

November 25, 2013

via email



Renewable Energy Program
Ontario Ministry of Natural Resources
P.O. Box 7000
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Peterborough, Ontario
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Attention: Joe Halloran
Renewable Energy Program Coordinator, Southern Region

Subject: Sol-luce Kingston Solar PV Energy Project, NHA Modifications

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Dear Mr. Halloran,

The Sol-luce Kingston Solar PV Energy Project submitted a completed Renewable Energy Approval (REA) submission on September 18, 2013 and received the “deemed complete” status by the Ministry of Environment (MOE) on February 12, 2013 under *Ontario Regulation 359/09 – Renewable Energy Approval* that is under section V.0.1 of the *Ontario Environmental Protection Act*. However, recent changes in the location of project components require further assessment and re-submission of the REA reports and, the inclusion of several Addendum Reports and Modifications Documents. Dillon Consulting Limited (Dillon) has been contacted by Kingston Solar LP to complete this Major Design Change REA amendment process for the project. Dillon has been retained by Kingston Solar LP to complete this REA amendment process and as part of this, Dillon was asked to complete the Natural Heritage Assessment (NHA) for the new lands that were added to the project location. This letter summarizes the modifications to the original NHA reports and, in combination with the recently submitted draft NHA addenda reports, will meet the requirements for a complete NHA for the revised project location, once confirmed by the Ministry of Natural Resources (MNR). It is expected that this report will be reviewed along with the original NHA documents¹ and the NHA addenda reports².

The NHA addendum reports identify and evaluate natural features associated with the addition of three properties: Properties 2, 25A, and 25B (i.e., the amended project location); however, they do not include discussion on the natural features associated with the removal of five properties that are no longer being considered for the solar project (Properties 1, 6A, 9, 10, and 11; see attached Figure 1 for properties added and removed; and Figure 2 for the amended Project Location). This NHA Modification

¹ AMEC. 2012. Kingston Solar LP Sol-luce Kingston Solar PV Energy Project: Application for a Renewable Energy Approval- Natural Heritage Assessment and Environmental Impact Study. TC111406: 168335-0002-160-RPT-0001.

² Dillon Consulting Limited. 2013. Natural Heritage Assessment Reports: Records Review, Site Investigation, Evaluation of Significance, and Environmental Impact Study. Draft Submitted to MNR on November 16, 2013.

Note: “*” has been used throughout this letter to indicate identifiers used in the AMEC prepared original NHA report.

**Dillon Consulting
Limited**

Document will discuss the changes made since the MNR confirmation of the original NHA on June 11, 2012.

Records Review Amendment

A NHA records review is meant to broadly describe the potential for natural features near a proposed development; therefore, few modifications are necessary. The following natural features are no longer applicable to the Sol-luce Kingston NHA reports (Section 2; AMEC 2012) due to the removal of Properties 1, 6A, 9, 10, and 11 and are thus no longer relevant:

- Woodland Units 11, 12, 13, 26, and 35 (Section 2.2; Appendix A- Figures 2-1a and 2-1b; Appendix B- Table 2-7; AMEC 2012); and,
- Wetland Units 6, 7, 9, and 10 (Section 2.2; Appendix A- Figures 2-1a and 2-1b; Appendix B- Table 2-7; AMEC 2012).

Site Investigation Amendment

The identified candidate significant natural features associated with Properties 1, 6A, 9, 10, and 11 and their relevant setbacks can be removed from the original NHA report (Section 3; AMEC 2012), and thus do not need to be considered further in the EOS or EIS. The following candidate natural features are no longer being considered as part of the NHA reporting:

