

# **EAST DURHAM WIND ENERGY CENTRE**

## **NATURAL HERITAGE ASSESSMENT - ADDENDUM ONTARIO REGULATION 359/09**

*prepared for*

**GENIVAR INC.**

*on behalf of*

**EAST DURHAM WIND, INC.**

*by*

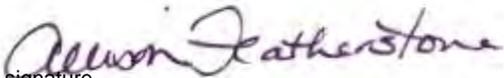


**DECEMBER 2012  
LGL PROJECT TA8119-01**

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## NATURAL HERITAGE ASSESSMENT ONTARIO REGULATION 359/09

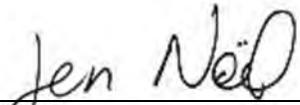
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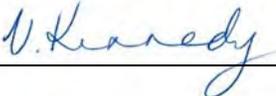
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## TABLE OF CONTENTS

<b>ABBREVIATIONS AND DEFINITIONS .....</b>	<b>i</b>
<b>1.0 INTRODUCTION .....</b>	<b>1</b>
1.1 DESCRIPTION OF CHANGES TO PROJECT LAYOUT .....	5
<b>2.0 RECORDS REVIEW.....</b>	<b>7</b>
<b>3.0 SITE INVESTIGATION .....</b>	<b>7</b>
3.1 METHODS .....	7
3.1.1 <i>Vegetation Communities and Vascular Plants.....</i>	<i>8</i>
3.1.2 <i>Wildlife Habitat.....</i>	<i>9</i>
3.2 RESULTS .....	12
3.2.1 <i>Corrections to Records Review.....</i>	<i>12</i>
3.2.2 <i>Ecological Land Classification (ELC) of Vegetation Communities.....</i>	<i>12</i>
3.2.3 <i>Description of Natural Features.....</i>	<i>12</i>
3.2.4 <i>Wildlife Habitat.....</i>	<i>12</i>
3.2.5 <i>Summary of Natural Features within 120m of Proposed Changes.....</i>	<i>26</i>
<b>4.0 EVALUATION OF SIGNIFICANCE .....</b>	<b>29</b>
4.1 METHODS .....	30
4.2 RESULTS .....	30
<b>5.0 REFERENCES .....</b>	<b>40</b>

## LIST OF APPENDICES

Appendix A	Field Notes October 24 2012
Appendix B	ELC Description Table
Appendix C	Qualifications
Appendix D	Site Investigation Results

## LIST OF TABLES

Table 1	Proposed changes to the Project Layout of the East Durham Wind Energy Centre
Table 2	Summary of Natural Features not Carried Forward into Site Investigation Based on Results of Records Review.
Table 3	Summary of Site Investigation Methods for Changes to Project Layout
Table 4	Screening of Candidate SWH within the revised project layout as determined through site investigation conducted on October 24, 2012
Table 5	Summary of natural features identified through site investigation and carried forward to Evaluation of Significance
Table 6	Summary of Significant Features Evaluated or Treated as Significant
Table 7	Summary of Methods to be Used for Habitat Use Studies
Table 8	Summary of potential negative effects and proposed mitigation measures for wildlife habitat that were treated as significant and require a habitat use study

## **LIST OF FIGURES**

Figure 1	Project Location (September 2012) and Property Access
Figure 2	Changes to Project Layout: Overview
Figure 3	Proposed Changes to Project Layout: Detailed
Figure 4	Ecological Land Classification
Figure 5	Additional Candidate SWH Due to Changes A-C
Figure 6	Additional SWH Due to Changes A-C
Figure 7	Generalized SWH

## **ABBREVIATIONS AND DEFINITIONS**

**NHA** – Natural Heritage Assessment

**NHIC** – Natural Heritage Information Centre (now referred to as the Biodiversity Database) as maintained by the Ministry of Natural Resources, available online on <http://nhic.mnr.gov.on.ca/>.

**O. Reg. 359/09** – Ontario Regulation 359/09

**OWES** – Ontario Wetland Evaluation System

**Project** – East Durham Wind Energy Centre

**Project Area** – areas within 120m of project components (see Figure 1 of this report for a mapped image of the project components and project area).

