

Case No. 2021-00141  
Bluebird Solar, LLC  
Responses to Siting Board's Post-Hearing Request for Information

**Request for Information SITING BOARD PHDR\_1:**

Provide any power purchase agreements that have been completed for the project. Include any information regarding additional power purchase agreements for the remaining megawatts (MW) of generation.

**Response:** Bluebird has provided a copy of its executed virtual power purchase agreement to the Siting Board in a confidential submission. Bluebird does not have plans to enter into any other power purchase agreements in the near future and expects to sell the remaining MW of generation on a merchant basis.

See confidential submission of Power Purchase Agreement: "CONFIDENTIAL: BAWA VPPA," \_BSLLC\_R\_SITING\_BOARD\_PHDR\_1\_Attachment

**Witness:** Michael Stanton

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Bluebird Solar, LLC  
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**Request for Information SITING BOARD PHDR\_2:**

Provide details on the sound mitigation plan Bluebird Solar will utilize during construction since there was an objection to sound blanketing/shrouding as recommended by Wells Engineering.

**Response:** If pile driving activity occurs within 1,500 feet of a noise sensitive receptor, Bluebird will implement industry accepted methods of noise control that will provide efficient and cost-effective noise suppression for nearby sensitive receptors. Bluebird commits to following Siting Board precedent by using a previously approved noise mitigation method such as the semi-tractor and canvas method, sound blankets on fencing surrounding the site, or other comparable methods that were previously used, and approved, in other projects before the Siting Board. While Bluebird is still weighing its options regarding which sound mitigation tools it will use, it is infeasible for Bluebird to use noise shrouding as Wells Engineering proposed in its consultant report.

Noise shrouding is a noise reduction measure used for stationary drilling or pile driving. It involves a cylindrical-shaped noise blocking material, such as metal, which wraps around the pile driving hammer to prevent noise from escaping the source. The Wells Report noted that other pile driving projects have used noise shrouding, but those projects used stationary pile driving equipment. Wells provided Westridge Marine Terminal as an example of a project that implemented noise shrouding. In that case, stationary pile driving occurred directly into the ocean floor requiring the installation of a two-story tall noise shroud to suppress any generated



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noise. Bluebird's project will differ from this ocean project: Bluebird's pile driving will occur on land and Bluebird will use mobile pile driving equipment to allow mobility to efficiently conduct pile driving throughout the project site. Given Bluebird's need for mobility and flexibility in its construction plans, noise shrouding will not be a viable method of noise mitigation.

**Witness:** David Shu

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Bluebird Solar, LLC  
Responses to Siting Board's Post-Hearing Request for Information

**Request for Information SITING BOARD PHDR\_3:**

Provide the Interconnection Service Agreement Bluebird Solar has entered into with PJM Interconnection, LLC.

**Response:** See attached Interconnection Service Agreement: "AC1-074 and AC2-075 ISA\_R4," \_BSLLC\_R\_SITING\_BOARD\_PHDR\_3\_Attachment

**Witness:** Michael Stanton

Service Agreement No. [ ]

(PJM Queue #AC1-074/AC2-075)

**INTERCONNECTION SERVICE AGREEMENT**  
**Among**  
**PJM INTERCONNECTION, L.L.C.**  
**And**  
**BLUEBIRD SOLAR LLC**  
**And**  
**EAST KENTUCKY POWER COOPERATIVE, INC.**

Service Agreement No. [ ]

## **INTERCONNECTION SERVICE AGREEMENT**

**By and Among  
PJM Interconnection, L.L.C.**

**And**

**Bluebird Solar LLC**

**And**

**East Kentucky Power Cooperative, Inc.**  
(PJM Queue Position #AC1-074/AC2-075)

- 1.0 Parties. This Interconnection Service Agreement (“ISA”) including the Specifications, Schedules and Appendices attached hereto and incorporated herein, is entered into by and between PJM Interconnection, L.L.C., the Regional Transmission Organization for the PJM Region (hereinafter “Transmission Provider” or “PJM”), Bluebird Solar LLC (“Interconnection Customer”) and East Kentucky Power Cooperative, Inc. (“Interconnected Transmission Owner” or “EKPC”). All capitalized terms herein shall have the meanings set forth in the appended definitions of such terms as stated in Part I of the PJM Open Access Transmission Tariff (“Tariff”). This ISA supersedes the Interconnection Service Agreement among PJM, Bluebird Solar, LLC, and East Kentucky Power Cooperative, Inc. for PJM Queue Position #AC1-074, designated as Original Service Agreement No. 5958, with an effective date of January 19, 2021, filed with the Federal Energy Regulatory Commission under PJM Interconnection L.L.C, Docket No. ER21-1157-000, dated February 16, 2021.
- 2.0 Authority. This ISA is entered into pursuant to Part VI of the Tariff. Interconnection Customer has requested an Interconnection Service Agreement under the Tariff, and Transmission Provider has determined that Interconnection Customer is eligible under the Tariff to obtain this ISA. The standard terms and conditions for interconnection as set forth in Appendix 2 to this ISA are hereby specifically incorporated as provisions of this ISA. Transmission Provider, Interconnected Transmission Owner and Interconnection Customer agree to and assume all of the rights and obligations of the Transmission Provider, Interconnected Transmission Owner and Interconnection Customer, respectively, as set forth in Appendix 2 to this ISA.
- 3.0 Customer Facility Specifications. Attached are Specifications for the Customer Facility that Interconnection Customer proposes to interconnect with the Transmission System. Interconnection Customer represents and warrants that, upon completion of construction of such facilities, it will own or control the Customer Facility identified in section 1.0 of the Specifications attached hereto and made a part hereof. In the event that Interconnection Customer will not own the Customer Facility, Interconnection Customer represents and warrants that it is authorized by the owner(s) thereof to enter into this ISA and to represent such control.
- 4.0 Effective Date. Subject to any necessary regulatory acceptance, this ISA shall become effective on the date it is executed by all Interconnection Parties, or, if the agreement is

filed with FERC unexecuted, upon the date specified by FERC. This ISA shall terminate on such date as mutually agreed upon by the parties, unless earlier terminated in accordance with the terms set forth in Appendix 2 to this ISA. The term of the ISA shall be as provided in Section 1.3 of Appendix 2 to this ISA. Interconnection Service shall commence as provided in Section 1.2 of Appendix 2 to this ISA.

- 5.0 Security. In accord with Section 212.4 of the Tariff, Interconnection Customer shall provide the Transmission Provider (for the benefit of the Interconnected Transmission Owner) with a letter of credit from an agreed provider or other form of security reasonably acceptable to the Transmission Provider and that names the Transmission Provider as beneficiary (“Security”) in the amount of \$3,262,500. This amount represents the sum of the estimated Costs, determined in accordance with Sections 212 and 217 of the Tariff, for which the Interconnection Customer will be responsible, less any Costs already paid by Interconnection Customer. Interconnection Customer acknowledges that its ultimate cost responsibility in accordance with Section 217 of the Tariff will be based upon the actual Costs of the facilities described in the Specifications, whether greater or lesser than the amount of the payment security provided under this section.

Should Interconnection Customer fail to provide security at the time the Interconnection Customer executes this ISA, or, if deferred, by the end of the 120-day period, this ISA shall be terminated.

- 6.0 Project Specific Milestones. In addition to the milestones stated in Section 212.5 of the Tariff, as applicable, during the term of this ISA, Interconnection Customer shall ensure that it meets each of the following development milestones:
- 6.1 Local, county and state site permits. Interconnection Customer must obtain all necessary local, county and state site permits by February 28, 2022.
- 6.2 Substantial Site work completed. On or before May 31, 2023 Interconnection Customer must demonstrate completion of at least 20% of project site construction. At this time, Interconnection Customer must submit to Interconnected Transmission Owner and Transmission Provider initial drawings, certified by a professional engineer, of the Customer Interconnection Facilities.
- 6.3 Delivery of major electrical equipment. On or before May 31, 2023, Interconnection Customer must demonstrate that all generating units have been delivered to Interconnection Customer’s project site.
- 6.4 Commercial Operation. On or before June 1, 2023, Interconnection Customer must demonstrate commercial operation of all generating units. Demonstrating commercial operation includes achieving Initial Operation in accordance with Section 1.4 of Appendix 2 to this ISA and making commercial sales or use of energy, as well as, if applicable, obtaining capacity qualification in accordance with the requirements of the Reliability Assurance Agreement Among Load Serving Entities in the PJM Region.

- 6.5 Within one (1) month following commercial operation of generating unit(s), Interconnection Customer must provide certified documentation demonstrating that “as-built” Customer Facility and Customer Interconnection Facilities are in accordance with applicable PJM studies and agreements. Interconnection Customer must also provide PJM with “as-built” electrical modeling data or confirm that previously submitted data remains valid.

Interconnection Customer shall demonstrate the occurrence of each of the foregoing milestones to Transmission Provider’s reasonable satisfaction. Transmission Provider may reasonably extend any such milestone dates, in the event of delays that Interconnection Customer (i) did not cause and (ii) could not have remedied through the exercise of due diligence. The milestone dates stated in this ISA shall be deemed to be extended coextensively with any suspension of work initiated by Interconnection Customer in accordance with the Interconnection Construction Service Agreement.

- 7.0 Provision of Interconnection Service. Transmission Provider and Interconnected Transmission Owner agree to provide for the interconnection to the Transmission System in the PJM Region of Interconnection Customer’s Customer Facility identified in the Specifications in accordance with Part IV and Part VI of the Tariff, the Operating Agreement of PJM Interconnection, L.L.C. (“Operating Agreement”), and this ISA, as they may be amended from time to time.
- 8.0 Assumption of Tariff Obligations. Interconnection Customer agrees to abide by all rules and procedures pertaining to generation and transmission in the PJM Region, including but not limited to the rules and procedures concerning the dispatch of generation or scheduling transmission set forth in the Tariff, the Operating Agreement and the PJM Manuals.
- 9.0 Facilities Study. In analyzing and preparing the Facilities Study, and in designing and constructing the Attachment Facilities, Local Upgrades and/or Network Upgrades described in the Specifications attached to this ISA, Transmission Provider, the Interconnected Transmission Owner(s), and any other subcontractors employed by Transmission Provider have had to, and shall have to, rely on information provided by Interconnection Customer and possibly by third parties and may not have control over the accuracy of such information. Accordingly, NEITHER TRANSMISSION PROVIDER, THE INTERCONNECTED TRANSMISSION OWNER(s), NOR ANY OTHER SUBCONTRACTORS EMPLOYED BY TRANSMISSION PROVIDER OR INTERCONNECTED TRANSMISSION OWNER MAKES ANY WARRANTIES, EXPRESS OR IMPLIED, WHETHER ARISING BY OPERATION OF LAW, COURSE OF PERFORMANCE OR DEALING, CUSTOM, USAGE IN THE TRADE OR PROFESSION, OR OTHERWISE, INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WITH REGARD TO THE ACCURACY, CONTENT, OR CONCLUSIONS OF THE FACILITIES STUDY OR THE SYSTEM IMPACT STUDY IF A FACILITIES STUDY WAS NOT REQUIRED OR OF THE ATTACHMENT FACILITIES, THE LOCAL UPGRADES AND/OR THE NETWORK UPGRADES, PROVIDED, HOWEVER, that Transmission Provider warrants that the Transmission Owner

Interconnection Facilities and any Merchant Transmission Upgrades described in the Specifications will be designed and constructed (to the extent that Interconnected Transmission Owner is responsible for design and construction thereof) and operated in accordance with Good Utility Practice, as such term is defined in the Operating Agreement. Interconnection Customer acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder.

## 10.0 Construction of Transmission Owner Interconnection Facilities

10.1. Cost Responsibility. Interconnection Customer shall be responsible for and shall pay upon demand all Costs associated with the interconnection of the Customer Facility as specified in the Tariff. These Costs may include, but are not limited to, an Attachment Facilities charge, a Local Upgrades charge, a Network Upgrades charge and other charges. A description of the facilities required and an estimate of the Costs of these facilities are included in Sections 3.0 and 4.0 of the Specifications to this ISA.

10.2. Billing and Payments. Transmission Provider shall bill the Interconnection Customer for the Costs associated with the facilities contemplated by this ISA, estimates of which are set forth in the Specifications to this ISA, and the Interconnection Customer shall pay such Costs, in accordance with Section 11 of Appendix 2 to this ISA and the applicable Interconnection Construction Service Agreement. Upon receipt of each of Interconnection Customer's payments of such bills, Transmission Provider shall reimburse the applicable Interconnected Transmission Owner. Pursuant to Section 212.4 of the Tariff, Interconnection Customer requests that Transmission Provider provide a quarterly cost reconciliation:

  X        Yes

            No

10.3. Contract Option. In the event that the Interconnection Customer and Interconnected Transmission Owner agree to utilize the Negotiated Contract Option provided by the Interconnection Construction Service Agreement to establish, subject to FERC acceptance, non-standard terms regarding cost responsibility, payment, billing and/or financing, the terms of Sections 10.1 and/or 10.2 of this Section 10.0 shall be superseded to the extent required to conform to such negotiated terms, as stated in a schedule attached to the parties' Interconnection Construction Service Agreement relating to interconnection of the Customer Facility.

10.4 In the event that the Interconnection Customer elects to construct some or all of the Transmission Owner Interconnection Facilities under the Option to Build of the Interconnection Construction Service Agreement, billing and payment for the Costs

associated with the facilities contemplated by this ISA shall relate only to such portion of the Interconnection Facilities as the Interconnected Transmission Owner is responsible for building.

#### 11.0 Interconnection Specifications

- 11.1 Point of Interconnection. The Point of Interconnection shall be as identified on the one-line diagram attached as Schedule B to this ISA.
- 11.2 List and Ownership of Interconnection Facilities. The Interconnection Facilities to be constructed and ownership of the components thereof are identified in Section 3.0 of the Specifications attached to this ISA.
- 11.3 Ownership and Location of Metering Equipment. The Metering Equipment to be constructed, the capability of the Metering Equipment to be constructed, and the ownership thereof, are identified on the attached Schedule C to this ISA.
- 11.4 Applicable Technical Standards. The Applicable Technical Requirements and Standards that apply to the Customer Facility and the Interconnection Facilities are identified in Schedule D to this ISA.

#### 12.0 Power Factor Requirement.

Consistent with Section 4.7 of Appendix 2 to this ISA, the power factor requirement is as follows:

The Generation Interconnection Customer shall design its non-synchronous Customer Facility with the ability to maintain a power factor of at least 0.95 leading to 0.95 lagging measured at the high-side of the facility substation transformers.

- 13.0 Charges. In accordance with Sections 10 and 11 of Appendix 2 to this ISA, the Interconnection Customer shall pay to the Transmission Provider the charges applicable after Initial Operation, as set forth in Schedule E to this ISA. Promptly after receipt of such payments, the Transmission Provider shall forward such payments to the appropriate Interconnected Transmission Owner.
- 14.0 Third Party Beneficiaries. No third party beneficiary rights are created under this ISA, except, however, that, subject to modification of the payment terms stated in Section 10 of this ISA pursuant to the Negotiated Contract Option, payment obligations imposed on Interconnection Customer under this ISA are agreed and acknowledged to be for the benefit of the Interconnected Transmission Owner(s). Interconnection Customer expressly agrees that the Interconnected Transmission Owner(s) shall be entitled to take such legal recourse as it deems appropriate against Interconnection Customer for the payment of any Costs or charges authorized under this ISA or the Tariff with respect to Interconnection Service for which Interconnection Customer fails, in whole or in part, to pay as provided in this ISA, the Tariff and/or the Operating Agreement.



- 15.0 Waiver. No waiver by either party of one or more defaults by the other in performance of any of the provisions of this ISA shall operate or be construed as a waiver of any other or further default or defaults, whether of a like or different character.
- 16.0 Amendment. This ISA or any part thereof, may not be amended, modified, or waived other than by a written document signed by all parties hereto.
- 17.0 Construction With Other Parts Of The Tariff. This ISA shall not be construed as an application for service under Part II or Part III of the Tariff.
- 18.0 Notices. Any notice or request made by either party regarding this ISA shall be made, in accordance with the terms of Appendix 2 to this ISA, to the representatives of the other party and as applicable, to the Interconnected Transmission Owner(s), as indicated below:

Transmission Provider:

PJM Interconnection, L.L.C.  
2750 Monroe Blvd.  
Audubon, PA 19403

Interconnection Customer:

Bluebird Solar LLC  
c/o BayWa r.e. Development LLC,  
18575 Jamboree Road, Suite 850  
Irvine, CA 92612  
Attn: Whitney Rubin  
Email: whitney.rubin@baywa-re.com

Interconnected Transmission Owner:

East Kentucky Power Cooperative  
4775 Lexington Road  
P.O. Box 707  
Winchester, KY 40392-0707  
Attn: Darrin Adams, Director – Transmission Planning & Protection  
Email: darrin.adams@ekpc.coop

- 19.0 Incorporation Of Other Documents. All portions of the Tariff and the Operating Agreement pertinent to the subject matter of this ISA and not otherwise made a part hereof are hereby incorporated herein and made a part hereof.
- 20.0 Addendum of Non-Standard Terms and Conditions for Interconnection Service. Subject to FERC approval, the parties agree that the terms and conditions set forth in Schedule F hereto are hereby incorporated herein by reference and be made a part of this ISA. In the event of any conflict between a provision of Schedule F that FERC has accepted and any

provision of Appendix 2 to this ISA that relates to the same subject matter, the pertinent provision of Schedule F shall control.

- 21.0 Addendum of Interconnection Customer's Agreement to Conform with IRS Safe Harbor Provisions for Non-Taxable Status. To the extent required, in accordance with Section 24.1 of Appendix 2 to this ISA, Schedule G to this ISA shall set forth the Interconnection Customer's agreement to conform with the IRS safe harbor provisions for non-taxable status.
- 22.0 Addendum of Interconnection Requirements for all Wind or Non-synchronous Generation Facilities. To the extent required, Schedule H to this ISA sets forth interconnection requirements for a wind or non-synchronous generation facilities and is hereby incorporated by reference and made a part of this ISA.
- 23.0 All interconnection parties agree to comply with all infrastructure security requirements of the North American Electric Reliability Corporation.

IN WITNESS WHEREOF, Transmission Provider, Interconnection Customer and Interconnected Transmission Owner have caused this ISA to be executed by their respective authorized officials.

(PJM Queue Position #AC1-074/AC2-075)

Transmission Provider: PJM Interconnection, L.L.C.

By Jason Shoemaker \_\_\_\_\_ Manager, Interconnection Projects 7/1/2021  
Title Date

Printed name of signer: Jason Shoemaker

Interconnection Customer: **Bluebird Solar LLC**

By William Gulley \_\_\_\_\_ Authorized Representative 6/3/2021  
Title Date

Printed name of signer: William Gulley

Interconnected Transmission Owner: **East Kentucky Power Cooperative, Inc.**

By Denver York \_\_\_\_\_ Sr. VP Power Delivery 7/1/2021  
Title Date

Printed name of signer: Denver York

**SPECIFICATIONS FOR  
INTERCONNECTION SERVICE AGREEMENT  
By and Among  
PJM INTERCONNECTION, L.L.C.  
And  
BLUEBIRD SOLAR LLC  
And  
EAST KENTUCKY POWER COOPERATIVE, INC.  
(PJM Queue Position # AC1-074/AC2-075)**

1.0 Description of generating unit(s) (the Customer Facility) to be interconnected with the Transmission System in the PJM Region:

a. Name of Customer Facility:

Bluebird Solar

b. Location of Customer Facility:

East of Leesburg, KY and in between US highway 62 and Kentucky High 353 in Harrison County (GPS Coordinates 38.3014650, -84.3804520)

c. Size in megawatts of Customer Facility:

For Generation Interconnection Customer:

Maximum Facility Output of 100 MW

The stated size of the generating unit includes an increase in the Maximum Facility Output of the generating unit of 20 MW over Interconnection Customer's previous interconnection. This increase is a result of the Interconnection Request associated with this Interconnection Service Agreement.

d. Description of the equipment configuration:

Photovoltaic Solar Panels and 42 TMEIC Solar Ware PHV-L2700GR Utility Inverters

2.0 Rights

2.1 Capacity Interconnection Rights:

Pursuant to and subject to the applicable terms of the Tariff, the Interconnection Customer shall have Capacity Interconnection Rights at the Point(s) of Interconnection specified in this Interconnection Service Agreement in the amount of 69.3 MW.

The amount of Capacity Interconnection Rights specified above (69.3 MW) includes 56 MW of Capacity Interconnection Rights that the Interconnection Customer had at the same Point(s) of Interconnection prior to its Interconnection Request associated with this Interconnection Service Agreement, and 13.3 MW of Capacity Interconnection Rights granted as a result of such Interconnection Request.

- 2.1a To the extent that any portion of the Customer Facility described in section 1.0 is not a Capacity Resource with Capacity Interconnection Rights, such portion of the Customer Facility shall be an Energy Resource. PJM reserves the right to limit total injections to the Maximum Facility Output in the event reliability would be affected by output greater than such quantity.

2.3 Incremental Deliverability Rights:

Pursuant to Section 235 of the Tariff, Interconnection Customer shall have Incremental Deliverability Rights at each indicated Point of Interconnection in the following quantity(ies):  
None

2.4 Incremental Available Transfer Capability Revenue Rights:

Pursuant to Section 233 of the Tariff, Interconnection Customer shall have Incremental Available Transfer Capability Revenue Rights at each indicated Point of Interconnection in the following quantities:  
None

2.5 Incremental Auction Revenue Rights:

Pursuant to Section 231 of the Tariff, Interconnection Customer shall have Incremental Auction Revenue Rights in the following quantities:  
None

2.6 Incremental Capacity Transfer Rights:

Pursuant to Section 234 of the Tariff, Interconnection Customer shall have Incremental Capacity Transfer Rights between the following associated source(s) and sink(s) in the indicated quantities:  
None

3.0 Construction Responsibility and Ownership of Interconnection Facilities

- a. Interconnection Customer.

Interconnection Customer shall construct and, unless otherwise indicated, shall own, the following Interconnection Facilities:

- a) One (1) attachment line between the new 138kV Interconnection Substation associated with Queue #AC1-074 and the Customer Facility;
- b) One (1) 138kV circuit breaker and associated equipment located at the Customer Facility;
- c) One (1) 34.5/138kV generator step-up transformer, located at the Customer Facility;
- d) Minimum relay and protective equipment, supervisory control and data acquisition (SCADA) equipment, and telecommunications equipment; and
- e) Necessary metering equipment as specified in Schedule C of this Interconnection Service Agreement.

(2) In the event that, in accordance with the Interconnection Construction Service Agreement, Interconnection Customer has exercised the Option to Build, it is hereby permitted to build in accordance with and subject to the conditions and limitations set forth in that Section, the following portions of the Transmission Owner Interconnection Facilities which constitute or are part of the Customer Facility:

None.

Ownership of the facilities built by Interconnection Customer pursuant to the Option to Build shall be as provided in the Interconnection Construction Service Agreement.

b. Interconnected Transmission Owner

Attachment Facility:

1. Install an Attachment facility line from the Queue #AC1-074 interconnection substation to the first structure located outside of the switchyard (Point of Interconnection structure), and install revenue metering. PJM Network Upgrade Number n6274.

Direct Connection Network Upgrades:

2. AC1-074 138kV Interconnection Substation – Build a new 138kV switching station along the Jacksonville – Renaker 138kV line to interconnect the Queue #AC1-074 solar generating facility. PJM Network Upgrade Number n5929.

Non-Direct Connection Network Upgrades:

3. Jacksonville – Renaker 138kV – Construct a new loop-in tap line from EKPC’s existing Jacksonville to Renaker 138 kV transmission line to the new AC1-074 switching station. PJM Network Upgrade Number n6275.
4. Avon 138kV Substation – Upgrade line relaying. PJM Network Upgrade Number n5630.
5. Renaker 138kV Substation – Upgrade line relaying. PJM Network Upgrade Number n5931.
6. Install OPGW fiber on the Harrison County – Renaker 138kV line section, which is approximately 9.35 miles in length. PJM Network Upgrade Number n6276.

4.0 Subject to modification pursuant to the Negotiated Contract Option and/or the Option to Build under the Interconnection Construction Service Agreement, Interconnection Customer shall be subject to the estimated charges detailed below, which shall be billed and paid in accordance with Appendix 2, Section 11 of this ISA and the applicable Interconnection Construction Service Agreement.

