Environment



Jericho Wind, Inc. Jericho Wind Energy Centre

Natural Heritage Assessment and Environmental Impact Study Report Third Addendum

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- Appendix A. MNR Confirmation and Re-confirmation Letters
- Appendix B. Field Notes
- Appendix C. Vascular Plant Species List
- Appendix D. Jericho Wind Energy Centre Bat Monitoring Report and Environmental Impact Study Amendment (NRSI, 2013)

Glossary of Terms

ANSI	Area of Natural and Scientific Interest
Area of Investigation	Area encompasses by 120 m setback from Project Location boundary
EIS	Environmental Impact Study
MNR	Ministry of Natural Resources
O. Reg. 359/09	Ontario Regulation 359/09
Project Location	The area encompassing all construction activities and project components
REA	Renewable Energy Approval

1. Introduction

Jericho Wind, Inc. (Jericho), a wholly owned subsidiary of NextEra Energy Canada, ULC, (NextEra) is proposing to construct a wind energy project in the Municipality of Lambton Shores and the Township of Warwick, in Lambton County, Ontario and in the Municipality of North Middlesex, in Middlesex County, Ontario. AECOM Canada Ltd. (AECOM) was retained by NextEra to prepare a Natural Heritage Assessment (NHA) and Environmental Impact Study (EIS) for the proposed Jericho Wind Energy Centre (the Project), in accordance with the requirements of the Renewable Energy Approval (REA) process and O. Reg. 359/09.

The Jericho Wind Energy Centre Natural Heritage Assessment and Environmental Impact Study Report (AECOM, 2013a) was originally submitted to the Ontario Ministry of Natural Resources (MNR) in November 2012. AECOM later prepared two Natural Heritage Assessment and Environmental Impact Study Report Addenda (AECOM, 2012; AECOM 2013b) in order to fulfill the requirements of the Renewable Energy Approval (REA) process and O. Reg. 359/09 with respect to refinements to the Project Location proposed after the original submission of the NHA and EIS to MNR.

MNR issued confirmation letters on February 7, 2013 stating that the Natural Heritage Assessment and Environmental Impact Study Report (AECOM 2013a) and the two Addenda (AECOM, 2012; AECOM, 2013b), respectively, met all requirements in accordance with the REA regulation for this Project (refer to Appendix A). The Natural Heritage Assessment and Environmental Impact Study Report and the two Addenda are hereafter collectively referred to as the approved NHA and EIS.

This NHA Addendum has been prepared as a modification to the approved NHA and EIS, and is intended to fulfill the requirements of a Natural Heritage Assessment and Environmental Impact Study in accordance with the requirements of the REA process and O.Reg. 359/09, with respect to modifications to the Project Location proposed after MNR confirmation of the approved NHA and EIS (**Figure 1**).

1.1 Overview of Project Changes

Jericho Wind Inc. is proposing modifications to the Project Location including:

- Construction disturbance area modified to reduce or eliminate impacts to archaeological resources;
- Infrastructure or construction disturbance area added or changed to optimize project design/ constructability; and
- Turbines and associated infrastructure removed.

All of the proposed modifications to the Project Location are summarized in **Table 1**. For each proposed modification, a map showing the revised Project Location and associated 120 m Area of Investigation (dated August 2013), referenced against the Project Location and associated 120 m Area of Investigation in the approved NHA and EIS (dated January 2013), is included in this NHA Addendum (refer to **Table 1** for corresponding Figure numbers). Features (*i.e.*, woodlands, wetlands, significant wildlife habitat and/or Areas of Natural and Scientific Interest) identified in the approved NHA and EIS are provided in the table below for each Natural Area potentially affected by the proposed modifications. Changes in the minimum distance from Features within 120 m of each modification to the Project Location are also provided in the table below.

In addition, a spare 170 mVA transformer (XMR) will be stored within the existing footprint of the Jericho substation.

	Modification ID	Type of Modification	Feature(s) Potentially Affected by Proposed Modification (Change in Minimum Distance to Project Location)	Мар
A1:	Addition of Turbine 106 and associated access road and collection line extending northeast from Turbine 4.	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	New Turbine 106 and associated access road and collection line are within 120 m of a portion of Natural Area 290 that was not previously described in the approved NHA and EIS. Features within 120 m of this modification are described in this NHA Addendum.	Figure 1A
A2:	Relocation of access road to Turbine 4 to travel northeast from Jericho Road, and relocation of collection line to Turbine 4 near Kennedy Line.	Construction disturbance area modified to reduce or eliminate impacts to archaeological resources	 Access road and collection line remain within 120 m of Natural Area 290. Features within 120 m of this modification include: Woodland Feature WOD-277 (no change) Generalized Candidate Significant Wildlife Habitat: Plant Species of Conservation Concern Habitat and Red-headed Woodpecker Habitat (decreased to 0 m; access road in Feature) 	Figure 1A
A3:	Relocation of access road and collection line to Turbine 6 to travel west from Northville Road and then north to Turbine 6; relocation of Turbine 6 construction disturbance area to the north.	Construction disturbance area modified to reduce or eliminate impacts to archaeological resources	 Turbine construction disturbance area, access road and collection line remain within 120 m of Natural Area 283. Features within 120 m of this modification include: Generalized Candidate Significant Wildlife Habitat: Plant Species of Conservation Concern Habitat (no change) Natural Area 285 is no longer within 120 m of the Project Location. Features within 120 m of this modification include: Wetland Feature WET-048 (minimum distance decreased to 61 m due to Modification A1) Woodland Features WOD-262 (increased to >120 m) Generalized Candidate Significant Wildlife Habitat: Plant Species of Conservation Concern Habitat and Red-headed Woodpecker Habitat (increased to >120 m) 	Figure 1A
A4:	Relocation of Turbine 19 construction disturbance area to the southwest and addition of access road construction disturbance area near Jericho Road.	Construction disturbance area modified to reduce or eliminate impacts to archaeological resources	None (no Natural Areas are within 120 m of this modification).	Figure 1A
A5:	Removal of access road and collection line to Turbine 24, addition of access road disturbance area between Turbine 22 and Turbine 24 and relocation of collection line to the access road disturbance area for Turbine 22.	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	 Collection line and access road are within 120 m of Natural Area 216. Features within 120 m of this modification include: Woodland Feature WOD-215 (no change) Confirmed Significant Wildlife Habitat: Bat Maternity Colony Feature (BMA-216) (no change) Generalized Candidate Significant Wildlife Habitat: Plant Species of Conservation Concern Habitat and Red-headed Woodpecker Habitat (no change) 	Figure 1A
A6:	Removal of a portion of construction disturbance area for access road and collection line to Turbines 21, 23 and 25.	to reduce or eliminate impacts to	None (no Natural Areas are within 120 m of this modification).	Figure 1A