**Project Location** – part of a land and all or part of any building or structure in, or, over which a person is engaging in or proposed to engage in the project and includes air space. The location includes all components of the renewable energy facility such as wind turbines, lay down areas, access roads, crane assembly areas, walking paths, hydro lines/corridors, transformer stations, fencing, lighting, and construction yards.

**SWH – significant wildlife habitat** – wildlife habitat that meets the MNR criteria outlined in the Significant Wildlife Habitat Draft Ecoregion 6E Criterion Schedule (OMNR, 2012a).

**Study Area** – general location of the wind energy project, is bounded by Concession Road 6 to the north; Sideroad 50 and Artemesia-Glenelg Townline to the east; the West Grey-Southgate municipal boundary to the south (Stone Hill Road); and, Baseline to the west.

## 1.0 INTRODUCTION

East Durham Wind, Inc. is proposing to construct a wind energy project in the Municipality of West Grey, Grey County, Ontario. The proposed project will be referred to as the East Durham Wind Energy Centre (Project). This facility will convert wind energy into electricity to be fed into the Hydro One grid. The wind turbine technology proposed for this Project is the GE 1.6-100 model wind turbine. With a total maximum nameplate capacity of up to 23 MW, the Project is categorized as a Class 4 facility.

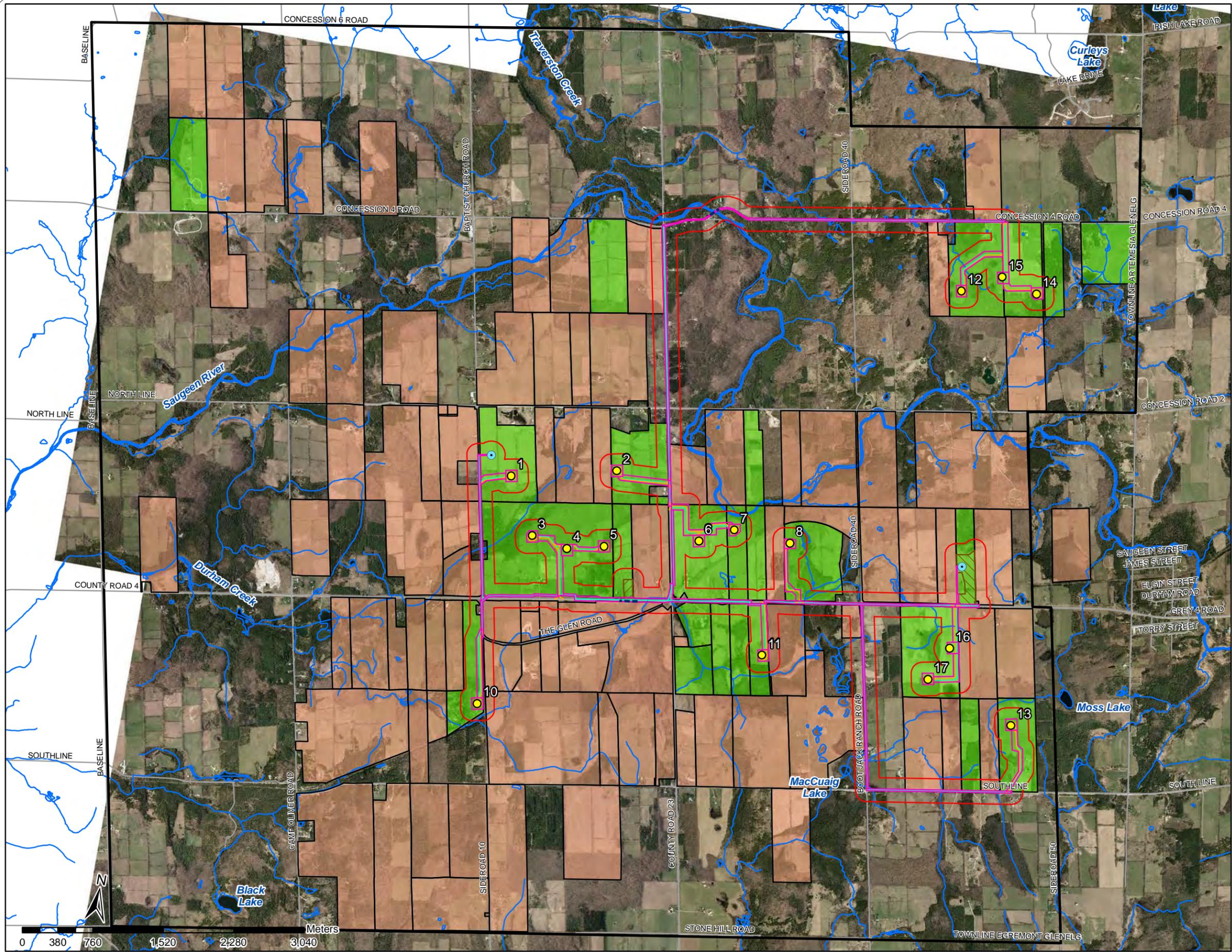
As the proponent, East Durham Wind, Inc. is required to follow the provincial policies and standards outlined in The Renewable Energy Approvals (REA) process as prescribed in *Ontario Regulation 359/09* (O. Reg. 359/09) under the *Environmental Protection Act* as they pertain to wind energy projects. LGL Limited has been retained as a sub-consultant to Genivar Inc. to conduct a Natural Heritage Assessment (NHA) for the Project in accordance with the requirements of the REA process.

