-2 - Dry-fresh Sugar Maple - Beech Deciduous Forest
  - FOD5-3 - Dry-fresh Sugar Maple - Oak Deciduous Forest
  - FOD5-8 - Dry-fresh Sugar Maple - White Ash Deciduous Forest
  - FOD5-9 - Dry-fresh Sugar Maple-Red Maple Deciduous Forest
  - FOD5-11\* - Dry-fresh Sugar Maple - Oak - Beech Deciduous Forest
  - FOD5-12\* - Dry-fresh Sugar Maple - Hickory - Beech Deciduous Forest
  - FOD6-1 - Fresh-moist Sugar Maple - Lowland Ash Deciduous Forest
  - FOD6-5 - Fresh-moist Sugar Maple - Hardwood Deciduous Forest
  - FOD6-6\* - Fresh-moist Sugar Maple - Hickory Deciduous Forest
  - FOD7-1 - Fresh - moist White Elm Lowland Deciduous Forest
  - FOD7-2 - Fresh-moist Ash Lowland Deciduous Forest
  - FOD7-4 - Fresh-moist Black Walnut Lowland Deciduous Forest
  - FOD9-1 - Fresh-moist Oak - Sugar Maple Deciduous Forest
  - FOD9-3 - Fresh-moist Bur Oak Deciduous Forest
  - FOD9-4 - Fresh-moist Shagbark Hickory Deciduous Forest
  - FOD9-6\* - Fresh-moist Red Oak - Shagbark Hickory Deciduous Forest

- Cultural Communities (CU)**
- CUP1-4 - Hybrid Poplar Deciduous Plantation
  - CUP2 - Mixed Plantation
  - CUP3-1 - Red Pine Coniferous Plantation
  - CUP3-2 - White Pine Coniferous Plantation
  - CUP3-12\* - White Pine - White/Norway Spruce Coniferous Plantation
  - CUP3-13\* - White Spruce Coniferous Plantation
  - CUM1 - Mineral Cultural Meadow
  - CUS1-1 - Hawthorn Cultural Savannah
  - CUT1 - Mineral Cultural Thicket
  - CUT1-1 - Sumac Cultural Thicket
  - CUT1-4 - Gray Dogwood Cultural Thicket
  - CUT1-7 - European Buckthorn - Sweet Cherry Cultural thicket
  - CUW1 - Mineral Cultural Woodland
  - CUW1-1 - Red Cedar Mineral Cultural Woodland
  - CUW1-3\* - Ash - Sumac Mineral Cultural Woodland
  - CUW1-4\* - Green Ash Mineral Cultural Woodland
  - CUW1-5\* - Norway Maple Mineral Cultural Woodland
  - CUW1-6\* - White Elm Cultural Woodland
  - CUW1-7\* - Red maple Mineral Cultural Woodland
  - CUW1-11\* - White Pine Cultural Woodland

- Swamp Communities (SW)**
- SWD - Deciduous Swamp
  - SWD1-1 - Swamp Oak Mineral Deciduous Swamp
  - SWD1-2 - Bur Oak Mineral Deciduous Swamp
  - SWD2-2 - Green Ash Mineral Deciduous Swamp
  - SWD2-3\* - Ash - Hardwood Mineral Deciduous Swamp
  - SWD2-4\* - Green Ash - Red Maple Mineral Deciduous Swamp
  - SWD3-1 - Red Maple Mineral Deciduous Swamp
  - SWD3-2 - Silver Maple Mineral Deciduous Swamp
  - SWD3-3 - Swamp Maple Mineral Deciduous Swamp

- Marsh Communities (MA)**
- MAM2 - Mineral Meadow Marsh
  - MAM2-2 - Reed Canary Grass Mineral Meadow Marsh
  - MAM2-9 - Jewelweed Mineral Meadow Marsh
  - MAM2-10 - Forb Mineral Meadow Marsh
  - MAM2-11\* - Forb - Graminoid Mineral Meadow Marsh
  - MAS2-1 - Cattail Mineral Shallow Marsh
  - MAS2-8 - Rice Cut-grass Mineral Shallow Marsh
- Open Water (OA)**
- OA - Open Aquatic
- Shallow Water (SA)**
- SAM1-2 - Duckweed Mixed Shallow Aquatic
- Other Symbols:**
- HR - Hedgerow
  - D - Disturbed
  - Res - Residential

**Notes**

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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**6.3**

**ELC VEGETATION  
COMMUNITIES - W3**



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**Legend**

- Study Area
- Zone of Investigation
- Constructable Area
- Wind Project Location**
- Proposed Turbine Location
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Solar Project Location**
- Solar Lands
- Transmission Line**
- Overhead Transmission Line
- Underground Transmission Line
- Electrical Transmission Component
- Existing Features**
- Road
- Railway
- Abandoned Railway
- Transmission Line (MNR)
- Watercourse (MNR)
- Waterbody (MNR)
- Natural Feature
- Vegetation Community (ELC)
- AREA**
- Potential Bobolink Habitat
- Grassland Point Count Station**
- Bobolink Sited
- No Bobolink Sited

- Forest Communities (FO)**
- FOM 2-2 - Dry-fresh White Pine - Sugar Maple Mixed Forest
  - FOD - Deciduous Forest
  - FOD1-1 - Dry-fresh Red Oak Deciduous Forest
  - FOD2-1 - Dry-fresh Oak - Red Maple Deciduous Forest
  - FOD2-2 - Dry-fresh Oak - Hickory Deciduous Forest
  - FOD2-4 - Dry-fresh Oak - Hardwood Deciduous Forest
  - FOD3-1 - Dry-fresh Poplar Deciduous Forest
  - FOD4-1 - Dry-fresh Beech Deciduous Forest
  - FOD4-2 - Dry-fresh White Ash Deciduous Forest
  - FOD5 - Dry-fresh Sugar Maple Deciduous Forest Ecosite
  - FOD5-1 - Dry-fresh Sugar Maple Deciduous Forest
  - FOD5-2 - Dry-fresh Sugar Maple - Beech Deciduous Forest
  - FOD5-3 - Dry-fresh Sugar Maple - Oak Deciduous Forest
  - FOD5-8 - Dry-fresh Sugar Maple - White Ash Deciduous Forest
  - FOD5-9 - Dry-fresh Sugar Maple-Red Maple Deciduous Forest
  - FOD5-11 - Dry-fresh Sugar Maple - Oak - Beech Deciduous Forest
  - FOD5-12 - Dry-fresh Sugar Maple - Hickory - Beech Deciduous Forest
  - FOD6-1 - Fresh-moist Sugar Maple - Lowland Ash Deciduous Forest
  - FOD6-5 - Fresh-moist Sugar Maple - Hardwood Deciduous Forest
  - FOD6-6 - Fresh-moist Sugar Maple - Hickory Deciduous Forest
  - FOD7-1 - Fresh - moist White Elm Lowland Deciduous Forest
  - FOD7-2 - Fresh-moist Ash Lowland Deciduous Forest
  - FOD7-4 - Fresh-moist Black Walnut Lowland Deciduous Forest
  - FOD9-1 - Fresh-moist Oak - Sugar Maple Deciduous Forest
  - FOD9-3 - Fresh-moist Bur Oak Deciduous Forest
  - FOD9-4 - Fresh-moist Shagbark Hickory Deciduous Forest
  - FOD9-6 - Fresh-moist Red Oak - Shagbark Hickory Deciduous Forest

- Cultural Communities (CU)**
- CUP1-4 - Hybrid Poplar Deciduous Plantation
  - CUP2 - Mixed Plantation
  - CUP3-1 - Red Pine Coniferous Plantation
  - CUP3-2 - White Pine Coniferous Plantation
  - CUP3-12 - White Pine - White/Norway Spruce Coniferous Plantation
  - CUP3-13 - White Spruce Coniferous Plantation
  - CUM1 - Mineral Cultural Meadow
  - CUS1-1 - Hawthorn Cultural Savannah
  - CUT1 - Mineral Cultural Thicket
  - CUT1-1 - Sumac Cultural Thicket
  - CUT1-4 - Gray Dogwood Cultural Thicket
  - CUT1-7 - European Buckthorn - Sweet Cherry Cultural thicket
  - CUW1 - Mineral Cultural Woodland
  - CUW1-1 - Red Cedar Mineral Cultural Woodland
  - CUW1-3 - Ash - Sumac Mineral Cultural Woodland
  - CUW1-4 - Green Ash Mineral Cultural Woodland
  - CUW1-5 - Norway Maple Mineral Cultural Woodland
  - CUW1-6 - White Elm Cultural Woodland
  - CUW1-7 - Red maple Mineral Cultural Woodland
  - CUW1-11 - White Pine Cultural Woodland
- Swamp Communities (SW)**
- SWD - Deciduous Swamp
  - SWD1-1 - Swamp Oak Mineral Deciduous Swamp
  - SWD1-2 - Bur Oak Mineral Deciduous Swamp
  - SWD2-2 - Green Ash Mineral Deciduous Swamp
  - SWD2-3 - Ash - Hardwood Mineral Deciduous Swamp
  - SWD2-4 - Green Ash - Red Maple Mineral Deciduous Swamp
  - SWD3-1 - Red Maple Mineral Deciduous Swamp
  - SWD3-2 - Silver Maple Mineral Deciduous Swamp
  - SWD3-3 - Swamp Maple Mineral Deciduous Swamp

- Marsh Communities (MA)**
- MAM2 - Mineral Meadow Marsh
  - MAM2-2 - Reed Canary Grass Mineral Meadow Marsh
  - MAM2-9 - Jewelweed Mineral Meadow Marsh
  - MAM2-10 - Forb Mineral Meadow Marsh
  - MAM2-11 - Forb - Graminoid Mineral Meadow Marsh
  - MAS2-1 - Cattail Mineral Shallow Marsh
  - MAS2-8 - Rice Cut-grass Mineral Shallow Marsh
- Open Water (OA)**
- OA - Open Aquatic
- Shallow Water (SA)**
- SAM1-2 - Duckweed Mixed Shallow Aquatic
- HR - Hedgerow**  
**D - Disturbed**  
**Res - Residential**

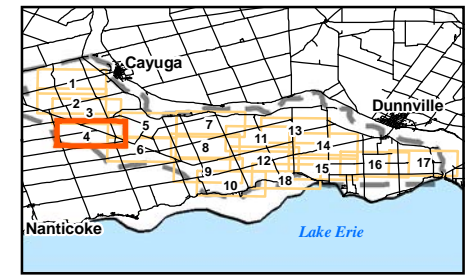
**Notes**

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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**6.4**

**ELC VEGETATION  
COMMUNITIES - W4**





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Legend	
	Study Area
	Zone of Investigation
	Constructable Area
<b>Wind Project Location</b>	
	Proposed Turbine Location
	Access Road
	Overhead Collector Line
	Underground Collector Line
<b>Solar Project Location</b>	
	Solar Lands
<b>Transmission Line</b>	
	Overhead Transmission Line
	Underground Transmission Line
	Electrical Transmission Component
<b>Existing Features</b>	
	Road
	Railway
	Abandoned Railway
	Transmission Line (MNR)
	Watercourse (MNR)
	Waterbody (MNR)
	Natural Feature
	Vegetation Community (ELC)
<b>AREA</b>	
	Potential Bobolink Habitat
<b>Grassland Point Count Station</b>	
	Bobolink Sited
	No Bobolink Sited

Forest Communities (FO)	
FOM 2-2	Dry-fresh White Pine - Sugar Maple Mixed Forest
FOD	Deciduous Forest
FOD1-1	Dry-fresh Red Oak Deciduous Forest
FOD2-1	Dry-fresh Oak - Red Maple Deciduous Forest
FOD2-2	Dry-fresh Oak - Hickory Deciduous Forest
FOD2-4	Dry-fresh Oak - Hardwood Deciduous Forest
FOD3-1	Dry-fresh Poplar Deciduous Forest
FOD4-1	Dry-fresh Beech Deciduous Forest
FOD4-2	Dry-fresh White Ash Deciduous Forest
FOD5	Dry-fresh Sugar Maple Deciduous Forest Ecosite
FOD5-1	Dry-fresh Sugar Maple Deciduous Forest
FOD5-2	Dry-fresh Sugar Maple - Beech Deciduous Forest
FOD5-3	Dry-fresh Sugar Maple - Oak Deciduous Forest
FOD5-8	Dry-fresh Sugar Maple - White Ash Deciduous Forest
FOD5-9	Dry-fresh Sugar Maple-Red Maple Deciduous Forest
FOD5-11*	Dry-fresh Sugar Maple - Oak - Beech Deciduous Forest
FOD5-12*	Dry-fresh Sugar Maple - Hickory - Beech Deciduous Forest
FOD6-1	Fresh-moist Sugar Maple - Lowland Ash Deciduous Forest
FOD6-5	Fresh-moist Sugar Maple - Hardwood Deciduous Forest
FOD6-6*	Fresh-moist Sugar Maple - Hickory Deciduous Forest
FOD7-1	Fresh - moist White Elm Lowland Deciduous Forest
FOD7-2	Fresh-moist Ash Lowland Deciduous Forest
FOD7-4	Fresh-moist Black Walnut Lowland Deciduous Forest
FOD9-1	Fresh-moist Oak - Sugar Maple Deciduous Forest
FOD9-3	Fresh-moist Bur Oak Deciduous Forest
FOD9-4	Fresh-moist Shagbark Hickory Deciduous Forest
FOD9-6*	Fresh-moist Red Oak - Shagbark Hickory Deciduous Forest

Cultural Communities (CU)	
CUP1-4	Hybrid Poplar Deciduous Plantation
CUP2	Mixed Plantation
CUP3-1	Red Pine Coniferous Plantation
CUP3-2	White Pine Coniferous Plantation
CUP3-12*	White Pine - White/Norway Spruce Coniferous Plantation
CUP3-13*	White Spruce Coniferous Plantation
CUM1	Mineral Cultural Meadow
CUS1-1	Hawthorn Cultural Savannah
CUT1	Mineral Cultural Thicket
CUT1-1	Sumac Cultural Thicket
CUT1-4	Gray Dogwood Cultural Thicket
CUT1-7	European Buckthorn - Sweet Cherry Cultural thicket
CUW1	Mineral Cultural Woodland
CUW1-1	Red Cedar Mineral Cultural Woodland
CUW1-3*	Ash - Sumac Mineral Cultural Woodland
CUW1-4*	Green Ash Mineral Cultural Woodland
CUW1-5*	Norway Maple Mineral Cultural Woodland
CUW1-6*	White Elm Cultural Woodland
CUW1-7*	Red maple Mineral Cultural Woodland
CUW1-11*	White Pine Cultural Woodland

Swamp Communities (SW)	
SWD	Deciduous Swamp
SWD1-1	Swamp Oak Mineral Deciduous Swamp
SWD1-2	Bur Oak Mineral Deciduous Swamp
SWD2-2	Green Ash Mineral Deciduous Swamp
SWD2-3*	Ash - Hardwood Mineral Deciduous Swamp
SWD2-4*	Green Ash - Red Maple Mineral Deciduous Swamp
SWD3-1	Red Maple Mineral Deciduous Swamp
SWD3-2	Silver Maple Mineral Deciduous Swamp
SWD3-3	Swamp Maple Mineral Deciduous Swamp

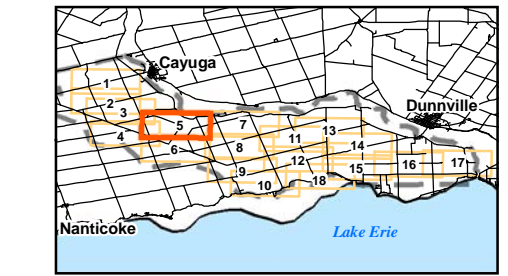
Marsh Communities (MA)	
MAM2	Mineral Meadow Marsh
MAM2-2	Reed Canary Grass Mineral Meadow Marsh
MAM2-9	Jewelweed Mineral Meadow Marsh
MAM2-10	Forb Mineral Meadow Marsh
MAM2-11*	Forb - Graminoid Mineral Meadow Marsh
MAS2-1	Cattail Mineral Shallow Marsh
MAS2-8	Rice Cut-grass Mineral Shallow Marsh

Open Water (OA)	
OA	Open Aquatic

Shallow Water (SA)	
SAM1-2	Duckweed Mixed Shallow Aquatic

**Notes**

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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**6.5**

Title  
**ELC VEGETATION  
COMMUNITIES - W5**



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**Legend**

- Study Area
- Zone of Investigation
- Constructable Area
- Wind Project Location**
- Proposed Turbine Location
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Solar Project Location**
- Solar Lands
- Transmission Line**
- Overhead Transmission Line
- Underground Transmission Line
- Electrical Transmission Component
- Existing Features**
- Road
- Railway
- Abandoned Railway
- Transmission Line (MNR)
- Watercourse (MNR)
- Waterbody (MNR)
- Natural Feature
- Vegetation Community (ELC)
- AREA**
- Potential Bobolink Habitat
- Grassland Point Count Station**
- Bobolink Sited
- No Bobolink Sited

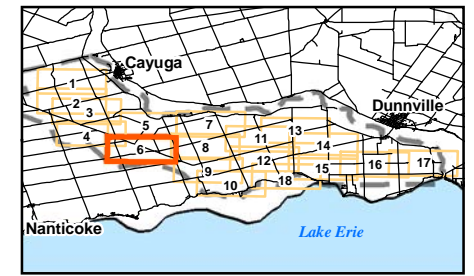
- Forest Communities (FO)**
- FOM 2-2 - Dry-fresh White Pine - Sugar Maple Mixed Forest
  - FOD - Deciduous Forest
  - FOD1-1 - Dry-fresh Red Oak Deciduous Forest
  - FOD2-1 - Dry-fresh Oak - Red Maple Deciduous Forest
  - FOD2-2 - Dry-fresh Oak - Hickory Deciduous Forest
  - FOD2-4 - Dry-fresh Oak - Hardwood Deciduous Forest
  - FOD3-1 - Dry-fresh Poplar Deciduous Forest
  - FOD4-1 - Dry-fresh Beech Deciduous Forest
  - FOD4-2 - Dry-fresh White Ash Deciduous Forest
  - FOD5 - Dry-fresh Sugar Maple Deciduous Forest Ecosite
  - FOD5-1 - Dry-fresh Sugar Maple Deciduous Forest
  - FOD5-2 - Dry-fresh Sugar Maple - Beech Deciduous Forest
  - FOD5-3 - Dry-fresh Sugar Maple - Oak Deciduous Forest
  - FOD5-8 - Dry-fresh Sugar Maple - White Ash Deciduous Forest
  - FOD5-9 - Dry-fresh Sugar Maple-Red Maple Deciduous Forest
  - FOD5-11 - Dry-fresh Sugar Maple - Oak - Beech Deciduous Forest
  - FOD5-12 - Dry-fresh Sugar Maple - Hickory - Beech Deciduous Forest
  - FOD6-1 - Fresh-moist Sugar Maple - Lowland Ash Deciduous Forest
  - FOD6-5 - Fresh-moist Sugar Maple - Hardwood Deciduous Forest
  - FOD6-6 - Fresh-moist Sugar Maple - Hickory Deciduous Forest
  - FOD7-1 - Fresh - moist White Elm Lowland Deciduous Forest
  - FOD7-2 - Fresh-moist Ash Lowland Deciduous Forest
  - FOD7-4 - Fresh-moist Black Walnut Lowland Deciduous Forest
  - FOD9-1 - Fresh-moist Oak - Sugar Maple Deciduous Forest
  - FOD9-3 - Fresh-moist Bur Oak Deciduous Forest
  - FOD9-4 - Fresh-moist Shagbark Hickory Deciduous Forest
  - FOD9-6 - Fresh-moist Red Oak - Shagbark Hickory Deciduous Forest

- Cultural Communities (CU)**
- CUP1-4 - Hybrid Poplar Deciduous Plantation
  - CUP2 - Mixed Plantation
  - CUP3-1 - Red Pine Coniferous Plantation
  - CUP3-2 - White Pine Coniferous Plantation
  - CUP3-12 - White Pine - White/Norway Spruce Coniferous Plantation
  - CUP3-13 - White Spruce Coniferous Plantation
  - CUM1 - Mineral Cultural Meadow
  - CUS1-1 - Hawthorn Cultural Savannah
  - CUT1 - Mineral Cultural Thicket
  - CUT1-1 - Sumac Cultural Thicket
  - CUT1-4 - Gray Dogwood Cultural Thicket
  - CUT1-7 - European Buckthorn - Sweet Cherry Cultural thicket
  - CUM1 - Mineral Cultural Woodland
  - CUM1-1 - Red Cedar Mineral Cultural Woodland
  - CUM1-3 - Ash - Sumac Mineral Cultural Woodland
  - CUM1-4 - Green Ash Mineral Cultural Woodland
  - CUM1-5 - Norway Maple Mineral Cultural Woodland
  - CUM1-6 - White Elm Cultural Woodland
  - CUM1-7 - Red maple Mineral Cultural Woodland
  - CUM1-11 - White Pine Cultural Woodland
- Swamp Communities (SW)**
- SWD - Deciduous Swamp
  - SWD1-1 - Swamp Oak Mineral Deciduous Swamp
  - SWD1-2 - Bur Oak Mineral Deciduous Swamp
  - SWD2-2 - Green Ash Mineral Deciduous Swamp
  - SWD2-3 - Ash - Hardwood Mineral Deciduous Swamp
  - SWD2-4 - Green Ash - Red Maple Mineral Deciduous Swamp
  - SWD3-1 - Red Maple Mineral Deciduous Swamp
  - SWD3-2 - Silver Maple Mineral Deciduous Swamp
  - SWD3-3 - Swamp Maple Mineral Deciduous Swamp

- SWD4-1 - Willow Mineral Deciduous Swamp**
- SWD4-2 - White Elm Mineral Deciduous Swamp**
- SWD4-6 - Green Ash - Swamp Maple Mineral Deciduous Swamp**
- SWT - Thicket Swamp**
- SWT2 - Mineral Thicket Swamp**
- SWT2-4 - Buttonbush Mineral Thicket Swamp**
- SWT2-5 - Red Osier Dogwood Mineral Thicket Swamp**
- SWT2-8 - Silky Dogwood Mineral Thicket Swamp**
- SWT2-9 - Gray Dogwood Mineral Thicket Swamp**
- SWT2-13 - Willow - Dogwood Mineral Thicket Swamp**
- SWT2-14 - Winterberry - Buttonbush Mineral Thicket Swamp**
- SWT2-15 - Red Maple Mineral Thicket Swamp**
- SWT3-7 - Winterberry Organic Thicket Swamp**
- Marsh Communities (MA)**
- MAM2 - Mineral Meadow Marsh
  - MAM2-2 - Reed Canary Grass Mineral Meadow Marsh
  - MAM2-9 - Jewelweed Mineral Meadow Marsh
  - MAM2-10 - Forb Mineral Meadow Marsh
  - MAM2-11 - Forb - Graminoid Mineral Meadow Marsh
  - MAS2-1 - Cattail Mineral Shallow Marsh
  - MAS2-8 - Rice Cut-grass Mineral Shallow Marsh
- Open Water (OA)**
- OA - Open Aquatic
- Shallow Water (SA)**
- SAM1-2 - Duckweed Mixed Shallow Aquatic
- HR - Hedgerow  
D - Disturbed  
Res - Residential

**Notes**

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**6.6**

**ELC VEGETATION  
COMMUNITIES - W6**



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**Legend**

- Study Area
- Zone of Investigation
- Constructable Area
- Wind Project Location**
- Proposed Turbine Location
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Solar Project Location**
- Solar Lands
- Transmission Line**
- Overhead Transmission Line
- Underground Transmission Line
- Electrical Transmission Component
- Existing Features**
- Road
- Railway
- Abandoned Railway
- Transmission Line (MNR)
- Watercourse (MNR)
- Waterbody (MNR)
- Natural Feature
- Vegetation Community (ELC)
- AREA**
- Potential Bobolink Habitat
- Grassland Point Count Station**
- Bobolink Sited
- No Bobolink Sited

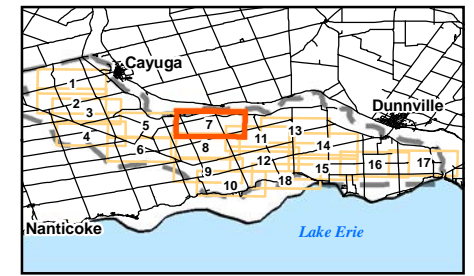
- Forest Communities (FO)**
- FO - Deciduous Forest
  - FOD1-1 - Dry-fresh Red Oak Deciduous Forest
  - FOD2-1 - Dry-fresh Oak - Red Maple Deciduous Forest
  - FOD2-2 - Dry-fresh Oak - Hickory Deciduous Forest
  - FOD2-4 - Dry-fresh Oak - Hardwood Deciduous Forest
  - FOD3-1 - Dry-fresh Poplar Deciduous Forest
  - FOD4-1 - Dry-fresh Beech Deciduous Forest
  - FOD4-2 - Dry-fresh White Ash Deciduous Forest
  - FOD5 - Dry-fresh Sugar Maple Deciduous Forest Ecosite
  - FOD5-1 - Dry-fresh Sugar Maple Deciduous Forest
  - FOD5-2 - Dry-fresh Sugar Maple - Beech Deciduous Forest
  - FOD5-3 - Dry-fresh Sugar Maple - Oak Deciduous Forest
  - FOD5-8 - Dry-fresh Sugar Maple - White Ash Deciduous Forest
  - FOD5-9 - Dry-fresh Sugar Maple-Red Maple Deciduous Forest
  - FOD5-11\* - Dry-fresh Sugar Maple - Oak - Beech Deciduous Forest
  - FOD5-12\* - Dry-fresh Sugar Maple - Hickory - Beech Deciduous Forest
  - FOD6-1 - Fresh-moist Sugar Maple - Lowland Ash Deciduous Forest
  - FOD6-5 - Fresh-moist Sugar Maple - Hardwood Deciduous Forest
  - FOD6-6\* - Fresh-moist Sugar Maple - Hickory Deciduous Forest
  - FOD7-1 - Fresh - moist White Elm Lowland Deciduous Forest
  - FOD7-2 - Fresh-moist Ash Lowland Deciduous Forest
  - FOD7-4 - Fresh-moist Black Walnut Lowland Deciduous Forest
  - FOD9-1 - Fresh-moist Oak - Sugar Maple Deciduous Forest
  - FOD9-3 - Fresh-moist Bur Oak Deciduous Forest
  - FOD9-4 - Fresh-moist Shagbark Hickory Deciduous Forest
  - FOD9-6\* - Fresh-moist Red Oak - Shagbark Hickory Deciduous Forest

- Cultural Communities (CU)**
- CUP1-4 - Hybrid Poplar Deciduous Plantation
  - CUP2 - Mixed Plantation
  - CUP3-1 - Red Pine Coniferous Plantation
  - CUP3-2 - White Pine Coniferous Plantation
  - CUP3-12\* - White Pine - White/Norway Spruce Coniferous Plantation
  - CUP3-13\* - White Spruce Coniferous Plantation
  - CUM1 - Mineral Cultural Meadow
  - CUS1-1 - Hawthorn Cultural Savannah
  - CUT1 - Mineral Cultural Thicket
  - CUT1-1 - Sumac Cultural Thicket
  - CUT1-4 - Gray Dogwood Cultural Thicket
  - CUT1-7 - European Buckthorn - Sweet Cherry Cultural thicket
  - CUM1 - Mineral Cultural Woodland
  - CUM1-1 - Red Cedar Mineral Cultural Woodland
  - CUM1-3\* - Ash - Sumac Mineral Cultural Woodland
  - CUM1-4\* - Green Ash Mineral Cultural Woodland
  - CUM1-5\* - Norway Maple Mineral Cultural Woodland
  - CUM1-6\* - White Elm Cultural Woodland
  - CUM1-7\* - Red maple Mineral Cultural Woodland
  - CUM1-11\* - White Pine Cultural Woodland
- Swamp Communities (SW)**
- SWD - Deciduous Swamp
  - SWD1-1 - Swamp Oak Mineral Deciduous Swamp
  - SWD1-2 - Bur Oak Mineral Deciduous Swamp
  - SWD2-2 - Green Ash Mineral Deciduous Swamp
  - SWD2-3\* - Ash - Hardwood Mineral Deciduous Swamp
  - SWD2-4\* - Green Ash - Red Maple Mineral Deciduous Swamp
  - SWD3-1 - Red Maple Mineral Deciduous Swamp
  - SWD3-2 - Silver Maple Mineral Deciduous Swamp
  - SWD3-3 - Swamp Maple Mineral Deciduous Swamp

- Marsh Communities (MA)**
- MAM2 - Mineral Meadow Marsh
  - MAM2-2 - Reed Canary Grass Mineral Meadow Marsh
  - MAM2-9 - Jewelweed Mineral Meadow Marsh
  - MAM2-10 - Forb Mineral Meadow Marsh
  - MAM2-11\* - Forb - Graminoid Mineral Meadow Marsh
  - MAS2-1 - Cattail Mineral Shallow Marsh
  - MAS2-8 - Rice Cut-grass Mineral Shallow Marsh
- Open Water (OA)**
- OA - Open Aquatic
- Shallow Water (SA)**
- SAM1-2 - Duckweed Mixed Shallow Aquatic
- Other Symbols:**
- HR - Hedgerow
  - D - Disturbed
  - Res - Residential

**Notes**

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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**6.7**

**ELC VEGETATION  
COMMUNITIES - W7**

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160960577





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<b>Legend</b>	
	Study Area
	Zone of Investigation
	Constructable Area
<b>Wind Project Location</b>	
	Proposed Turbine Location
	Access Road
	Overhead Collector Line
	Underground Collector Line
<b>Solar Project Location</b>	
	Solar Lands
<b>Transmission Line</b>	
	Overhead Transmission Line
	Underground Transmission Line
	Electrical Transmission Component
<b>Existing Features</b>	
	Road
	Railway
	Abandoned Railway
	Transmission Line (MNR)
	Watercourse (MNR)
	Waterbody (MNR)
	Natural Feature
	Vegetation Community (ELC)
<b>AREA</b>	
	Potential Bobolink Habitat
<b>Grassland Point Count Station</b>	
	Bobolink Sited
	No Bobolink Sited

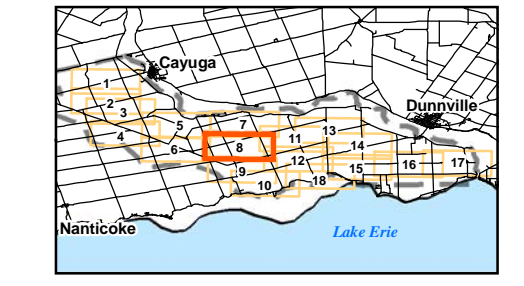
<b>Forest Communities (FO)</b>	
FOM 2-2	Dry-fresh White Pine - Sugar Maple Mixed Forest
FOD -	Deciduous Forest
FOD1-1	Dry-fresh Red Oak Deciduous Forest
FOD2-1	Dry-fresh Oak - Red Maple Deciduous Forest
FOD2-2	Dry-fresh Oak - Hickory Deciduous Forest
FOD2-4	Dry-fresh Oak - Hardwood Deciduous Forest
FOD 3-1	Dry-fresh Poplar Deciduous Forest
FOD4-1	Dry-fresh Beech Deciduous Forest
FOD4-2	Dry-fresh White Ash Deciduous Forest
FOD5 -	Dry-fresh Sugar Maple Deciduous Forest Ecosite
FOD5-1	Dry-fresh Sugar Maple Deciduous Forest
FOD5-2	Dry-fresh Sugar Maple - Beech Deciduous Forest
FOD5-3	Dry-fresh Sugar Maple - Oak Deciduous Forest
FOD5-8	Dry-fresh Sugar Maple - White Ash Deciduous Forest
FOD5-9	Dry-fresh Sugar Maple-Red Maple Deciduous Forest
FOD5-11	Dry-fresh Sugar Maple - Oak - Beech Deciduous Forest
FOD5-12	Dry-fresh Sugar Maple - Hickory - Beech Deciduous Forest
FOD6-1	Fresh-moist Sugar Maple - Lowland Ash Deciduous Forest
FOD6-5	Fresh-moist Sugar Maple - Hardwood Deciduous Forest
FOD6-6	Fresh-moist Sugar Maple - Hickory Deciduous Forest
FOD7-1	Fresh - moist White Elm Lowland Deciduous Forest
FOD7-2	Fresh-moist Ash Lowland Deciduous Forest
FOD7-4	Fresh-moist Black Walnut Lowland Deciduous Forest
FOD9-1	Fresh-moist Oak - Sugar Maple Deciduous Forest
FOD9-3	Fresh-moist Bur Oak Deciduous Forest
FOD9-4	Fresh-moist Shagbark Hickory Deciduous Forest
FOD9-6	Fresh-moist Red Oak - Shagbark Hickory Deciduous Forest

<b>Cultural Communities (CU)</b>	
CUP1-4	Hybrid Poplar Deciduous Plantation
CUP2 -	Mixed Plantation
CUP3-1	Red Pine Coniferous Plantation
CUP3-2	White Pine Coniferous Plantation
CUP3-12	White Pine - White/Norway Spruce Coniferous Plantation
CUP3-13*	White Spruce Coniferous Plantation
CUM1 -	Mineral Cultural Meadow
CUS1-1	Hawthorn Cultural Savannah
CUT1 -	Mineral Cultural Thicket
CUT1-1	Sumac Cultural Thicket
CUT1-4	Gray Dogwood Cultural Thicket
CUT1-7	European Buckthorn - Sweet Cherry Cultural thicket
CUM1 -	Mineral Cultural Woodland
CUM1-1	Red Cedar Mineral Cultural Woodland
CUM1-3*	Ash - Sumac Mineral Cultural Woodland
CUM1-4*	Green Ash Mineral Cultural Woodland
CUM1-5*	Norway Maple Mineral Cultural Woodland
CUM1-6*	White Elm Cultural Woodland
CUM1-7*	Red maple Mineral Cultural Woodland
CUM1-11*	White Pine Cultural Woodland

<b>Swamp Communities (SW)</b>	
SWD -	Deciduous Swamp
SWD1-1	Swamp Oak Mineral Deciduous Swamp
SWD1-2	Bur Oak Mineral Deciduous Swamp
SWD2-2	Green Ash Mineral Deciduous Swamp
SWD2-3*	Ash - Hardwood Mineral Deciduous Swamp
SWD2-4*	Green Ash - Red Maple Mineral Deciduous Swamp
SWD3-1	Red Maple Mineral Deciduous Swamp
SWD3-2	Silver Maple Mineral Deciduous Swamp
SWD3-3	Swamp Maple Mineral Deciduous Swamp

<b>Marsh Communities (MA)</b>	
MAM2 -	Mineral Meadow Marsh
MAM2-2	Reed Canary Grass Mineral Meadow Marsh
MAM2-9	Jewelweed Mineral Meadow Marsh
MAM2-10	Forb Mineral Meadow Marsh
MAM2-11*	Forb - Graminoid Mineral Meadow Marsh
MAS2-1	Cattail Mineral Shallow Marsh
MAS2-8	Rice Cut-grass Mineral Shallow Marsh

- Notes**
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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**6.8**

Title  
**ELC VEGETATION  
COMMUNITIES - W8**

October 2011  
160960577



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**Legend**

- Study Area
- Zone of Investigation
- Constructable Area
- Wind Project Location**
- Proposed Turbine Location
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Solar Project Location**
- Solar Lands
- Transmission Line**
- Overhead Transmission Line
- Underground Transmission Line
- Electrical Transmission Component
- Existing Features**
- Road
- Railway
- Abandoned Railway
- Transmission Line (MNR)
- Watercourse (MNR)
- Waterbody (MNR)
- Natural Feature
- Vegetation Community (ELC)
- AREA**
- Potential Bobolink Habitat
- Grassland Point Count Station**
- Bobolink Sited
- No Bobolink Sited

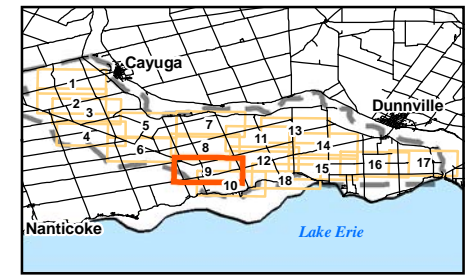
- Forest Communities (FO)**
- FOM 2-2 - Dry-fresh White Pine - Sugar Maple Mixed Forest
  - FOD - Deciduous Forest
  - FOD1-1 - Dry-fresh Red Oak Deciduous Forest
  - FOD2-1 - Dry-fresh Oak - Red Maple Deciduous Forest
  - FOD2-2 - Dry-fresh Oak - Hickory Deciduous Forest
  - FOD2-4 - Dry-fresh Oak - Hardwood Deciduous Forest
  - FOD3-1 - Dry-fresh Poplar Deciduous Forest
  - FOD4-1 - Dry-fresh Beech Deciduous Forest
  - FOD4-2 - Dry-fresh White Ash Deciduous Forest
  - FOD5 - Dry-fresh Sugar Maple Deciduous Forest Ecosite
  - FOD5-1 - Dry-fresh Sugar Maple Deciduous Forest
  - FOD5-2 - Dry-fresh Sugar Maple - Beech Deciduous Forest
  - FOD5-3 - Dry-fresh Sugar Maple - Oak Deciduous Forest
  - FOD5-8 - Dry-fresh Sugar Maple - White Ash Deciduous Forest
  - FOD5-9 - Dry-fresh Sugar Maple-Red Maple Deciduous Forest
  - FOD5-11 - Dry-fresh Sugar Maple - Oak - Beech Deciduous Forest
  - FOD5-12 - Dry-fresh Sugar Maple - Hickory - Beech Deciduous Forest
  - FOD6-1 - Fresh-moist Sugar Maple - Lowland Ash Deciduous Forest
  - FOD6-5 - Fresh-moist Sugar Maple - Hardwood Deciduous Forest
  - FOD6-6 - Fresh-moist Sugar Maple - Hickory Deciduous Forest
  - FOD7-1 - Fresh - moist White Elm Lowland Deciduous Forest
  - FOD7-2 - Fresh-moist Ash Lowland Deciduous Forest
  - FOD7-4 - Fresh-moist Black Walnut Lowland Deciduous Forest
  - FOD9-1 - Fresh-moist Oak - Sugar Maple Deciduous Forest
  - FOD9-3 - Fresh-moist Bur Oak Deciduous Forest
  - FOD9-4 - Fresh-moist Shagbark Hickory Deciduous Forest
  - FOD9-6 - Fresh-moist Red Oak - Shagbark Hickory Deciduous Forest

- Cultural Communities (CU)**
- CUP1-4 - Hybrid Poplar Deciduous Plantation
  - CUP2 - Mixed Plantation
  - CUP3-1 - Red Pine Coniferous Plantation
  - CUP3-2 - White Pine Coniferous Plantation
  - CUP3-12 - White Pine - White/Norway Spruce Coniferous Plantation
  - CUP3-13 - White Spruce Coniferous Plantation
  - CUM1 - Mineral Cultural Meadow
  - CUS1-1 - Hawthorn Cultural Savannah
  - CUT1 - Mineral Cultural Thicket
  - CUT1-1 - Sumac Cultural Thicket
  - CUT1-4 - Gray Dogwood Cultural Thicket
  - CUT1-7 - European Buckthorn - Sweet Cherry Cultural thicket
  - CUM1 - Mineral Cultural Woodland
  - CUM1-1 - Red Cedar Mineral Cultural Woodland
  - CUM1-3 - Ash - Sumac Mineral Cultural Woodland
  - CUM1-4 - Green Ash Mineral Cultural Woodland
  - CUM1-5 - Norway Maple Mineral Cultural Woodland
  - CUM1-6 - White Elm Cultural Woodland
  - CUM1-7 - Red maple Mineral Cultural Woodland
  - CUM1-11 - White Pine Cultural Woodland
- Swamp Communities (SW)**
- SWD - Deciduous Swamp
  - SWD1-1 - Swamp Oak Mineral Deciduous Swamp
  - SWD1-2 - Bur Oak Mineral Deciduous Swamp
  - SWD2-2 - Green Ash Mineral Deciduous Swamp
  - SWD2-3 - Ash - Hardwood Mineral Deciduous Swamp
  - SWD2-4 - Green Ash - Red Maple Mineral Deciduous Swamp
  - SWD3-1 - Red Maple Mineral Deciduous Swamp
  - SWD3-2 - Silver Maple Mineral Deciduous Swamp
  - SWD3-3 - Swamp Maple Mineral Deciduous Swamp

- SWD4-1 - Willow Mineral Deciduous Swamp
  - SWD4-2 - White Elm Mineral Deciduous Swamp
  - SWD4-6 - Green Ash - Swamp Maple Mineral Deciduous Swamp
  - SWT - Thicket Swamp
  - SWT2 - Mineral Thicket Swamp
  - SWT2-4 - Buttonbush Mineral Thicket Swamp
  - SWT2-5 - Red Osier Dogwood Mineral Thicket Swamp
  - SWT2-8 - Silky Dogwood Mineral Thicket Swamp
  - SWT2-9 - Gray Dogwood Mineral Thicket Swamp
  - SWT2-13 - Willow - Dogwood Mineral Thicket Swamp
  - SWT2-14 - Winterberry - Buttonbush Mineral Thicket Swamp
  - SWT2-15 - Red Maple Mineral Thicket Swamp
  - SWT3-7 - Winterberry Organic Thicket Swamp
- Marsh Communities (MA)**
- MAM2 - Mineral Meadow Marsh
  - MAM2-2 - Reed Canary Grass Mineral Meadow Marsh
  - MAM2-9 - Jewelweed Mineral Meadow Marsh
  - MAM2-10 - Forb Mineral Meadow Marsh
  - MAM2-11 - Forb - Graminoid Mineral Meadow Marsh
  - MAS2-1 - Cattail Mineral Shallow Marsh
  - MAS2-8 - Rice Cut-grass Mineral Shallow Marsh
- Open Water (OA)**
- OA - Open Aquatic
- Shallow Water (SA)**
- SAM1-2 - Duckweed Mixed Shallow Aquatic
- HR - Hedgerow  
D - Disturbed  
Res - Residential

**Notes**

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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**6.9**

Title  
**ELC VEGETATION  
COMMUNITIES - W9**

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160960577



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October 2011  
160960577



**Legend**

- Study Area
- Zone of Investigation
- Constructable Area
- Wind Project Location**
- Proposed Turbine Location
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Solar Project Location**
- Solar Lands
- Transmission Line**
- Overhead Transmission Line
- Underground Transmission Line
- Electrical Transmission Component
- Existing Features**
- Road
- Railway
- Abandoned Railway
- Transmission Line (MNR)
- Watercourse (MNR)
- Waterbody (MNR)
- Natural Feature
- Vegetation Community (ELC)
- AREA**
- Potential Bobolink Habitat
- Grassland Point Count Station**
- Bobolink Sited
- No Bobolink Sited

- Forest Communities (FO)**
- FOM 2-2 - Dry-fresh White Pine - Sugar Maple Mixed Forest
  - FOD - Deciduous Forest
  - FOD1-1 - Dry-fresh Red Oak Deciduous Forest
  - FOD2-1 - Dry-fresh Oak - Red Maple Deciduous Forest
  - FOD2-2 - Dry-fresh Oak - Hickory Deciduous Forest
  - FOD2-4 - Dry-fresh Oak - Hardwood Deciduous Forest
  - FOD3-1 - Dry-fresh Poplar Deciduous Forest
  - FOD4-1 - Dry-fresh Beech Deciduous Forest
  - FOD4-2 - Dry-fresh White Ash Deciduous Forest
  - FOD5 - Dry-fresh Sugar Maple Deciduous Forest Ecosite
  - FOD5-1 - Dry-fresh Sugar Maple Deciduous Forest
  - FOD5-2 - Dry-fresh Sugar Maple - Beech Deciduous Forest
  - FOD5-3 - Dry-fresh Sugar Maple - Oak Deciduous Forest
  - FOD5-8 - Dry-fresh Sugar Maple - White Ash Deciduous Forest
  - FOD5-9 - Dry-fresh Sugar Maple-Red Maple Deciduous Forest
  - FOD5-11 - Dry-fresh Sugar Maple - Oak - Beech Deciduous Forest
  - FOD5-12 - Dry-fresh Sugar Maple - Hickory - Beech Deciduous Forest
  - FOD6-1 - Fresh-moist Sugar Maple - Lowland Ash Deciduous Forest
  - FOD6-5 - Fresh-moist Sugar Maple - Hardwood Deciduous Forest
  - FOD6-6 - Fresh-moist Sugar Maple - Hickory Deciduous Forest
  - FOD7-1 - Fresh - moist White Elm Lowland Deciduous Forest
  - FOD7-2 - Fresh-moist Ash Lowland Deciduous Forest
  - FOD7-4 - Fresh-moist Black Walnut Lowland Deciduous Forest
  - FOD9-1 - Fresh-moist Oak - Sugar Maple Deciduous Forest
  - FOD9-3 - Fresh-moist Bur Oak Deciduous Forest
  - FOD9-4 - Fresh-moist Shagbark Hickory Deciduous Forest
  - FOD9-6 - Fresh-moist Red Oak - Shagbark Hickory Deciduous Forest

- Cultural Communities (CU)**
- CUP1-4 - Hybrid Poplar Deciduous Plantation
  - CUP2 - Mixed Plantation
  - CUP3-1 - Red Pine Coniferous Plantation
  - CUP3-2 - White Pine Coniferous Plantation
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  - CUP3-13 - White Spruce Coniferous Plantation
  - CUM1 - Mineral Cultural Meadow
  - CUS1-1 - Hawthorn Cultural Savannah
  - CUT1 - Mineral Cultural Thicket
  - CUT1-1 - Sumac Cultural Thicket
  - CUT1-4 - Gray Dogwood Cultural Thicket
  - CUT1-7 - European Buckthorn - Sweet Cherry Cultural thicket
  - CUM1 - Mineral Cultural Woodland
  - CUM1-1 - Red Cedar Mineral Cultural Woodland
  - CUM1-3 - Ash - Sumac Mineral Cultural Woodland
  - CUM1-4 - Green Ash Mineral Cultural Woodland
  - CUM1-5 - Norway Maple Mineral Cultural Woodland
  - CUM1-6 - White Elm Cultural Woodland
  - CUM1-7 - Red maple Mineral Cultural Woodland
  - CUM1-11 - White Pine Cultural Woodland

- Swamp Communities (SW)**
- SWD - Deciduous Swamp
  - SWD1-1 - Swamp Oak Mineral Deciduous Swamp
  - SWD1-2 - Bur Oak Mineral Deciduous Swamp
  - SWD2-2 - Green Ash Mineral Deciduous Swamp
  - SWD2-3 - Ash - Hardwood Mineral Deciduous Swamp
  - SWD2-4 - Green Ash - Red Maple Mineral Deciduous Swamp
  - SWD3-1 - Red Maple Mineral Deciduous Swamp
  - SWD3-2 - Silver Maple Mineral Deciduous Swamp
  - SWD3-3 - Swamp Maple Mineral Deciduous Swamp

- Marsh Communities (MA)**
- MAM2 - Mineral Meadow Marsh
  - MAM2-2 - Reed Canary Grass Mineral Meadow Marsh
  - MAM2-9 - Jewelweed Mineral Meadow Marsh
  - MAM2-10 - Forb Mineral Meadow Marsh
  - MAM2-11 - Forb - Graminoid Mineral Meadow Marsh
  - MAS2-1 - Cattail Mineral Shallow Marsh
  - MAS2-8 - Rice Cut-grass Mineral Shallow Marsh
- Open Water (OA)**
- OA - Open Aquatic
- Shallow Water (SA)**
- SAM1-2 - Duckweed Mixed Shallow Aquatic
- HR - Hedgerow  
D - Disturbed  
Res - Residential

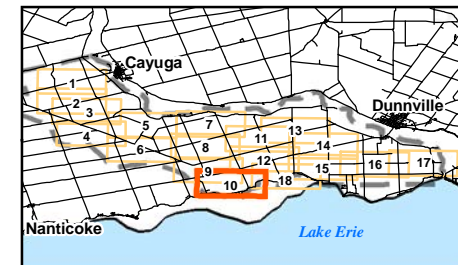
**Notes**

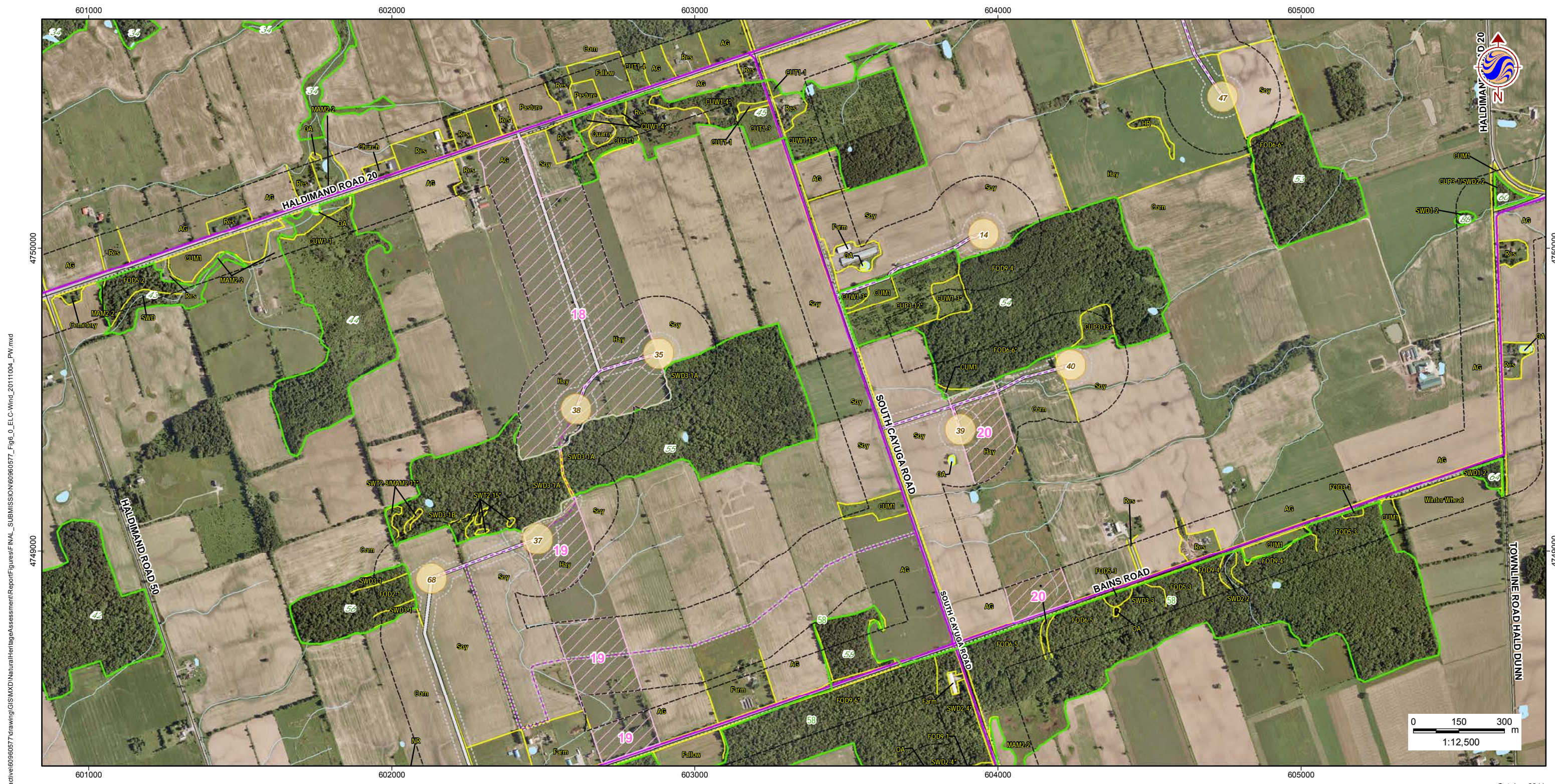
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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**6.10**

**ELC VEGETATION  
COMMUNITIES - W10**





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Legend	
	Study Area
	Zone of Investigation
	Constructable Area
	Wind Project Location
	Proposed Turbine Location
	Access Road
	Overhead Collector Line
	Underground Collector Line
	Solar Project Location
	Solar Lands
	Transmission Line
	Overhead Transmission Line
	Underground Transmission Line
	Electrical Transmission Component
	Road
	Railway
	Abandoned Railway
	Transmission Line (MNR)
	Watercourse (MNR)
	Waterbody (MNR)
	Natural Feature
	Vegetation Community (ELC)
	Potential Bobolink Habitat
	Bobolink Sited
	No Bobolink Sited