4.1 Attachment Facilities Charge: \$350,000

4.2 Network Upgrades Charge: \$6,940,000

4.3 Local Upgrades Charge: \$0

4.4 Other Charges: \$0

4.5 Cost breakdown:

\$5,679,509	Direct Labor
\$89,455	Direct Material
\$1,306,343	Indirect Labor
\$214,693	Indirect Material

\$ 7,290,000 Total

4.6 Security Amount Breakdown:

\$1,920,000 Estimated Cost of Non-Direct Connection Local Upgrades and/or Non-Direct Connection Network Upgrades

plus \$1,342,500 Estimated cost of the work (for the first three months after construction commences in earnest) on the required Attachment Facilities, Direct Connection Local Upgrades, and Direct Connection Network Upgrades

plus \$0 Option to Build Security for Transmission Owner Attachment Facilities and Direct Connection Network Upgrades (including Cancellation Costs)

	\$3,262,500	Total Security required with ISA
less	\$3,262,500	Costs already paid by Interconnection Customer
	\$0	Total Security required with ISA



**APPENDICES:**

- **APPENDIX 1 - DEFINITIONS**
- **APPENDIX 2 - STANDARD TERMS AND CONDITIONS FOR INTERCONNECTIONS**

**SCHEDULES:**

- **SCHEDULE A - CUSTOMER FACILITY LOCATION/SITE PLAN**
- **SCHEDULE B - SINGLE-LINE DIAGRAM**
- **SCHEDULE C - LIST OF METERING EQUIPMENT**
- **SCHEDULE D - APPLICABLE TECHNICAL REQUIREMENTS AND STANDARDS**
- **SCHEDULE E - SCHEDULE OF CHARGES**
- **SCHEDULE F - SCHEDULE OF NON-STANDARD TERMS & CONDITIONS**
- **SCHEDULE G - INTERCONNECTION CUSTOMER'S AGREEMENT TO CONFORM WITH IRS SAFE HARBOR PROVISIONS FOR NON-TAXABLE STATUS**
- **SCHEDULE H - INTERCONNECTION REQUIREMENTS FOR A WIND GENERATION FACILITY**
- **SCHEDULE I – INTERCONNECTION SPECIFICATIONS FOR AN ENERGY STORAGE RESOURCE**
- **SCHEDULE J – SCHEDULE OF TERMS AND CONDITIONS FOR SURPLUS INTERCONNECTION SERVICE**
- **SCHEDULE K – REQUIREMENTS FOR INTERCONNECTION SERVICE BELOW FULL ELECTRICAL GENERATING CAPABILITY**

## **APPENDIX 1**

### **DEFINITIONS**

**From the PJM Tariff accepted for filing by the Commission  
as of the effective date of this agreement**

Unless the context otherwise specifies or requires, capitalized terms used in this Agreement shall have the respective meanings set forth below. Unless otherwise specified, all references herein to sections, Schedules or Appendices are to sections, Schedules or Appendices of this Agreement.

**Abnormal Condition:**

“Abnormal Condition” shall mean any condition on the Interconnection Facilities which, determined in accordance with Good Utility Practice, is: (i) outside normal operating parameters such that facilities are operating outside their normal ratings or that reasonable operating limits have been exceeded; and (ii) could reasonably be expected to materially and adversely affect the safe and reliable operation of the Interconnection Facilities; but which, in any case, could reasonably be expected to result in an Emergency Condition. Any condition or situation that results from lack of sufficient generating capacity to meet load requirements or that results solely from economic conditions shall not, standing alone, constitute an Abnormal Condition.

**Affected System:**

“Affected System” shall mean an electric system other than the Transmission Provider’s Transmission System that may be affected by a proposed interconnection or on which a proposed interconnection or addition of facilities or upgrades may require modifications or upgrades to the Transmission System.

**Affiliate:**

”Affiliate” shall mean any two or more entities, one of which Controls the other or that are under common Control. “Control,” as that term is used in this definition, shall mean the possession, directly or indirectly, of the power to direct the management or policies of an entity. Ownership of publicly-traded equity securities of another entity shall not result in Control or affiliation for purposes of the Tariff or Operating Agreement if the securities are held as an investment, the holder owns (in its name or via intermediaries) less than 10 percent (10%) of the outstanding securities of the entity, the holder does not have representation on the entity’s board of directors (or equivalent managing entity) or vice versa, and the holder does not in fact exercise influence over day-to-day management decisions. Unless the contrary is demonstrated to the satisfaction of the Members Committee, Control shall be presumed to arise from the ownership of or the power to vote, directly or indirectly, ten percent or more of the voting securities of such entity.

**Ancillary Services:**

“Ancillary Services” shall mean those services that are necessary to support the transmission of capacity and energy from resources to loads while maintaining reliable operation of the Transmission Provider’s Transmission System in accordance with Good Utility Practice.

**Applicable Laws and Regulations:**

“Applicable Laws and Regulations” shall mean all duly promulgated applicable federal, State

and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority having jurisdiction over the relevant parties, their respective facilities, and/or the respective services they provide.

**Applicable Regional Entity:**

“Applicable Regional Entity” shall mean the Regional Entity for the region in which a Network Customer, Transmission Customer, New Service Customer, or Transmission Owner operates.

**Applicable Standards:**

“Applicable Standards” shall mean the requirements and guidelines of NERC, the Applicable Regional Entity, and the Control Area in which the Customer Facility is electrically located; the PJM Manuals; and Applicable Technical Requirements and Standards.

**Applicable Technical Requirements and Standards:**

“Applicable Technical Requirements and Standards” shall mean those certain technical requirements and standards applicable to interconnections of generation and/or transmission facilities with the facilities of an Interconnected Transmission Owner or, as the case may be and to the extent applicable, of an Electric Distributor, as published by Transmission Provider in a PJM Manual provided, however, that, with respect to any generation facilities with maximum generating capacity of 2 MW or less (*synchronous*) or 5 MW or less (*inverter-based*) for which the Interconnection Customer executes a Construction Service Agreement or Interconnection Service Agreement on or after March 19, 2005, “Applicable Technical Requirements and Standards” shall refer to the “PJM Small Generator Interconnection Applicable Technical Requirements and Standards.” All Applicable Technical Requirements and Standards shall be publicly available through postings on Transmission Provider’s internet website.

**Attachment Facilities:**

“Attachment Facilities” shall mean the facilities necessary to physically connect a Customer Facility to the Transmission System or interconnected distribution facilities.

**Behind The Meter Generation:**

“Behind The Meter Generation” shall refer to a generation unit that delivers energy to load without using the Transmission System or any distribution facilities (unless the entity that owns or leases the distribution facilities has consented to such use of the distribution facilities and such consent has been demonstrated to the satisfaction of the Office of the Interconnection); provided, however, that Behind The Meter Generation does not include (i) at any time, any portion of such generating unit’s capacity that is designated as a Generation Capacity Resource; or (ii) in an hour, any portion of the output of such generating unit that is sold to another entity for consumption at another electrical location or into the PJM Interchange Energy Market.

**Breach:**

“Breach” shall mean the failure of a party to perform or observe any material term or condition of Tariff, Part IV or Tariff, Part VI, or any agreement entered into thereunder as described in the relevant provisions of such agreement.

**Breaching Party:**

“Breaching Party” shall mean a party that is in Breach of Tariff, Part IV or Tariff, Part VI and/or an agreement entered into thereunder.

**Business Day:**

“Business Day” shall mean a day in which the Federal Reserve System is open for business and is not a scheduled PJM holiday.

**Cancellation Costs:**

“Cancellation Costs” shall mean costs and liabilities incurred in connection with: (a) cancellation of supplier and contractor written orders and agreements entered into to design, construct and install Attachment Facilities, Direct Assignment Facilities and/or Customer-Funded Upgrades, and/or (b) completion of some or all of the required Attachment Facilities, Direct Assignment Facilities and/or Customer-Funded Upgrades, or specific unfinished portions and/or removal of any or all of such facilities which have been installed, to the extent required for the Transmission Provider and/or Transmission Owner(s) to perform their respective obligations under Tariff, Part IV and/or Part VI.

**Capacity:**

“Capacity” shall mean the installed capacity requirement of the Reliability Assurance Agreement or similar such requirements as may be established.

**Capacity Interconnection Rights:**

“Capacity Interconnection Rights” shall mean the rights to input generation as a Generation Capacity Resource into the Transmission System at the Point of Interconnection where the generating facilities connect to the Transmission System.

**Capacity Resource:**

“Capacity Resource” shall have the meaning provided in the Reliability Assurance Agreement.

**Commencement Date:**

“Commencement Date” shall mean the date on which Interconnection Service commences in accordance with an Interconnection Service Agreement.

**Confidential Information:**

“Confidential Information” shall mean any confidential, proprietary, or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy, or compilation relating to the present or planned business of a New Service Customer, Transmission Owner, or other Interconnection Party or Construction Party, which is designated as confidential by the party supplying the information, whether conveyed verbally, electronically, in writing, through inspection, or otherwise, and shall include, without limitation, all information relating to the producing party’s technology, research and development, business affairs and pricing, and any information supplied by any New Service Customer, Transmission Owner, or other Interconnection Party or Construction Party to another such party prior to the execution of an Interconnection Service Agreement or a Construction Service Agreement.

**Consolidated Transmission Owners Agreement, PJM Transmission Owners Agreement or Transmission Owners Agreement:**

“Consolidated Transmission Owners Agreement,” “PJM Transmission Owners Agreement” or “Transmission Owners Agreement” shall mean the certain Consolidated Transmission Owners Agreement dated as of December 15, 2005, by and among the Transmission Owners and by and between the Transmission Owners and PJM Interconnection, L.L.C. on file with the Commission, as amended from time to time.

**Constructing Entity:**

“Constructing Entity” shall mean either the Transmission Owner or the New Services Customer, depending on which entity has the construction responsibility pursuant to Tariff, Part VI and the applicable Construction Service Agreement; this term shall also be used to refer to an Interconnection Customer with respect to the construction of the Customer Interconnection Facilities.

**Construction Party:**

“Construction Party” shall mean a party to a Construction Service Agreement. “Construction Parties” shall mean all of the Parties to a Construction Service Agreement.

**Construction Service Agreement:**

“Construction Service Agreement” shall mean either an Interconnection Construction Service Agreement or an Upgrade Construction Service Agreement.

**Contingent Facilities:**

“Contingent Facilities” shall mean those unbuilt Interconnection Facilities and Network Upgrades upon which the Interconnection Request’s costs, timing, and study findings are dependent and, if delayed or not built, could cause a need for restudies of the Interconnection

Request or a reassessment of the Interconnection Facilities and/or Network Upgrades and/or costs and timing.

**Control Area:**

“Control Area” shall mean an electric power system or combination of electric power systems bounded by interconnection metering and telemetry to which a common automatic generation control scheme is applied in order to:

(1) match the power output of the generators within the electric power system(s) and energy purchased from entities outside the electric power system(s), with the load within the electric power system(s);

(2) maintain scheduled interchange with other Control Areas, within the limits of Good Utility Practice;

(3) maintain the frequency of the electric power system(s) within reasonable limits in accordance with Good Utility Practice; and

(4) provide sufficient generating capacity to maintain operating reserves in accordance with Good Utility Practice.

**Controllable A.C. Merchant Transmission Facilities:**

“Controllable A.C. Merchant Transmission Facilities” shall mean transmission facilities that (1) employ technology which Transmission Provider reviews and verifies will permit control of the amount and/or direction of power flow on such facilities to such extent as to effectively enable the controllable facilities to be operated as if they were direct current transmission facilities, and (2) that are interconnected with the Transmission System pursuant to Tariff, Part IV and Part VI.

**Costs:**

As used in Tariff, Part IV, Part VI and related attachments, “Costs” shall mean costs and expenses, as estimated or calculated, as applicable, including, but not limited to, capital expenditures, if applicable, and overhead, return, and the costs of financing and taxes and any Incidental Expenses.

**Customer Facility:**

“Customer Facility” shall mean Generation Facilities or Merchant Transmission Facilities interconnected with or added to the Transmission System pursuant to an Interconnection Request under Subpart A of Tariff, Part IV.

**Customer Interconnection Facilities:**

“Customer Interconnection Facilities” shall mean all facilities and equipment owned and/or controlled, operated and maintained by Interconnection Customer on Interconnection Customer’s side of the Point of Interconnection identified in the appropriate appendices to the Interconnection Service Agreement and to the Interconnection Construction Service Agreement, including any modifications, additions, or upgrades made to such facilities and equipment, that are necessary to physically and electrically interconnect the Customer Facility with the Transmission System.

**Default:**

As used in the Interconnection Service Agreement and Construction Service Agreement, “Default” shall mean the failure of a Breaching Party to cure its Breach in accordance with the applicable provisions of an Interconnection Service Agreement or Construction Service Agreement.

**Emergency Condition:**

“Emergency Condition” shall mean a condition or situation (i) that in the judgment of any Interconnection Party is imminently likely to endanger life or property; or (ii) that in the judgment of the Interconnected Transmission Owner or Transmission Provider is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Transmission System, the Interconnection Facilities, or the transmission systems or distribution systems to which the Transmission System is directly or indirectly connected; or (iii) that in the judgment of Interconnection Customer is imminently likely (as determined in a non-discriminatory manner) to cause damage to the Customer Facility or to the Customer Interconnection Facilities. System restoration and black start shall be considered Emergency Conditions, provided that a Generation Interconnection Customer is not obligated by an Interconnection Service Agreement to possess black start capability. Any condition or situation that results from lack of sufficient generating capacity to meet load requirements or that results solely from economic conditions shall not constitute an Emergency Condition, unless one or more of the enumerated conditions or situations identified in this definition also exists.

**Energy Resource:**

“Energy Resource” shall mean a Generating Facility that is not a Capacity Resource.

**Energy Storage Resource:**

“Energy Storage Resource” shall mean a resource capable of receiving electric energy from the grid and storing it for later injection to the grid that participates in the PJM Energy, Capacity and/or Ancillary Services markets as a Market Participant.

**Facilities Study:**

“Facilities Study” shall be an engineering study conducted by the Transmission Provider (in



coordination with the affected Transmission Owner(s)) to: (1) determine the required modifications to the Transmission Provider's Transmission System necessary to implement the conclusions of the System Impact Study; and (2) complete any additional studies or analyses documented in the System Impact Study or required by PJM Manuals, and determine the required modifications to the Transmission Provider's Transmission System based on the conclusions of such additional studies. The Facilities Study shall include the cost and scheduled completion date for such modifications, that will be required to provide the requested transmission service or to accommodate a New Service Request. As used in the Interconnection Service Agreement or Construction Service Agreement, Facilities Study shall mean that certain Facilities Study conducted by Transmission Provider (or at its direction) to determine the design and specification of the Customer Funded Upgrades necessary to accommodate the New Service Customer's New Service Request in accordance with Tariff, Part VI, section 207.

**Federal Power Act:**

"Federal Power Act" shall mean the Federal Power Act, as amended, 16 U.S.C. §§ 791a, et seq.

**FERC or Commission:**

"FERC" or "Commission" shall mean the Federal Energy Regulatory Commission or any successor federal agency, commission or department exercising jurisdiction over the Tariff, Operating Agreement and Reliability Assurance Agreement.

**Generating Facilities:**

"Generating Facilities" shall mean Interconnection Customer's device for the production and/or storage for later injection of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities.

**Generation Interconnection Customer:**

"Generation Interconnection Customer" shall mean an entity that submits an Interconnection Request to interconnect a new generation facility or to increase the capacity of an existing generation facility interconnected with the Transmission System in the PJM Region.

**Generation Interconnection Request:**

"Generation Interconnection Request" shall mean a request by a Generation Interconnection Customer pursuant to Tariff, Part IV, subpart A, to interconnect a generating unit with the Transmission System or to increase the capacity of a generating unit interconnected with the Transmission System in the PJM Region.

**Good Utility Practice:**

"Good Utility Practice" shall mean any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period,

or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather is intended to include acceptable practices, methods, or acts generally accepted in the region; including those practices required by Federal Power Act, section 215(a)(4).

**Governmental Authority:**

“Governmental Authority” shall mean any federal, state, local or other governmental, regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, arbitrating body, or other governmental authority having jurisdiction over any Interconnection Party or Construction Party or regarding any matter relating to an Interconnection Service Agreement or Construction Service Agreement, as applicable.

**Hazardous Substances:**

“Hazardous Substance” shall mean any chemicals, materials or substances defined as or included in the definition of “hazardous substances,” “hazardous wastes,” “hazardous materials,” “hazardous constituents,” “restricted hazardous materials,” “extremely hazardous substances,” “toxic substances,” “radioactive substances,” “contaminants,” “pollutants,” “toxic pollutants” or words of similar meaning and regulatory effect under any applicable Environmental Law, or any other chemical, material or substance, exposure to which is prohibited, limited or regulated by any applicable Environmental Law.

**Incremental Auction Revenue Rights:**

“Incremental Auction Revenue Rights” shall mean the additional Auction Revenue Rights, not previously feasible, created by the addition of Incremental Rights-Eligible Required Transmission Enhancements, Merchant Transmission Facilities, or of one or more Customer-Funded Upgrades.

**Incremental Available Transfer Capability Revenue Rights:**

“Incremental Available Transfer Capability Revenue Rights” shall mean the rights to revenues that are derived from incremental Available Transfer Capability created by the addition of Merchant Transmission Facilities or of one of more Customer-Funded Upgrades.

**Incremental Capacity Transfer Right:**

“Incremental Capacity Transfer Right” shall mean a Capacity Transfer Right allocated to a Generation Interconnection Customer or Transmission Interconnection Customer obligated to fund a transmission facility or upgrade, to the extent such upgrade or facility increases the transmission import capability into a Locational Deliverability Area, or a Capacity Transfer

Right allocated to a Responsible Customer in accordance with Tariff, Schedule 12A.

**Incremental Deliverability Rights (IDRs):**

“Incremental Deliverability Rights” or “IDRs” shall mean the rights to the incremental ability, resulting from the addition of Merchant Transmission Facilities, to inject energy and capacity at a point on the Transmission System, such that the injection satisfies the deliverability requirements of a Capacity Resource. Incremental Deliverability Rights may be obtained by a generator or a Generation Interconnection Customer, pursuant to an IDR Transfer Agreement, to satisfy, in part, the deliverability requirements necessary to obtain Capacity Interconnection Rights.

**Initial Operation:**

“Initial Operation” shall mean the commencement of operation of the Customer Facility and Customer Interconnection Facilities after satisfaction of the conditions of Tariff, Attachment O-Appendix 2, section 1.4 (an Interconnection Service Agreement).

**Interconnected Entity:**

“Interconnected Entity” shall mean either the Interconnection Customer or the Interconnected Transmission Owner; Interconnected Entities shall mean both of them.

**Interconnected Transmission Owner:**

“Interconnected Transmission Owner” shall mean the Transmission Owner to whose transmission facilities or distribution facilities Customer Interconnection Facilities are, or as the case may be, a Customer Facility is, being directly connected. When used in an Interconnection Construction Service Agreement, the term may refer to a Transmission Owner whose facilities must be upgraded pursuant to the Facilities Study, but whose facilities are not directly interconnected with those of the Interconnection Customer.

**Interconnection Construction Service Agreement:**

“Interconnection Construction Service Agreement” shall mean the agreement entered into by an Interconnection Customer, Interconnected Transmission Owner and the Transmission Provider pursuant to Tariff, Part VI, Subpart B and in the form set forth in Tariff, Attachment P, relating to construction of Attachment Facilities, Network Upgrades, and/or Local Upgrades and coordination of the construction and interconnection of an associated Customer Facility. A separate Interconnection Construction Service Agreement will be executed with each Transmission Owner that is responsible for construction of any Attachment Facilities, Network Upgrades, or Local Upgrades associated with interconnection of a Customer Facility.

**Interconnection Customer:**

“Interconnection Customer” shall mean a Generation Interconnection Customer and/or a

Transmission Interconnection Customer.

**Interconnection Facilities:**

“Interconnection Facilities” shall mean the Transmission Owner Interconnection Facilities and the Customer Interconnection Facilities.

**Interconnection Party:**

“Interconnection Party” shall mean a Transmission Provider, Interconnection Customer, or the Interconnected Transmission Owner. Interconnection Parties shall mean all of them.

**Interconnection Request:**

“Interconnection Request” shall mean a Generation Interconnection Request, a Transmission Interconnection Request and/or an IDR Transfer Agreement.

**Interconnection Service:**

“Interconnection Service” shall mean the physical and electrical interconnection of the Customer Facility with the Transmission System pursuant to the terms of Tariff, Part IV and Tariff, Part VI and the Interconnection Service Agreement entered into pursuant thereto by Interconnection Customer, the Interconnected Transmission Owner and Transmission Provider.

**Interconnection Service Agreement:**

“Interconnection Service Agreement” shall mean an agreement among the Transmission Provider, an Interconnection Customer and an Interconnected Transmission Owner regarding interconnection under Tariff, Part IV and Tariff, Part VI.

**List of Approved Contractors:**

“List of Approved Contractors” shall mean a list developed by each Transmission Owner and published in a PJM Manual of (a) contractors that the Transmission Owner considers to be qualified to install or construct new facilities and/or upgrades or modifications to existing facilities on the Transmission Owner’s system, provided that such contractors may include, but need not be limited to, contractors that, in addition to providing construction services, also provide design and/or other construction-related services, and (b) manufacturers or vendors of major transmission-related equipment (e.g., high-voltage transformers, transmission line, circuit breakers) whose products the Transmission Owner considers acceptable for installation and use on its system.

**Load Serving Entity (LSE):**

“Load Serving Entity” or “LSE” shall have the meaning specified in the Reliability Assurance Agreement.

### **Local Upgrades:**

“Local Upgrades” shall mean modifications or additions of facilities to abate any local thermal loading, voltage, short circuit, stability or similar engineering problem caused by the interconnection and delivery of generation to the Transmission System. Local Upgrades shall include:

(i) Direct Connection Local Upgrades which are Local Upgrades that only serve the Customer Interconnection Facility and have no impact or potential impact on the Transmission System until the final tie-in is complete; and

(ii) Non-Direct Connection Local Upgrades which are parallel flow Local Upgrades that are not Direct Connection Local Upgrades.

### **Material Modification:**

“Material Modification” shall mean any modification to an Interconnection Request that has a material adverse effect on the cost or timing of Interconnection Studies related to, or any Network Upgrades or Local Upgrades needed to accommodate, any Interconnection Request with a later Queue Position.

### **Maximum Facility Output:**

“Maximum Facility Output” shall mean the maximum (not nominal) net electrical power output in megawatts, specified in the Interconnection Service Agreement, after supply of any parasitic or host facility loads, that a Generation Interconnection Customer’s Customer Facility is expected to produce, provided that the specified Maximum Facility Output shall not exceed the output of the proposed Customer Facility that Transmission Provider utilized in the System Impact Study.

### **Maximum State of Charge:**

“Maximum State of Charge” shall mean the maximum State of Charge that should not be exceeded, measured in units of megawatt-hours.

### **Merchant A.C. Transmission Facilities:**

“Merchant A.C. Transmission Facility” shall mean Merchant Transmission Facilities that are alternating current (A.C.) transmission facilities, other than those that are Controllable A.C. Merchant Transmission Facilities.

### **Merchant D.C. Transmission Facilities:**

“Merchant D.C. Transmission Facilities” shall mean direct current (D.C.) transmission facilities that are interconnected with the Transmission System pursuant to Tariff, Part IV and Tariff, Part

VI.

**Merchant Network Upgrades:**

“Merchant Network Upgrades” shall mean additions to, or modifications or replacements of, physical facilities of the Interconnected Transmission Owner that, on the date of the pertinent Transmission Interconnection Customer’s Upgrade Request, are part of the Transmission System or are included in the Regional Transmission Expansion Plan.

**Merchant Transmission Facilities:**

“Merchant Transmission Facilities” shall mean A.C. or D.C. transmission facilities that are interconnected with or added to the Transmission System pursuant to Tariff, Part IV and Tariff, Part VI and that are so identified in Tariff, Attachment T, provided, however, that Merchant Transmission Facilities shall not include (i) any Customer Interconnection Facilities, (ii) any physical facilities of the Transmission System that were in existence on or before March 20, 2003 ; (iii) any expansions or enhancements of the Transmission System that are not identified as Merchant Transmission Facilities in the Regional Transmission Expansion Plan and Tariff, Attachment T, or (iv) any transmission facilities that are included in the rate base of a public utility and on which a regulated return is earned.

**Merchant Transmission Provider:**

“Merchant Transmission Provider” shall mean an Interconnection Customer that (1) owns, controls, or controls the rights to use the transmission capability of, Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities that connect the Transmission System with another control area, (2) has elected to receive Transmission Injection Rights and Transmission Withdrawal Rights associated with such facility pursuant to Tariff, Part IV, section 36, and (3) makes (or will make) the transmission capability of such facilities available for use by third parties under terms and conditions approved by the Commission and stated in the Tariff, consistent with Tariff, Part IV, section 38.

**Metering Equipment:**

“Metering Equipment” shall mean all metering equipment installed at the metering points designated in the appropriate appendix to an Interconnection Service Agreement.

**Minimum State of Charge:**

“Minimum State of Charge” shall mean the minimum State of Charge that should be maintained in units of megawatt-hours.

**NERC:**

“NERC” shall mean the North American Electric Reliability Corporation or any successor thereto.

### **Network Upgrades:**

“Network Upgrades” shall mean modifications or additions to transmission-related facilities that are integrated with and support the Transmission Provider’s overall Transmission System for the general benefit of all users of such Transmission System. Network Upgrades shall include:

(i) **Direct Connection Network Upgrades** which are Network Upgrades that are not part of an Affected System; only serve the Customer Interconnection Facility; and have no impact or potential impact on the Transmission System until the final tie-in is complete. Both Transmission Provider and Interconnection Customer must agree as to what constitutes Direct Connection Network Upgrades and identify them in the Interconnection Construction Service Agreement, Schedule D. If the Transmission Provider and Interconnection Customer disagree about whether a particular Network Upgrade is a Direct Connection Network Upgrade, the Transmission Provider must provide the Interconnection Customer a written technical explanation outlining why the Transmission Provider does not consider the Network Upgrade to be a Direct Connection Network Upgrade within 15 days of its determination.