The original version of the NHA for the project was submitted to MNR for review in October 2012. Since that time the proponent has begun a more detailed construction and design analysis that has resulted in some proposed changes to the project layout. The proposed changes include the following:

- A second MET tower to be located within the area also assigned for construction laydown;
- An access road and underground electrical cables to service the additional MET tower;
- A new location for the transformer substation;
- An Overhead 44 kV line to connect the transformer substation to the Hydro One electrical grid;
- Expansion of the construction laydown area to include the area previously assigned to the transformer substation; and,
- Inclusion of the option to use an overhead line to install electrical collection as it crosses the Saugeen River.

The proposed changes outlined above are displayed in Figures 2 and 3, labelled as A through F. The original project layout (Figure 1) has been included for reference purposes. Of note, is that the project layout remains within the boundary of the study area as presented in the original NHA report.

This addendum report has been prepared to evaluate the proposed changes from a natural heritage perspective and is to be considered, in combination with the East Durham Wind Energy Centre Natural Heritage Assessment (LGL, 2012) to comprise the complete NHA for the East Durham Wind Energy Centre.



### LEGEND

**Site Plan (2012-09-12)**

- Turbine
- MET Tower
- Access Road
- Construction Disturbance
- Underground Collection
- - - Overhead Transmission
- MET Tower 200ft Disturbance Area
- Substation
- Laydown Area
- 120m Buffer from Project Components
- Study Area (Dec 2011)
- Watercourse (LIO, 2012-06-19)
- Waterbody (LIO, 2012-06-19)
- Parcel Boundary