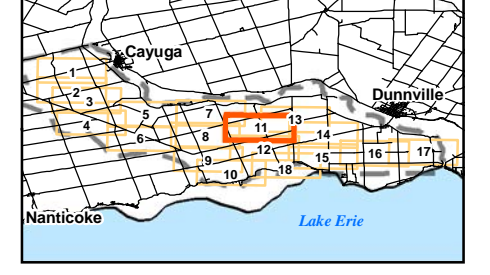
Forest Communities (FO)	
FOM 2-2	Dry-fresh White Pine - Sugar Maple Mixed Forest
FOD	Deciduous Forest
FOD1-1	Dry-fresh Red Oak Deciduous Forest
FOD2-1	Dry-fresh Oak - Red Maple Deciduous Forest
FOD2-2	Dry-fresh Oak - Hickory Deciduous Forest
FOD2-4	Dry-fresh Oak - Hardwood Deciduous Forest
FOD3-1	Dry-fresh Poplar Deciduous Forest
FOD4-1	Dry-fresh Beech Deciduous Forest
FOD4-2	Dry-fresh White Ash Deciduous Forest
FOD5	Dry-fresh Sugar Maple Deciduous Forest Ecosite
FOD5-1	Dry-fresh Sugar Maple Deciduous Forest
FOD5-2	Dry-fresh Sugar Maple - Beech Deciduous Forest
FOD5-3	Dry-fresh Sugar Maple - Oak Deciduous Forest
FOD5-8	Dry-fresh Sugar Maple - White Ash Deciduous Forest
FOD5-9	Dry-fresh Sugar Maple-Red Maple Deciduous Forest
FOD5-11	Dry-fresh Sugar Maple - Oak - Beech Deciduous Forest
FOD5-12	Dry-fresh Sugar Maple - Hickory - Beech Deciduous Forest
FOD6-1	Fresh-moist Sugar Maple - Lowland Ash Deciduous Forest
FOD6-5	Fresh-moist Sugar Maple - Hardwood Deciduous Forest
FOD6-6	Fresh-moist Sugar Maple - Hickory Deciduous Forest
FOD7-1	Fresh - moist White Elm Lowland Deciduous Forest
FOD7-2	Fresh-moist Ash Lowland Deciduous Forest
FOD7-4	Fresh-moist Black Walnut Lowland Deciduous Forest
FOD9-1	Fresh-moist Oak - Sugar Maple Deciduous Forest
FOD9-3	Fresh-moist Bur Oak Deciduous Forest
FOD9-4	Fresh-moist Shagbark Hickory Deciduous Forest
FOD9-6	Fresh-moist Red Oak - Shagbark Hickory Deciduous Forest

Cultural Communities (CU)	
CUP1-4	Hybrid Poplar Deciduous Plantation
CUP2	Mixed Plantation
CUP3-1	Red Pine Coniferous Plantation
CUP3-2	White Pine Coniferous Plantation
CUP3-12	White Pine - White/Norway Spruce Coniferous Plantation
CUP3-13	White Spruce Coniferous Plantation
CUM1	Mineral Cultural Meadow
CUS1-1	Hawthorn Cultural Savannah
CUT1	Mineral Cultural Thicket
CUT1-1	Sumac Cultural Thicket
CUT1-4	Gray Dogwood Cultural Thicket
CUT1-7	European Buckthorn - Sweet Cherry Cultural thicket
CUM1	Mineral Cultural Woodland
CUM1-1	Red Cedar Mineral Cultural Woodland
CUM1-3	Ash - Sumac Mineral Cultural Woodland
CUM1-4	Green Ash Mineral Cultural Woodland
CUM1-5	Norway Maple Mineral Cultural Woodland
CUM1-6	White Elm Cultural Woodland
CUM1-7	Red maple Mineral Cultural Woodland
CUM1-11	White Pine Cultural Woodland

Swamp Communities (SW)	
SWD	Deciduous Swamp
SWD1-1	Swamp Oak Mineral Deciduous Swamp
SWD1-2	Bur Oak Mineral Deciduous Swamp
SWD2-2	Green Ash Mineral Deciduous Swamp
SWD2-3	Ash - Hardwood Mineral Deciduous Swamp
SWD2-4	Green Ash - Red Maple Mineral Deciduous Swamp
SWD3-1	Red Maple Mineral Deciduous Swamp
SWD3-2	Silver Maple Mineral Deciduous Swamp
SWD3-3	Swamp Maple Mineral Deciduous Swamp

Marsh Communities (MA)	
MAM2	Mineral Meadow Marsh
MAM2-2	Reed Canary Grass Mineral Meadow Marsh
MAM2-9	Jewelweed Mineral Meadow Marsh
MAM2-10	Forb Mineral Meadow Marsh
MAM2-11	Forb - Graminoid Mineral Meadow Marsh
MAS2-1	Cattail Mineral Shallow Marsh
MAS2-8	Rice Cut-grass Mineral Shallow Marsh

- Notes**
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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
 GRAND RENEWABLE ENERGY PARK**

Figure No.  
**6.11**

Title  
**ELC VEGETATION  
 COMMUNITIES - W11**

October 2011  
 160960577



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Legend	
	Study Area
	Zone of Investigation
	Constructable Area
Wind Project Location	
	Proposed Turbine Location
	Access Road
	Overhead Collector Line
	Underground Collector Line
Solar Project Location	
	Solar Lands
Transmission Line	
	Overhead Transmission Line
	Underground Transmission Line
	Electrical Transmission Component
Existing Features	
	Road
	Railway
	Abandoned Railway
	Transmission Line (MNR)
	Watercourse (MNR)
	Waterbody (MNR)
	Natural Feature
	Vegetation Community (ELC)
AREA	
	Potential Bobolink Habitat
Grassland Point Count Station	
	Bobolink Sited
	No Bobolink Sited

Forest Communities (FO)	
FOM 2-2	Dry-fresh White Pine - Sugar Maple Mixed Forest
FOD	Deciduous Forest
FOD1-1	Dry-fresh Red Oak Deciduous Forest
FOD2-1	Dry-fresh Oak - Red Maple Deciduous Forest
FOD2-2	Dry-fresh Oak - Hickory Deciduous Forest
FOD2-4	Dry-fresh Oak - Hardwood Deciduous Forest
FOD3-1	Dry-fresh Poplar Deciduous Forest
FOD4-1	Dry-fresh Beech Deciduous Forest
FOD4-2	Dry-fresh White Ash Deciduous Forest
FOD5	Dry-fresh Sugar Maple Deciduous Forest Ecosite
FOD5-1	Dry-fresh Sugar Maple Deciduous Forest
FOD5-2	Dry-fresh Sugar Maple - Beech Deciduous Forest
FOD5-3	Dry-fresh Sugar Maple - Oak Deciduous Forest
FOD5-8	Dry-fresh Sugar Maple - White Ash Deciduous Forest
FOD5-9	Dry-fresh Sugar Maple-Red Maple Deciduous Forest
FOD5-11*	Dry-fresh Sugar Maple - Oak - Beech Deciduous Forest
FOD5-12*	Dry-fresh Sugar Maple - Hickory - Beech Deciduous Forest
FOD6-1	Fresh-moist Sugar Maple - Lowland Ash Deciduous Forest
FOD6-5	Fresh-moist Sugar Maple - Hardwood Deciduous Forest
FOD6-6*	Fresh-moist Sugar Maple - Hickory Deciduous Forest
FOD7-1	Fresh - moist White Elm Lowland Deciduous Forest
FOD7-2	Fresh-moist Ash Lowland Deciduous Forest
FOD7-4	Fresh-moist Black Walnut Lowland Deciduous Forest
FOD9-1	Fresh-moist Oak - Sugar Maple Deciduous Forest
FOD9-3	Fresh-moist Bur Oak Deciduous Forest
FOD9-4	Fresh-moist Shagbark Hickory Deciduous Forest
FOD9-6*	Fresh-moist Red Oak - Shagbark Hickory Deciduous Forest

Cultural Communities (CU)	
CUP1-4	Hybrid Poplar Deciduous Plantation
CUP2	Mixed Plantation
CUP3-1	Red Pine Coniferous Plantation
CUP3-2	White Pine Coniferous Plantation
CUP3-12*	White Pine - White/Norway Spruce Coniferous Plantation
CUP3-13*	White Spruce Coniferous Plantation
CUM1	Mineral Cultural Meadow
CUS1-1	Hawthorn Cultural Savannah
CUT1	Mineral Cultural Thicket
CUT1-1	Sumac Cultural Thicket
CUT1-4	Gray Dogwood Cultural Thicket
CUT1-7	European Buckthorn - Sweet Cherry Cultural thicket
CUM1	Mineral Cultural Woodland
CUM1-1	Red Cedar Mineral Cultural Woodland
CUM1-3*	Ash - Sumac Mineral Cultural Woodland
CUM1-4*	Green Ash Mineral Cultural Woodland
CUM1-5*	Norway Maple Mineral Cultural Woodland
CUM1-6*	White Elm Cultural Woodland
CUM1-7*	Red maple Mineral Cultural Woodland
CUM1-11*	White Pine Cultural Woodland

Swamp Communities (SW)	
SWD	Deciduous Swamp
SWD1-1	Swamp Oak Mineral Deciduous Swamp
SWD1-2	Bur Oak Mineral Deciduous Swamp
SWD2-2	Green Ash Mineral Deciduous Swamp
SWD2-3*	Ash - Hardwood Mineral Deciduous Swamp
SWD2-4*	Green Ash - Red Maple Mineral Deciduous Swamp
SWD3-1	Red Maple Mineral Deciduous Swamp
SWD3-2	Silver Maple Mineral Deciduous Swamp
SWD3-3	Swamp Maple Mineral Deciduous Swamp
Marsh Communities (MA)	
MAM2	Mineral Meadow Marsh
MAM2-2	Reed Canary Grass Mineral Meadow Marsh
MAM2-9	Jewelweed Mineral Meadow Marsh
MAM2-10	Forb Mineral Meadow Marsh
MAM2-11*	Forb - Graminoid Mineral Meadow Marsh
MAS2-1	Cattail Mineral Shallow Marsh
MAS2-8	Rice Cut-grass Mineral Shallow Marsh
Open Water (OA)	
OA	Open Aquatic
Shallow Water (SA)	
SAM1-2	Duckweed Mixed Shallow Aquatic

**Notes**

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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
 GRAND RENEWABLE ENERGY PARK**

Figure No.  
**6.12**

Title  
**ELC VEGETATION  
 COMMUNITIES - W12**

October 2011  
 160960577



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**Legend**

- Study Area
- Zone of Investigation
- Constructable Area
- Wind Project Location**
- Proposed Turbine Location
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Solar Project Location**
- Solar Lands
- Transmission Line**
- Overhead Transmission Line
- Underground Transmission Line
- Electrical Transmission Component
- Existing Features**
- Road
- Railway
- Abandoned Railway
- Transmission Line (MNR)
- Watercourse (MNR)
- Waterbody (MNR)
- Natural Feature
- Vegetation Community (ELC)
- AREA**
- Potential Bobolink Habitat
- Grassland Point Count Station**
- Bobolink Sited
- No Bobolink Sited

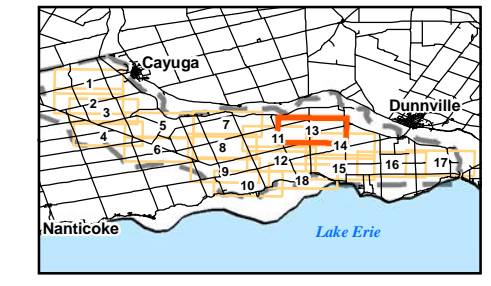
- Forest Communities (FO)**
- FOM 2-2 - Dry-fresh White Pine - Sugar Maple Mixed Forest
  - FOD - Deciduous Forest
  - FOD1-1 - Dry-fresh Red Oak Deciduous Forest
  - FOD2-1 - Dry-fresh Oak - Red Maple Deciduous Forest
  - FOD2-2 - Dry-fresh Oak - Hickory Deciduous Forest
  - FOD2-4 - Dry-fresh Oak - Hardwood Deciduous Forest
  - FOD3-1 - Dry-fresh Poplar Deciduous Forest
  - FOD4-1 - Dry-fresh Beech Deciduous Forest
  - FOD4-2 - Dry-fresh White Ash Deciduous Forest
  - FOD5 - Dry-fresh Sugar Maple Deciduous Forest Ecosite
  - FOD5-1 - Dry-fresh Sugar Maple Deciduous Forest
  - FOD5-2 - Dry-fresh Sugar Maple - Beech Deciduous Forest
  - FOD5-3 - Dry-fresh Sugar Maple - Oak Deciduous Forest
  - FOD5-8 - Dry-fresh Sugar Maple - White Ash Deciduous Forest
  - FOD5-9 - Dry-fresh Sugar Maple-Red Maple Deciduous Forest
  - FOD5-11 - Dry-fresh Sugar Maple - Oak - Beech Deciduous Forest
  - FOD5-12 - Dry-fresh Sugar Maple - Hickory - Beech Deciduous Forest
  - FOD6-1 - Fresh-moist Sugar Maple - Lowland Ash Deciduous Forest
  - FOD6-5 - Fresh-moist Sugar Maple - Hardwood Deciduous Forest
  - FOD6-6 - Fresh-moist Sugar Maple - Hickory Deciduous Forest
  - FOD7-1 - Fresh - moist White Elm Lowland Deciduous Forest
  - FOD7-2 - Fresh-moist Ash Lowland Deciduous Forest
  - FOD7-4 - Fresh-moist Black Walnut Lowland Deciduous Forest
  - FOD9-1 - Fresh-moist Oak - Sugar Maple Deciduous Forest
  - FOD9-3 - Fresh-moist Bur Oak Deciduous Forest
  - FOD9-4 - Fresh-moist Shagbark Hickory Deciduous Forest
  - FOD9-6 - Fresh-moist Red Oak - Shagbark Hickory Deciduous Forest

- Cultural Communities (CU)**
- CUP1-4 - Hybrid Poplar Deciduous Plantation
  - CUP2 - Mixed Plantation
  - CUP3-1 - Red Pine Coniferous Plantation
  - CUP3-2 - White Pine Coniferous Plantation
  - CUP3-12 - White Pine - White/Norway Spruce Coniferous Plantation
  - CUP3-13 - White Spruce Coniferous Plantation
  - CUM1 - Mineral Cultural Meadow
  - CUS1-1 - Hawthorn Cultural Savannah
  - CUT1 - Mineral Cultural Thicket
  - CUT1-1 - Sumac Cultural Thicket
  - CUT1-4 - Gray Dogwood Cultural Thicket
  - CUT1-7 - European Buckthorn - Sweet Cherry Cultural thicket
  - CUW1 - Mineral Cultural Woodland
  - CUW1-1 - Red Cedar Mineral Cultural Woodland
  - CUW1-3 - Ash - Sumac Mineral Cultural Woodland
  - CUW1-4 - Green Ash Mineral Cultural Woodland
  - CUW1-5 - Norway Maple Mineral Cultural Woodland
  - CUW1-6 - White Elm Cultural Woodland
  - CUW1-7 - Red maple Mineral Cultural Woodland
  - CUW1-11 - White Pine Cultural Woodland
- Swamp Communities (SW)**
- SWD - Deciduous Swamp
  - SWD1-1 - Swamp Oak Mineral Deciduous Swamp
  - SWD1-2 - Bur Oak Mineral Deciduous Swamp
  - SWD2-2 - Green Ash Mineral Deciduous Swamp
  - SWD2-3 - Ash - Hardwood Mineral Deciduous Swamp
  - SWD2-4 - Green Ash - Red Maple Mineral Deciduous Swamp
  - SWD3-1 - Red Maple Mineral Deciduous Swamp
  - SWD3-2 - Silver Maple Mineral Deciduous Swamp
  - SWD3-3 - Swamp Maple Mineral Deciduous Swamp

- Marsh Communities (MA)**
- MAM2 - Mineral Meadow Marsh
  - MAM2-2 - Reed Canary Grass Mineral Meadow Marsh
  - MAM2-9 - Jewelweed Mineral Meadow Marsh
  - MAM2-10 - Forb Mineral Meadow Marsh
  - MAM2-11 - Forb - Graminoid Mineral Meadow Marsh
  - MAS2-1 - Cattail Mineral Shallow Marsh
  - MAS2-8 - Rice Cut-grass Mineral Shallow Marsh
- Open Water (OA)**
- OA - Open Aquatic
- Shallow Water (SA)**
- SAM1-2 - Duckweed Mixed Shallow Aquatic
- Other Symbols:**
- HR - Hedgerow
  - D - Disturbed
  - Res - Residential

**Notes**

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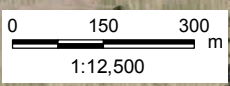
Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**6.13**

**ELC VEGETATION  
COMMUNITIES - W13**



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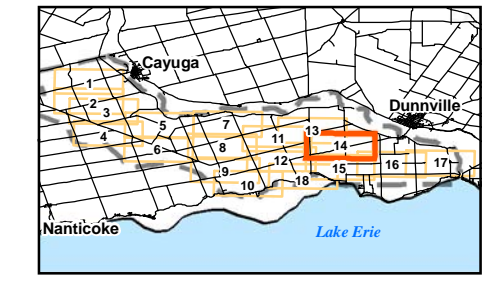
Legend	
	Study Area
	Zone of Investigation
	Constructable Area
Wind Project Location	
	Proposed Turbine Location
	Access Road
	Overhead Collector Line
	Underground Collector Line
Solar Project Location	
	Solar Lands
Transmission Line	
	Overhead Transmission Line
	Underground Transmission Line
	Electrical Transmission Component
Existing Features	
	Road
	Railway
	Abandoned Railway
	Transmission Line (MNR)
	Watercourse (MNR)
	Waterbody (MNR)
	Natural Feature
	Vegetation Community (ELC)
AREA	
	Potential Bobolink Habitat
Grassland Point Count Station	
	Bobolink Sited
	No Bobolink Sited

Forest Communities (FO)	
FOD - Deciduous Forest	FOD1-1 - Dry-fresh Red Oak Deciduous Forest
FOD2-1 - Dry-fresh Oak - Red Maple Deciduous Forest	FOD2-2 - Dry-fresh Oak - Hickory Deciduous Forest
FOD2-4 - Dry-fresh Oak - Hardwood Deciduous Forest	FOD3-1 - Dry-fresh Poplar Deciduous Forest
FOD4-1 - Dry-fresh Beech Deciduous Forest	FOD4-2 - Dry-fresh White Ash Deciduous Forest
FOD5 - Dry-fresh Sugar Maple Deciduous Forest Ecosite	FOD5-1 - Dry-fresh Sugar Maple Deciduous Forest
FOD5-2 - Dry-fresh Sugar Maple - Beech Deciduous Forest	FOD5-3 - Dry-fresh Sugar Maple - Oak Deciduous Forest
FOD5-8 - Dry-fresh Sugar Maple - White Ash Deciduous Forest	FOD5-9 - Dry-fresh Sugar Maple-Red Maple Deciduous Forest
FOD5-11 - Dry-fresh Sugar Maple - Oak - Beech Deciduous Forest	FOD5-12 - Dry-fresh Sugar Maple - Hickory - Beech Deciduous Forest
FOD6-1 - Fresh-moist Sugar Maple - Lowland Ash Deciduous Forest	FOD6-5 - Fresh-moist Sugar Maple - Hardwood Deciduous Forest
FOD6-6 - Fresh-moist Sugar Maple - Hickory Deciduous Forest	FOD7-1 - Fresh - moist White Elm Lowland Deciduous Forest
FOD7-2 - Fresh-moist Ash Lowland Deciduous Forest	FOD7-4 - Fresh-moist Black Walnut Lowland Deciduous Forest
FOD9-1 - Fresh-moist Oak - Sugar Maple Deciduous Forest	FOD9-3 - Fresh-moist Bur Oak Deciduous Forest
FOD9-4 - Fresh-moist Shagbark Hickory Deciduous Forest	FOD9-6 - Fresh-moist Red Oak - Shagbark Hickory Deciduous Forest

Cultural Communities (CU)	
CUP1-4 - Hybrid Poplar Deciduous Plantation	CUP2 - Mixed Plantation
CUP3-1 - Red Pine Coniferous Plantation	CUP3-2 - White Pine Coniferous Plantation
CUP3-12 - White Pine - White/Norway Spruce Coniferous Plantation	CUP3-13 - White Spruce Coniferous Plantation
CUM1 - Mineral Cultural Meadow	CUS1-1 - Hawthorn Cultural Savannah
CUT1 - Mineral Cultural Thicket	CUT1-1 - Sumac Cultural Thicket
CUT1-4 - Gray Dogwood Cultural Thicket	CUT1-7 - European Buckthorn - Sweet Cherry Cultural thicket
CUW1 - Mineral Cultural Woodland	CUW1-1 - Red Cedar Mineral Cultural Woodland
CUW1-3 - Ash - Sumac Mineral Cultural Woodland	CUW1-4 - Green Ash Mineral Cultural Woodland
CUW1-5 - Norway Maple Mineral Cultural Woodland	CUW1-6 - White Elm Cultural Woodland
CUW1-7 - Red maple Mineral Cultural Woodland	CUW1-11 - White Pine Cultural Woodland
Swamp Communities (SW)	
SWD - Deciduous Swamp	SWD1-1 - Swamp Oak Mineral Deciduous Swamp
SWD1-2 - Bur Oak Mineral Deciduous Swamp	SWD2-2 - Green Ash Mineral Deciduous Swamp
SWD2-3 - Ash - Hardwood Mineral Deciduous Swamp	SWD2-4 - Green Ash - Red Maple Mineral Deciduous Swamp
SWD3-1 - Red Maple Mineral Deciduous Swamp	SWD3-2 - Silver Maple Mineral Deciduous Swamp
SWD3-3 - Swamp Maple Mineral Deciduous Swamp	

SWD4-1 - Willow Mineral Deciduous Swamp	SWD4-2 - White Elm Mineral Deciduous Swamp
SWD4-6 - Green Ash - Swamp Maple Mineral Deciduous Swamp	SWT - Thicket Swamp
SWT2 - Mineral Thicket Swamp	SWT2-4 - Buttonbush Mineral Thicket Swamp
SWT2-5 - Red Osier Dogwood Mineral Thicket Swamp	SWT2-8 - Silky Dogwood Mineral Thicket Swamp
SWT2-9 - Gray Dogwood Mineral Thicket Swamp	SWT2-13 - Willow - Dogwood Mineral Thicket Swamp
SWT2-14 - Winterberry - Buttonbush Mineral Thicket Swamp	SWT2-15 - Red Maple Mineral Thicket Swamp
SWT3-7 - Winterberry Organic Thicket Swamp	
Marsh Communities (MA)	
MAM2 - Mineral Meadow Marsh	MAM2-2 - Reed Canary Grass Mineral Meadow Marsh
MAM2-9 - Jewelweed Mineral Meadow Marsh	MAM2-10 - Forb Mineral Meadow Marsh
MAM2-11 - Forb - Graminoid Mineral Meadow Marsh	MAM2-1 - Cattail Mineral Shallow Marsh
MAM2-8 - Rice Cut-grass Mineral Shallow Marsh	
Open Water (OA)	
OA - Open Aquatic	
Shallow Water (SA)	
SAM1-2 - Duckweed Mixed Shallow Aquatic	
HR - Hedgerow	D - Disturbed
Res - Residential	

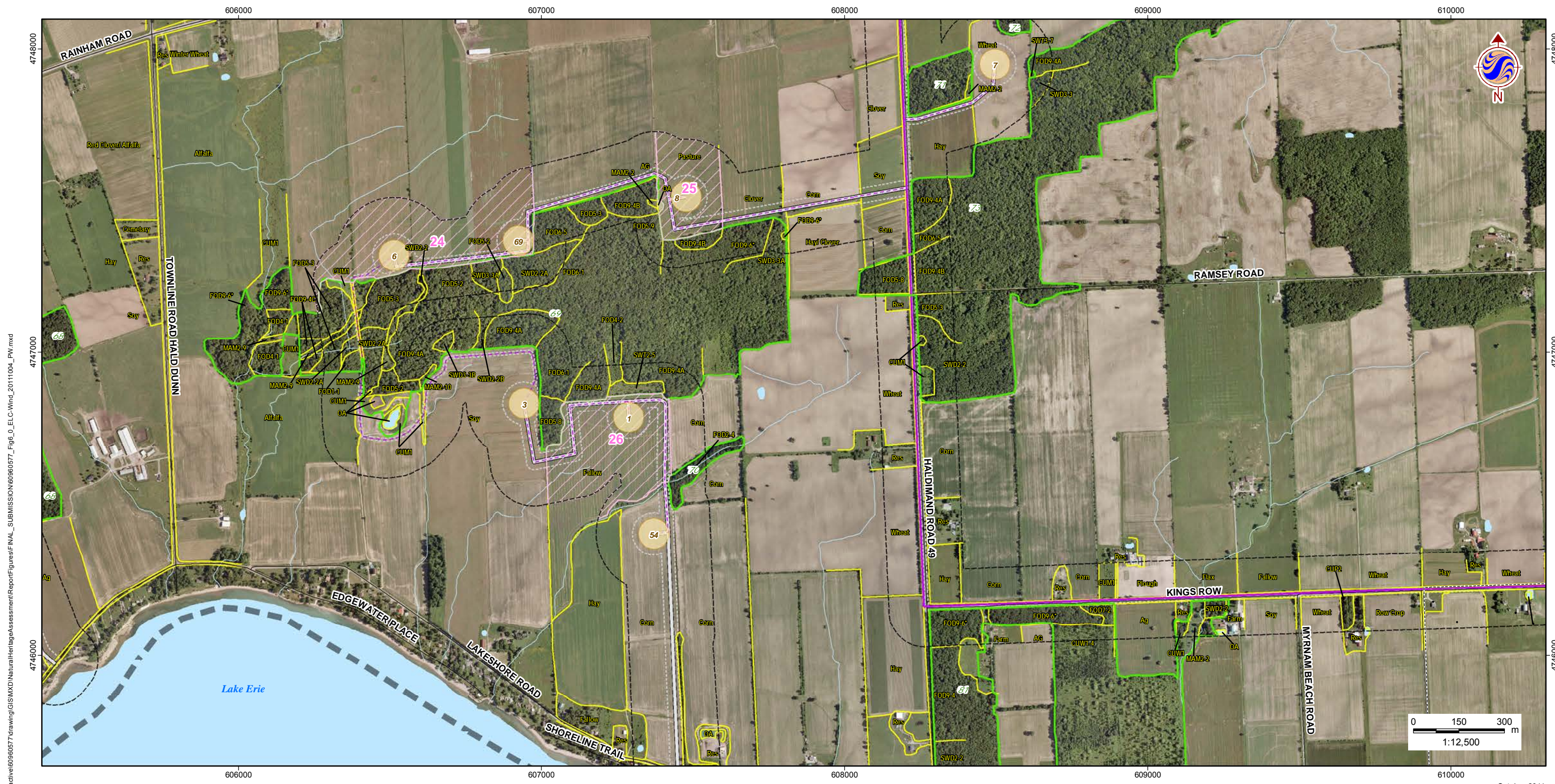
- Notes**
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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**6.14**

Title  
**ELC VEGETATION  
COMMUNITIES - W14**



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Legend	
	Study Area
	Zone of Investigation
	Constructable Area
	Wind Project Location
	Proposed Turbine Location
	Access Road
	Overhead Collector Line
	Underground Collector Line
	Solar Project Location
	Solar Lands
	Transmission Line
	Overhead Transmission Line
	Underground Transmission Line
	Electrical Transmission Component
	Road
	Railway
	Abandoned Railway
	Transmission Line (MNR)
	Watercourse (MNR)
	Waterbody (MNR)
	Natural Feature
	Vegetation Community (ELC)
	Potential Bobolink Habitat
	Bobolink Sited
	No Bobolink Sited

Forest Communities (FO)	
FOM-2-2	Dry-fresh White Pine - Sugar Maple Mixed Forest
FOD	Deciduous Forest
FOD1-1	Dry-fresh Red Oak Deciduous Forest
FOD2-1	Dry-fresh Oak - Red Maple Deciduous Forest
FOD2-2	Dry-fresh Oak - Hickory Deciduous Forest
FOD2-4	Dry-fresh Oak - Hardwood Deciduous Forest
FOD3-1	Dry-fresh Poplar Deciduous Forest
FOD4-1	Dry-fresh Beech Deciduous Forest
FOD4-2	Dry-fresh White Ash Deciduous Forest
FOD5	Dry-fresh Sugar Maple Deciduous Forest Ecosite
FOD5-1	Dry-fresh Sugar Maple Deciduous Forest
FOD5-2	Dry-fresh Sugar Maple - Beech Deciduous Forest
FOD5-3	Dry-fresh Sugar Maple - Oak Deciduous Forest
FOD5-8	Dry-fresh Sugar Maple - White Ash Deciduous Forest
FOD5-9	Dry-fresh Sugar Maple-Red Maple Deciduous Forest
FOD5-11	Dry-fresh Sugar Maple - Oak - Beech Deciduous Forest
FOD5-12	Dry-fresh Sugar Maple - Hickory - Beech Deciduous Forest
FOD6-1	Fresh-moist Sugar Maple - Lowland Ash Deciduous Forest
FOD6-5	Fresh-moist Sugar Maple - Hardwood Deciduous Forest
FOD6-6	Fresh-moist Sugar Maple - Hickory Deciduous Forest
FOD7-1	Fresh - moist White Elm Lowland Deciduous Forest
FOD7-2	Fresh-moist Ash Lowland Deciduous Forest
FOD7-4	Fresh-moist Black Walnut Lowland Deciduous Forest
FOD9-1	Fresh-moist Oak - Sugar Maple Deciduous Forest
FOD9-3	Fresh-moist Bur Oak Deciduous Forest
FOD9-4	Fresh-moist Shagbark Hickory Deciduous Forest
FOD9-6	Fresh-moist Red Oak - Shagbark Hickory Deciduous Forest

Cultural Communities (CU)	
CUP1-4	Hybrid Poplar Deciduous Plantation
CUP2	Mixed Plantation
CUP3-1	Red Pine Coniferous Plantation
CUP3-2	White Pine Coniferous Plantation
CUP3-12	White Pine - White/Norway Spruce Coniferous Plantation
CUP3-13	White Spruce Coniferous Plantation
CUM1	Mineral Cultural Meadow
CUS1-1	Hawthorn Cultural Savannah
CUT1	Mineral Cultural Thicket
CUT1-1	Sumac Cultural Thicket
CUT1-4	Gray Dogwood Cultural Thicket
CUT1-7	European Buckthorn - Sweet Cherry Cultural thicket
CUM1	Mineral Cultural Woodland
CUM1-1	Red Cedar Mineral Cultural Woodland
CUM1-3	Ash - Sumac Mineral Cultural Woodland
CUM1-4	Green Ash Mineral Cultural Woodland
CUM1-5	Norway Maple Mineral Cultural Woodland
CUM1-6	White Elm Cultural Woodland
CUM1-7	Red maple Mineral Cultural Woodland
CUM1-11	White Pine Cultural Woodland

Swamp Communities (SW)	
SWD	Deciduous Swamp
SWD1-1	Swamp Oak Mineral Deciduous Swamp
SWD1-2	Bur Oak Mineral Deciduous Swamp
SWD2-2	Green Ash Mineral Deciduous Swamp
SWD2-3	Ash - Hardwood Mineral Deciduous Swamp
SWD2-4	Green Ash - Red Maple Mineral Deciduous Swamp
SWD3-1	Red Maple Mineral Deciduous Swamp
SWD3-2	Silver Maple Mineral Deciduous Swamp
SWD3-3	Swamp Maple Mineral Deciduous Swamp

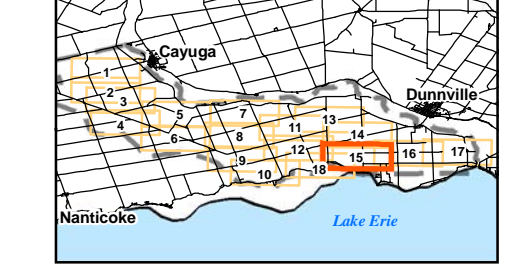
Marsh Communities (MA)	
MAM2	Mineral Meadow Marsh
MAM2-2	Reed Canary Grass Mineral Meadow Marsh
MAM2-9	Jewelweed Mineral Meadow Marsh
MAM2-10	Forb Mineral Meadow Marsh
MAM2-11	Forb - Graminoid Mineral Meadow Marsh
MAS2-1	Cattail Mineral Shallow Marsh
MAS2-8	Rice Cut-grass Mineral Shallow Marsh

Open Water (OA)	
OA	Open Aquatic

Shallow Water (SA)	
SAM1-2	Duckweed Mixed Shallow Aquatic

**Notes**

- Coordinate System: UTM NAD 83 - Zone 17 (N).
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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**6.15**

Title  
**ELC VEGETATION  
COMMUNITIES - W15**

October 2011  
160960577





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October 2011  
160960577



**Legend**

- Study Area
- Zone of Investigation
- Constructable Area
- Wind Project Location**
- Proposed Turbine Location
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Solar Project Location**
- Solar Lands
- Transmission Line**
- Overhead Transmission Line
- Underground Transmission Line
- Electrical Transmission Component
- Existing Features**
- Road
- Railway
- Abandoned Railway
- Transmission Line (MNR)
- Watercourse (MNR)
- Waterbody (MNR)
- Natural Feature
- Vegetation Community (ELC)
- AREA**
- Potential Bobolink Habitat
- Grassland Point Count Station**
- Bobolink Sited
- No Bobolink Sited

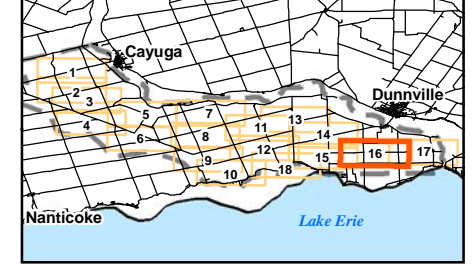
- Forest Communities (FO)**
- FOM 2-2 - Dry-fresh White Pine - Sugar Maple Mixed Forest
  - FOD - Deciduous Forest
  - FOD1-1 - Dry-fresh Red Oak Deciduous Forest
  - FOD2-1 - Dry-fresh Oak - Red Maple Deciduous Forest
  - FOD2-2 - Dry-fresh Oak - Hickory Deciduous Forest
  - FOD2-4 - Dry-fresh Oak - Hardwood Deciduous Forest
  - FOD3-1 - Dry-fresh Poplar Deciduous Forest
  - FOD4-1 - Dry-fresh Beech Deciduous Forest
  - FOD4-2 - Dry-fresh White Ash Deciduous Forest
  - FOD5 - Dry-fresh Sugar Maple Deciduous Forest Ecosite
  - FOD5-1 - Dry-fresh Sugar Maple Deciduous Forest
  - FOD5-2 - Dry-fresh Sugar Maple - Beech Deciduous Forest
  - FOD5-3 - Dry-fresh Sugar Maple - Oak Deciduous Forest
  - FOD5-8 - Dry-fresh Sugar Maple - White Ash Deciduous Forest
  - FOD5-9 - Dry-fresh Sugar Maple-Red Maple Deciduous Forest
  - FOD5-11 - Dry-fresh Sugar Maple - Oak - Beech Deciduous Forest
  - FOD5-12 - Dry-fresh Sugar Maple - Hickory - Beech Deciduous Forest
  - FOD6-1 - Fresh-moist Sugar Maple - Lowland Ash Deciduous Forest
  - FOD6-5 - Fresh-moist Sugar Maple - Hardwood Deciduous Forest
  - FOD6-6 - Fresh-moist Sugar Maple - Hickory Deciduous Forest
  - FOD7-1 - Fresh - moist White Elm Lowland Deciduous Forest
  - FOD7-2 - Fresh-moist Ash Lowland Deciduous Forest
  - FOD7-4 - Fresh-moist Black Walnut Lowland Deciduous Forest
  - FOD9-1 - Fresh-moist Oak - Sugar Maple Deciduous Forest
  - FOD9-3 - Fresh-moist Bur Oak Deciduous Forest
  - FOD9-4 - Fresh-moist Shagbark Hickory Deciduous Forest
  - FOD9-6 - Fresh-moist Red Oak - Shagbark Hickory Deciduous Forest

- Cultural Communities (CU)**
- CUP1-4 - Hybrid Poplar Deciduous Plantation
  - CUP2 - Mixed Plantation
  - CUP3-1 - Red Pine Coniferous Plantation
  - CUP3-2 - White Pine Coniferous Plantation
  - CUP3-12 - White Pine - White/Norway Spruce Coniferous Plantation
  - CUP3-13 - White Spruce Coniferous Plantation
  - CUM1 - Mineral Cultural Meadow
  - CUS1-1 - Hawthorn Cultural Savannah
  - CUT1 - Mineral Cultural Thicket
  - CUT1-1 - Sumac Cultural Thicket
  - CUT1-4 - Gray Dogwood Cultural Thicket
  - CUT1-7 - European Buckthorn - Sweet Cherry Cultural thicket
  - CUW1 - Mineral Cultural Woodland
  - CUW1-1 - Red Cedar Mineral Cultural Woodland
  - CUW1-3 - Ash - Sumac Mineral Cultural Woodland
  - CUW1-4 - Green Ash Mineral Cultural Woodland
  - CUW1-5 - Norway Maple Mineral Cultural Woodland
  - CUW1-6 - White Elm Cultural Woodland
  - CUW1-7 - Red maple Mineral Cultural Woodland
  - CUW1-11 - White Pine Cultural Woodland
- Swamp Communities (SW)**
- SWD - Deciduous Swamp
  - SWD1-1 - Swamp Oak Mineral Deciduous Swamp
  - SWD1-2 - Bur Oak Mineral Deciduous Swamp
  - SWD2-2 - Green Ash Mineral Deciduous Swamp
  - SWD2-3 - Ash - Hardwood Mineral Deciduous Swamp
  - SWD2-4 - Green Ash - Red Maple Mineral Deciduous Swamp
  - SWD3-1 - Red Maple Mineral Deciduous Swamp
  - SWD3-2 - Silver Maple Mineral Deciduous Swamp
  - SWD3-3 - Swamp Maple Mineral Deciduous Swamp

- Marsh Communities (MA)**
- MAM2 - Mineral Meadow Marsh
  - MAM2-2 - Reed Canary Grass Mineral Meadow Marsh
  - MAM2-9 - Jewelweed Mineral Meadow Marsh
  - MAM2-10 - Forb Mineral Meadow Marsh
  - MAM2-11 - Forb - Graminoid Mineral Meadow Marsh
  - MAS2-1 - Cattail Mineral Shallow Marsh
  - MAS2-8 - Rice Cut-grass Mineral Shallow Marsh
- Open Water (OA)**
- OA - Open Aquatic
- Shallow Water (SA)**
- SAM1 - Duckweed Mixed Shallow Aquatic
- Other Symbols:**
- HR - Hedgerow
  - D - Disturbed
  - Res - Residential

**Notes**

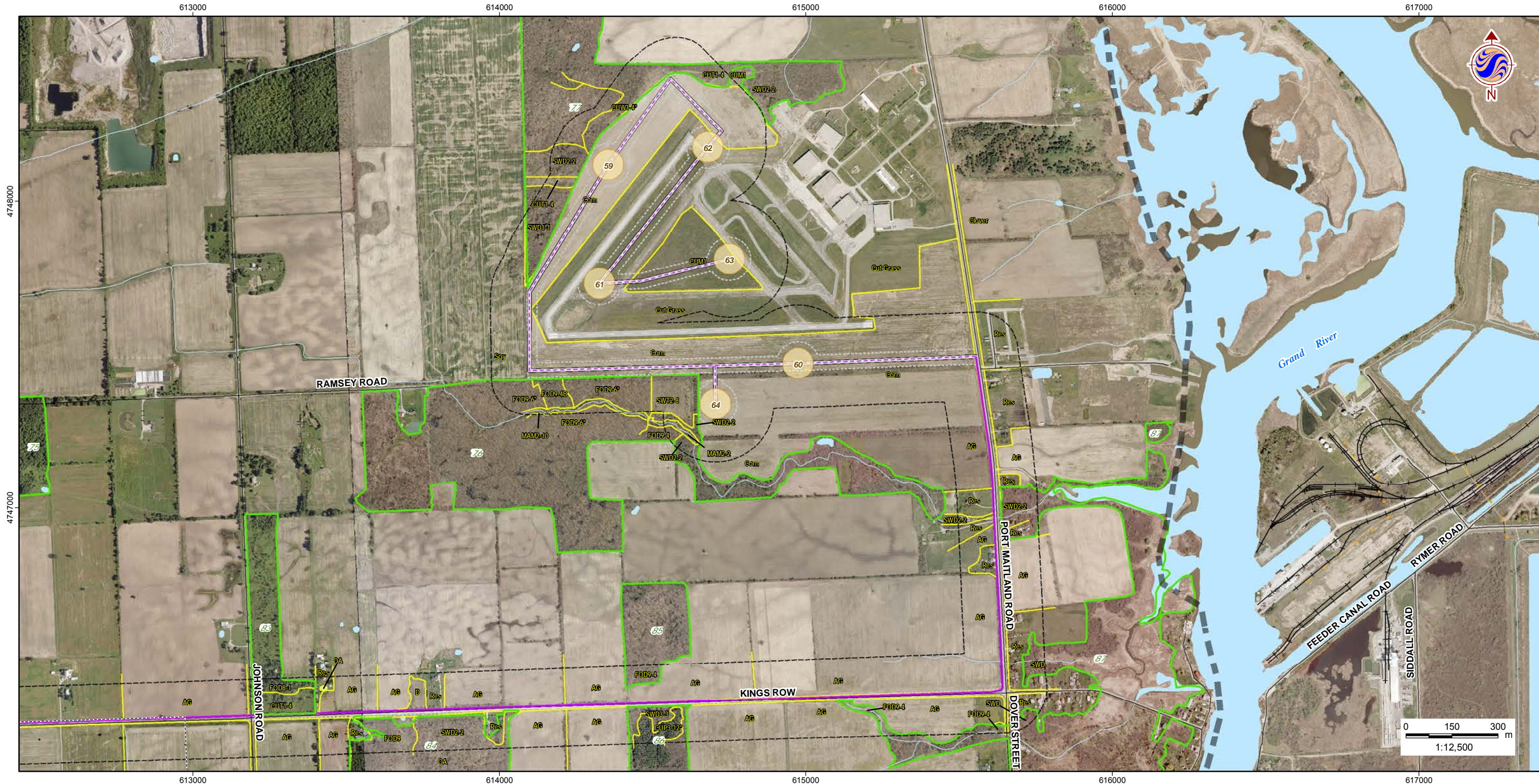
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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**6.16**

**ELC VEGETATION  
COMMUNITIES - W16**



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**Legend**

- Study Area
- Zone of Investigation
- Constructable Area
- Wind Project Location**
- Proposed Turbine Location
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Solar Project Location**
- Solar Lands
- Transmission Line**
- Overhead Transmission Line
- Underground Transmission Line
- Electrical Transmission Component
- Existing Features**
- Road
- Railway
- Abandoned Railway
- Transmission Line (MNR)
- Watercourse (MNR)
- Waterbody (MNR)
- Natural Feature
- Vegetation Community (ELC)
- AREA**
- Potential Bobolink Habitat
- Grassland Point Count Station**
- Bobolink Sited
- No Bobolink Sited

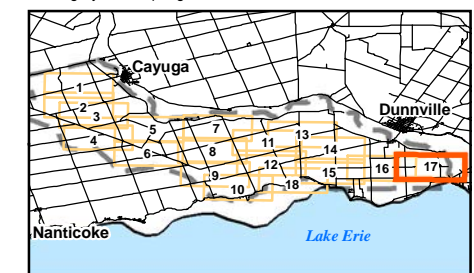
- Forest Communities (FO)**
- FOM 2-2 - Dry-fresh White Pine - Sugar Maple Mixed Forest
  - FOD - Deciduous Forest
  - FOD1-1 - Dry-fresh Red Oak Deciduous Forest
  - FOD2-1 - Dry-fresh Oak - Red Maple Deciduous Forest
  - FOD2-2 - Dry-fresh Oak - Hickory Deciduous Forest
  - FOD2-4 - Dry-fresh Oak - Hardwood Deciduous Forest
  - FOD3-1 - Dry-fresh Poplar Deciduous Forest
  - FOD4-1 - Dry-fresh Beech Deciduous Forest
  - FOD4-2 - Dry-fresh White Ash Deciduous Forest
  - FOD5 - Dry-fresh Sugar Maple Deciduous Forest Ecosite
  - FOD5-1 - Dry-fresh Sugar Maple Deciduous Forest
  - FOD5-2 - Dry-fresh Sugar Maple - Beech Deciduous Forest
  - FOD5-3 - Dry-fresh Sugar Maple - Oak Deciduous Forest
  - FOD5-8 - Dry-fresh Sugar Maple - White Ash Deciduous Forest
  - FOD5-9 - Dry-fresh Sugar Maple-Red Maple Deciduous Forest
  - FOD5-11 - Dry-fresh Sugar Maple - Oak - Beech Deciduous Forest
  - FOD5-12 - Dry-fresh Sugar Maple - Hickory - Beech Deciduous Forest
  - FOD6-1 - Fresh-moist Sugar Maple - Lowland Ash Deciduous Forest
  - FOD6-5 - Fresh-moist Sugar Maple - Hardwood Deciduous Forest
  - FOD6-6 - Fresh-moist Sugar Maple - Hickory Deciduous Forest
  - FOD7-1 - Fresh - moist White Elm Lowland Deciduous Forest
  - FOD7-2 - Fresh-moist Ash Lowland Deciduous Forest
  - FOD7-4 - Fresh-moist Black Walnut Lowland Deciduous Forest
  - FOD9-1 - Fresh-moist Oak - Sugar Maple Deciduous Forest
  - FOD9-3 - Fresh-moist Bur Oak Deciduous Forest
  - FOD9-4 - Fresh-moist Shagbark Hickory Deciduous Forest
  - FOD9-6 - Fresh-moist Red Oak - Shagbark Hickory Deciduous Forest

- Cultural Communities (CU)**
- CUP1-4 - Hybrid Poplar Deciduous Plantation
  - CUP2 - Mixed Plantation
  - CUP3-1 - Red Pine Coniferous Plantation
  - CUP3-2 - White Pine Coniferous Plantation
  - CUP3-12 - White Pine - White/Norway Spruce Coniferous Plantation
  - CUP3-13 - White Spruce Coniferous Plantation
  - CUM1 - Mineral Cultural Meadow
  - CUS1-1 - Hawthorn Cultural Savannah
  - CUT1 - Mineral Cultural Thicket
  - CUT1-1 - Sumac Cultural Thicket
  - CUT1-4 - Gray Dogwood Cultural Thicket
  - CUT1-7 - European Buckthorn - Sweet Cherry Cultural thicket
  - CUM1 - Mineral Cultural Woodland
  - CUM1-1 - Red Cedar Mineral Cultural Woodland
  - CUM1-3 - Ash - Sumac Mineral Cultural Woodland
  - CUM1-4 - Green Ash Mineral Cultural Woodland
  - CUM1-5 - Norway Maple Mineral Cultural Woodland
  - CUM1-6 - White Elm Cultural Woodland
  - CUM1-7 - Red maple Mineral Cultural Woodland
  - CUM1-11 - White Pine Cultural Woodland
- Swamp Communities (SW)**
- SWD - Deciduous Swamp
  - SWD1-1 - Swamp Oak Mineral Deciduous Swamp
  - SWD1-2 - Bur Oak Mineral Deciduous Swamp
  - SWD2-2 - Green Ash Mineral Deciduous Swamp
  - SWD2-3 - Ash - Hardwood Mineral Deciduous Swamp
  - SWD2-4 - Green Ash - Red Maple Mineral Deciduous Swamp
  - SWD3-1 - Red Maple Mineral Deciduous Swamp
  - SWD3-2 - Silver Maple Mineral Deciduous Swamp
  - SWD3-3 - Swamp Maple Mineral Deciduous Swamp

- SWD4-1 - Willow Mineral Deciduous Swamp
  - CUP1-4 - Hybrid Poplar Deciduous Swamp
  - SWD4-6 - Green Ash - Swamp Maple Mineral Deciduous Swamp
  - SWT - Thicket Swamp
  - SWT2 - Mineral Thicket Swamp
  - SWT2-4 - Buttonbush Mineral Thicket Swamp
  - SWT2-5 - Red Osier Dogwood Mineral Thicket Swamp
  - SWT2-8 - Silky Dogwood Mineral Thicket Swamp
  - SWT2-9 - Gray Dogwood Mineral Thicket Swamp
  - SWT2-13 - Willow - Dogwood Mineral Thicket Swamp
  - SWT2-14 - Winterberry - Buttonbush Mineral Thicket Swamp
  - SWT2-15 - Red Maple Mineral Thicket Swamp
  - SWT3-7 - Winterberry Organic Thicket Swamp
- Marsh Communities (MA)**
- MAM2 - Mineral Meadow Marsh
  - MAM2-2 - Reed Canary Grass Mineral Meadow Marsh
  - MAM2-9 - Jewelweed Mineral Meadow Marsh
  - MAM2-10 - Forb Mineral Meadow Marsh
  - MAM2-11 - Forb - Graminoid Mineral Meadow Marsh
  - MAS2-1 - Cattail Mineral Shallow Marsh
  - MAS2-8 - Rice Cut-grass Mineral Shallow Marsh
- Open Water (OA)**
- OA - Open Aquatic
  - SA - Duckweed Mixed Shallow Aquatic
- Shallow Water (SA)**
- HR - Hedgerow
  - D - Disturbed
  - Res - Residential

**Notes**

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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**6.17**

Title  
**ELC VEGETATION  
COMMUNITIES - W17**



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October 2011  
160960577



Legend	
	Study Area
	Zone of Investigation
	Constructable Area
<b>Wind Project Location</b>	
	Proposed Turbine Location
	Access Road
	Overhead Collector Line
	Underground Collector Line
<b>Solar Project Location</b>	
	Solar Lands
<b>Transmission Line</b>	
	Overhead Transmission Line
	Underground Transmission Line
	Electrical Transmission Component
<b>Existing Features</b>	
	Road
	Railway
	Abandoned Railway
	Transmission Line (MNR)
	Watercourse (MNR)
	Waterbody (MNR)
	Natural Feature
	Vegetation Community (ELC)
<b>AREA</b>	
	Potential Bobolink Habitat
<b>Grassland Point Count Station</b>	
	Bobolink Sited
	No Bobolink Sited

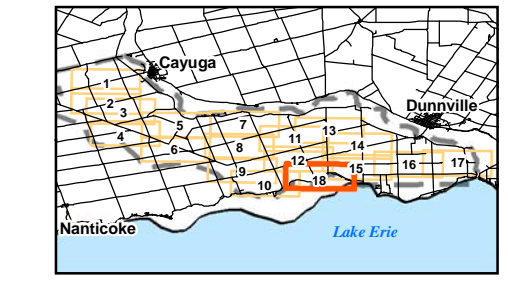
Forest Communities (FO)	
FOM 2-2	Dry-fresh White Pine - Sugar Maple Mixed Forest
FOD	Deciduous Forest
FOD1-1	Dry-fresh Red Oak Deciduous Forest
FOD2-1	Dry-fresh Oak - Red Maple Deciduous Forest
FOD2-2	Dry-fresh Oak - Hickory Deciduous Forest
FOD2-4	Dry-fresh Oak - Hardwood Deciduous Forest
FOD3-1	Dry-fresh Poplar Deciduous Forest
FOD4-1	Dry-fresh Beech Deciduous Forest
FOD4-2	Dry-fresh White Ash Deciduous Forest
FOD5	Dry-fresh Sugar Maple Deciduous Forest Ecosite
FOD5-1	Dry-fresh Sugar Maple Deciduous Forest
FOD5-2	Dry-fresh Sugar Maple - Beech Deciduous Forest
FOD5-3	Dry-fresh Sugar Maple - Oak Deciduous Forest
FOD5-8	Dry-fresh Sugar Maple - White Ash Deciduous Forest
FOD5-9	Dry-fresh Sugar Maple-Red Maple Deciduous Forest
FOD5-11	Dry-fresh Sugar Maple - Oak - Beech Deciduous Forest
FOD5-12	Dry-fresh Sugar Maple - Hickory - Beech Deciduous Forest
FOD6-1	Fresh-moist Sugar Maple - Lowland Ash Deciduous Forest
FOD6-5	Fresh-moist Sugar Maple - Hardwood Deciduous Forest
FOD6-6	Fresh-moist Sugar Maple - Hickory Deciduous Forest
FOD7-1	Fresh - moist White Elm Lowland Deciduous Forest
FOD7-2	Fresh-moist Ash Lowland Deciduous Forest
FOD7-4	Fresh-moist Black Walnut Lowland Deciduous Forest
FOD9-1	Fresh-moist Oak - Sugar Maple Deciduous Forest
FOD9-3	Fresh-moist Bur Oak Deciduous Forest
FOD9-4	Fresh-moist Shagbark Hickory Deciduous Forest
FOD9-6	Fresh-moist Red Oak - Shagbark Hickory Deciduous Forest