	Modification ID	Type of Modification	Feature(s) Potentially Affected by Proposed Modification (Change in Minimum Distance to Project Location)	Мар
A7:	Removal of Turbine 5 and associated access road and collection line.	Turbine and associated infrastructure removed	 Natural Area 291 is no longer within 120 m of the Project Location. Features within this Natural Area include: Woodland Feature WOD-273 (increased to >120 m) Generalized Candidate Significant Wildlife Habitat: Plant Species of Conservation Concern Habitat and Red-headed Woodpecker Habitat (increased to >120 m) The following Candidate Significant Wildlife Habitat is not associated with any Natural Areas but is now no longer within 120 m of the Project Location: Terrestrial Waterfowl (Tundra Swan) Stopover and Staging Area Feature WSST-31 (increased to >120 m) Natural Area 286 is no longer within 120 m of the Project Location. Features within this Natural Area include: Wetland Feature WET-048 (minimum distance decreased to 61 m due to Modification A1) Woodland Feature WOD-267 (increased to >120 m) Generalized Candidate Significant Wildlife Habitat: Bat Maternity Colony, Plant Species of Conservation Concern Habitat and Red-headed Woodpecker Habitat (increased to >120 m) 	Figure 1A
B1:	Relocation of Turbine 7 and associated construction disturbance area 148 m to the east.	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	Turbine 7 and construction disturbance area are within 120 m of Natural Area 494. No significant Features were identified in Natural Area 494 in the approved NHA and EIS.	Figure 1B
B2:	Addition of collection line in Gordon Road right-of-way, north of the road to Turbine 27.	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	 Collection line is within 120 m of Natural Area 233. Features within 120 m of this modification include: Woodland Feature WOD-263 (no change) Candidate Significant Wildlife Habitat: Woodland Raptor Nesting Habitat Feature WRN-01 (no change) Woodland Area-Sensitive Bird Breeding Habitat Feature WBB-01 (no change) Collection line is within 120 m of Natural Area 234. Features within 120 m of this modification include: Wetland Feature WET-072 (no change) Woodland Feature WET-072 (no change) Candidate Significant Wildlife Habitat: Woodland Reature WOD-263 (no change) Candidate Significant Wildlife Habitat: Woodland Area-Sensitive Bird Breeding Habitat Feature WBB-01 (no change) Woodland Area-Sensitive Bird Breeding Habitat Feature WBB-01 (no change) Generalized Candidate Significant Wildlife Habitat: Bat Maternity Colony, Rare Vegetation Community, Plant Species of Conservation Concern Habitat, and Red-headed Woodpecker Habitat (no change) Collection line is within 120 m of Nature Area 243. Features within 120 m of this modification include: Wetland Feature WET-072 (no change) Confirmed Significant Wildlife Habitat: Plant Species of Conservation Concern Habitat Features SCP-20 and SCP-21 (no change) Rare Vegetation Community Feature RVC-02 (decreased to >0.1 m) Candidate Significant Wildlife Habitat: Woodland Raptor Nesting Habitat Feature WRB-01 (no change) Woodland Raptor Nesting Habitat Feature WBB-01 (no change) Generalized Candidate Significant Wildlife Habitat: Woodland Raptor Nesting Habitat Feature WRN-01 (no change) Woodland Area-Sensitive Bird Breeding Habitat Feature WBB-01 (no change) Woodland Raptor Nesting Habitat Feature WRB-01 (no change) Woodland Raptor Nesting Habitat Feature WBB-01 (no change) <	Figure 1B

	Modification ID	Type of Modification	Feature(s) Potentially Affected by Proposed Modification (Change in Minimum Distance to Project Location)	Мар
B3:	Removal of Turbine 31 and associated access road and collection line.	Turbine and associated infrastructure removed	 Turbine 31 and associated access road and collection line are no longer within 120 m of Natural Area 250. Features within 120 m of this modification include: Wetland Feature WET-072 (no change) Woodland Feature WOD-263 (no change) Candidate Significant Wildlife Habitat: Woodland Aptor Nesting Habitat Feature WRN-01 (no change) Woodland Area-Sensitive Bird Breeding Habitat Feature WBB-01 (no change) Amphibian Movement Corridor Feature AMC-01 (no change) Amphibian Woodland Breeding Habitat Feature AWO-16 (no change) Turtle Wintering Area Feature TWH-04 (increased to >120 m) Generalized Candidate Significant Wildlife Habitat: Turtle Nesting Habitat, Insect Species of Conservation Concern Habitat, Plant Species of Conservation Concern Habitat, and Red-headed Woodpecker Habitat (no change) Collection line to Turbine 31 is no longer within 120 m of Natural Area 249. Features within 120 m of this modification include: Wetland Feature WDD-263 (no change) Candidate Significant Wildlife Habitat: Woodland Aptor Nesting Habitat Feature WRN-01 (no change) Woodland Area-Sensitive Bird Breeding Habitat Feature WBB-01 (no change) Woodland Raptor Nesting Habitat Feature WRN-01 (no change) Woodland Raptor Nesting Habitat Feature WRN-01 (no change) Woodland Area-Sensitive Bird Breeding Habitat Feature WBB-01 (no change) Amphibian Movement Corridor Feature AMC-01 (no change) Amphibian Movement Corridor Feature AMC-01 (no change) Amphibian Woodland Breeding Habitat Feature WWD-13 (no change) Amphibian Movement Corridor Feature AMC-01 (no change) Amphibian Movement C	Figure 1B
B4:	Addition of Turbine 32 construction disturbance area 34 m to the north and removal of the southeast portion of construction disturbance area.		 Turbine construction disturbance area remains within 120 m of Natural Area 90. Features within 120 m of this modification include: Woodland Feature WOD-231 (no change) Woodland Feature WOD-263 (no change) Candidate Significant Wildlife Habitat: Woodland Area-Sensitive Bird Breeding Habitat Feature WBB-01 (no change) Bat Maternity Colony Feature BMA-090A (no change) Seeps and Springs Feature SS-01 (no change) 	Figure 1B

	Modification ID	Type of Modification	Feature(s) Potentially Affected by Proposed Modification (Change in Minimum Distance to Project Location)	Мар
C1:	Relocation of Turbine 26 and associated construction disturbance area 101 m east. Access road relocated to travel north through the substation construction disturbance area and collection line relocated to the southern property boundary; and addition of construction disturbance area in Thomson Line right-of-way.	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	 Turbine 26 and associated construction disturbance area and access road are within 120 m of Natural Area 173. Features within 120 m of this modification include: Wetland Feature WET-060 (no change) Woodland Feature WOD-192 (reduced to >0.1 m) Generalized Candidate Significant Wildlife Habitat: Bat Maternity Colony, Plant Species of Conservation Concern Habitat and Amphibian Woodland Breeding Habitat (reduced to >0.1 m) Collection line is within 120 m of Natural Area 172. Features within 120 m of this modification include: Wetland Feature WET-060 (no change) Woodland Feature WET-060 (no change) Woodland Feature WET-060 (no change) Condidate Significant Wildlife Habitat: Amphibian Woodland Breeding Habitat AWO-20 (no change) Generalized Candidate Significant Wildlife Habitat: Plant Species of Conservation Concern Habitat, Insect Species of Conservation Concern Habitat, and Red-headed Woodpecker Habitat (no change) 	Figure 1C
C2:	Relocation of access road to Turbine 18 31 m to the north.	Construction disturbance area modified to reduce or eliminate impacts to archaeological resources	 Access road remains within 120 m of Natural Area 188. Features within 120 m of this modification include: Woodland Feature WOD-198 (no change) Candidate Significant Wildlife Habitat: Bat Maternity Colony Feature BMA-188 (no change) Generalized Candidate Significant Wildlife Habitat: Plant Species of Conservation Concern Habitat and Red-headed Woodpecker Habitat (no change) 	Figure 1C
C3:		Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	None (no Natural Areas are within 120 m of this modification).	Figure 1C
D1:	Addition of construction	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	None (no Natural Areas are within 120 m of this modification).	Figure 1D
D2:	Removal of a portion of construction disturbance area for access road and collection line to Turbine 56.	to reduce or eliminate impacts to	None (no Natural Areas are within 120 m of this modification).	Figure 1D
D3:	Relocation of Turbine 46 access road to travel north from Cedar Point Line and collection line to travel east along the southern property boundary; and addition of construction disturbance area for collection line in the Northville Road right-of-way.	Construction disturbance area modified to reduce or eliminate impacts to archaeological resources	 Access road and collection line are within 120 m of Natural Area 167. Features within 120 m of this modification include: Wetland Feature WET-062 (reduced to 50 m) Woodland Feature WOD-172 (no change) Generalized Candidate Significant Wildlife Habitat: Plant Species of Conservation Concern Habitat (reduced to 50 m) 	Figure 1D