(ii) **Non-Direct Connection Network Upgrades** which are parallel flow Network Upgrades that are not Direct Connection Network Upgrades.

### **New Service Request:**

“New Service Request” shall mean an Interconnection Request, a Completed Application, or an Upgrade Request.

### **New Services Queue:**

“New Services Queue” shall mean all Interconnection Requests, Completed Applications, and Upgrade Requests that are received within each six-month period ending on March 31 and September 30 of each year shall collectively comprise a New Services Queue.

### **Nominal Rated Capability:**

“Nominal Rated Capability” shall mean the nominal maximum rated capability in megawatts of a Transmission Interconnection Customer’s Customer Facility or the nominal increase in transmission capability in megawatts of the Transmission System resulting from the interconnection or addition of a Transmission Interconnection Customer’s Customer Facility, as determined in accordance with pertinent Applicable Standards and specified in the Interconnection Service Agreement.

### **Operating Agreement of the PJM Interconnection, L.L.C., Operating Agreement or PJM Operating Agreement:**

“Operating Agreement of the PJM Interconnection, L.L.C.,” “Operating Agreement” or “PJM Operating Agreement” shall mean the Amended and Restated Operating Agreement of PJM



Interconnection, L.L.C. dated as of April 1, 1997 and as amended and restated as of June 2, 1997, including all Schedules, Exhibits, Appendices, addenda or supplements hereto, as amended from time to time thereafter, among the Members of the PJM Interconnection, L.L.C., on file with the Commission.

**Option to Build:**

“Option to Build” shall mean the option of the New Service Customer to build certain Customer-Funded Upgrades, as set forth in, and subject to the terms of, the Construction Service Agreement.

**Part I:**

“Part I” shall mean the Tariff Definitions and Common Service Provisions contained in Tariff, Part I, sections 1 through 12A.

**Part II:**

“Part II” shall mean Tariff, Part II, sections 13 through 27A pertaining to Point-To-Point Transmission Service in conjunction with the applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Part III:**

“Part III” shall mean Tariff, Part III, sections 28 through 35 pertaining to Network Integration Transmission Service in conjunction with the applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Part IV:**

“Part IV” shall mean Tariff, Part IV, sections 36 through 112C pertaining to generation or merchant transmission interconnection to the Transmission System in conjunction with the applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Part VI:**

“Part VI” shall mean Tariff, Part VI, sections 200 through 237 pertaining to the queuing, study, and agreements relating to New Service Requests, and the rights associated with Customer-Funded Upgrades in conjunction with the applicable Common Service Provisions of Tariff, Part I and appropriate Schedules and Attachments.

**Parties:**

“Parties” shall mean the Transmission Provider, as administrator of the Tariff, and the Transmission Customer receiving service under the Tariff. PJMSettlement shall be the



Counterparty to Transmission Customers.

**PJM:**

“PJM” shall mean PJM Interconnection, L.L.C., including the Office of the Interconnection as referenced in the PJM Operating Agreement. When such term is being used in the RAA it shall also include the PJM Board.

**PJM Manuals:**

“PJM Manuals” shall mean the instructions, rules, procedures and guidelines established by the Office of the Interconnection for the operation, planning, and accounting requirements of the PJM Region and the PJM Interchange Energy Market.

**PJM Region:**

“PJM Region” shall have the meaning specified in the Operating Agreement.

**PJM Tariff, Tariff, O.A.T.T., OATT or PJM Open Access Transmission Tariff:**

“PJM Tariff,” “Tariff,” “O.A.T.T.,” “OATT,” or “PJM Open Access Transmission Tariff” shall mean that certain PJM Open Access Transmission Tariff, including any schedules, appendices or exhibits attached thereto, on file with FERC and as amended from time to time thereafter.

**Point of Interconnection:**

“Point of Interconnection” shall mean the point or points where the Customer Interconnection Facilities interconnect with the Transmission Owner Interconnection Facilities or the Transmission System.

**Project Finance Entity:**

“Project Finance Entity” shall mean: (a) a holder, trustee or agent for holders, of any component of Project Financing; or (b) any purchaser of capacity and/or energy produced by the Customer Facility to which Interconnection Customer has granted a mortgage or other lien as security for some or all of Interconnection Customer’s obligations under the corresponding power purchase agreement.

**Provisional Interconnection Service:**

“Provisional Interconnection Service” shall mean interconnection service provided by Transmission Provider associated with interconnecting the Interconnection Customer’s Generating Facility to Transmission Provider’s Transmission System and enabling that Transmission System to receive electric energy and capacity from the Generating Facility at the Point of Interconnection, pursuant to the terms of the Interconnection Service Agreement and, if applicable, the Tariff.

**Queue Position:**

“Queue Position” shall mean the priority assigned to an Interconnection Request, a Completed Application, or an Upgrade Request pursuant to applicable provisions of Tariff, Part VI.

**Reasonable Efforts:**

“Reasonable Efforts” shall mean, with respect to any action required to be made, attempted, or taken by an Interconnection Party or by a Construction Party under Tariff, Part IV or Tariff, Part VI, an Interconnection Service Agreement, or a Construction Service Agreement, such efforts as are timely and consistent with Good Utility Practice and with efforts that such party would undertake for the protection of its own interests.

**Regional Entity:**

“Regional Entity” shall have the same meaning specified in the Operating Agreement.

**Regional Transmission Expansion Plan:**

“Regional Transmission Expansion Plan” shall mean the plan prepared by the Office of the Interconnection pursuant to Operating Agreement, Schedule 6 for the enhancement and expansion of the Transmission System in order to meet the demands for firm transmission service in the PJM Region.

**Reliability Assurance Agreement or PJM Reliability Assurance Agreement:**

“Reliability Assurance Agreement” or “PJM Reliability Assurance Agreement” shall mean that certain Reliability Assurance Agreement Among Load Serving Entities in the PJM Region, on file with FERC as PJM Interconnection L.L.C. Rate Schedule FERC No. 44, and as amended from time to time thereafter.

**Schedule of Work:**

“Schedule of Work” shall mean that schedule attached to the Interconnection Construction Service Agreement setting forth the timing of work to be performed by the Constructing Entity pursuant to the Interconnection Construction Service Agreement, based upon the Facilities Study and subject to modification, as required, in accordance with Transmission Provider’s scope change process for interconnection projects set forth in the PJM Manuals.

**Scope of Work:**

“Scope of Work” shall mean that scope of the work attached as a schedule to the Interconnection Construction Service Agreement and to be performed by the Constructing Entity(ies) pursuant to the Interconnection Construction Service Agreement, provided that such Scope of Work may be modified, as required, in accordance with Transmission Provider’s scope change process for interconnection projects set forth in the PJM Manuals.

**Secondary Systems:**

“Secondary Systems” shall mean control or power circuits that operate below 600 volts, AC or DC, including, but not limited to, any hardware, control or protective devices, cables, conductors, electric raceways, secondary equipment panels, transducers, batteries, chargers, and voltage and current transformers.

**Security:**

“Security” shall mean the security provided by the New Service Customer pursuant to Tariff, section 212.4 or Tariff, Part VI, section 213.4 to secure the New Service Customer’s responsibility for Costs under the Interconnection Service Agreement or Upgrade Construction Service Agreement and Tariff, Part VI, section 217.

**Service Agreement:**

“Service Agreement” shall mean the initial agreement and any amendments or supplements thereto entered into by the Transmission Customer and the Transmission Provider for service under the Tariff.

**Site:**

“Site” shall mean all of the real property, including but not limited to any leased real property and easements, on which the Customer Facility is situated and/or on which the Customer Interconnection Facilities are to be located.

**State:**

“State” shall mean the District of Columbia and any State or Commonwealth of the United States.

**State of Charge:**

“State of Charge” shall mean the operating parameter that represents the quantity of physical energy stored (measured in units of megawatt-hours) in an Energy Storage Resource Model Participant in proportion to its maximum State of Charge capability. State of Charge is quantified as defined in the PJM Manuals.

**Station Power:**

“Station Power” shall mean energy used for operating the electric equipment on the site of a generation facility located in the PJM Region or for the heating, lighting, air-conditioning and office equipment needs of buildings on the site of such a generation facility that are used in the operation, maintenance, or repair of the facility. Station Power does not include any energy (i) used to power synchronous condensers; (ii) used for pumping at a pumped storage facility; (iii) used in association with restoration or black start service; or (iv) that is Direct Charging Energy.

**Surplus Interconnection Customer:**

“Surplus Interconnection Customer” shall mean either an Interconnection Customer whose Generating Facility is already interconnected to the PJM Transmission System or one of its affiliates, or an unaffiliated entity that submits a Surplus Interconnection Request to utilize Surplus Interconnection Service within the Transmission System in the PJM Region. A Surplus Interconnection Customer is not a New Service Customer.

**Surplus Interconnection Request:**

“Surplus Interconnection Request” shall mean a request submitted by a Surplus Interconnection Customer, pursuant to Tariff, Attachment RR, to utilize Surplus Interconnection Service within the Transmission System in the PJM Region. A Surplus Interconnection Request is not a New Service Request.

**Surplus Interconnection Service:**

“Surplus Interconnection Service” shall mean any unneeded portion of Interconnection Service established in an Interconnection Service Agreement, such that if Surplus Interconnection Service is utilized, the total amount of Interconnection Service at the Point of Interconnection would remain the same.

**Switching and Tagging Rules:**

“Switching and Tagging Rules” shall mean the switching and tagging procedures of Interconnected Transmission Owners and Interconnection Customer as they may be amended from time to time.

**System Impact Study:**

“System Impact Study” shall mean an assessment by the Transmission Provider of (i) the adequacy of the Transmission System to accommodate a Completed Application, an Interconnection Request or an Upgrade Request, (ii) whether any additional costs may be incurred in order to provide such transmission service or to accommodate an Interconnection Request, and (iii) with respect to an Interconnection Request, an estimated date that an Interconnection Customer’s Customer Facility can be interconnected with the Transmission System and an estimate of the Interconnection Customer’s cost responsibility for the interconnection; and (iv) with respect to an Upgrade Request, the estimated cost of the requested system upgrades or expansion, or of the cost of the system upgrades or expansion, necessary to provide the requested incremental rights.

**System Protection Facilities:**

“System Protection Facilities” shall refer to the equipment required to protect (i) the Transmission System, other delivery systems and/or other generating systems connected to the Transmission System from faults or other electrical disturbance occurring at or on the Customer Facility, and (ii)

the Customer Facility from faults or other electrical system disturbance occurring on the Transmission System or on other delivery systems and/or other generating systems to which the Transmission System is directly or indirectly connected. System Protection Facilities shall include such protective and regulating devices as are identified in the Applicable Technical Requirements and Standards or that are required by Applicable Laws and Regulations or other Applicable Standards, or as are otherwise necessary to protect personnel and equipment and to minimize deleterious effects to the Transmission System arising from the Customer Facility.

**Transmission Facilities:**

“Transmission Facilities” shall have the meaning set forth in the Operating Agreement.

**Transmission Injection Rights:**

“Transmission Injection Rights” shall mean Capacity Transmission Injection Rights and Energy Transmission Injection Rights.

**Transmission Interconnection Customer:**

“Transmission Interconnection Customer” shall mean an entity that submits an Interconnection Request to interconnect or add Merchant Transmission Facilities to the Transmission System or to increase the capacity of Merchant Transmission Facilities interconnected with the Transmission System in the PJM Region or an entity that submits an Upgrade Request for Merchant Network Upgrades (including accelerating the construction of any transmission enhancement or expansion, other than Merchant Transmission Facilities, that is included in the Regional Transmission Expansion Plan prepared pursuant to Operating Agreement, Schedule 6).

**Transmission Owner:**

“Transmission Owner” shall mean a Member that owns or leases with rights equivalent to ownership Transmission Facilities and is a signatory to the PJM Transmission Owners Agreement. Taking transmission service shall not be sufficient to qualify a Member as a Transmission Owner.

**Transmission Owner Attachment Facilities:**

“Transmission Owner Attachment Facilities” shall mean that portion of the Transmission Owner Interconnection Facilities comprised of all Attachment Facilities on the Interconnected Transmission Owner’s side of the Point of Interconnection.

**Transmission Owner Interconnection Facilities:**

“Transmission Owner Interconnection Facilities” shall mean all Interconnection Facilities that are not Customer Interconnection Facilities and that, after the transfer under Tariff, Attachment P, Appendix 2, section 5.5 to the Interconnected Transmission Owner of title to any Transmission Owner Interconnection Facilities that the Interconnection Customer constructed,

are owned, controlled, operated and maintained by the Interconnected Transmission Owner on the Interconnected Transmission Owner's side of the Point of Interconnection identified in appendices to the Interconnection Service Agreement and to the Interconnection Construction Service Agreement, including any modifications, additions or upgrades made to such facilities and equipment, that are necessary to physically and electrically interconnect the Customer Facility with the Transmission System or interconnected distribution facilities.

**Transmission Provider:**

The "Transmission Provider" shall be the Office of the Interconnection for all purposes, provided that the Transmission Owners will have the responsibility for the following specified activities:

- (a) The Office of the Interconnection shall direct the operation and coordinate the maintenance of the Transmission System, except that the Transmission Owners will continue to direct the operation and maintenance of those transmission facilities that are not listed in the PJM Designated Facilities List contained in the PJM Manual on Transmission Operations;
- (b) Each Transmission Owner shall physically operate and maintain all of the facilities that it owns; and
- (c) When studies conducted by the Office of the Interconnection indicate that enhancements or modifications to the Transmission System are necessary, the Transmission Owners shall have the responsibility, in accordance with the applicable terms of the Tariff, Operating Agreement and/or the Consolidated Transmission Owners Agreement to construct, own, and finance the needed facilities or enhancements or modifications to facilities.

**Transmission Service:**

"Transmission Service" shall mean Point-To-Point Transmission Service provided under Tariff, Part II on a firm and non-firm basis.

**Transmission System:**

"Transmission System" shall mean the facilities controlled or operated by the Transmission Provider within the PJM Region that are used to provide transmission service under Tariff, Part II and Part III.

**Transmission Withdrawal Rights:**

"Transmission Withdrawal Rights" shall mean Firm Transmission Withdrawal Rights and Non-Firm Transmission Withdrawal Rights.

## **APPENDIX 2**

### **STANDARD TERMS AND CONDITIONS FOR INTERCONNECTIONS**

## **1 Commencement, Term of and Conditions Precedent to Interconnection Service**

### **1.1 Commencement Date:**

The effective date of an Interconnection Service Agreement shall be the date provided in Section 4.0 of the Interconnection Service Agreement. Interconnection Service under this Interconnection Service Agreement shall commence upon the satisfaction of the conditions precedent set forth in Section 1.2 below.

### **1.2 Conditions Precedent:**

The following conditions must be satisfied prior to the commencement of Interconnection Service under this Interconnection Service Agreement:

(a) This Interconnection Service Agreement, if filed with FERC, shall have been accepted for filing by the FERC;

(b) All requirements for Initial Operation as specified in Section 1.4 below shall have been met and Initial Operation of the Customer Facility shall have been completed.

(c) Interconnection Customer shall be in compliance with all Applicable Technical Requirements and Standards for interconnection under the Tariff (as determined by the Transmission Provider).

### **1.3 Term:**

This Interconnection Service Agreement shall remain in full force and effect until it is terminated in accordance with Section 16 of this Appendix 2.

### **1.4 Initial Operation:**

The following requirements shall be satisfied prior to Initial Operation of the Customer Facility:

**1.4.1** The construction of all Interconnection Facilities necessary for the interconnection of the Customer Facility has been completed;

**1.4.2** The Interconnected Transmission Owner has accepted any Interconnection Facilities constructed by Interconnection Customer pursuant to the Interconnection Construction Service Agreement;

**1.4.3** The Interconnection Customer and the Interconnected Transmission Owner have all necessary systems and personnel in place to allow for parallel operation of their respective facilities;

**1.4.4** The Interconnected Transmission Owner has received all applicable documentation for the Interconnection Facilities built by the Interconnection Customer, certified as correct, including,



but not limited to, access to the field copy of marked-up drawings reflecting the as-built condition, pre-operation test reports, and instruction books; and

**1.4.5** Interconnection Customer shall have received any necessary authorization from Transmission Provider to synchronize with the Transmission System or to energize, as applicable per the determination of Transmission Provider, the Customer Facility and Interconnection Facilities.

#### **1.4A Other Interconnection Options**

##### **1.4A.1 Limited Operation:**

If any of the Transmission Owner Interconnection Facilities are not reasonably expected to be completed prior to the Interconnection Customer's planned date of Initial Operation, and provided that the Interconnected Transmission Owner has accepted the Customer Interconnection Facilities pursuant to the Interconnection Construction Service Agreement, Transmission Provider shall, upon the request and at the expense of Interconnection Customer, perform appropriate power flow or other operating studies on a timely basis to determine the extent to which the Customer Facility and the Customer Interconnection Facilities may operate prior to the completion of the Transmission Owner Interconnection Facilities consistent with Applicable Laws and Regulations, Applicable Reliability Standards, Good Utility Practice, and the Interconnection Service Agreement. In accordance with the results of such studies and subject to such conditions as Transmission Provider determines to be reasonable and appropriate, Transmission Provider shall (a) permit Interconnection Customer to operate the Customer Facility and the Customer Interconnection Facilities, and (b) grant Interconnection Customer limited, interim Interconnection Rights commensurate with the extent to which operation of the Customer Facility is permitted.

##### **1.4A.2 Provisional Interconnection Service:**

Upon the request of Interconnection Customer, and prior to completion of requisite Interconnection Facilities, Network Upgrades, Local Upgrades, or system protection facilities Interconnection Customer may request limited Interconnection Service at the discretion of Transmission Provider based upon an evaluation that will consider the results of available studies, which terms shall be memorialized in the Interconnection Service Agreement. Consistent with Tariff, Part VI, Subpart B, section 212.4, Interconnection Customer may execute the Interconnection Service Agreement, request dispute resolution or request that the Interconnection Service Agreement be filed unexecuted with the Commission. Transmission Provider shall determine, through available studies or additional studies as necessary, whether stability, short circuit, thermal, and/or voltage issues would arise if Interconnection Customer interconnects without modifications to the Generating Facility or the Transmission System. Transmission Provider shall determine whether any Interconnection Facilities, Network Upgrades, Local Upgrades, or system protection facilities that are necessary to meet the requirements of NERC, or any applicable Regional Entity for the interconnection of a new, modified and/or expanded Generating Facility are in place prior to the commencement of Interconnection Service from the Generating Facility. Where available studies indicate that such Interconnection Facilities, Network Upgrades, Local Upgrades, and/or system protection

facilities that are required for the interconnection of a new, modified and/or expanded Generating Facility are not currently in place, Transmission Provider will perform a study, at the Interconnection Customer's expense, to confirm the facilities that are required for Provisional Interconnection Service. The maximum permissible output of the Generating Facility shall be studied and updated annually and at the Interconnection Customer's expense. The results will be communicated to the Interconnection Customer in writing upon completion of the study. Interconnection Customer assumes all risk and liabilities with respect to the Provisional Interconnection Service, including changes in output limits and Interconnection Facilities, Network Upgrades, Local Upgrades, and/or system protection facilities cost responsibilities.

### **1.5 Survival:**

The Interconnection Service Agreement shall continue in effect after termination to the extent necessary to provide for final billings and payments; to permit the determination and enforcement of liability and indemnification obligations arising from acts or events that occurred while the Interconnection Service Agreement was in effect; and to permit each Interconnection Party to have access to the real property, including but not limited to leased property and easements of the other Interconnection Parties pursuant to Section 16 of this Appendix 2 to disconnect, remove or salvage its own facilities and equipment.

## **2 Interconnection Service**

### **2.1 Scope of Service:**

Interconnection Service shall be provided to the Interconnection Customer at the Point of Interconnection (a), in the case of interconnection of the Customer Facility of a Generation Interconnection Customer, up to the Maximum Facility Output, and (b), in the case of interconnection of the Customer Facility of a Transmission Interconnection Customer, up to the Nominal Rated Capability. The location of the Point of Interconnection shall be mutually agreed by the Interconnected Entities, provided, however, that if the Interconnected Entities are unable to agree on the Point of Interconnection, the Transmission Provider shall determine the Point of Interconnection, provided that Transmission Provider shall not select a Point of Interconnection that would impose excessive costs on either of the Interconnected Entities and shall take material system reliability considerations into account in such selection. Specifications for the Customer Facility and the location of the Point of Interconnection shall be set forth in an appendix to the Interconnection Service Agreement and shall conform to those stated in the Facilities Study.

### **2.2 Non-Standard Terms:**

The standard terms and conditions of this Appendix 2 shall not apply, to such extent as Transmission Provider determines to be reasonably necessary to accommodate such circumstances, in the event that the Interconnection Customer acquires an ownership interest in facilities which, under the standard terms and conditions of the Interconnection Construction Service Agreement would be part of the Transmission Owner Interconnection Facilities. In such circumstances and to the extent determined by Transmission Provider to be reasonably necessary, non-standard terms and conditions mutually agreed upon by all Interconnection Parties shall apply,

subject to FERC and any other necessary regulatory acceptance or approval. In addition, a Generation Interconnection Customer that acquires an ownership interest in such facilities shall become, and shall remain for so long as it retains such interest, a signatory to the Consolidated Transmission Owners Agreement.

### **2.3 No Transmission Services:**

The execution of an Interconnection Service Agreement does not constitute a request for transmission service, or entitle Interconnection Customer to receive transmission service, under Part II or Part III of the Tariff. Nor does the execution of an Interconnection Service Agreement obligate the Interconnected Transmission Owner or Transmission Provider to procure, supply or deliver to Interconnection Customer or the Customer Facility any energy, capacity, Ancillary Services or Station Power (and any associated distribution services).

### **2.4 Use of Distribution Facilities:**

To the extent that a Generation Interconnection Customer uses distribution facilities for the purpose of delivering energy to the Transmission System, Interconnection Service under this Tariff shall include the construction and/or use of such distribution facilities. In such cases, to such extent as Transmission Provider determines to be reasonably necessary to accommodate such circumstances, the Interconnection Service Agreement may include non-standard terms and conditions mutually agreed upon by all Interconnection Parties as needed to conform with Applicable Laws and Regulations and Applicable Standards relating to such distribution facilities.

### **2.5 Election by Behind The Meter Generation:**

In the event that a Generation Interconnection Customer's Customer Facility is Behind The Meter Generation, the Generation Interconnection Customer may elect from time to time, subject to the terms of this section, whether to operate all or a portion of its Customer Facility's generating capacity as a Capacity Resource under the Tariff and the Operating Agreement.

#### **2.5.1 Capacity Resource Election:**

The Generation Interconnection Customer may elect to operate all or a portion of its Customer Facility as a Capacity Resource only to the extent that the Interconnection Service Agreement grants Capacity Interconnection Rights. Such an election may include all or any portion of the Customer Facility's capacity for which Capacity Interconnection Rights have been granted.

#### **2.5.2 Timing and Duration of Election:**

The Generation Interconnection Customer shall make an initial election under this section no later than 30 days prior to the commencement of Interconnection Service. Thereafter, the Generation Interconnection Customer may make the election authorized by this Section 2.5 only once in each calendar year and must notify Transmission Provider of such an election no later than May 1, and no sooner than March 15, of each year. Each such election shall be effective commencing on June 1 following Transmission Provider's receipt of notice of the election. An election under this

Section 2.5 shall remain in effect unless and until the Generation Interconnection Customer modifies or terminates it in a subsequent election made in accordance with the terms of this section.

### **3 Modification Of Facilities**

#### **3.1 General:**

Subject to Applicable Laws and Regulations and to any applicable requirements or conditions of the Tariff and the Operating Agreement, either Interconnected Entity may undertake modifications to its facilities. In the event that an Interconnected Entity plans to undertake a modification that reasonably may be expected upon completion to have a permanent material impact on the other Interconnected Entity's facilities, that Interconnected Entity, in accordance with Good Utility Practice, shall provide the other Interconnection Parties with sufficient information regarding such modification, so that the other Interconnection Parties may evaluate the potential impact of such modification prior to commencement of the work. The Interconnected Entity desiring to perform such modification shall provide the relevant drawings, plans, and specifications to the other Interconnection Parties at least ninety days, or such shorter period to which the Interconnection Parties receiving the information may agree (which agreement shall not unreasonably be withheld, conditioned, or delayed), in advance of the beginning of the work. The Interconnection Customer shall notify Transmission Provider and Interconnected Transmission Owner of the proposed modifications and Transmission Provider shall provide, within sixty days of receipt of the relevant drawings and specifications (or within such other time upon which the Interconnection Parties may agree), an estimate of any modifications to the Transmission System that would be necessary to accommodate the proposed modifications by Interconnection Customer and a good faith estimate of the costs thereof.