- Woodland 12, 13, 23, 24, 25, 26, 27, and 35 (Section 2.2.1; Appendix A- Figure 3-3; Appendix B- Table 3-5; AMEC 2012);
- Wetland 7, 26, 27, 28, 29, and 31 (Section 2.2.2; Appendix A- Figure 3-4; Appendix B- Table 3-6; AMEC 2012); and,
- Wildlife Habitat (Section 2.4; Appendix B- Tables 3-7 and 3-8, AMEC 2012)
 - Turtle Overwintering Habitat (TOW 11 and 14) (Appendix A- Figure 3-5; Appendix B- Table 3-7; AMEC 2012);
 - Reptile Hibernaculum (SH 26 and 43) (Appendix A- Figure 3-5; Appendix B- Table 3-7; AMEC 2012);
 - Amphibian Breeding Habitat (Woodland) (ABF 14 and 15) (Appendix A- Figure 3-6; Appendix B- Table 3-8; AMEC 2012);
 - Amphibian Breeding Habitat (Wetland) (ABW 10, 11, 16, and 17) (Appendix A- Figure 3-6; Appendix B- Table 3-8; AMEC 2012);
 - Giant Swallowtail Habitat (GS 1) (Appendix A- Figure 3-7; Appendix B- Table 3-8; AMEC 2012);
 - Snapping Turtle Habitat (SN 1) (Appendix A- Figure 3-7; Appendix B- Table 3-8; AMEC 2012); and,
 - Amphibian Movement Corridor (AMC 8) (Appendix A- Figure 3-6; Appendix B- Table 3-8; AMEC 2012).



Additional details requiring revision to the Site Investigation Report (and presented as part of the *NHA Site Investigation Addendum*) are presented below in **Table 1**:

| Natural Feature | Information from Original NHA Report (AMEC 2012) | Reference in Original NHA Report (AMEC 2012) | Revised Information in NHA Addenda (Dillon 2013) | Reference in NHA Addenda (Dillon 2013) |
|--|--|---|--|--|
| Wetland 30* | A single wetland feature. | Appendix A- Figure 3-4 | Combined wetland with Wetland 10. | Figure 5 and Table 9, Site Investigation Addendum report |
| Wetland 30* | ELC community (Green Ash Mineral Deciduous Swamp Type (SWD2-2) extended near to the project location boundary on Site 25a and did not follow Wetland 30* boundaries. | Appendix A- Figure 3-2b (ELC mapping) Appendix A- Figure 3-4 (Wetland mapping) | Grouped feature with Wetland 10. Revised ELC community based on Wetland 30* boundaries. | Figure 5, Site Investigation Addendum report |
| Woodland A (18*) | The size of Woodland A (18*) was reported to be 120.8 ha. | Appendix B- Table 3-5 | The size of Woodland A (18*) was revised to be 183.39 ha. | Table 7, Site Investigation Addendum report |
| Woodland C (22*) | The size of Woodland C (22*) was reported to be 0.9 ha. | Appendix B- Table 3-5 | The size of Woodland C (22*) was revised to be 1.55 ha. | Table 7, Site Investigation Addendum report |
| All natural features within 120 m of a fence line. | Solar panels are omitted from the list of project components within 120 m. | Appendix B- Table 3-5, 3-6, 3-7, and 3-8. | All natural features within 120 m of a fence line are also within 120 m of solar panels. | n/a |





| Natural Feature | Information from Original NHA Report (AMEC 2012) | Reference in Original NHA Report (AMEC 2012) | Revised Information in NHA Addenda (Dillon 2013) | Reference in NHA Addenda (Dillon 2013) |
|---|--|---|---|---|
| Interior Forest Breeding Bird Habitat 4 | Candidate Significant Wildlife Habitat | Appendix B-Table 3-8 (identifier is 4) Appendix A-Figure 3.6 (identifier is 1) | Not candidate significant wildlife habitat because there is not enough interior forest habitat using 200 m inward buffer. | Table 8, Site Investigation Addendum report |
| Wetland 13 | Project components within 120 m: fence line | Appendix B-Table 3-6 | Project components within 120 m: fence line and solar panels | n/a |
| Woodland 5* | Distance to nearest project component is 22 m. | Appendix B-Table 3-5 | Distance to nearest project component is 25 m. | n/a |
| Woodland 7* | Distance to nearest project component is 10 m. | Appendix B-Table 3-5 | Distance to nearest project component is 9 m. | n/a |
| Woodland 10* | Distance to nearest project component is 39 m. | Appendix B-Table 3-5 | Distance to nearest project component is 35 m. | n/a |
| Woodland 14* | Distance to nearest project component is 8 m. | Appendix B-Table 3-5 | Distance to nearest project component is 9 m. | n/a |
| Woodland 22* | Distance to nearest project component is 89 m. | Appendix B-Table 3-5 | Distance to nearest project component is 12 m. | n/a |