	Modification ID	Type of Modification	Feature(s) Potentially Affected by Proposed Modification (Change in Minimum Distance to Project Location)	Мар
D4:	Addition of Turbine 112 and associated access road and collection line, extending south from Turbine 59.	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	 New Turbine 112 and associated construction disturbance area, access road and collection line are within 120 m of Natural Area 145. Features within 120 m of this modification include: Wetland Feature WET-059 (no change) Woodland Feature WOD-126 (no change) Candidate Significant Wildlife Habitat: Bat Maternity Colony Feature BMA-145 (no change) Generalized Candidate Significant Wildlife Habitat: Plant Species of Conservation Concern Habitat (no change) 	Figure 1D
D5:	Addition of construction disturbance area on private property to the north of Thomson Line to allow for installation of collection line and/or transmission line.	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	 Collection line and transmission line are within 120 m of Natural Area 235. Features within 120 m of this modification include: Wetland Feature WET-078 (no change) Woodland Feature WOD-197 (no change) Generalized Candidate Significant Wildlife Habitat: Insect Species of Conservation Concern Habitat (no change) 	Figure 1D
D6:	Addition of transmission line construction disturbance area on private property to allow for transmission line installation either in the Thomson Line right- of-way or on private property, within the disturbance area proposed to host collection line.	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	None (no Natural Areas are within 120 m of this modification).	Figure 1D
D7:	Addition of collection line disturbance area on private property to allow for collection line installation either in the Thomson Line right-of-way or on private property, within the disturbance area proposed to host the transmission line.	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	 Collection line is within 120 m of Natural Area 215. Features within 120 m of this modification include: Woodland Feature WOD-201 (no change) Generalized Candidate Significant Wildlife Habitat: Amphibian Woodland Breeding Habitat (no change) 	Figure 1D
D8:	Addition of collection line disturbance area on private property to allow for collection line installation either in the Thomson Line right-of-way or on private property, within the disturbance area proposed to host the transmission line.	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	None (no Natural Areas are within 120 m of this modification).	Figure 1D

	Modification ID	Type of Modification	Feature(s) Potentially Affected by Proposed Modification (Change in Minimum Distance to Project Location)	Мар
D9:	Addition of collection line disturbance area on private property to allow for collection line installation either in the Thomson Line right-of-way or on private property, within the disturbance area proposed to host the transmission line.	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	None (no Natural Areas are within 120 m of this modification).	Figure 1D
D10:	Relocation of transmission line construction disturbance area into Natural Area located in the Thomson Line right-of-way.	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	 Transmission line is in Natural Area 215 within the road right-of-way. Features within 120 m of this modification include: Woodland Feature WOD-201 (reduced to 0 m; transmission line in Feature) Generalized Candidate Significant Wildlife Habitat: Amphibian Woodland Breeding Habitat and Bat Maternity Colony (no change); Plant Species of Conservation Concern Habitat and Red-headed Woodpecker Habitat (reduced to 0 m; transmission line in Feature). 	Figure 1D
E1:	Removal of Turbine 77 and associated access road and collection line / Removal and addition of portions of construction disturbance area for access road and collection line to Turbines 78, 79 and 107.	Turbine and associated infrastructure removed / Construction disturbance area modified to reduce or eliminate impacts to archaeological resources	 Turbine 77 is no longer within 120 m of Natural Area 90. Features within 120 m of this modification include: Wetland Feature WET-050 (no change) Woodland Feature WOD-263 (no change) Candidate Significant Wildlife Habitat: Woodland Raptor Nesting Habitat Feature WRN-01 (no change) Woodland Area-Sensitive Bird Breeding Habitat Feature WBB-01 (no change) Amphibian Woodland Breeding Habitat Feature AWO-03 (no change) Generalized Candidate Significant Wildlife Habitat: Plant Species of Conservation Concern Habitat, and Red-headed Woodpecker Habitat (no change) Provincially Significant Ausable River Valley Life Science ANSI (no change) 	Figure 1E
E2:	Addition of Turbine 107 and associated access road and collection line, extending south from Turbine 79.	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	New Turbine 107 and associated access road and collection line are within 120 m of Natural Area 375. Features within 120 m of this modification include:	Figure 1E
E3:	Relocation of Turbine 79 23 m to the east, within existing turbine construction disturbance.	Construction disturbance area modified to reduce or eliminate impacts to archaeological resources	 Turbine 79 is within 120 m of Natural Area 90. Features within 120 m of this modification include: Woodland Feature WOD-263 (no change) Confirmed Significant Wildlife Habitat: Hooded Warbler Habitat Feature RHW-04 (no change) Candidate Significant Wildlife Habitat: Woodland Raptor Nesting Habitat Feature WRN-01 (no change) Woodland Area-Sensitive Bird Breeding Habitat Feature WBB-01 (no change) Provincially Significant Ausable River Valley Life Science ANSI (no change) 	Figure 1E

	Modification ID	Type of Modification	Feature(s) Potentially Affected by Proposed Modification (Change in Minimum Distance to Project Location)	
E4:	Addition of construction disturbance area on private property to the north of Thomson Line to allow for installation of collection line and/or transmission line.	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	Transmission line and collection line are within 120 m of Natural Area 236. Features within 120 m of this modification include: • Wetland Feature WET-078 (no change) • Woodland Feature WOD-200 (no change) • Candidate Significant Wildlife Habitat: • Amphibian Woodland Breeding Habitat (no change) • Red-headed Woodpecker Habitat (no change) • Insect Species of Conservation Concern Habitat (no change)	Figure 1E
E5:	Relocation of transmission line construction disturbance area within Natural Area located in the Thomson Line road right-of-way.	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	Transmission line is in Natural Area 252 within the road right-of-way. Features within 120 m of this modification include:	Figure 1E
E6:	Relocation of transmission line construction disturbance area within Natural Area located in the Thomson Line/Elginfield Road right-of-way.	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	 Transmission line is in Natural Area 90 within the road right-of-way. Features within 120 m of this modification include: Wetland Feature WET-050 (reduced to 0 m; transmission line in Feature) Woodland Feature WOD-263 (no change) Confirmed Significant Wildlife Habitat: Plant Species of Conservation Concern Habitat Features SCP-18 and SCP-23 (no change) Deer Winter Congregation Areas Feature DWC-02 (no change) Candidate Significant Wildlife Habitat: Bat Maternity Colony BMA-090B (no change) Woodland Raptor Nesting Habitat Feature WRN-01 (no change) Woodland Area-Sensitive Bird Breeding Habitat Feature WBB-01 (no change) Generalized Candidate Significant Wildlife Habitat: Marsh Bird Breeding Habitat, Waterfowl Nesting Area, Seeps and Springs, Rare Vegetation Community, Mature Forest Stand, Amphibian Wetland Breeding Habitat, Amphibian Woodland Breeding Habitat, Amphibian Movement Corridor, Insect Species of Conservation Concern Habitat, Red-headed Woodpecker Habitat, Turtle Wintering Area, Terrestrial Crayfish Habitat (no change); Plant Species of Conservation Concern Habitat, Red-headed Woodpecker Abitat, Turtle Wintering Area, Terrestrial Crayfish Habitat (no change); Plant Species of Conservation Concern Habitat, Red-headed Woodpecker Abitat, Turtle Wintering Area, Terrestrial Crayfish Habitat (no change); Plant Species of Conservation Concern Habitat (reduced to 0 m; transmission line in Feature) 	Figure 1E