#### **3.2 Interconnection Request:**

This Section 3 shall not apply to any proposed modifications by Interconnection Customer to its facilities for which Interconnection Customer must make an Interconnection Request under the Tariff. In such circumstances, the Interconnection Customer and Transmission Provider shall follow the requirements of Subpart A of Part IV of the Tariff.

#### **3.3 Standards:**

Any additions, modifications, or replacements made to an Interconnected Entity's facilities shall be constructed and operated in accordance with Good Utility Practice, Applicable Standards and Applicable Laws and Regulations.

#### **3.4 Modification Costs:**

Unless otherwise required by Applicable Laws and Regulations or this Appendix 2 and, with respect to a Transmission Interconnection Customer, subject to the terms of Section 236.2 of the Tariff:

(a) Interconnection Customer shall not be responsible for the costs of any additions, modifications, or replacements that the Interconnected Transmission Owner in its discretion or at the direction of Transmission Provider makes to the Interconnection Facilities or the Transmission System in order to facilitate the interconnection of a third party to the Interconnection Facilities or the Transmission System, or to provide transmission service under the Tariff to a third party.

(b) Interconnection Customer shall be responsible for the costs of any additions, modifications, or replacements to the Interconnection Facilities or the Transmission System that are required, in accord with Good Utility Practice and/or to maintain compliance with Applicable Laws and Regulations or Applicable Standards, in order to accommodate additions, modifications, or replacements made by Interconnection Customer to the Customer Facility or to the Customer Interconnection Facilities.

(c) Interconnection Customer shall be responsible for the costs of any additions, modifications, or replacements to the Customer Interconnection Facilities or the Customer Facility that are required, in accord with Good Utility Practice and/or to maintain compliance with Applicable Laws and Regulations or Applicable Standards, in order to accommodate additions, modifications, or replacements that Transmission Provider or the Interconnected Transmission Owner makes to the Transmission System or to the Transmission Owner Interconnection Facilities, but only to the extent that Transmission Provider's or the Interconnected Transmission Owner's changes to the Transmission System or the Transmission Owner Interconnection Facilities are made pursuant to Good Utility Practice and/or to maintain compliance with Applicable Laws and Regulations or Applicable Standards.

## **4 Operations**

### **4.1 General:**

Each Interconnected Entity shall operate, or shall cause operation of, its facilities in a safe and reliable manner in accord with (i) the terms of this Appendix 2; (ii) Applicable Standards; (iii) applicable rules, procedures and protocols set forth in the Tariff and the Operating Agreement, as any or all may be amended from time to time; (iv) Applicable Laws and Regulations, and (v) Good Utility Practice.

#### **4.1.1 Interconnection Customer Drawings:**

Within one hundred twenty (120) days after the date of Initial Operation, unless the Interconnection Parties agree on another mutually acceptable deadline, the Interconnection Customer shall deliver to the Transmission Provider and the Interconnected Transmission Owner final, "as-built" drawings, information and documents regarding the Customer Interconnection Facilities, including, as and to the extent applicable: a one-line diagram, a site plan showing the Customer Facility and the Customer Interconnection Facilities, plan and elevation drawings showing the layout of the Customer Interconnection Facilities, a relay functional diagram, relaying AC and DC schematic wiring diagrams and relay settings for all facilities associated with the Interconnection Customer's step-up transformers, the facilities connecting the Customer Facility to the step-up transformers and the Customer Interconnection Facilities, and the impedances

(determined by factory tests) for the associated step-up transformers and the Customer Facility. As applicable, the Interconnection Customer shall provide Transmission Provider and the Interconnected Transmission Owner specifications for the excitation system, automatic voltage regulator, Customer Facility control and protection settings, transformer tap settings, and communications.

#### **4.2 [Reserved.]**

#### **4.3 Interconnection Customer Obligations:**

Interconnection Customer shall obtain Transmission Provider's approval prior to either synchronizing with the Transmission System or energizing, as applicable per the determination of Transmission Provider, the Customer Facility or, except in an Emergency Condition, disconnecting the Customer Facility from the Transmission System, and shall coordinate such synchronizations, energizations, and disconnections with the Interconnected Transmission Owner.

#### **4.4 Transmission Interconnection Customer Obligations:**

A Transmission Interconnection Customer that will be a Merchant Transmission Provider is subject to the terms and conditions in Tariff, Section 38.

#### **4.5 Permits and Rights-of-Way:**

Each Interconnected Entity at its own expense shall maintain in full force and effect all permits, licenses, rights-of-way and other authorizations as may be required to maintain the Customer Facility and the Interconnection Facilities that the entity owns, operates and maintains and, upon reasonable request of the other Interconnected Entity, shall provide copies of such permits, licenses, rights-of-way and other authorizations at its own expense to the requesting party.

#### **4.6 No Ancillary Services:**

Except as provided in Section 4.7 of this Appendix 2, nothing in this Appendix 2 is intended to obligate the Interconnection Customer to supply Ancillary Services to either Transmission Provider or the Interconnected Transmission Owner.

#### **4.7 Reactive Power and Primary Frequency Response**

##### **4.7.1 Reactive Power**

##### **4.7.1.1 Reactive Power Design Criteria**

##### **4.7.1.1.1 New Facilities:**

For all new Generating Facilities to be interconnected pursuant to the Tariff, other than wind-powered and other non-synchronous generation facilities, the Generation Interconnection Customer shall design its Customer Facility to maintain a composite power delivery at continuous



rated power output at a power factor of at least 0.95 leading to 0.90 lagging. For all new wind-powered and other non-synchronous generation facilities the Generation Interconnection Customer shall design its Customer Facility with the ability to maintain a composite power delivery at a power factor of at least 0.95 leading to 0.95 lagging across the full range of continuous rated power output. For all wind-powered and other non-synchronous generation facilities entering the New Service Queue on or after November 1, 2016, the power factor requirement shall be measured at the high-side of the facility substation transformers. This power factor range standard shall be dynamic and can be met using, for example, power electronics designed to supply this level of reactive capability (taking into account any limitations due to voltage level, real power output, etc.) or fixed and switched capacitors, or a combination of the two. For all wind-powered and other non-synchronous generation facilities entering the New Service Queue on or after May 1, 2015, and before November 1, 2016, the power factor requirement shall be measured at the generator's terminals. For new generation resources of more than 20 MW, other than wind-powered and other non-synchronous Generating Facilities, the power factor requirement shall be measured at the generator's terminals. For new generation resources of 20 MW or less, and all wind-powered and other non-synchronous generation facilities entering the New Service Queue prior to May 1, 2015, the power factor requirement shall be measured at the Point of Interconnection. Any different reactive power design criteria that Transmission Provider determines to be appropriate for a wind-powered or other non-synchronous generation facility shall be stated in the Interconnection Service Agreement. A Transmission Interconnection Customer interconnecting Merchant D.C. Transmission Facilities and/ or Controllable A.C. Merchant Transmission Facilities shall design its Customer Facility to maintain a power factor at the Point of Interconnection of at least 0.95 leading and 0.95 lagging, when the Customer Facility is operating at any level within its approved operating range.

#### **4.7.1.1.2 Increases in Generating Capacity or Energy Output:**

All increases in the capacity or energy output of any generation facility interconnected with the Transmission System, other than wind-powered and other non-synchronous Generating Facilities, shall be designed with the ability to maintain a composite power delivery at continuous rated power output at a power factor for all incremental MW of capacity or energy output, of at least 1.0 (unity) to 0.90 lagging. Wind-powered generation facilities and other non-synchronous generation facilities entering the New Service Queue on or after November 1, 2016, shall be designed with the ability to maintain a composite power delivery at a power factor for all incremental MW of capacity or energy output of at least 0.95 leading to 0.95 lagging measured at the high-side of the facility substation transformers across the full range of continuous rated power output. This power factor range standard shall be dynamic and can be met using, for example, power electronics designed to supply this level of reactive capability (taking into account any limitations due to voltage level, real power output, etc.) or fixed and switched capacitors, or a combination of the two. Wind-powered generation facilities and other non-synchronous generation facilities entering the New Service Queue on or after May 1, 2015, and before November 1, 2016, shall be designed with the ability to maintain a composite power delivery at a power factor for all incremental MW of capacity or energy output, of at least 0.95 leading to 0.95 lagging measured at the generator's terminals under conditions in which a wind-powered generation facility's real power output exceeds 25 percent of its continuous rated power output and, for all other non-synchronous generation facilities, across the full range of continuous rated power output. Wind-powered

generation facilities and other non-synchronous generation facilities entering the New Service Queue prior to May 1, 2015 shall be designed with the ability to maintain a composite power delivery at continuous rated power output at a power factor for all incremental MW of capacity of energy output of at least 1.0 (unity) to 0.95 lagging measured at the generator's terminals. The power factor requirement associated with increases in capacity or energy output of more than 20 MW to synchronous generation facilities interconnected with the Transmission System shall be measured at the generator's terminals. The power factor requirement associated with increases in capacity or energy output of 20 MW or less to synchronous generation facilities interconnected to the Transmission System shall be measured at the Point of Interconnection.

#### **4.7.1.2 Obligation to Supply Reactive Power:**

Interconnection Customer agrees, as and when so directed by Transmission Provider or when so directed by the Interconnected Transmission Owner acting on behalf or at the direction of Transmission Provider, to operate the Customer Facility to produce reactive power within the design limitations of the Customer Facility pursuant to voltage schedules, reactive power schedules or power factor schedules established by Transmission Provider or, as appropriate, the Interconnected Transmission Owner. Transmission Provider shall maintain oversight over such schedules to ensure that all sources of reactive power in the PJM Region, as applicable, are treated in an equitable and not unduly discriminatory manner. Interconnection Customer agrees that Transmission Provider and the Interconnected Transmission Owner, acting on behalf or at the direction of Transmission Provider, may make changes to the schedules that they respectively establish as necessary to maintain the reliability of the Transmission System.

#### **4.7.1.3 Deviations from Schedules:**

In the event that operation of the Customer Facility of an Interconnection Customer causes the Transmission System or the Interconnected Transmission Owner's facilities to deviate from appropriate voltage schedules and/or reactive power schedules as specified by Transmission Provider or the Interconnected Transmission Owner's operations control center (acting on behalf or at the direction of Transmission Provider), or that otherwise is inconsistent with Good Utility Practice and results in an unreasonable deterioration of the quality of electric service to other customers of Transmission Provider or the Interconnected Transmission Owner, the Interconnection Customer shall, upon discovery of the problem or upon notice from Transmission Provider or the Interconnected Transmission Owner, acting on behalf or at the direction of Transmission Provider, take whatever steps are reasonably necessary to alleviate the situation at its expense, in accord with Good Utility Practice and within the reactive capability of the Customer Facility. In the event that the Interconnection Customer does not alleviate the situation within a reasonable period of time following Transmission Provider's or the Interconnected Transmission Owner's notice thereof, the Interconnected Transmission Owner, with Transmission Provider's approval, upon notice to the Interconnection Customer and at the Interconnection Customer's expense, may take appropriate action, including installation on the Transmission System of power factor correction or other equipment, as is reasonably required, consistent with Good Utility Practice, to remedy the situation cited in Transmission Provider's or the Interconnected Transmission Owner's notice to the Interconnection Customer under this section.



#### **4.7.1.4 Payment for Reactive Power:**

Any payments to the Interconnection Customer for reactive power shall be in accordance with Schedule 2 of the Tariff.

#### **4.7.2 Primary Frequency Response:**

Section 4.7.2 of this ISA and its subsections apply to New Service Requests received on or after October 1, 2018.

Generation Interconnection Customer shall ensure the primary frequency response capability of its Customer Facility by installing, maintaining, and operating a functioning governor or equivalent controls. The term “functioning governor or equivalent controls” as used herein shall mean the required hardware and/or software that provides frequency responsive real power control with the ability to sense changes in system frequency and autonomously adjust the Customer Facility’s real power output in accordance with the droop and deadband parameters and in the direction needed to correct frequency deviations. Generation Interconnection Customer is required to install a governor or equivalent controls with the capability of operating: (1) with a maximum 5 percent droop and  $\pm 0.036$  Hz deadband; or (2) in accordance with the relevant droop, deadband, and timely and sustained response settings from an approved NERC Reliability Standard providing for equivalent or more stringent parameters. The droop characteristic shall be: (1) based on the nameplate capacity of the Customer Facility, and shall be linear in the range of frequencies between 59 to 61 Hz that are outside of the deadband parameter; or (2) based on an approved NERC Reliability Standard providing for an equivalent or more stringent parameter. The deadband parameter shall be: the range of frequencies above and below nominal (60 Hz) in which the governor or equivalent controls is not expected to adjust the Customer Facility’s real power output in response to frequency deviations. The deadband shall be implemented: (1) without a step to the droop curve, that is, once the frequency deviation exceeds the deadband parameter, the expected change in the Customer Facility’s real power output in response to frequency deviations shall start from zero and then increase (for under-frequency deviations) or decrease (for over-frequency deviations) linearly in proportion to the magnitude of the frequency deviation; or (2) in accordance with an approved NERC Reliability Standard providing for an equivalent or more stringent parameter. Generation Interconnection Customer shall notify Transmission Provider that the primary frequency response capability of the Customer Facility has been tested and confirmed during commissioning. Once Generation Interconnection Customer has synchronized the Customer Facility with the Transmission System, Generation Interconnection Customer shall operate the Customer Facility consistent with the provisions specified in sections 4.7.2.1 and 4.7.2.2 of this agreement. The primary frequency response requirements contained herein shall apply to both synchronous and non-synchronous Customer Facilities.

#### **4.7.2.1 Governor or Equivalent Controls:**

Whenever the Customer Facility is operated in parallel with the Transmission System, Generation Interconnection Customer shall operate the Customer Facility with its governor or equivalent controls in service and responsive to frequency. Generation Interconnection Customer shall: (1) in coordination with Transmission Provider and/or the relevant balancing authority, set the deadband parameter to: (1) a maximum of  $\pm 0.036$  Hz and set the droop parameter to a maximum of 5 percent; or (2) implement the relevant droop and deadband settings from an approved NERC

Reliability Standard that provides for equivalent or more stringent parameters. Generation Interconnection Customer shall be required to provide the status and settings of the governor or equivalent controls to Transmission Provider and/or the relevant balancing authority upon request. If Generation Interconnection Customer needs to operate the Customer Facility with its governor or equivalent controls not in service, Generation Interconnection Customer shall immediately notify Transmission Provider and the relevant balancing authority, and provide both with the following information: (1) the operating status of the governor or equivalent controls (i.e., whether it is currently out of service or when it will be taken out of service); (2) the reasons for removing the governor or equivalent controls from service; and (3) a reasonable estimate of when the governor or equivalent controls will be returned to service. Generation Interconnection Customer shall make Reasonable Efforts to return its governor or equivalent controls into service as soon as practicable. Generation Interconnection Customer shall make Reasonable Efforts to keep outages of the Customer Facility's governor or equivalent controls to a minimum whenever the Customer Facility is operated in parallel with the Transmission System.

#### **4.7.2.2 Timely and Sustained Response:**

Generation Interconnection Customer shall ensure that the Customer Facility's real power response to sustained frequency deviations outside of the deadband setting is automatically provided and shall begin immediately after frequency deviates outside of the deadband, and to the extent the Customer Facility has operating capability in the direction needed to correct the frequency deviation. Generation Interconnection Customer shall not block or otherwise inhibit the ability of the governor or equivalent controls to respond and shall ensure that the response is not inhibited, except under certain operational constraints including, but not limited to, ambient temperature limitations, physical energy limitations, outages of mechanical equipment, or regulatory requirements. The Customer Facility shall sustain the real power response at least until system frequency returns to a value within the deadband setting of the governor or equivalent controls. A Commission-approved Reliability Standard with equivalent or more stringent requirements shall supersede the above requirements.

#### **4.7.2.3 Exemptions:**

Customer Facilities that are regulated by the United States Nuclear Regulatory Commission shall be exempt from sections 4.7.2, 4.7.2.1, and 4.7.2.2 of this agreement. Customer Facilities that are behind the meter generation that is sized-to-load (i.e., the thermal load and the generation are near-balanced in real-time operation and the generation is primarily controlled to maintain the unique thermal, chemical, or mechanical output necessary for the operating requirements of its host facility) shall be required to install primary frequency response capability in accordance with the droop and deadband capability requirements specified in section 4.7.2, but shall be otherwise exempt from the operating requirements in sections 4.7.2, 4.7.2.1, 4.7.2.2, and 4.7.2.4 of this agreement.

#### **4.7.2.4 Energy Storage Resources:**

Generation Interconnection Customer interconnecting an Energy Storage Resource shall establish an operating range in Schedule I of this ISA that specifies a minimum state of charge and a

maximum state of charge between which the Energy Storage Resource will be required to provide primary frequency response consistent with the conditions set forth in sections 4.7.2, 4.7.2.1, 4.7.2.2, and 4.7.2.3 of this agreement. Schedule I shall specify whether the operating range is static or dynamic, and shall consider (1) the expected magnitude of frequency deviations in the interconnection; (2) the expected duration that system frequency will remain outside of the deadband parameter in the interconnection; (3) the expected incidence of frequency deviations outside of the deadband parameter in the interconnection; (4) the physical capabilities of the Energy Storage Resource; (5) operational limitations of the Energy Storage Resource due to manufacturer specifications; and (6) any other relevant factors agreed to by Transmission Provider and Generation Interconnection Customer, and in consultation with the relevant transmission owner or balancing authority as appropriate. If the operating range is dynamic, then Schedule I must establish how frequently the operating range will be reevaluated and the factors that may be considered during its reevaluation.

Generation Interconnection Customer's Energy Storage Resource is required to provide timely and sustained primary frequency response consistent with section 4.7.2.2 of this agreement when it is online and dispatched to inject electricity to the Transmission System and/or receive electricity from the Transmission System. This excludes circumstances when the Energy Storage Resource is not dispatched to inject electricity to the Transmission System and/or dispatched to receive electricity from the Transmission System. If Generation Interconnection Customer's Energy Storage Resource is charging at the time of a frequency deviation outside of its deadband parameter, it is to increase (for over-frequency deviations) or decrease (for under-frequency deviations) the rate at which it is charging in accordance with its droop parameter. Generation Interconnection Customer's Energy Storage Resource is not required to change from charging to discharging, or vice versa, unless the response necessitated by the droop and deadband settings requires it to do so and it is technically capable of making such a transition.

#### **4.8 Under- and Over-Frequency and Under- and Over- Voltage Conditions:**

The Generation Interconnection Customer shall ensure "frequency ride through" capability and "voltage ride through" capability of its Customer Facility. The Generation Interconnection Customer shall enable these capabilities such that its Customer Facility shall not disconnect automatically or instantaneously from the system or equipment of the Transmission Provider and any Affected Systems for a defined under-frequency or over-frequency condition, or an under-voltage or over-voltage condition, as tested pursuant to Section 1.4.4 of Appendix 2 of this Interconnection Service Agreement. The defined conditions shall be in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other Generating Facilities in the PJM Region on a comparable basis. The Customer Facility's protective equipment settings shall comply with the Transmission Provider's automatic load-shed program. The Transmission Provider shall review the protective equipment settings to confirm compliance with the automatic load-shed program. The term "ride through" as used herein shall mean the ability of a Customer Facility to stay connected to and synchronized with the system or equipment of the Transmission Provider and any Affected Systems during system disturbances within a range of conditions, in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other Generating Facilities in the Balancing Authority on a comparable basis. The term "frequency ride through" as used herein

shall mean the ability of a Generation Interconnection Customer's Customer Facility Customer Facility to stay connected to and synchronized with the Transmission System or equipment of the Transmission Provider and any Affected Systems during system disturbances within a range of under-frequency and over-frequency conditions, in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other Generating Facilities in the PJM Region on a comparable basis. The term "voltage ride through" as used herein shall mean the ability of a Customer Facility to stay connected to and synchronized with the system or equipment of the Transmission Provider and any Affected Systems during system disturbances within a range of under-voltage and over-voltage conditions, in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other Generating Facilities in the PJM Region on a comparable basis.

The Transmission System is designed to automatically activate a load-shed program as required by NERC and each Applicable Regional Entity in the event of an under-frequency system disturbance. A Generation Interconnection Customer shall implement under-frequency and over-frequency relay set points for the Customer Facility as required by NERC and each Applicable Regional Entity to ensure "frequency ride through" capability of the Transmission System. The response of a Generation Interconnection Customer's Customer Facility to frequency deviations of predetermined magnitudes, both under-frequency and over-frequency deviations shall be studied and coordinated with the Transmission Provider in accordance with Good Utility Practice.

#### **4.9 System Protection and Power Quality**

##### **4.9.1 System Protection:**

Interconnection Customer shall, at its expense, install, operate and maintain such System Protection Facilities as may be required in connection with operation of the Customer Facility and the Customer Interconnection Facilities consistent with Applicable Technical Requirements and Standards. Interconnected Transmission Owner shall install any System Protection Facilities that may be required, as determined by Transmission Provider, on the Transmission Owner Interconnection Facilities or the Transmission System in connection with the operation of the Customer Facility and the Customer Interconnection Facilities. Responsibility for the cost of any System Protection Facilities required on the Transmission Owner Interconnection Facilities or the Transmission System shall be allocated as provided in Section 217 of the Tariff.

##### **4.9.2 Power Quality:**

The Customer Facility and Customer Interconnection Facilities shall not cause excessive deviations from the power quality criteria set forth in the Applicable Technical Requirements and Standards.

##### **4.10 Access Rights:**

Each Interconnected Entity shall provide the other Interconnected Entity access to areas under its control as reasonably necessary to permit the other Interconnected Entity to perform its obligations

under this Appendix 2, including operation and maintenance obligations. An Interconnected Entity that obtains such access shall comply with all safety rules applicable to the area to which access is obtained. Each Interconnected Entity agrees to inform the other Interconnected Entity's representatives of safety rules applicable to an area.

#### **4.11 Switching and Tagging Rules:**

The Interconnected Entities shall comply with applicable Switching and Tagging Rules in obtaining clearances for work or for switching operations on equipment. Such Switching and Tagging Rules shall be developed in accordance with OSHA standards codified at 29 C.F.R. Part 1910, or successor standards. Each Interconnected Entity shall provide the other Interconnected Entity a copy of its Switching and Tagging Rules that are applicable to the other Interconnected Entity's activities.

#### **4.12 Communications and Data Protocol:**

The Interconnected Entities shall comply with any communications and data protocol that the Transmission Provider may establish.

#### **4.13 Nuclear Generating Facilities:**

In the event that the Customer Facility is a nuclear Generating Facility, the Interconnection Parties shall agree to such non-standard terms and conditions as are reasonably necessary to accommodate the Interconnection Customer's satisfaction of Nuclear Regulatory Commission requirements relating to the safety and reliability of operations of such facilities.

### **5 Maintenance**

#### **5.1 General:**

Each Interconnected Entity shall maintain, or shall cause the maintenance of, its facilities in a safe and reliable manner in accord with (i) the terms of this Appendix 2; (ii) Applicable Standards; (iii) applicable rules, procedures and protocols set forth in the Tariff and the Operating Agreement, as any or all may be amended from time to time; (iv) Applicable Laws and Regulations, and (v) Good Utility Practice.

#### **5.2 [Reserved.]**

#### **5.3 Outage Authority and Coordination**

##### **5.3.1 Coordination:**

The Interconnection Parties agree to confer regularly to coordinate the planning, scheduling and performance of preventive and corrective maintenance on the Customer Facility, the Customer Interconnection Facilities and any Attachment Facilities owned by the Interconnected Transmission Owner.

### **5.3.2 Authority:**

Each Interconnected Entity may, in accordance with Good Utility Practice, remove from service its facilities that may affect the other Interconnected Entity's facilities in order to perform maintenance or testing or to install or replace equipment. Except in the event of an Emergency Condition, the Interconnection Customer proposing to remove such facilities from service shall provide prior notice of such activities to the Transmission Provider and the Interconnected Transmission Owner, and the Interconnected Entities shall coordinate all scheduling of planned facility outages with Transmission Provider, in accordance with applicable sections of the Operating Agreement, the PJM Manuals and any other applicable operating guidelines or directives of the Transmission Provider. Subject to the foregoing, the Interconnected Entity scheduling a facility outage shall use Reasonable Efforts to coordinate such outage with the other Interconnected Entity's scheduled outages.

### **5.3.3 Outages Required for Maintenance:**

Subject to any necessary approval by Transmission Provider, each Interconnected Entity shall provide necessary equipment outages to allow the other Interconnected Entity to perform periodic maintenance, repair or replacement of its facilities and such outages shall be provided at mutually agreeable times, unless conditions arise which an Interconnected Entity believes, in accordance with Good Utility Practice, may endanger persons or property.

### **5.3.4 Rescheduling of Planned Outages:**

To the extent so provided by the Tariff, the Operating Agreement, and the PJM Manuals, an Interconnected Entity may seek compensation from Transmission Provider for any costs related to rejection by Transmission Provider of a request of such Interconnected Entity for a planned maintenance outage.