| Natural Feature | Information from Original NHA Report (AMEC 2012) | Reference in Original NHA Report (AMEC 2012) | Revised Information in NHA Addenda (Dillon 2013) | Reference in NHA Addenda (Dillon 2013) |
|-----------------------------|--|--|--|--|
| Wetland 3* | Distance to nearest project component is 24 m. | Appendix B-Table 3-6 | Distance to nearest project component is 31 m. | n/a |
| Wetland 11* | Distance to nearest project component is 12 m. | Appendix B-Table 3-6 | Distance to nearest project component is 31 m. | n/a |
| Wetland 17* | Distance to nearest project component is 24 m. | Appendix B-Table 3-6 | Distance to nearest project component is 32 m. | n/a |
| Wetland 18* | Distance to nearest project component is 29 m. | Appendix B-Table 3-6 | Distance to nearest project component is 31 m. | n/a |
| Wetland 25* | Distance to nearest project component is 19 m. | Appendix B-Table 3-6 | Distance to nearest project component is 31 m. | n/a |
| Wetland 33* | Distance to nearest project component is Unreported. | Appendix B-Table 3-6 | Distance to nearest project component is 65 m. | n/a |
| Reptile Hibernaculum SH 1* | Distance to nearest project component is 19 m. | Appendix B-Table 3-7 | Distance to nearest project component is 20 m. | n/a |
| Reptile Hibernaculum SH 27* | Distance to nearest project component is 59 m. | Appendix B-Table 3-7 | Distance to nearest project component is 61 m. | n/a |

| Natural Feature | Information from Original NHA Report (AMEC 2012) | Reference in Original NHA Report (AMEC 2012) | Revised Information in NHA Addenda (Dillon 2013) | Reference in NHA Addenda (Dillon 2013) |
|---|--|--|--|--|
| Reptile Hibernaculum SH 28* | Distance to nearest project component is 32 m. | Appendix B-Table 3-7 | Distance to nearest project component is 36 m. | n/a |
| Amphibian Breeding Habitat (Woodlands) ABF 2* | Distance to nearest project component is 21 m. | Appendix B-Table 3-8 | Distance to nearest project component is 24 m. | n/a |
| Amphibian Breeding Habitat (Woodlands) ABF 4* | Distance to nearest project component is 4 m. | Appendix B-Table 3-8 | Distance to nearest project component is 7 m. | n/a |
| Amphibian Breeding Habitat (Woodlands) ABF 5* | Distance to nearest project component is 10 m. | Appendix B-Table 3-8 | Distance to nearest project component is 9 m. | n/a |
| Amphibian Breeding Habitat (Woodlands) ABF 9* | Distance to nearest project component is 10 m. | Appendix B-Table 3-8 | Distance to nearest project component is 9 m. | n/a |
| Amphibian Breeding Habitat (Wetlands) ABW 6* | Distance to nearest project component is 98 m. | Appendix B-Table 3-8 | Distance to nearest project component is 124 m. | n/a |
| Amphibian Breeding Habitat (Wetlands) ABW 7* | Distance to nearest project component is 58 m. | Appendix B-Table 3-8 | Distance to nearest project component is 73 m. | n/a |
| Amphibian Breeding Habitat (Wetlands) ABW 9* | Distance to nearest project component is 18 m. | Appendix B-Table 3-8 | Distance to nearest project component is 32 m. | n/a |





| Natural Feature | Information from Original NHA Report (AMEC 2012) | Reference in Original NHA Report (AMEC 2012) | Revised Information in NHA Addenda (Dillon 2013) | Reference in NHA Addenda (Dillon 2013) |
|---|--|--|--|--|
| Marsh Breeding Bird Habitat 2* | Distance to nearest project component is 50 m. | Appendix B-Table 3-8 | Distance to nearest project component is 73 m. | n/a |
| Shrub/Successional Breeding Bird Habitat SBB 1* | Distance to nearest project component is 0 m. | Appendix B-Table 3-8 | Distance to nearest project component is 27 m. | n/a |
| Shrub/Successional Breeding Bird Habitat SBB 3* | Distance to nearest project component is 22 m. | Appendix B-Table 3-8 | Distance to nearest project component is 0 m. ³ | n/a |