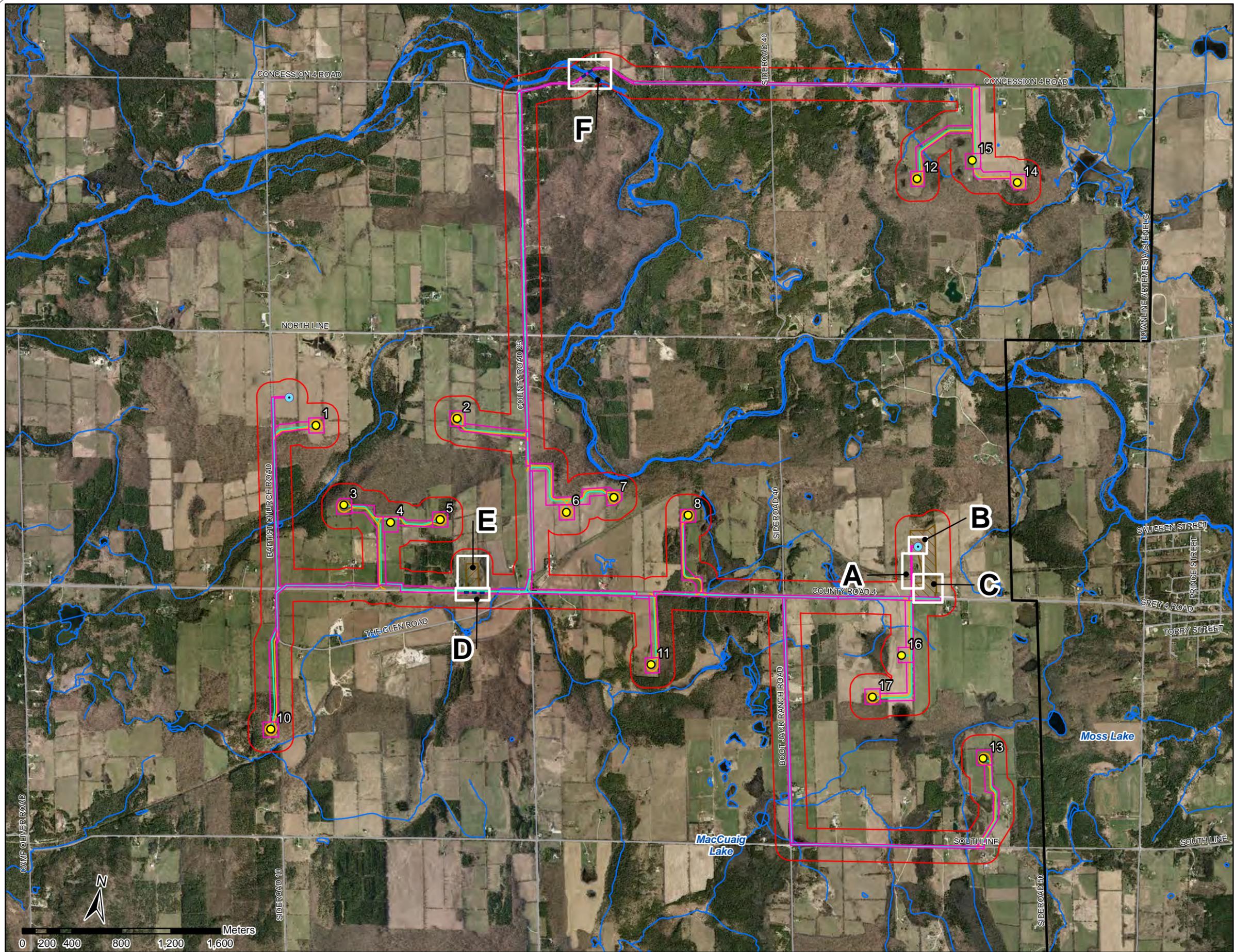
**Property Access**

- Access Provided
- Access Denied

## Project Location (September 2012) & Property Access



Project	TA8119	Figure	1
Date	November 2012	Prepared By:	KC
Scale	1:40,000	Verified By:	LKR