### **5.3.5 Outage Restoration:**

If an outage on an Interconnected Entity's facilities adversely affects the other Interconnected Entity's facilities, the Interconnected Entity that owns or controls the facility that is out of service shall use Reasonable Efforts to restore the facility to service promptly.

### **5.4 Inspections and Testing:**

Each Interconnected Entity shall perform routine inspection and testing of its facilities and equipment in accordance with Good Utility Practice as may be necessary to ensure the continued interconnection of the Customer Facility with the Transmission System in a safe and reliable manner. Each Interconnected Entity shall have the right, upon advance written notice, to request reasonable additional testing of an Interconnected Entity's facilities for good cause, as may be in accordance with Good Utility Practice.

### **5.5 Right to Observe Testing:**



Each Interconnected Entity shall notify the other Interconnected Entity in advance of its performance of tests of its portion of the Interconnection Facilities. The other Interconnected Entity shall, at its own expense, have the right, but not the obligation, to:

- (a) Observe the other Party's tests and/or inspection of any of its system protection facilities and other protective equipment, including power system stabilizers;
- (b) Review the settings of the other Party's system protection facilities and other protective equipment;
- (c) Review the other Party's maintenance record relative to the Interconnection Facilities, system protection facilities and other protective equipment; and
- (d) Exercise these rights from time to time as it deems necessary upon reasonable notice to the other Party.

#### **5.6 Secondary Systems:**

Each Interconnected Entity agrees to cooperate with the other in the inspection, maintenance, and testing of those Secondary Systems directly affecting the operation of an Interconnected Entity's facilities and equipment which may reasonably be expected to affect the other Interconnected Entity's facilities. Each Interconnected Entity shall provide advance notice to the other Interconnected Entity before undertaking any work on such equipment, especially in electrical circuits involving circuit breaker trip and close contacts, current transformers, or potential transformers.

#### **5.7 Access Rights:**

Each Interconnected Entity shall provide the other Interconnected Entity access to areas under its control as reasonably necessary to permit the other Interconnected Entity to perform its obligations under this Appendix 2, including operation and maintenance obligations. An Interconnected Entity that obtains such access shall comply with all safety rules applicable to the area to which access is obtained. Each Interconnected Entity agrees to inform the other Interconnected Entity's representatives of safety rules applicable to an area.

#### **5.8 Observation of Deficiencies:**

If an Interconnection Party observes any Abnormal Condition on, or becomes aware of a lack of scheduled maintenance and testing with respect to, an Interconnection Party's facilities and equipment that might reasonably be expected to adversely affect the observing Interconnection Party's facilities and equipment, the observing Interconnection Party shall provide prompt notice under the circumstances to the appropriate Interconnection Party, and such Interconnection Party shall consider such notice in accordance with Good Utility Practice. Any Interconnection Party's review, inspection, and approval related to the other Interconnection Party's facilities and equipment shall be limited to the purpose of assessing the safety, reliability, protection and control

of the Transmission System and shall not be construed as confirming or endorsing the design of such facilities and equipment, or as a warranty of any type, including safety, durability or reliability thereof. Notwithstanding the foregoing, the observing Interconnection Party shall have no liability whatsoever for failure to give a deficiency notice to the other Interconnection Party and the Interconnected Entity that owns the relevant Interconnection Facilities shall remain fully liable for its failure to determine and correct deficiencies and defects in its facilities and equipment.

## **6 Emergency Operations**

### **6.1 Obligations:**

Subject to Applicable Laws and Regulations, each Interconnection Party shall comply with the Emergency Condition procedures of NERC, the Applicable Regional Entity, Transmission Provider, the Interconnected Transmission Owner and Interconnection Customer.

### **6.2 Notice:**

Each Interconnection Party shall notify the other parties promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect operation of the Customer Facility, the Customer Interconnection Facilities, the Transmission Owner Interconnection Facilities, or the Transmission System. To the extent information is known, the notification shall describe the Emergency Condition, the extent of the damage or deficiency, the expected effect on the facilities and/or operation thereof, its anticipated duration and the corrective action taken and/or to be taken. The initial notice shall be followed as soon as practicable with written notice.

### **6.3 Immediate Action:**

An Interconnection Party becoming aware of an Emergency Condition may take such action, including disconnection of the Customer Facility from the Transmission System, as is reasonable and necessary in accord with Good Utility Practice (i) to prevent, avoid, or mitigate injury or danger to, or loss of, life or property; (ii) to preserve the reliability of, in the case of Interconnection Customer, the Customer Facility, or, in the case of Transmission Provider or the Interconnected Transmission Owner, the Transmission System and interconnected sub-transmission and distribution facilities; or (iii) to expedite restoration of service. Unless, in Interconnection Customer's reasonable judgment, immediate action is required to prevent imminent loss of life or property, Interconnection Customer shall obtain the consent of Transmission Provider and the Interconnected Transmission Owner prior to performing any manual switching operations at the Customer Facility or the Generation Interconnection Facilities. Each Interconnection Party shall use Reasonable Efforts to minimize the effect of its actions during an Emergency Condition on the facilities and operations of the other Interconnection Parties.

### **6.4 Record-Keeping Obligations:**

Each Interconnection Party shall keep and maintain records of actions taken during an Emergency Condition that may reasonably be expected to affect the other parties' facilities and make such records available for audit in accordance with Section 19.3 of this Appendix 2.



## **7 Safety**

### **7.1 General:**

Each Interconnected Entity shall perform all work under this Appendix 2 that may reasonably be expected to affect the other Interconnected Entity in accordance with Good Utility Practice and all Applicable Laws and Regulations pertaining to the safety of persons or property. An Interconnected Entity performing work within the boundaries of the other Interconnected Entity's facilities must abide by the safety rules applicable to the site. Each party agrees to inform the other party's representatives of applicable safety rules that must be obeyed on the premises.

### **7.2 Environmental Releases:**

Each Interconnected Entity shall notify the other Interconnection Parties, first orally and promptly thereafter in writing, of the release of any Hazardous Substances, any asbestos or lead abatement activities, or any type of remediation activities, related to the Customer Facility or the Interconnection Facilities, any of which may reasonably be expected to affect one or both of the other parties. The notifying party shall (i) provide the notice as soon as possible; (ii) make a good faith effort to provide the notice within twenty-four (24) hours after the party becomes aware of the occurrence; and (iii) promptly furnish to the other parties copies of any publicly available reports filed with any governmental agencies addressing such events.

## **8 Metering**

### **8.1 General:**

Interconnection Customer shall have the right to install, own, operate, test and maintain the necessary Metering Equipment. In the event that Interconnection Customer exercises this option, the Interconnected Transmission Owner shall have the right to install its own check meter(s), at its own expense, at or near the location of the Metering Equipment. If both Interconnection Customer and Interconnected Transmission Owner install meters, the meter installed by the Interconnection Customer shall control unless it is determined by testing to be inaccurate. If the Interconnection Customer does not exercise the option provided by the first sentence of this section, the Interconnected Transmission Owner shall have the option to install, own, operate, test and maintain all necessary Metering Equipment at Interconnection Customer's expense. If the Interconnected Transmission Owner does not exercise this option, the Interconnection Customer shall install, own, operate, test and maintain all necessary Metering Equipment. Transmission Provider shall determine the location where the Metering Equipment shall be installed, after consulting with Interconnection Customer and the Interconnected Transmission Owner. All Metering Equipment shall be tested prior to any operation of the Customer Facility. Power flows to and from the Customer Facility shall be compensated to the Point of Interconnection, or, upon the mutual agreement of the Interconnected Transmission Owner and the Interconnection Customer, to another location.

### **8.2 Standards:**

All Metering Equipment installed pursuant to this Appendix 2 to be used for billing and payments shall be revenue quality Metering Equipment and shall satisfy applicable ANSI standards and Transmission Provider's metering standards and requirements. Nothing in this Appendix 2 precludes the use of Metering Equipment for any retail services of the Interconnected Transmission Owner provided, however, that in such circumstances Applicable Laws and Regulations shall control.

### **8.3 Testing of Metering Equipment:**

The Interconnected Entity that, pursuant to Section 8.1 of this Appendix 2, owns the Metering Equipment shall operate, maintain, inspect and test all Metering Equipment upon installation and at least once every two years thereafter. Upon reasonable request by the other Interconnected Entity, the owner of the Metering Equipment shall inspect or test the Metering Equipment more frequently than every two years, but in no event more frequently than three times in any 24-month period. The owner of the Metering Equipment shall give reasonable notice to the Interconnection Parties of the time when any inspection or test of the owner's Metering Equipment shall take place, and the other parties may have representatives present at the test or inspection. If Metering Equipment is found to be inaccurate or defective, it shall be adjusted, repaired or replaced in order to provide accurate metering. Where the Interconnected Transmission Owner owns the Metering Equipment, the expense of such adjustment, repair or replacement shall be borne by the Interconnection Customer, except that the Interconnection Customer shall not be responsible for such expenses where the inaccuracy or defect is caused by the Interconnected Transmission Owner. If Metering Equipment fails to register, or if the measurement made by Metering Equipment during a test varies by more than one percent from the measurement made by the standard meter used in the test, the owner of the Metering Equipment shall inform Transmission Provider, and the Transmission Provider shall inform the other Interconnected Entity, of the need to correct all measurements made by the inaccurate meter for the period during which the inaccurate measurements were made, if the period can be determined. If the period of inaccurate measurement cannot be determined, the correction shall be for the period immediately preceding the test of the Metering Equipment that is equal to one-half of the time from the date of the last previous test of the Metering Equipment, provided that the period subject to correction shall not exceed nine (9) months.

### **8.4 Metering Data:**

At Interconnection Customer's expense, the metered data shall be telemetered (a) to a location designated by Transmission Provider; (b) to a location designated by the Interconnected Transmission Owner, unless the Interconnected Transmission Owner agrees otherwise; and (c) to a location designated by Interconnection Customer. Data from the Metering Equipment at the Point of Interconnection shall be used, under normal operating conditions, as the official measurement of the amount of energy delivered from or to the Customer Facility to the Point of Interconnection, provided that the Transmission Provider's rules applicable to Station Power as set forth at Tariff, Attachment K-Appendix, section 1.7.10(d) shall control with respect to a Generation Interconnection Customer's consumption of Station Power.

### **8.5 Communications**

### **8.5.1 Interconnection Customer Obligations:**

Interconnection Customer shall install and maintain satisfactory operating communications with Transmission Provider's system dispatcher or its other designated representative and with the Interconnected Transmission Owner. Interconnection Customer shall provide standard voice line, dedicated voice line and facsimile communications at its Customer Facility control room through use of the public telephone system. Interconnection Customer also shall provide and maintain backup communication links with both Transmission Provider and Interconnected Transmission Owner for use during abnormal conditions as specified by Transmission Provider and Interconnected Transmission Owner, respectively. Interconnection Customer further shall provide the dedicated data circuit(s) necessary to provide Interconnection Customer data to the Transmission Provider and Interconnected Transmission Owner as necessary to conform with Applicable Technical Requirements and Standards.

### **8.5.2 Remote Terminal Unit:**

Unless otherwise deemed unnecessary by Transmission Provider and Interconnected Transmission Owner, as indicated in the Interconnection Service Agreement, prior to any operation of the Customer Facility, a remote terminal unit, or equivalent data collection and transfer equipment acceptable to the Interconnection Parties, shall be installed by Interconnection Customer, or by the Interconnected Transmission Owner at Interconnection Customer's expense, to gather accumulated and instantaneous data to be telemetered to the location(s) designated by Transmission Provider and Interconnected Transmission Owner through use of a dedicated point-to-point data circuit(s) as indicated in Section 8.5.1 of this Appendix 2. Instantaneous, bi-directional real power and, with respect to a Generation Interconnection Customer's Customer Facility, reactive power flow information, must be telemetered directly to the location(s) specified by Transmission Provider and the Interconnected Transmission Owner.

### **8.5.3. Phasor Measurement Units (PMUs):**

An Interconnection Customer entering the New Services Queue on or after October 1, 2012 with a proposed new Customer Facility that has a Maximum Facility Output equal to or greater than 100 MW shall install and maintain, at its expense, phasor measurement units (PMUs). PMUs shall be installed on the Customer Facility low side of the generator step-up transformer, unless it is a non-synchronous generation facility, in which case the PMUs shall be installed on the Customer Facility side of the Point of Interconnection. The PMUs must be capable of performing phasor measurements at a minimum of 30 samples per second which are synchronized via a high-accuracy satellite clock. To the extent Interconnection Customer installs similar quality equipment, such as relays or digital fault recorders, that can collect data at least at the same rate as PMUs and which data is synchronized via a high-accuracy satellite clock, such equipment would satisfy this requirement. As provided for in the PJM Manuals, an Interconnection Customer shall be required to install and maintain, at its expense, PMU equipment which includes the communication circuit capable of carrying the PMU data to a local data concentrator, and then transporting the information continuously to the Transmission Provider; as well as store the PMU data locally for thirty days. Interconnection Customer shall provide to Transmission Provider all necessary and

requested information through the Transmission Provider synchrophasor system, including the following: (a) gross MW and MVAR measured at the Customer Facility side of the generator step-up transformer (or, for a non-synchronous generation facility, to be measured at the Customer Facility side of the Point of Interconnection); (b) generator terminal voltage; (c) generator terminal frequency; and (d) generator field voltage and current, where available. The Transmission Provider will install and provide for the ongoing support and maintenance of the network communications linking the data concentrator to the Transmission Provider. Additional details regarding the requirements and guidelines of PMU data and telecommunication of such data are contained in the PJM Manuals.

## **9 Force Majeure**

### **9.1 Notice:**

An Interconnection Party that is unable to carry out an obligation imposed on it by this Appendix 2 due to Force Majeure shall notify the other parties in writing or by telephone within a reasonable time after the occurrence of the cause relied on.

### **9.2 Duration of Force Majeure:**

An Interconnection Party shall not be responsible, or considered to be in Breach or Default under this Interconnection Service Agreement, for any non-performance, any interruption or failure of service, deficiency in the quality or quantity of service, or any other failure to perform any obligation hereunder to the extent that such failure or deficiency is due to Force Majeure. An Interconnection Party shall be excused from whatever performance is affected only for the duration of the Force Majeure and while the Interconnection Party exercises Reasonable Efforts to alleviate such situation. As soon as the non-performing Interconnection Party is able to resume performance of its obligations excused because of the occurrence of Force Majeure, such Interconnection Party shall resume performance and give prompt notice thereof to the other parties.

### **9.3 Obligation to Make Payments:**

Any Interconnection Party's obligation to make payments for services shall not be suspended by Force Majeure.

### **9.4 Definition of Force Majeure:**

For the purposes of this section, an event of force majeure shall mean any cause beyond the control of the affected Interconnection Party or Construction Party, including but not restricted to, acts of God, flood, drought, earthquake, storm, fire, lightning, epidemic, war, riot, civil disturbance or disobedience, labor dispute, labor or material shortage, sabotage, acts of public enemy, explosions, orders, regulations or restrictions imposed by governmental, military, or lawfully established civilian authorities, which, in any of the foregoing cases, by exercise of due diligence such party could not reasonably have been expected to avoid, and which, by the exercise of due diligence, it has been unable to overcome. Force majeure does not include (i) a failure of performance that is due to an affected party's own negligence or intentional wrongdoing; (ii) any removable or

remediable causes (other than settlement of a strike or labor dispute) which an affected party fails to remove or remedy within a reasonable time; or (iii) economic hardship of an affected party.

## **10 Charges**

### **10.1 Specified Charges:**

If and to the extent required by the Interconnected Transmission Owner, after the Initial Operation of the Customer Facility, Interconnection Customer shall pay one or more of the types of recurring charges described in this section to compensate the Interconnected Transmission Owner for costs incurred in performing certain of its obligations under this Appendix 2. All such charges shall be stated in Schedule E of the Interconnection Service Agreement. Interconnected Transmission Owner shall provide Transmission Provider and Interconnection Customer with appropriate cost data, schedules and/or written testimony in support of any charges under this section in such manner and at such time as to allow Transmission Provider to include such materials in its filing of the Interconnection Service Agreement with the FERC. Transmission Provider will deliver a copy of such filing to Interconnection Customer. Permissible charges under this section may include:

(a) Administration Charge — Any such charge may recover only the costs and expenses incurred by the Interconnected Transmission Owner in connection with administrative obligations such as the preparation of bills, the processing of Customer Facility-specific data on energy delivered at the Point of Interconnection and costs incurred in similar types of administrative processes related to Interconnection Customer's Interconnection Service. An Administration Charge shall not be permitted to the extent that the Interconnected Transmission Owner's other charges to the Interconnection Customer under the same Interconnection Service Agreement include an allocation of Interconnected Transmission Owner's administrative and general expenses and/or other corporate overhead costs.

(b) Metering Charge — Any such charge may recover only the Interconnected Transmission Owner's costs and expenses associated with operation, maintenance, inspection, testing, and carrying or capital replacement charges for any Metering Equipment that is owned by the Interconnected Transmission Owner.

(c) Telemetering Charge — Any such charge may recover only the Interconnected Transmission Owner's costs and expenses associated with operation, maintenance, inspection, testing, and carrying or capital replacement charges for any telemetering equipment that is owned by the Interconnected Transmission Owner and that is used exclusively in conjunction with Interconnection Service for the Interconnection Customer.

(d) Customer Facility Operations and Maintenance Charge — Any such charge may recover only the Interconnected Transmission Owner's costs and expenses associated with operation, maintenance, inspection, testing, modifications, taxes and carrying or capital replacement charges for Attachment Facilities related to the Interconnection Customer's Interconnection Service and that are owned by the Interconnected Transmission Owner, provided that

(i) any such charge shall exclude costs and expenses associated with Transmission Owner Interconnection Facilities owned by the Interconnected Transmission Owner that are radial line facilities that serve load in addition to an Interconnection Customer; and

(ii) except as otherwise provided by Applicable Laws and Regulations, any such charge may include only an allocated share, derived in accordance with the allocations contained in the Facilities Study, of costs and expenses associated with Transmission Owner Interconnection Facilities owned by the Interconnected Transmission Owner that are radial line facilities that serve more than one Interconnection Customer. At the discretion of the affected Interconnected Entities, a Customer Facility Operations and Maintenance Charge authorized under this section may apply on a per-incident basis or on a monthly or other periodic basis.

(e) Other Charges — Any other charges applicable to the Interconnection Customer, as mutually agreed upon by the Interconnection Customer and the Interconnected Transmission Owner and as accepted by the FERC as part of an Interconnection Service Agreement.

## **10.2 FERC Filings:**

To the extent required by law or regulation, each Interconnection Party shall seek FERC acceptance or approval of its respective charges or the methodology for the calculation of such charges.

## **11 Security, Billing And Payments**

### **11.1 Recurring Charges Pursuant to Section 10:**

The following provisions shall apply with respect to recurring charges applicable to Interconnection Service after Initial Operation of the Customer Facility pursuant to Section 10 of this Appendix 2.

#### **11.1.1 General:**

Except as, and to the extent, otherwise provided in the Interconnection Service Agreement, billing and payment of any recurring charges applicable to Interconnection Service after Initial Operation of the Customer Facility pursuant to Section 10 of this Appendix 2 shall be in accordance with Section 7 of the Tariff. The Interconnected Transmission Owner shall provide Transmission Provider with all necessary information and supporting data that Transmission Provider may reasonably require to administer billing for and payment of applicable charges under this Appendix 2. Transmission Provider shall remit to the Interconnected Transmission Owner revenues received in payment of Interconnected Transmission Owner's charges to Interconnection Customer under this Appendix 2 upon Transmission Provider's receipt of such revenues. At Transmission Provider's reasonable discretion, charges to Interconnection Customer and remittances to Interconnected Transmission Owner under this Appendix 2 may be netted against other amounts owed by or to such parties under the Tariff.



### **11.1.2 Billing Disputes:**

In the event of a billing dispute between Transmission Provider and Interconnection Customer, Transmission Provider shall continue to provide interconnection service under this Appendix 2 as long as Interconnection Customer (i) continues to make all payments not in dispute, and (ii) pays to Transmission Provider or into an independent escrow account the portion of the invoice in dispute, pending resolution of such dispute. If Interconnection Customer fails to meet these two requirements for continuation of service, then Transmission Provider shall so inform the Interconnection Parties and may provide notice to Interconnection Customer of a Breach pursuant to Section 15 of this Appendix 2. Within thirty days after the resolution of the dispute, the Interconnection Party that owes money to the other Interconnection Party shall pay the amount due with interest calculated in accord with Section 11.4.

## **11.2 Costs for Transmission Owner Interconnection Facilities:**

The following provisions shall apply with respect to charges for the Costs of the Interconnected Transmission Owner for which the Interconnection Customer is responsible.

### **11.2.1 Adjustments to Security:**

The Security provided by Interconnection Customer at or before execution of the Interconnection Service Agreement (a) shall be reduced as portions of the work are completed, and/or (b) shall be increased or decreased as required to reflect adjustments to Interconnection Customer's cost responsibility, as determined in accordance with Section 217, to correspond with changes in the Scope of Work developed in accordance with Transmission Provider's scope change process for interconnection projects set forth in the PJM Manuals.

### **11.2.2 Invoice:**

The Interconnected Transmission Owner shall provide Transmission Provider a quarterly statement of the Interconnected Transmission Owner's scheduled expenditures during the next three months for, as applicable (a) the design, engineering and construction of, and/or for other charges related to, construction of the Interconnection Facilities for which the Interconnected Transmission Owner is responsible under the Interconnection Service Agreement and the Interconnection Construction Service Agreement, or (b) in the event that the Interconnection Customer exercises the Option to Build pursuant to Tariff, Attachment P, Appendix 2, section 3.2.3.1, for the Interconnected Transmission Owner's oversight costs (i.e. costs incurred by the Transmission Owner when engaging in oversight activities to satisfy itself that the Interconnection Customer is complying with the Transmission Owner's standards and specifications for the construction of facilities) associated with Interconnection Customer's building Transmission Owner Attachment Facilities and Direct Connection Network Upgrades, including but not limited to Costs for tie-in work and Cancellation Costs. Interconnected Transmission Owner oversight costs shall be consistent with Tariff, Attachment P, Appendix 2, section 3.2.3.2(a)(12). Transmission Provider shall bill Interconnection Customer on behalf of the Interconnected Transmission Owner, for the Interconnected Transmission Owner's expected Costs during the

subsequent three months. Interconnection Customer shall pay each bill within twenty (20) days after receipt thereof. Upon receipt of each of Interconnection Customer's payments of such bills, Transmission Provider shall reimburse the Interconnected Transmission Owner. Interconnection Customer may request that the Transmission Provider provide a quarterly cost reconciliation. Such a quarterly cost reconciliation will have a one-quarter lag, e.g., reconciliation of Costs for the first calendar quarter of work will be provided at the start of the third calendar quarter of work, provided, however, that Section 11.2.3 of this Appendix 2 shall govern the timing of the final cost reconciliation upon completion of the work.

### **11.2.3 Final Invoice:**

Within 120 days after the Interconnected Transmission Owner completes construction and installation of the Interconnection Facilities for which the Interconnected Transmission Owner is responsible under the Interconnection Service Agreement and the Interconnection Construction Service Agreement, Transmission Provider shall provide Interconnection Customer with an accounting of, and the appropriate Construction Party shall make any payment to the other that is necessary to resolve, any difference between (a) Interconnection Customer's responsibility under the Tariff for the actual Cost of such facilities, and (b) Interconnection Customer's previous aggregate payments to Transmission Provider for the Costs of such facilities. Notwithstanding the foregoing, however, Transmission Provider shall not be obligated to make any payment to either the Interconnection Customer or the Interconnected Transmission Owner that the preceding sentence requires it to make unless and until the Transmission Provider has received the payment that it is required to refund from the Construction Party owing the payment.

### **11.2.4 Disputes:**

In the event of a billing dispute between any of the Construction Parties, Transmission Provider and the Interconnected Transmission Owner shall continue to perform their respective obligations pursuant to this Interconnection Service Agreement and any related Interconnection Construction Service Agreements so long as (a) Interconnection Customer continues to make all payments not in dispute, and (b) the Security held by the Transmission Provider while the dispute is pending exceeds the amount in dispute, or (c) Interconnection Customer pays to Transmission Provider or into an independent escrow account the portion of the invoice in dispute, pending resolution of such dispute. If Interconnection Customer fails to meet any of these requirements, then Transmission Provider shall so inform the other Construction Parties and Transmission Provider or the Interconnected Transmission Owner may provide notice to Interconnection Customer of a Breach pursuant to Section 15 of this Appendix 2.

### **11.3 No Waiver:**

Payment of an invoice shall not relieve Interconnection Customer from any other responsibilities or obligations it has under this Appendix 2, nor shall such payment constitute a waiver of any claims arising hereunder.

### **11.4 Interest:**



Interest on any unpaid amounts shall be calculated in accordance with the methodology specified for interest on refunds in the FERC's regulations at 18 C.F.R. § 35.19a(a)(2)(iii). Interest on delinquent amounts shall be calculated from the due date of the bill to the date of payment.