Evaluation of Significance Amendment

The removal of Properties 1, 6A, 9, 10, and 11 resulted in the following significant natural features being removed from the EOS. As such, these are no longer discussed in the *Environmental Impact Study*:

- Woodland 13
- Wetlands 7, 26, 27, 28, 29, and 31
- Amphibian Breeding Habitat (Woodland; ABF 14)
- Amphibian Breeding Habitat (Wetland; ABW 17)
- Giant Swallowtail Habitat (GS 1)

Please note that details reported in the above table amend data provided in the original NHA report (Section 4 and specifically Appendix B- Tables 4-2 to 4-16; AMEC 2012).

³ Please note that in the original EIS SBB3* is reported to be 0 m from fence line and thus no further amendments are required.

Environmental Impact Study Addendum

To address the environmental impacts associated with the significant natural features affected by the revised project location, an *Environmental Impact Study (EIS) Addendum* report was prepared. The mitigation measures made in Table 6 of the EIS Addendum report are consistent with the measures outlined in the original AMEC NHA report; however, several measures were edited and/or removed based on Dillon's interpretation of impacts and appropriate mitigation measures.

The following changes were made in the EIS addendum (Table 6; Dillon 2013) with respect to wetlands and mitigation measures listed in the original NHA reports (Appendix B- Table 5-1; AMEC 2012):

- Timing restrictions associated with sensitive breeding periods no longer apply to Wetland 8 and 10 as no work will be conducted within the wetland areas and proposed mitigation measures such as erosion and sediment control and noise abatement devices will limit the impact of construction on the features. Direct effects will be avoided and no net adverse effects are anticipated.
- No tree removal will occur in the wetlands so mitigations measures are not required.
- Silt fencing is not proposed around the full extent of the project location and/or natural features as a standard mitigation item. This measure was revised to allow for alignment with the overall erosion and sediment control measures being developed for implementation. For example, where works are down-gradient and beyond 30 m from wetlands/watercourses, silt fencing and other erosion and sediment control measures will be implemented based on the requirements defined by the grading and stormwater management plans for the project. This clarification is to ensure that erosion and sediment control measures are installed and maintained in areas where required.

The following changes were made as part of the EIS Addendum (Table 6) with respect to woodland and mitigation measures listed in the original NHA reports (Appendix B- Table 5-1; AMEC 2012):

- Due to the nature of the impact to Woodland A (18*), the following mitigation measures were added:
 - Minimize removal of woodland vegetation and avoid displacement of woodland interior where possible; and,
 - Re-vegetate cleared lands with native species.
- With respect to breeding birds not listed as Species at Risk, a condition was provided to allow for clearing to occur during the breeding bird season if a qualified person conducts nest searches beforehand.
- The mitigation measure regarding silt fencing being placed around the periphery of the project location has been clarified. Silt fencing and other erosion and sediment control measures will be implemented based on the requirements defined by the grading and stormwater management plans for the project. Once site preparation is



complete and both the perimeter fencing and silt fencing is installed, these measures will create a exclusion barrier to prevent wildlife from accessing the construction area. Furthermore, the contractors and their staff will be provided with protocols to be implemented in the event the wildlife is encountered.

Closure

The preceding information has been provided to overview the amendments to the original NHA (AMEC 2012). Specific changes to information associated with the project and natural features, such as nearest distance to project components have also been listed. Lastly, changes to mitigation measures included in the original NHA reports and additional mitigation measures in the NHA addendum reports have also been discussed.

Should you have any comments, questions, or concerns please contact Dr. Caleb Hasler at (613) 745-2213, extension 3027; or by email at chasler@dillon.ca.