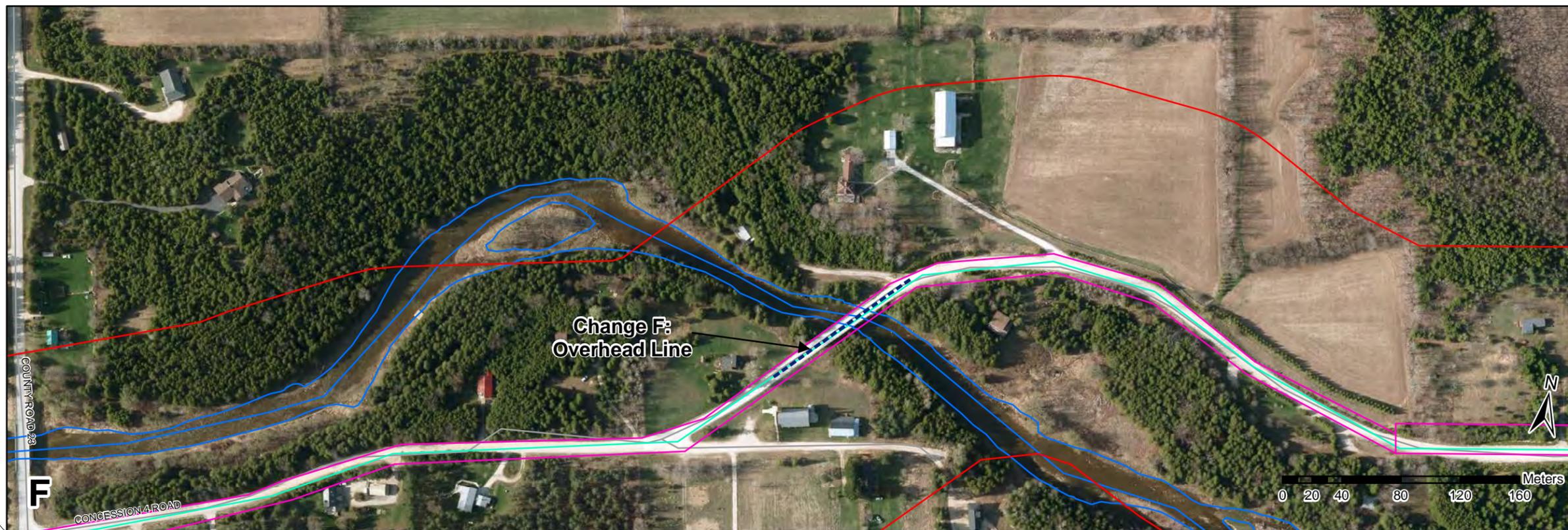
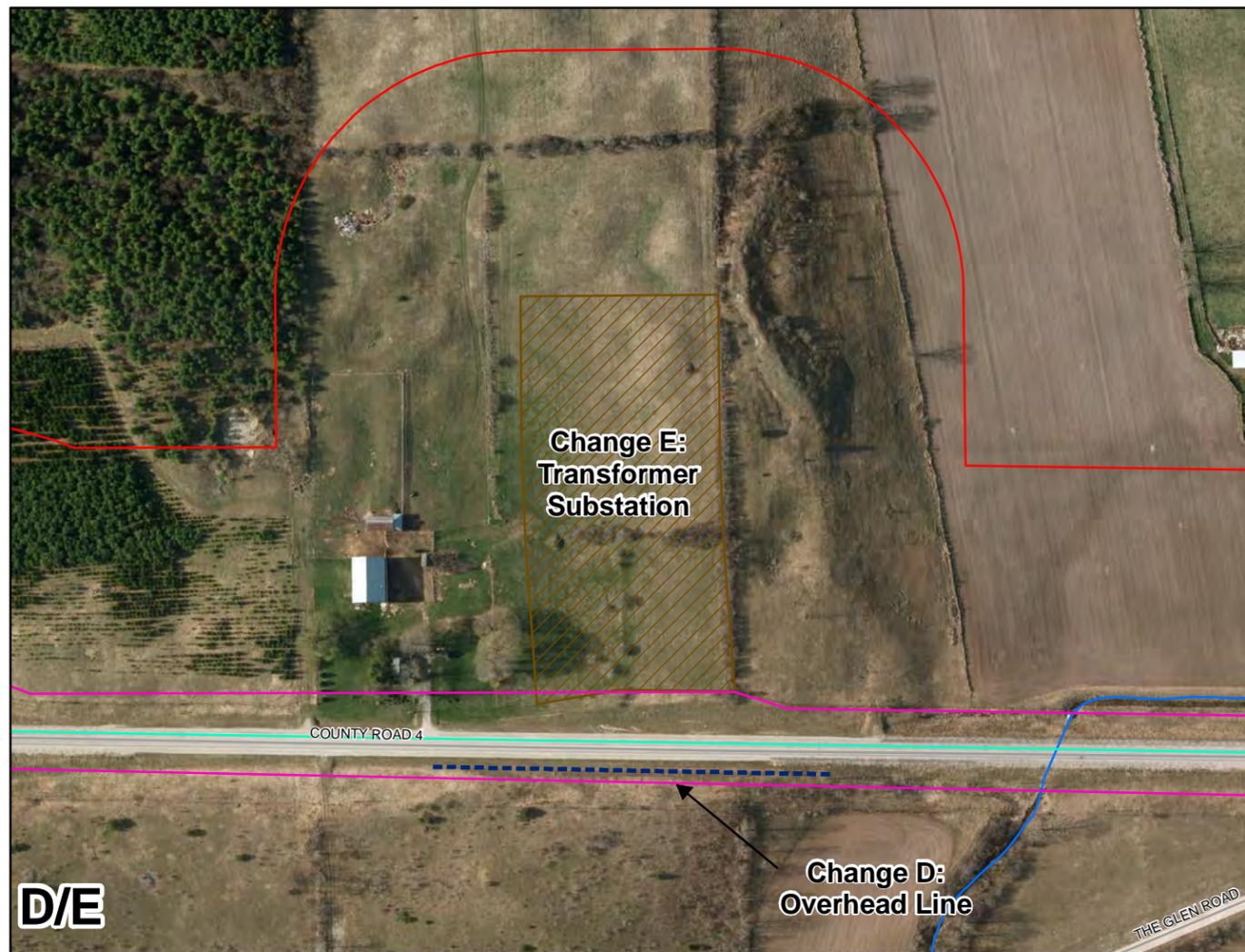