## **12.0 Assignment**

### **12.1 Assignment with Prior Consent:**

Except as provided in Section 12.2 to this Appendix 2, no Interconnection Party shall assign its rights or delegate its duties, or any part of such rights or duties, under the Interconnection Service Agreement without the written consent of the other Interconnection Parties, which consent shall not be unreasonably withheld, conditioned, or delayed. Any such assignment or delegation made without such written consent shall be null and void. An Interconnection Party may make an assignment in connection with the sale, merger, or transfer of a substantial portion or all of its properties including the Interconnection Facilities which it owns, so long as the assignee in such a sale, merger, or transfer assumes in writing all rights, duties and obligations arising under this Interconnection Service Agreement. In addition, the Interconnected Transmission Owner shall be entitled, subject to Applicable Laws and Regulations, to assign the Interconnection Service Agreement to any Affiliate or successor that owns and operates all or a substantial portion of the Interconnected Transmission Owner's transmission facilities.

### **12.2 Assignment Without Prior Consent**

#### **12.2.1 Assignment to Owners:**

Interconnection Customer may assign the Interconnection Service Agreement without the Interconnected Transmission Owner's or Transmission Provider's prior consent to any Affiliate or person that purchases or otherwise acquires, directly or indirectly, all or substantially all of the Customer Facility and the Customer Interconnection Facilities, provided that prior to the effective date of any such assignment, the assignee shall demonstrate that, as of the effective date of the assignment, the assignee has the technical and operational competence to comply with the requirements of this Interconnection Service Agreement and assumes in a writing provided to the Interconnected Transmission Owner and Transmission Provider all rights, duties, and obligations of Interconnection Customer arising under this Interconnection Service Agreement. However, any assignment described herein shall not relieve or discharge the Interconnection Customer from any of its obligations hereunder absent the written consent of the Transmission Provider, such consent not to be unreasonably withheld, conditioned or delayed.

#### **12.2.2 Assignment to Lenders:**

Interconnection Customer may, without the consent of the Transmission Provider or the Interconnected Transmission Owner, assign the Interconnection Service Agreement to any Project Finance Entity(ies), provided that such assignment does not alter or diminish Interconnection Customer's duties and obligations under this Interconnection Service Agreement. If Interconnection Customer provides the Interconnected Transmission Owner with notice of an assignment to any Project Finance Entity(ies) and identifies such Project Finance Entities as

contacts for notice purposes pursuant to Section 21 of this Appendix 2, the Transmission Provider or Interconnected Transmission Owner shall provide notice and reasonable opportunity for such entity(ies) to cure any Breach under this Interconnection Service Agreement in accordance with this Interconnection Service Agreement. Transmission Provider or Interconnected Transmission Owner shall, if requested by such lenders, provide such customary and reasonable documents, including consents to assignment, as may be reasonably requested with respect to the assignment and status of the Interconnection Service Agreement, provided that such documents do not alter or diminish the rights of the Transmission Provider or Interconnected Transmission Owner under this Interconnection Service Agreement, except with respect to providing notice of Breach to a Project Finance Entity. Upon presentation of the Transmission Provider and/or the Interconnected Transmission Owner's invoice therefor, Interconnection Customer shall pay the Transmission Provider and/or the Interconnected Transmission Owner's reasonable documented cost of providing such documents and certificates. Any assignment described herein shall not relieve or discharge the Interconnection Customer from any of its obligations hereunder absent the written consent of the Interconnected Transmission Owner and Transmission Provider.

### **12.3 Successors and Assigns:**

This Interconnection Service Agreement and all of its provisions are binding upon, and inure to the benefit of, the Interconnection Parties and their respective successors and permitted assigns.

## **13 Insurance**

### **13.1 Required Coverages For Generation Resources Of More Than 20 Megawatts or Merchant Transmission Facilities:**

Each Interconnected Entity shall maintain insurance as described in paragraphs (a) through (e) below. All insurance shall be procured from insurance companies rated "A-," VII or better by AM Best and authorized to do business in a state or states in which the Interconnection Facilities are located. Failure to maintain required insurance shall be a Breach of the Interconnection Service Agreement.

(a) Workers Compensation insurance with statutory limits, as required by the state and/or jurisdiction in which the work is to be performed, and employer's liability insurance with limits of not less than one million dollars (\$1,000,000).

(b) Commercial General Liability Insurance and/or Excess Liability Insurance covering liability arising out of premises, operations, personal injury, advertising, products and completed operations coverage, independent contractors coverage, liability assumed under an insured contract, coverage for pollution to the extent normally available and punitive damages to the extent allowable under applicable law, with limits of not less than one million dollars (\$1,000,000) per occurrence/one million dollars (\$1,000,000) general aggregate/one million dollars (\$1,000,000) products and completed operations aggregate.

(c) Business/Commercial Automobile Liability Insurance for coverage of owned and non-owned and hired vehicles, trailers or semi-trailers designed for travel on public roads, with a

minimum, combined single limit of one million dollars (\$1,000,000) each accident for bodily injury, including death, and property damage.

(d) Excess and/or Umbrella Liability Insurance with a limit of liability of not less than twenty million dollars (\$20,000,000) per occurrence. These limits apply in excess of the employer's liability, commercial general liability and business/commercial automobile liability coverages described above. This requirement can be met alone or via a combination of primary, excess and/or umbrella insurance.

(e) Professional Liability Insurance providing errors, omissions and/or malpractice coverage in the amount of five million dollars (\$5,000,000) per occurrence/aggregate. Coverage shall be provided for the Interconnected Entity's duties, responsibilities and performance outlined in this Appendix 2, the Interconnection Service Agreement, and if applicable, the Interconnection Construction Service Agreement.

An Interconnected Entity may meet the Professional Liability Insurance requirements by requiring third-party contractors, designers, or engineers, or other parties that are responsible for design work associated with the transmission facilities or Interconnection Facilities necessary for the interconnection to procure professional liability insurance in the amounts and upon the terms prescribed by this section 13.1(e), and providing evidence of such insurance to the other Interconnected Entity. Such insurance shall be procured from companies rated "A-," VII or better by AM Best and authorized to do business in a state or states in which the Interconnection Facilities are located. Nothing in this section relieves the Interconnected Entity from complying with the insurance requirements. In the event that the policies of the designers, engineers, or other parties used to satisfy the Interconnected Entity's insurance obligations under this section become invalid for any reason, including but not limited to, (i) the policy(ies) lapsing or otherwise terminating or expiring; (ii) the coverage limits of such policy(ies) are decreased; or (iii) the policy(ies) do not comply with the terms and conditions of the Tariff; Interconnected Entity shall be required to procure insurance sufficient to meet the requirements of this section, such that there is no lapse in insurance coverage. Notwithstanding the foregoing, in the event an Interconnected Entity will not design or construct or cause to design or construct any new transmission facilities or Interconnection Facilities, Transmission Provider, in its discretion, may waive the requirement that an Interconnected Entity maintain the Professional Liability Insurance pursuant to this section.

### **13.1A. Required Coverages For Generation Resources Of 20 Megawatts Or Less:**

Each Interconnected Entity shall maintain the types of insurance as described in section 13.1 paragraphs (a) through (e) in an amount sufficient to insure against all reasonably foreseeable direct liabilities given the size and nature of the generating equipment being interconnected, the interconnection itself, and the characteristics of the system to which the interconnection is made. Additional insurance may be required by the Interconnection Customer, as a function of owning and operating a Generating Facility. All insurance shall be procured from insurance companies rated "A-," VII or better by AM Best and authorized to do business in a state or states in which the Interconnection Facilities are located. Failure to maintain required insurance shall be a Breach of the Interconnection Service Agreement.

### **13.2 Additional Insureds:**

The Commercial General Liability, Business/Commercial Automobile Liability and Excess and/or Umbrella Liability policies procured by each Interconnected Entity (the “Insuring Interconnected Entity”) shall include each other Interconnection Party (the “Insured Interconnection Party”), and its respective officers, agents and employees as additional insureds, providing all standard coverages and covering liability of the Insured Interconnection Party arising out of bodily injury and/or property damage (including loss of use) in any way connected with the operations, performance, or lack of performance under this Interconnection Service Agreement.

### **13.3 Other Required Terms:**

The above-mentioned insurance policies (except workers’ compensation) shall provide the following:

(a) Each policy shall contain provisions that specify that it is primary and non contributory for any liability arising out of that party’s negligence, and shall apply to such extent without consideration for other policies separately carried and shall state that each insured is provided coverage as though a separate policy had been issued to each, except the insurer’s liability shall not be increased beyond the amount for which the insurer would have been liable had only one insured been covered. Each Insuring Interconnected Entity shall be responsible for its respective deductibles or retentions.

(b) If any coverage is written on a Claims First Made Basis, continuous coverage shall be maintained or an extended discovery period will be exercised for a period of not less than two (2) years after termination of the Interconnection Service Agreement.

(c) Provide for a waiver of all rights of subrogation which the Insuring Interconnected Entity’s insurance carrier might exercise against the Insured Interconnection Party.

### **13.3A No Limitation of Liability:**

The requirements contained herein as to the types and limits of all insurance to be maintained by the Interconnected Entities are not intended to and shall not in any manner, limit or qualify the liabilities and obligations assumed by the Interconnection Parties under the Interconnection Service Agreement.

### **13.4 Self-Insurance:**

Notwithstanding the foregoing, each Interconnected Entity may self-insure to meet the minimum insurance requirements of this Section 13 of this Appendix 2 to the extent it maintains a self-insurance program, provided that such Interconnected Entity’s senior secured debt is rated at investment grade or better by Standard & Poor’s and its self-insurance program meets the minimum insurance requirements of this Section 13. For any period of time that an Interconnected Entity’s senior secured debt is unrated by Standard & Poor’s or is rated at less than investment

grade by Standard & Poor's, such Party shall comply with the insurance requirements applicable to it under this Section 13. In the event that an Interconnected Entity is permitted to self-insure pursuant to this section, it shall notify the other Interconnection Parties that it meets the requirements to self-insure and that its self-insurance program meets the minimum insurance requirements in a manner consistent with that specified in Section 13.5 of this Appendix 2.

### **13.5 Notices; Certificates of Insurance:**

All policies of insurance shall provide for thirty days prior written notice of cancellation or material adverse change. If the policies of insurance do not or cannot be endorsed to provide thirty days prior notice of cancellation or material adverse change, each Interconnected Entity shall provide the other Interconnected Entities with thirty days prior written notice of cancellation or material adverse change to any of the insurance required in this agreement. Each Interconnected Entity shall provide the other with certificates of insurance prior to Initial Operation of the Customer Facility and thereafter at such time intervals as they shall mutually agree upon, provided that such interval shall not be less than one year. All certificates of insurance shall indicate that the certificate holder is included as an additional insured under the Commercial General Liability, Business/Commercial Automobile Liability and Excess and/or Umbrella Liability coverages, and that this insurance is primary with a waiver of subrogation included in favor of the other Interconnected Entities.

### **13.6 Subcontractor Insurance:**

In accord with Good Utility Practice, each Interconnected Entity shall require each of its subcontractors to maintain and provide evidence of insurance coverage of types, and in amounts, commensurate with the risks associated with the services provided by the subcontractor. Bonding of contractors or subcontractors shall be at the hiring Interconnected Entity's discretion, but regardless of bonding, the hiring principal shall be responsible for the performance or non-performance of any contractor or subcontractor it hires.

### **13.7 Reporting Incidents**

The Interconnection Parties shall report to each other in writing as soon as practical all accidents or occurrences resulting in injuries to any person, including death, and any property damage arising out of the Interconnection Service Agreement.

## **14 Indemnity**

### **14.1 Indemnity:**

Each Interconnection Party shall indemnify and hold harmless the other Interconnection Parties, and the other Interconnection Parties' officers, shareholders, stakeholders, members, managers, representatives, directors, agents and employees, and Affiliates, from and against any and all loss, liability, damage, cost or expense to third parties, including damage and liability for bodily injury to or death of persons, or damage to property or persons (including reasonable attorneys' fees and expenses, litigation costs, consultant fees, investigation fees, sums paid in settlements of claims,

penalties or fines imposed under Applicable Laws and Regulations, and any such fees and expenses incurred in enforcing this indemnity or collecting any sums due hereunder) (collectively, “Loss”) to the extent arising out of, in connection with, or resulting from (i) the indemnifying Interconnection Party’s breach of any of the representations or warranties made in, or failure of the indemnifying Interconnection Party or any of its subcontractors to perform any of its obligations under, this Interconnection Service Agreement (including Appendix 2), or (ii) the negligence or willful misconduct of the indemnifying Interconnection Party or its contractors; provided, however, that no Interconnection Party shall have any indemnification obligations under this Section 14.1 in respect of any Loss to the extent the Loss results from the negligence or willful misconduct of the Interconnection Party seeking indemnity.

#### **14.2 Indemnity Procedures:**

Promptly after receipt by a Person entitled to indemnity (“Indemnified Person”) of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in Section 14.1 may apply, the Indemnified Person shall notify the indemnifying Interconnection Party of such fact. Any failure of or delay in such notification shall not affect an Interconnection Party’s indemnification obligation unless such failure or delay is materially prejudicial to the indemnifying Interconnection Party. The Indemnified Person shall cooperate with the indemnifying Interconnection Party with respect to the matter for which indemnification is claimed. The indemnifying Interconnection Party shall have the right to assume the defense thereof with counsel designated by such indemnifying Interconnection Party and reasonably satisfactory to the Indemnified Person. If the defendants in any such action include one or more Indemnified Persons and the indemnifying Interconnection Party and if the Indemnified Person reasonably concludes that there may be legal defenses available to it and/or other Indemnified Persons which are different from or additional to those available to the indemnifying Interconnection Party, the Indemnified Person shall have the right to select separate counsel to assert such legal defenses and to otherwise participate in the defense of such action on its own behalf. In such instances, the indemnifying Interconnection Party shall only be required to pay the fees and expenses of one additional attorney to represent an Indemnified Person or Indemnified Persons having such differing or additional legal defenses. The Indemnified Person shall be entitled, at its expense, to participate in any action, suit or proceeding, the defense of which has been assumed by the indemnifying Interconnection Party. Notwithstanding the foregoing, the indemnifying Interconnection Party (i) shall not be entitled to assume and control the defense of any such action, suit or proceedings if and to the extent that, in the opinion of the Indemnified Person and its counsel, such action, suit or proceeding involves the potential imposition of criminal liability on the Indemnified Person, or there exists a conflict or adversity of interest between the Indemnified Person and the indemnifying Interconnection Party, in such event the indemnifying Interconnection Party shall pay the reasonable expenses of the Indemnified Person, and (ii) shall not settle or consent to the entry of any judgment in any action, suit or proceeding without the consent of the Indemnified Person, which shall not be unreasonably withheld, conditioned or delayed.

#### **14.3 Indemnified Person:**



If an Indemnified Person is entitled to indemnification under this Section 14 as a result of a claim by a third party, and the indemnifying Interconnection Party fails, after notice and reasonable opportunity to proceed under Section 14.2 of this Appendix 2, to assume the defense of such claim, such Indemnified Person may at the expense of the indemnifying Interconnection Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.

#### **14.4 Amount Owning:**

If an indemnifying Interconnection Party is obligated to indemnify and hold any Indemnified Person harmless under this Section 14, the amount owing to the Indemnified Person shall be the amount of such Indemnified Person's actual Loss, net of any insurance or other recovery.

#### **14.5 Limitation on Damages:**

Except as otherwise provided in this Section 14, the liability of an Interconnection Party under this Appendix 2 shall be limited to direct actual damages, and all other damages at law are waived. Under no circumstances shall any Interconnection Party or its Affiliates, directors, officers, employees and agents, or any of them, be liable to another Interconnection Party, whether in tort, contract or other basis in law or equity for any special, indirect punitive, exemplary or consequential damages, including lost profits. The limitations on damages specified in this Section 14.5 are without regard to the cause or causes related thereto, including the negligence of any Interconnection Party, whether such negligence be sole, joint or concurrent, or active or passive. This limitation on damages shall not affect any Interconnection Party's rights to obtain equitable relief as otherwise provided in this Appendix 2. The provisions of this Section 14.5 shall survive the termination or expiration of the Interconnection Service Agreement.

#### **14.6 Limitation of Liability in Event of Breach:**

An Interconnection Party ("Breaching Party") shall have no liability hereunder to the other Interconnection Parties, and the other Interconnection Parties hereby release the Breaching Party, for all claims or damages that either of them incurs that are associated with any interruption in the availability of the Customer Facility, Interconnection Facilities, Transmission System or Interconnection Service or damages to an Interconnection Party's facilities, except to the extent such interruption or damage is caused by the Breaching Party's gross negligence or willful misconduct in the performance of its obligations under this Interconnection Service Agreement (including Appendix 2).

#### **14.7 Limited Liability in Emergency Conditions:**

Except as otherwise provided in the Tariff or the Operating Agreement, no Interconnection Party shall be liable to any other Interconnection Party for any action that it takes in responding to an Emergency Condition, so long as such action is made in good faith, is consistent with Good Utility Practice and is not contrary to the directives of the Transmission Provider or of the Interconnected Transmission Owner with respect to such Emergency Condition. Notwithstanding the above, Interconnection Customer shall be liable in the event that it fails to comply with any instructions

of Transmission Provider or the Interconnected Transmission Owner related to an Emergency Condition.

## **15 Breach, Cure And Default**

### **15.1 Breach:**

A Breach of this Interconnection Service Agreement shall include:

- (a) The failure to pay any amount when due;
- (b) The failure to comply with any material term or condition of this Appendix 2 or of the other portions of the Interconnection Service Agreement, including but not limited to any material breach of a representation, warranty or covenant (other than in subsections (a) and (c)-(e) of this Section) made in this Appendix 2;
- (c) Assignment of the Interconnection Service Agreement in a manner inconsistent with its terms;
- (d) Failure of an Interconnection Party to provide access rights, or an Interconnection Party's attempt to revoke or terminate access rights, that are provided under this Appendix 2; or
- (e) Failure of an Interconnection Party to provide information or data required to be provided under this Appendix 2 to another Interconnection Party for such other Interconnection Party to satisfy its obligations under this Appendix 2.

### **15.2 Continued Operation:**

In the event of a Breach or Default by either Interconnected Entity, and subject to termination of the Interconnection Service Agreement under Section 16 of this Appendix 2, the Interconnected Entities shall continue to operate and maintain, as applicable, such DC power systems, protection and Metering Equipment, telemetering equipment, SCADA equipment, transformers, Secondary Systems, communications equipment, building facilities, software, documentation, structural components, and other facilities and appurtenances that are reasonably necessary for Transmission Provider and the Interconnected Transmission Owner to operate and maintain the Transmission System and the Transmission Owner Interconnection Facilities and for Interconnection Customer to operate and maintain the Customer Facility and the Customer Interconnection Facilities, in a safe and reliable manner.

### **15.3 Notice of Breach:**

An Interconnection Party not in Breach shall give written notice of an event of Breach to the Breaching Party, to Transmission Provider and to other persons that the Breaching Party identifies in writing to the other Interconnection Party in advance. Such notice shall set forth, in reasonable detail, the nature of the Breach, and where known and applicable, the steps necessary to cure such Breach. In the event of a Breach by Interconnection Customer, Transmission Provider and the



Interconnected Transmission Owner agree to provide notice of such Breach, at the same time and in the same manner as its notice to Interconnection Customer, to any Project Finance Entity provided that the Interconnection Customer has provided the notifying Interconnection Party with notice of an assignment to such Project Finance Entity(ies) and identifies such Project Finance Entity(ies) as contacts for notice purposes pursuant to Section 21 of this Appendix 2.

#### **15.4 Cure and Default:**

An Interconnection Party that commits a Breach and does not take steps to cure the Breach pursuant to this Section 15.4 is in Default of this Appendix 2 and of the Interconnection Service Agreement.

##### **15.4.1 Cure of Breach:**

Except for the event of Breach set forth in Section 15.1(a) above, the Breaching Interconnection Party (a) may cure the Breach within thirty days from the receipt of such notice; or (b) if the Breach cannot be cured within thirty (30) days, may commence in good faith all steps that are reasonable and appropriate to cure the Breach within such thirty day time period and thereafter diligently pursue such action to completion. In an event of Breach set forth in Section 15.1(a), the Breaching Interconnection Party may cure the Breach within five (5) days from the receipt of notice of the Breach.

#### **15.5 Right to Compel Performance:**

Notwithstanding the foregoing, upon the occurrence of an event of Default, a non-Defaulting Interconnection Party shall be entitled to (a) commence an action to require the Defaulting Interconnection Party to remedy such Default and specifically perform its duties and obligations hereunder in accordance with the terms and conditions hereof, (b) withhold payments, (c) suspend performance hereunder, and (d) exercise such other rights and remedies as it may have in equity or at law; provided, however, that the Transmission Provider shall not terminate the Interconnection Service Agreement due to the failure of Interconnection Customer to make a payment hereunder unless such failure could reasonably be expected to have a material adverse effect on the Interconnected Transmission Owner.

#### **15.6 Remedies Cumulative:**

Subject to Section 20.1, no remedy conferred by any provision of this Appendix 2 is intended to be exclusive of any other remedy and each and every remedy shall be cumulative and shall be in addition to every other remedy given hereunder or now or hereafter existing at law or in equity or by statute or otherwise. The election of any one or more remedies shall not constitute a waiver of the right to pursue other available remedies.

## **16 Termination**

### **16.1 Termination:**

This Interconnection Service Agreement and Interconnection Service under this Interconnection Service Agreement may be terminated by the following means:

**16.1.1 By Mutual Consent:**

Interconnection Service may be terminated as of the date on which the Interconnection Parties mutually agree to terminate the Interconnection Service Agreement.

**16.1.2 By Interconnection Customer:**

Interconnection Customer may unilaterally terminate the Interconnection Service Agreement pursuant to Applicable Laws and Regulations upon providing Transmission Provider and the Interconnected Transmission Owner sixty (60) days prior written notice thereof, provided that Interconnection Customer is not then in Default under the Interconnection Service Agreement.

**16.1.3 Upon Default of Interconnection Customer:**

Transmission Provider may terminate the Interconnection Service Agreement upon the Default of Interconnection Customer of its obligations under the Interconnection Service Agreement by providing Interconnection Customer and the Interconnected Transmission Owner prior written notice of termination; provided, however, that Transmission Provider shall not terminate the Interconnection Service Agreement due to the failure of Interconnection Customer to make a payment hereunder unless such failure could reasonably be expected to have a material adverse effect on the Interconnected Transmission Owner.

**16.2 Disposition of Facilities Upon Termination**

**16.2.1 Disconnection:**

Upon termination of the Interconnection Service Agreement in accordance with this Section 16, Transmission Provider and/or the Interconnected Transmission Owner shall, in coordination with Interconnection Customer, physically disconnect the Customer Facility from the Transmission System, except to the extent otherwise allowed by this Appendix 2.

**16.2.2 Network Facilities:**

At the time of termination, the Transmission Provider and the Interconnected Entities shall keep in place any portion of the Interconnection Facilities that the Transmission Provider deems necessary for the safety, integrity and/or reliability of the Transmission System. Otherwise, Transmission Provider may, in its discretion, within 30 days following termination of Interconnection Service, require the removal of all or any part of the Interconnection Facilities.

**16.2.2.1** In the event that (i) the Interconnection Service Agreement and Interconnection Service under this Appendix 2 are terminated and (ii) Transmission Provider determines that some or all of the Interconnection Facilities that are owned by the Interconnection Customer are necessary for the safety, integrity and/or reliability of the Transmission System,

Interconnection Customer, subject to Applicable Laws and Regulations, shall transfer to the Interconnected Transmission Owner title to the Interconnection Facilities that Transmission Provider has determined to be necessary for the safety, integrity and/or reliability of the Transmission System.

**16.2.2.2** In the event that removal of some or all of the Interconnection Facilities is necessary to maintain compliance with Applicable Standards, Interconnection Customer shall be responsible for the costs of any such removal. Interconnection Customer shall have the right to take or retain title to equipment and/or facilities that are removed pursuant to this section; alternatively, in the event that the Interconnection Customer does not wish to retain title to removed equipment and/or facilities that it owns, the Interconnected Transmission Owner may elect to pay the Interconnection Customer a mutually agreed amount to acquire and own such equipment and/or facilities.

### **16.2.3 Request for Disposition Determination:**

Interconnection Customer may request a determination from the Transmission Provider whether any Interconnection Facilities will be removed in the event of any termination of Interconnection Service to the Customer Facility within the following year. Transmission Provider shall respond to that request no later than sixty (60) days after receipt.

### **16.3 FERC Approval:**

Notwithstanding any other provision of this Appendix 2, no termination hereunder shall become effective until the Interconnected Entities and/or Transmission Provider have complied with all Applicable Laws and Regulations applicable to such termination, including the filing with the FERC of a notice of termination of the Interconnection Service Agreement, and acceptance of such notice for filing by the FERC.

### **16.4 Survival of Rights:**

Termination of this Interconnection Service Agreement shall not relieve any Interconnection Party of any of its liabilities and obligations arising under this Interconnection Service Agreement (including Appendix 2) prior to the date on which termination becomes effective, and each Interconnection Party may take whatever judicial or administrative actions it deems desirable or necessary to enforce its rights hereunder. Applicable provisions of this Appendix 2 will continue in effect after termination to the extent necessary to provide for final billings, billing adjustments, and the determination and enforcement of liability and indemnification obligations arising from events or acts that occurred while the Interconnection Service Agreement was in effect.