	Modification ID	Type of Modification	Feature(s) Potentially Affected by Proposed Modification (Change in Minimum Distance to Project Location)	Мар
F1:	Removal of a portion of construction disturbance area for access road and collection line to Turbine 43.	to reduce or eliminate impacts to	None (no Natural Areas are within 120 m of this modification).	Figure 1F
F2:	Relocation of Turbine 44 access road 32 m to the west.	Construction disturbance area modified to reduce or eliminate impacts to archaeological resources	Access road is now within 120 m of Natural Area 383 (not previously described in the approved NHA and EIS). Features within 120 m of this modification are described in this NHA Addendum. Access road is now within 120 m of Natural Area 117 (not previously described in the approved NHA and EIS). Features within 120 m of this modification are described in this NHA Addendum.	Figure 1F
F3:	Relocation of Turbine 90 access road and collection line to the north, extending to Townsend Line and addition of collection line in the Townsend Line right-of-way.	Construction disturbance area modified to reduce or eliminate impacts to archaeological resources	Access road and collection line are now within 120 m of Natural Area 119 (not previously described in the approved NHA and EIS). Features within 120 m of this modification are described in this NHA Addendum. Access road and collection line are now within 120 m of Natural Area 118 (not previously described in the approved NHA and EIS). Features within 120 m of this modification are described in this NHA Addendum.	Figure 1F
F4:	Addition of Turbine 91 construction disturbance area 17 m to the west.	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	None (no Natural Areas are within 120 m of this modification).	Figure 1F
F5:	Removal of a portion of construction disturbance area for access road and collection line to Turbine 92.	Construction disturbance area modified to reduce or eliminate impacts to archaeological resources	 Access road and collection line remain within 120 m of Natural Area 70. Features within 120 m of this modification include: Generalized Candidate Significant Wildlife Habitat: Plant Species of Conservation Concern Habitat and Red-headed Woodpecker Habitat (no change) Access road and collection line remain within 120 m of Natural Area 71. Features within 120 m of this modification include: Confirmed Significant Wildlife Habitat: Rare Vegetation Community Feature RVC-04 (no change) Generalized Candidate Significant Wildlife Habitat: Plant Species of Conservation Concern Habitat (no change) 	Figure 1F
F6:	Removal of a portion of construction disturbance area for access road and collection line to Turbines 96 and 97.	to reduce or eliminate impacts to	None (no Natural Areas are within 120 m of this modification).	Figure 1F
G1:	Addition of Turbine 62 construction disturbance area to the west and addition of collection line disturbance area in two locations in the Northville Road right-of-way.		 Collection line is within 120 m of Natural Area 103. Features within 120 m of this modification include: Woodland Feature WOD-082 (no change) Generalized Candidate Significant Wildlife Habitat: Bat Maternity Colony, Plant Species of Conservation Concern Habitat and Red-headed Woodpecker Habitat (no change). 	Figure 1G
G2:	Removal of the road and collection line to Turbine 63 and addition of road and collection line, extending west from Turbine 64 to Turbine 63.	Construction disturbance area modified to reduce or eliminate impacts to archaeological resources	 Access road is within 120 m of Natural Area 102. Features within 120 m of this modification include: Wetland Feature WET-063 (reduced to 20 m) Woodland Feature WOD-110 (reduced to 9 m) Candidate Significant Wildlife Habitat: Amphibian Woodland Breeding Habitat Feature AWO-04 (reduced to 9 m) Generalized Candidate Significant Wildlife Habitat: Mature Forest Stand, Plant Species of Conservation Concern Habitat and Red-headed Woodpecker Habitat (reduced to 9 m) 	Figure 1G

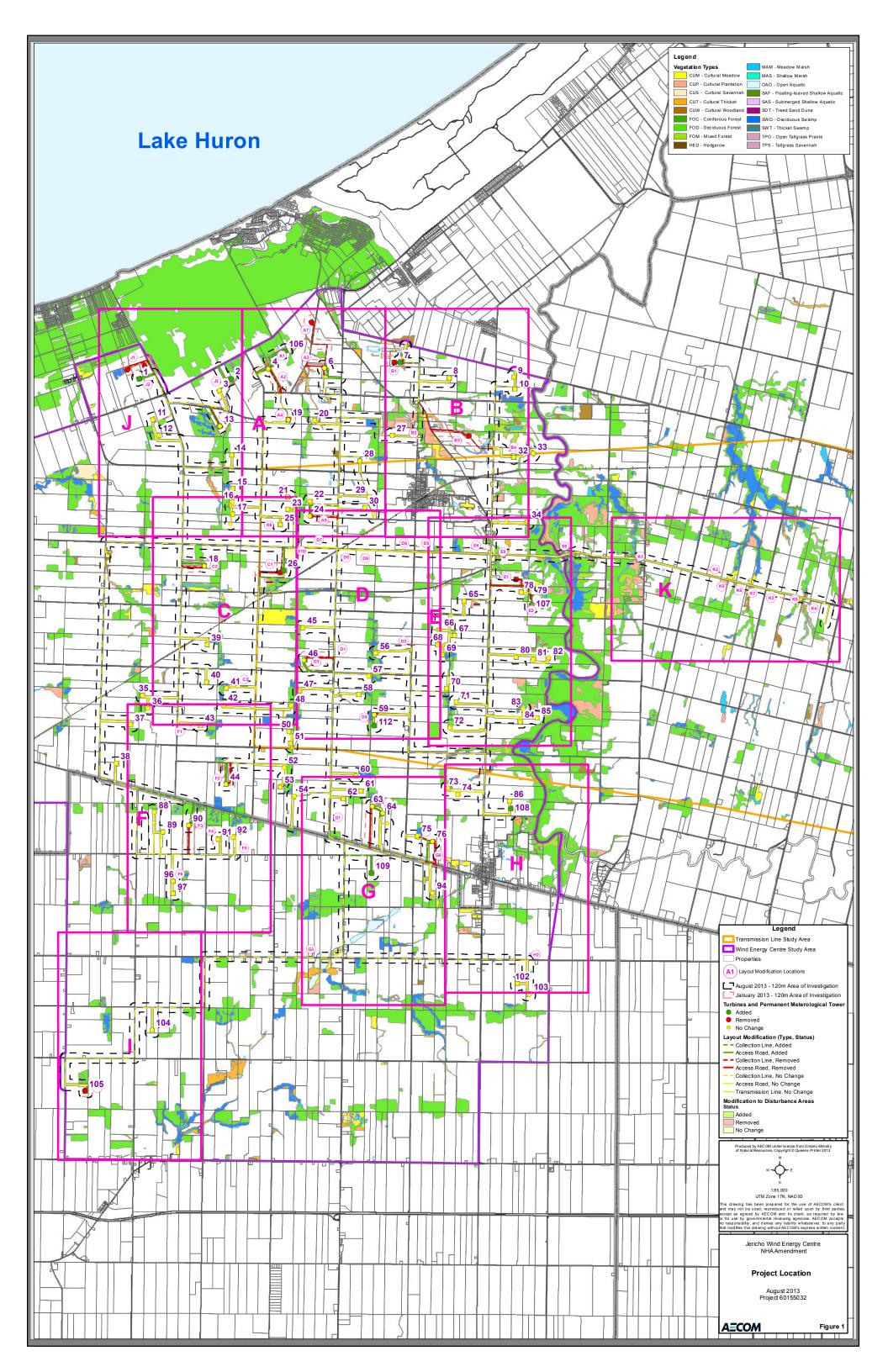
	Modification ID	Type of Modification	Feature(s) Potentially Affected by Proposed Modification (Change in Minimum Distance to Project Location)	Мар
G3:	Removal of collection line construction disturbance area north of Birnam Line.	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	 Collection line remains within 120 m of Natural Area 42. Features within 120 m of this modification include: Woodland Feature WOD-047 (no change) Generalized Candidate Significant Wildlife Habitat: Bat Maternity Colony, Raptor Wintering Area, Mature Forest Stand, Rare Vegetation Community, Amphibian Woodland Breeding Habitat, Plant Species of Conservation Concern Habitat, Red-headed Woodpecker Habitat and Insect Species of Conservation Concern Habitat (no change) 	
G4:	Relocation of collection line between Turbines 76 and 75 20 m to the south.	Construction disturbance area modified to reduce or eliminate impacts to archaeological resources	 Collection line is within 120 m of Natural Area 97. Features within 120 m of this modification include: Wetland Feature WET-025 (increased to 22 m) Woodland Feature WOD-084 (increased to 22 m) Candidate Significant Wildlife Habitat: Bat Maternity Colony Feature BMA-097 (increased to 22 m) Generalized Candidate Significant Wildlife Habitat: Plant Species of Conservation Concern Habitat and Red-headed Woodpecker Habitat (increased to 22 m) 	Figure 1G
G5:	Relocation of Turbine 76 access road and collection line 134 m to the west.	Construction disturbance area modified to reduce or eliminate impacts to archaeological resources	 Access road and collection line are within 120 m of Natural Area 516. Features within 120 m of this modification include: Generalized Candidate Significant Wildlife Habitat: Turtle Wintering Area (reduced to 1 m) Access road and collection line are within 120 m of Natural Area 85. Features within 120 m of this modification include: Woodland Feature WOD-077 (no change) Generalized Candidate Significant Wildlife Habitat: Plant Species of Conservation Concern Habitat (no change) 	Figure 1G
G6:	Addition of Turbine 109 and associated construction disturbance area, access road and collection line; addition of collection line in Hickory Creek Line right-of-way.	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	None (no Natural Areas are within 120 m of this modification).	Figure 1G
H1:	Addition of Turbine 108 and associated construction disturbance area.	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	None (no Natural Areas are within 120 m of this modification).	Figure 1H
H2:	Relocation of collection line from private property to Birnam Line right-of-way.	Construction disturbance area modified to reduce or eliminate impacts to archaeological resources	None (no Natural Areas are within 120 m of this modification).	Figure 1H
11:	Relocation of Turbine 105 20 m to the south and addition of construction disturbance area.	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	None (no Natural Areas are within 120 m of this modification).	Figure 1I
J1:	Removal of Turbine 2 and associated access road and collection line.	Turbine and associated infrastructure removed	 Removed Turbine 2, and associated access road and collection line are within 120 m of Natural Area 493. Features within 120 m of this modification include: Woodland Feature WOD-278 (no change) Confirmed Significant Wildlife Habitat: Deer Winter Congregation Area Feature DWC-01 (no change) Generalized Candidate Significant Wildlife Habitat: Bat Maternity Colony, Woodland Raptor Nesting Habitat, Plant Species of Conservation Concern Habitat, Woodland Area-Sensitive Bird Breeding Habitat and Red-headed Woodpecker Habitat (no change) 	Figure 1J