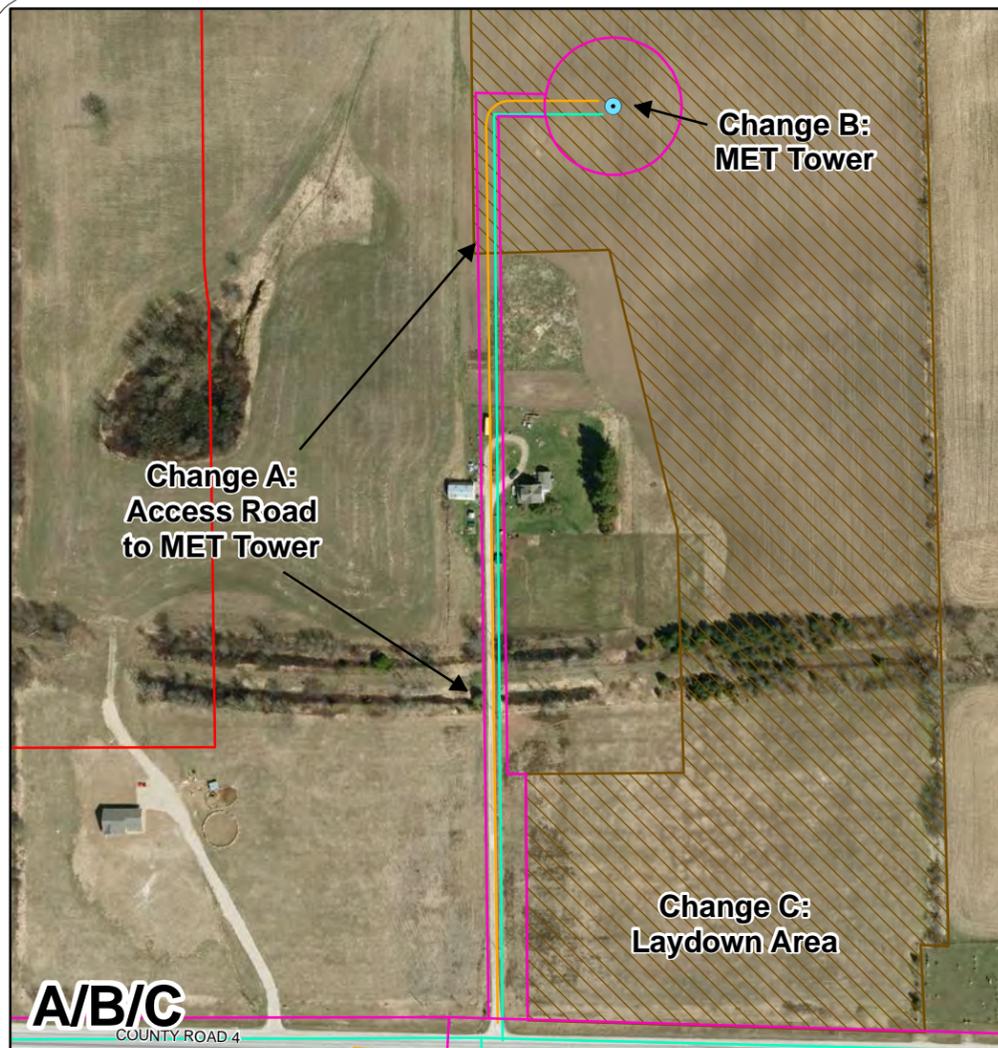
**LEGEND**