## **17 Confidentiality:**

Information is Confidential Information only if it is clearly designated or marked in writing as confidential on the face of the document, or, if the information is conveyed orally or by inspection, if the Interconnection Party providing the information orally informs the Interconnection Party receiving the information that the information is confidential. If requested by any Interconnection

Party, the disclosing Interconnection Party shall provide in writing the basis for asserting that the information referred to in this section warrants confidential treatment, and the requesting Interconnection Party may disclose such writing to an appropriate Governmental Authority. Any Interconnection Party shall be responsible for the costs associated with affording confidential treatment to its information.

#### **17.1 Term:**

During the term of the Interconnection Service Agreement, and for a period of three (3) years after the expiration or termination of the Interconnection Service Agreement, except as otherwise provided in this Section 17, each Interconnection Party shall hold in confidence, and shall not disclose to any person, Confidential Information provided to it by any other Interconnection Party.

#### **17.2 Scope:**

Confidential Information shall not include information that the receiving Interconnection Party can demonstrate: (i) is generally available to the public other than as a result of a disclosure by the receiving Interconnection Party; (ii) was in the lawful possession of the receiving Interconnection Party on a non-confidential basis before receiving it from the disclosing Interconnection Party; (iii) was supplied to the receiving Interconnection Party without restriction by a third party, who, to the knowledge of the receiving Interconnection Party, after due inquiry, was under no obligation to the disclosing Interconnection Party to keep such information confidential; (iv) was independently developed by the receiving Interconnection Party without reference to Confidential Information of the disclosing Interconnection Party; (v) is, or becomes, publicly known, through no wrongful act or omission of the receiving Interconnection Party or breach of this Appendix 2; or (vi) is required, in accordance with Section 17.7 of this Appendix 2, to be disclosed to any Governmental Authority or is otherwise required to be disclosed by law or subpoena, or is necessary in any legal proceeding establishing rights and obligations under the Interconnection Service Agreement. Information designated as Confidential Information shall no longer be deemed confidential if the Interconnection Party that designated the information as confidential notifies the other Interconnection Parties that it no longer is confidential.

#### **17.3 Release of Confidential Information:**

No Interconnection Party shall disclose Confidential Information to any other person, except to its Affiliates (limited by the Commission's Standards of Conduct requirements), subcontractors, employees, consultants or to parties who may be or considering providing financing to or equity participation in Interconnection Customer or to potential purchasers or assignees of Interconnection Customer, on a need-to-know basis in connection with the Interconnection Service Agreement, unless such person has first been advised of the confidentiality provisions of this Section 17 and has agreed to comply with such provisions. Notwithstanding the foregoing, an Interconnection Party providing Confidential Information to any person shall remain primarily responsible for any release of Confidential Information in contravention of this Section 17.

#### **17.4 Rights:**

Each Interconnection Party retains all rights, title, and interest in the Confidential Information that it discloses to any other Interconnection Party. An Interconnection Party's disclosure to another Interconnection Party of Confidential Information shall not be deemed a waiver by any Interconnection Party or any other person or entity of the right to protect the Confidential Information from public disclosure.

#### **17.5 No Warranties:**

By providing Confidential Information, no Interconnection Party makes any warranties or representations as to its accuracy or completeness. In addition, by supplying Confidential Information, no Interconnection Party obligates itself to provide any particular information or Confidential Information to any other Interconnection Party nor to enter into any further agreements or proceed with any other relationship or joint venture.

#### **17.6 Standard of Care:**

Each Interconnection Party shall use at least the same standard of care to protect Confidential Information it receives as the Interconnection Party uses to protect its own Confidential Information from unauthorized disclosure, publication or dissemination. Each Interconnection Party may use Confidential Information solely to fulfill its obligations to the other Interconnection Parties under the Interconnection Service Agreement or to comply with Applicable Laws and Regulations.

#### **17.7 Order of Disclosure:**

If a Governmental Authority with the right, power, and apparent authority to do so requests or requires an Interconnection Party, by subpoena, oral deposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Interconnection Party shall provide the Interconnection Party that provided the information with prompt prior notice of such request(s) or requirement(s) so that the providing Interconnection Party may seek an appropriate protective order or waive compliance with the terms of this Appendix 2 or the Interconnection Service Agreement. Notwithstanding the absence of a protective order or agreement, or waiver, the Interconnection Party that is subjected to the request or order may disclose such Confidential Information which, in the opinion of its counsel, the Interconnection Party is legally compelled to disclose. Each Interconnection Party shall use Reasonable Efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.

#### **17.8 Termination of Interconnection Service Agreement:**

Upon termination of the Interconnection Service Agreement for any reason, each Interconnection Party shall, within ten (10) calendar days of receipt of a written request from another party, use Reasonable Efforts to destroy, erase, or delete (with such destruction, erasure and deletion certified in writing to the requesting party) or to return to the other party, without retaining copies thereof, any and all written or electronic Confidential Information received from the requesting party.

## **17.9 Remedies:**

The Interconnection Parties agree that monetary damages would be inadequate to compensate an Interconnection Party for another Interconnection Party's Breach of its obligations under this Section 17. Each Interconnection Party accordingly agrees that the other Interconnection Parties shall be entitled to equitable relief, by way of injunction or otherwise, if the first Interconnection Party breaches or threatens to breach its obligations under this Section 17, which equitable relief shall be granted without bond or proof of damages, and the receiving Interconnection Party shall not plead in defense that there would be an adequate remedy at law. Such remedy shall not be deemed to be an exclusive remedy for the breach of this Section 17, but shall be in addition to all other remedies available at law or in equity. The Interconnection Parties further acknowledge and agree that the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope. No Interconnection Party, however, shall be liable for indirect, incidental or consequential or punitive damages of any nature or kind resulting from or arising in connection with this Section 17.

### **17.10 Disclosure to FERC or its Staff:**

Notwithstanding anything in this Section 17 to the contrary, and pursuant to 18 C.F.R. § 1b.20, if FERC or its staff, during the course of an investigation or otherwise, requests information from one of the Interconnection Parties that is otherwise required to be maintained in confidence pursuant to this Interconnection Service Agreement, the Interconnection Party, shall provide the requested information to FERC or its staff, within the time provided for in the request for information. In providing the information to FERC or its staff, the Interconnection Party must, consistent with 18 C.F.R. § 388.122, request that the information be treated as confidential and non-public by FERC and its staff and that the information be withheld from public disclosure. Interconnection Parties are prohibited from notifying the other Interconnection Parties prior to the release of the Confidential Information to the Commission or its staff. An Interconnection Party shall notify the other Interconnection Parties to the Interconnection Service Agreement when it is notified by FERC or its staff that a request to release Confidential Information has been received by FERC, at which time any of the Interconnection Parties may respond before such information would be made public, pursuant to 18 C.F.R. § 388.112.

### **17.11**

Subject to the exception in Section 17.10 of this Appendix 2, no Interconnection Party shall disclose Confidential Information of another Interconnection Party to any person not employed or retained by the Interconnection Party, except to the extent disclosure is (i) required by law; (ii) reasonably deemed by the disclosing Interconnection Party to be required in connection with a dispute between or among the Interconnection Parties, or the defense of litigation or dispute; (iii) otherwise permitted by consent of the Interconnection Party that provided such Confidential Information, such consent not to be unreasonably withheld; or (iv) necessary to fulfill its obligations under this Interconnection Service Agreement or as a transmission service provider or a Control Area operator including disclosing the Confidential Information to an RTO or ISO or to a regional or national reliability organization. Prior to any disclosures of another Interconnection Party's Confidential Information under this subparagraph, the disclosing Interconnection Party



shall promptly notify the other Interconnection Parties in writing and shall assert confidentiality and cooperate with the other Interconnection Parties in seeking to protect the Confidential Information from public disclosure by confidentiality agreement, protective order or other reasonable measures.

## **17.12**

This provision shall not apply to any information that was or is hereafter in the public domain (except as a result of a Breach of this provision).

## **17.13 Return or Destruction of Confidential Information:**

If an Interconnection Party provides any Confidential Information to another Interconnection Party in the course of an audit or inspection, the providing Interconnection Party may request the other party to return or destroy such Confidential Information after the termination of the audit period and the resolution of all matters relating to that audit. Each Interconnection Party shall make Reasonable Efforts to comply with any such requests for return or destruction within ten days of receiving the request and shall certify in writing to the other Interconnection Party that it has complied with such request.

## **18 Subcontractors**

### **18.1 Use of Subcontractors:**

Nothing in this Appendix 2 shall prevent the Interconnection Parties from utilizing the services of subcontractors as they deem appropriate to perform their respective obligations hereunder, provided, however, that each Interconnection Party shall require its subcontractors to comply with all applicable terms and conditions of this Appendix 2 in providing such services.

### **18.2 Responsibility of Principal:**

The creation of any subcontract relationship shall not relieve the hiring Interconnection Party of any of its obligations under this Appendix 2. Each Interconnection Party shall be fully responsible to the other Interconnection Parties for the acts and/or omissions of any subcontractor it hires as if no subcontract had been made.

### **18.3 Indemnification by Subcontractors:**

To the fullest extent permitted by law, an Interconnection Party that uses a subcontractor to carry out any of the Interconnection Party's obligations under this Appendix 2 shall require each of its subcontractors to indemnify, hold harmless and defend each other Interconnection Party, its representatives and assigns from and against any and all claims and/or liability for damage to property, injury to or death of any person, including the employees of any Interconnection Party or of any Affiliate of any Interconnection Party, or any other liability incurred by the other Interconnection Party or any of its Affiliates, including all expenses, legal or otherwise, to the extent caused by any act or omission, negligent or otherwise, by such subcontractor and/or its

officers, directors, employees, agents and assigns, that arises out of or is connected with the operation of the facilities of either Interconnected Entity described in this Appendix 2; provided, however, that no Interconnection Party or Affiliate thereof shall be entitled to indemnity under this Section 18.3 in respect of any injury, loss, or damage to the extent that such loss, injury, or damage results from the negligence or willful misconduct of the Interconnection Party or Affiliate seeking indemnity.

#### **18.4 Subcontractors Not Beneficiaries:**

No subcontractor is intended to be, or shall be deemed to be, a third-party beneficiary of an Interconnection Service Agreement.

### **19 Information Access And Audit Rights**

#### **19.1 Information Access:**

Consistent with Applicable Laws and Regulations, each Interconnection Party shall make available such information and/or documents reasonably requested by another Interconnection Party that are necessary to (i) verify the costs incurred by the other Interconnection Party for which the requesting Interconnection Party is responsible under this Appendix 2 and (ii) carry out obligations and responsibilities under this Appendix 2, provided that the Interconnection Parties shall not use such information for purposes other than those set forth in this Section 19.1 and to enforce their rights under this Appendix 2.

#### **19.2 Reporting of Non-Force Majeure Events:**

Each Interconnection Party shall notify the other Interconnection Parties when it becomes aware of its inability to comply with the provisions of this Appendix 2 for a reason other than an event of force majeure as defined in Section 9.4 of this Appendix 2. The parties agree to cooperate with each other and provide necessary information regarding such inability to comply, including, but not limited to, the date, duration, reason for the inability to comply, and corrective actions taken or planned to be taken with respect to such inability to comply. Notwithstanding the foregoing, notification, cooperation or information provided under this Section shall not entitle the receiving Interconnection Party to allege a cause of action for anticipatory breach of the Interconnection Service Agreement.

#### **19.3 Audit Rights:**

Subject to the requirements of confidentiality under Section 17 of this Appendix 2, each Interconnection Party shall have the right, during normal business hours, and upon prior reasonable notice to the pertinent other Interconnection Party, to audit at its own expense the other Interconnection Party's accounts and records pertaining to such Interconnection Party's performance and/or satisfaction of obligations arising under this Appendix 2. Any audit authorized by this Section shall be performed at the offices where such accounts and records are maintained and shall be limited to those portions of such accounts and records that relate to obligations under this Appendix 2. Any request for audit shall be presented to the Interconnection Party to be audited



not later than twenty-four months after the event as to which the audit is sought. Each Interconnection Party shall preserve all records held by it for the duration of the audit period.

## **20 Disputes**

### **20.1 Submission:**

Any claim or dispute that any Interconnection Party may have against another arising out of the Interconnection Service Agreement may be submitted for resolution in accordance with the dispute resolution provisions of the Tariff.

### **20.2 Rights Under The Federal Power Act:**

Nothing in this Section shall restrict the rights of any Interconnection Party to file a complaint with FERC under relevant provisions of the Federal Power Act.

### **20.3 Equitable Remedies:**

Nothing in this Section shall prevent any Interconnection Party from pursuing or seeking any equitable remedy available to it under Applicable Laws and Regulations.

## **21 Notices**

### **21.1 General:**

Any notice, demand or request required or permitted to be given by any Interconnection Party to another and any instrument required or permitted to be tendered or delivered by any Interconnection Party in writing to another may be so given, tendered or delivered, by recognized national courier, or by depositing the same with the United States Postal Service with postage prepaid, for delivery by certified or registered mail, addressed to the Interconnection Party, or personally delivered to the Interconnection Party, at the address specified in the Interconnection Service Agreement. Such notices, if agreed to by the Interconnection Parties, may be made via electronic means, with e-mail confirmation of delivery.

### **21.2 Emergency Notices:**

Moreover, notwithstanding the foregoing, any notice hereunder concerning an Emergency Condition or other occurrence requiring prompt attention, or as necessary during day-to-day operations, may be made by telephone or in person, provided that such notice is confirmed in writing promptly thereafter. Notice in an Emergency Condition, or as necessary during day-to-day operations, shall be provided (i) if by the Interconnected Transmission Owner, to the shift supervisor at, as applicable, a Generation Interconnection Customer's Customer Facility or a Transmission Interconnection Customer's control center; and (ii) if by the Interconnection Customer, to the shift supervisor at the Interconnected Transmission Owner's transmission control center.

### **21.3 Operational Contacts:**

Each Interconnection Party shall designate, and provide to each other Interconnection Party contact information concerning, a representative to be responsible for addressing and resolving operational issues as they arise during the term of the Interconnection Service Agreement.

## **22 Miscellaneous**

### **22.1 Regulatory Filing:**

In the event that this Interconnection Service Agreement contains any terms that deviate materially from the form included in Attachment O of the Tariff, Transmission Provider shall file the Interconnection Service Agreement on behalf of itself and the Interconnected Transmission Owner with FERC as a service schedule under the Tariff within thirty days after execution. Interconnection Customer may request that any information so provided be subject to the confidentiality provisions of Section 17 of this Appendix 2. An Interconnection Customer shall have the right, with respect to any Interconnection Service Agreement tendered to it, to request (a) dispute resolution under Section 12 of the Tariff or, if concerning the Regional Transmission Expansion Plan, consistent with Schedule 5 of the Operating Agreement, or (b) that Transmission Provider file the agreement unexecuted with the Commission. With the filing of any unexecuted Interconnection Service Agreement, Transmission Provider may, in its discretion, propose to FERC a resolution of any or all of the issues in dispute between or among the Interconnection Parties.

### **22.2 Waiver:**

Any waiver at any time by an Interconnection Party of its rights with respect to a Breach or Default under this Interconnection Service Agreement or with respect to any other matters arising in connection with this Appendix 2, shall not be deemed a waiver or continuing waiver with respect to any subsequent Breach or Default or other matter.

### **22.3 Amendments and Rights Under the Federal Power Act:**

This Interconnection Service Agreement may be amended or supplemented only by a written instrument duly executed by all Interconnection Parties. An amendment to the Interconnection Service Agreement shall become effective and a part of this Interconnection Service Agreement upon satisfaction of all Applicable Laws and Regulations. Notwithstanding the foregoing, nothing contained in this Interconnection Service Agreement shall be construed as affecting in any way any of the rights of any Interconnection Party with respect to changes in applicable rates or charges under Section 205 of the Federal Power Act and/or FERC's rules and regulations thereunder, or any of the rights of any Interconnection Party under Section 206 of the Federal Power Act and/or FERC's rules and regulations thereunder. The terms and conditions of this Interconnection Service Agreement and every appendix referred to therein shall be amended, as mutually agreed by the Interconnection Parties, to comply with changes or alterations made necessary by a valid applicable order of any Governmental Authority having jurisdiction hereof.

## **22.4 Binding Effect:**

This Interconnection Service Agreement, including this Appendix 2, and the rights and obligations thereunder shall be binding upon, and shall inure to the benefit of, the successors and assigns of the Interconnection Parties.

## **22.5 Regulatory Requirements:**

Each Interconnection Party's performance of any obligation under this Interconnection Service Agreement for which such party requires approval or authorization of any Governmental Authority shall be subject to its receipt of such required approval or authorization in the form and substance satisfactory to the receiving Interconnection Party, or the Interconnection Party making any required filings with, or providing notice to, such Governmental Authorities, and the expiration of any time period associated therewith. Each Interconnection Party shall in good faith seek, and shall use Reasonable Efforts to obtain, such required authorizations or approvals as soon as reasonably practicable.

## **23 Representations And Warranties**

### **23.1 General:**

Each Interconnected Entity hereby represents, warrants and covenants as follows with these representations, warranties, and covenants effective as to the Interconnected Entity during the time the Interconnection Service Agreement is effective:

#### **23.1.1 Good Standing:**

Such Interconnected Entity is duly organized or formed, as applicable, validly existing and in good standing under the laws of its State of organization or formation, and is in good standing under the laws of the respective State(s) in which it is incorporated and operates as stated in the Interconnection Service Agreement.

#### **23.1.2 Authority:**

Such Interconnected Entity has the right, power and authority to enter into the Interconnection Service Agreement, to become a party hereto and to perform its obligations hereunder. The Interconnection Service Agreement is a legal, valid and binding obligation of such Interconnected Entity, enforceable against such Interconnected Entity in accordance with its terms, except as the enforceability thereof may be limited by applicable bankruptcy, insolvency, reorganization or other similar laws affecting creditors' rights generally and by general equitable principles (regardless of whether enforceability is sought in a proceeding in equity or at law).

#### **23.1.3 No Conflict:**

The execution, delivery and performance of the Interconnection Service Agreement does not violate or conflict with the organizational or formation documents, or bylaws or operating

agreement, of the Interconnected Entity, or with any judgment, license, permit, order, material agreement or instrument applicable to or binding upon the Interconnected Entity or any of its assets.

#### **23.1.4 Consent and Approval:**

Such Interconnected Entity has sought or obtained, or, in accordance with the Interconnection Service Agreement will seek or obtain, each consent, approval, authorization, order, or acceptance by any Governmental Authority in connection with the execution, delivery and performance of the Interconnection Service Agreement and it will provide to any Governmental Authority notice of any actions under this Appendix 2 that are required by Applicable Laws and Regulations.

## **24 Tax Liability**

### **24.1 Safe Harbor Provisions:**

This Section 24.1 is applicable only to Generation Interconnection Customers. Provided that Interconnection Customer agrees to conform to all requirements of the Internal Revenue Service (“IRS”) (e.g., the “safe harbor” provisions of IRS Notice 2016-36, 2016-25 I.R.B. (6/20/2016)) that would confer nontaxable status on some or all of the transfer of property, including money, by Interconnection Customer to the Interconnected Transmission Owner for payment of the Costs of construction of the Transmission Owner Interconnection Facilities, the Interconnected Transmission Owner, based on such agreement and on current law, shall treat such transfer of property to it as nontaxable income and, except as provided in Section 24.4.2 below, shall not include income taxes in the Costs of Transmission Owner Interconnection Facilities that are payable by Interconnection Customer under the Interconnection Service Agreement or the Interconnection Construction Service Agreement. Interconnection Customer shall document its agreement to conform to IRS requirements for such non-taxable status in the Interconnection Service Agreement, the Interconnection Construction Service Agreement, and/or the Interim Interconnection Service Agreement.

### **24.2 Tax Indemnity:**

Interconnection Customer shall indemnify the Interconnected Transmission Owner for any costs that Interconnected Transmission Owner incurs in the event that the IRS and/or a state department of revenue (State) determines that the property, including money, transferred by Interconnection Customer to the Interconnected Transmission Owner with respect to the construction of the Transmission Owner Interconnection Facilities is taxable income to the Interconnected Transmission Owner. Interconnection Customer shall pay to the Interconnected Transmission Owner, on demand, the amount of any income taxes that the IRS or a State assesses to the Interconnected Transmission Owner in connection with such transfer of property and/or money, plus any applicable interest and/or penalty charged to the Interconnected Transmission Owner. In the event that the Interconnected Transmission Owner chooses to contest such assessment, either at the request of Interconnection Customer or on its own behalf, and prevails in reducing or eliminating the tax, interest and/or penalty assessed against it, the Interconnected Transmission Owner shall refund to Interconnection Customer the excess of its demand payment made to the

Interconnected Transmission Owner over the amount of the tax, interest and penalty for which the Interconnected Transmission Owner is finally determined to be liable. Interconnection Customer's tax indemnification obligation under this section shall survive any termination of the Interconnection Service Agreement or Interconnection Construction Service Agreement.

### **24.3 Taxes Other Than Income Taxes:**

Upon the timely request by Interconnection Customer, and at Interconnection Customer's sole expense, the Interconnected Transmission Owner shall appeal, protest, seek abatement of, or otherwise contest any tax (other than federal or state income tax) asserted or assessed against the Interconnected Transmission Owner for which Interconnection Customer may be required to reimburse Transmission Provider under the terms of this Appendix 2 or Part VI of the Tariff. Interconnection Customer shall pay to the Interconnected Transmission Owner on a periodic basis, as invoiced by the Interconnected Transmission Owner, the Interconnected Transmission Owner's documented reasonable costs of prosecuting such appeal, protest, abatement, or other contest. Interconnection Customer and the Interconnected Transmission Owner shall cooperate in good faith with respect to any such contest. Unless the payment of such taxes is a prerequisite to an appeal or abatement or cannot be deferred, no amount shall be payable by Interconnection Customer to the Interconnected Transmission Owner for such contested taxes until they are assessed by a final, non-appealable order by any court or agency of competent jurisdiction. In the event that a tax payment is withheld and ultimately due and payable after appeal, Interconnection Customer will be responsible for all taxes, interest and penalties, other than penalties attributable to any delay caused by the Interconnected Transmission Owner.

### **24.4 Income Tax Gross-Up**

#### **24.4.1 Additional Security:**

In the event that Interconnection Customer does not provide the safe harbor documentation required under Section 24.1 prior to execution of the Interconnection Service Agreement, within 15 days after such execution, Transmission Provider shall notify Interconnection Customer in writing of the amount of additional Security that Interconnection Customer must provide. The amount of Security that a Transmission Interconnection Customer must provide initially pursuant to this Interconnection Service Agreement shall include any amounts described as additional Security under this Section 24.4 regarding income tax gross-up.

#### **24.4.2 Amount:**

The required additional Security shall be in an amount equal to the amount necessary to gross up fully for currently applicable federal and state income taxes the estimated Costs of Local Upgrades and Network Upgrades for which Interconnection Customer previously provided Security. Accordingly, the additional Security shall equal the amount necessary to increase the total Security provided to the amount that would be sufficient to permit the Interconnected Transmission Owner to receive and retain, after the payment of all applicable income taxes ("Current Taxes") and taking into account the present value of future tax deductions for depreciation that would be available as a result of the anticipated payments or property transfers (the "Present Value Depreciation

Amount"), an amount equal to the estimated Costs of Local Upgrades and Network Upgrades for which Interconnection Customer is responsible under the Interconnection Service Agreement. For this purpose, Current Taxes shall be computed based on the composite federal and state income tax rates applicable to the Interconnected Transmission Owner at the time the additional Security is received, determined using the highest marginal rates in effect at that time (the "Current Tax Rate"), and (ii) the Present Value Depreciation Amount shall be computed by discounting the Interconnected Transmission Owner's anticipated tax depreciation deductions associated with such payments or property transfers by its current weighted average cost of capital.