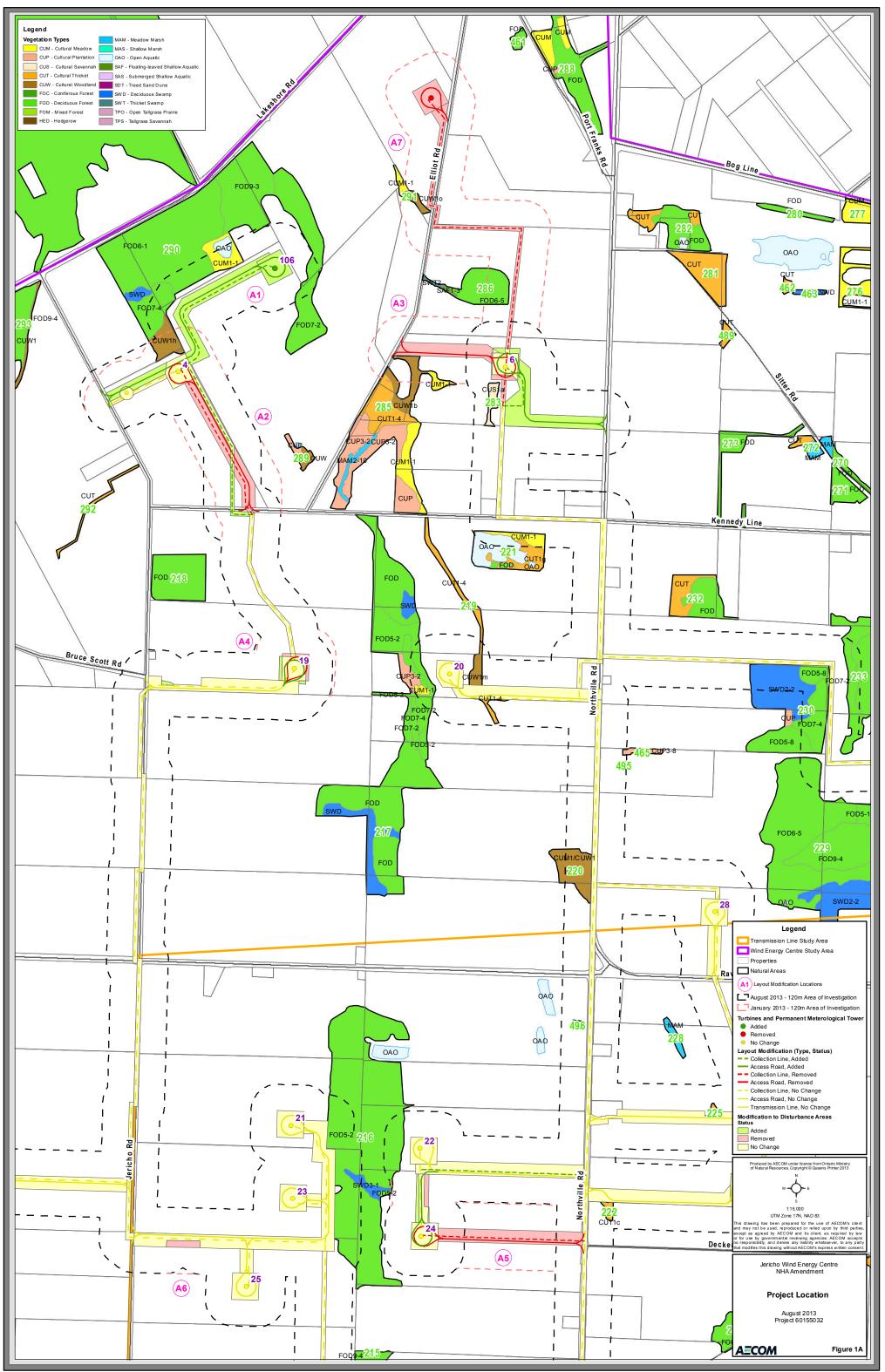
	Modification ID	Type of Modification	Feature(s) Potentially Affected by Proposed Modification (Change in Minimum Distance to Project Location)	Мар
J2:	Relocation of Turbine 1 and associated construction disturbance area, access road and collection line.	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	 Removed Turbine 1, and associated access road and collection line are within 120 m of Natural Area 298. Features within 120 m of this modification include: Wetland Feature WET-046 (increased to >120 m) Candidate Significant Wildlife Habitat: Turtle Nesting Habitat Feature (TNH-02) (increased to >120 m) Natural Area 297 is no longer within 120 m of the Project Location. Features within this Natural Area include: Wetland Feature WET-046 (increased to >120 m) Natural Area 297 is no longer within 120 m of the Project Location. Features within this Natural Area include: Wetland Feature WET-046 (increased to >120 m) Voodland Feature WOD-261 (increased to >120 m) Candidate Significant Wildlife Habitat: Bat Maternity Colony Feature (BMA-297) (increased to >120 m) Generalized Candidate Significant Wildlife Habitat: Plant Species of Conservation Concern Habitat (increased to >120 m) Turbine 1 and associated construction disturbance area, access road and collection line are within 120 m of a portion of Natural Area 298 that was not previously described in the approved NHA and EIS. Features within 120 m of this modification are described in this NHA Addendum.	Figure 1J
			 120 m of Natural Area 493. Features within 1200 m of this modification include: Woodland Feature WOD-278 (no change) Confirmed Significant Wildlife Habitat: Deer Winter Congregation Area Feature DWC-01 (no change) Generalized Candidate Significant Wildlife Habitat: Bat Maternity Colony, Woodland Raptor Nesting Habitat, Plant Species of Conservation Concern Habitat, Woodland Area-Sensitive Bird Breeding Habitat and Red-headed Woodpecker Habitat (no change) 	
J3:	Addition of Turbine 2 and associated construction disturbance area, access road and collection line.	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	Addition of Turbine 2 and associated construction disturbance area, access road and collection line are within 120 m of a portion of Natural Area 293 that was not previously described in the approved NHA and EIS. Features within 120 m of this modification are described in this NHA Addendum.	Figure 1J
J4:		Construction disturbance area modified to reduce or eliminate impacts to archaeological resources	 Turbine construction disturbance area remains within 120 m of Natural Area 214. Features within 120 m of this modifications include: Wetland Feature WET-044 (increased to 41 m) Woodland Feature WOD-245 (no change) Candidate Significant Wildlife Habitat: Bat Maternity Colony Feature BMA-214 (no change) Generalized Candidate Significant Wildlife Habitat: Plant Species of Conservation Concern Habitat and Red-headed Woodpecker Habitat (no change) 	Figure 1J