Yours Sincerely,
Dillon Consulting Limited



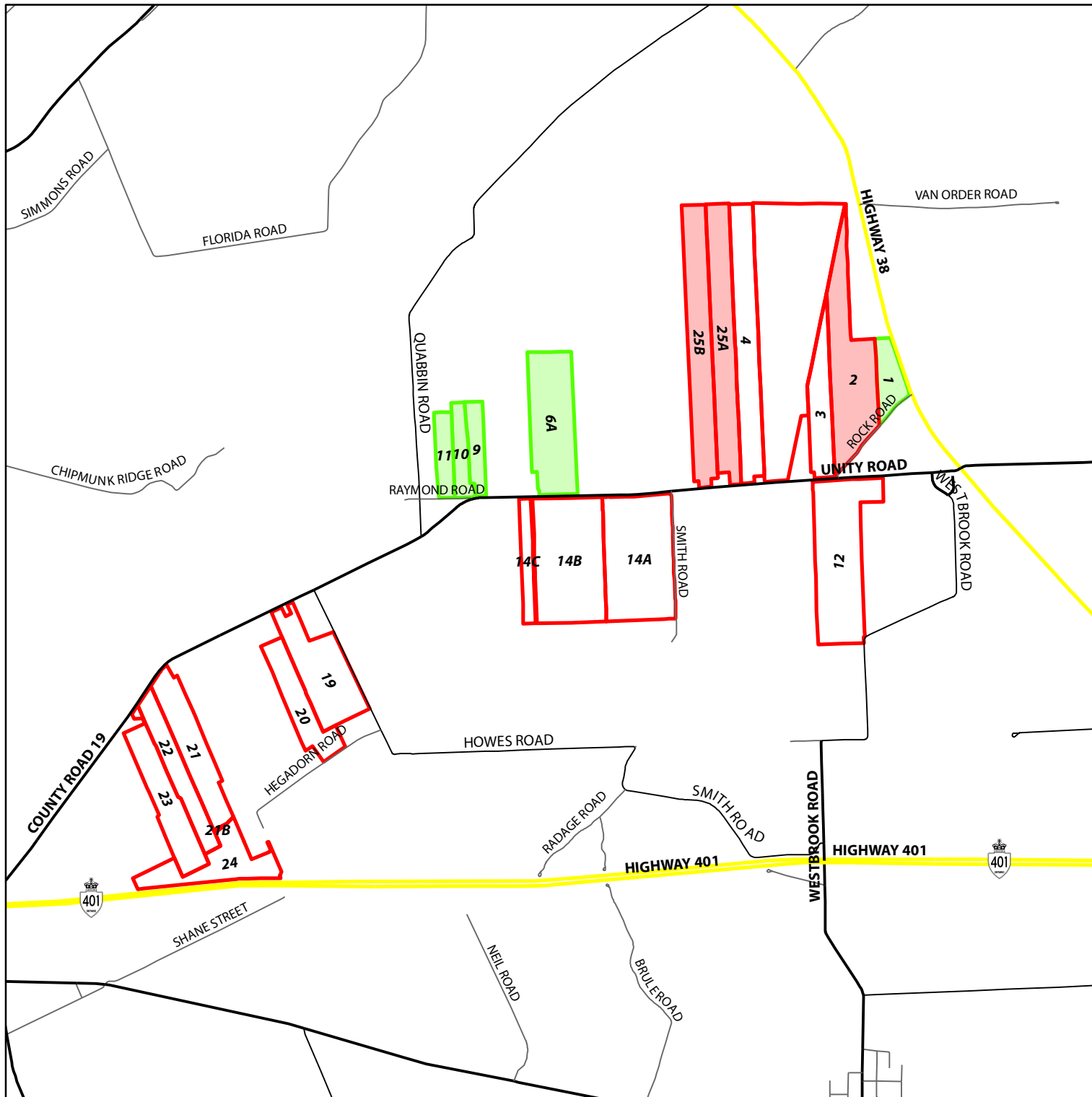
Caleb Hasler, Ph.D.
Biologist








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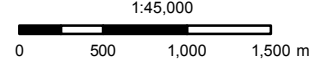