Cultural Communities (CU)	
CUP1-4	Hybrid Poplar Deciduous Plantation
CUP2	Mixed Plantation
CUP3-1	Red Pine Coniferous Plantation
CUP3-2	White Pine Coniferous Plantation
CUP3-12*	White Pine - White/Norway Spruce Coniferous Plantation
CUP3-13*	White Spruce Coniferous Plantation
CUM1	Mineral Cultural Meadow
CUS1-1	Hawthorn Cultural Savannah
CUT1	Mineral Cultural Thicket
CUT1-1	Sumac Cultural Thicket
CUT1-4	Gray Dogwood Cultural Thicket
CUT1-7	European Buckthorn - Sweet Cherry Cultural thicket
CUW1	Mineral Cultural Woodland
CUW1-1	Red Cedar Mineral Cultural Woodland
CUW1-3*	Ash - Sumac Mineral Cultural Woodland
CUW1-4*	Green Ash Mineral Cultural Woodland
CUW1-5*	Norway Maple Mineral Cultural Woodland
CUW1-6*	White Elm Cultural Woodland
CUW1-7	Red maple Mineral Cultural Woodland
CUW1-11*	White Pine Cultural Woodland

Swamp Communities (SW)	
SWD	Deciduous Swamp
SWD1-1	Swamp Oak Mineral Deciduous Swamp
SWD1-2	Bur Oak Mineral Deciduous Swamp
SWD2-2	Green Ash Mineral Deciduous Swamp
SWD2-3*	Ash - Hardwood Mineral Deciduous Swamp
SWD2-4*	Green Ash - Red Maple Mineral Deciduous Swamp
SWD3-1	Red Maple Mineral Deciduous Swamp
SWD3-2	Silver Maple Mineral Deciduous Swamp
SWD3-3	Swamp Maple Mineral Deciduous Swamp

Marsh Communities (MA)	
MAM2	Mineral Meadow Marsh
MAM2-2	Reed Canary Grass Mineral Meadow Marsh
MAM2-9	Jewelweed Mineral Meadow Marsh
MAM2-10	Forb Mineral Meadow Marsh
MAM2-11*	Forb - Graminoid Mineral Meadow Marsh
MAS2-1	Cattail Mineral Shallow Marsh
MAS2-8	Rice Cut-grass Mineral Shallow Marsh

- Open Water (OA)**  
OA - Open Aquatic
- Shallow Water (SA)**  
SAM1-2 - Duckweed Mixed Shallow Aquatic
- HR - Hedgerow  
D - Disturbed  
Res - Residential



- Notes**
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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**6.18**

Title  
**ELC VEGETATION  
COMMUNITIES - W18**



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**Legend**

- Study Area
- Zone of Investigation
- Constructable Area
- Wind Project Location**
- Proposed Turbine Location
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Solar Project Location**
- Solar Lands
- Solar Panel Unit
- Transmission Line**
- Overhead Transmission Line
- Underground Transmission Line
- Electrical Transmission Component
- Existing Features**
- Road
- Railway
- Abandoned Railway
- Transmission Line (MNR)
- Watercourse (MNR)
- Waterbody (MNR)
- Natural Feature
- Vegetation Community (ELC)

- Forest Communities (FO)**
- FOM-2-2 - Dry-fresh White Pine - Sugar Maple Mixed Forest
  - FOD - Deciduous Forest
  - FOD1-1 - Dry-fresh Red Oak Deciduous Forest
  - FOD2-1 - Dry-fresh Oak - Red Maple Deciduous Forest
  - FOD2-2 - Dry-fresh Oak - Hickory Deciduous Forest
  - FOD2-4 - Dry-fresh Oak - Hardwood Deciduous Forest
  - FOD3-1 - Dry-fresh Poplar Deciduous Forest
  - FOD4-1 - Dry-fresh Beech Deciduous Forest
  - FOD4-2 - Dry-fresh White Ash Deciduous Forest
  - FOD5 - Dry-fresh Sugar Maple Deciduous Forest Ecosite
  - FOD5-1 - Dry-fresh Sugar Maple Deciduous Forest
  - FOD5-2 - Dry-fresh Sugar Maple - Beech Deciduous Forest
  - FOD5-3 - Dry-fresh Sugar Maple - Oak Deciduous Forest
  - FOD5-8 - Dry-fresh Sugar Maple - White Ash Deciduous Forest
  - FOD5-9 - Dry-fresh Sugar Maple-Red Maple Deciduous Forest
  - FOD5-11 - Dry-fresh Sugar Maple - Oak - Beech Deciduous Forest
  - FOD5-12 - Dry-fresh Sugar Maple - Hickory - Beech Deciduous Forest
  - FOD6-1 - Fresh-moist Sugar Maple - Lowland Ash Deciduous Forest
  - FOD6-5 - Fresh-moist Sugar Maple - Hardwood Deciduous Forest
  - FOD6-6 - Fresh-moist Sugar Maple - Hickory Deciduous Forest
  - FOD7-1 - Fresh - moist White Elm Lowland Deciduous Forest
  - FOD7-2 - Fresh-moist Ash Lowland Deciduous Forest
  - FOD7-4 - Fresh-moist Black Walnut Lowland Deciduous Forest
  - FOD9-1 - Fresh-moist Oak - Sugar Maple Deciduous Forest
  - FOD9-3 - Fresh-moist Bur Oak Deciduous Forest
  - FOD9-4 - Fresh-moist Shagbark Hickory Deciduous Forest
  - FOD9-6 - Fresh-moist Red Oak - Shagbark Hickory Deciduous Forest

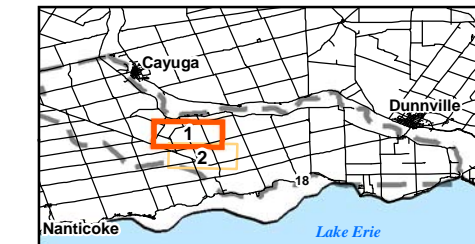
- Cultural Communities (CU)**
- FOM-2-2 - Dry-fresh White Pine - Sugar Maple Mixed Forest
  - FOD - Deciduous Forest
  - FOD1-1 - Dry-fresh Red Oak Deciduous Forest
  - FOD2-1 - Dry-fresh Oak - Red Maple Deciduous Forest
  - FOD2-2 - Dry-fresh Oak - Hickory Deciduous Forest
  - FOD2-4 - Dry-fresh Oak - Hardwood Deciduous Forest
  - FOD3-1 - Dry-fresh Poplar Deciduous Forest
  - FOD4-1 - Dry-fresh Beech Deciduous Forest
  - FOD4-2 - Dry-fresh White Ash Deciduous Forest
  - FOD5 - Dry-fresh Sugar Maple Deciduous Forest Ecosite
  - FOD5-1 - Dry-fresh Sugar Maple Deciduous Forest
  - FOD5-2 - Dry-fresh Sugar Maple - Beech Deciduous Forest
  - FOD5-3 - Dry-fresh Sugar Maple - Oak Deciduous Forest
  - FOD5-8 - Dry-fresh Sugar Maple - White Ash Deciduous Forest
  - FOD5-9 - Dry-fresh Sugar Maple-Red Maple Deciduous Forest
  - FOD5-11 - Dry-fresh Sugar Maple - Oak - Beech Deciduous Forest
  - FOD5-12 - Dry-fresh Sugar Maple - Hickory - Beech Deciduous Forest
  - FOD6-1 - Fresh-moist Sugar Maple - Lowland Ash Deciduous Forest
  - FOD6-5 - Fresh-moist Sugar Maple - Hardwood Deciduous Forest
  - FOD6-6 - Fresh-moist Sugar Maple - Hickory Deciduous Forest
  - FOD7-1 - Fresh - moist White Elm Lowland Deciduous Forest
  - FOD7-2 - Fresh-moist Ash Lowland Deciduous Forest
  - FOD7-4 - Fresh-moist Black Walnut Lowland Deciduous Forest
  - FOD9-1 - Fresh-moist Oak - Sugar Maple Deciduous Forest
  - FOD9-3 - Fresh-moist Bur Oak Deciduous Forest
  - FOD9-4 - Fresh-moist Shagbark Hickory Deciduous Forest
  - FOD9-6 - Fresh-moist Red Oak - Shagbark Hickory Deciduous Forest

- Swamp Communities (SW)**
- SWD - Deciduous Swamp
  - SWD1-1 - Swamp Oak Mineral Deciduous Swamp
  - SWD1-2 - Bur Oak Mineral Deciduous Swamp
  - SWD2-2 - Green Ash Mineral Deciduous Swamp
  - SWD2-3 - Ash - Hardwood Mineral Deciduous Swamp
  - SWD2-4 - Green Ash - Red Maple Mineral Deciduous Swamp
  - SWD3-1 - Red Maple Mineral Deciduous Swamp
  - SWD3-2 - Silver Maple Mineral Deciduous Swamp
  - SWD3-3 - Swamp Maple Mineral Deciduous Swamp

- Marsh Communities (MA)**
- MAM2 - Mineral Meadow Marsh
  - MAM2-2 - Reed Canary Grass Mineral Meadow Marsh
  - MAM2-9 - Jewelweed Mineral Meadow Marsh
  - MAM2-10 - Forb Mineral Meadow Marsh
  - MAM2-11 - Forb - Graminoid Mineral Meadow Marsh
  - MAM2-1 - Cattail Mineral Shallow Marsh
  - MAM2-8 - Rice Cut-grass Mineral Shallow Marsh
- Open Water (OA)**
- OA - Open Aquatic
- Shallow Water (SA)**
- SAM1-2 - Duckweed Mixed Shallow Aquatic
- Other Symbols:**
- HR - Hedgerow
  - D - Disturbed
  - Res - Residential

**Notes**

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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**7.1**

Title  
**ELC VEGETATION  
COMMUNITIES - S1**



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160960577



**Legend**

- Study Area
- Zone of Investigation
- Constructable Area
- Wind Project Location**
- Proposed Turbine Location
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Solar Project Location**
- Solar Lands
- Solar Panel Unit
- Transmission Line**
- Overhead Transmission Line
- Underground Transmission Line
- Electrical Transmission Component
- Existing Features**
- Road
- Railway
- Abandoned Railway
- Transmission Line (MNR)
- Watercourse (MNR)
- Waterbody (MNR)
- Natural Feature
- Vegetation Community (ELC)

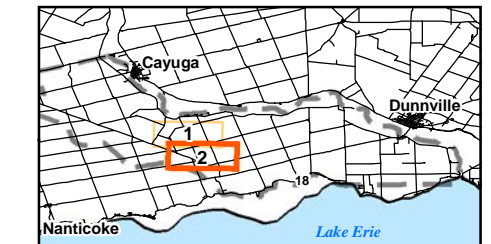
- Forest Communities (FO)**
- FOM 2-2 - Dry-fresh White Pine - Sugar Maple Mixed Forest
  - FOD - Deciduous Forest
  - FOD1-1 - Dry-fresh Red Oak Deciduous Forest
  - FOD2-1 - Dry-fresh Oak - Red Maple Deciduous Forest
  - FOD2-2 - Dry-fresh Oak - Hickory Deciduous Forest
  - FOD2-4 - Dry-fresh Oak - Hardwood Deciduous Forest
  - FOD3-1 - Dry-fresh Poplar Deciduous Forest
  - FOD4-1 - Dry-fresh Beech Deciduous Forest
  - FOD4-2 - Dry-fresh White Ash Deciduous Forest
  - FOD5 - Dry-fresh Sugar Maple Deciduous Forest Ecosite
  - FOD5-1 - Dry-fresh Sugar Maple Deciduous Forest
  - FOD5-2 - Dry-fresh Sugar Maple - Beech Deciduous Forest
  - FOD5-3 - Dry-fresh Sugar Maple - Oak Deciduous Forest
  - FOD5-8 - Dry-fresh Sugar Maple - White Ash Deciduous Forest
  - FOD5-9 - Dry-fresh Sugar Maple-Red Maple Deciduous Forest
  - FOD5-11 - Dry-fresh Sugar Maple - Oak - Beech Deciduous Forest
  - FOD5-12 - Dry-fresh Sugar Maple - Hickory - Beech Deciduous Forest
  - FOD6-1 - Fresh-moist Sugar Maple - Lowland Ash Deciduous Forest
  - FOD6-5 - Fresh-moist Sugar Maple - Hardwood Deciduous Forest
  - FOD6-6 - Fresh-moist Sugar Maple - Hickory Deciduous Forest
  - FOD7-1 - Fresh - moist White Elm Lowland Deciduous Forest
  - FOD7-2 - Fresh-moist Ash Lowland Deciduous Forest
  - FOD7-4 - Fresh-moist Black Walnut Lowland Deciduous Forest
  - FOD9-1 - Fresh-moist Oak - Sugar Maple Deciduous Forest
  - FOD9-3 - Fresh-moist Bur Oak Deciduous Forest
  - FOD9-4 - Fresh-moist Shagbark Hickory Deciduous Forest
  - FOD9-6 - Fresh-moist Red Oak - Shagbark Hickory Deciduous Forest

- Cultural Communities (CU)**
- CUP1-4 - Hybrid Poplar Deciduous Plantation
  - CUP2 - Mixed Plantation
  - CUP3-1 - Red Pine Coniferous Plantation
  - CUP3-2 - White Pine Coniferous Plantation
  - CUP3-12 - White Pine - White/Norway Spruce Coniferous Plantation
  - CUP3-13 - White Spruce Coniferous Plantation
  - CUM1 - Mineral Cultural Meadow
  - CUS1-1 - Hawthorn Cultural Savannah
  - CUT1 - Mineral Cultural Thicket
  - CUT1-1 - Sumac Cultural Thicket
  - CUT1-4 - Gray Dogwood Cultural Thicket
  - CUT1-7 - European Buckthorn - Sweet Cherry Cultural thicket
  - CUM1 - Mineral Cultural Woodland
  - CUW1-1 - Red Cedar Mineral Cultural Woodland
  - CUW1-3 - Ash - Sumac Mineral Cultural Woodland
  - CUW1-4 - Green Ash Mineral Cultural Woodland
  - CUW1-5 - Norway Maple Mineral Cultural Woodland
  - CUW1-6 - White Elm Cultural Woodland
  - CUW1-7 - Red maple Mineral Cultural Woodland
  - CUW1-11 - White Pine Cultural Woodland
- Swamp Communities (SW)**
- SWD - Deciduous Swamp
  - SWD1-1 - Swamp Oak Mineral Deciduous Swamp
  - SWD1-2 - Bur Oak Mineral Deciduous Swamp
  - SWD2-2 - Green Ash Mineral Deciduous Swamp
  - SWD2-3 - Ash - Hardwood Mineral Deciduous Swamp
  - SWD2-4 - Green Ash - Red Maple Mineral Deciduous Swamp
  - SWD3-1 - Red Maple Mineral Deciduous Swamp
  - SWD3-2 - Silver Maple Mineral Deciduous Swamp
  - SWD3-3 - Swamp Maple Mineral Deciduous Swamp

- Swamp Communities (MA)**
- MAM2 - Mineral Meadow Marsh
  - MAM2-2 - Reed Canary Grass Mineral Meadow Marsh
  - MAM2-9 - Jewelweed Mineral Meadow Marsh
  - MAM2-10 - Forb Mineral Meadow Marsh
  - MAM2-11 - Forb - Graminoid Mineral Meadow Marsh
  - MAS2-1 - Cattail Mineral Shallow Marsh
  - MAS2-8 - Rice Cut-grass Mineral Shallow Marsh
- Open Water (OA)**
- OA - Open Aquatic
  - OA - Open Aquatic
- Shallow Water (SA)**
- SAM1-2 - Duckweed Mixed Shallow Aquatic
- HR - Hedgerow**  
**D - Disturbed**  
**Res - Residential**

**Notes**

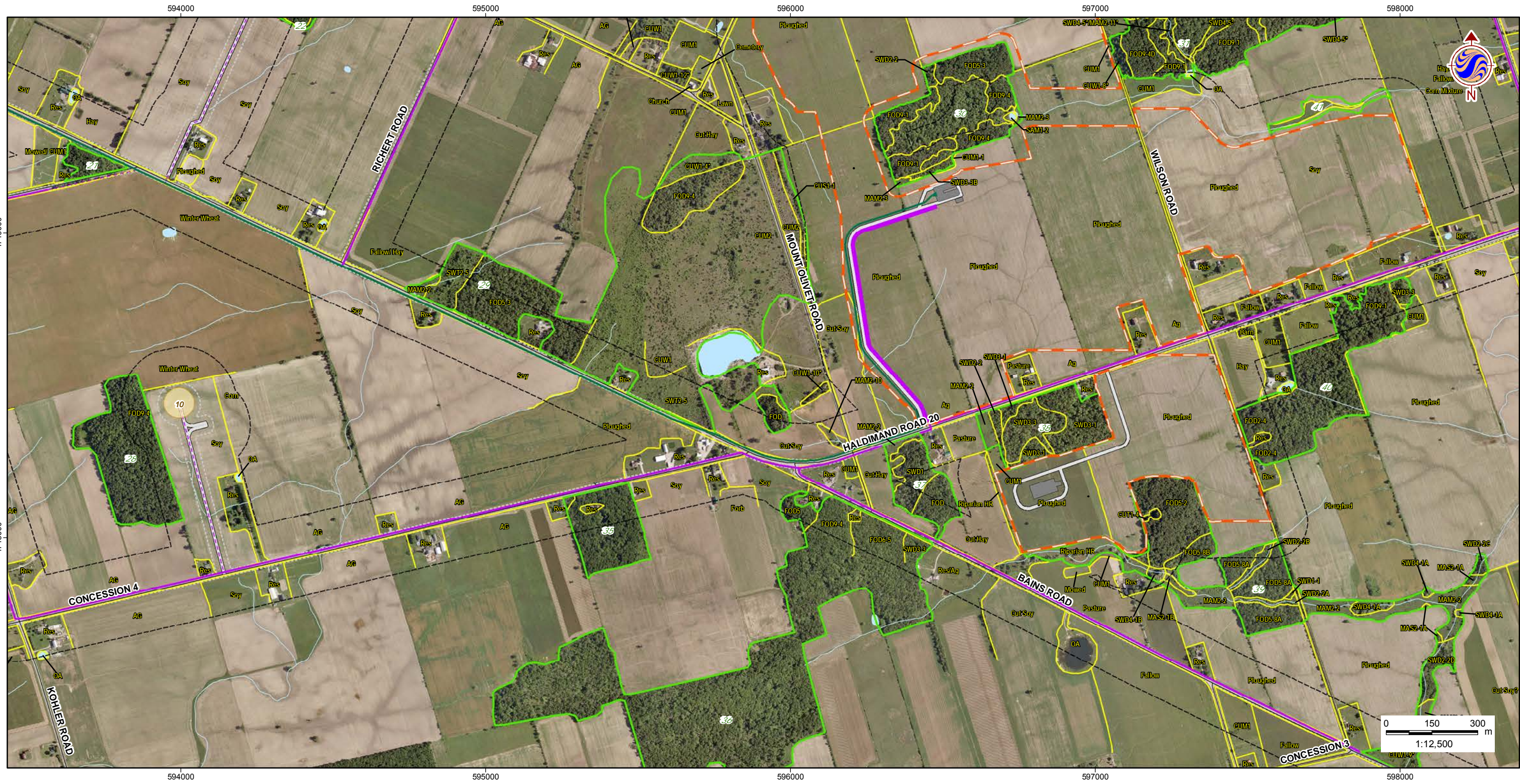
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Client/Project  
**SAMSUNG, PATTERN & KEPKO (SPK)**  
**GRAND RENEWABLE ENERGY PARK**

Figure No.  
**7.2**

**ELC VEGETATION COMMUNITIES - S2**



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**Legend**

- Study Area
  - Zone of Investigation
  - Constructable Area
  - Wind Project Location**
  - Proposed Turbine Location
  - Access Road
  - Overhead Collector Line
  - Underground Collector Line
  - Solar Project Location**
  - Solar Lands
  - Transmission Line**
  - Overhead Transmission Line
  - Underground Transmission Line
  - Electrical Transmission Component
- Existing Features**
  - Road
  - Railway
  - Abandoned Railway
  - Transmission Line (MNR)
  - Watercourse (MNR)
  - Waterbody (MNR)
  - Natural Feature
  - Vegetation Community (ELC)

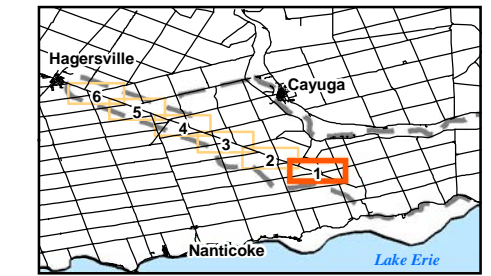
- Forest Communities (FO)**
- FOM 2-2 - Dry-fresh White Pine - Sugar Maple Mixed Forest
  - FOD - Deciduous Forest
  - FOD1-1 - Dry-fresh Red Oak Deciduous Forest
  - FOD2-1 - Dry-fresh Oak - Red Maple Deciduous Forest
  - FOD2-2 - Dry-fresh Oak - Hickory Deciduous Forest
  - FOD2-4 - Dry-fresh Oak - Hardwood Deciduous Forest
  - FOD3-1 - Dry-fresh Poplar Deciduous Forest
  - FOD4-1 - Dry-fresh Beech Deciduous Forest
  - FOD4-2 - Dry-fresh White Ash Deciduous Forest
  - FOD5 - Dry-fresh Sugar Maple Deciduous Forest Ecosite
  - FOD5-1 - Dry-fresh Sugar Maple Deciduous Forest
  - FOD5-2 - Dry-fresh Sugar Maple - Beech Deciduous Forest
  - FOD5-3 - Dry-fresh Sugar Maple - Oak Deciduous Forest
  - FOD5-8 - Dry-fresh Sugar Maple - White Ash Deciduous Forest
  - FOD5-9 - Dry-fresh Sugar Maple-Red Maple Deciduous Forest
  - FOD5-11 - Dry-fresh Sugar Maple - Oak - Beech Deciduous Forest
  - FOD5-12 - Dry-fresh Sugar Maple - Hickory - Beech Deciduous Forest
  - FOD6-1 - Fresh-moist Sugar Maple - Lowland Ash Deciduous Forest
  - FOD6-5 - Fresh-moist Sugar Maple - Hardwood Deciduous Forest
  - FOD6-6 - Fresh-moist Sugar Maple - Hickory Deciduous Forest
  - FOD7-1 - Fresh - moist White Elm Lowland Deciduous Forest
  - FOD7-2 - Fresh-moist Ash Lowland Deciduous Forest
  - FOD7-4 - Fresh-moist Black Walnut Lowland Deciduous Forest
  - FOD9-1 - Fresh-moist Oak - Sugar Maple Deciduous Forest
  - FOD9-3 - Fresh-moist Bur Oak Deciduous Forest
  - FOD9-4 - Fresh-moist Shagbark Hickory Deciduous Forest
  - FOD9-6 - Fresh-moist Red Oak - Shagbark Hickory Deciduous Forest

- Cultural Communities (CU)**
- CUP1-4 - Hybrid Poplar Deciduous Plantation
  - CUP2 - Mixed Plantation
  - CUP3-1 - Red Pine Coniferous Plantation
  - CUP3-2 - White Pine Coniferous Plantation
  - CUP3-12 - White Pine - White/Norway Spruce Coniferous Plantation
  - CUP3-13 - White Spruce Coniferous Plantation
  - CUM1 - Mineral Cultural Meadow
  - CUS1-1 - Hawthorn Cultural Savannah
  - CUT1 - Mineral Cultural Thicket
  - CUT1-1 - Sumac Cultural Thicket
  - CUT1-4 - Gray Dogwood Cultural Thicket
  - CUT1-7 - European Buckthorn - Sweet Cherry Cultural thicket
  - CUM1 - Mineral Cultural Woodland
  - CUM1-1 - Red Cedar Mineral Cultural Woodland
  - CUM1-3 - Ash - Sumac Mineral Cultural Woodland
  - CUM1-4 - Green Ash Mineral Cultural Woodland
  - CUM1-5 - Norway Maple Mineral Cultural Woodland
  - CUM1-6 - White Elm Cultural Woodland
  - CUM1-7 - Red maple Mineral Cultural Woodland
  - CUM1-11 - White Pine Cultural Woodland
- Swamp Communities (SW)**
- SWD - Deciduous Swamp
  - SWD1-1 - Swamp Oak Mineral Deciduous Swamp
  - SWD1-2 - Bur Oak Mineral Deciduous Swamp
  - SWD2-2 - Green Ash Mineral Deciduous Swamp
  - SWD2-3 - Ash - Hardwood Mineral Deciduous Swamp
  - SWD2-4 - Green Ash - Red Maple Mineral Deciduous Swamp
  - SWD3-1 - Red Maple Mineral Deciduous Swamp
  - SWD3-2 - Silver Maple Mineral Deciduous Swamp
  - SWD3-3 - Swamp Maple Mineral Deciduous Swamp

- Marsh Communities (MA)**
- MAM2 - Mineral Meadow Marsh
  - MAM2-2 - Reed Canary Grass Mineral Meadow Marsh
  - MAM2-9 - Jewelweed Mineral Meadow Marsh
  - MAM2-10 - Forb Mineral Meadow Marsh
  - MAM2-11 - Forb - Graminoid Mineral Meadow Marsh
  - MAS2-1 - Cattail Mineral Shallow Marsh
  - MAS2-8 - Rice Cut-grass Mineral Shallow Marsh
- Open Water (OA)**
- OA - Open Aquatic
- Shallow Water (SA)**
- SAM1-2 - Duckweed Mixed Shallow Aquatic
- Other Symbols:**
- HR - Hedgerow
  - D - Disturbed
  - Res - Residential

**Notes**

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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**8.1**

**ELC VEGETATION  
COMMUNITIES - T1**

October 2011  
160960577



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**Legend**

- |  |                                   |  |                            |
|--|-----------------------------------|--|----------------------------|
|  | Study Area                        |  | Road                       |
|  | Zone of Investigation             |  | Railway                    |
|  | Constructable Area                |  | Abandoned Railway          |
|  | Wind Project Location             |  | Transmission Line (MNR)    |
|  | Proposed Turbine Location         |  | Watercourse (MNR)          |
|  | Access Road                       |  | Waterbody (MNR)            |
|  | Overhead Collector Line           |  | Natural Feature            |
|  | Underground Collector Line        |  | Vegetation Community (ELC) |
|  | Solar Land                        |  |                            |
|  | Transmission Line                 |  |                            |
|  | Overhead Transmission Line        |  |                            |
|  | Underground Transmission Line     |  |                            |
|  | Electrical Transmission Component |  |                            |

- Forest Communities (FO)**
- FOM 2-2 - Dry-fresh White Pine - Sugar Maple Mixed Forest
  - FOD - Deciduous Forest
  - FOD1-1 - Dry-fresh Red Oak Deciduous Forest
  - FOD2-1 - Dry-fresh Oak - Red Maple Deciduous Forest
  - FOD2-2 - Dry-fresh Oak - Hickory Deciduous Forest
  - FOD2-4 - Dry-fresh Oak - Hardwood Deciduous Forest
  - FOD3-1 - Dry-fresh Poplar Deciduous Forest
  - FOD4-1 - Dry-fresh Beech Deciduous Forest
  - FOD4-2 - Dry-fresh White Ash Deciduous Forest
  - FOD5 - Dry-fresh Sugar Maple Deciduous Forest Ecosite
  - FOD5-1 - Dry-fresh Sugar Maple Deciduous Forest
  - FOD5-2 - Dry-fresh Sugar Maple - Beech Deciduous Forest
  - FOD5-3 - Dry-fresh Sugar Maple - Oak Deciduous Forest
  - FOD5-8 - Dry-fresh Sugar Maple - White Ash Deciduous Forest
  - FOD5-9 - Dry-fresh Sugar Maple-Red Maple Deciduous Forest
  - FOD5-11 - Dry-fresh Sugar Maple - Oak - Beech Deciduous Forest
  - FOD5-12 - Dry-fresh Sugar Maple - Hickory - Beech Deciduous Forest
  - FOD6-1 - Fresh-moist Sugar Maple - Lowland Ash Deciduous Forest
  - FOD6-5 - Fresh-moist Sugar Maple - Hardwood Deciduous Forest
  - FOD6-6 - Fresh-moist Sugar Maple - Hickory Deciduous Forest
  - FOD7-1 - Fresh - moist White Elm Lowland Deciduous Forest
  - FOD7-2 - Fresh-moist Ash Lowland Deciduous Forest
  - FOD7-4 - Fresh-moist Black Walnut Lowland Deciduous Forest
  - FOD9-1 - Fresh-moist Oak - Sugar Maple Deciduous Forest
  - FOD9-3 - Fresh-moist Bur Oak Deciduous Forest
  - FOD9-4 - Fresh-moist Shagbark Hickory Deciduous Forest
  - FOD9-6 - Fresh-moist Red Oak - Shagbark Hickory Deciduous Forest

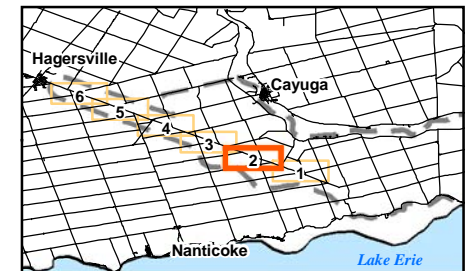
- Cultural Communities (CU)**
- CUP1-4 - Hybrid Poplar Deciduous Plantation
  - CUP2 - Mixed Plantation
  - CUP3-1 - Red Pine Coniferous Plantation
  - CUP3-2 - White Pine Coniferous Plantation
  - CUP3-12 - White Pine - White/Norway Spruce Coniferous Plantation
  - CUP3-13 - White Spruce Coniferous Plantation
  - CUM1 - Mineral Cultural Meadow
  - CUS1-1 - Hawthorn Cultural Savannah
  - CUT1 - Mineral Cultural Thicket
  - CUT1-1 - Sumac Cultural Thicket
  - CUT1-4 - Gray Dogwood Cultural Thicket
  - CUT1-7 - European Buckthorn - Sweet Cherry Cultural thicket
  - CUM1 - Mineral Cultural Woodland
  - CUM1-1 - Red Cedar Mineral Cultural Woodland
  - CUM1-3 - Ash - Sumac Mineral Cultural Woodland
  - CUM1-4 - Green Ash Mineral Cultural Woodland
  - CUM1-5 - Norway Maple Mineral Cultural Woodland
  - CUM1-6 - White Elm Cultural Woodland
  - CUM1-7 - Red maple Mineral Cultural Woodland
  - CUM1-11 - White Pine Cultural Woodland

- Swamp Communities (SW)**
- SWD - Deciduous Swamp
  - SWD1-1 - Swamp Oak Mineral Deciduous Swamp
  - SWD1-2 - Bur Oak Mineral Deciduous Swamp
  - SWD2-2 - Green Ash Mineral Deciduous Swamp
  - SWD2-3 - Ash - Hardwood Mineral Deciduous Swamp
  - SWD2-4 - Green Ash - Red Maple Mineral Deciduous Swamp
  - SWD3-1 - Red Maple Mineral Deciduous Swamp
  - SWD3-2 - Silver Maple Mineral Deciduous Swamp
  - SWD3-3 - Swamp Maple Mineral Deciduous Swamp

- Marsh Communities (MA)**
- MAM2 - Mineral Meadow Marsh
  - MAM2-2 - Reed Canary Grass Mineral Meadow Marsh
  - MAM2-9 - Jewelweed Mineral Meadow Marsh
  - MAM2-10 - Forb Mineral Meadow Marsh
  - MAM2-11 - Forb - Graminoid Mineral Meadow Marsh
  - MAS2-1 - Cattail Mineral Shallow Marsh
  - MAS2-8 - Rice Cut-grass Mineral Shallow Marsh
- Open Water (OA)**
- OA - Open Aquatic
- Shallow Water (SA)**
- SAM1-2 - Duckweed Mixed Shallow Aquatic
- Other Symbols:**
- HR - Hedgerow
  - D - Disturbed
  - Res - Residential

**Notes**

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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**8.2**

Title  
**ELC VEGETATION  
COMMUNITIES - T2**

October 2011  
160960577

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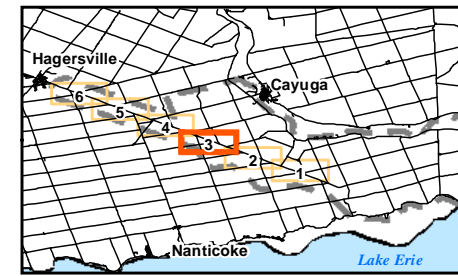
Legend	
	Study Area
	Zone of Investigation
	Constructable Area
Wind Project Location	
	Proposed Turbine Location
	Access Road
	Overhead Collector Line
	Underground Collector Line
Solar Project Location	
	Solar Lands
Transmission Line	
	Overhead Transmission Line
	Underground Transmission Line
	Electrical Transmission Component
Existing Features	
	Road
	Railway
	Abandoned Railway
	Transmission Line (MNR)
	Watercourse (MNR)
	Waterbody (MNR)
	Natural Feature
	Vegetation Community (ELC)

Forest Communities (FO)	
FOM 2-2	Dry-fresh White Pine - Sugar Maple Mixed Forest
FOD	Deciduous Forest
FOD1-1	Dry-fresh Red Oak Deciduous Forest
FOD2-1	Dry-fresh Oak - Red Maple Deciduous Forest
FOD2-2	Dry-fresh Oak - Hickory Deciduous Forest
FOD2-4	Dry-fresh Oak - Hardwood Deciduous Forest
FOD 3-1	Dry-fresh Poplar Deciduous Forest
FOD4-1	Dry-fresh Beech Deciduous Forest
FOD4-2	Dry-fresh White Ash Deciduous Forest
FOD5	Dry-fresh Sugar Maple Deciduous Forest Ecotone
FOD5-1	Dry-fresh Sugar Maple Deciduous Forest
FOD5-2	Dry-fresh Sugar Maple - Beech Deciduous Forest
FOD5-3	Dry-fresh Sugar Maple - Oak Deciduous Forest
FOD5-8	Dry-fresh Sugar Maple - White Ash Deciduous Forest
FOD5-9	Dry-fresh Sugar Maple-Red Maple Deciduous Forest
FOD5-11*	Dry-fresh Sugar Maple - Oak - Beech Deciduous Forest
FOD5-12*	Dry-fresh Sugar Maple - Hickory - Beech Deciduous Forest
FOD6-1	Fresh-moist Sugar Maple - Lowland Ash Deciduous Forest
FOD6-5	Fresh-moist Sugar Maple - Hardwood Deciduous Forest
FOD6-6	Fresh-moist Sugar Maple - Hickory Deciduous Forest
FOD7-1	Fresh - moist White Elm Lowland Deciduous Forest
FOD7-2	Fresh-moist Ash Lowland Deciduous Forest
FOD7-4	Fresh-moist Black Walnut Lowland Deciduous Forest
FOD9-1	Fresh-moist Oak - Sugar Maple Deciduous Forest
FOD9-3	Fresh-moist Bur Oak Deciduous Forest
FOD9-4	Fresh-moist Shagbark Hickory Deciduous Forest
FOD9-6*	Fresh-moist Red Oak - Shagbark Hickory Deciduous Forest

Cultural Communities (CU)	
CUP1-4	Hybrid Poplar Deciduous Plantation
CUP2	Mixed Plantation
CUP3-1	Red Pine Coniferous Plantation
CUP3-2	White Pine Coniferous Plantation
CUP3-12*	White Pine - White/Norway Spruce Coniferous Plantation
CUP3-13*	White Spruce Coniferous Plantation
CUM1	Mineral Cultural Meadow
CUS1-1	Hawthorn Cultural Savannah
CUT1	Mineral Cultural Thicket
CUT1-1	Sumac Cultural Thicket
CUT1-4	Gray Dogwood Cultural Thicket
CUT1-7	European Buckthorn - Sweet Cherry Cultural thicket
CUW1	Mineral Cultural Woodland
CUW1-1	Red Cedar Mineral Cultural Woodland
CUW1-3*	Ash - Sumac Mineral Cultural Woodland
CUW1-4*	Green Ash Mineral Cultural Woodland
CUW1-5*	Norway Maple Mineral Cultural Woodland
CUW1-6*	White Elm Cultural Woodland
CUW1-7*	Red maple Mineral Cultural Woodland
CUW1-11*	White Pine Cultural Woodland
Swamp Communities (SW)	
SWD	Deciduous Swamp
SWD1-1	Swamp Oak Mineral Deciduous Swamp
SWD1-2	Bur Oak Mineral Deciduous Swamp
SWD2-2	Green Ash Mineral Deciduous Swamp
SWD2-3*	Ash - Hardwood Mineral Deciduous Swamp
SWD2-4*	Green Ash - Red Maple Mineral Deciduous Swamp
SWD3-1	Red Maple Mineral Deciduous Swamp
SWD3-2	Silver Maple Mineral Deciduous Swamp
SWD3-3	Swamp Maple Mineral Deciduous Swamp

SWD4-1	Willow Mineral Deciduous Swamp
SWD4-2	White Elm Mineral Deciduous Swamp
SWD4-6*	Green Ash - Swamp Maple Mineral Deciduous Swamp
SWT	Thicket Swamp
SWT2	Mineral Thicket Swamp
SWT2-4	Buttonbush Mineral Thicket Swamp
SWT2-5	Red Osier Dogwood Mineral Thicket Swamp
SWT2-8	Silky Dogwood Mineral Thicket Swamp
SWT2-9	Gray Dogwood Mineral Thicket Swamp
SWT2-13*	Willow - Dogwood Mineral Thicket Swamp
SWT2-14*	Winterberry - Buttonbush Mineral Thicket Swamp
SWT2-15*	Red Maple Mineral Thicket Swamp
SWT3-7	Winterberry Organic Thicket Swamp
Marsh Communities (MA)	
MAM2	Mineral Meadow Marsh
MAM2-2	Reed Canary Grass Mineral Meadow Marsh
MAM2-9	Jewelweed Mineral Meadow Marsh
MAM2-10	Forb Mineral Meadow Marsh
MAM2-11*	Forb - Graminoid Mineral Meadow Marsh
MAS2-1	Cattail Mineral Shallow Marsh
MAS2-8	Rice Cut-grass Mineral Shallow Marsh
Open Water (OA)	
OA	Open Aquatic
Shallow Water (SA)	
SAM1-2	Duckweed Mixed Shallow Aquatic
HR	Hedgerow
D	Disturbed
Res	Residential

- Notes**
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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)**  
**GRAND RENEWABLE ENERGY PARK**

Figure No.  
**8.3**

Title  
**ELC VEGETATION COMMUNITIES - T3**



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Legend	
	Study Area
	Zone of Investigation
	Constructable Area
	Proposed Turbine Location
	Access Road
	Overhead Collector Line
	Underground Collector Line
	Solar Land
	Transmission Line
	Overhead Transmission Line
	Underground Transmission Line
	Electrical Transmission Component
	Road
	Railway
	Abandoned Railway
	Transmission Line (MNR)
	Watercourse (MNR)
	Waterbody (MNR)
	Natural Feature
	Vegetation Community (ELC)

Forest Communities (FO)	
FOM 2-2	Dry-fresh White Pine - Sugar Maple Mixed Forest
FOD	Deciduous Forest
FOD1-1	Dry-fresh Red Oak Deciduous Forest
FOD2-1	Dry-fresh Oak - Red Maple Deciduous Forest
FOD2-2	Dry-fresh Oak - Hickory Deciduous Forest
FOD2-4	Dry-fresh Oak - Hardwood Deciduous Forest
FOD 3-1	Dry-fresh Poplar Deciduous Forest
FOD4-1	Dry-fresh Beech Deciduous Forest
FOD4-2	Dry-fresh White Ash Deciduous Forest
FOD5	Dry-fresh Sugar Maple Deciduous Forest Ecotone
FOD5-1	Dry-fresh Sugar Maple Deciduous Forest
FOD5-2	Dry-fresh Sugar Maple - Beech Deciduous Forest
FOD5-3	Dry-fresh Sugar Maple - Oak Deciduous Forest
FOD5-8	Dry-fresh Sugar Maple - White Ash Deciduous Forest
FOD5-9	Dry-fresh Sugar Maple-Red Maple Deciduous Forest
FOD5-11*	Dry-fresh Sugar Maple - Oak - Beech Deciduous Forest
FOD5-12*	Dry-fresh Sugar Maple - Hickory - Beech Deciduous Forest
FOD6-1	Fresh-moist Sugar Maple - Lowland Ash Deciduous Forest
FOD6-5	Fresh-moist Sugar Maple - Hardwood Deciduous Forest
FOD6-6*	Fresh-moist Sugar Maple - Hickory Deciduous Forest
FOD7-1	Fresh - moist White Elm Lowland Deciduous Forest
FOD7-2	Fresh-moist Ash Lowland Deciduous Forest
FOD7-4	Fresh-moist Black Walnut Lowland Deciduous Forest
FOD9-1	Fresh-moist Oak - Sugar Maple Deciduous Forest
FOD9-3	Fresh-moist Bur Oak Deciduous Forest
FOD9-4	Fresh-moist Shagbark Hickory Deciduous Forest
FOD9-6*	Fresh-moist Red Oak - Shagbark Hickory Deciduous Forest

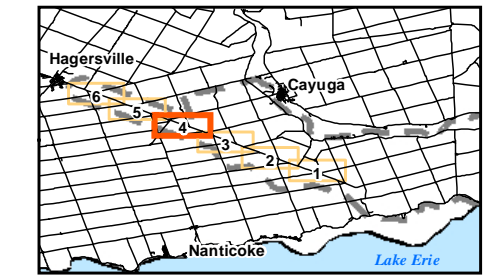
Cultural Communities (CU)	
CUP1-4	Hybrid Poplar Deciduous Plantation
CUP2	Mixed Plantation
CUP3-1	Red Pine Coniferous Plantation
CUP3-2	White Pine Coniferous Plantation
CUP3-12*	White Pine - White/Norway Spruce Coniferous Plantation
CUP3-13*	White Spruce Coniferous Plantation
CUM1	Mineral Cultural Meadow
CUS1-1	Hawthorn Cultural Savannah
CUT1	Mineral Cultural Thicket
CUT1-1	Sumac Cultural Thicket
CUT1-4	Gray Dogwood Cultural Thicket
CUT1-7	European Buckthorn - Sweet Cherry Cultural thicket
CUM1	Mineral Cultural Woodland
CUM1-1	Red Cedar Mineral Cultural Woodland
CUM1-3*	Ash - Sumac Mineral Cultural Woodland
CUM1-4*	Green Ash Mineral Cultural Woodland
CUM1-5*	Norway Maple Mineral Cultural Woodland
CUM1-6*	White Elm Cultural Woodland
CUM1-7*	Red maple Mineral Cultural Woodland
CUM1-11*	White Pine Cultural Woodland

Swamp Communities (SW)	
SWD	Deciduous Swamp
SWD1-1	Swamp Oak Mineral Deciduous Swamp
SWD1-2	Bur Oak Mineral Deciduous Swamp
SWD2-2	Green Ash Mineral Deciduous Swamp
SWD2-3*	Ash - Hardwood Mineral Deciduous Swamp
SWD2-4*	Green Ash - Red Maple Mineral Deciduous Swamp
SWD3-1	Red Maple Mineral Deciduous Swamp
SWD3-2	Silver Maple Mineral Deciduous Swamp
SWD3-3	Swamp Maple Mineral Deciduous Swamp
SWD4-1	Willow Mineral Deciduous Swamp
SWD4-2	White Elm Mineral Deciduous Swamp
SWD4-6*	Green Ash - Swamp Maple Mineral Deciduous Swamp
SWT	Thicket Swamp
SWT2	Mineral Thicket Swamp
SWT2-4	Buttonbush Mineral Thicket Swamp
SWT2-5	Red Osier Dogwood Mineral Thicket Swamp
SWT2-8	Silky Dogwood Mineral Thicket Swamp
SWT2-9	Gray Dogwood Mineral Thicket Swamp
SWT2-13*	Willow - Dogwood Mineral Thicket Swamp
SWT2-14*	Winterberry - Buttonbush Mineral Thicket Swamp
SWT2-15*	Red Maple Mineral Thicket Swamp
SWT3-2	Winterberry Organic Thicket Swamp

Marsh Communities (MA)	
MAM2	Mineral Meadow Marsh
MAM2-2	Reed Canary Grass Mineral Meadow Marsh
MAM2-9	Jewelweed Mineral Meadow Marsh
MAM2-10	Forb Mineral Meadow Marsh
MAM2-11*	Forb - Graminoid Mineral Meadow Marsh
MAS2-1	Cattail Mineral Shallow Marsh
MAS2-8	Rice Cut-grass Mineral Shallow Marsh
OA	Open Aquatic
SA	Shallow Aquatic
SAM1-2	Duckweed Mixed Shallow Aquatic

**Notes**

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**GRAND RENEWABLE ENERGY PARK**

Figure No.  
**8.4**

Title  
**ELC VEGETATION COMMUNITIES - T4**

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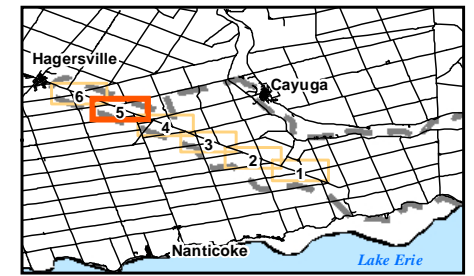
Legend	
	Study Area
	Zone of Investigation
	Constructable Area
Wind Project Location	
	Proposed Turbine Location
	Access Road
	Overhead Collector Line
	Underground Collector Line
Solar Project Location	
	Solar Lands
Transmission Line	
	Overhead Transmission Line
	Underground Transmission Line
	Electrical Transmission Component
Existing Features	
	Road
	Railway
	Abandoned Railway
	Transmission Line (MNR)
	Watercourse (MNR)
	Waterbody (MNR)
	Natural Feature
	Vegetation Community (ELC)

Forest Communities (FO)	
FOM 2-2	Dry-fresh White Pine - Sugar Maple Mixed Forest
FOD	Deciduous Forest
FOD1-1	Dry-fresh Red Oak Deciduous Forest
FOD2-1	Dry-fresh Oak - Red Maple Deciduous Forest
FOD2-2	Dry-fresh Oak - Hickory Deciduous Forest
FOD2-4	Dry-fresh Oak - Hardwood Deciduous Forest
FOD 3-1	Dry-fresh Poplar Deciduous Forest
FOD4-1	Dry-fresh Beech Deciduous Forest
FOD4-2	Dry-fresh White Ash Deciduous Forest
FOD5	Dry-fresh Sugar Maple Deciduous Forest Ecotype
FOD5-1	Dry-fresh Sugar Maple Deciduous Forest
FOD5-2	Dry-fresh Sugar Maple - Beech Deciduous Forest
FOD5-3	Dry-fresh Sugar Maple - Oak Deciduous Forest
FOD5-8	Dry-fresh Sugar Maple - White Ash Deciduous Forest
FOD5-9	Dry-fresh Sugar Maple-Red Maple Deciduous Forest
FOD5-11*	Dry-fresh Sugar Maple - Oak - Beech Deciduous Forest
FOD5-12*	Dry-fresh Sugar Maple - Hickory - Beech Deciduous Forest
FOD6-1	Fresh-moist Sugar Maple - Lowland Ash Deciduous Forest
FOD6-5	Fresh-moist Sugar Maple - Hardwood Deciduous Forest
FOD6-6*	Fresh-moist Sugar Maple - Hickory Deciduous Forest
FOD7-1	Fresh - moist White Elm Lowland Deciduous Forest
FOD7-2	Fresh-moist Ash Lowland Deciduous Forest
FOD7-4	Fresh-moist Black Walnut Lowland Deciduous Forest
FOD9-1	Fresh-moist Oak - Sugar Maple Deciduous Forest
FOD9-3	Fresh-moist Bur Oak Deciduous Forest
FOD9-4	Fresh-moist Shagbark Hickory Deciduous Forest
FOD9-6*	Fresh-moist Red Oak - Shagbark Hickory Deciduous Forest

Cultural Communities (CU)	
CUP1-4	Hybrid Poplar Deciduous Plantation
CUP2	Mixed Plantation
CUP3-1	Red Pine Coniferous Plantation
CUP3-2	White Pine Coniferous Plantation
CUP3-12*	White Pine - White/Norway Spruce Coniferous Plantation
CUP3-13*	White Spruce Coniferous Plantation
CUM1	Mineral Cultural Meadow
CUS1-1	Hawthorn Cultural Savannah
CUT1	Mineral Cultural Thicket
CUT1-1	Sumac Cultural Thicket
CUT1-4	Gray Dogwood Cultural Thicket
CUT1-7	European Buckthorn - Sweet Cherry Cultural thicket
CUW1	Mineral Cultural Woodland
CUW1-1	Red Cedar Mineral Cultural Woodland
CUW1-3*	Ash - Sumac Mineral Cultural Woodland
CUW1-4*	Green Ash Mineral Cultural Woodland
CUW1-5*	Norway Maple Mineral Cultural Woodland
CUW1-6*	White Elm Cultural Woodland
CUW1-7*	Red maple Mineral Cultural Woodland
CUW1-11*	White Pine Cultural Woodland
Swamp Communities (SW)	
SWD	Deciduous Swamp
SWD1-1	Swamp Oak Mineral Deciduous Swamp
SWD1-2	Bur Oak Mineral Deciduous Swamp
SWD2-2	Green Ash Mineral Deciduous Swamp
SWD2-3*	Ash - Hardwood Mineral Deciduous Swamp
SWD2-4*	Green Ash - Red Maple Mineral Deciduous Swamp
SWD3-1	Red Maple Mineral Deciduous Swamp
SWD3-2	Silver Maple Mineral Deciduous Swamp
SWD3-3	Swamp Maple Mineral Deciduous Swamp

SWD4-1	Willow Mineral Deciduous Swamp
SWD4-2	White Elm Mineral Deciduous Swamp
SWD4-6*	Green Ash - Swamp Maple Mineral Deciduous Swamp
SWT	Thicket Swamp
SWT2	Mineral Thicket Swamp
SWT2-4	Buttonbush Mineral Thicket Swamp
SWT2-5	Red Osier Dogwood Mineral Thicket Swamp
SWT2-8	Silky Dogwood Mineral Thicket Swamp
SWT2-9	Gray Dogwood Mineral Thicket Swamp
SWT2-13*	Willow - Dogwood Mineral Thicket Swamp
SWT2-14*	Winterberry - Buttonbush Mineral Thicket Swamp
SWT2-15*	Red Maple Mineral Thicket Swamp
SWT3-7	Winterberry Organic Thicket Swamp
Marsh Communities (MA)	
MAM2	Mineral Meadow Marsh
MAM2-2	Reed Canary Grass Mineral Meadow Marsh
MAM2-9	Jewelweed Mineral Meadow Marsh
MAM2-10	Forb Mineral Meadow Marsh
MAM2-11*	Forb - Graminoid Mineral Meadow Marsh
MAS2-1	Cattail Mineral Shallow Marsh
MAS2-8	Rice Cut-grass Mineral Shallow Marsh
Open Water (OA)	
OA	Open Aquatic
Shallow Water (SA)	
SAM1-2	Duckweed Mixed Shallow Aquatic
HR	Hedgerow
D	Disturbed
Res	Residential

- Notes**
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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)**  
**GRAND RENEWABLE ENERGY PARK**

Figure No.  
**8.5**

Title  
**ELC VEGETATION COMMUNITIES - T5**

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- Legend**
- Study Area
  - Zone of Investigation
  - Constructable Area
  - Wind Project Location**
  - Proposed Turbine Location
  - Access Road
  - Overhead Collector Line
  - Underground Collector Line
  - Solar Project Location**
  - Solar Lands
  - Transmission Line**
  - Overhead Transmission Line
  - Underground Transmission Line
  - Electrical Transmission Component

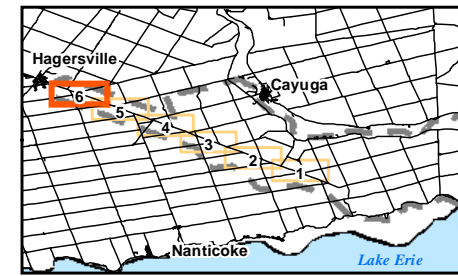
- Existing Features**
- Road
  - Railway
  - Abandoned Railway
  - Transmission Line (MNR)
  - Watercourse (MNR)
  - Waterbody (MNR)
  - Natural Feature
  - Vegetation Community (ELC)