	Modification ID	Type of Modification	Feature(s) Potentially Affected by Proposed Modification (Change in Minimum Distance to Project Location)	Мар
К1:	Relocation of transmission line construction disturbance area within Natural Area located in the Elginfield Road right-of-way.	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	 Transmission line is in Natural Area 90 within the road right-of-way. Features within 120 m of this modification include: Wetland Feature WET-050 (reduced to 0 m; transmission line in Feature) Woodland Feature WOD-263 (no change) Confirmed Significant Wildlife Habitat: Deer Winter Congregation Area Feature DWC-02 (no change) Candidate Significant Wildlife Habitat: Bat Maternity Colony BMA-090B (no change) Woodland Raptor Nesting Habitat Feature WRN-01 (no change) Woodland Raptor Nesting Habitat Feature WRN-01 (no change) Generalized Candidate Significant Wildlife Habitat: Turtle Wintering Area, Turtle Nesting Habitat, Redheaded Woodpecker Habitat, Plant Species of Conservation Concern Habitat, Insect Species of Conservation Concern Habitat, Insect Species of Conservation concern Habitat and Rare Vegetation Community (no change) A newly delineated CUM1-1 vegetation community in Natural Area 90 is described in this NHA Addendum (0 m; transmission line is in newly delineated vegetation community) Transmission line remains within 120 m of Natural Area 339. Features within 120 m of this modification include: Wetland Feature WET-050 (reduced to 0 m; transmission line in Feature) Woodland Feature WET-050 (reduced to 0 m; transmission line in Feature) Woodland Feature WET-050 (reduced to 0 m; transmission line in Feature) Woodland Feature WET-050 (reduced to 0 m; transmission line in Feature) Woodland Feature WET-050 (reduced to 0 m; transmission line in Feature) Woodland Feature WET-050 (reduced to 0 m; transmission line in Feature) Woodland Feature WET-050 (reduced to 0 m; transmission line in Feature) Woodland Feature WET-050 (reduced to 0 m; transmission line in Feature) Woodland Feature WET-050 (reduced to 0 m; transmission line in Feature) Woodland Feature WET-050 (reduced to 0 m; transmission l	Figure 1K
K2:	Addition of transmission line construction disturbance area on private property to the north of Elginfield Road, east of Pete Sebe Road.	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	 Transmission line is within 120 m of Natural Area 497. Features within 120 m of this modification include: Generalized Candidate Significant Wildlife Habitat: Amphibian Wetland Breeding Habitat (no change) Transmission line is within 120 m of Natural Area 342. Features within 120 m of this modification include: Woodland Feature WOD-181 (no change) Generalized Candidate Significant Wildlife Habitat: Turtle Wintering Area and Amphibian Wetland Breeding Habitat (no change) 	Figure 1K
K3:	Addition of transmission line construction disturbance area on private property to the south of Elginfield Road, east of Roddick Road.	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	None (no Natural Areas are within 120 m of this modification).	Figure 1K

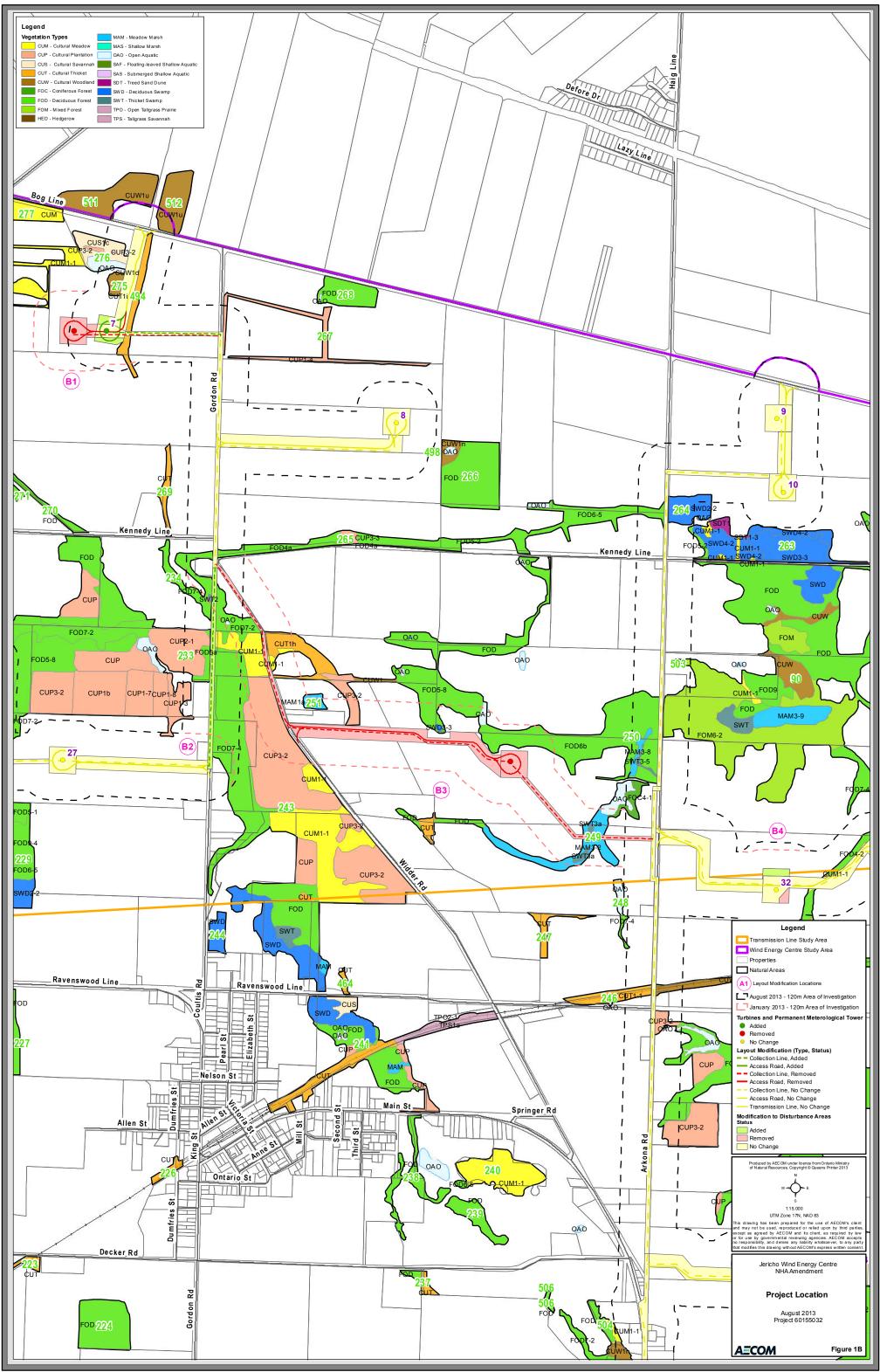
	Modification ID	Type of Modification	Feature(s) Potentially Affected by Proposed Modification (Change in Minimum Distance to Project Location)	Мар
	private property to the south of Elginfield Road, west of Kerwood Road.	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	 Transmission line is within 120 m of Natural Area 344. Features within 120 m of this modification include: Candidate Significant Wildlife Habitat: Bald Eagle and Osprey Nesting, Foraging and Perching Habitat Feature BEN-01 (no change) Generalized Candidate Significant Wildlife Habitat: Plant Species of Conservation Concern Habitat (no change) 	Figure 1K
K5:	construction disturbance area	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	 Transmission line is in Natural Area 342 within the road right-of-way. Features within 120 m of this modification include: Woodland Feature WOD-181 (reduced to 0 m; transmission line in Feature) Generalized Candidate Significant Wildlife Habitat: Turtle Wintering Area and Amphibian Wetland Breeding Habitat (no change) Transmission line remains within 120 m of Natural Area 351. Features within 120 m of this modification include: Generalized Candidate Significant Wildlife Habitat: Waterfowl Nesting Area, Marsh Bird Breeding Habitat and Plant Species of Conservation Concern Habitat (no change) Transmission line remains within 120 m of Natural Area 497. Features within 120 m of this modification include: Generalized Candidate Significant Wildlife Habitat: Amphibian Wetland Breeding Habitat (no change) 	Figure 1K
K6:	construction disturbance area	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	 Transmission line is in Natural Area 340 within the road right-of-way. Features within 120 m of this modification include: Woodland Feature WOD-180 (no change) Generalized Candidate Significant Wildlife Habitat: Rare Vegetation Community, Insect Species of Conservation Concern Habitat, Plant Species of Conservation Concern Habitat, Red-headed Woodpecker Habitat and Bat Maternity Colony (no change) A newly delineated CUM1-1 vegetation community in Natural Area 340 is described in this NHA Addendum (0 m; transmission line is in newly delineated vegetation community) Transmission line remains within 120 m of Natural Area 351. Features within 120 m of this modification include: Generalized Candidate Significant Wildlife Habitat: Turtle Wintering Area, Amphibian Wetland Breeding Habitat, Waterfowl Nesting Area, Marsh Bird Breeding Habitat and Plant Species of Conservation Concern Habitat (no change) Transmission line construction disturbance area is within 120 m of Natural Area 342. Features within 120 m of this modification include: Woodland Feature WOD-181 (reduced to 0 m; transmission line in Feature due to Modification K5) 	Figure 1K
K7:	Relocation of transmission line construction disturbance area within Natural Area located in the Elginfield Road right-of-way.	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	Transmission line is in Natural Area 341 within the road right-of-way. Features within 120 m of this modification include:	Figure 1K