Sol-luce Kingston Solar PV Energy Project

Figure 1: Project Location and New Lands

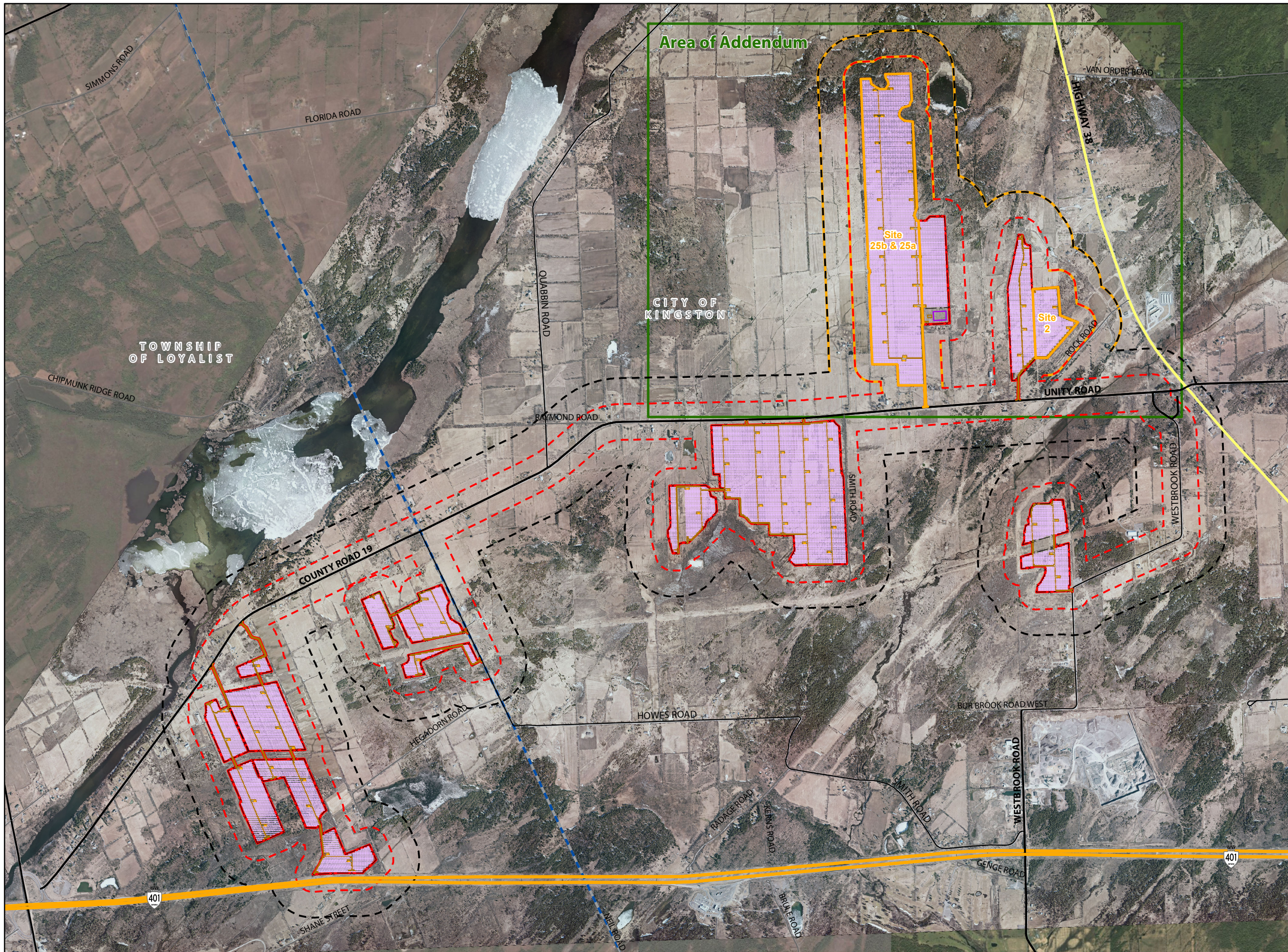


-  Highway
-  Arterial Road
-  Collector Road
-  Local Road
-  Property Boundary of Project Location Lands
-  Removed Properties from Project Location
-  Property Where New Lands for Study Occur



Sol-luce Kingston Solar PV Energy Project

**Figure 2
Project Location**



Legend

- Freeway
- Expressway / Highway
- Arterial Road
- Collector Road
- Local Road
- Project Location
- Amended Project Location
- 120 m Project Location Setback
- 300 m Project Location Setback
- 120 m Amended Project Location Setback
- 300 m Amended Project Location Setback
- Municipal Boundary

Project Components

- Solar Panels
- Inverters
- Access Road
- Fence
- Substation