- Forest Communities (FO)**
- FOM 2-2 - Dry-fresh White Pine - Sugar Maple Mixed Forest
  - FOD - Deciduous Forest
  - FOD1-1 - Dry-fresh Red Oak Deciduous Forest
  - FOD2-1 - Dry-fresh Oak - Red Maple Deciduous Forest
  - FOD2-2 - Dry-fresh Oak - Hickory Deciduous Forest
  - FOD2-4 - Dry-fresh Oak - Hardwood Deciduous Forest
  - FOD 3-1 - Dry-fresh Poplar Deciduous Forest
  - FOD4-1 - Dry-fresh Beech Deciduous Forest
  - FOD4-2 - Dry-fresh White Ash Deciduous Forest
  - FOD5 - Dry-fresh Sugar Maple Deciduous Forest Ecotype
  - FOD5-1 - Dry-fresh Sugar Maple Deciduous Forest
  - FOD5-2 - Dry-fresh Sugar Maple - Beech Deciduous Forest
  - FOD5-3 - Dry-fresh Sugar Maple - Oak Deciduous Forest
  - FOD5-8 - Dry-fresh Sugar Maple - White Ash Deciduous Forest
  - FOD5-9 - Dry-fresh Sugar Maple-Red Maple Deciduous Forest
  - FOD5-11\* - Dry-fresh Sugar Maple - Oak - Beech Deciduous Forest
  - FOD5-12\* - Dry-fresh Sugar Maple - Hickory - Beech Deciduous Forest
  - FOD6-1 - Fresh-moist Sugar Maple - Lowland Ash Deciduous Forest
  - FOD6-5 - Fresh-moist Sugar Maple - Hardwood Deciduous Forest
  - FOD6-6\* - Fresh-moist Sugar Maple - Hickory Deciduous Forest
  - FOD7-1 - Fresh - moist White Elm Lowland Deciduous Forest
  - FOD7-2 - Fresh-moist Ash Lowland Deciduous Forest
  - FOD7-4 - Fresh-moist Black Walnut Lowland Deciduous Forest
  - FOD9-1 - Fresh-moist Oak - Sugar Maple Deciduous Forest
  - FOD9-3 - Fresh-moist Bur Oak Deciduous Forest
  - FOD9-4 - Fresh-moist Shagbark Hickory Deciduous Forest
  - FOD9-6\* - Fresh-moist Red Oak - Shagbark Hickory Deciduous Forest

- Cultural Communities (CU)**
- CUP1-4 - Hybrid Poplar Deciduous Plantation
  - CUP2 - Mixed Plantation
  - CUP3-1 - Red Pine Coniferous Plantation
  - CUP3-2 - White Pine Coniferous Plantation
  - CUP3-12\* - White Pine - White/Norway Spruce Coniferous Plantation
  - CUP3-13\* - White Spruce Coniferous Plantation
  - CUM1 - Mineral Cultural Meadow
  - CUS1-1 - Hawthorn Cultural Savannah
  - CUT1 - Mineral Cultural Thicket
  - CUT1-1 - Sumac Cultural Thicket
  - CUT1-4 - Gray Dogwood Cultural Thicket
  - CUT1-7 - European Buckthorn - Sweet Cherry Cultural thicket
  - CUW1 - Mineral Cultural Woodland
  - CUW1-1 - Red Cedar Mineral Cultural Woodland
  - CUW1-3\* - Ash - Sumac Mineral Cultural Woodland
  - CUW1-4\* - Green Ash Mineral Cultural Woodland
  - CUW1-5\* - Norway Maple Mineral Cultural Woodland
  - CUW1-6\* - White Elm Cultural Woodland
  - CUW1-7\* - Red maple Mineral Cultural Woodland
  - CUW1-11\* - White Pine Cultural Woodland
- Swamp Communities (SW)**
- SWD - Deciduous Swamp
  - SWD1-1 - Swamp Oak Mineral Deciduous Swamp
  - SWD1-2 - Bur Oak Mineral Deciduous Swamp
  - SWD2-2 - Green Ash Mineral Deciduous Swamp
  - SWD2-3\* - Ash - Hardwood Mineral Deciduous Swamp
  - SWD2-4\* - Green Ash - Red Maple Mineral Deciduous Swamp
  - SWD3-1 - Red Maple Mineral Deciduous Swamp
  - SWD3-2 - Silver Maple Mineral Deciduous Swamp
  - SWD3-3 - Swamp Maple Mineral Deciduous Swamp

- Marsh Communities (MA)**
- MAM2 - Mineral Meadow Marsh
  - MAM2-2 - Reed Canary Grass Mineral Meadow Marsh
  - MAM2-9 - Jewelweed Mineral Meadow Marsh
  - MAM2-10 - Forb Mineral Meadow Marsh
  - MAM2-11\* - Forb - Graminoid Mineral Meadow Marsh
  - MAS2-1 - Cattail Mineral Shallow Marsh
  - MAS2-8 - Rice Cut-grass Mineral Shallow Marsh
- Open Water (OA)**
- OA - Open Aquatic
- Shallow Water (SA)**
- SAM1-2 - Duckweed Mixed Shallow Aquatic
- HR - Hedgerow  
D - Disturbed  
Res - Residential

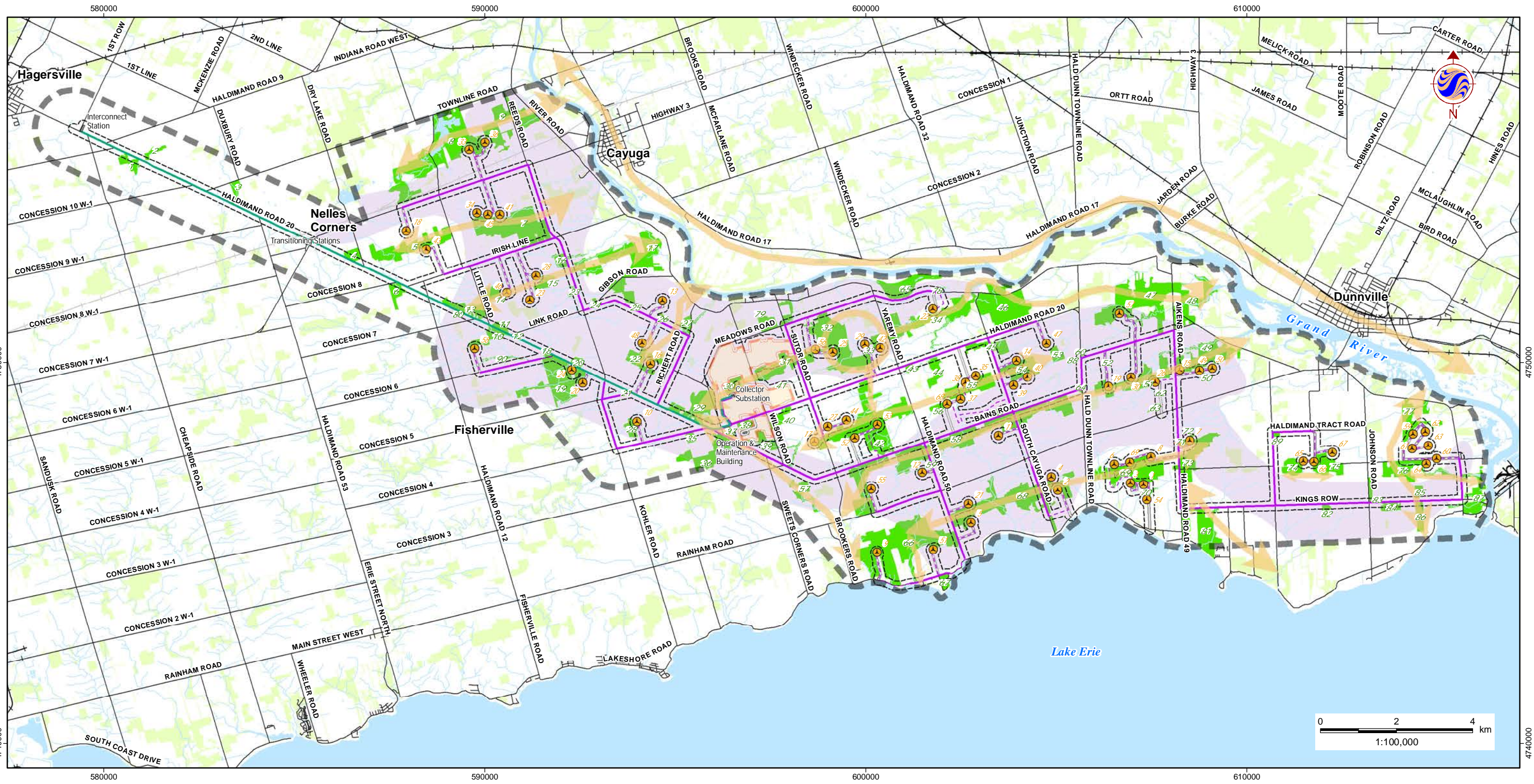
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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**8.6**

**ELC VEGETATION  
COMMUNITIES - T6**



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**Legend**

- |                               |                            |  |                               |                         |                                  |
|-------------------------------|----------------------------|--|-------------------------------|-------------------------|----------------------------------|
|                               | Study Area                 |  | Overhead Transmission Line    |                         | Waterbody (MNR)                  |
|                               | Zone of Investigation      |  | Underground Transmission Line |                         | Wooded Area (MNR)                |
| <b>Wind Project Location</b>  |                            |  |                               | <b>Natural Features</b> |                                  |
|                               | Proposed Turbine Location  |  | Road                          |                         | Animal Movement Corridor         |
|                               | Access Road                |  | Railway                       |                         | Natural Feature                  |
|                               | Overhead Collector Line    |  | Abandoned Railway             |                         | Winter Raptor Concentration Area |
|                               | Underground Collector Line |  | Watercourse (MNR)             |                         |                                  |
| <b>Solar Project Location</b> |                            |  |                               |                         |                                  |
|                               | Solar Lands                |  |                               |                         |                                  |

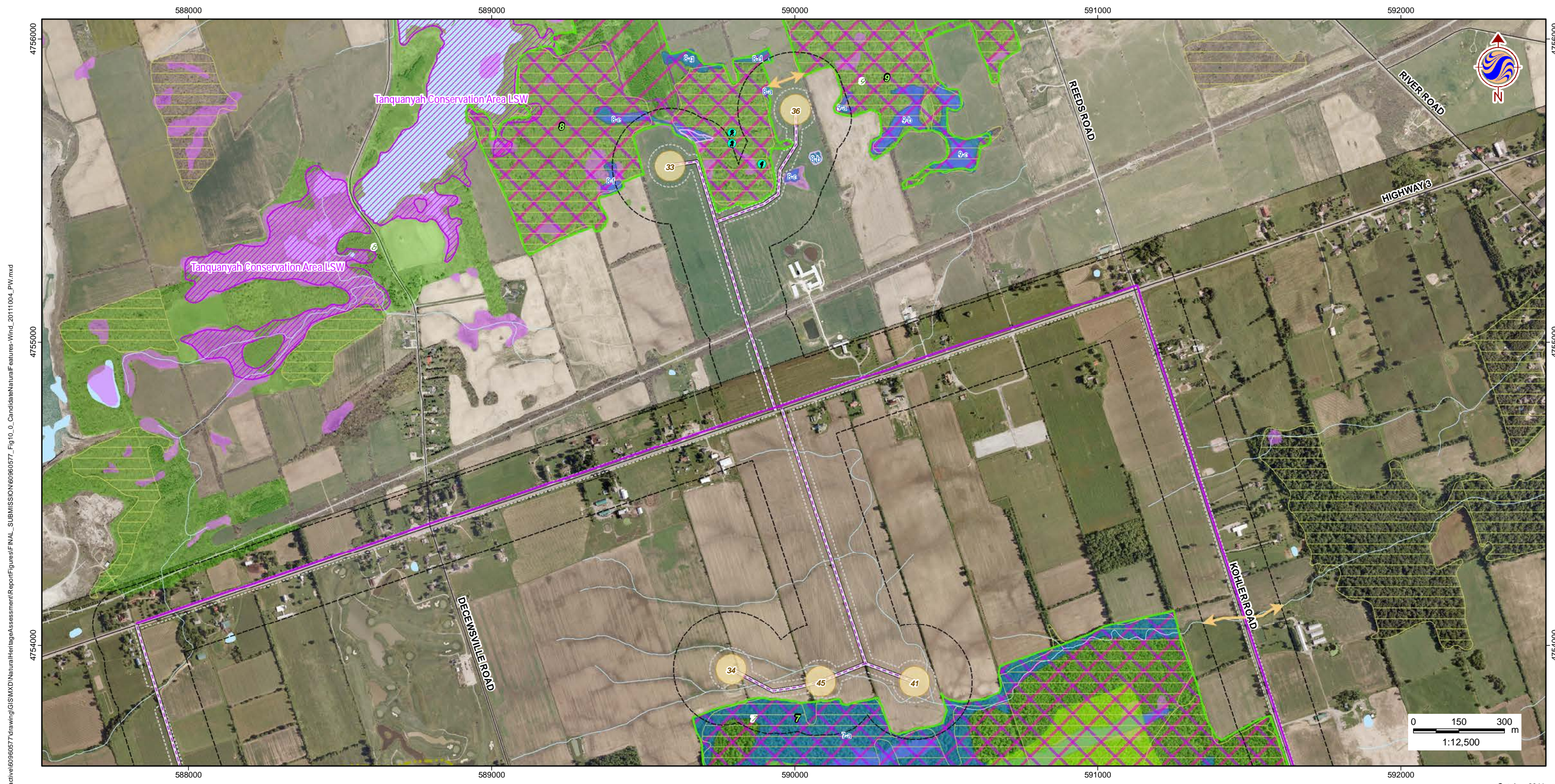
**Notes**

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GRAND RENEWABLE ENERGY PARK

Figure No.  
9.0

Title  
**NATURAL FEATURES**



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**Legend**

- Study Area
- Zone of Investigation
- Constructable Area
- Wind Project Location**
- Proposed Turbine Location
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Solar Project Location**
- Solar Lands
- Transmission Line**
- Overhead Transmission Line
- Underground Transmission Line
- Electrical Transmission Component

- Existing Features**
- Road
  - Railway
  - Abandoned Railway
  - Transmission Line (MNR)
  - Watercourse (MNR)
  - Waterbody (MNR)
  - Provincial Park (MNR)
  - Deer Wintering Yard (MNR)
  - Wetland (GRCA)
  - Area of Natural and Scientific Interest
  - Watershed Boundary

- Wetland (MNR)**
- Provincially Significant Wetland
  - Non-Provincially Significant Wetland
- Natural Features**
- Woodland
  - Wetland
  - Rare Vegetation Community
  - Seep
  - Vernal Pool
  - Snapping Turtle Habitat
  - Animal Movement Corridor

- Natural Feature
- Interior Forest Habitat
- Candidate Valleyland
- Candidate Habitat for Declining Grassland Species
- Candidate Waterfowl Stopover
- Candidate Migratory Butterfly Stopover
- Candidate Migratory Landbird Habitat
- Candidate Area-Sensitive Species Woodland Habitat
- Candidate Habitat for Declining Woodland Species
- Candidate Short-Eared Owl Habitat
- Candidate Winter Raptor Feeding & Roosting Habitat

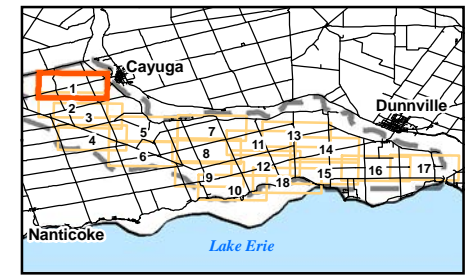
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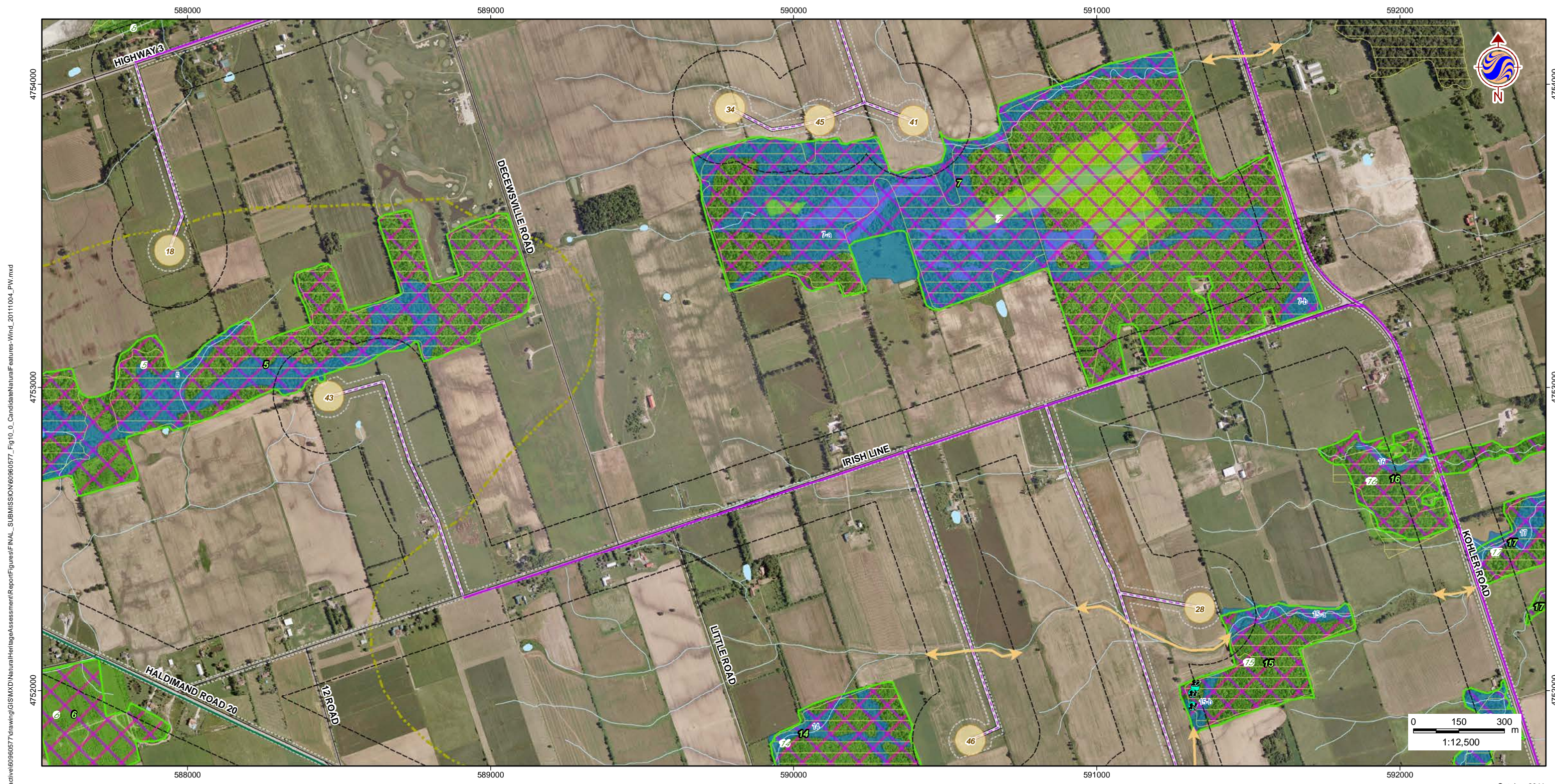
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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**10.1**

Title  
**CANDIDATE NATURAL  
FEATURES - W1**





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**Legend**

- |   |   |   |  |
|---|---|---|--|
| <ul style="list-style-type: none"> <li> Study Area</li> <li> Zone of Investigation</li> <li> Constructable Area</li> <li><b>Wind Project Location</b></li> <li> Proposed Turbine Location</li> <li> Access Road</li> <li> Overhead Collector Line</li> <li> Underground Collector Line</li> <li><b>Solar Project Location</b></li> <li> Solar Lands</li> <li><b>Transmission Line</b></li> <li> Overhead Transmission Line</li> <li> Underground Transmission Line</li> <li> Electrical Transmission Component</li> </ul> | <p><b>Existing Features</b></p> <ul style="list-style-type: none"> <li> Road</li> <li> Railway</li> <li> Abandoned Railway</li> <li> Transmission Line (MNR)</li> <li> Watercourse (MNR)</li> <li> Waterbody (MNR)</li> <li> Provincial Park (MNR)</li> <li> Deer Wintering Yard (MNR)</li> <li> Wetland (GRCA)</li> <li> Area of Natural and Scientific Interest</li> <li> Watershed Boundary</li> </ul> | <p><b>Wetland (MNR)</b></p> <ul style="list-style-type: none"> <li> Provincially Significant Wetland</li> <li> Non-Provincially Significant Wetland</li> </ul> <p><b>Natural Features</b></p> <ul style="list-style-type: none"> <li> Woodland</li> <li> Wetland</li> <li> Rare Vegetation Community</li> <li> Seep</li> <li> Vernal Pool</li> <li> Snapping Turtle Habitat</li> <li> Animal Movement Corridor</li> </ul> | <ul style="list-style-type: none"> <li> Natural Feature</li> <li> Interior Forest Habitat</li> <li> Candidate Valleyland</li> <li> Candidate Habitat for Declining Grassland Species</li> <li> Candidate Waterfowl Stopover</li> <li> Candidate Migratory Butterfly Stopover</li> <li> Candidate Migratory Landbird Habitat</li> <li> Candidate Area-Sensitive Species Woodland Habitat</li> <li> Candidate Habitat for Declining Woodland Species</li> <li> Candidate Short-Eared Owl Habitat</li> <li> Candidate Winter Raptor Feeding &amp; Roosting Habitat</li> </ul> |
|---|---|---|--|

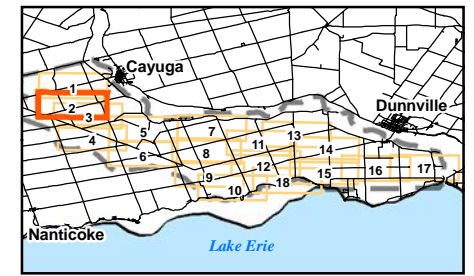
**Notes**

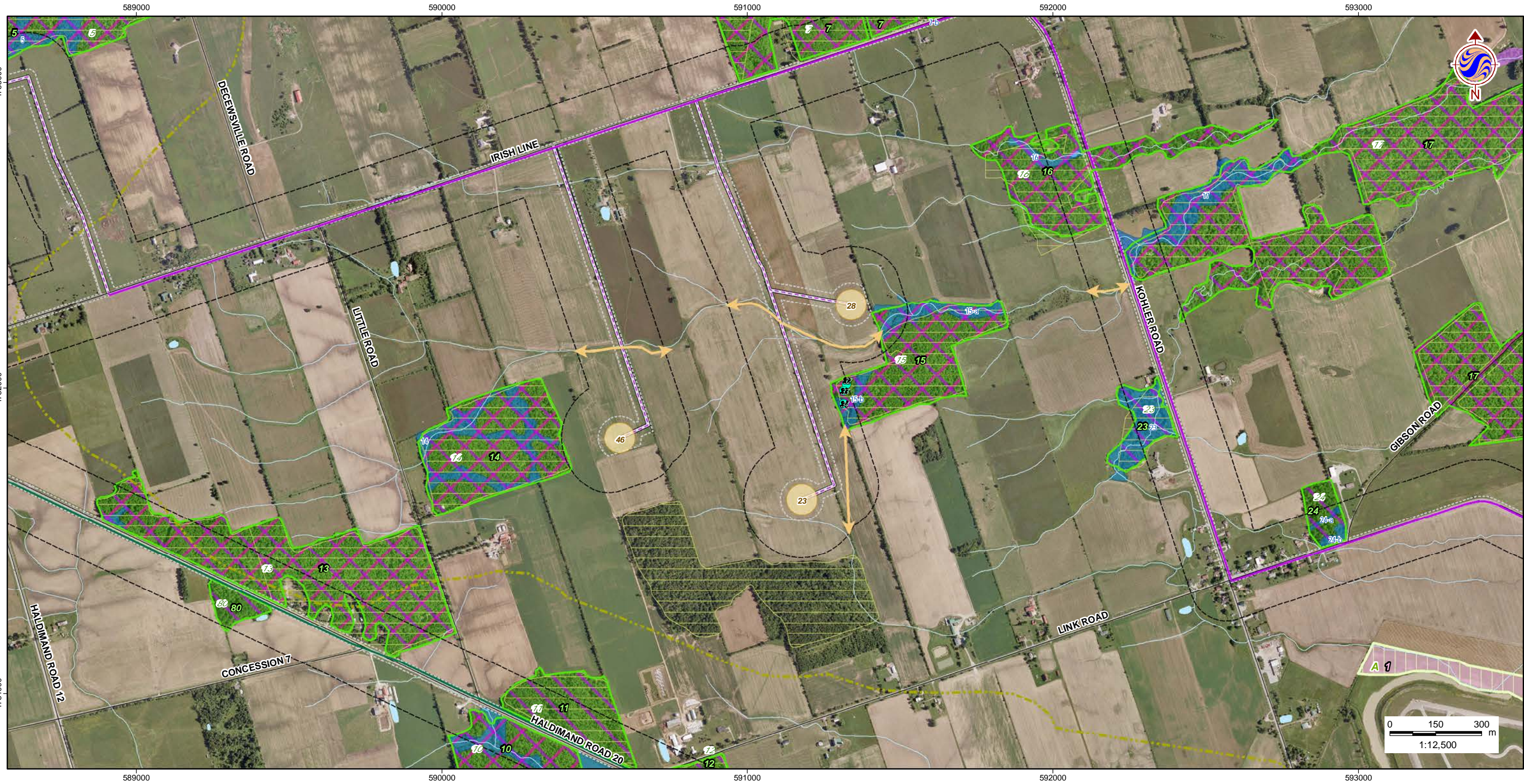
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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**10.2**

Title  
**CANDIDATE NATURAL  
FEATURES - W2**





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**Legend**

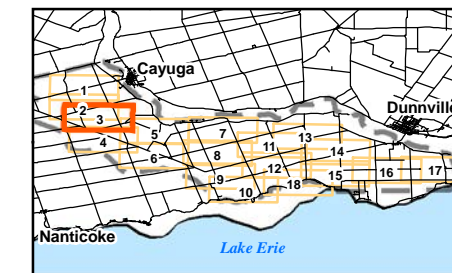
- |                               |                                   |  |   |
|-------------------------------|-----------------------------------|--|---|
|                               | Study Area                        |  | Road                                    |
|                               | Zone of Investigation             |  | Railway                                 |
|                               | Constructable Area                |  | Abandoned Railway                       |
| <b>Wind Project Location</b>  |                                   |  |   |
|                               | Proposed Turbine Location         |  | Transmission Line (MNR)                 |
|                               | Access Road                       |  | Watercourse (MNR)                       |
|                               | Overhead Collector Line           |  | Waterbody (MNR)                         |
|                               | Underground Collector Line        |  | Provincial Park (MNR)                   |
| <b>Solar Project Location</b> |                                   |  |   |
|                               | Solar Lands                       |  | Deer Wintering Yard (MNR)               |
| <b>Transmission Line</b>      |                                   |  |   |
|                               | Overhead Transmission Line        |  | Wetland (GRCA)                          |
|                               | Underground Transmission Line     |  | Area of Natural and Scientific Interest |
|                               | Electrical Transmission Component |  | Watershed Boundary                      |

- |                         |                                      |
|-------------------------|--------------------------------------|
| <b>Wetland (MNR)</b>    |                                      |
|                         | Provincially Significant Wetland     |
|                         | Non-Provincially Significant Wetland |
| <b>Natural Features</b> |                                      |
|                         | Woodland                             |
|                         | Wetland                              |
|                         | Rare Vegetation Community            |
|                         | Seep                                 |
|                         | Vernal Pool                          |
|                         | Snapping Turtle Habitat              |
|                         | Animal Movement Corridor             |

- |  |  |
|--|--|
|  | Natural Feature                                    |
|  | Interior Forest Habitat                            |
|  | Candidate Valleyland                               |
|  | Candidate Habitat for Declining Grassland Species  |
|  | Candidate Waterfowl Stopover                       |
|  | Candidate Migratory Butterfly Stopover             |
|  | Candidate Migratory Landbird Habitat               |
|  | Candidate Area-Sensitive Species Woodland Habitat  |
|  | Candidate Habitat for Declining Woodland Species   |
|  | Candidate Short-Eared Owl Habitat                  |
|  | Candidate Winter Raptor Feeding & Roosting Habitat |

**Notes**

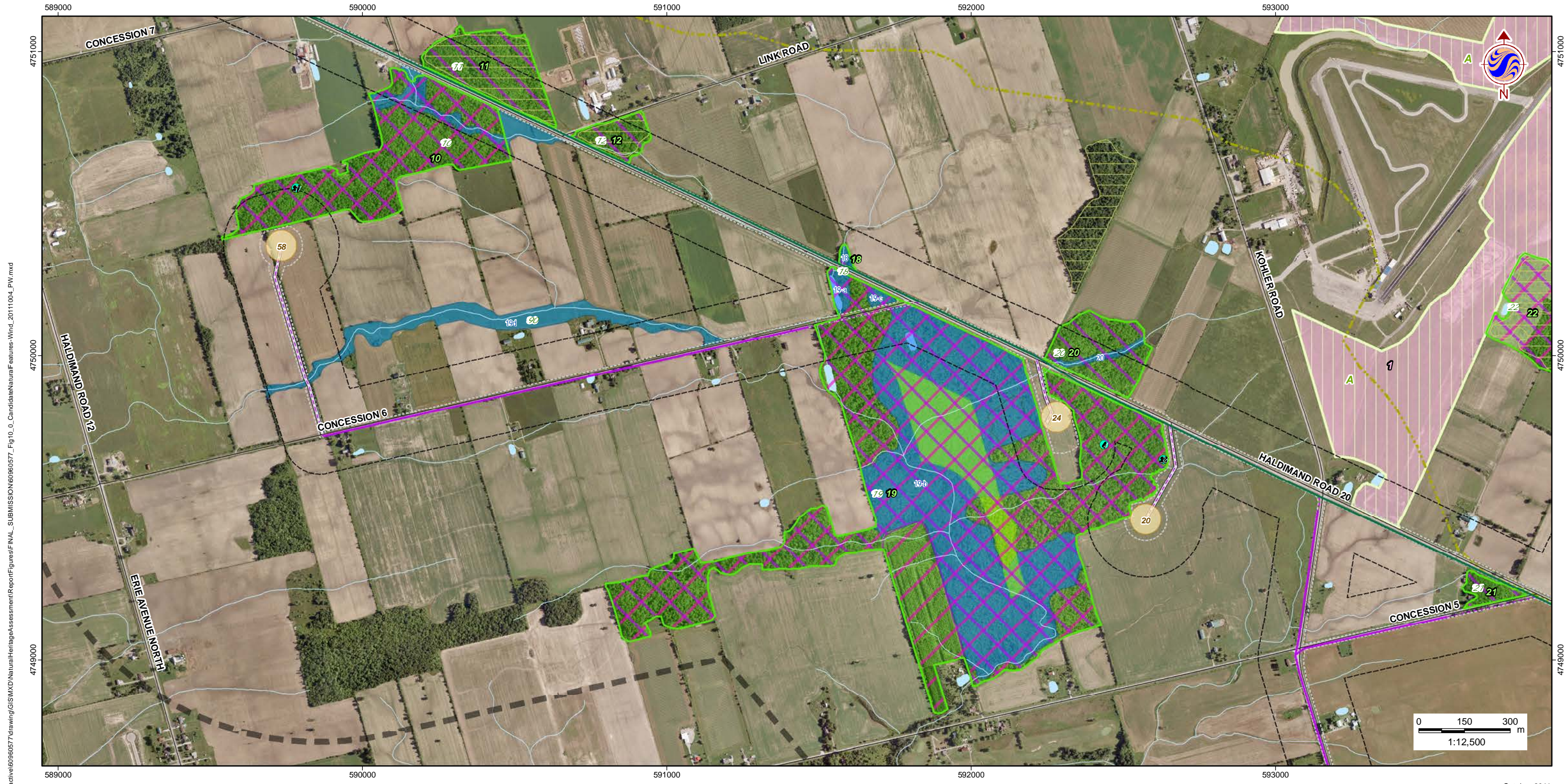
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Client/Project  
SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK

Figure No.  
10.3

Title  
**CANDIDATE NATURAL  
FEATURES - W3**



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**Legend**

- |   |   |  |  |
|---|---|--|--|
| <ul style="list-style-type: none"> <li> Study Area</li> <li> Zone of Investigation</li> <li> Constructable Area</li> <li><b>Wind Project Location</b></li> <li> Proposed Turbine Location</li> <li> Access Road</li> <li> Overhead Collector Line</li> <li> Underground Collector Line</li> <li><b>Solar Project Location</b></li> <li> Solar Lands</li> <li><b>Transmission Line</b></li> <li> Overhead Transmission Line</li> <li> Underground Transmission Line</li> <li> Electrical Transmission Component</li> </ul> | <ul style="list-style-type: none"> <li><b>Existing Features</b></li> <li> Road</li> <li> Railway</li> <li> Abandoned Railway</li> <li> Transmission Line (MNR)</li> <li> Watercourse (MNR)</li> <li> Waterbody (MNR)</li> <li> Provincial Park (MNR)</li> <li> Deer Wintering Yard (MNR)</li> <li> Wetland (GRCA)</li> <li> Area of Natural and Scientific Interest</li> <li> Watershed Boundary</li> </ul> | <ul style="list-style-type: none"> <li><b>Wetland (MNR)</b></li> <li> Provincially Significant Wetland</li> <li> Non-Provincially Significant Wetland</li> <li><b>Natural Features</b></li> <li> Woodland</li> <li> Wetland</li> <li> Rare Vegetation Community</li> <li> Seep</li> <li> Vernal Pool</li> <li> Snapping Turtle Habitat</li> <li> Animal Movement Corridor</li> </ul> | <ul style="list-style-type: none"> <li> Natural Feature</li> <li> Interior Forest Habitat</li> <li> Candidate Valleyland</li> <li> Candidate Habitat for Declining Grassland Species</li> <li> Candidate Waterfowl Stopover</li> <li> Candidate Migratory Butterfly Stopover</li> <li> Candidate Migratory Landbird Habitat</li> <li> Candidate Area-Sensitive Species Woodland Habitat</li> <li> Candidate Habitat for Declining Woodland Species</li> <li> Candidate Short-Eared Owl Habitat</li> <li> Candidate Winter Raptor Feeding &amp; Roosting Habitat</li> </ul> |
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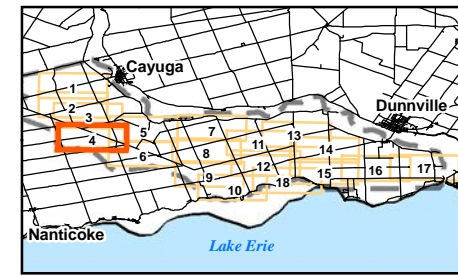
**Notes**

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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**10.4**

Title  
**CANDIDATE NATURAL  
FEATURES - W4**







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**Legend**

- Study Area
- Zone of Investigation
- Constructable Area
- Wind Project Location**
- Proposed Turbine Location
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Solar Project Location**
- Solar Lands
- Transmission Line**
- Overhead Transmission Line
- Underground Transmission Line
- Electrical Transmission Component

- Existing Features**
- Road
  - Railway
  - Abandoned Railway
  - Transmission Line (MNR)
  - Watercourse (MNR)
  - Waterbody (MNR)
  - Provincial Park (MNR)
  - Deer Wintering Yard (MNR)
  - Wetland (GRCA)
  - Area of Natural and Scientific Interest
  - Watershed Boundary

- Wetland (MNR)**
- Provincially Significant Wetland
  - Non-Provincially Significant Wetland
- Natural Features**
- Woodland
  - Wetland
  - Rare Vegetation Community
  - Seep
  - Vernal Pool
  - Snapping Turtle Habitat
  - Animal Movement Corridor

- Natural Feature
- Interior Forest Habitat
- Candidate Valleyland
- Candidate Habitat for Declining Grassland Species
- Candidate Waterfowl Stopover
- Candidate Migratory Butterfly Stopover
- Candidate Migratory Landbird Habitat
- Candidate Area-Sensitive Species Woodland Habitat
- Candidate Habitat for Declining Woodland Species
- Candidate Short-Eared Owl Habitat
- Candidate Winter Raptor Feeding & Roosting Habitat

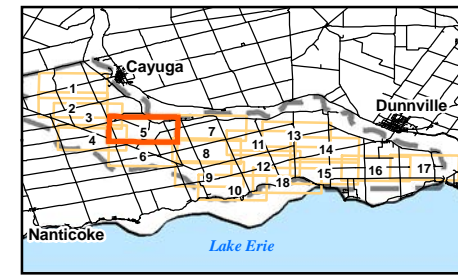
**Notes**

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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**10.5**

Title  
**CANDIDATE NATURAL  
FEATURES - W5**





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**Legend**

- Study Area
- Zone of Investigation
- Constructable Area
- Wind Project Location**
- Proposed Turbine Location
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Solar Project Location**
- Solar Lands
- Transmission Line**
- Overhead Transmission Line
- Underground Transmission Line
- Electrical Transmission Component

- Existing Features**
- Road
  - Railway
  - Abandoned Railway
  - Transmission Line (MNR)
  - Watercourse (MNR)
  - Waterbody (MNR)
  - Provincial Park (MNR)
  - Deer Wintering Yard (MNR)
  - Wetland (GRCA)
  - Area of Natural and Scientific Interest
  - Watershed Boundary

- Wetland (MNR)**
- Provincially Significant Wetland
  - Non-Provincially Significant Wetland
- Natural Features**
- Woodland
  - Wetland
  - Rare Vegetation Community
  - Seep
  - Vernal Pool
  - Snapping Turtle Habitat
  - Animal Movement Corridor

- Natural Feature
- Interior Forest Habitat
- Candidate Valleyland
- Candidate Habitat for Declining Grassland Species
- Candidate Waterfowl Stopover
- Candidate Migratory Butterfly Stopover
- Candidate Migratory Landbird Habitat
- Candidate Area-Sensitive Species Woodland Habitat
- Candidate Habitat for Declining Woodland Species
- Candidate Short-Eared Owl Habitat
- Candidate Winter Raptor Feeding & Roosting Habitat

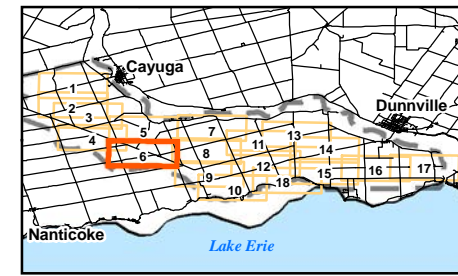
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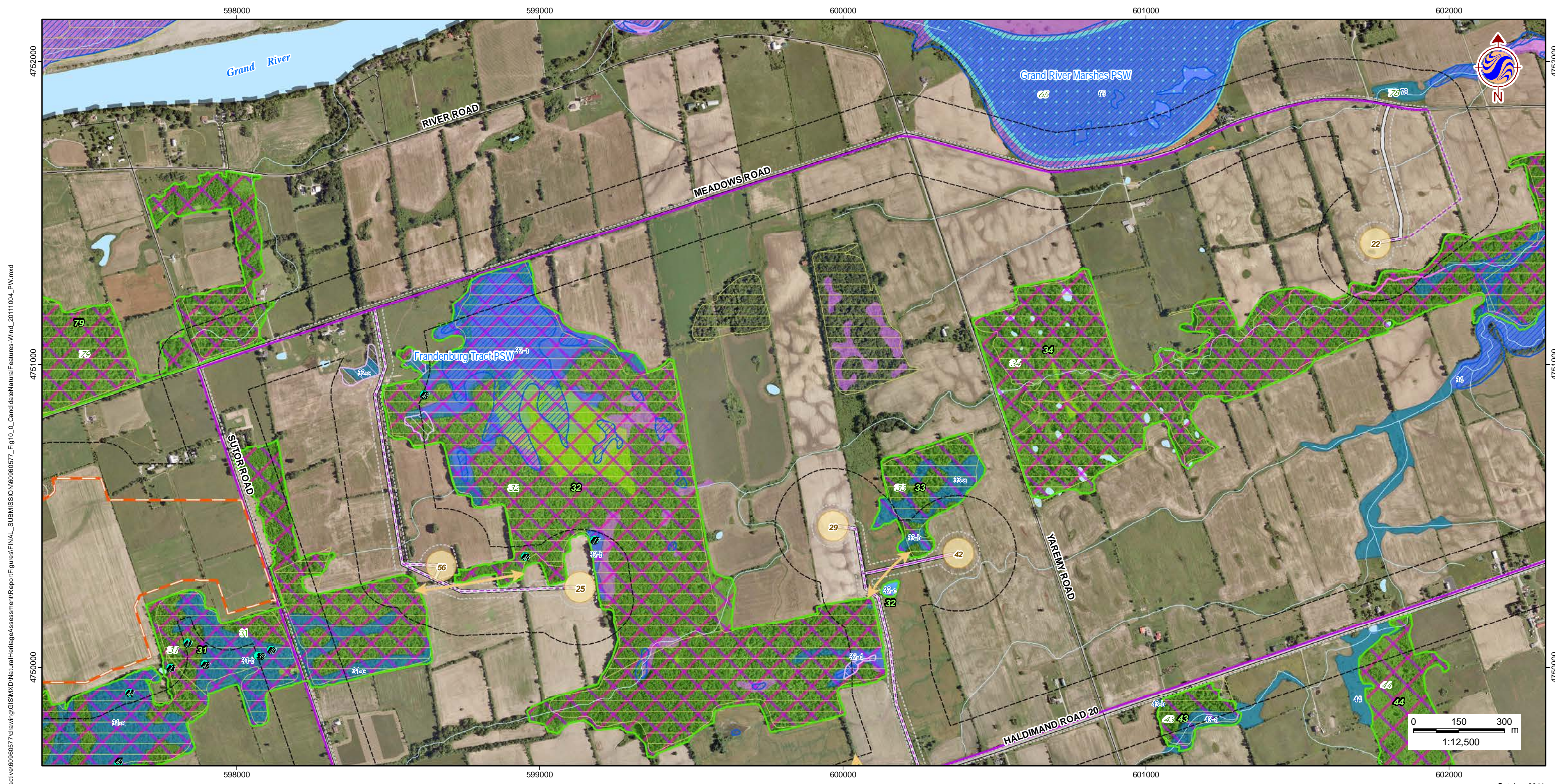
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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**10.6**

Title  
**CANDIDATE NATURAL  
FEATURES - W6**





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**Legend**

- |   |   |   |  |
|---|---|---|--|
| <ul style="list-style-type: none"> <li> Study Area</li> <li> Zone of Investigation</li> <li> Constructable Area</li> <li><b>Wind Project Location</b></li> <li> Proposed Turbine Location</li> <li> Access Road</li> <li> Overhead Collector Line</li> <li> Underground Collector Line</li> <li><b>Solar Project Location</b></li> <li> Solar Lands</li> <li><b>Transmission Line</b></li> <li> Overhead Transmission Line</li> <li> Underground Transmission Line</li> <li> Electrical Transmission Component</li> </ul> | <p><b>Existing Features</b></p> <ul style="list-style-type: none"> <li> Road</li> <li> Railway</li> <li> Abandoned Railway</li> <li> Transmission Line (MNR)</li> <li> Watercourse (MNR)</li> <li> Waterbody (MNR)</li> <li> Provincial Park (MNR)</li> <li> Deer Wintering Yard (MNR)</li> <li> Wetland (GRCA)</li> <li> Area of Natural and Scientific Interest</li> <li> Watershed Boundary</li> </ul> | <p><b>Wetland (MNR)</b></p> <ul style="list-style-type: none"> <li> Provincially Significant Wetland</li> <li> Non-Provincially Significant Wetland</li> </ul> <p><b>Natural Features</b></p> <ul style="list-style-type: none"> <li> Woodland</li> <li> Wetland</li> <li> Rare Vegetation Community</li> <li> Seep</li> <li> Vernal Pool</li> <li> Snapping Turtle Habitat</li> <li> Animal Movement Corridor</li> </ul> | <ul style="list-style-type: none"> <li> Natural Feature</li> <li> Interior Forest Habitat</li> <li> Candidate Valleyland</li> <li> Candidate Habitat for Declining Grassland Species</li> <li> Candidate Waterfowl Stopover</li> <li> Candidate Migratory Butterfly Stopover</li> <li> Candidate Migratory Landbird Habitat</li> <li> Candidate Area-Sensitive Species Woodland Habitat</li> <li> Candidate Habitat for Declining Woodland Species</li> <li> Candidate Short-Eared Owl Habitat</li> <li> Candidate Winter Raptor Feeding &amp; Roosting Habitat</li> </ul> |
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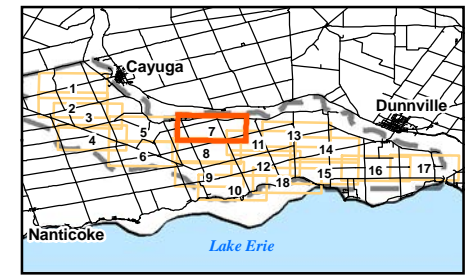
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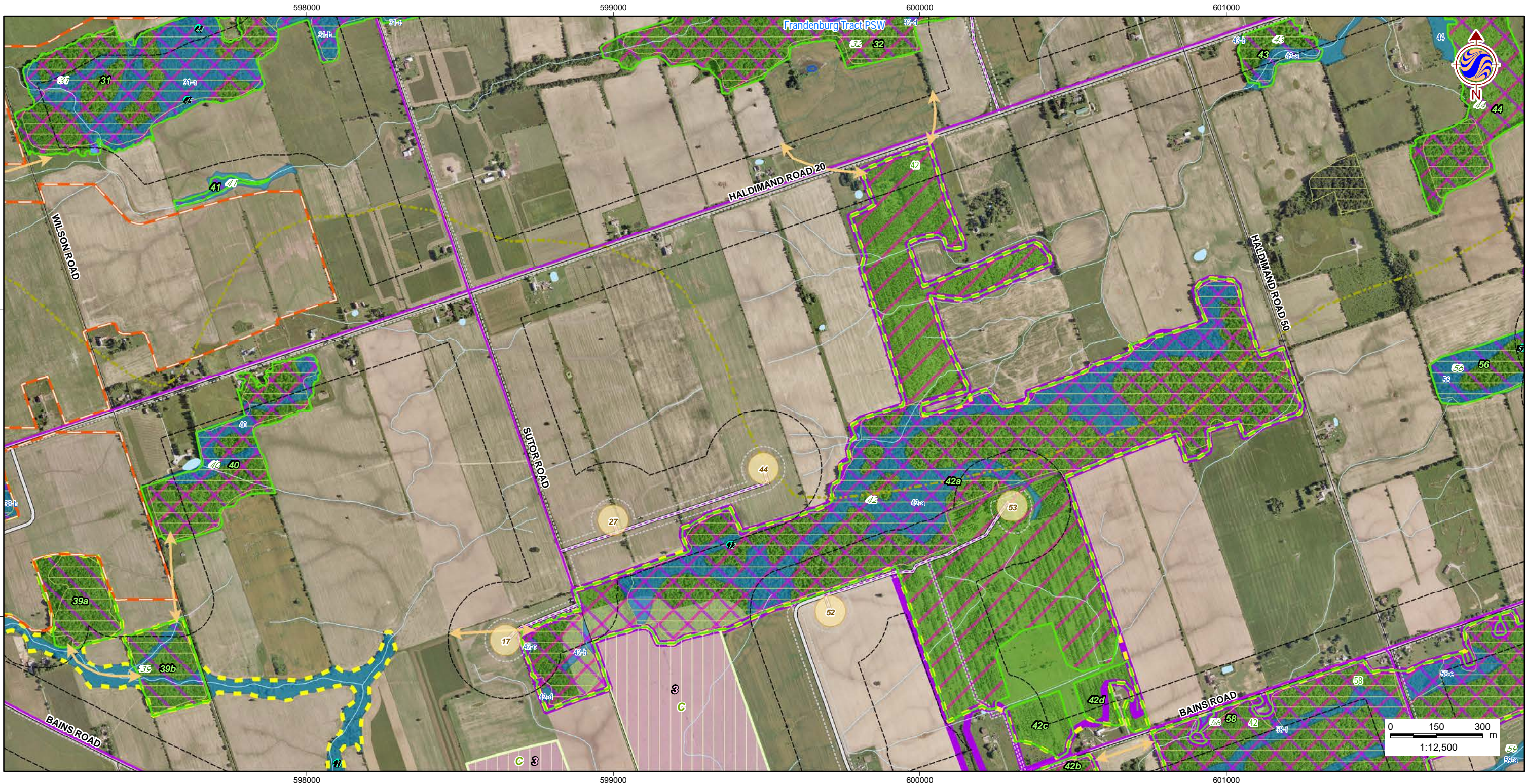
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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**10.7**

Title  
**CANDIDATE NATURAL  
FEATURES - W7**





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**Legend**

- Study Area
- Zone of Investigation
- Constructable Area
- Wind Project Location**
- Proposed Turbine Location
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Solar Project Location**
- Solar Lands
- Transmission Line**
- Overhead Transmission Line
- Underground Transmission Line
- Electrical Transmission Component

- Existing Features**
- Road
  - Railway
  - Abandoned Railway
  - Transmission Line (MNR)
  - Watercourse (MNR)
  - Waterbody (MNR)
  - Provincial Park (MNR)
  - Deer Wintering Yard (MNR)
  - Wetland (GRCA)
  - Area of Natural and Scientific Interest
  - Watershed Boundary

- Wetland (MNR)**
- Provincially Significant Wetland
  - Non-Provincially Significant Wetland
- Natural Features**
- Woodland
  - Wetland
  - Rare Vegetation Community
  - Seep
  - Vernal Pool
  - Snapping Turtle Habitat
  - Animal Movement Corridor

- Natural Feature
- Interior Forest Habitat
- Candidate Valleyland
- Candidate Habitat for Declining Grassland Species
- Candidate Waterfowl Stopover
- Candidate Migratory Butterfly Stopover
- Candidate Migratory Landbird Habitat
- Candidate Area-Sensitive Species Woodland Habitat
- Candidate Habitat for Declining Woodland Species
- Candidate Short-Eared Owl Habitat
- Candidate Winter Raptor Feeding & Roosting Habitat

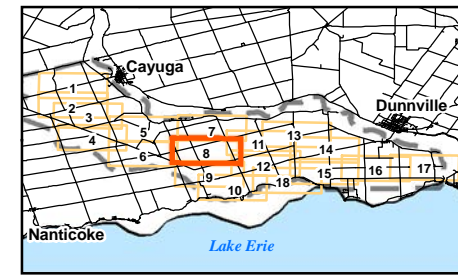
**Notes**

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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**10.8**

Title  
**CANDIDATE NATURAL  
FEATURES - W8**



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**Legend**

- Study Area
- Zone of Investigation
- Constructable Area
- Wind Project Location**
- Proposed Turbine Location
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Solar Project Location**
- Solar Lands
- Transmission Line**
- Overhead Transmission Line
- Underground Transmission Line
- Electrical Transmission Component

**Existing Features**

- Road
- Railway
- Abandoned Railway
- Transmission Line (MNR)
- Watercourse (MNR)
- Waterbody (MNR)
- Provincial Park (MNR)
- Deer Wintering Yard (MNR)
- Wetland (GRCA)
- Area of Natural and Scientific Interest
- Watershed Boundary

**Wetland (MNR)**

- Provincially Significant Wetland
  - Non-Provincially Significant Wetland
- Natural Features**
- Woodland
  - Wetland
  - Rare Vegetation Community
  - Seep
  - Vernal Pool
  - Snapping Turtle Habitat
  - Animal Movement Corridor

- Natural Feature
- Interior Forest Habitat
- Candidate Valleyland
- Candidate Habitat for Declining Grassland Species
- Candidate Waterfowl Stopover
- Candidate Migratory Butterfly Stopover
- Candidate Migratory Landbird Habitat
- Candidate Area-Sensitive Species Woodland Habitat
- Candidate Habitat for Declining Woodland Species
- Candidate Short-Eared Owl Habitat
- Candidate Winter Raptor Feeding & Roosting Habitat

**Notes**

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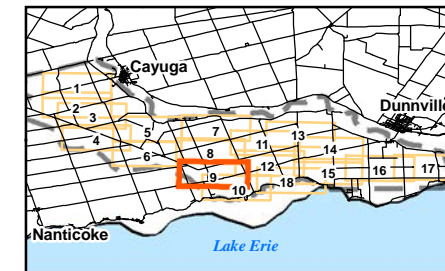
Client/Project

SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK

Figure No.  
10.9

Title

**CANDIDATE NATURAL  
FEATURES - W9**





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**Legend**

- |   |   |   |  |
|---|---|---|--|
| <ul style="list-style-type: none"> <li> Study Area</li> <li> Zone of Investigation</li> <li> Constructable Area</li> <li><b>Wind Project Location</b></li> <li> Proposed Turbine Location</li> <li> Access Road</li> <li> Overhead Collector Line</li> <li> Underground Collector Line</li> <li><b>Solar Project Location</b></li> <li> Solar Lands</li> <li><b>Transmission Line</b></li> <li> Overhead Transmission Line</li> <li> Underground Transmission Line</li> <li> Electrical Transmission Component</li> </ul> | <p><b>Existing Features</b></p> <ul style="list-style-type: none"> <li> Road</li> <li> Railway</li> <li> Abandoned Railway</li> <li> Transmission Line (MNR)</li> <li> Watercourse (MNR)</li> <li> Waterbody (MNR)</li> <li> Provincial Park (MNR)</li> <li> Deer Wintering Yard (MNR)</li> <li> Wetland (GRCA)</li> <li> Area of Natural and Scientific Interest</li> <li> Watershed Boundary</li> </ul> | <p><b>Wetland (MNR)</b></p> <ul style="list-style-type: none"> <li> Provincially Significant Wetland</li> <li> Non-Provincially Significant Wetland</li> </ul> <p><b>Natural Features</b></p> <ul style="list-style-type: none"> <li> Woodland</li> <li> Wetland</li> <li> Rare Vegetation Community</li> <li> Seep</li> <li> Vernal Pool</li> <li> Snapping Turtle Habitat</li> <li> Animal Movement Corridor</li> </ul> | <ul style="list-style-type: none"> <li> Natural Feature</li> <li> Interior Forest Habitat</li> <li> Candidate Valleyland</li> <li> Candidate Habitat for Declining Grassland Species</li> <li> Candidate Waterfowl Stopover</li> <li> Candidate Migratory Butterfly Stopover</li> <li> Candidate Migratory Landbird Habitat</li> <li> Candidate Area-Sensitive Species Woodland Habitat</li> <li> Candidate Habitat for Declining Woodland Species</li> <li> Candidate Short-Eared Owl Habitat</li> <li> Candidate Winter Raptor Feeding &amp; Roosting Habitat</li> </ul> |
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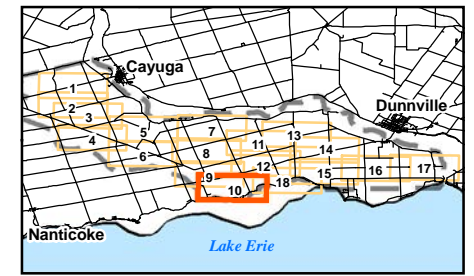
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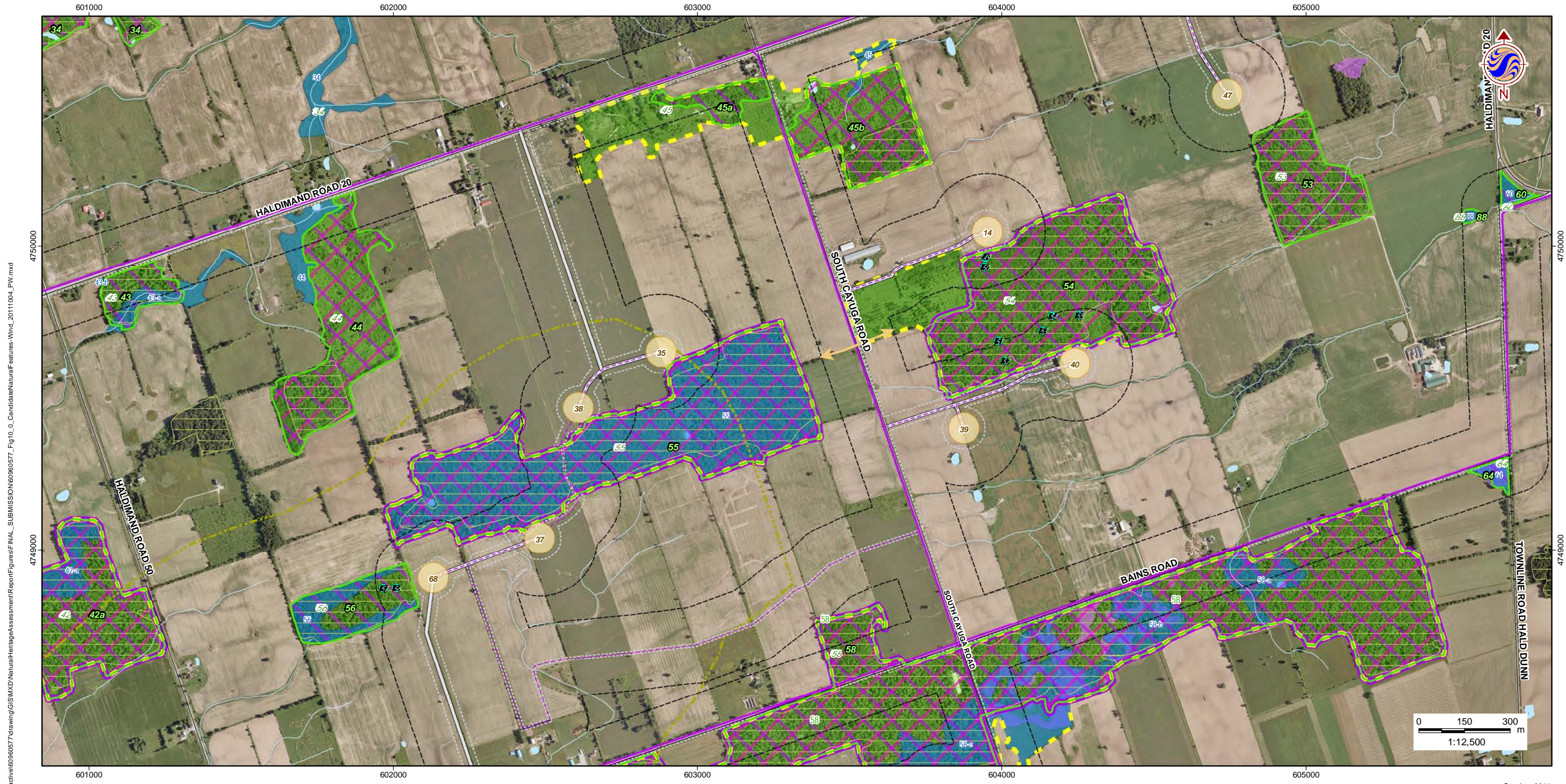
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**SAMSUNG, PATTERN & KEPCO (SPK)  
 GRAND RENEWABLE ENERGY PARK**

Figure No.  
**10.10**

Title  
**CANDIDATE NATURAL  
 FEATURES - W10**





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**Legend**

- |   |   |  |  |
|---|---|--|--|
| <ul style="list-style-type: none"> <li> Study Area</li> <li> Zone of Investigation</li> <li> Constructable Area</li> <li><b>Wind Project Location</b></li> <li> Proposed Turbine Location</li> <li> Access Road</li> <li> Overhead Collector Line</li> <li> Underground Collector Line</li> <li><b>Solar Project Location</b></li> <li> Solar Lands</li> <li><b>Transmission Line</b></li> <li> Overhead Transmission Line</li> <li> Underground Transmission Line</li> <li> Electrical Transmission Component</li> </ul> | <ul style="list-style-type: none"> <li><b>Existing Features</b></li> <li> Road</li> <li> Railway</li> <li> Abandoned Railway</li> <li> Transmission Line (MNR)</li> <li> Watercourse (MNR)</li> <li> Waterbody (MNR)</li> <li> Provincial Park (MNR)</li> <li> Deer Wintering Yard (MNR)</li> <li> Wetland (GRCA)</li> <li> Area of Natural and Scientific Interest</li> <li> Watershed Boundary</li> </ul> | <ul style="list-style-type: none"> <li><b>Wetland (MNR)</b></li> <li> Provincially Significant Wetland</li> <li> Non-Provincially Significant Wetland</li> <li><b>Natural Features</b></li> <li> Woodland</li> <li> Wetland</li> <li> Rare Vegetation Community</li> <li> Seep</li> <li> Vernal Pool</li> <li> Snapping Turtle Habitat</li> <li> Animal Movement Corridor</li> </ul> | <ul style="list-style-type: none"> <li> Natural Feature</li> <li> Interior Forest Habitat</li> <li> Candidate Valleyland</li> <li> Candidate Habitat for Declining Grassland Species</li> <li> Candidate Waterfowl Stopover</li> <li> Candidate Migratory Butterfly Stopover</li> <li> Candidate Migratory Landbird Habitat</li> <li> Candidate Area-Sensitive Species Woodland Habitat</li> <li> Candidate Habitat for Declining Woodland Species</li> <li> Candidate Short-Eared Owl Habitat</li> <li> Candidate Winter Raptor Feeding &amp; Roosting Habitat</li> </ul> |
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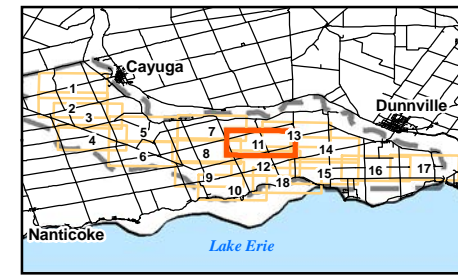
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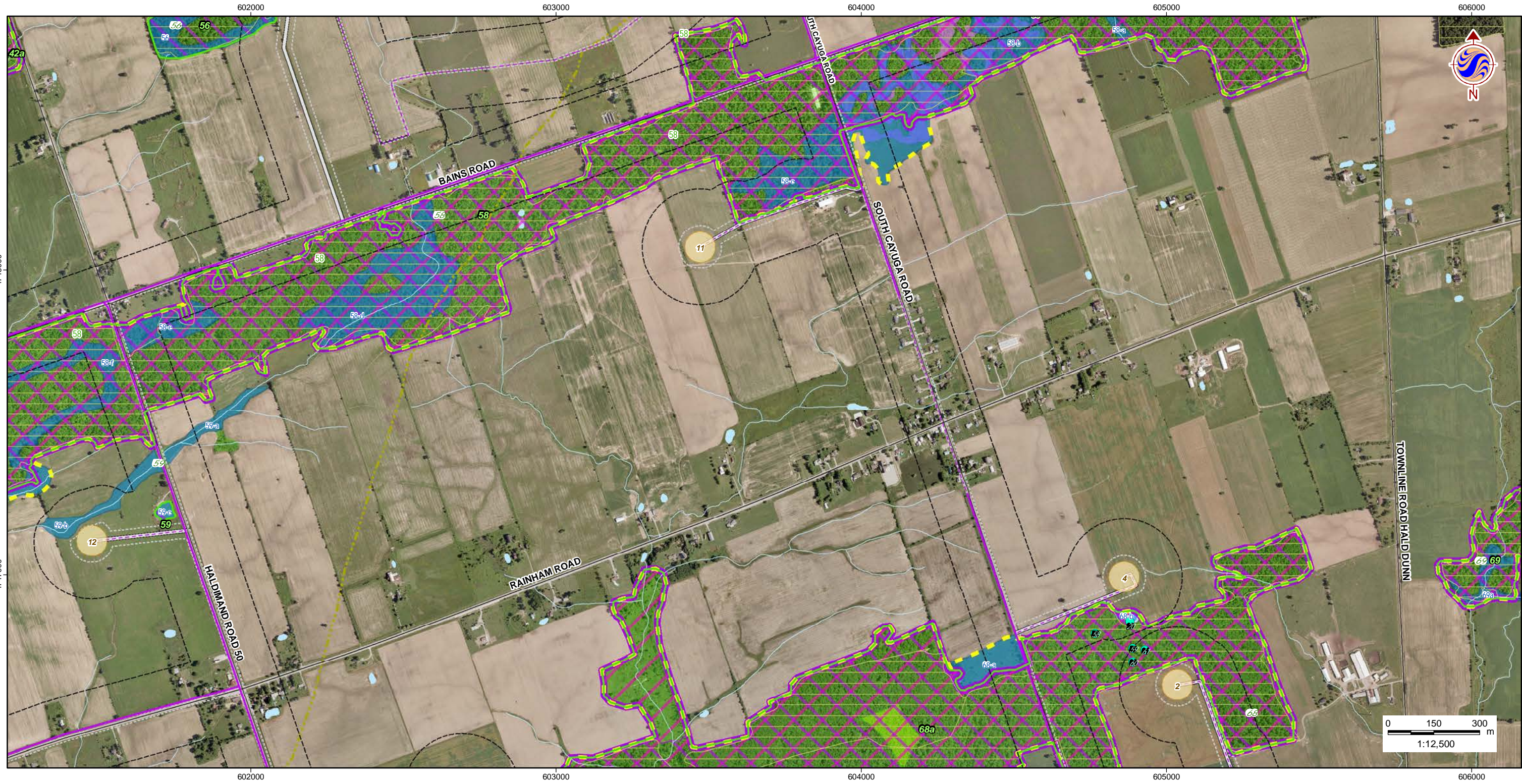
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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**10.11**

Title  
**CANDIDATE NATURAL  
FEATURES - W11**





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**Legend**

- Study Area
- Zone of Investigation
- Constructable Area
- Wind Project Location**
- Proposed Turbine Location
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Solar Project Location**
- Solar Lands
- Transmission Line**
- Overhead Transmission Line
- Underground Transmission Line
- Electrical Transmission Component

**Existing Features**

- Road
- Railway
- Abandoned Railway
- Transmission Line (MNR)
- Watercourse (MNR)
- Waterbody (MNR)
- Provincial Park (MNR)
- Deer Wintering Yard (MNR)
- Wetland (GRCA)
- Area of Natural and Scientific Interest
- Watershed Boundary

**Wetland (MNR)**

- Provincially Significant Wetland
- Non-Provincially Significant Wetland
- Natural Features**
- Woodland
- Wetland
- Rare Vegetation Community
- Seep
- Vernal Pool
- Snapping Turtle Habitat
- Animal Movement Corridor

- Natural Feature
- Interior Forest Habitat
- Candidate Valleyland
- Candidate Habitat for Declining Grassland Species
- Candidate Waterfowl Stopover
- Candidate Migratory Butterfly Stopover
- Candidate Migratory Landbird Habitat
- Candidate Area-Sensitive Species Woodland Habitat
- Candidate Habitat for Declining Woodland Species
- Candidate Short-Eared Owl Habitat
- Candidate Winter Raptor Feeding & Roosting Habitat

**Notes**

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Client/Project

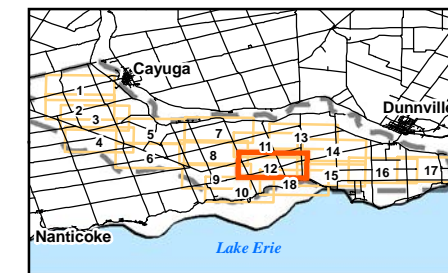
SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK

Figure No.

10.12

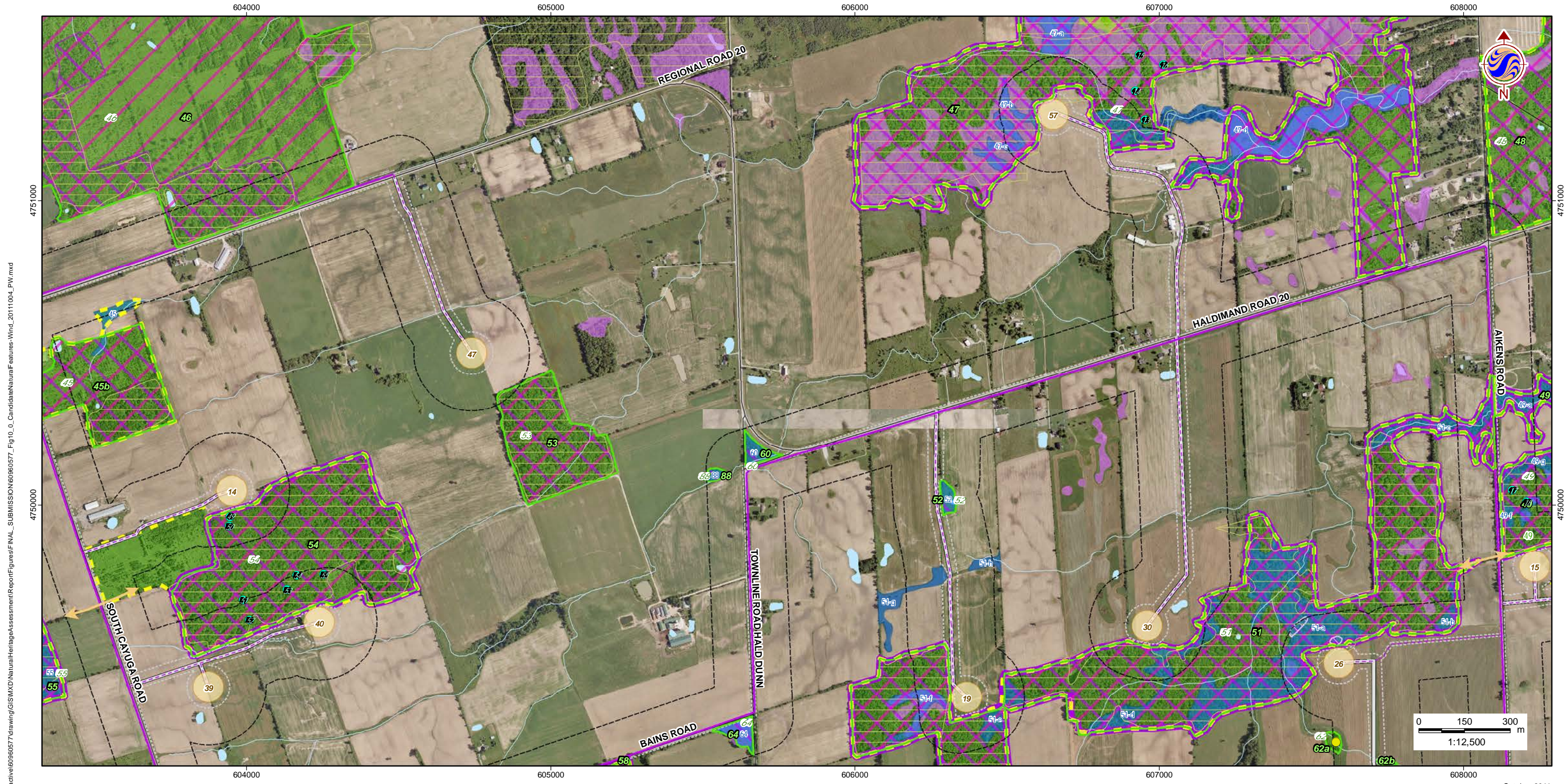
Title

**CANDIDATE NATURAL  
FEATURES - W12**



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160960577



**Legend**

- |   |   |  |  |
|---|---|--|--|
| <ul style="list-style-type: none"> <li> Study Area</li> <li> Zone of Investigation</li> <li> Constructable Area</li> <li><b>Wind Project Location</b></li> <li> Proposed Turbine Location</li> <li> Access Road</li> <li> Overhead Collector Line</li> <li> Underground Collector Line</li> <li><b>Solar Project Location</b></li> <li> Solar Lands</li> <li><b>Transmission Line</b></li> <li> Overhead Transmission Line</li> <li> Underground Transmission Line</li> <li> Electrical Transmission Component</li> </ul> | <ul style="list-style-type: none"> <li><b>Existing Features</b></li> <li> Road</li> <li> Railway</li> <li> Abandoned Railway</li> <li> Transmission Line (MNR)</li> <li> Watercourse (MNR)</li> <li> Waterbody (MNR)</li> <li> Provincial Park (MNR)</li> <li> Deer Wintering Yard (MNR)</li> <li> Wetland (GRCA)</li> <li> Area of Natural and Scientific Interest</li> <li> Watershed Boundary</li> </ul> | <ul style="list-style-type: none"> <li><b>Wetland (MNR)</b></li> <li> Provincially Significant Wetland</li> <li> Non-Provincially Significant Wetland</li> <li><b>Natural Features</b></li> <li> Woodland</li> <li> Wetland</li> <li> Rare Vegetation Community</li> <li> Seep</li> <li> Vernal Pool</li> <li> Snapping Turtle Habitat</li> <li> Animal Movement Corridor</li> </ul> | <ul style="list-style-type: none"> <li> Natural Feature</li> <li> Interior Forest Habitat</li> <li> Candidate Valleyland</li> <li> Candidate Habitat for Declining Grassland Species</li> <li> Candidate Waterfowl Stopover</li> <li> Candidate Migratory Butterfly Stopover</li> <li> Candidate Migratory Landbird Habitat</li> <li> Candidate Area-Sensitive Species Woodland Habitat</li> <li> Candidate Habitat for Declining Woodland Species</li> <li> Candidate Short-Eared Owl Habitat</li> <li> Candidate Winter Raptor Feeding &amp; Roosting Habitat</li> </ul> |
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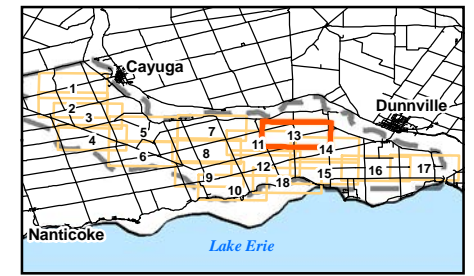
**Notes**

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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**10.13**

Title  
**CANDIDATE NATURAL  
FEATURES - W13**



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**Legend**

- Study Area
- Zone of Investigation
- Constructable Area
- Wind Project Location**
- Proposed Turbine Location
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Solar Project Location**
- Solar Lands
- Transmission Line**
- Overhead Transmission Line
- Underground Transmission Line
- Electrical Transmission Component

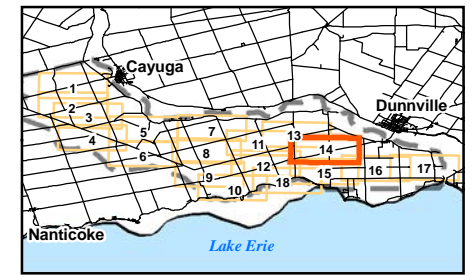
- Existing Features**
- Road
  - Railway
  - Abandoned Railway
  - Transmission Line (MNR)
  - Watercourse (MNR)
  - Waterbody (MNR)
  - Provincial Park (MNR)
  - Deer Wintering Yard (MNR)
  - Wetland (GRCA)
  - Area of Natural and Scientific Interest
  - Watershed Boundary

- Wetland (MNR)**
- Provincially Significant Wetland
  - Non-Provincially Significant Wetland
- Natural Features**
- Woodland
  - Wetland
  - Rare Vegetation Community
  - Seep
  - Vernal Pool
  - Snapping Turtle Habitat
  - Animal Movement Corridor

- Natural Feature
- Interior Forest Habitat
- Candidate Valleyland
- Candidate Habitat for Declining Grassland Species
- Candidate Waterfowl Stopover
- Candidate Migratory Butterfly Stopover
- Candidate Migratory Landbird Habitat
- Candidate Area-Sensitive Species Woodland Habitat
- Candidate Habitat for Declining Woodland Species
- Candidate Short-Eared Owl Habitat
- Candidate Winter Raptor Feeding & Roosting Habitat

**Notes**

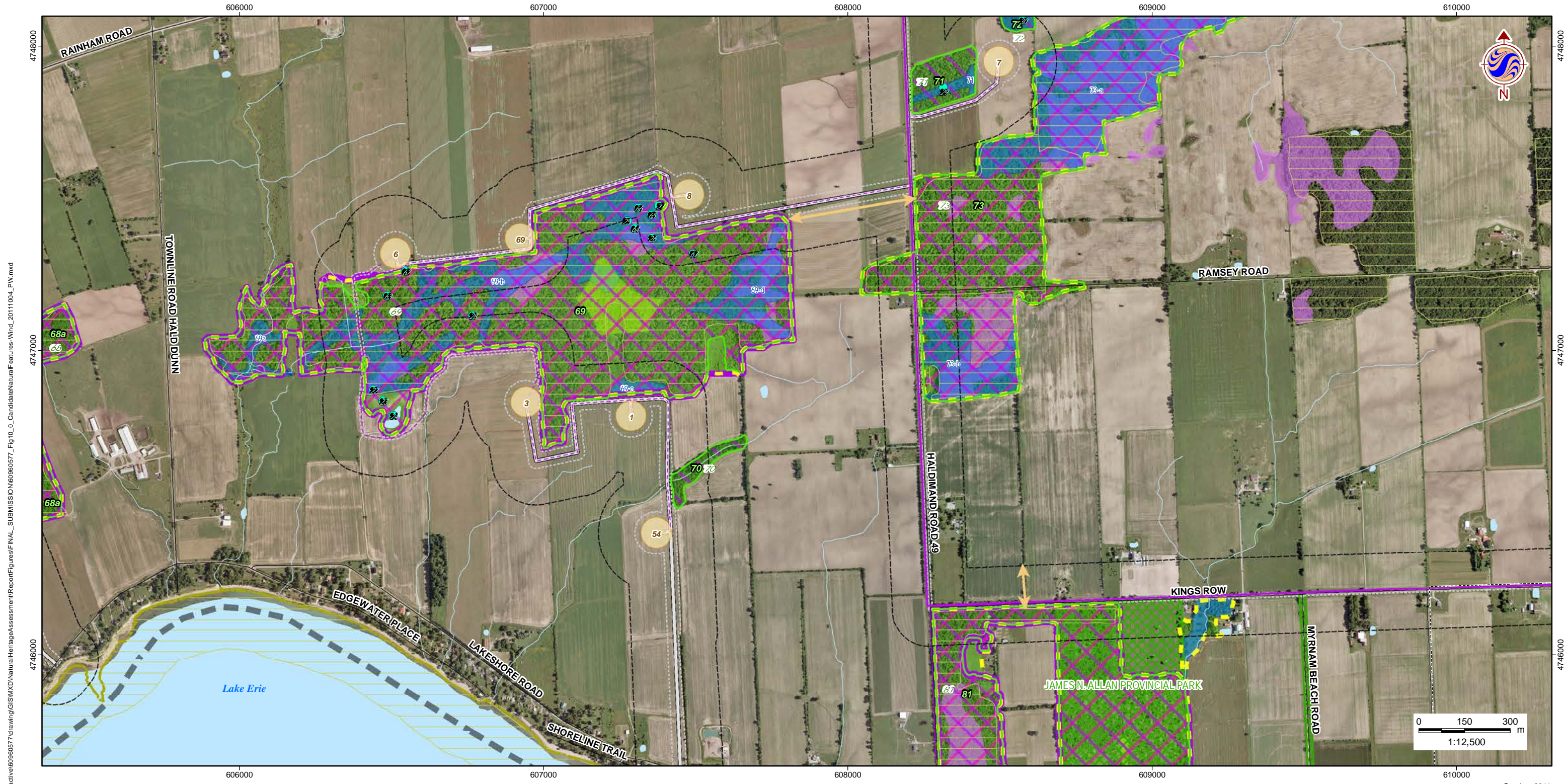
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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
 GRAND RENEWABLE ENERGY PARK**

Figure No.  
**10.14**

Title  
**CANDIDATE NATURAL  
 FEATURES - W14**



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**Legend**

- |   |   |   |  |
|---|---|---|--|
| <ul style="list-style-type: none"> <li> Study Area</li> <li> Zone of Investigation</li> <li> Constructable Area</li> <li><b>Wind Project Location</b></li> <li> Proposed Turbine Location</li> <li> Access Road</li> <li> Overhead Collector Line</li> <li> Underground Collector Line</li> <li><b>Solar Project Location</b></li> <li> Solar Lands</li> <li><b>Transmission Line</b></li> <li> Overhead Transmission Line</li> <li> Underground Transmission Line</li> <li> Electrical Transmission Component</li> </ul> | <p><b>Existing Features</b></p> <ul style="list-style-type: none"> <li> Road</li> <li> Railway</li> <li> Abandoned Railway</li> <li> Transmission Line (MNR)</li> <li> Watercourse (MNR)</li> <li> Waterbody (MNR)</li> <li> Provincial Park (MNR)</li> <li> Deer Wintering Yard (MNR)</li> <li> Wetland (GRCA)</li> <li> Area of Natural and Scientific Interest</li> <li> Watershed Boundary</li> </ul> | <p><b>Wetland (MNR)</b></p> <ul style="list-style-type: none"> <li> Provincially Significant Wetland</li> <li> Non-Provincially Significant Wetland</li> </ul> <p><b>Natural Features</b></p> <ul style="list-style-type: none"> <li> Woodland</li> <li> Wetland</li> <li> Rare Vegetation Community</li> <li> Seep</li> <li> Vernal Pool</li> <li> Snapping Turtle Habitat</li> <li> Animal Movement Corridor</li> </ul> | <ul style="list-style-type: none"> <li> Natural Feature</li> <li> Interior Forest Habitat</li> <li> Candidate Valleyland</li> <li> Candidate Habitat for Declining Grassland Species</li> <li> Candidate Waterfowl Stopover</li> <li> Candidate Migratory Butterfly Stopover</li> <li> Candidate Migratory Landbird Habitat</li> <li> Candidate Area-Sensitive Species Woodland Habitat</li> <li> Candidate Habitat for Declining Woodland Species</li> <li> Candidate Short-Eared Owl Habitat</li> <li> Candidate Winter Raptor Feeding &amp; Roosting Habitat</li> </ul> |
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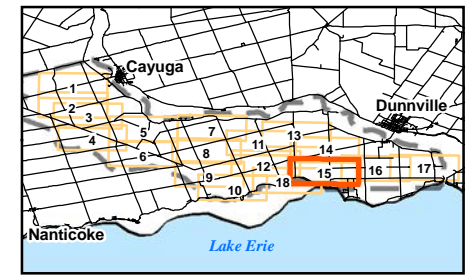
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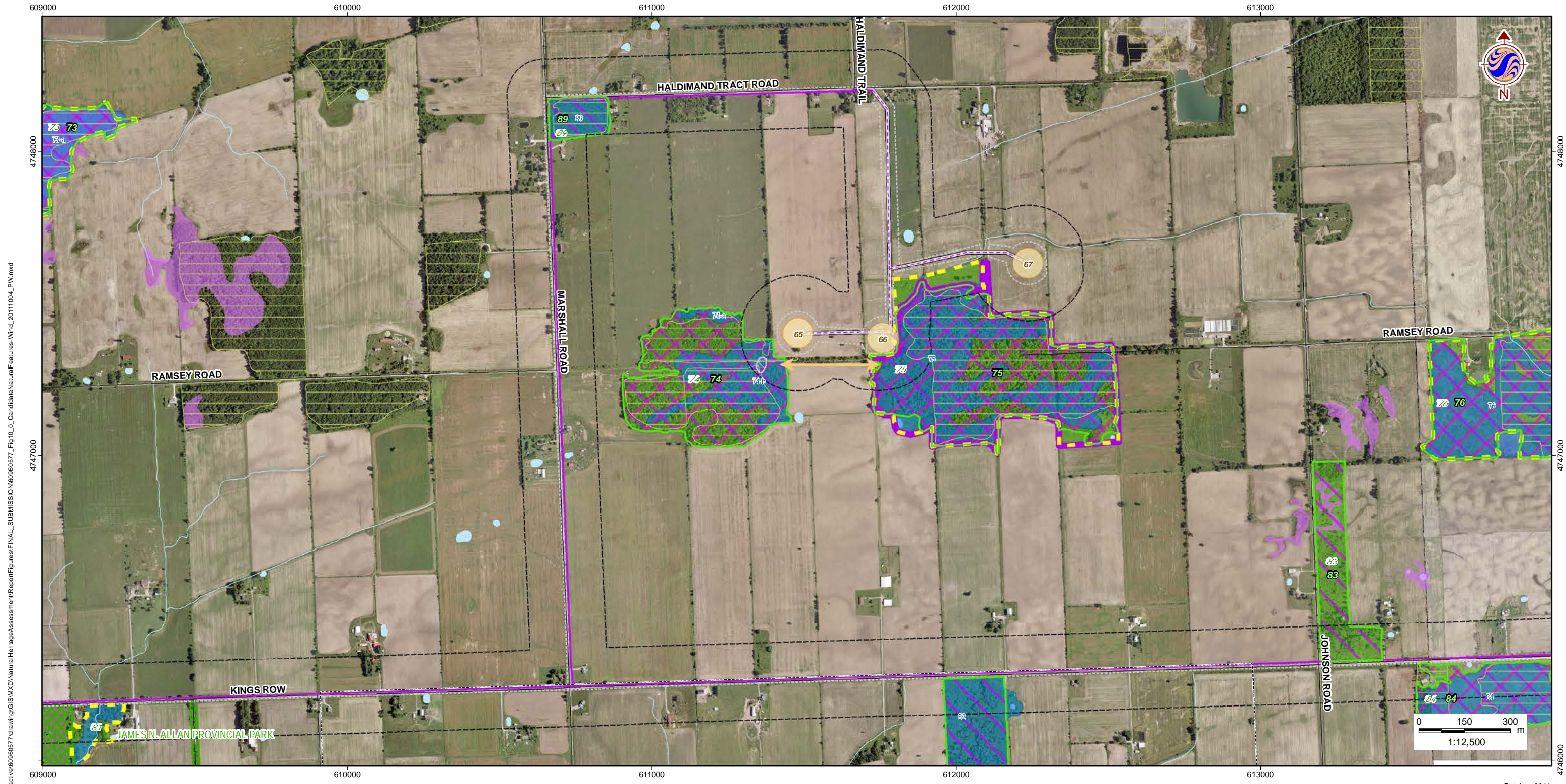
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Client/Project  
SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK

Figure No.  
10.15

Title  
**CANDIDATE NATURAL  
FEATURES - W15**





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**Legend**

- |   |   |   |  |
|---|---|---|--|
| <ul style="list-style-type: none"> <li> Study Area</li> <li> Zone of Investigation</li> <li> Constructable Area</li> <li><b>Wind Project Location</b></li> <li> Proposed Turbine Location</li> <li> Access Road</li> <li> Overhead Collector Line</li> <li> Underground Collector Line</li> <li><b>Solar Project Location</b></li> <li> Solar Lands</li> <li><b>Transmission Line</b></li> <li> Overhead Transmission Line</li> <li> Underground Transmission Line</li> <li> Electrical Transmission Component</li> </ul> | <p><b>Existing Features</b></p> <ul style="list-style-type: none"> <li> Road</li> <li> Railway</li> <li> Abandoned Railway</li> <li> Transmission Line (MNR)</li> <li> Wetland (MNR)</li> <li> Waterbody (MNR)</li> <li> Provincial Park (MNR)</li> <li> Deer Wintering Yard (MNR)</li> <li> Wetland (GRCA)</li> <li> Area of Natural and Scientific Interest</li> <li> Watershed Boundary</li> </ul> | <p><b>Wetland (MNR)</b></p> <ul style="list-style-type: none"> <li> Provincially Significant Wetland</li> <li> Non-Provincially Significant Wetland</li> </ul> <p><b>Natural Features</b></p> <ul style="list-style-type: none"> <li> Woodland</li> <li> Wetland</li> <li> Rare Vegetation Community</li> <li> Seep</li> <li> Vernal Pool</li> <li> Snapping Turtle Habitat</li> <li> Animal Movement Corridor</li> </ul> | <ul style="list-style-type: none"> <li> Natural Feature</li> <li> Interior Forest Habitat</li> <li> Candidate Valleyland</li> <li> Candidate Habitat for Declining Grassland Species</li> <li> Candidate Waterfowl Stopover</li> <li> Candidate Migratory Butterfly Stopover</li> <li> Candidate Migratory Landbird Habitat</li> <li> Candidate Area-Sensitive Species Woodland Habitat</li> <li> Candidate Habitat for Declining Woodland Species</li> <li> Candidate Short-Eared Owl Habitat</li> <li> Candidate Winter Raptor Feeding &amp; Roosting Habitat</li> </ul> |
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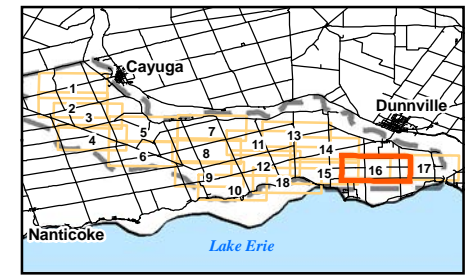
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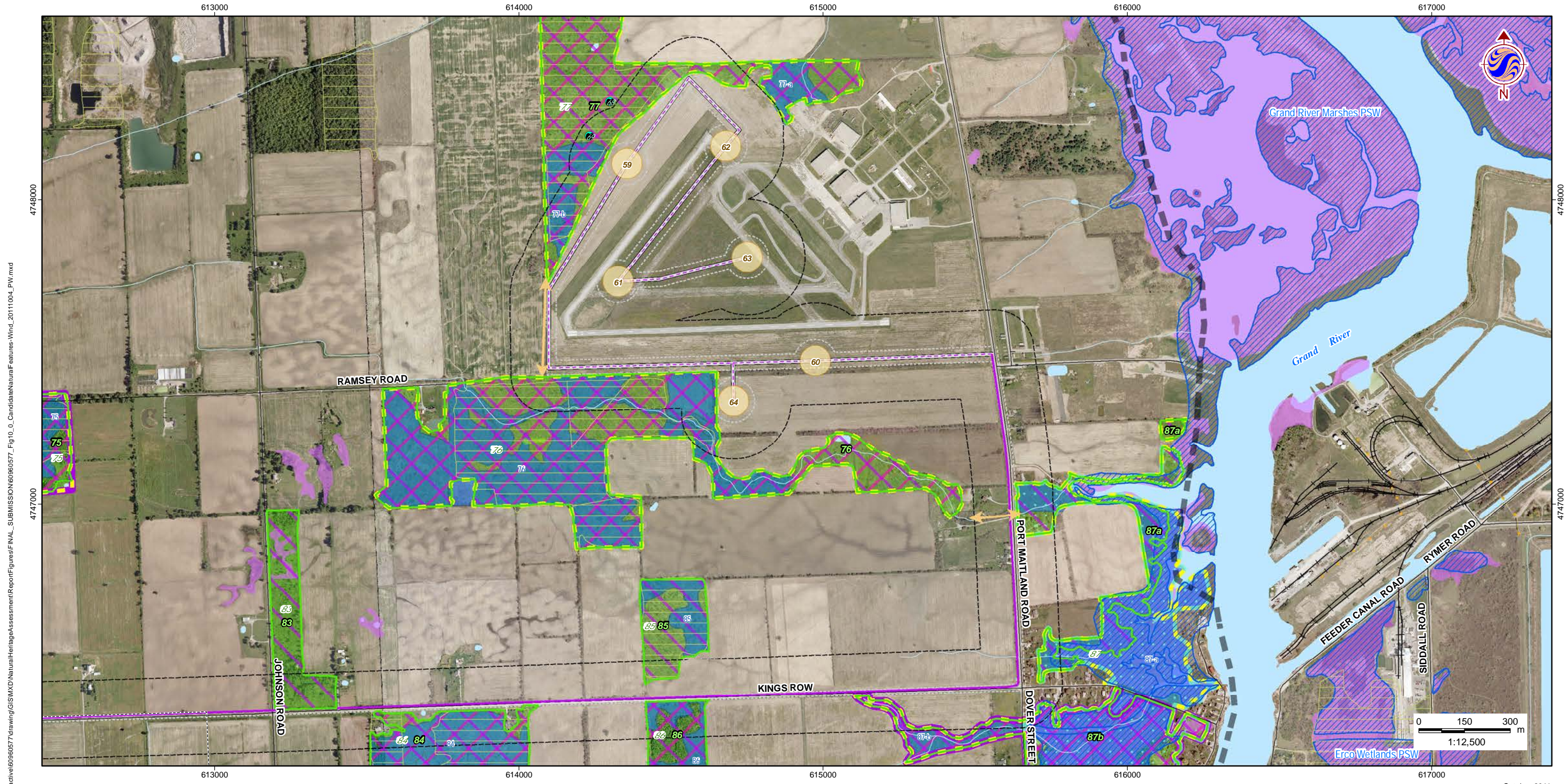
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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**10.16**

Title  
**CANDIDATE NATURAL  
FEATURES - W16**





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160960577



**Legend**

- |   |   |  |  |
|---|---|--|--|
| <ul style="list-style-type: none"> <li> Study Area</li> <li> Zone of Investigation</li> <li> Constructable Area</li> <li><b>Wind Project Location</b></li> <li> Proposed Turbine Location</li> <li> Access Road</li> <li> Overhead Collector Line</li> <li> Underground Collector Line</li> <li><b>Solar Project Location</b></li> <li> Solar Lands</li> <li><b>Transmission Line</b></li> <li> Overhead Transmission Line</li> <li> Underground Transmission Line</li> <li> Electrical Transmission Component</li> </ul> | <ul style="list-style-type: none"> <li><b>Existing Features</b></li> <li> Road</li> <li> Railway</li> <li> Abandoned Railway</li> <li> Transmission Line (MNR)</li> <li> Watercourse (MNR)</li> <li> Waterbody (MNR)</li> <li> Provincial Park (MNR)</li> <li> Deer Wintering Yard (MNR)</li> <li> Wetland (GRCA)</li> <li> Area of Natural and Scientific Interest</li> <li> Watershed Boundary</li> </ul> | <ul style="list-style-type: none"> <li><b>Wetland (MNR)</b></li> <li> Provincially Significant Wetland</li> <li> Non-Provincially Significant Wetland</li> <li><b>Natural Features</b></li> <li> Woodland</li> <li> Wetland</li> <li> Rare Vegetation Community</li> <li> Seep</li> <li> Vernal Pool</li> <li> Snapping Turtle Habitat</li> <li> Animal Movement Corridor</li> </ul> | <ul style="list-style-type: none"> <li> Natural Feature</li> <li> Interior Forest Habitat</li> <li> Candidate Valleyland</li> <li> Candidate Habitat for Declining Grassland Species</li> <li> Candidate Waterfowl Stopover</li> <li> Candidate Migratory Butterfly Stopover</li> <li> Candidate Migratory Landbird Habitat</li> <li> Candidate Area-Sensitive Species Woodland Habitat</li> <li> Candidate Habitat for Declining Woodland Species</li> <li> Candidate Short-Eared Owl Habitat</li> <li> Candidate Winter Raptor Feeding &amp; Roosting Habitat</li> </ul> |
|---|---|--|--|

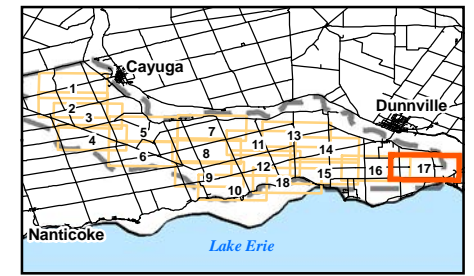
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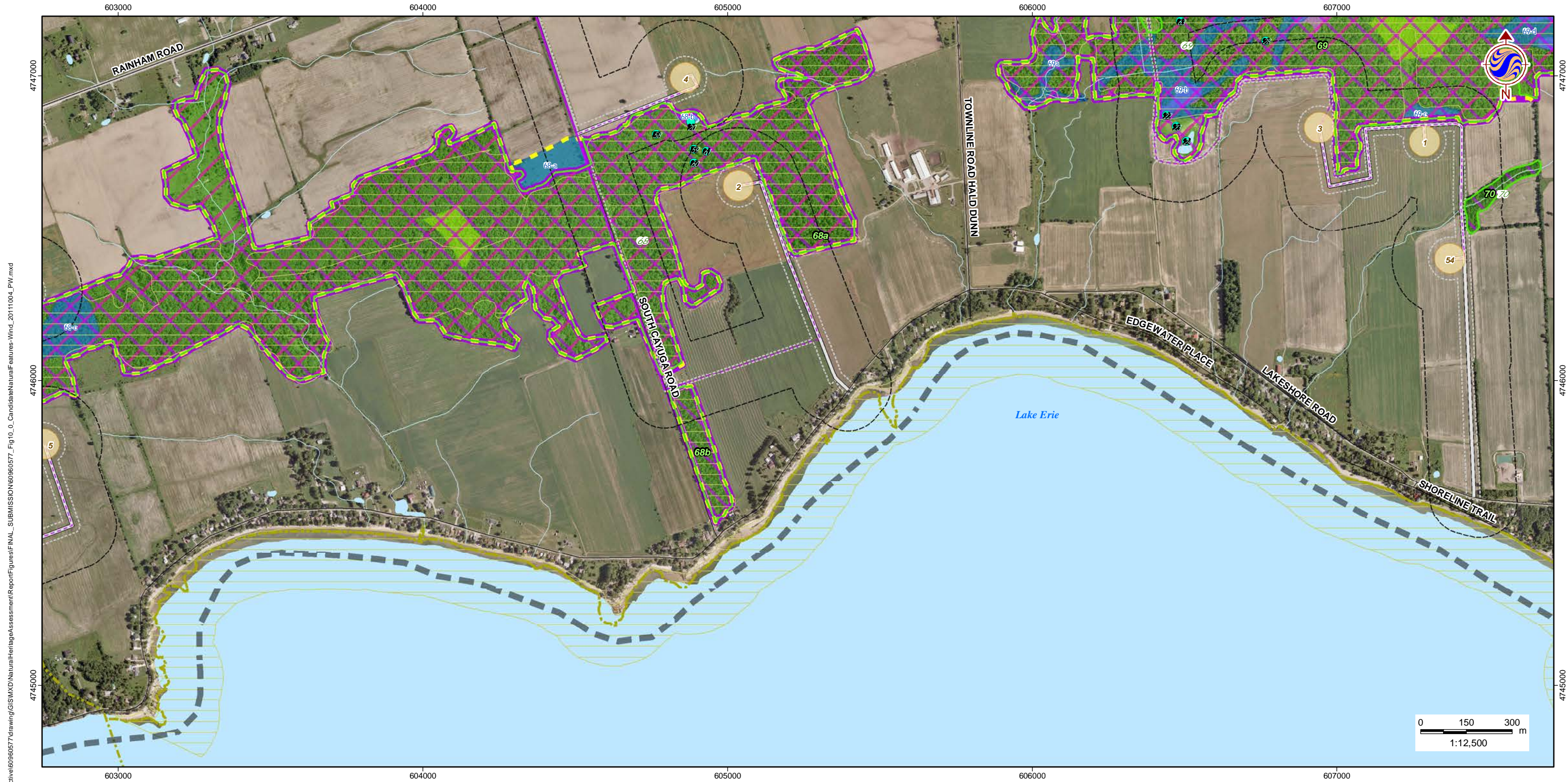
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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**10.17**

Title  
**CANDIDATE NATURAL  
FEATURES - W17**





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**Legend**

<ul style="list-style-type: none"> <li> Study Area</li> <li> Zone of Investigation</li> <li> Constructable Area</li> <li><b>Wind Project Location</b></li> <li> Proposed Turbine Location</li> <li> Access Road</li> <li> Overhead Collector Line</li> <li> Underground Collector Line</li> <li><b>Solar Project Location</b></li> <li> Solar Lands</li> <li><b>Transmission Line</b></li> <li> Overhead Transmission Line</li> <li> Underground Transmission Line</li> <li> Electrical Transmission Component</li> </ul>	<p><b>Existing Features</b></p> <ul style="list-style-type: none"> <li> Road</li> <li> Railway</li> <li> Abandoned Railway</li> <li> Transmission Line (MNR)</li> <li> Watercourse (MNR)</li> <li> Waterbody (MNR)</li> <li> Provincial Park (MNR)</li> <li> Deer Wintering Yard (MNR)</li> <li> Wetland (GRCA)</li> <li> Area of Natural and Scientific Interest</li> <li> Watershed Boundary</li> </ul>	<p><b>Wetland (MNR)</b></p> <ul style="list-style-type: none"> <li> Provincially Significant Wetland</li> <li> Non-Provincially Significant Wetland</li> </ul> <p><b>Natural Features</b></p> <ul style="list-style-type: none"> <li> Woodland</li> <li> Wetland</li> <li> Rare Vegetation Community</li> <li> Seep</li> <li> Vernal Pool</li> <li> Snapping Turtle Habitat</li> <li> Animal Movement Corridor</li> </ul>	<ul style="list-style-type: none"> <li> Natural Feature</li> <li> Interior Forest Habitat</li> <li> Candidate Valleyland</li> <li> Candidate Habitat for Declining Grassland Species</li> <li> Candidate Waterfowl Stopover</li> <li> Candidate Migratory Butterfly Stopover</li> <li> Candidate Migratory Landbird Habitat</li> <li> Candidate Area-Sensitive Species Woodland Habitat</li> <li> Candidate Habitat for Declining Woodland Species</li> <li> Candidate Short-Eared Owl Habitat</li> <li> Candidate Winter Raptor Feeding &amp; Roosting Habitat</li> </ul>
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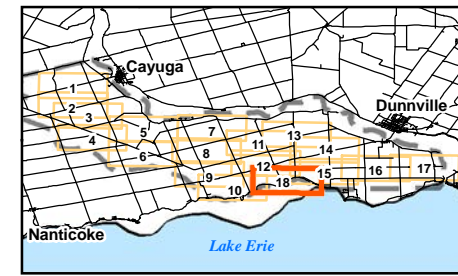
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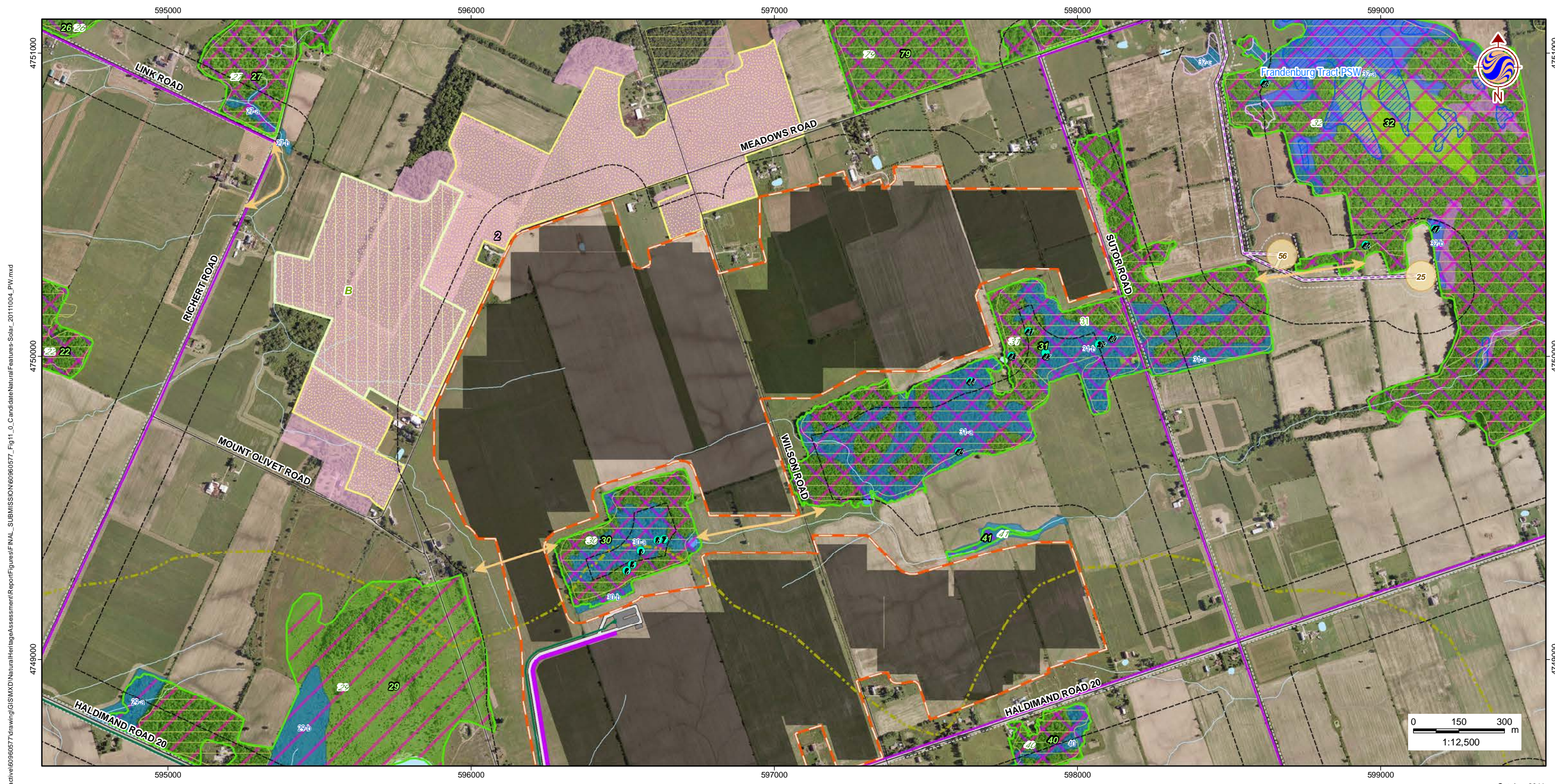
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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**10.18**

Title  
**CANDIDATE NATURAL  
FEATURES - W18**





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**Legend**

- Study Area
- Zone of Investigation
- Constructable Area
- Wind Project Location**
- Proposed Turbine Location
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Solar Project Location**
- Solar Lands
- Solar Panel Unit
- Transmission Line**
- Overhead Transmission Line
- Underground Transmission Line
- Electrical Transmission Component
- Road
- Railway
- Abandoned Railway
- Transmission Line (MNR)
- Watercourse (MNR)
- Waterbody (MNR)
- Provincial Park (MNR)
- Deer Wintering Yard (MNR)
- Wetland (GRCA)
- Area of Natural and Scientific Interest
- Watershed Boundary

- Wetland (MNR)**
- Provincially Significant Wetland
- Non-Provincially Significant Wetland
- Natural Features**
- Woodland
- Wetland
- Rare Vegetation Community
- Seep
- Vernal Pool
- Snapping Turtle Habitat
- Animal Movement Corridor

- Natural Feature
- Interior Forest Habitat
- Candidate Valleyland
- Candidate Habitat for Declining Grassland Species
- Candidate Waterfowl Stopover
- Candidate Migratory Butterfly Stopover
- Candidate Migratory Landbird Habitat
- Candidate Area-Sensitive Species Woodland Habitat
- Candidate Habitat for Declining Woodland Species
- Candidate Short-Eared Owl Habitat
- Candidate Winter Raptor Feeding & Roosting Habitat

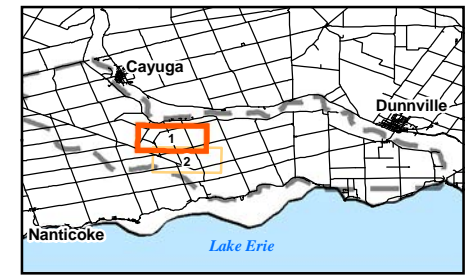
**Notes**

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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**11.1**

Title  
**CANDIDATE NATURAL  
FEATURES - S1**





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**Legend**

- |                               |   |                                      |  |
|-------------------------------|---|--------------------------------------|--|
| Study Area                    | Electrical Transmission Component       | Provincially Significant Wetland     | Natural Feature                                    |
| Zone of Investigation         | Road                                    | Non-Provincially Significant Wetland | Interior Forest Habitat                            |
| Constructable Area            | Railway                                 | Woodland                             | Candidate Valleyland                               |
| <b>Wind Project Location</b>  | Abandoned Railway                       | Wetland                              | Candidate Habitat for Declining Grassland Species  |
| Proposed Turbine Location     | Transmission Line (MNR)                 | Rare Vegetation Community            | Candidate Waterfowl Stopover                       |
| Access Road                   | Watercourse (MNR)                       | Seep                                 | Candidate Migratory Butterfly Stopover             |
| Overhead Collector Line       | Waterbody (MNR)                         | Vernal Pool                          | Candidate Migratory Landbird Habitat               |
| Underground Collector Line    | Provincial Park (MNR)                   | Snapping Turtle Habitat              | Candidate Area-Sensitive Species Woodland Habitat  |
| <b>Solar Project Location</b> | Deer Wintering Yard (MNR)               | Animal Movement Corridor             | Candidate Habitat for Declining Woodland Species   |
| Solar Lands                   | Wetland (GRCA)                          |                                      | Candidate Short-Eared Owl Habitat                  |
| Solar Panel Unit              | Area of Natural and Scientific Interest |                                      | Candidate Winter Raptor Feeding & Roosting Habitat |
| <b>Transmission Line</b>      | Watershed Boundary                      |                                      |  |
| Overhead Transmission Line    |   |                                      |  |
| Underground Transmission Line |   |                                      |  |

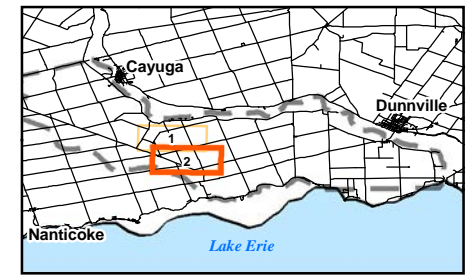
**Notes**

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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**11.2**

Title  
**CANDIDATE NATURAL  
FEATURES - S2**







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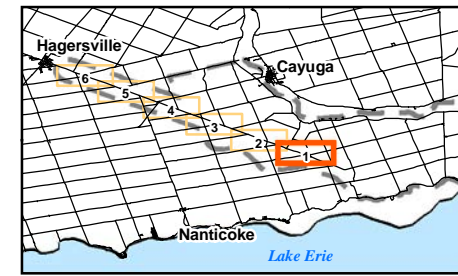


**Legend**

- |   |   |   |  |
|---|---|---|--|
| <ul style="list-style-type: none"> <li> Study Area</li> <li> Zone of Investigation</li> <li> Constructable Area</li> <li><b>Wind Project Location</b></li> <li> Proposed Turbine Location</li> <li> Access Road</li> <li> Overhead Collector Line</li> <li> Underground Collector Line</li> <li><b>Solar Project Location</b></li> <li> Solar Lands</li> <li><b>Transmission Line</b></li> <li> Overhead Transmission Line</li> <li> Underground Transmission Line</li> <li> Electrical Transmission Component</li> </ul> | <p><b>Existing Features</b></p> <ul style="list-style-type: none"> <li> Road</li> <li> Railway</li> <li> Abandoned Railway</li> <li> Transmission Line (MNR)</li> <li> Watercourse (MNR)</li> <li> Waterbody (MNR)</li> <li> Provincial Park (MNR)</li> <li> Deer Wintering Yard (MNR)</li> <li> Wetland (GRCA)</li> <li> Area of Natural and Scientific Interest</li> <li> Watershed Boundary</li> </ul> | <p><b>Wetland (MNR)</b></p> <ul style="list-style-type: none"> <li> Provincially Significant Wetland</li> <li> Non-Provincially Significant Wetland</li> </ul> <p><b>Natural Features</b></p> <ul style="list-style-type: none"> <li> Woodland</li> <li> 9-a</li> <li> Rare Vegetation Community</li> <li> Seep</li> <li> Vernal Pool</li> <li> Snapping Turtle Habitat</li> <li> Animal Movement Corridor</li> </ul> | <ul style="list-style-type: none"> <li> Natural Feature</li> <li> Interior Forest Habitat</li> <li> Candidate Valleyland</li> <li> Candidate Habitat for Declining Grassland Species</li> <li> Candidate Waterfowl Stopover</li> <li> Candidate Migratory Butterfly Stopover</li> <li> Candidate Migratory Landbird Habitat</li> <li> Candidate Area-Sensitive Species Woodland Habitat</li> <li> Candidate Habitat for Declining Woodland Species</li> <li> Candidate Short-Eared Owl Habitat</li> <li> Candidate Winter Raptor Feeding &amp; Roosting Habitat</li> </ul> |
|---|---|---|--|

**Notes**

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
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3. Image Source: © Terrapoint, 2011 - Imagery Date: July 2009; Grand River Conservation Authority © First Base Solutions, 2011 - Imagery Date: Spring 2006.