	Modification ID	Type of Modification	Feature(s) Potentially Affected by Proposed Modification (Change in Minimum Distance to Project Location)	Мар
К8:		Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	 Transmission line is in Natural Area 344 within the road right-of-way. Features within 120 m of this modification include: Woodland Feature WOD-164 (no change) Candidate Significant Wildlife Habitat: Bald Eagle and Osprey Nesting, Foraging and Perching Habitat Feature BEN-01 (no change) Generalized Candidate Significant Wildlife Habitat: Turtle Wintering Area, Rare Vegetation Community, Amphibian Woodland Breeding Habitat, Red-headed Woodpecker Habitat, Bat Maternity Colony, Insect Species of Conservation Concern Habitat (no change); Plant Species of Conservation Concern Habitat (reduced to 0 m; transmission line in Feature) Transmission line construction disturbance area remains within 120 m of Natural Area 348. Features within 120 m of this modification include: Candidate Significant Wildlife Habitat: Bald Eagle and Osprey Nesting, Foraging and Perching Habitat Feature BEN-01 (no change) Woodland Feature WOD-297 (no change) Generalized Candidate Significant Wildlife Habitat: Woodland Raptor Nesting Habitat, Red-headed Woodpecker Habitat, Red-headed Woodpecker Habitat, and Plant Species of Conservation Concern Habitat (no change) 	Figure 1K