- Site Plan (2012-11-21)**
- Turbine
  - MET Tower
  - Access Road
  - Construction Disturbance
  - Underground Collection
  - - - Overhead Transmission
  - Substation
  - Laydown Area
  - 120m Buffer from Project Components
  - Study Area (Dec 2011)
  - Watercourse (LIO, 2012-06-19)
  - Waterbody (LIO, 2012-06-19)

**Changes to Project Layout: Overview**



<b>Project</b>	TA8119	<b>Figure</b>	2
<b>Date</b>	November, 2012	<b>Prepared By:</b>	KC
<b>Scale</b>	1:30,000	<b>Verified By:</b>	LKR



**LEGEND**

**Site Plan (2012-11-21)**

- Turbine
- MET Tower
- Access Road
- Construction Disturbance
- Underground Collection
- - - Overhead Transmission
- Substation
- Laydown Area
- 120m Buffer from Project Components
- Study Area (Dec 2011)
- Watercourse (LIO, 2012-06-19)
- Waterbody (LIO, 2012-06-19)

**Proposed Changes to Project Location: Detailed**



<b>Project</b>	TA8119	<b>Figure</b>	3
<b>Date</b>	November, 2012	<b>Prepared By:</b>	VLK
<b>Scale</b>	1:3,200	<b>Verified By:</b>	LKR

## 1.1 DESCRIPTION OF CHANGES TO PROJECT LAYOUT

The East Durham Wind Energy Centre is a Class 4 Wind Facility, with a total nameplate capacity of up to 23 MW. A total of up to 14 turbines are proposed for construction. The defined study area for the Project has not changed; it covers approximately 10,050 ha east of the Community of Durham and west of the Village of Priceville (Figure 1). Project components will be located within privately owned agricultural land with lease arrangements, or within municipal road right of ways. No changes have been made to the original description of the project components as presented in the East Durham Wind Energy Centre NHA (LGL, 2012); however, changes to the type of project component (e.g. overhead line compared to underground line) or the location of project components are proposed as described below in Table 1. Figure 1 displays the project layout as presented in the original NHA report for reference purposes.

**Table 1: Proposed changes to the Project Layout of the East Durham Wind Energy Centre**

Proposed Change	Project Component	Description of Original Project Component as described in the East Durham Wind Energy Centre NHA (LGL, 2012)	Description of Proposed Change to Project Component	
A	Access road & associated underground electrical collection to service Met tower.		No access road was included in this area in the layout presented in the original NHA. The area was identified for use as construction laydown and for installation of a transformer substation with an overhead transmission line.	
				The access road would follow a north south path to connect the met tower to County Road 4. The road is proposed to follow the alignment of an existing driveway and farmlane.
B	Met tower		The original layout presented in the NHA did not include a met tower at this location. The area was identified for use as construction laydown and for installation of a transformer substation with an overhead transmission line. A second met tower has been proposed for the project.	
				The second met tower for the Project is proposed for installation within an agricultural field that will also be used as a temporary storage and laydown area during construction.