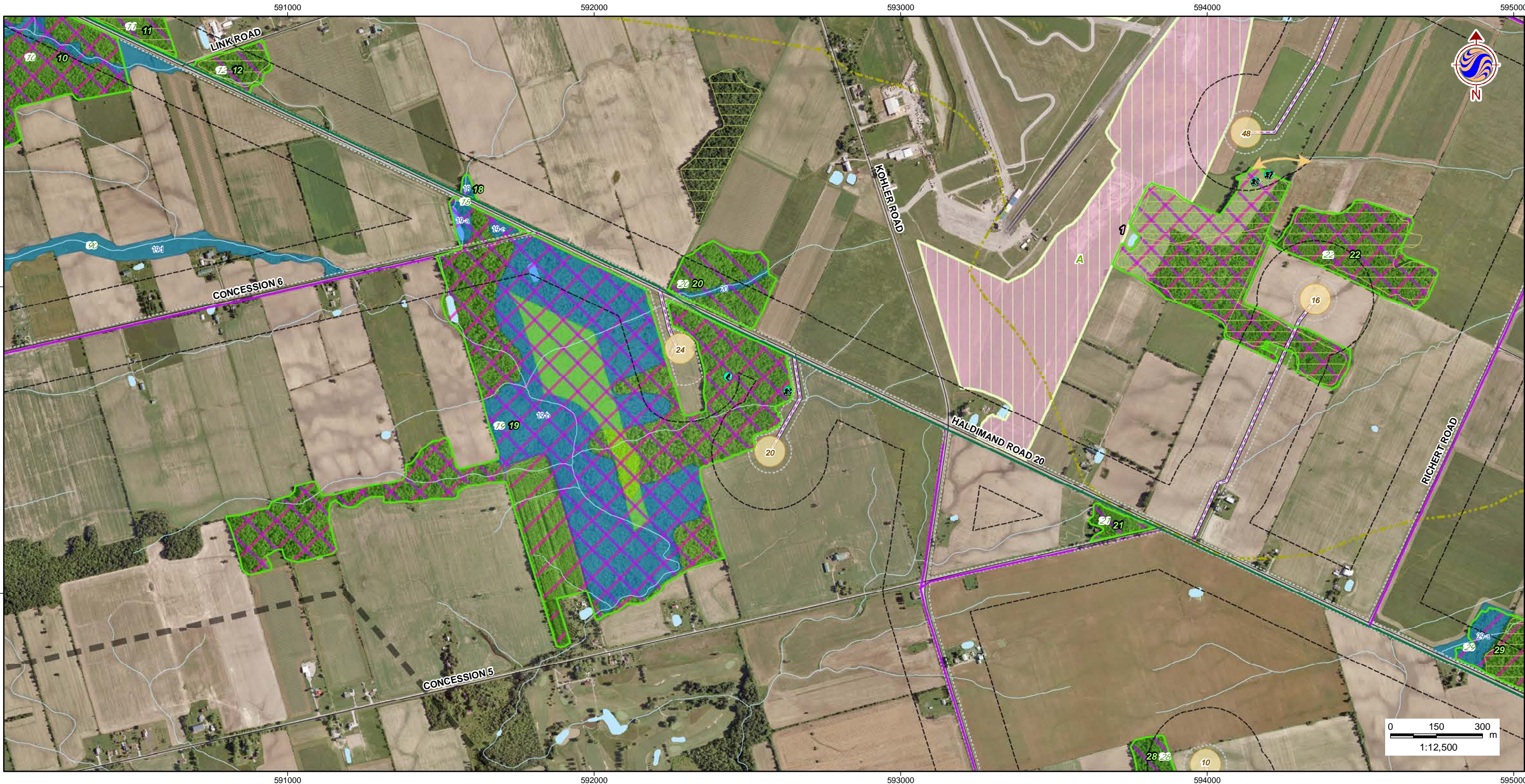


Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**12.1**

Title  
**CANDIDATE NATURAL  
FEATURES - T1**

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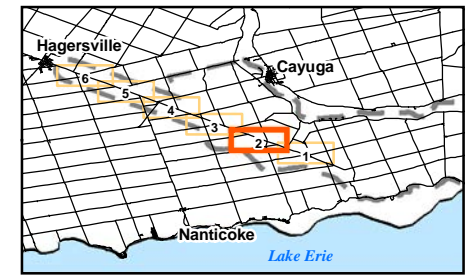


**Legend**

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|---|---|--|--|
| <ul style="list-style-type: none"> <li> Study Area</li> <li> Zone of Investigation</li> <li> Constructable Area</li> <li><b>Wind Project Location</b></li> <li> Proposed Turbine Location</li> <li> Access Road</li> <li> Overhead Collector Line</li> <li> Underground Collector Line</li> <li><b>Solar Project Location</b></li> <li> Solar Lands</li> <li><b>Transmission Line</b></li> <li> Overhead Transmission Line</li> <li> Underground Transmission Line</li> <li> Electrical Transmission Component</li> </ul> | <ul style="list-style-type: none"> <li><b>Existing Features</b></li> <li> Road</li> <li> Railway</li> <li> Abandoned Railway</li> <li> Transmission Line (MNR)</li> <li> Watercourse (MNR)</li> <li> Waterbody (MNR)</li> <li> Provincial Park (MNR)</li> <li> Deer Wintering Yard (MNR)</li> <li> Wetland (GRCA)</li> <li> Area of Natural and Scientific Interest</li> <li> Watershed Boundary</li> </ul> | <ul style="list-style-type: none"> <li><b>Wetland (MNR)</b></li> <li> Provincially Significant Wetland</li> <li> Non-Provincially Significant Wetland</li> <li><b>Natural Features</b></li> <li> Woodland</li> <li> Wetland</li> <li> Rare Vegetation Community</li> <li> Seep</li> <li> Vernal Pool</li> <li> Snapping Turtle Habitat</li> <li> Animal Movement Corridor</li> </ul> | <ul style="list-style-type: none"> <li> Natural Feature</li> <li> Interior Forest Habitat</li> <li> Candidate Valleyland</li> <li> Candidate Habitat for Declining Grassland Species</li> <li> Candidate Waterfowl Stopover</li> <li> Candidate Migratory Butterfly Stopover</li> <li> Candidate Migratory Landbird Habitat</li> <li> Candidate Area-Sensitive Species Woodland Habitat</li> <li> Candidate Habitat for Declining Woodland Species</li> <li> Candidate Short-Eared Owl Habitat</li> <li> Candidate Winter Raptor Feeding &amp; Roosting Habitat</li> </ul> |
|---|---|--|--|

**Notes**

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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
 GRAND RENEWABLE ENERGY PARK**

Figure No.  
**12.2**

Title  
**CANDIDATE NATURAL  
 FEATURES - T2**

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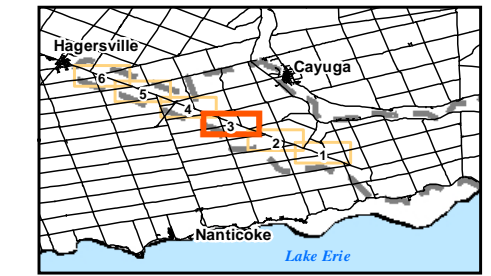


**Legend**

- |   |   |  |  |
|---|---|--|--|
| <ul style="list-style-type: none"> <li> Study Area</li> <li> Zone of Investigation</li> <li> Constructable Area</li> <li><b>Wind Project Location</b></li> <li> Proposed Turbine Location</li> <li> Access Road</li> <li> Overhead Collector Line</li> <li> Underground Collector Line</li> <li><b>Solar Project Location</b></li> <li> Solar Lands</li> <li><b>Transmission Line</b></li> <li> Overhead Transmission Line</li> <li> Underground Transmission Line</li> <li> Electrical Transmission Component</li> </ul> | <ul style="list-style-type: none"> <li><b>Existing Features</b></li> <li> Road</li> <li> Railway</li> <li> Abandoned Railway</li> <li> Transmission Line (MNR)</li> <li> Watercourse (MNR)</li> <li> Waterbody (MNR)</li> <li> Provincial Park (MNR)</li> <li> Deer Wintering Yard (MNR)</li> <li> Wetland (GRCA)</li> <li> Area of Natural and Scientific Interest</li> <li> Watershed Boundary</li> </ul> | <ul style="list-style-type: none"> <li><b>Wetland (MNR)</b></li> <li> Provincially Significant Wetland</li> <li> Non-Provincially Significant Wetland</li> <li><b>Natural Features</b></li> <li> Woodland</li> <li> Wetland</li> <li> Rare Vegetation Community</li> <li> Seep</li> <li> Vernal Pool</li> <li> Snapping Turtle Habitat</li> <li> Animal Movement Corridor</li> </ul> | <ul style="list-style-type: none"> <li> Natural Feature</li> <li> Interior Forest Habitat</li> <li> Candidate Valleyland</li> <li> Candidate Habitat for Declining Grassland Species</li> <li> Candidate Waterfowl Stopover</li> <li> Candidate Migratory Butterfly Stopover</li> <li> Candidate Migratory Landbird Habitat</li> <li> Candidate Area-Sensitive Species Woodland Habitat</li> <li> Candidate Habitat for Declining Woodland Species</li> <li> Candidate Short-Eared Owl Habitat</li> <li> Candidate Winter Raptor Feeding &amp; Roosting Habitat</li> </ul> |
|---|---|--|--|

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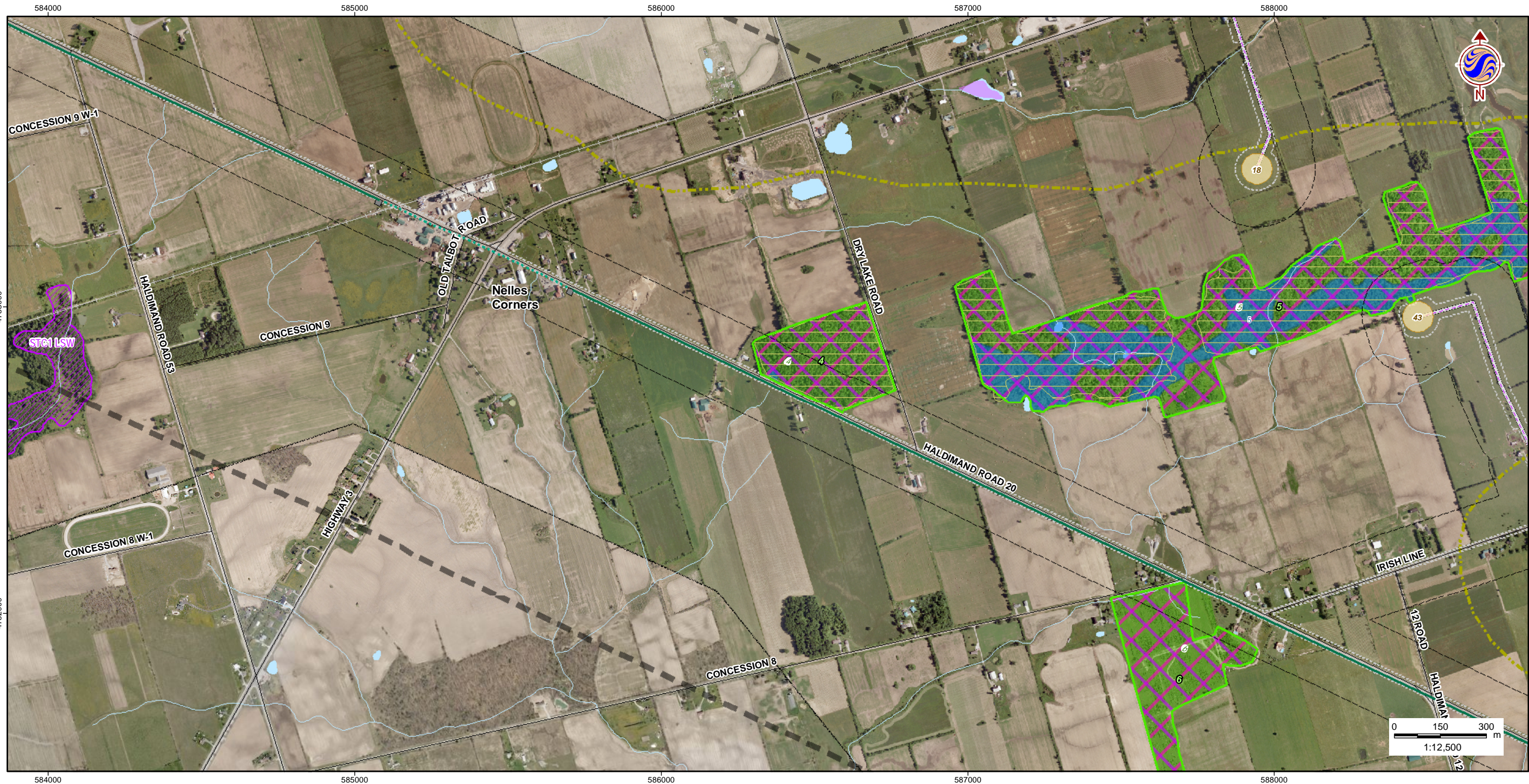


Client/Project  
SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK

Figure No.  
12.3

Title  
**CANDIDATE NATURAL FEATURES - T3**

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**Legend**

- Study Area
- Zone of Investigation
- Constructable Area
- Wind Project Location**
- Proposed Turbine Location
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Solar Project Location**
- Solar Lands
- Transmission Line**
- Overhead Transmission Line
- Underground Transmission Line
- Electrical Transmission Component

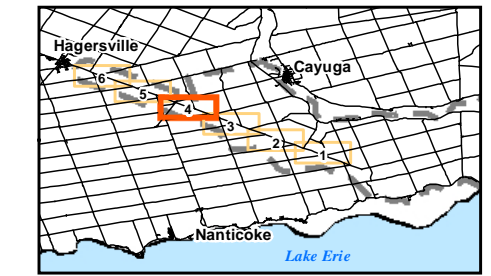
- Existing Features**
- Road
  - Railway
  - Abandoned Railway
  - Transmission Line (MNR)
  - Watercourse (MNR)
  - Waterbody (MNR)
  - Provincial Park (MNR)
  - Deer Wintering Yard (MNR)
  - Wetland (GRCA)
  - Area of Natural and Scientific Interest
  - Watershed Boundary

- Wetland (MNR)**
- Provincially Significant Wetland
  - Non-Provincially Significant Wetland
- Natural Features**
- Woodland
  - 9-a Wetland
  - Rare Vegetation Community
  - Seep
  - Vernal Pool
  - Snapping Turtle Habitat
  - Animal Movement Corridor

- Natural Feature
- Interior Forest Habitat
- Candidate Valleyland
- Candidate Habitat for Declining Grassland Species
- Candidate Waterfowl Stopover
- Candidate Migratory Butterfly Stopover
- Candidate Migratory Landbird Habitat
- Candidate Area-Sensitive Species Woodland Habitat
- Candidate Habitat for Declining Woodland Species
- Candidate Short-Eared Owl Habitat
- Candidate Winter Raptor Feeding & Roosting Habitat

**Notes**

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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**12.4**

Title  
**CANDIDATE NATURAL  
FEATURES - T4**



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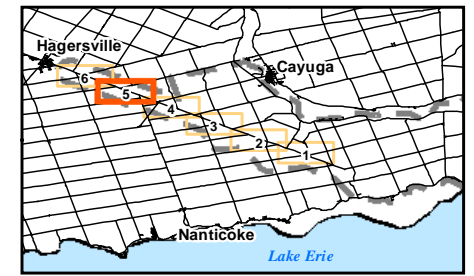


**Legend**

<ul style="list-style-type: none"> <li> Study Area</li> <li> Zone of Investigation</li> <li> Constructable Area</li> <li><b>Wind Project Location</b></li> <li> Proposed Turbine Location</li> <li> Access Road</li> <li> Overhead Collector Line</li> <li> Underground Collector Line</li> <li><b>Solar Project Location</b></li> <li> Solar Lands</li> <li><b>Transmission Line</b></li> <li> Overhead Transmission Line</li> <li> Underground Transmission Line</li> <li> Electrical Transmission Component</li> </ul>	<p><b>Existing Features</b></p> <ul style="list-style-type: none"> <li> Road</li> <li> Railway</li> <li> Abandoned Railway</li> <li> Transmission Line (MNR)</li> <li> Watercourse (MNR)</li> <li> Waterbody (MNR)</li> <li> Provincial Park (MNR)</li> <li> Deer Wintering Yard (MNR)</li> <li> Wetland (GRCA)</li> <li> Area of Natural and Scientific Interest</li> <li> Watershed Boundary</li> </ul>	<p><b>Wetland (MNR)</b></p> <ul style="list-style-type: none"> <li> Provincially Significant Wetland</li> <li> Non-Provincially Significant Wetland</li> </ul> <p><b>Natural Features</b></p> <ul style="list-style-type: none"> <li> Woodland</li> <li> Wetland</li> <li> Rare Vegetation Community</li> <li> Seep</li> <li> Vernal Pool</li> <li> Snapping Turtle Habitat</li> <li> Animal Movement Corridor</li> </ul>	<ul style="list-style-type: none"> <li> Natural Feature</li> <li> Interior Forest Habitat</li> <li> Candidate Valleyland</li> <li> Candidate Habitat for Declining Grassland Species</li> <li> Candidate Waterfowl Stopover</li> <li> Candidate Migratory Butterfly Stopover</li> <li> Candidate Migratory Landbird Habitat</li> <li> Candidate Area-Sensitive Species Woodland Habitat</li> <li> Candidate Habitat for Declining Woodland Species</li> <li> Candidate Short-Eared Owl Habitat</li> <li> Candidate Winter Raptor Feeding &amp; Roosting Habitat</li> </ul>
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**Notes**

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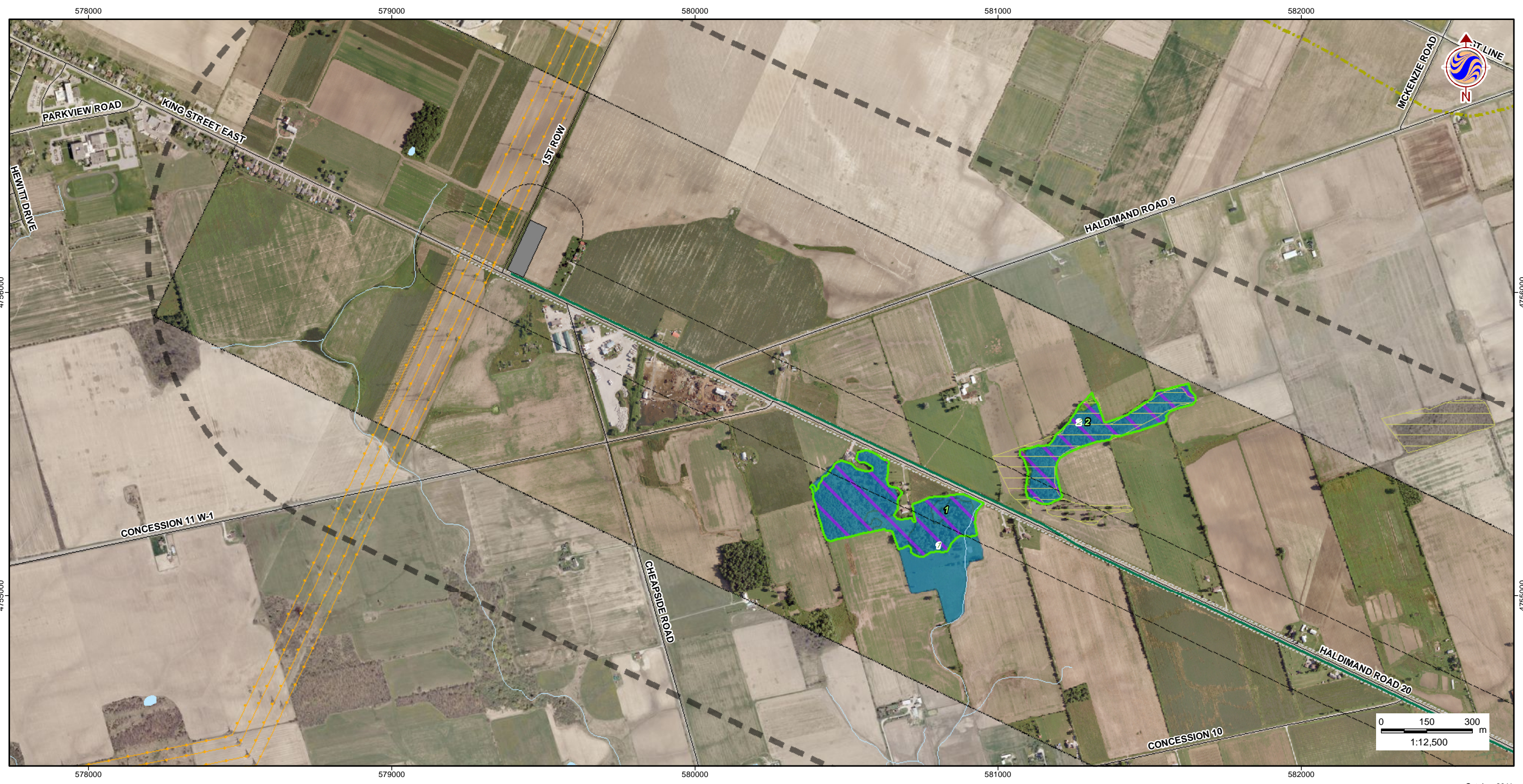


Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**12.5**

Title  
**CANDIDATE NATURAL  
FEATURES - T5**

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**Legend**

- Study Area
- Zone of Investigation
- Constructable Area
- Wind Project Location**
- Proposed Turbine Location
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Solar Project Location**
- Solar Lands
- Transmission Line**
- Overhead Transmission Line
- Underground Transmission Line
- Electrical Transmission Component

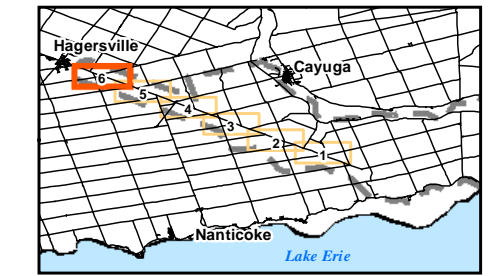
- Existing Features**
- Road
  - Railway
  - Abandoned Railway
  - Transmission Line (MNR)
  - Watercourse (MNR)
  - Waterbody (MNR)
  - Provincial Park (MNR)
  - Deer Wintering Yard (MNR)
  - Wetland (GRCA)
  - Area of Natural and Scientific Interest
  - Watershed Boundary

- Wetland (MNR)**
- Provincially Significant Wetland
  - Non-Provincially Significant Wetland
- Natural Features**
- Woodland
  - Wetland
  - Rare Vegetation Community
  - Seep
  - Vernal Pool
  - Snapping Turtle Habitat
  - Animal Movement Corridor

- Natural Feature
- Interior Forest Habitat
- Candidate Valleyland
- Candidate Habitat for Declining Grassland Species
- Candidate Waterfowl Stopover
- Candidate Migratory Butterfly Stopover
- Candidate Migratory Landbird Habitat
- Candidate Area-Sensitive Species Woodland Habitat
- Candidate Habitat for Declining Woodland Species
- Candidate Short-Eared Owl Habitat
- Candidate Winter Raptor Feeding & Roosting Habitat

**Notes**

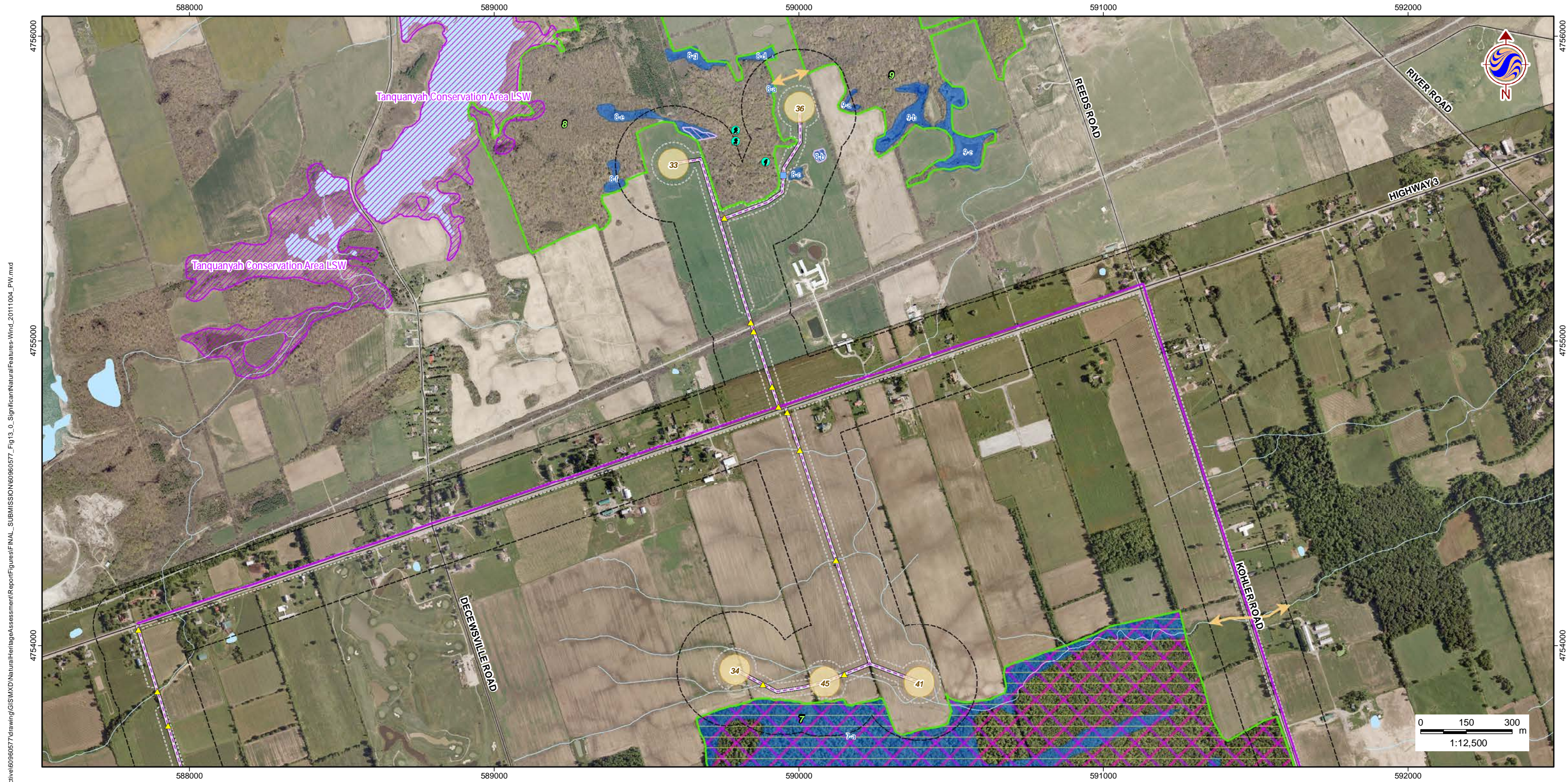
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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**12.6**

Title  
**CANDIDATE NATURAL  
FEATURES - T6**



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**Legend**

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| <ul style="list-style-type: none"> <li> Study Area</li> <li> Zone of Investigation</li> <li> Constructable Area</li> <li><b>Wind Project Location</b></li> <li> Proposed Turbine Location</li> <li> Access Road</li> <li> Overhead Collector Line</li> <li> Underground Collector Line</li> <li><b>Solar Project Location</b></li> <li> Solar Lands</li> </ul> | <ul style="list-style-type: none"> <li><b>Transmission Line</b></li> <li> Overhead Transmission Line</li> <li> Underground Transmission Line</li> <li> Electrical Transmission Component</li> <li><b>Existing Features</b></li> <li> Road</li> <li> Railway</li> <li> Abandoned Railway</li> <li> Transmission Line (MNR)</li> <li> Watercourse (MNR)</li> <li> Waterbody (MNR)</li> </ul> | <ul style="list-style-type: none"> <li><b>Wetland (MNR)</b></li> <li> Provincially Significant Wetland</li> <li> Non-Provincially Significant Wetland</li> <li><b>Significant Natural Features</b></li> <li> Significant Woodland</li> <li> Significant Wetland</li> <li> Significant Valleyland</li> <li><b>Significant Wildlife Habitat</b></li> <li> Deer Wintering Area</li> <li> Habitat for Declining/Area-Sensitive Grassland Species</li> <li> Winter Raptor Roosting &amp; Feeding Area</li> </ul> | <ul style="list-style-type: none"> <li> Seep</li> <li> Vernal Pool</li> <li> Rare Vegetation Community</li> <li> Snapping Turtle Habitat</li> <li> Animal Movement Corridor</li> <li> Waterfowl Stopover</li> <li> Migratory Landbird Habitat</li> <li> Habitat for Declining Woodland Species</li> <li> Area-Sensitive Species Woodland Habitat</li> <li> Short-Eared Owl Habitat</li> <li><b>Culverts</b></li> <li> Wildlife &amp; Flow Culvert</li> <li> Other Culvert</li> </ul> |
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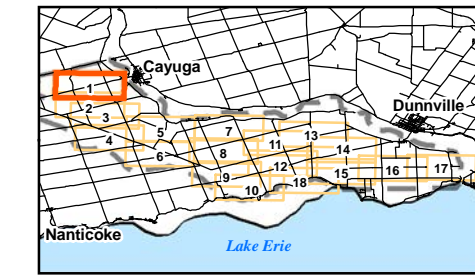
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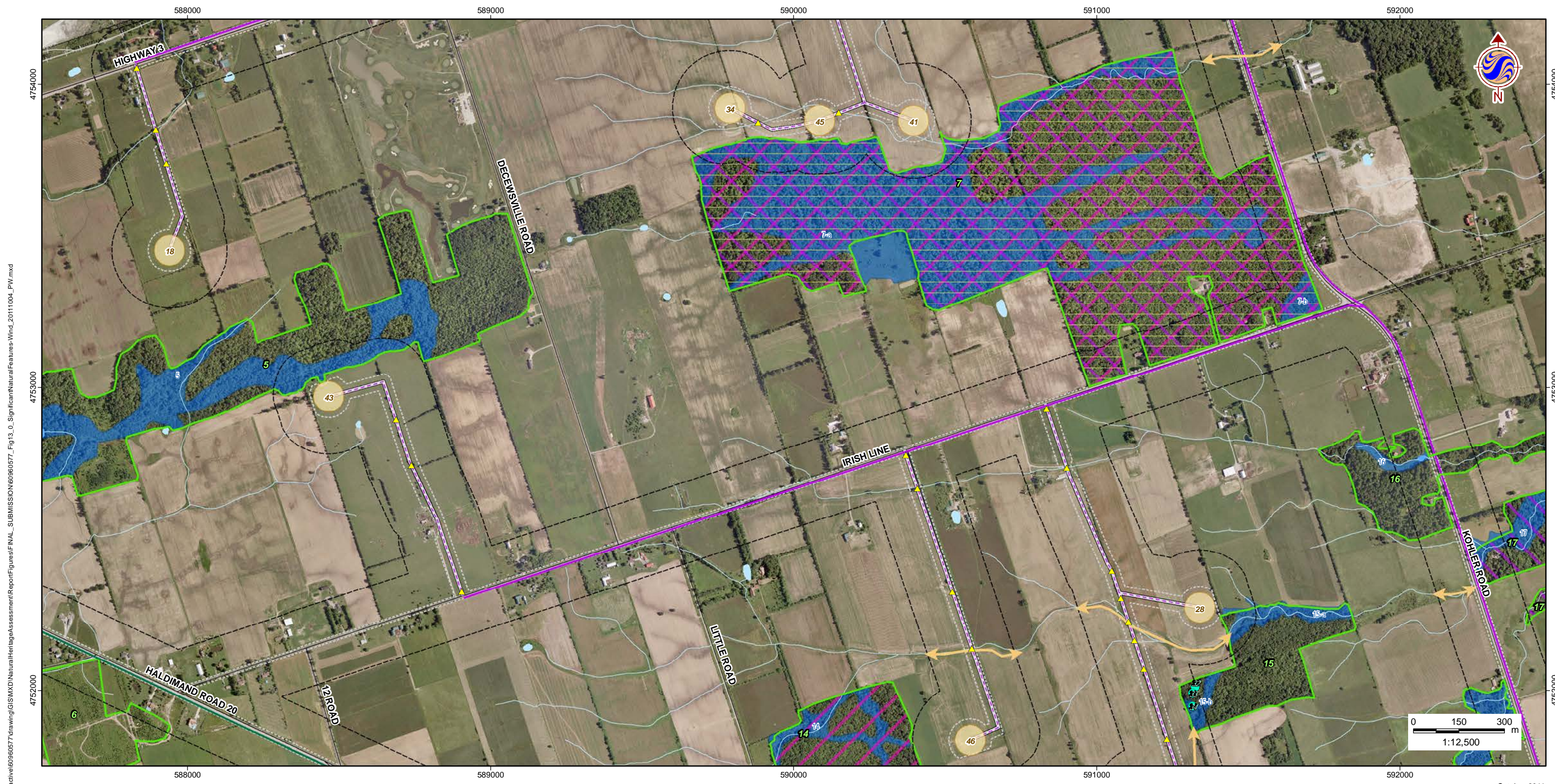
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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**13.1**

Title  
**SIGNIFICANT NATURAL  
FEATURES - W1**





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**Legend**

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|--|--|---|--|
| <ul style="list-style-type: none"> <li> Study Area</li> <li> Zone of Investigation</li> <li> Constructable Area</li> <li><b>Wind Project Location</b></li> <li> Proposed Turbine Location</li> <li> Access Road</li> <li> Overhead Collector Line</li> <li> Underground Collector Line</li> <li><b>Solar Project Location</b></li> <li> Solar Lands</li> </ul> | <ul style="list-style-type: none"> <li><b>Transmission Line</b></li> <li> Overhead Transmission Line</li> <li> Underground Transmission Line</li> <li> Electrical Transmission Component</li> <li><b>Existing Features</b></li> <li> Road</li> <li> Railway</li> <li> Abandoned Railway</li> <li> Transmission Line (MNR)</li> <li> Watercourse (MNR)</li> <li> Waterbody (MNR)</li> </ul> | <ul style="list-style-type: none"> <li><b>Wetland (MNR)</b></li> <li> Provincially Significant Wetland</li> <li> Non-Provincially Significant Wetland</li> <li><b>Significant Natural Features</b></li> <li> Significant Woodland</li> <li> Significant Wetland</li> <li> Significant Valleyland</li> <li><b>Significant Wildlife Habitat</b></li> <li> Deer Wintering Area</li> <li> Habitat for Declining/Area-Sensitive Grassland Species</li> <li> Winter Raptor Roosting &amp; Feeding Area</li> </ul> | <ul style="list-style-type: none"> <li> Seep</li> <li> Vernal Pool</li> <li> Rare Vegetation Community</li> <li> Snapping Turtle Habitat</li> <li> Animal Movement Corridor</li> <li> Waterfowl Stopover</li> <li> Migratory Landbird Habitat</li> <li> Habitat for Declining Woodland Species</li> <li> Area-Sensitive Species Woodland Habitat</li> <li> Short-Eared Owl Habitat</li> <li><b>Culverts</b></li> <li> Wildlife &amp; Flow Culvert</li> <li> Other Culvert</li> </ul> |
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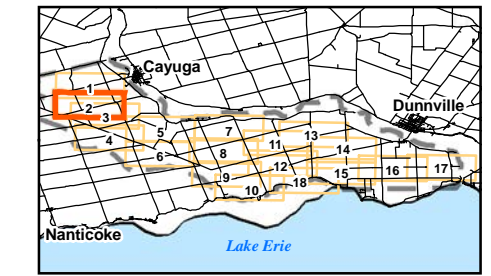
**Notes**

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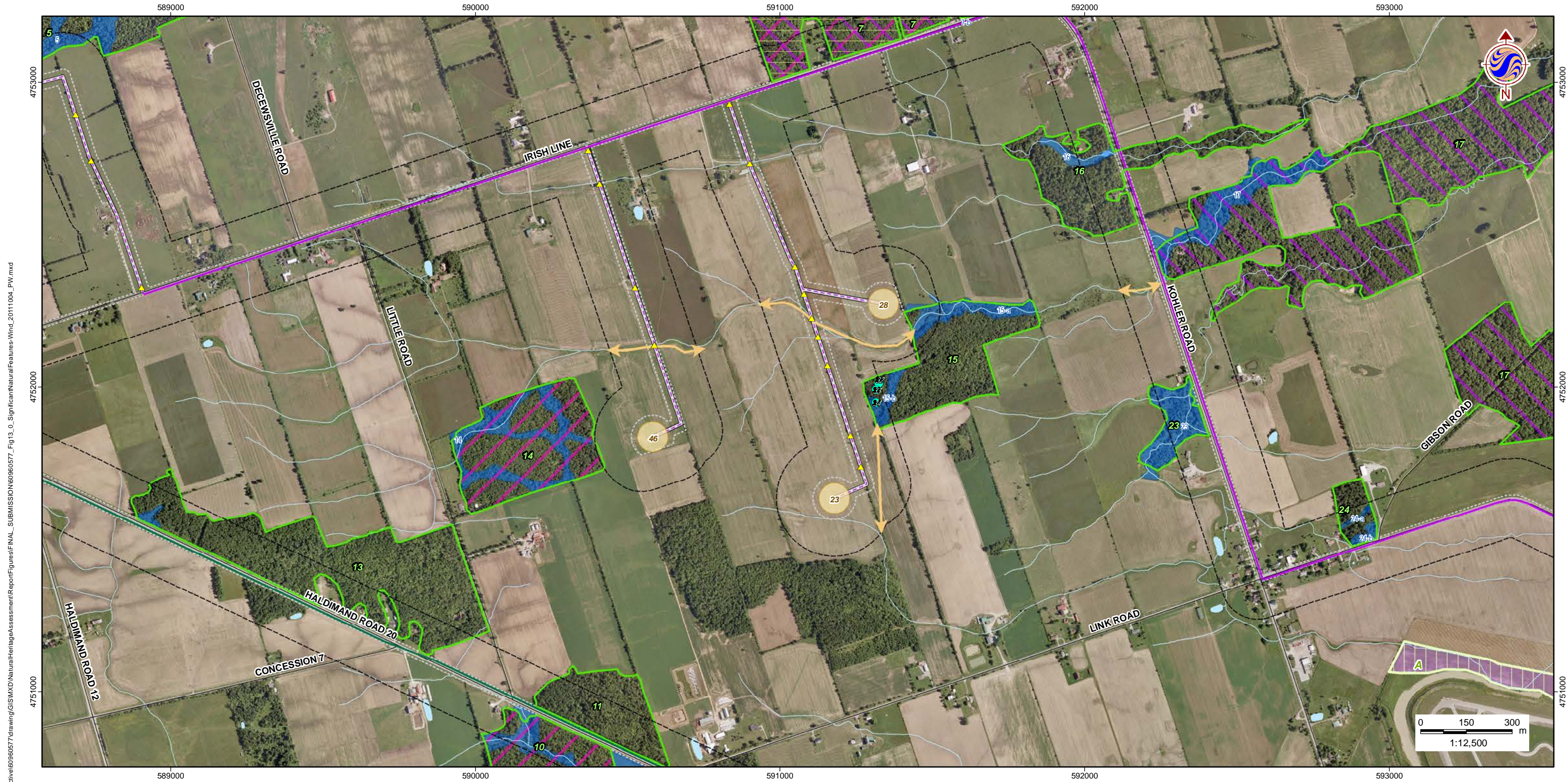
Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**13.2**

Title  
**SIGNIFICANT NATURAL  
FEATURES - W2**







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**Legend**

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|--|--|---|--|
| <ul style="list-style-type: none"> <li> Study Area</li> <li> Zone of Investigation</li> <li> Constructable Area</li> <li><b>Wind Project Location</b></li> <li> Proposed Turbine Location</li> <li> Access Road</li> <li> Overhead Collector Line</li> <li> Underground Collector Line</li> <li><b>Solar Project Location</b></li> <li> Solar Lands</li> </ul> | <ul style="list-style-type: none"> <li><b>Transmission Line</b></li> <li> Overhead Transmission Line</li> <li> Underground Transmission Line</li> <li> Electrical Transmission Component</li> <li><b>Existing Features</b></li> <li> Road</li> <li> Railway</li> <li> Abandoned Railway</li> <li> Transmission Line (MNR)</li> <li> Watercourse (MNR)</li> <li> Waterbody (MNR)</li> </ul> | <ul style="list-style-type: none"> <li><b>Wetland (MNR)</b></li> <li> Provincially Significant Wetland</li> <li> Non-Provincially Significant Wetland</li> <li><b>Significant Natural Features</b></li> <li> Significant Woodland</li> <li> Significant Wetland</li> <li> Significant Valleyland</li> <li><b>Significant Wildlife Habitat</b></li> <li> Deer Wintering Area</li> <li> Habitat for Declining/Area-Sensitive Grassland Species</li> <li> Winter Raptor Roosting &amp; Feeding Area</li> </ul> | <ul style="list-style-type: none"> <li> Seep</li> <li> Vernal Pool</li> <li> Rare Vegetation Community</li> <li> Snapping Turtle Habitat</li> <li> Animal Movement Corridor</li> <li> Waterfowl Stopover</li> <li> Migratory Landbird Habitat</li> <li> Habitat for Declining Woodland Species</li> <li> Area-Sensitive Species Woodland Habitat</li> <li> Short-Eared Owl Habitat</li> <li><b>Culverts</b></li> <li> Wildlife &amp; Flow Culvert</li> <li> Other Culvert</li> </ul> |
|--|--|---|--|

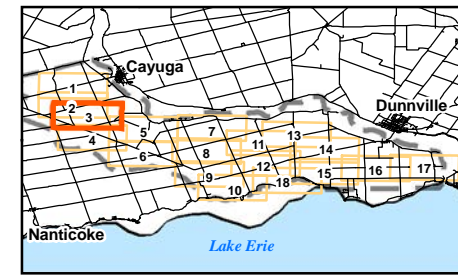
**Notes**

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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**13.3**

Title  
**SIGNIFICANT NATURAL  
FEATURES - W3**





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**Legend**

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|--|--|---|--|
| <ul style="list-style-type: none"> <li> Study Area</li> <li> Zone of Investigation</li> <li> Constructable Area</li> <li><b>Wind Project Location</b></li> <li> Proposed Turbine Location</li> <li> Access Road</li> <li> Overhead Collector Line</li> <li> Underground Collector Line</li> <li><b>Solar Project Location</b></li> <li> Solar Lands</li> </ul> | <ul style="list-style-type: none"> <li><b>Transmission Line</b></li> <li> Overhead Transmission Line</li> <li> Underground Transmission Line</li> <li> Electrical Transmission Component</li> <li><b>Existing Features</b></li> <li> Road</li> <li> Railway</li> <li> Abandoned Railway</li> <li> Transmission Line (MNR)</li> <li> Watercourse (MNR)</li> <li> Waterbody (MNR)</li> </ul> | <ul style="list-style-type: none"> <li><b>Wetland (MNR)</b></li> <li> Provincially Significant Wetland</li> <li> Non-Provincially Significant Wetland</li> <li><b>Significant Natural Features</b></li> <li> Significant Woodland</li> <li> Significant Wetland 9-a</li> <li> Significant Valleyland</li> <li><b>Significant Wildlife Habitat</b></li> <li> Deer Wintering Area</li> <li> Habitat for Declining/Area-Sensitive Grassland Species</li> <li> Winter Raptor Roosting &amp; Feeding Area</li> </ul> | <ul style="list-style-type: none"> <li> Seep</li> <li> Vernal Pool</li> <li> Rare Vegetation Community</li> <li> Snapping Turtle Habitat</li> <li> Animal Movement Corridor</li> <li> Waterfowl Stopover</li> <li> Migratory Landbird Habitat</li> <li> Habitat for Declining Woodland Species</li> <li> Area-Sensitive Species Woodland Habitat</li> <li> Short-Eared Owl Habitat</li> <li><b>Culverts</b></li> <li> Wildlife &amp; Flow Culvert</li> <li> Other Culvert</li> </ul> |
|--|--|---|--|

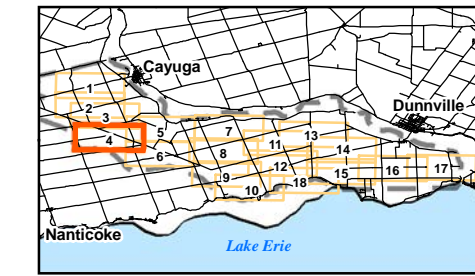
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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**13.4**

Title  
**SIGNIFICANT NATURAL  
FEATURES - W4**





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**Legend**

- Study Area
- Zone of Investigation
- Constructable Area
- Wind Project Location**
- Proposed Turbine Location
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Solar Project Location**
- Solar Lands
- Transmission Line**
- Overhead Transmission Line
- Underground Transmission Line
- Electrical Transmission Component
- Existing Features**
- Road
- Railway
- Abandoned Railway
- Transmission Line (MNR)
- Watercourse (MNR)
- Waterbody (MNR)

- Wetland (MNR)**
- Provincially Significant Wetland
- Non-Provincially Significant Wetland
- Significant Natural Features**
- Significant Woodland
- Significant Wetland
- Significant Valleyland
- Significant Wildlife Habitat**
- Deer Wintering Area
- Habitat for Declining/Area-Sensitive Grassland Species
- Winter Raptor Roosting & Feeding Area

- Seep
- Vernal Pool
- Rare Vegetation Community
- Snapping Turtle Habitat
- Animal Movement Corridor
- Waterfowl Stopover
- Migratory Landbird Habitat
- Habitat for Declining Woodland Species
- Area-Sensitive Species Woodland Habitat
- Short-Eared Owl Habitat
- Culverts**
- Wildlife & Flow Culvert
- Other Culvert

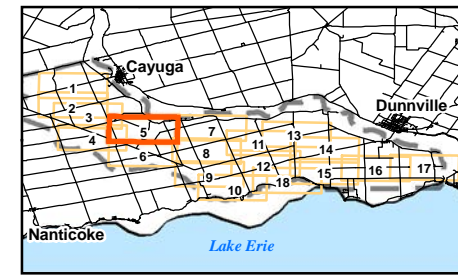
**Notes**

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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**13.5**

Title  
**SIGNIFICANT NATURAL  
FEATURES - W5**





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**Legend**

- Study Area
- Zone of Investigation
- Constructable Area
- Wind Project Location**
- Proposed Turbine Location
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Solar Project Location**
- Solar Lands

- Transmission Line**
- Overhead Transmission Line
- Underground Transmission Line
- Electrical Transmission Component
- Existing Features**
- Road
- Railway
- Abandoned Railway
- Transmission Line (MNR)
- Watercourse (MNR)
- Waterbody (MNR)

- Wetland (MNR)**
- Provincially Significant Wetland
- Non-Provincially Significant Wetland
- Significant Natural Features**
- Significant Woodland
- Significant Wetland 9-a
- Significant Valleyland
- Significant Wildlife Habitat**
- Deer Wintering Area
- Habitat for Declining/Area-Sensitive Grassland Species
- Winter Raptor Roosting & Feeding Area

- Seep
- Vernal Pool
- Rare Vegetation Community
- Snapping Turtle Habitat
- Animal Movement Corridor
- Waterfowl Stopover
- Migratory Landbird Habitat
- Habitat for Declining Woodland Species
- Area-Sensitive Species Woodland Habitat
- Short-Eared Owl Habitat
- Culverts**
- Wildlife & Flow Culvert
- Other Culvert