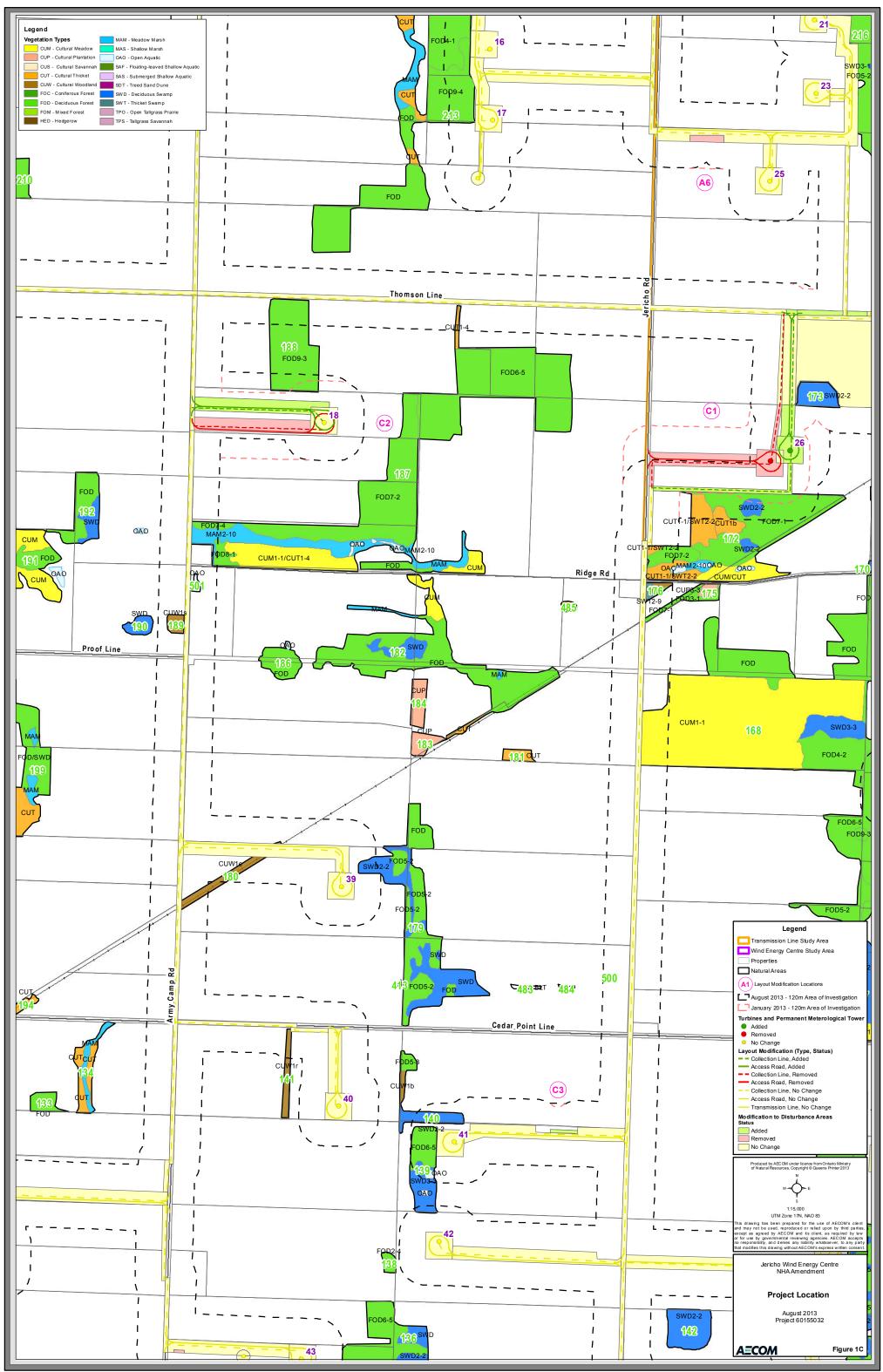




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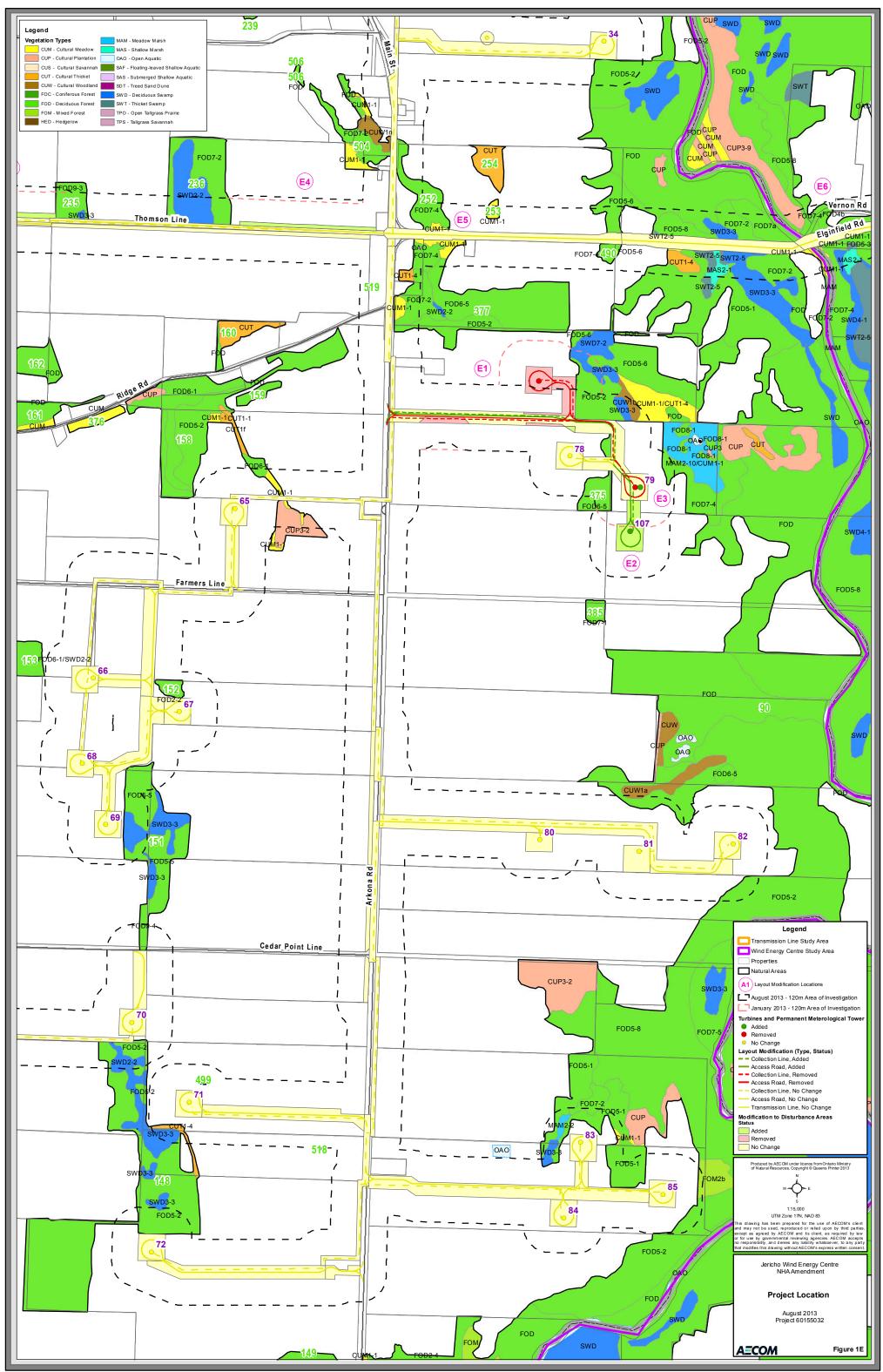
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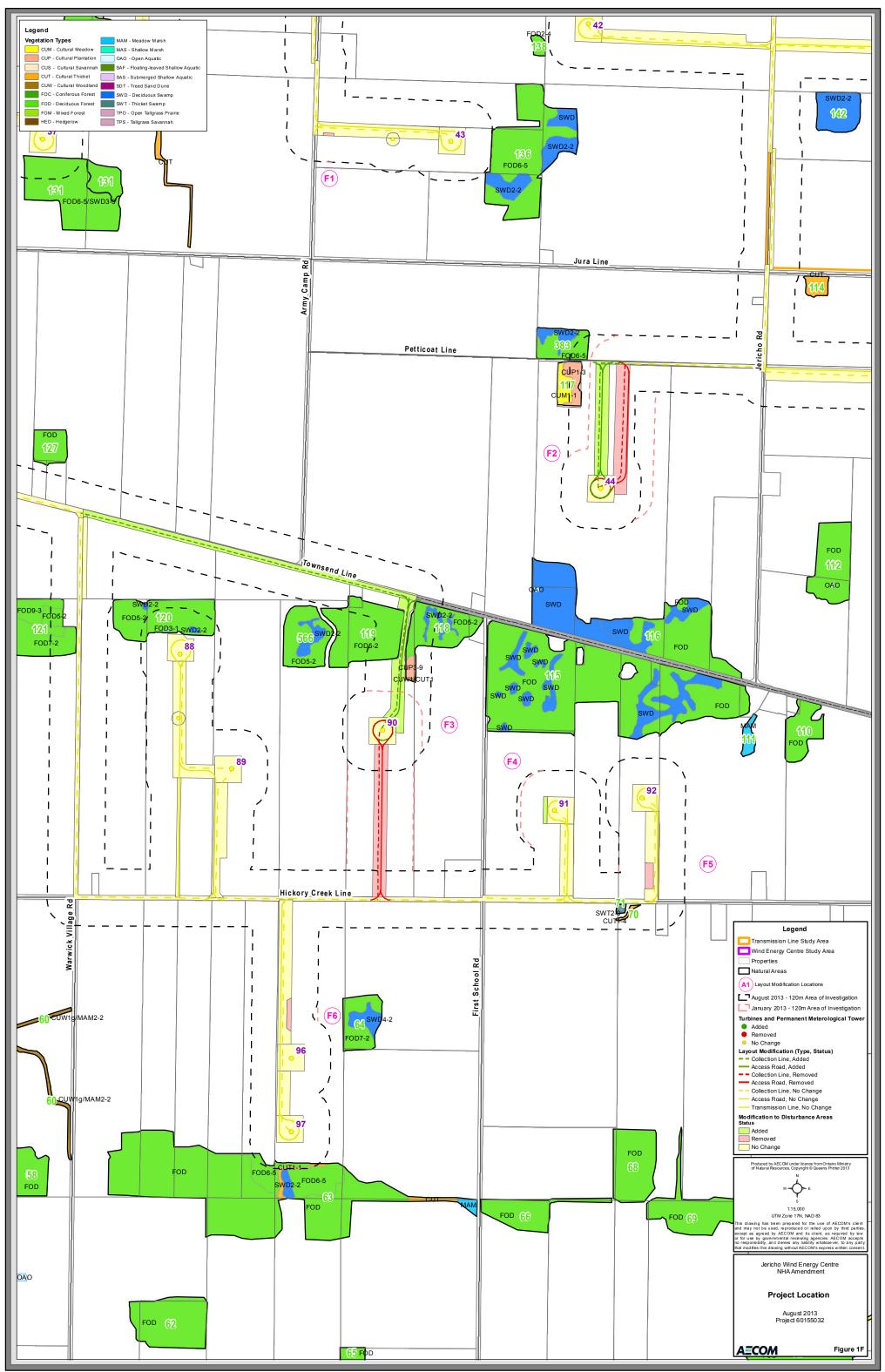
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