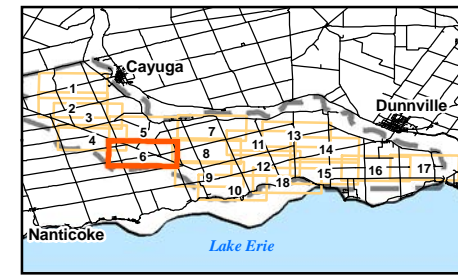
**Notes**

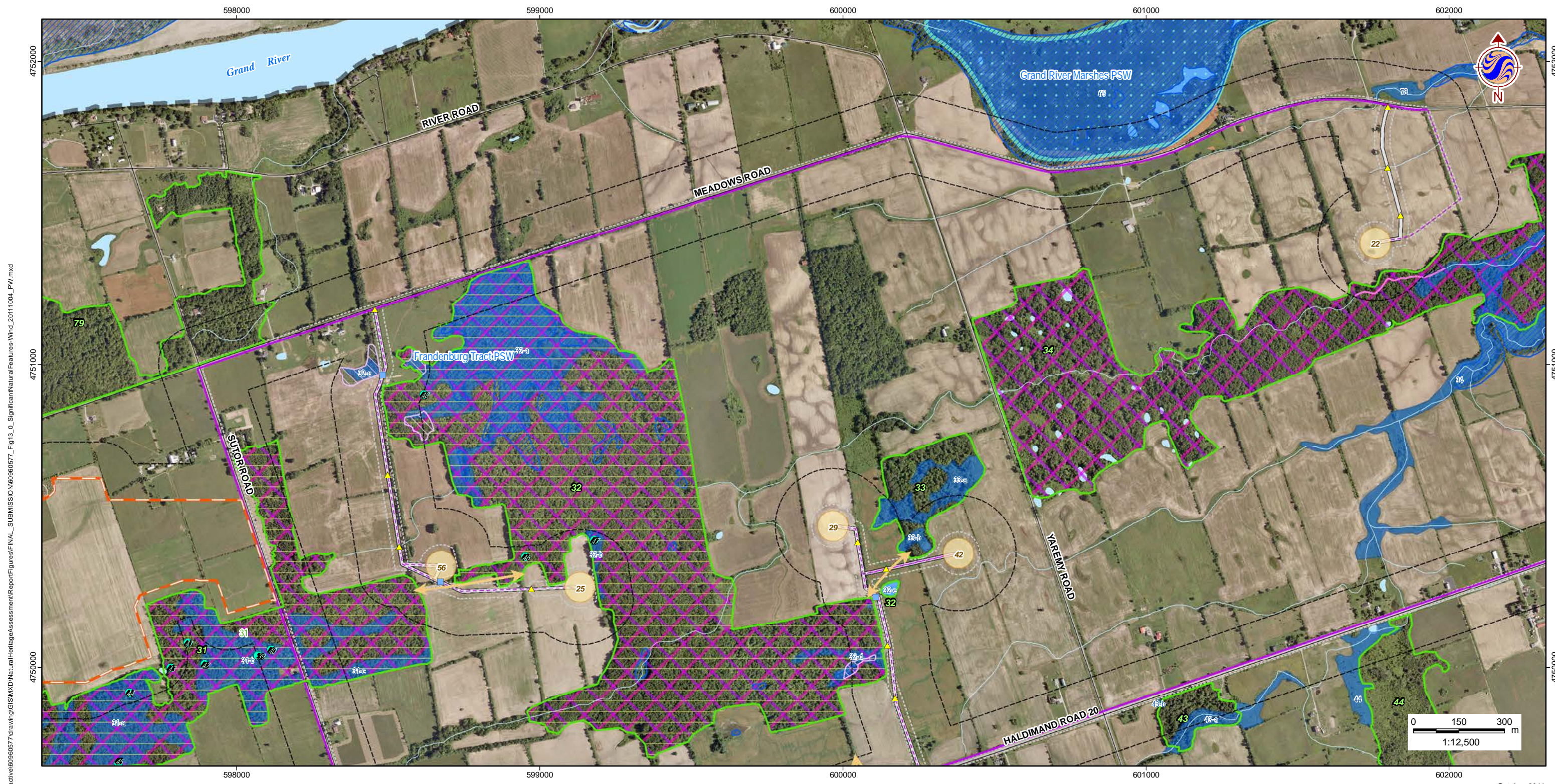
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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**13.6**

Title  
**SIGNIFICANT NATURAL  
FEATURES - W6**





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**Legend**

- |  |  |   |  |
|--|--|---|--|
| <ul style="list-style-type: none"> <li> Study Area</li> <li> Zone of Investigation</li> <li> Constructable Area</li> <li><b>Wind Project Location</b></li> <li> Proposed Turbine Location</li> <li> Access Road</li> <li> Overhead Collector Line</li> <li> Underground Collector Line</li> <li><b>Solar Project Location</b></li> <li> Solar Lands</li> </ul> | <ul style="list-style-type: none"> <li><b>Transmission Line</b></li> <li> Overhead Transmission Line</li> <li> Underground Transmission Line</li> <li> Electrical Transmission Component</li> <li><b>Existing Features</b></li> <li> Road</li> <li> Railway</li> <li> Abandoned Railway</li> <li> Transmission Line (MNR)</li> <li> Watercourse (MNR)</li> <li> Waterbody (MNR)</li> </ul> | <ul style="list-style-type: none"> <li><b>Wetland (MNR)</b></li> <li> Provincially Significant Wetland</li> <li> Non-Provincially Significant Wetland</li> <li><b>Significant Natural Features</b></li> <li> Significant Woodland</li> <li> Significant Wetland</li> <li> Significant Valleyland</li> <li><b>Significant Wildlife Habitat</b></li> <li> Deer Wintering Area</li> <li> Habitat for Declining/Area-Sensitive Grassland Species</li> <li> Winter Raptor Roosting &amp; Feeding Area</li> </ul> | <ul style="list-style-type: none"> <li> Seep</li> <li> Vernal Pool</li> <li> Rare Vegetation Community</li> <li> Snapping Turtle Habitat</li> <li> Animal Movement Corridor</li> <li> Waterfowl Stopover</li> <li> Migratory Landbird Habitat</li> <li> Habitat for Declining Woodland Species</li> <li> Area-Sensitive Species Woodland Habitat</li> <li> Short-Eared Owl Habitat</li> <li><b>Culverts</b></li> <li> Wildlife &amp; Flow Culvert</li> <li> Other Culvert</li> </ul> |
|--|--|---|--|

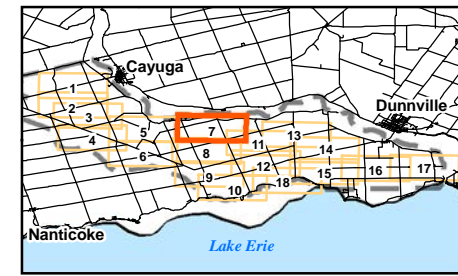
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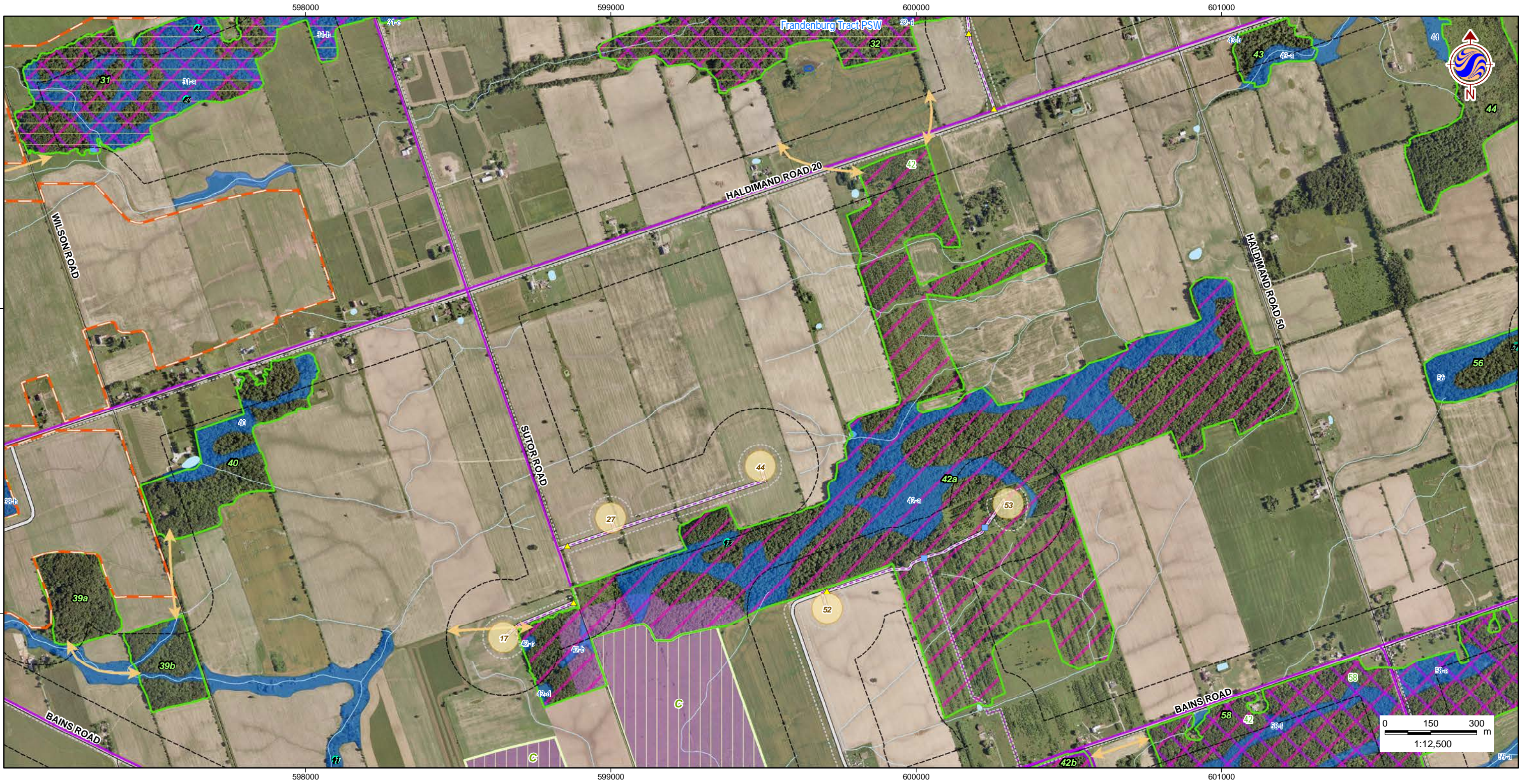
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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**13.7**

Title  
**SIGNIFICANT NATURAL  
FEATURES - W7**





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**Legend**

- Study Area
- Zone of Investigation
- Constructable Area
- Wind Project Location**
- Proposed Turbine Location
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Solar Project Location**
- Solar Lands
- Transmission Line**
- Overhead Transmission Line
- Underground Transmission Line
- Electrical Transmission Component
- Existing Features**
- Road
- Railway
- Abandoned Railway
- Transmission Line (MNR)
- Watercourse (MNR)
- Waterbody (MNR)

- Wetland (MNR)**
- Provincially Significant Wetland
- Non-Provincially Significant Wetland
- Significant Natural Features**
- Significant Woodland
- Significant Wetland
- Significant Valleyland
- Significant Wildlife Habitat**
- Deer Wintering Area
- Habitat for Declining/Area-Sensitive Grassland Species
- Winter Raptor Roosting & Feeding Area

- Seep
- Vernal Pool
- Rare Vegetation Community
- Snapping Turtle Habitat
- Animal Movement Corridor
- Waterfowl Stopover
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- Habitat for Declining Woodland Species
- Area-Sensitive Species Woodland Habitat
- Short-Eared Owl Habitat
- Culverts**
- Wildlife & Flow Culvert
- Other Culvert

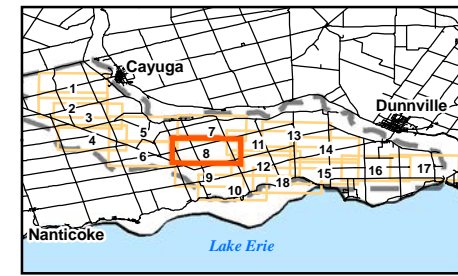
**Notes**

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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**13.8**

Title  
**SIGNIFICANT NATURAL  
FEATURES - W8**





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**Legend**

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|--|--|---|--|
| <ul style="list-style-type: none"> <li> Study Area</li> <li> Zone of Investigation</li> <li> Constructable Area</li> <li><b>Wind Project Location</b></li> <li> Proposed Turbine Location</li> <li> Access Road</li> <li> Overhead Collector Line</li> <li> Underground Collector Line</li> <li><b>Solar Project Location</b></li> <li> Solar Lands</li> </ul> | <ul style="list-style-type: none"> <li><b>Transmission Line</b></li> <li> Overhead Transmission Line</li> <li> Underground Transmission Line</li> <li> Electrical Transmission Component</li> <li><b>Existing Features</b></li> <li> Road</li> <li> Railway</li> <li> Abandoned Railway</li> <li> Transmission Line (MNR)</li> <li> Watercourse (MNR)</li> <li> Waterbody (MNR)</li> </ul> | <ul style="list-style-type: none"> <li><b>Wetland (MNR)</b></li> <li> Provincially Significant Wetland</li> <li> Non-Provincially Significant Wetland</li> <li><b>Significant Natural Features</b></li> <li> Significant Woodland</li> <li> Significant Wetland</li> <li> Significant Valleyland</li> <li><b>Significant Wildlife Habitat</b></li> <li> Deer Wintering Area</li> <li> Habitat for Declining/Area-Sensitive Grassland Species</li> <li> Winter Raptor Roosting &amp; Feeding Area</li> </ul> | <ul style="list-style-type: none"> <li> Seep</li> <li> Vernal Pool</li> <li> Rare Vegetation Community</li> <li> Snapping Turtle Habitat</li> <li> Animal Movement Corridor</li> <li> Waterfowl Stopover</li> <li> Migratory Landbird Habitat</li> <li> Habitat for Declining Woodland Species</li> <li> Area-Sensitive Species Woodland Habitat</li> <li> Short-Eared Owl Habitat</li> <li><b>Culverts</b></li> <li> Wildlife &amp; Flow Culvert</li> <li> Other Culvert</li> </ul> |
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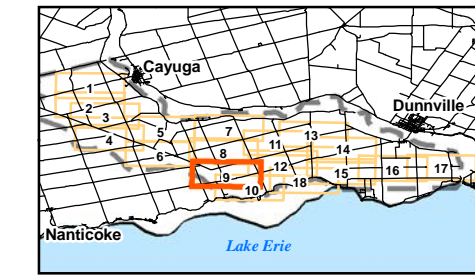
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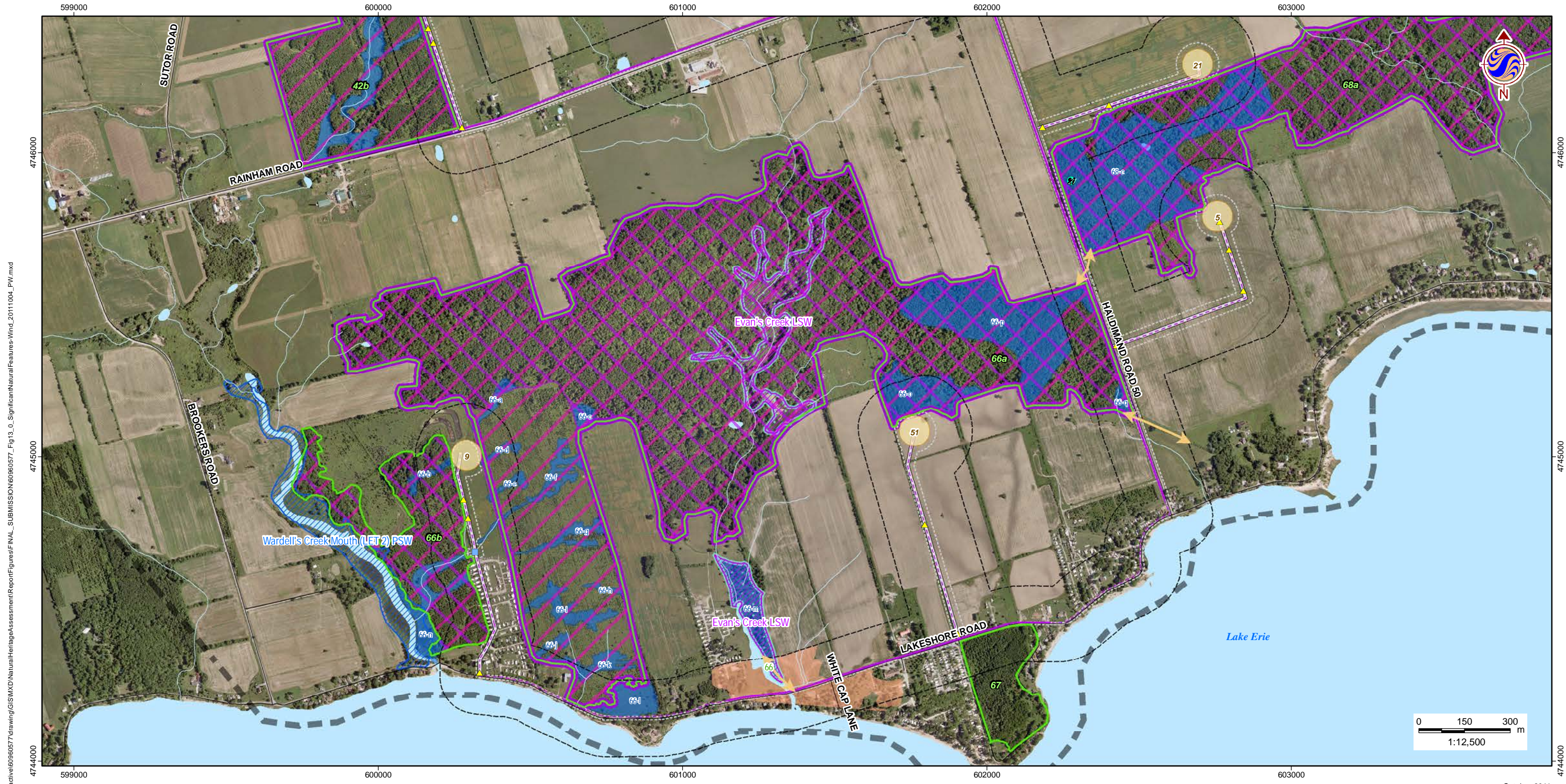
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Client/Project  
**SAMSUNG, PATTERN & KEPKO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**13.9**

Title  
**SIGNIFICANT NATURAL  
FEATURES - W9**





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**Legend**

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|--|--|---|--|
| <ul style="list-style-type: none"> <li> Study Area</li> <li> Zone of Investigation</li> <li> Constructable Area</li> <li><b>Wind Project Location</b></li> <li> Proposed Turbine Location</li> <li> Access Road</li> <li> Overhead Collector Line</li> <li> Underground Collector Line</li> <li><b>Solar Project Location</b></li> <li> Solar Lands</li> </ul> | <ul style="list-style-type: none"> <li><b>Transmission Line</b></li> <li> Overhead Transmission Line</li> <li> Underground Transmission Line</li> <li> Electrical Transmission Component</li> <li><b>Existing Features</b></li> <li> Road</li> <li> Railway</li> <li> Abandoned Railway</li> <li> Transmission Line (MNR)</li> <li> Watercourse (MNR)</li> <li> Waterbody (MNR)</li> </ul> | <ul style="list-style-type: none"> <li><b>Wetland (MNR)</b></li> <li> Provincially Significant Wetland</li> <li> Non-Provincially Significant Wetland</li> <li><b>Significant Natural Features</b></li> <li> Significant Woodland</li> <li> Significant Wetland</li> <li> Significant Valleyland</li> <li><b>Significant Wildlife Habitat</b></li> <li> Deer Wintering Area</li> <li> Habitat for Declining/Area-Sensitive Grassland Species</li> <li> Winter Raptor Roosting &amp; Feeding Area</li> </ul> | <ul style="list-style-type: none"> <li> Seep</li> <li> Vernal Pool</li> <li> Rare Vegetation Community</li> <li> Snapping Turtle Habitat</li> <li> Animal Movement Corridor</li> <li> Waterfowl Stopover</li> <li> Migratory Landbird Habitat</li> <li> Habitat for Declining Woodland Species</li> <li> Area-Sensitive Species Woodland Habitat</li> <li> Short-Eared Owl Habitat</li> <li><b>Culverts</b></li> <li> Wildlife &amp; Flow Culvert</li> <li> Other Culvert</li> </ul> |
|--|--|---|--|

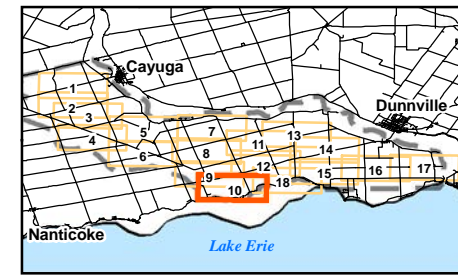
**Notes**

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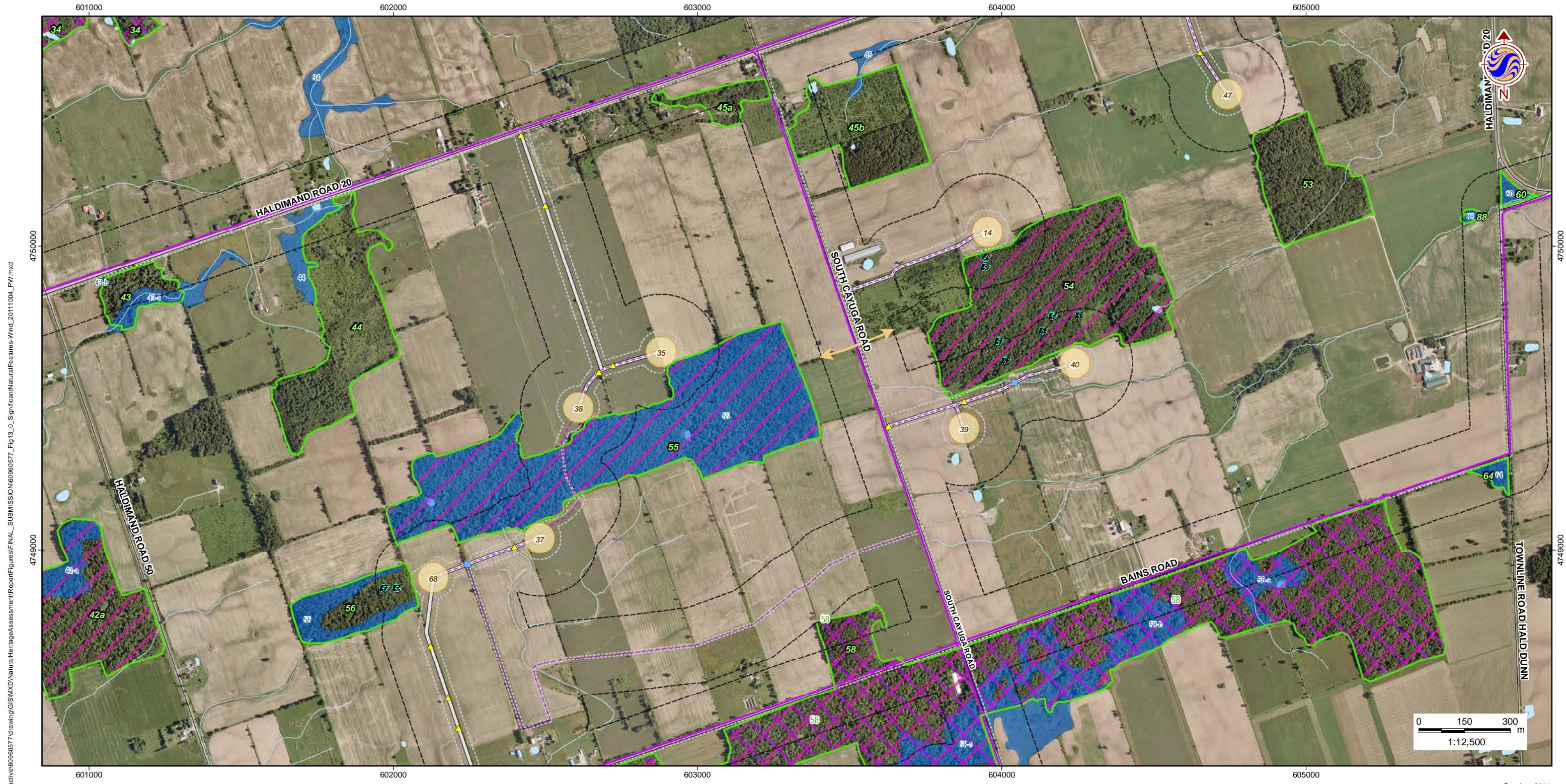
Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**13.10**

Title  
**SIGNIFICANT NATURAL  
FEATURES - W10**







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**Legend**

- |  |  |   |  |
|--|--|---|--|
| <ul style="list-style-type: none"> <li> Study Area</li> <li> Zone of Investigation</li> <li> Constructable Area</li> <li><b>Wind Project Location</b></li> <li> Proposed Turbine Location</li> <li> Access Road</li> <li> Overhead Collector Line</li> <li> Underground Collector Line</li> <li><b>Solar Project Location</b></li> <li> Solar Lands</li> </ul> | <ul style="list-style-type: none"> <li><b>Transmission Line</b></li> <li> Overhead Transmission Line</li> <li> Underground Transmission Line</li> <li> Electrical Transmission Component</li> <li><b>Existing Features</b></li> <li> Road</li> <li> Railway</li> <li> Abandoned Railway</li> <li> Transmission Line (MNR)</li> <li> Watercourse (MNR)</li> <li> Waterbody (MNR)</li> </ul> | <ul style="list-style-type: none"> <li><b>Wetland (MNR)</b></li> <li> Provincially Significant Wetland</li> <li> Non-Provincially Significant Wetland</li> <li><b>Significant Natural Features</b></li> <li> Significant Woodland</li> <li> Significant Wetland</li> <li> Significant Valleyland</li> <li><b>Significant Wildlife Habitat</b></li> <li> Deer Wintering Area</li> <li> Habitat for Declining/Area-Sensitive Grassland Species</li> <li> Winter Raptor Roosting &amp; Feeding Area</li> </ul> | <ul style="list-style-type: none"> <li> Seep</li> <li> Vernal Pool</li> <li> Rare Vegetation Community</li> <li> Snapping Turtle Habitat</li> <li> Animal Movement Corridor</li> <li> Waterfowl Stopover</li> <li> Migratory Landbird Habitat</li> <li> Habitat for Declining Woodland Species</li> <li> Area-Sensitive Species Woodland Habitat</li> <li> Short-Eared Owl Habitat</li> <li><b>Culverts</b></li> <li> Wildlife &amp; Flow Culvert</li> <li> Other Culvert</li> </ul> |
|--|--|---|--|

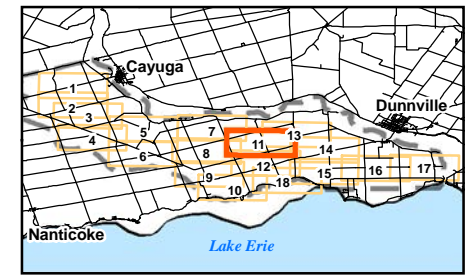
**Notes**

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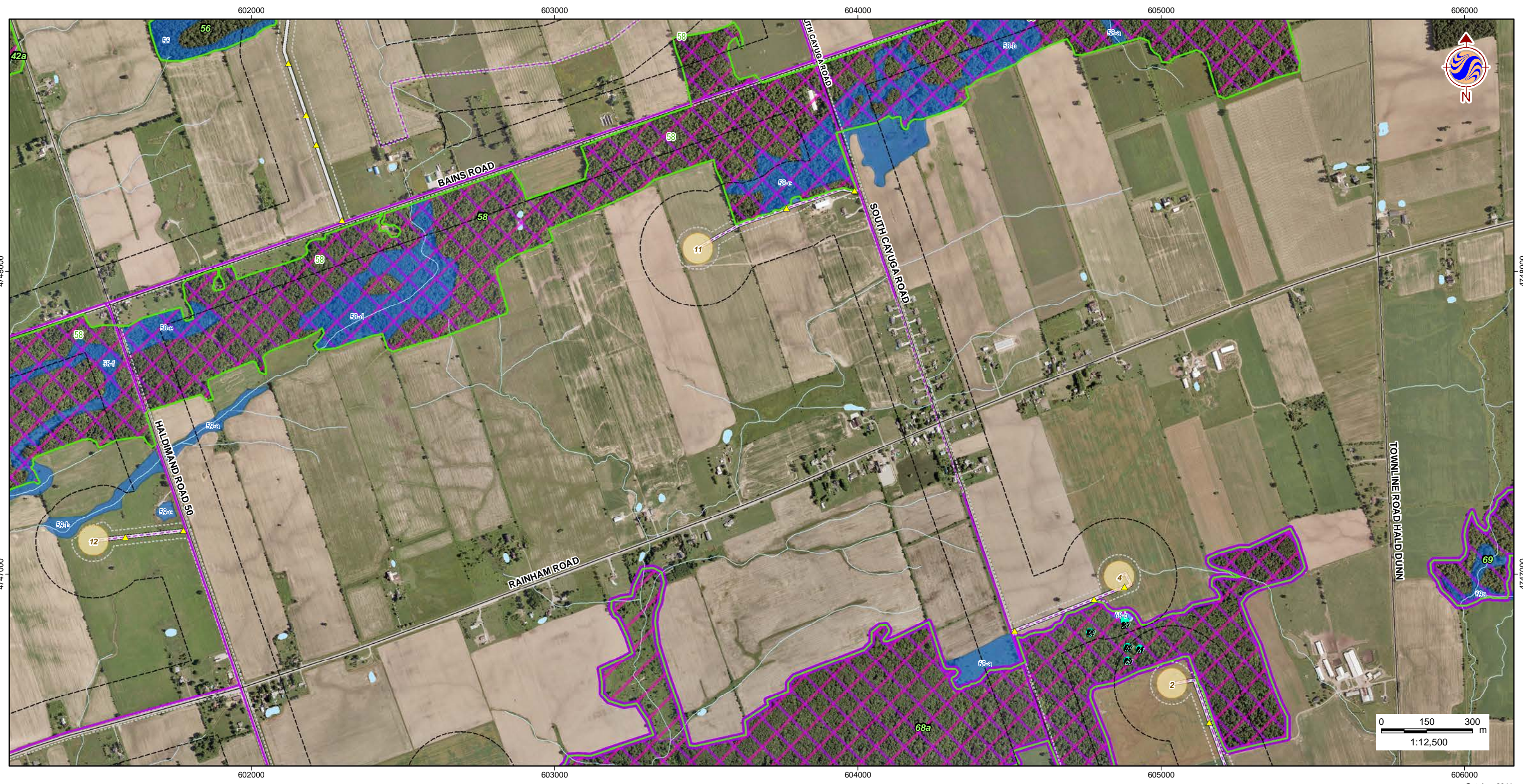
Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**13.11**

Title  
**SIGNIFICANT NATURAL  
FEATURES - W11**



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**Legend**

- Study Area
- Zone of Investigation
- Constructable Area
- Wind Project Location**
- Proposed Turbine Location
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Solar Project Location**
- Solar Lands

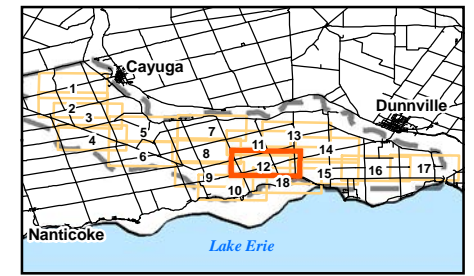
- Transmission Line**
- Overhead Transmission Line
- Underground Transmission Line
- Electrical Transmission Component
- Existing Features**
- Road
- Railway
- Abandoned Railway
- Transmission Line (MNR)
- Watercourse (MNR)
- Waterbody (MNR)

- Wetland (MNR)**
- Provincially Significant Wetland
- Non-Provincially Significant Wetland
- Significant Natural Features**
- Significant Woodland
- Significant Wetland
- Significant Valleyland
- Significant Wildlife Habitat**
- Deer Wintering Area
- Habitat for Declining/Area-Sensitive Grassland Species
- Winter Raptor Roosting & Feeding Area

- Seep
- Vernal Pool
- Rare Vegetation Community
- Snapping Turtle Habitat
- Animal Movement Corridor
- Waterfowl Stopover
- Migratory Landbird Habitat
- Habitat for Declining Woodland Species
- Area-Sensitive Species Woodland Habitat
- Short-Eared Owl Habitat
- Culverts**
- Wildlife & Flow Culvert
- Other Culvert

**Notes**

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
 GRAND RENEWABLE ENERGY PARK**

Figure No.  
**13.12**

Title  
**SIGNIFICANT NATURAL  
 FEATURES - W12**



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**Legend**

- |  |  |   |  |
|--|--|---|--|
| <ul style="list-style-type: none"> <li> Study Area</li> <li> Zone of Investigation</li> <li> Constructable Area</li> <li><b>Wind Project Location</b></li> <li> Proposed Turbine Location</li> <li> Access Road</li> <li> Overhead Collector Line</li> <li> Underground Collector Line</li> <li><b>Solar Project Location</b></li> <li> Solar Lands</li> </ul> | <ul style="list-style-type: none"> <li><b>Transmission Line</b></li> <li> Overhead Transmission Line</li> <li> Underground Transmission Line</li> <li> Electrical Transmission Component</li> <li><b>Existing Features</b></li> <li> Road</li> <li> Railway</li> <li> Abandoned Railway</li> <li> Transmission Line (MNR)</li> <li> Watercourse (MNR)</li> <li> Waterbody (MNR)</li> </ul> | <ul style="list-style-type: none"> <li><b>Wetland (MNR)</b></li> <li> Provincially Significant Wetland</li> <li> Non-Provincially Significant Wetland</li> <li><b>Significant Natural Features</b></li> <li> Significant Woodland</li> <li> Significant Wetland</li> <li> Significant Valleyland</li> <li><b>Significant Wildlife Habitat</b></li> <li> Deer Wintering Area</li> <li> Habitat for Declining/Area-Sensitive Grassland Species</li> <li> Winter Raptor Roosting &amp; Feeding Area</li> </ul> | <ul style="list-style-type: none"> <li> Seep</li> <li> Vernal Pool</li> <li> Rare Vegetation Community</li> <li> Snapping Turtle Habitat</li> <li> Animal Movement Corridor</li> <li> Waterfowl Stopover</li> <li> Migratory Landbird Habitat</li> <li> Habitat for Declining Woodland Species</li> <li> Area-Sensitive Species Woodland Habitat</li> <li> Short-Eared Owl Habitat</li> <li><b>Culverts</b></li> <li> Wildlife &amp; Flow Culvert</li> <li> Other Culvert</li> </ul> |
|--|--|---|--|

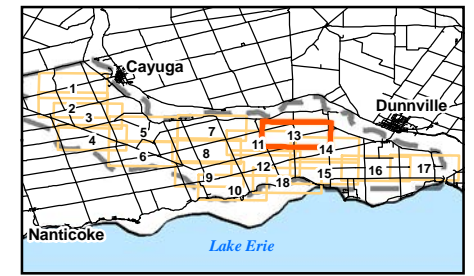
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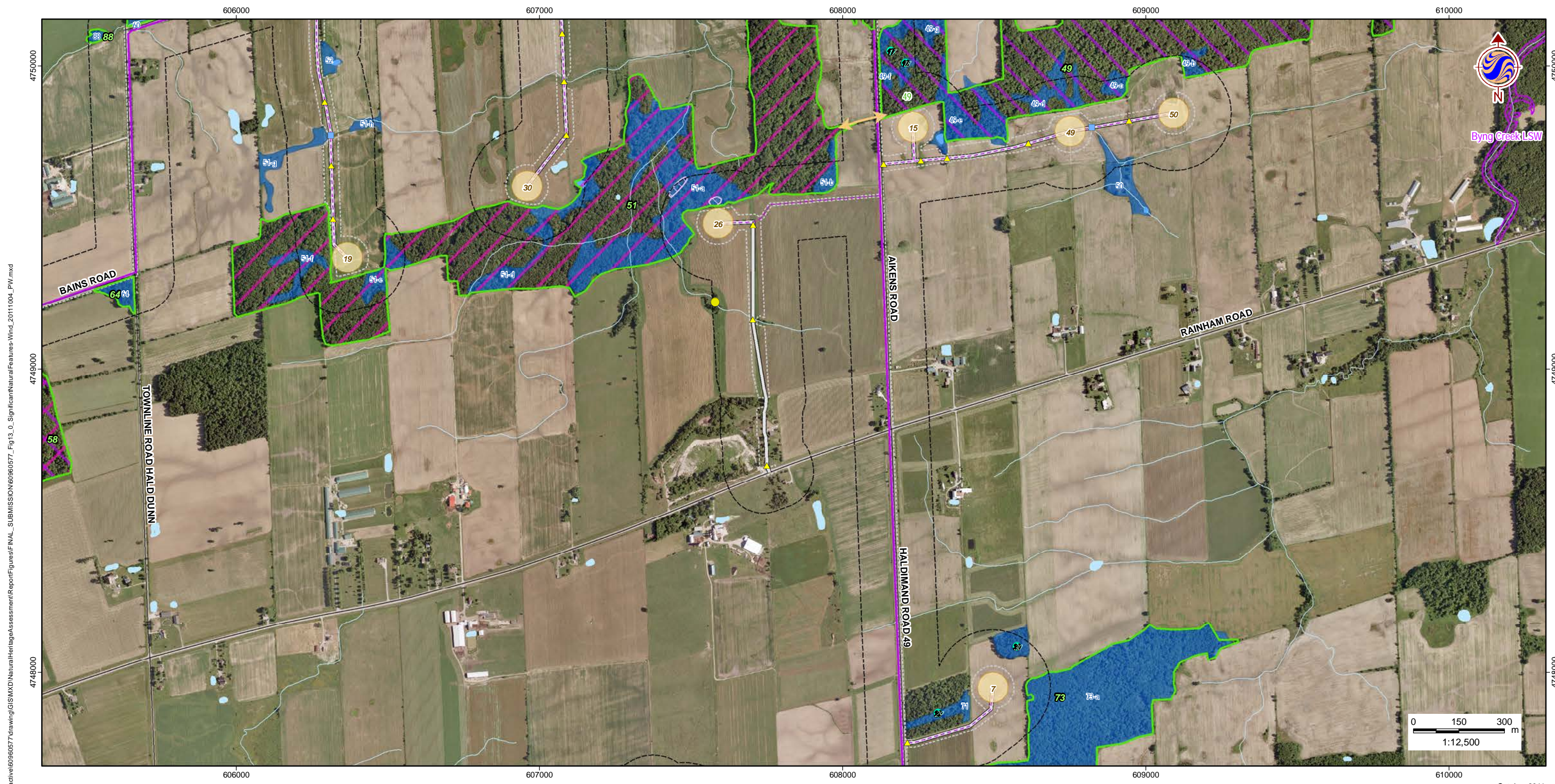
1. Coordinate System: UTM NAD 83 - Zone 17 (N).
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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**13.13**

Title  
**SIGNIFICANT NATURAL  
FEATURES - W13**





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**Legend**

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|--|--|---|--|
| <ul style="list-style-type: none"> <li> Study Area</li> <li> Zone of Investigation</li> <li> Constructable Area</li> <li><b>Wind Project Location</b></li> <li> Proposed Turbine Location</li> <li> Access Road</li> <li> Overhead Collector Line</li> <li> Underground Collector Line</li> <li><b>Solar Project Location</b></li> <li> Solar Lands</li> </ul> | <ul style="list-style-type: none"> <li><b>Transmission Line</b></li> <li> Overhead Transmission Line</li> <li> Underground Transmission Line</li> <li> Electrical Transmission Component</li> <li><b>Existing Features</b></li> <li> Road</li> <li> Railway</li> <li> Abandoned Railway</li> <li> Transmission Line (MNR)</li> <li> Watercourse (MNR)</li> <li> Waterbody (MNR)</li> </ul> | <ul style="list-style-type: none"> <li><b>Wetland (MNR)</b></li> <li> Provincially Significant Wetland</li> <li> Non-Provincially Significant Wetland</li> <li><b>Significant Natural Features</b></li> <li> Significant Woodland</li> <li> Significant Wetland</li> <li> Significant Valleyland</li> <li><b>Significant Wildlife Habitat</b></li> <li> Deer Wintering Area</li> <li> Habitat for Declining/Area-Sensitive Grassland Species</li> <li> Winter Raptor Roosting &amp; Feeding Area</li> </ul> | <ul style="list-style-type: none"> <li> Seep</li> <li> Vernal Pool</li> <li> Rare Vegetation Community</li> <li> Snapping Turtle Habitat</li> <li> Animal Movement Corridor</li> <li> Waterfowl Stopover</li> <li> Migratory Landbird Habitat</li> <li> Habitat for Declining Woodland Species</li> <li> Area-Sensitive Species Woodland Habitat</li> <li> Short-Eared Owl Habitat</li> <li><b>Culverts</b></li> <li> Wildlife &amp; Flow Culvert</li> <li> Other Culvert</li> </ul> |
|--|--|---|--|

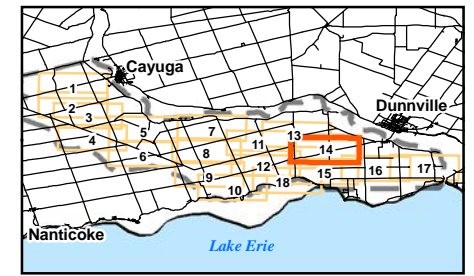
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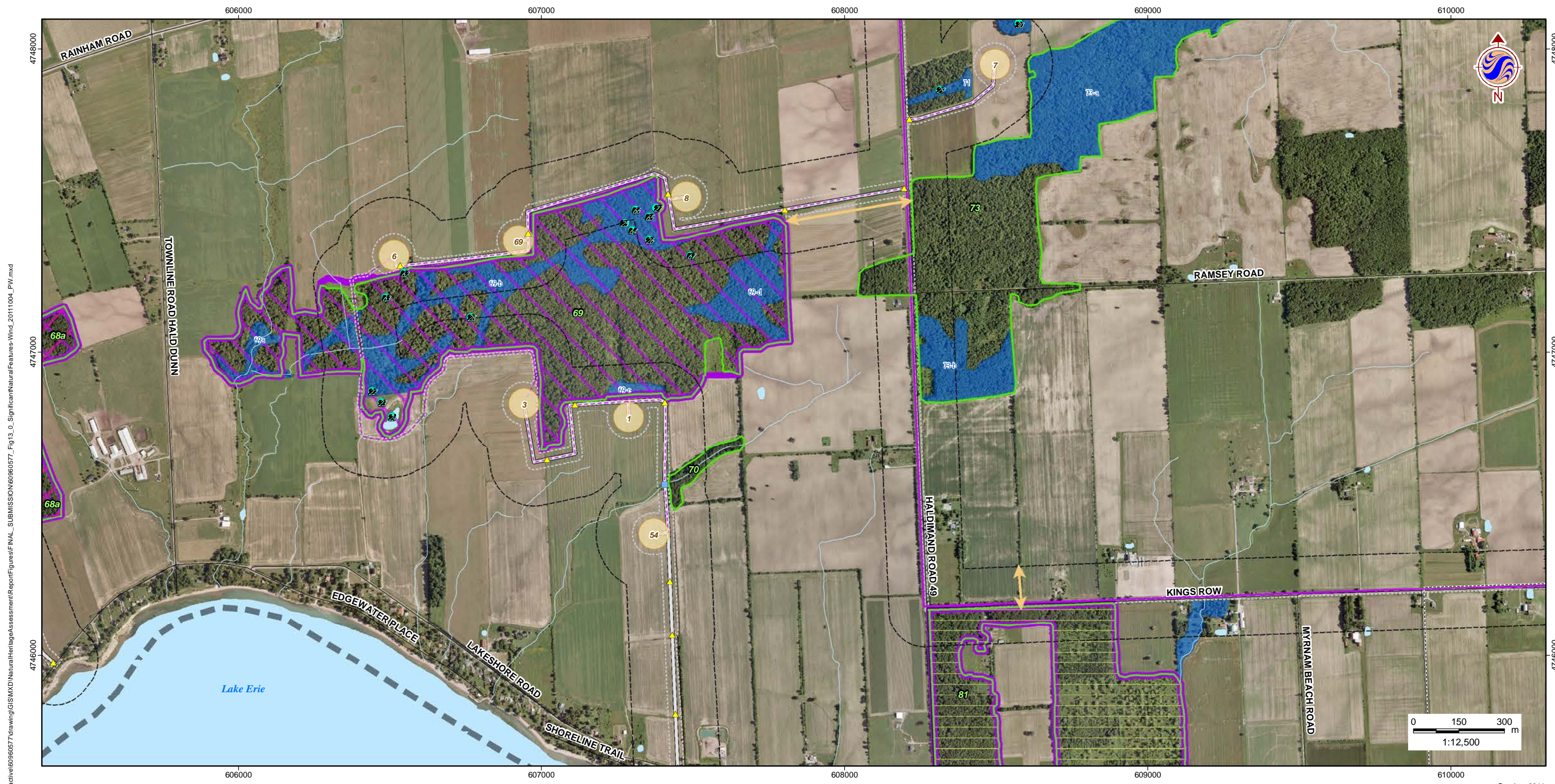
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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**13.14**

Title  
**SIGNIFICANT NATURAL  
FEATURES - W14**





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**Legend**

- |  |  |   |  |
|--|--|---|--|
| <ul style="list-style-type: none"> <li> Study Area</li> <li> Zone of Investigation</li> <li> Constructable Area</li> <li><b>Wind Project Location</b></li> <li> Proposed Turbine Location</li> <li> Access Road</li> <li> Overhead Collector Line</li> <li> Underground Collector Line</li> <li><b>Solar Project Location</b></li> <li> Solar Lands</li> </ul> | <ul style="list-style-type: none"> <li><b>Transmission Line</b></li> <li> Overhead Transmission Line</li> <li> Underground Transmission Line</li> <li> Electrical Transmission Component</li> <li><b>Existing Features</b></li> <li> Road</li> <li> Railway</li> <li> Abandoned Railway</li> <li> Transmission Line (MNR)</li> <li> Watercourse (MNR)</li> <li> Waterbody (MNR)</li> </ul> | <ul style="list-style-type: none"> <li><b>Wetland (MNR)</b></li> <li> Provincially Significant Wetland</li> <li> Non-Provincially Significant Wetland</li> <li><b>Significant Natural Features</b></li> <li> Significant Woodland</li> <li> Significant Wetland</li> <li> Significant Valleyland</li> <li><b>Significant Wildlife Habitat</b></li> <li> Deer Wintering Area</li> <li> Habitat for Declining/Area-Sensitive Grassland Species</li> <li> Winter Raptor Roosting &amp; Feeding Area</li> </ul> | <ul style="list-style-type: none"> <li> Seep</li> <li> Vernal Pool</li> <li> Rare Vegetation Community</li> <li> Snapping Turtle Habitat</li> <li> Animal Movement Corridor</li> <li> Waterfowl Stopover</li> <li> Migratory Landbird Habitat</li> <li> Habitat for Declining Woodland Species</li> <li> Area-Sensitive Species Woodland Habitat</li> <li> Short-Eared Owl Habitat</li> <li><b>Culverts</b></li> <li> Wildlife &amp; Flow Culvert</li> <li> Other Culvert</li> </ul> |
|--|--|---|--|

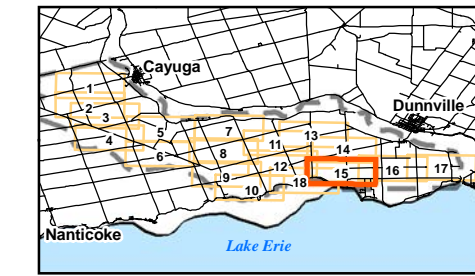
**Notes**

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
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**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**13.15**

Title  
**SIGNIFICANT NATURAL  
FEATURES - W15**





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**Legend**

- |  |  |   |  |
|--|--|---|--|
| <ul style="list-style-type: none"> <li> Study Area</li> <li> Zone of Investigation</li> <li> Constructable Area</li> <li><b>Wind Project Location</b></li> <li> Proposed Turbine Location</li> <li> Access Road</li> <li> Overhead Collector Line</li> <li> Underground Collector Line</li> <li><b>Solar Project Location</b></li> <li> Solar Lands</li> </ul> | <ul style="list-style-type: none"> <li><b>Transmission Line</b></li> <li> Overhead Transmission Line</li> <li> Underground Transmission Line</li> <li> Electrical Transmission Component</li> <li><b>Existing Features</b></li> <li> Road</li> <li> Railway</li> <li> Abandoned Railway</li> <li> Transmission Line (MNR)</li> <li> Watercourse (MNR)</li> <li> Waterbody (MNR)</li> </ul> | <ul style="list-style-type: none"> <li><b>Wetland (MNR)</b></li> <li> Provincially Significant Wetland</li> <li> Non-Provincially Significant Wetland</li> <li><b>Significant Natural Features</b></li> <li> Significant Woodland</li> <li> Significant Wetland</li> <li> Significant Valleyland</li> <li><b>Significant Wildlife Habitat</b></li> <li> Deer Wintering Area</li> <li> Habitat for Declining/Area-Sensitive Grassland Species</li> <li> Winter Raptor Roosting &amp; Feeding Area</li> </ul> | <ul style="list-style-type: none"> <li> Seep</li> <li> Vernal Pool</li> <li> Rare Vegetation Community</li> <li> Snapping Turtle Habitat</li> <li> Animal Movement Corridor</li> <li> Waterfowl Stopover</li> <li> Migratory Landbird Habitat</li> <li> Habitat for Declining Woodland Species</li> <li> Area-Sensitive Species Woodland Habitat</li> <li> Short-Eared Owl Habitat</li> <li><b>Culverts</b></li> <li> Wildlife &amp; Flow Culvert</li> <li> Other Culvert</li> </ul> |
|--|--|---|--|

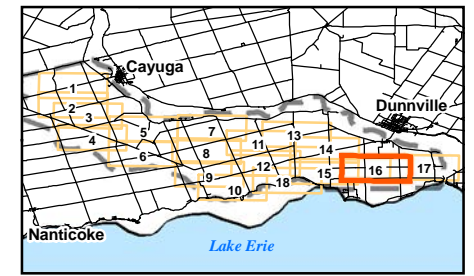
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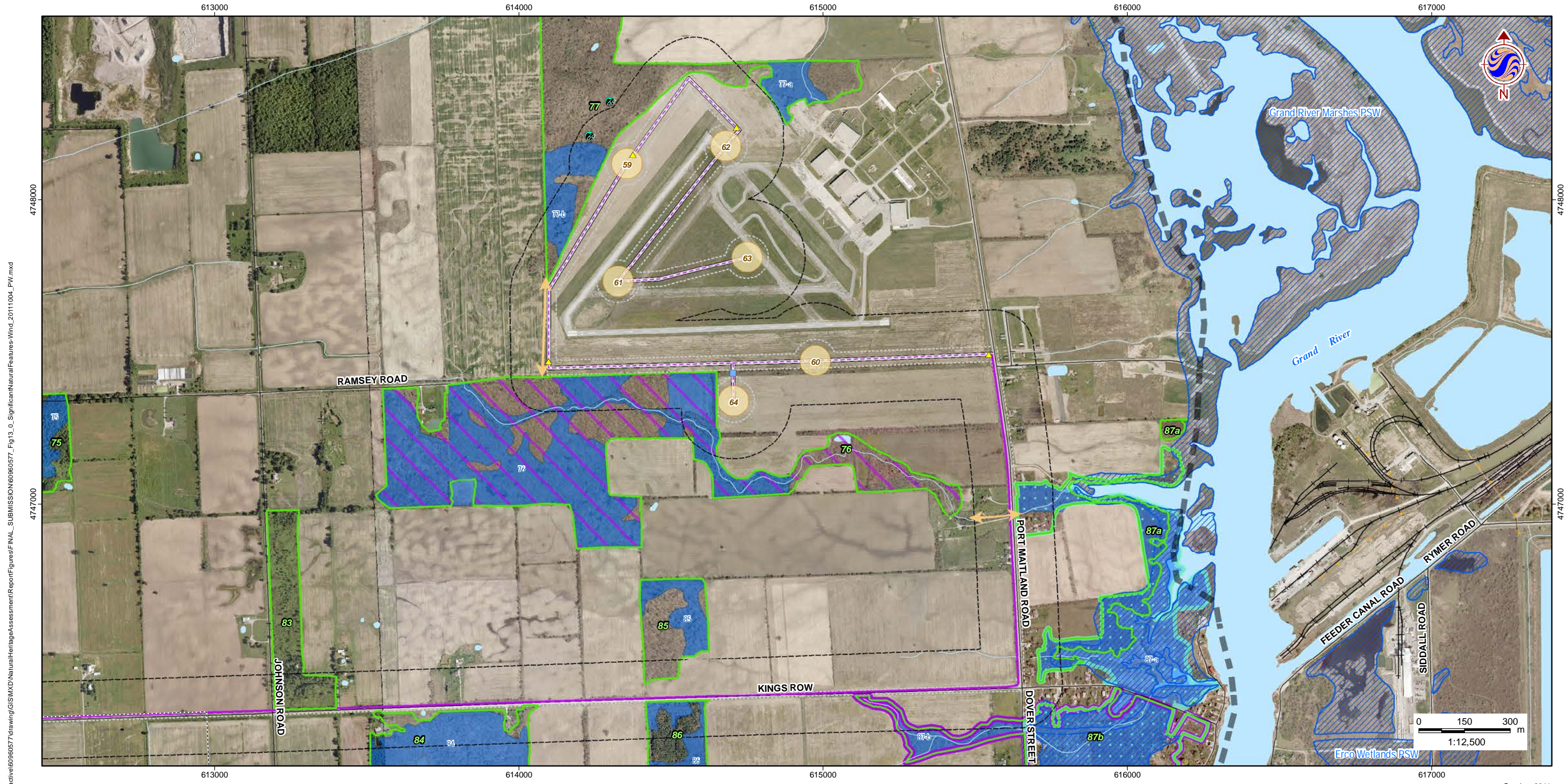
1. Coordinate System: UTM NAD 83 - Zone 17 (N).
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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**13.16**

Title  
**SIGNIFICANT NATURAL  
FEATURES - W16**





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**Legend**

- |  |  |   |  |
|--|--|---|--|
| <ul style="list-style-type: none"> <li> Study Area</li> <li> Zone of Investigation</li> <li> Constructable Area</li> <li><b>Wind Project Location</b></li> <li> Proposed Turbine Location</li> <li> Access Road</li> <li> Overhead Collector Line</li> <li> Underground Collector Line</li> <li><b>Solar Project Location</b></li> <li> Solar Lands</li> </ul> | <ul style="list-style-type: none"> <li><b>Transmission Line</b></li> <li> Overhead Transmission Line</li> <li> Underground Transmission Line</li> <li> Electrical Transmission Component</li> <li><b>Existing Features</b></li> <li> Road</li> <li> Railway</li> <li> Abandoned Railway</li> <li> Transmission Line (MNR)</li> <li> Watercourse (MNR)</li> <li> Waterbody (MNR)</li> </ul> | <ul style="list-style-type: none"> <li><b>Wetland (MNR)</b></li> <li> Provincially Significant Wetland</li> <li> Non-Provincially Significant Wetland</li> <li><b>Significant Natural Features</b></li> <li> Significant Woodland</li> <li> Significant Wetland 9-a</li> <li> Significant Valleyland</li> <li><b>Significant Wildlife Habitat</b></li> <li> Deer Wintering Area</li> <li> Habitat for Declining/Area-Sensitive Grassland Species</li> <li> Winter Raptor Roosting &amp; Feeding Area</li> </ul> | <ul style="list-style-type: none"> <li> Seep</li> <li> Vernal Pool</li> <li> Rare Vegetation Community</li> <li> Snapping Turtle Habitat</li> <li> Animal Movement Corridor</li> <li> Waterfowl Stopover</li> <li> Migratory Landbird Habitat</li> <li> Habitat for Declining Woodland Species</li> <li> Area-Sensitive Species Woodland Habitat</li> <li> Short-Eared Owl Habitat</li> <li><b>Culverts</b></li> <li> Wildlife &amp; Flow Culvert</li> <li> Other Culvert</li> </ul> |
|--|--|---|--|

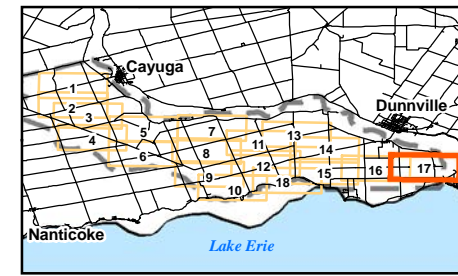
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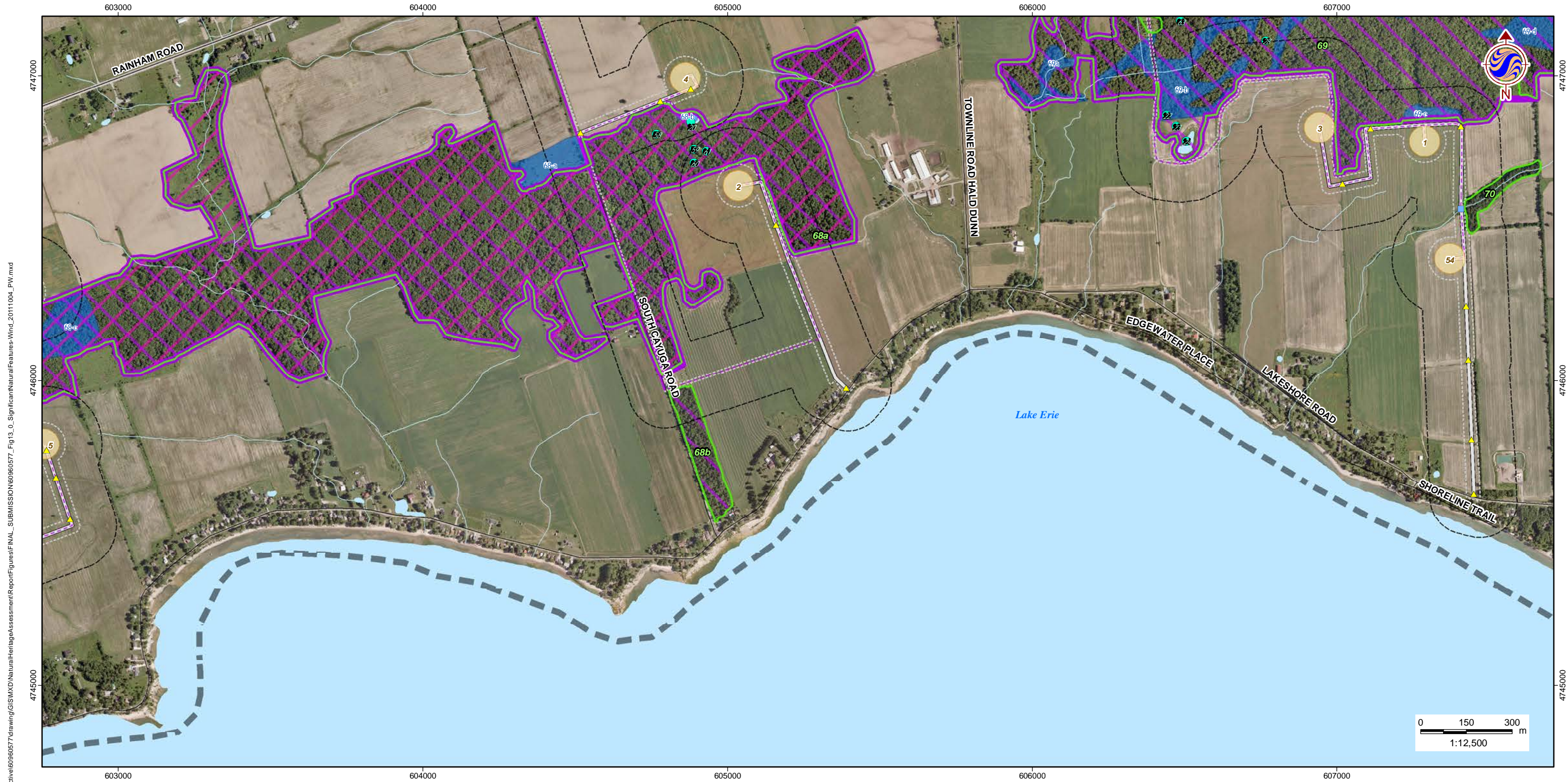
1. Coordinate System: UTM NAD 83 - Zone 17 (N).
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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**13.17**

Title  
**SIGNIFICANT NATURAL  
FEATURES - W17**





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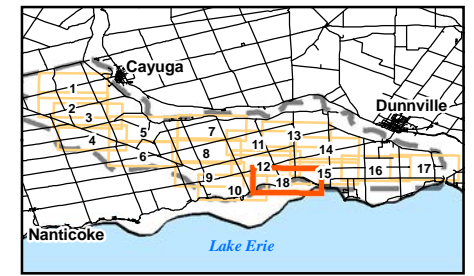


**Legend**

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|--|--|---|--|
| <ul style="list-style-type: none"> <li> Study Area</li> <li> Zone of Investigation</li> <li> Constructable Area</li> <li><b>Wind Project Location</b></li> <li> Proposed Turbine Location</li> <li> Access Road</li> <li> Overhead Collector Line</li> <li> Underground Collector Line</li> <li><b>Solar Project Location</b></li> <li> Solar Lands</li> </ul> | <ul style="list-style-type: none"> <li><b>Transmission Line</b></li> <li> Overhead Transmission Line</li> <li> Underground Transmission Line</li> <li> Electrical Transmission Component</li> <li><b>Existing Features</b></li> <li> Road</li> <li> Railway</li> <li> Abandoned Railway</li> <li> Transmission Line (MNR)</li> <li> Watercourse (MNR)</li> <li> Waterbody (MNR)</li> </ul> | <ul style="list-style-type: none"> <li><b>Wetland (MNR)</b></li> <li> Provincially Significant Wetland</li> <li> Non-Provincially Significant Wetland</li> <li><b>Significant Natural Features</b></li> <li> Significant Woodland</li> <li> Significant Wetland</li> <li> Significant Valleyland</li> <li><b>Significant Wildlife Habitat</b></li> <li> Deer Wintering Area</li> <li> Habitat for Declining/Area-Sensitive Grassland Species</li> <li> Winter Raptor Roosting &amp; Feeding Area</li> </ul> | <ul style="list-style-type: none"> <li> Seep</li> <li> Vernal Pool</li> <li> Rare Vegetation Community</li> <li> Snapping Turtle Habitat</li> <li> Animal Movement Corridor</li> <li> Waterfowl Stopover</li> <li> Migratory Landbird Habitat</li> <li> Habitat for Declining Woodland Species</li> <li> Area-Sensitive Species Woodland Habitat</li> <li> Short-Eared Owl Habitat</li> <li><b>Culverts</b></li> <li> Wildlife &amp; Flow Culvert</li> <li> Other Culvert</li> </ul> |
|--|--|---|--|

**Notes**

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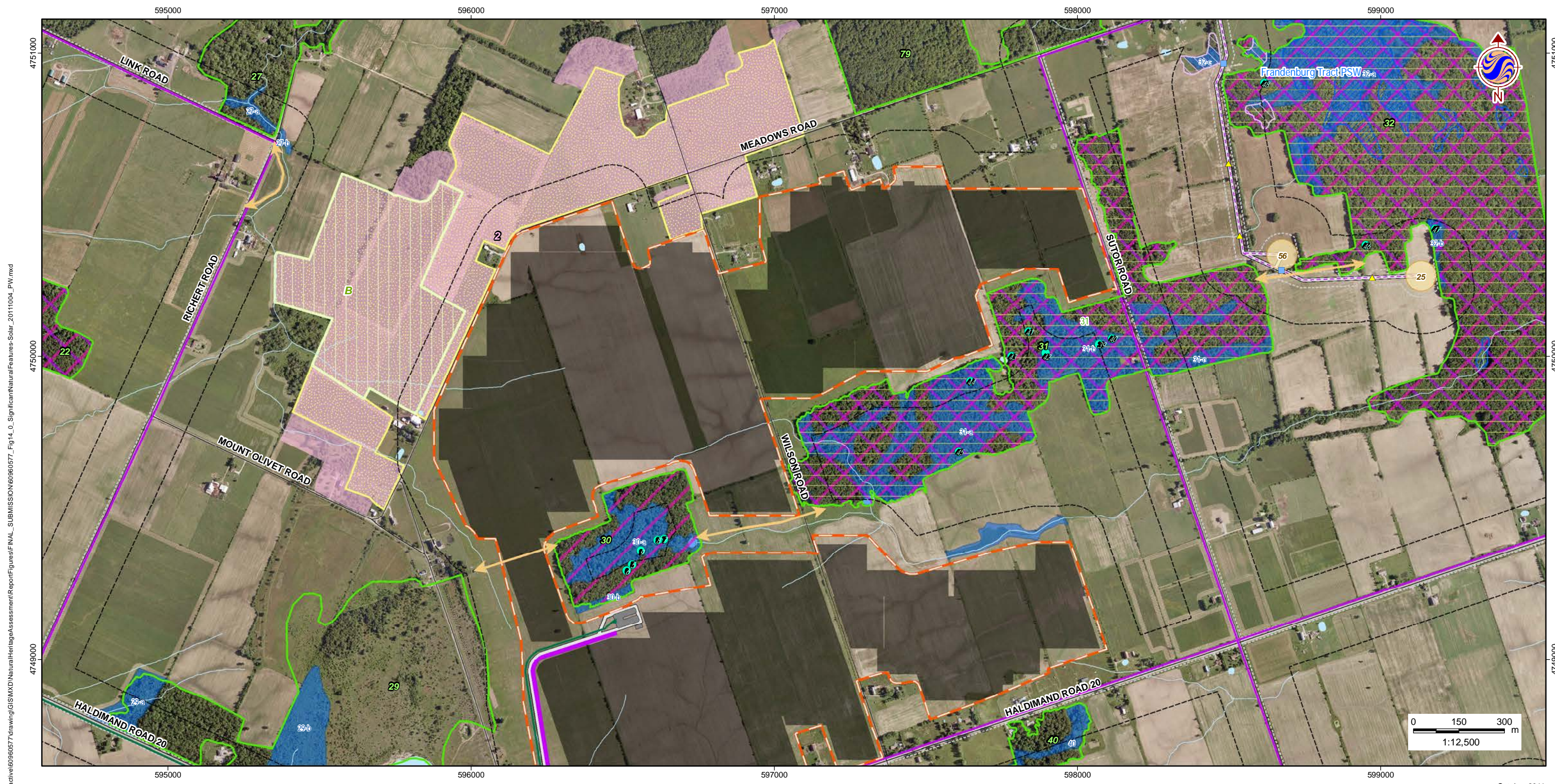


Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**13.18**

Title  
**SIGNIFICANT NATURAL  
FEATURES - W18**





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**Legend**

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|---|--|--|--|
| <ul style="list-style-type: none"> <li> Study Area</li> <li> Zone of Investigation</li> <li> Constructable Area</li> <li><b>Wind Project Location</b></li> <li> Proposed Turbine Location</li> <li> Access Road</li> <li> Overhead Collector Line</li> <li> Underground Collector Line</li> <li><b>Solar Project Location</b></li> <li> Solar Lands</li> <li> Solar Panel Unit</li> </ul> | <ul style="list-style-type: none"> <li><b>Transmission Line</b></li> <li> Overhead Transmission Line</li> <li> Underground Transmission Line</li> <li> Electrical Transmission Component</li> <li><b>Existing Features</b></li> <li> Road</li> <li> Railway</li> <li> Abandoned Railway</li> <li> Transmission Line (MNR)</li> <li> Watercourse (MNR)</li> <li> Waterbody (MNR)</li> </ul> | <ul style="list-style-type: none"> <li><b>Wetland (MNR)</b></li> <li> Provincially Significant Wetland</li> <li> Non-Provincially Significant Wetland</li> <li><b>Significant Natural Features</b></li> <li> Significant Woodland</li> <li> Significant Wetland</li> <li> Significant Valleyland</li> <li><b>Significant Wildlife Habitat</b></li> <li> Deer Wintering Area</li> <li> Habitat for Declining/Area-Sensitive Grassland Species</li> <li> Significant Winter Raptor Feeding &amp; Roosting Habitat</li> </ul> | <ul style="list-style-type: none"> <li> Seep</li> <li> Vernal Pool</li> <li> Rare Vegetation Community</li> <li> Snapping Turtle Habitat</li> <li> Animal Movement Corridor</li> <li> Waterfowl Stopover</li> <li> Migratory Landbird Habitat</li> <li> Habitat for Declining Woodland Species</li> <li> Area-Sensitive Species Woodland Habitat</li> <li> Short-Eared Owl Habitat</li> <li><b>Culverts</b></li> <li> Wildlife &amp; Flow Culvert</li> <li> Other Culvert</li> </ul> |
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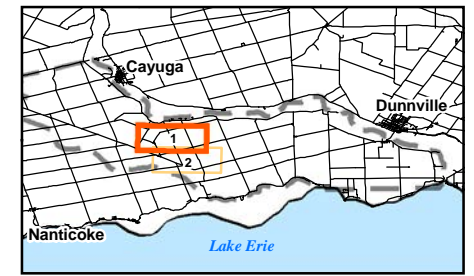
**Notes**

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**14.1**

Title  
**SIGNIFICANT NATURAL  
FEATURES - S1**





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**Legend**

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| <ul style="list-style-type: none"> <li> Study Area</li> <li> Zone of Investigation</li> <li> Constructable Area</li> <li><b>Wind Project Location</b></li> <li> Proposed Turbine Location</li> <li> Access Road</li> <li> Overhead Collector Line</li> <li> Underground Collector Line</li> <li><b>Solar Project Location</b></li> <li> Solar Lands</li> <li> Solar Panel Unit</li> </ul> | <ul style="list-style-type: none"> <li><b>Transmission Line</b></li> <li> Overhead Transmission Line</li> <li> Underground Transmission Line</li> <li> Electrical Transmission Component</li> <li><b>Existing Features</b></li> <li> Road</li> <li> Railway</li> <li> Abandoned Railway</li> <li> Transmission Line (MNR)</li> <li> Watercourse (MNR)</li> <li> Waterbody (MNR)</li> </ul> | <ul style="list-style-type: none"> <li><b>Wetland (MNR)</b></li> <li> Provincially Significant Wetland</li> <li> Non-Provincially Significant Wetland</li> <li><b>Significant Natural Features</b></li> <li> Significant Woodland</li> <li> Significant Wetland</li> <li> Significant Valleyland</li> <li><b>Significant Wildlife Habitat</b></li> <li> Deer Wintering Area</li> <li> Habitat for Declining/Area-Sensitive Grassland Species</li> <li> Significant Winter Raptor Feeding &amp; Roosting Habitat</li> </ul> | <ul style="list-style-type: none"> <li> Seep</li> <li> Vernal Pool</li> <li> Rare Vegetation Community</li> <li> Snapping Turtle Habitat</li> <li> Animal Movement Corridor</li> <li> Waterfowl Stopover</li> <li> Migratory Landbird Habitat</li> <li> Habitat for Declining Woodland Species</li> <li> Area-Sensitive Species Woodland Habitat</li> <li> Short-Eared Owl Habitat</li> <li><b>Culverts</b></li> <li> Wildlife &amp; Flow Culvert</li> <li> Other Culvert</li> </ul> |
|---|--|--|--|

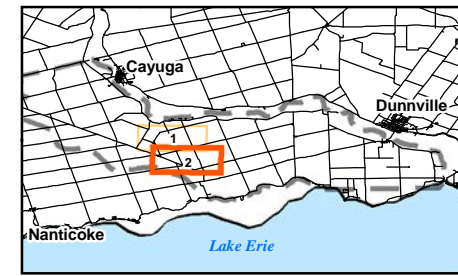
**Notes**

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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**14.2**

Title  
**SIGNIFICANT NATURAL  
FEATURES - S2**





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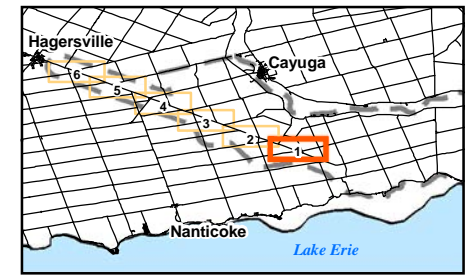


**Legend**

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|--|--|---|--|
| <ul style="list-style-type: none"> <li> Study Area</li> <li> Zone of Investigation</li> <li> Constructable Area</li> <li><b>Wind Project Location</b></li> <li> Proposed Turbine Location</li> <li> Access Road</li> <li> Overhead Collector Line</li> <li> Underground Collector Line</li> <li><b>Solar Project Location</b></li> <li> Solar Lands</li> </ul> | <ul style="list-style-type: none"> <li><b>Transmission Line</b></li> <li> Overhead Transmission Line</li> <li> Underground Transmission Line</li> <li> Electrical Transmission Component</li> <li><b>Existing Features</b></li> <li> Road</li> <li> Railway</li> <li> Abandoned Railway</li> <li> Transmission Line (MNR)</li> <li> Watercourse (MNR)</li> <li> Waterbody (MNR)</li> </ul> | <ul style="list-style-type: none"> <li><b>Wetland (MNR)</b></li> <li> Provincially Significant Wetland</li> <li> Non-Provincially Significant Wetland</li> <li><b>Significant Natural Features</b></li> <li> Woodland</li> <li> Significant Wetland</li> <li> Significant Valleyland</li> <li><b>Significant Wildlife Habitat</b></li> <li> Deer Wintering Area</li> <li> Habitat for Declining/Area-Sensitive Grassland Species</li> </ul> | <ul style="list-style-type: none"> <li> Seep</li> <li> Vernal Pool</li> <li> Rare Vegetation Community</li> <li> Snapping Turtle Habitat</li> <li> Animal Movement Corridor</li> <li> Waterfowl Stopover</li> <li> Migratory Landbird Habitat</li> <li> Habitat for Declining Woodland Species</li> <li> Area-Sensitive Species Woodland Habitat</li> <li> Short-Eared Owl Habitat</li> <li><b>Culverts</b></li> <li> Wildlife &amp; Flow Culvert</li> <li> Other Culvert</li> </ul> |
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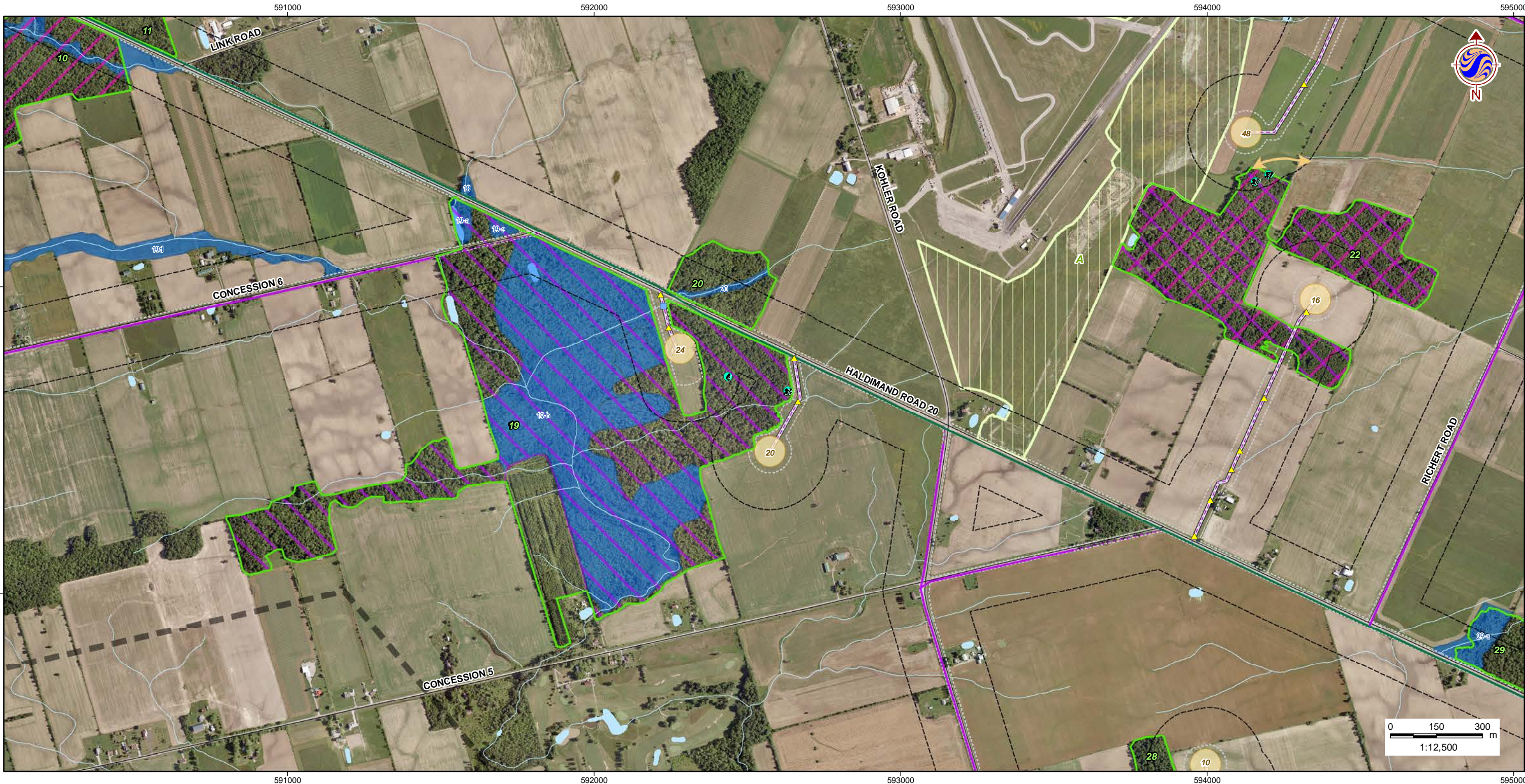


Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**15.1**

Title  
**SIGNIFICANT NATURAL  
FEATURES - T1**

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**Legend**

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|--|--|---|--|
| <ul style="list-style-type: none"> <li> Study Area</li> <li> Zone of Investigation</li> <li> Constructable Area</li> <li><b>Wind Project Location</b></li> <li> Proposed Turbine Location</li> <li> Access Road</li> <li> Overhead Collector Line</li> <li> Underground Collector Line</li> <li><b>Solar Project Location</b></li> <li> Solar Lands</li> </ul> | <ul style="list-style-type: none"> <li><b>Transmission Line</b></li> <li> Overhead Transmission Line</li> <li> Underground Transmission Line</li> <li> Electrical Transmission Component</li> <li><b>Existing Features</b></li> <li> Road</li> <li> Railway</li> <li> Abandoned Railway</li> <li> Transmission Line (MNR)</li> <li> Watercourse (MNR)</li> <li> Waterbody (MNR)</li> </ul> | <ul style="list-style-type: none"> <li><b>Wetland (MNR)</b></li> <li> Provincially Significant Wetland</li> <li> Non-Provincially Significant Wetland</li> <li><b>Significant Natural Features</b></li> <li> Woodland</li> <li> Significant Wetland</li> <li> Significant Valleyland</li> <li><b>Significant Wildlife Habitat</b></li> <li> Deer Wintering Area</li> <li> Habitat for Declining/Area-Sensitive Grassland Species</li> </ul> | <ul style="list-style-type: none"> <li> Seep</li> <li> Vernal Pool</li> <li> Rare Vegetation Community</li> <li> Snapping Turtle Habitat</li> <li> Animal Movement Corridor</li> <li> Waterfowl Stopover</li> <li> Migratory Landbird Habitat</li> <li> Habitat for Declining Woodland Species</li> <li> Area-Sensitive Species Woodland Habitat</li> <li> Short-Eared Owl Habitat</li> <li><b>Culverts</b></li> <li> Wildlife &amp; Flow Culvert</li> <li> Other Culvert</li> </ul> |
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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
 GRAND RENEWABLE ENERGY PARK**

Figure No.  
**15.2**

Title  
**SIGNIFICANT NATURAL  
 FEATURES - T2**

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**Legend**

- |  |  |   |  |
|--|--|---|--|
| <ul style="list-style-type: none"> <li> Study Area</li> <li> Zone of Investigation</li> <li> Constructable Area</li> <li><b>Wind Project Location</b></li> <li> Proposed Turbine Location</li> <li> Access Road</li> <li> Overhead Collector Line</li> <li> Underground Collector Line</li> <li><b>Solar Project Location</b></li> <li> Solar Lands</li> </ul> | <ul style="list-style-type: none"> <li><b>Transmission Line</b></li> <li> Overhead Transmission Line</li> <li> Underground Transmission Line</li> <li> Electrical Transmission Component</li> <li><b>Existing Features</b></li> <li> Road</li> <li> Railway</li> <li> Abandoned Railway</li> <li> Transmission Line (MNR)</li> <li> Watercourse (MNR)</li> <li> Waterbody (MNR)</li> </ul> | <ul style="list-style-type: none"> <li><b>Wetland (MNR)</b></li> <li> Provincially Significant Wetland</li> <li> Non-Provincially Significant Wetland</li> <li><b>Significant Natural Features</b></li> <li> Woodland</li> <li> Significant Wetland</li> <li> Significant Valleyland</li> <li><b>Significant Wildlife Habitat</b></li> <li> Deer Wintering Area</li> <li> Habitat for Declining/Area-Sensitive Grassland Species</li> </ul> | <ul style="list-style-type: none"> <li> Seep</li> <li> Vernal Pool</li> <li> Rare Vegetation Community</li> <li> Snapping Turtle Habitat</li> <li> Animal Movement Corridor</li> <li> Waterfowl Stopover</li> <li> Migratory Landbird Habitat</li> <li> Habitat for Declining Woodland Species</li> <li> Area-Sensitive Species Woodland Habitat</li> <li> Short-Eared Owl Habitat</li> <li><b>Culverts</b></li> <li> Wildlife &amp; Flow Culvert</li> <li> Other Culvert</li> </ul> |
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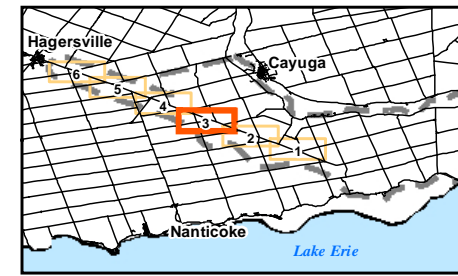
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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**15.3**

Title  
**SIGNIFICANT NATURAL  
FEATURES - T3**



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**Legend**

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|--|--|---|--|
| <ul style="list-style-type: none"> <li> Study Area</li> <li> Zone of Investigation</li> <li> Constructable Area</li> <li><b>Wind Project Location</b></li> <li> Proposed Turbine Location</li> <li> Access Road</li> <li> Overhead Collector Line</li> <li> Underground Collector Line</li> <li><b>Solar Project Location</b></li> <li> Solar Lands</li> </ul> | <ul style="list-style-type: none"> <li><b>Transmission Line</b></li> <li> Overhead Transmission Line</li> <li> Underground Transmission Line</li> <li> Electrical Transmission Component</li> <li><b>Existing Features</b></li> <li> Road</li> <li> Railway</li> <li> Abandoned Railway</li> <li> Transmission Line (MNR)</li> <li> Watercourse (MNR)</li> <li> Waterbody (MNR)</li> </ul> | <ul style="list-style-type: none"> <li><b>Wetland (MNR)</b></li> <li> Provincially Significant Wetland</li> <li> Non-Provincially Significant Wetland</li> <li><b>Significant Natural Features</b></li> <li> Woodland</li> <li> Significant Wetland</li> <li> Significant Valleyland</li> <li><b>Significant Wildlife Habitat</b></li> <li> Deer Wintering Area</li> <li> Habitat for Declining/Area-Sensitive Grassland Species</li> </ul> | <ul style="list-style-type: none"> <li> Seep</li> <li> Vernal Pool</li> <li> Rare Vegetation Community</li> <li> Snapping Turtle Habitat</li> <li> Animal Movement Corridor</li> <li> Waterfowl Stopover</li> <li> Migratory Landbird Habitat</li> <li> Habitat for Declining Woodland Species</li> <li> Area-Sensitive Species Woodland Habitat</li> <li> Short-Eared Owl Habitat</li> <li><b>Culverts</b></li> <li> Wildlife &amp; Flow Culvert</li> <li> Other Culvert</li> </ul> |
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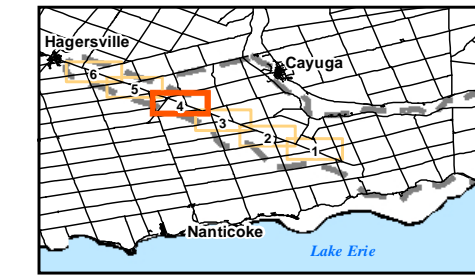
**Notes**

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Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**15.4**

Title  
**SIGNIFICANT NATURAL  
FEATURES - T4**



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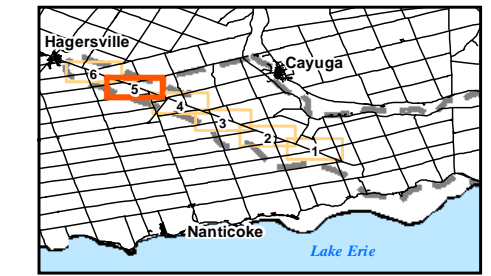


**Legend**

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|--|--|--|--|
| <ul style="list-style-type: none"> <li> Study Area</li> <li> Zone of Investigation</li> <li> Constructable Area</li> <li><b>Wind Project Location</b></li> <li> Proposed Turbine Location</li> <li> Access Road</li> <li> Overhead Collector Line</li> <li> Underground Collector Line</li> <li><b>Solar Project Location</b></li> <li> Solar Lands</li> </ul> | <ul style="list-style-type: none"> <li><b>Transmission Line</b></li> <li> Overhead Transmission Line</li> <li> Underground Transmission Line</li> <li> Electrical Transmission Component</li> <li><b>Existing Features</b></li> <li> Road</li> <li> Railway</li> <li> Abandoned Railway</li> <li> Transmission Line (MNR)</li> <li> Watercourse (MNR)</li> <li> Waterbody (MNR)</li> </ul> | <ul style="list-style-type: none"> <li><b>Wetland (MNR)</b></li> <li> Provincially Significant Wetland</li> <li> Non-Provincially Significant Wetland</li> <li><b>Significant Natural Features</b></li> <li> Woodland</li> <li> Significant Valleyland</li> <li> Significant Valleyland</li> <li><b>Significant Wildlife Habitat</b></li> <li> Deer Wintering Area</li> <li> Habitat for Declining/Area-Sensitive Grassland Species</li> </ul> | <ul style="list-style-type: none"> <li> Seep</li> <li> Vernal Pool</li> <li> Rare Vegetation Community</li> <li> Snapping Turtle Habitat</li> <li> Animal Movement Corridor</li> <li> Waterfowl Stopover</li> <li> Migratory Landbird Habitat</li> <li> Habitat for Declining Woodland Species</li> <li> Area-Sensitive Species Woodland Habitat</li> <li> Short-Eared Owl Habitat</li> <li><b>Culverts</b></li> <li> Wildlife &amp; Flow Culvert</li> <li> Other Culvert</li> </ul> |
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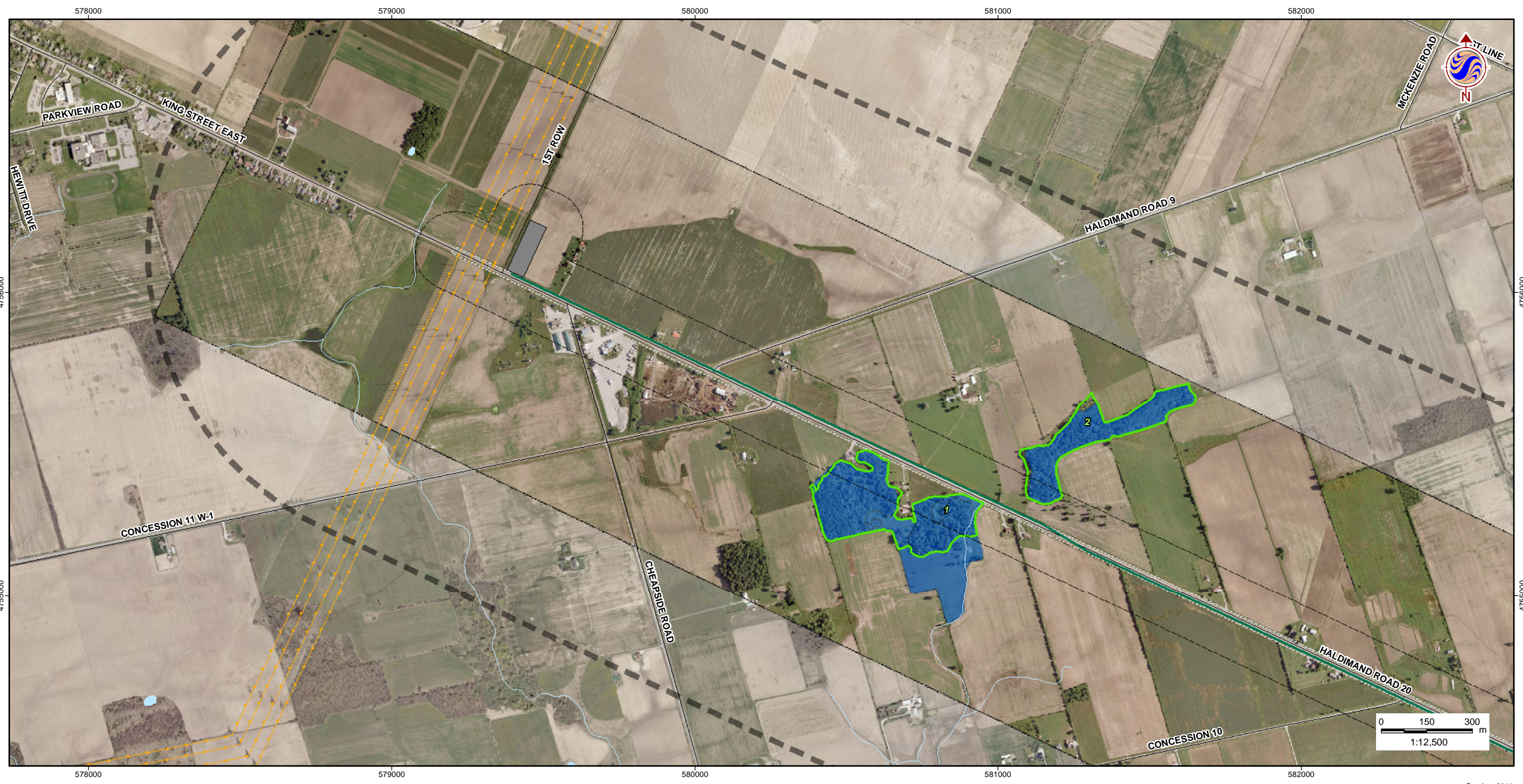


Client/Project  
**SAMSUNG, PATTERN & KEPKO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**15.5**

Title  
**SIGNIFICANT NATURAL  
FEATURES - T5**

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**Legend**

- Study Area
- Zone of Investigation
- Constructable Area
- Wind Project Location**
- Proposed Turbine Location
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Solar Project Location**
- Solar Lands

- Transmission Line**
- Overhead Transmission Line
- Underground Transmission Line
- Electrical Transmission Component
- Existing Features**
- Road
- Railway
- Abandoned Railway
- Transmission Line (MNR)
- Watercourse (MNR)
- Waterbody (MNR)

- Wetland (MNR)**
- Provincially Significant Wetland
- Non-Provincially Significant Wetland
- Significant Natural Features**
- Woodland
- Significant Wetland
- Significant Valleyland
- Significant Wildlife Habitat**
- Deer Wintering Area
- Habitat for Declining/Area-Sensitive Grassland Species

- Seep
- Vernal Pool
- Rare Vegetation Community
- Snapping Turtle Habitat
- Animal Movement Corridor
- Waterfowl Stopover
- Migratory Landbird Habitat
- Habitat for Declining Woodland Species
- Area-Sensitive Species Woodland Habitat
- Short-Eared Owl Habitat
- Culverts**
- Wildlife & Flow Culvert
- Other Culvert

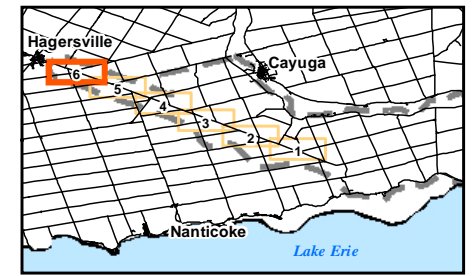
**Notes**

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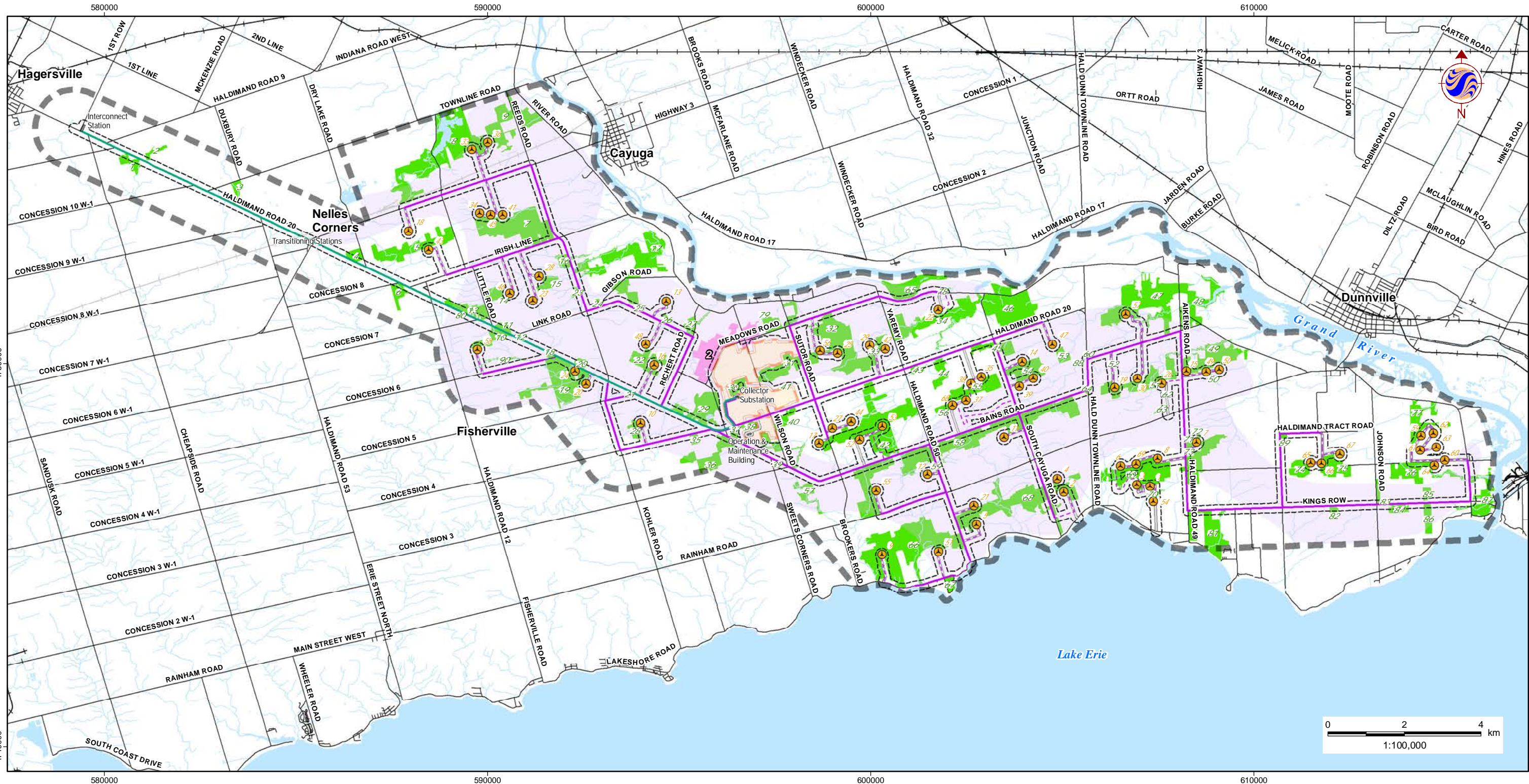
Client/Project  
**SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK**

Figure No.  
**15.6**

Title  
**SIGNIFICANT NATURAL  
FEATURES - T6**







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**Legend**

- |                               |                            |                          |                                   |  |  |
|-------------------------------|----------------------------|--------------------------|-----------------------------------|--|--|
|                               | Study Area                 |                          | Overhead Transmission Line        |  | Waterbody (MNR)                                      |
|                               | Zone of Investigation      |                          | Underground Transmission Line     |  | Natural Feature                                      |
| <b>Wind Project Location</b>  |                            |                          | Electrical Transmission Component |  | Winter Raptor Concentration Area                     |
|                               | Proposed Turbine Location  | <b>Existing Features</b> |                                   |  | Significant Winter Raptor Feeding & Roosting Habitat |
|                               | Access Road                |                          | Road                              |  |  |
|                               | Overhead Collector Line    |                          | Railway                           |  |  |
|                               | Underground Collector Line |                          | Abandoned Railway                 |  |  |
| <b>Solar Project Location</b> |                            |                          | Watercourse (MNR)                 |  |  |
|                               | Solar Lands                |                          |                                   |  |  |

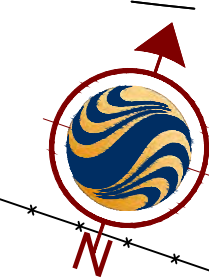
**Notes**

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Client/Project  
SAMSUNG, PATTERN & KEPCO (SPK)  
GRAND RENEWABLE ENERGY PARK

Figure No.  
16.0

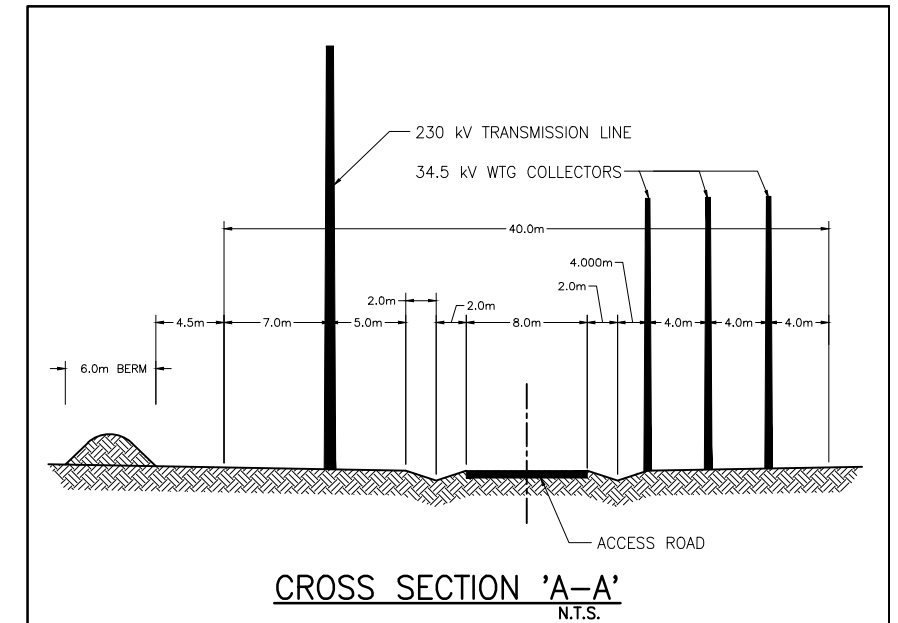
Title  
**SIGNIFICANT WINTER RAPTOR HABITAT**



Stantec  
 49 Frederick Street  
 Kitchener, ON Canada  
 N2H 6M7  
 Tel. 519.579.4410  
 Fax. 519.579.8664  
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Notes



Legend

Revision	By	Appd.	YY.MM.DD
A	KS	TT	11.01.25
Issued	By	Appd.	YY.MM.DD
File Name: 160310624_CS-SP.dwg	KS	JRH	JRH
	Dwn.	Chkd.	Dsgn.
			11.01.25
Permit-Seal			YY.MM.DD

**PRELIMINARY**  
 FOR DISCUSSION PURPOSES ONLY

Client/Project  
 SAMSUNG RENEWABLE ENERGY INC.

GRAND RENEWABLE ENERGY PARK

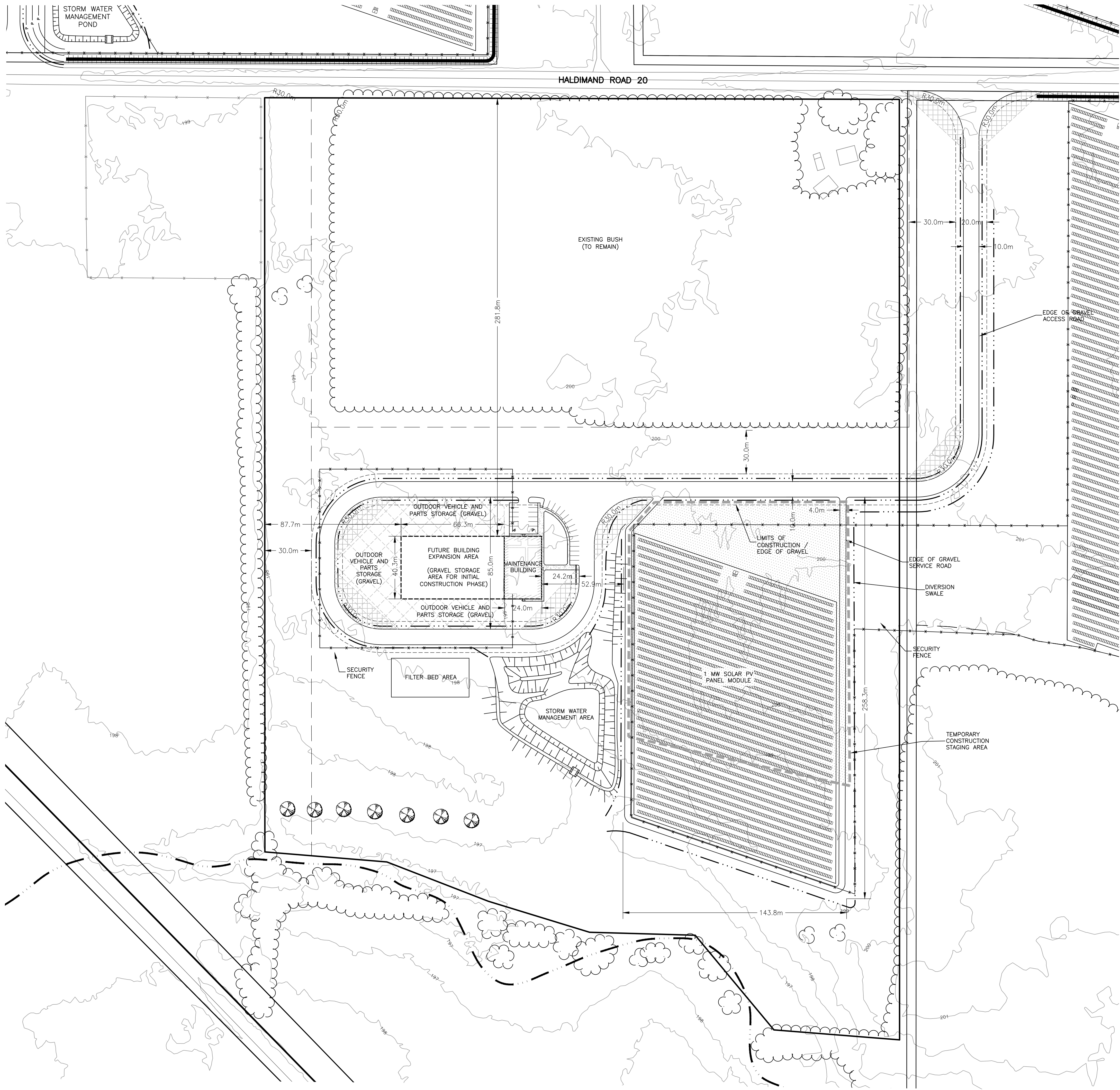
Haldimand, Ontario

Title  
 COLLECTOR SUBSTATION AREA  
 GENERAL ARRANGEMENT

Project No. 1610-10624  
 Scale 1:1500

Drawing No. Sheet Revision

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 2011/11/01 10:27:43 AM  
 User: jrh  
 Plot: 11/01/25 10:27:43 AM  
 Plot Device: HP DesignJet 5000PS



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Notes

Legend

2	O&M BUILDING AND PARKING UPDATED	KS	TT	11.05.18
1	SUBSTATION REMOVED / SOLAR ADDED	KS	TT	11.01.25
Revision		By	Appd.	YY.MM.DD

B	PRELIMINARY - NOT FOR CONSTRUCTION	KS	TT	11.01.25
A	PRELIMINARY - NOT FOR CONSTRUCTION	JRH	TT	10.10.07
Issued		By	Appd.	YY.MM.DD

File Name:	160310624_Fig_17-1,17-2.dwg	KS	JRH	JRH	10.10.05
		Dwn.	Chkd.	Desn.	YY.MM.DD

Permit-Seal

**PRELIMINARY**  
 FOR DISCUSSION PURPOSES ONLY

Client/Project  
**SAMSUNG RENEWABLE ENERGY INC.**

**GRAND RENEWABLE ENERGY PARK**

Haldimand, Ontario

Title  
**OPERATION AND MAINTENANCE BUILDING  
 GENERAL ARRANGEMENT**

Project No.	Scale	0	12.5	37.5	82.5m
1610-10624	1:1250				
Drawing No.	Sheet	Revision			

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