#### **24.4.3 Time for Payment:**

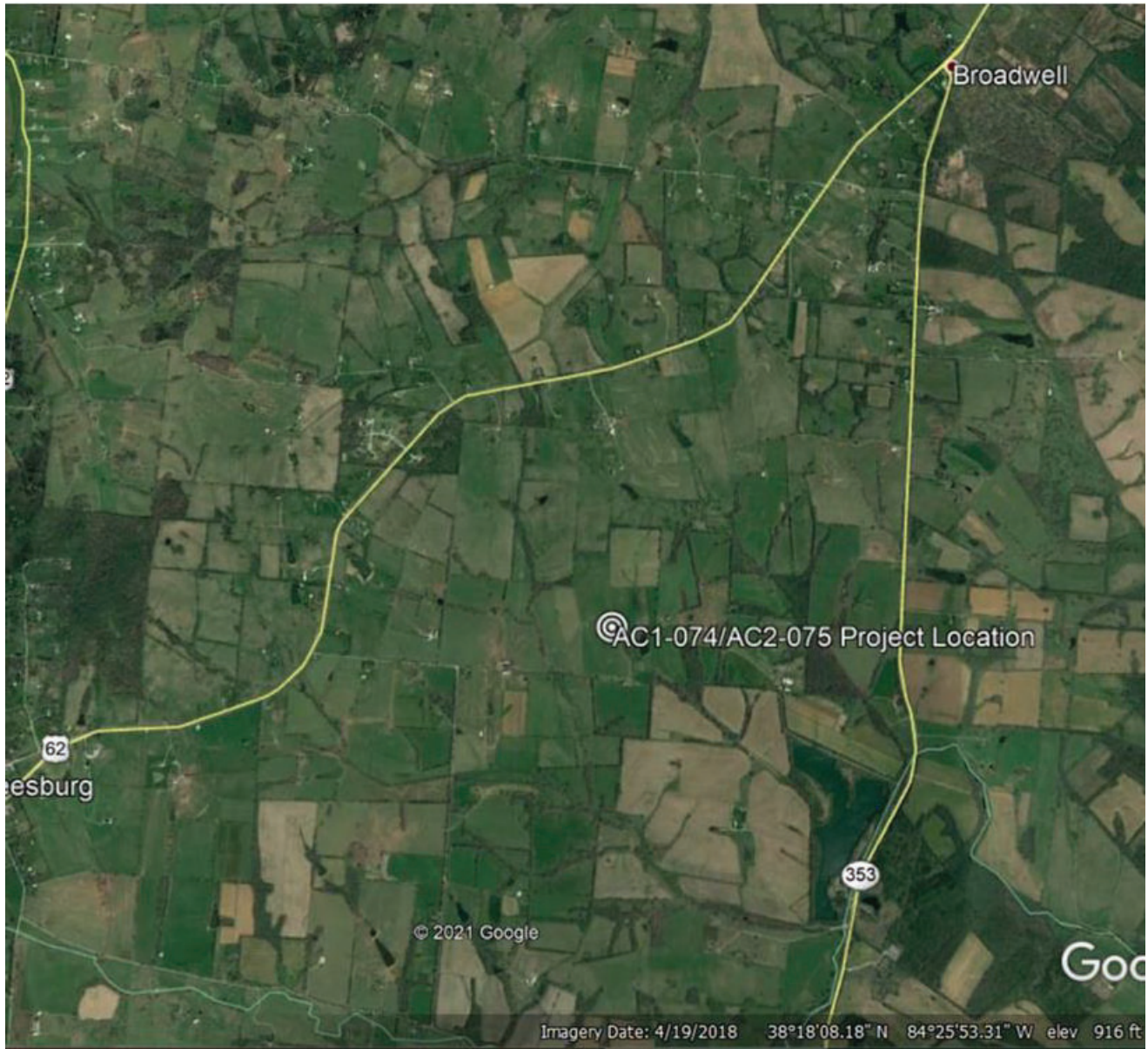
Interconnection Customer must provide the additional Security, in a form and with terms as required by Sections 212.4 of the Tariff, within 15 days after its receipt of Transmission Provider's notice under this section. The requirement for additional Security under this section shall be treated as a milestone included in the Interconnection Service Agreement pursuant to Section 217.5 of the Tariff.

#### **24.5 Tax Status:**

Each Party shall cooperate with the other to maintain the other Party's tax status. Nothing in this Interconnection Service Agreement or Part VI of the Tariff is intended to adversely affect any Interconnected Transmission Owner's tax exempt status with respect to the issuance of bonds including, but not limited to, local furnishing bonds.

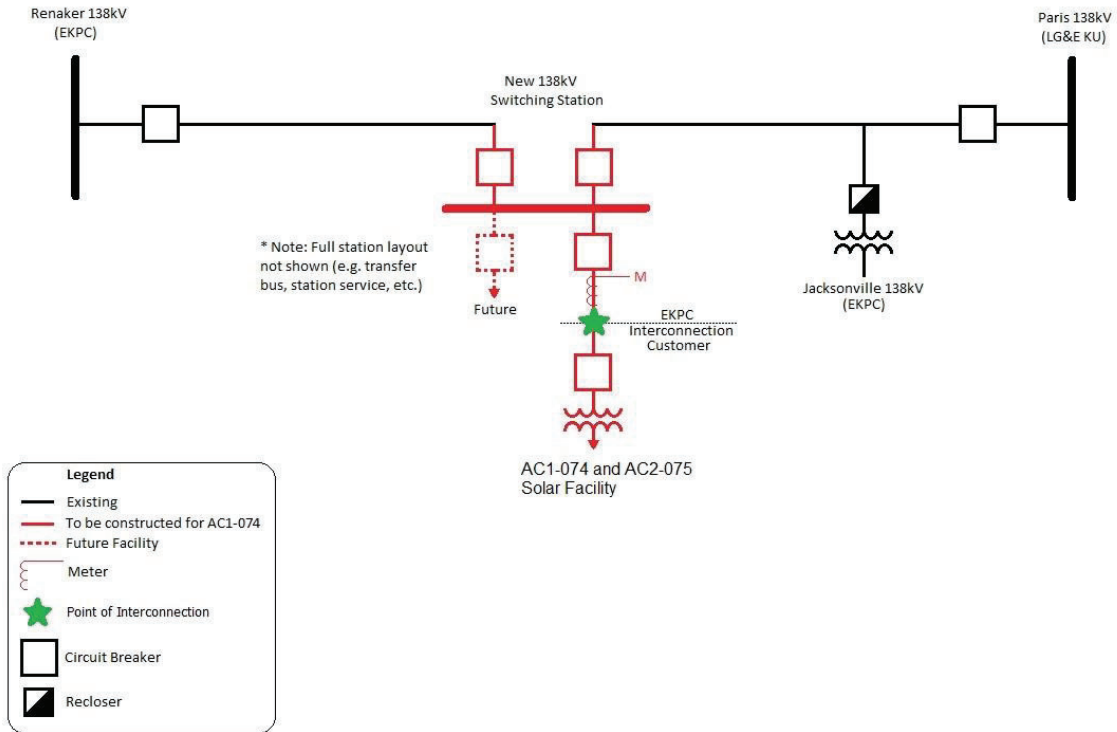


**SCHEDULE A**  
**CUSTOMER FACILITY LOCATION/SITE PLAN**



## SCHEDULE B

### SINGLE-LINE DIAGRAM





## **SCHEDULE C**

### **LIST OF METERING EQUIPMENT**

Interconnection Customer shall install the necessary equipment to provide “Revenue Metering (KWH, KVARH)” and real time data (KW, KVAR) for the Interconnection Customer’s Customer Facility that comply with the requirements set forth in Sections 8.1 through 8.5 of Appendix 2 to this ISA.

## **SCHEDULE D**

### **APPLICABLE TECHNICAL REQUIREMENTS AND STANDARDS**

“EKPC Facility Connection Requirements” rev. 12, dated September 25, 2020 shall apply. The “EKPC Facility Connection Requirements” rev. 12, dated September 25, 2020, are available on the PJM web site. To the extent that these Applicable Technical Requirements and Standards conflict with the terms and conditions of the Tariff or any other provision of this ISA, the Tariff and/or this ISA shall control.

## **SCHEDULE E**

### **SCHEDULE OF CHARGES**

The Administration, Metering, Telemetry, and Operation and Maintenance (“O&M”) charges referenced below refer to charges described in Section 10.1 of the Standard Terms and Conditions for Interconnections, which are contained in Appendix 2 of this ISA.

#### **ADMINISTRATION CHARGES**

The charges that EKPC would assess for Administration Charges would be its actual costs.

#### **METERING CHARGES**

The charges that EKPC would assess for Metering Charges would be its actual costs.

#### **TELEMETERING CHARGES**

The charges that EKPC would assess for Telemetry Charges would be its actual costs.

#### **O&M CHARGES**

EKPC reserves the right to charge its actual costs to the Interconnection Customer for O&M expenses to maintain the Interconnection Customer’s Attachment Facilities including metering equipment owned by Interconnected Transmission Owner.

**SCHEDULE F**

**SCHEDULE OF NON-STANDARD TERMS & CONDITIONS**

None

## **SCHEDULE G**

### **INTERCONNECTION CUSTOMER’S AGREEMENT TO CONFORM WITH IRS SAFE HARBOR PROVISIONS FOR NON-TAXABLE STATUS**

As provided in Section 24.1 of Appendix 2 to this ISA and subject to the requirements thereof, Interconnection Customer represents that it meets all qualifications and requirements as set forth in Section 118(a) and 118(b) of the Internal Revenue Code of 1986, as amended and interpreted by Notice 2016-36, 2016-25 I.R.B. (6/20/2016) (the “IRS Notice”). Interconnection Customer agrees to conform with all requirements of the safe harbor provisions specified in the IRS Notice, as they may be amended, as required to confer non-taxable status on some or all of the transfer of property, including money, by Interconnection Customer to Interconnected Transmission Owner with respect to the payment of the Costs of construction and installation of the Transmission Owner Interconnection Facilities specified in this ISA.

Nothing in Interconnection Customer’s agreement pursuant to this Schedule G shall change Interconnection Customer’s indemnification obligations under Section 24.2 of Appendix 2 to this ISA.

## SCHEDULE H

### INTERCONNECTION REQUIREMENTS FOR ALL WIND, SOLAR AND NON-SYNCHRONOUS GENERATION FACILITIES

#### A. Voltage Ride Through Requirements

The Customer Facility shall be designed to remain in service (not trip) for voltages and times as specified for the Eastern Interconnection in Attachment 1 of NERC Reliability Standard PRC-024-1, and successor Reliability Standards, for both high and low voltage conditions, irrespective of generator size, subject to the permissive trip exceptions established in PRC-024-1 (and successor Reliability Standards).

#### B. Frequency Ride Through Requirements

The Customer Facility shall be designed to remain in service (not trip) for frequencies and times as specified in Attachment 2 of NERC Reliability Standard PRC-024-1, and successor Reliability Standards, for both high and low frequency condition, irrespective of generator size, subject to the permissive trip exceptions established in PRC-024-1 (and successor Reliability Standards).

#### C. Supervisory Control and Data Acquisition (SCADA) Capability

The wind, solar or non-synchronous generation facility shall provide SCADA capability to transmit data and receive instructions from the Transmission Provider to protect system reliability. The Transmission Provider and the wind, solar or non-synchronous generation facility Interconnection Customer shall determine what SCADA information is essential for the proposed wind, solar or non-synchronous generation facility, taking into account the size of the facility and its characteristics, location, and importance in maintaining generation resource adequacy and transmission system reliability in its area.

#### D. Meteorological Data Reporting Requirement (Applicable to wind generation facilities only)

The wind generation facility shall, at a minimum, be required to provide the Transmission Provider with site-specific meteorological data including:

- Temperature (degrees Fahrenheit)
- Wind speed (meters/second)
- Wind direction (degrees from True North)
- Atmosphere pressure (hectopascals)
- Forced outage data (wind turbine and MW unavailability)

#### E. Meteorological Data Reporting Requirement (Applicable to solar generation facilities only)

The solar generation facility shall, at a minimum, be required to provide the Transmission Provider with site-specific meteorological data including:

- Temperature (degrees Fahrenheit)
- Irradiance
- Forced outage data

The Transmission Provider and Interconnection Customer may mutually agree to any additional meteorological data that are required for the development and deployment of a power production forecast. All requirements for meteorological and forced outage data must be commensurate with the power production forecasting employed by the Transmission Provider. Such additional mutually agreed upon requirements for meteorological and forced outage data are set forth below:

NOT APPLICABLE FOR THIS ISA



**SCHEDULE I**  
**INTERCONNECTION SPECIFICATIONS FOR AN**  
**ENERGY STORAGE RESOURCE**

Not Required

**SCHEDULE J**

**SCHEDULE OF TERMS AND CONDITIONS FOR  
SURPLUS INTERCONNECTION SERVICE**

Not required

**SCHEDULE K**  
**REQUIREMENTS FOR INTERCONNECTION SERVICE BELOW FULL**  
**ELECTRICAL GENERATING CAPABILITY**

None

Case No. 2021-00141  
Bluebird Solar, LLC  
Responses to Siting Board's Post-Hearing Request for Information

**Request for Information SITING BOARD PHDR\_4:**

Provide the Phase 1 Environmental Assessment.

**Response:** See attached Phase 1 Environmental Assessment: "2021\_01\_14\_Bluebird\_Additional\_Phase\_I\_ESA," \_BSLLC\_R\_SITING\_BOARD\_PHDR\_4\_Attachment.

**Witness:** Jeremy Jackson

# PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT

ADDITIONAL BLUEBIRD SOLAR PROPERTIES  
PROPOSED SOLAR FARM  
HARRISON COUNTY, KENTUCKY

Prepared for:

BLUEBIRD SOLAR LLC  
&  
BAYWA r.e. SOLAR PROJECTS LLC  
17901 VON KARMAN AVENUE, SUITE 1050  
IRVINE, CALIFORNIA 92614

Prepared by:

JACKSON GROUP  
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.

December 18, 2020

## EXECUTIVE SUMMARY

The Executive Summary below is an overview of the results of this Phase I Environmental Site Assessment (ESA) and should not be considered apart from the entire report, which contains the rationale and qualifications used in making the opinions and conclusions presented herein.

PROPERTY NAME/ADDRESS:	Bluebird Solar Properties – Proposed Solar Farm Harrison County, Kentucky
INTENDED USER(S):	Bluebird Solar LLC and BayWa r.e. Solar Properties LLC
PROPERTY/TAX ID:	066-0000-007-00-000, 080-0000-002-01-000 and 080-0000-002-01-000
PROPERTY OWNER:	McDowell, Agnes S. (066-0000-007-00-000) Reed, Dana H. & Trudie (080-0000-002-01-000) Hines, Douglas & Sara (080-0000-002-02-000)
PROPERTY DESCRIPTION:	
Land Area:	Approximately 356.67 Acres
Improvements:	Two vacant residential structures and a pole-barn
Water/Sanitary:	Private
Heating Fuel:	N/A or Unknown
CURRENT USE:	Agricultural land
HISTORIC USE:	Agricultural and residential
ADJACENT PROPERTY USE:	Surrounding properties consist of agricultural land, various single-family residences, farmsteads, and rural property. An orchard farm is located on the eastern adjacent property.
SIGNIFICANT DATA GAPS:	None identified
RECOGNIZED ENVIRONMENTAL CONDITIONS (RECS):	None identified

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- Figure 1 Subject Property Location Map (USGS Topographic Map)  
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## APPENDICES

- Appendix A Harrison County Records  
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Appendix E EDR Topographic Maps  
Appendix F Personnel Qualifications

## 1.0 INTRODUCTION

This report documents the results of a Phase I ESA for approximately 323 acres of agricultural land located east and west of Russel Cave Road (Kentucky Route 353 (KY 353)), approximately 6.5 miles southwest of the City of Cynthiana, Harrison County, Kentucky (the “Subject Property”). The Jackson Group and CEC (Project Team) conducted this assessment on behalf of Bluebird Solar, LLC (Bluebird Solar) and BayWa r.e. Solar Projects LLC (BayWa r.e.) as part of Bluebird Solar and BayWa r.e.’s due diligence associated with their potential lease of the Subject Property. As such, it is understood that Bluebird Solar and BayWa r.e. are the users<sup>1</sup> of this Phase I ESA.

### 1.1 PURPOSE

The purpose of this Phase I ESA is to identify, to the extent feasible pursuant to the process prescribed herein, recognized environmental conditions (RECs)<sup>2</sup> in connection with the Subject Property in accordance with ASTM International (ASTM) E2247-16 "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process for Forestland or Rural Property" (the “Standard”). In doing so, this Phase I ESA is intended to permit the user to satisfy one of the requirements to qualify for the innocent landowner, contiguous property owner, or bona fide prospective purchaser limitations on liability (hereinafter, the “landowner liability protections”) available under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended (42 U.S.C. §9601). No sampling or testing of materials, soil, water, air, or other environmental media was performed.

### 1.2 SCOPE OF SERVICES

The project team performed the following scope of services to meet the purpose of this Phase I ESA.

<sup>1</sup> The term user is defined in the Standard as “the party seeking to use Practice E 2247 to complete an environmental site assessment of the property.” A user may include, without limitation, a potential purchaser of property, a potential tenant of property, an owner of property, a lender, or a property manager.” The user is also the party that intends to use the Phase I ESA to satisfy one of the requirements to qualify for the landowner liability protections under CERCLA.

<sup>2</sup> The term recognized environmental conditions (RECs) is defined in the Standard as “the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. De minimis conditions are not recognized environmental conditions.”

### 1.2.1 Records Review

The purpose of the records review is to identify, obtain, and review reasonably ascertainable records from standard sources that will help identify RECs in connection with the Subject Property. The records review consisted of the following:

- (1) Standard Environmental Record Sources: A review of records obtained through a search of reasonably ascertainable government agency databases was performed to determine if the Subject Property and/or properties within prescribed search distances are listed in databases indicative of conditions or activities that may have a negative impact on the Subject Property. The sources and approximate minimum search distances included in the search were those set forth in the Standard.
- (2) Physical Setting Sources: A review of the current USGS 7.5-Minute Topographic Map showing the area of the Subject Property described in Section 4.2 to gain a general understanding of its physical setting.
- (3) Historical Use Information: A review of select reasonably ascertainable historical resources to develop a history of the previous uses of the Subject Property, its adjoining properties, and properties in the surrounding area to identify the likelihood of past uses having led to RECs in connection with the Subject Property. Various historical resources were utilized to identify the obvious uses of the Subject Property back to its first developed use, or back to 1941, whichever was earlier, as described in Section 4.3, and to the extent practical based on the available resources.

### 1.2.2 Subject Property Reconnaissance

A reconnaissance was performed by an Environmental Professional (EP) to obtain information indicating the likelihood of RECs in connection with the Subject Property. The reconnaissance consisted of a visit to observe areas of environmental interest, along with readily accessible exterior and interior portions of the Subject Property to evaluate its current and former uses. The current uses of adjoining properties were identified to the extent that they were visually and/or physically observable from the Subject Property or from public areas during the reconnaissance.

### 1.2.3 Interviews

The EP conducted an interview with the individuals identified in Section 6.0 in order to obtain information indicating RECs in connection with the Subject Property.

### 1.2.4 Report

After completion of the above tasks, the Phase I ESA report was prepared describing the scope of services performed, the findings that include the identification of RECs and opinions of the impact of the RECs on the property, and whether additional appropriate investigations would be necessary.

### 1.2.5 Non-Scope Considerations and Additional Services

Unless otherwise explicitly stated, the scope of services for this Phase I ESA does not include the collection and analysis of any environmental media. In accordance with the Standard, issues considered beyond the scope of this Phase I ESA include asbestos-containing materials, radon, lead-based paint, lead in drinking water, wetlands, regulatory compliance, cultural and historic resources, industrial hygiene, health and safety, ecological resources, endangered species, indoor air quality, biological agents, PCB-containing building materials, controlled substances, and mold. In addition, issues regarding ionizing radiation, oil/gas production, mineral rights and mining, and geotechnical suitability are also considered beyond the scope of this ESA.

## 1.3 SIGNIFICANT ASSUMPTIONS

The Phase I ESA was completed using the following significant assumptions:

- The information obtained from presumably knowledgeable parties (e.g. Subject Property owner, manager, user, tenants, etc.), regulatory agencies, or other sources was assumed to be accurate and reliable.
- The obtained regulatory database information was assumed to accurately reflect the information contained in the regulatory agency records unless it was obviously contradicted by other data.
- Shallow groundwater flow was assumed to mimic area topography as depicted on the local USGS 7.5-minute topographic map and as observed during the reconnaissance. Within the scope of this ESA, no subsurface data was obtained to evaluate the actual groundwater flow direction beneath

the Subject Property. Local factors, such as underground utilities, heterogeneous subsurface features, and seasonal fluctuations, among other factors may influence the actual direction of groundwater flow at and near the Subject Property. Site-specific groundwater flow can only be determined through the installation of piezometers into the transmissive zone being evaluated.

#### 1.4 LIMITATIONS AND EXCEPTIONS

The Phase I ESA was performed consistent with professional standards and in accordance with the scope and limitations defined in the Standard. This report presents the field observations, results and opinions as they existed on the date of the reconnaissance, and is subject to modification by the project team, if our team or any other party develops subsequent information. Limiting conditions encountered as part of this ESA, if any, are discussed in the corresponding sections of this report.

Performance of this Phase I ESA is intended to reduce, but not eliminate, uncertainty of environmental conditions associated with the property. Therefore, the information and comments made in this report should not be construed to warrant or guarantee the property, or express or imply, without limitation, warranties as to its marketability or fitness for a particular use. Furthermore, the information that is provided in this report is not intended, nor should it be construed to be, legal advice. The review of site-specific documentation was limited to those items referenced in this report.

It should be noted that this report is time sensitive and has specific limitations related to the viability of the information contained herein. Specific to Phase I ESAs, the Standard imposes a “shelf life”<sup>3</sup> on the reports and components thereof, as well as specific user obligations. It is the responsibility of the user to verify the continued viability of the report.

<sup>3</sup> According to the Standard, the shelf life, or “continued viability,” of the ESA is “Subject to Section 4.8, an environmental site assessment meeting or exceeding this practice and completed less than 180 days prior to the date of acquisition of the property or (for transactions not involving an acquisition) the date of the intended transaction is presumed to be valid. If within this period the assessment will be used by a user different than the user for whom the assessment was originally prepared, the subsequent user must also satisfy the user’s Responsibilities in Section 6. Subject to Section 4.8 and the user’s Responsibilities set forth in Section 6, an environmental site assessment meeting or exceeding this practice and for which the information was collected or updated within one year prior to the date of acquisition of the property or (for transactions not involving an acquisition) the date of the intended transaction may be used provided that the following components of the inquiries were conducted or updated within 180 days of the date of purchase or the date of the intended transaction: (i) interviews with owners, operators, and occupants; (ii) searches for recorded environmental cleanup liens; (iii) reviews of federal, tribal, state, and local government records; (iv) visual inspections of the property and of adjoining properties; and (v) the declaration by the environmental professional responsible for the assessment or update.”

## **1.5 SPECIAL TERMS AND CONDITIONS**

There are no special terms or conditions associated with this Phase I ESA.

## **1.6 USER RELIANCE**

This report is intended for the sole use of Bluebird Solar and BayWa r.e. The scope of services performed in execution of this evaluation may not be appropriate to satisfy the needs of others, and use of this document or the findings, conclusions, or recommendations contained herein by others is at their sole risk. Reliance by Bluebird Solar and BayWa r.e. on the facts, conclusions, and recommendations presented in this report is subject to the agreed upon specific scope of services and contractual terms and conditions, including explicit indemnification statements and limitations on the project teams financial liability.

This report and its findings shall not, in whole or in part, be disseminated or conveyed to another party, nor used by another party in whole or in part, without prior written consent form the project team, except as permitted by the Standard.

## **2.0 SUBJECT PROPERTY DESCRIPTION**

### **2.1 LOCATION AND LEGAL DESCRIPTION**

The Subject Property is located west and east of Russel Cave Road/KY 353, approximately 6.5 miles southwest of the City of Cynthiana on the south end of Harrison County, Kentucky. The Subject Property is comprised of approximately 323 acres of rural agricultural land that will be leased from current property owners of the following Harrison County Parcels as identified by the Harrison County Property Valuation Administrator (PVA):

- 066-0000-007-00-000 – approximately 137 acres of the Subject Property and owned by the Agnes S. McDowell Trust (“McDowell Property”)
- (080-0000-002-01-000 –approximately 75 acres of the Subject Property and owned by Dana H. and Trudie Reed (“Reed Property”)
- 080-0000-002-02-000 – approximately 111 acres of the Subject Property and owned by Douglass and Sara Hines (“Hines Property”)

A Site Location Map and Subject Property Diagram are attached as Figures 1 and 2, respectively. Property records obtained from the Harrison County PVA showing current owner information and the total acreage of each parcel (not all of which are included as part of the Subject Property) are provided in Appendix A.

## **2.2 SUBJECT PROPERTY AND VICINITY GENERAL CHARACTERISTICS**

The approximately 323-acre Subject Property is situated in a rural agricultural and residential area located approximately 6.5 miles southwest of Cynthiana, Kentucky, east and west of Russell Cave Road/KY 353 and north of the South Fork Licking River near the southern end of Harrison County. Nearby properties include agricultural fields and farmsteads, an orchard farm, rural residential properties, and vacant open land. The topography of the Subject Property is rolling and generally slopes to the south toward the South Fork Licking River.

## **2.3 CURRENT USE OF THE SUBJECT PROPERTY**

The Subject Property is currently used for agricultural land including common and specialty crop production and livestock grazing. A vacant single-family residence and an abandoned/damaged vacant residence are also located on the McDowell Property west of Russell Cave Road.

## **2.4 DESCRIPTION OF STRUCTURES, ROADS, AND OTHER IMPROVEMENTS**

The Subject Property parcels are currently readily accessible from two general locations, including two driveways off Russell Cave Road/KY 353 to access the McDowell Property and Lail Lane to the east to access the Reed Property. Improvements on each portion of the Subject Property consist of the following:

- McDowell Property, situated west of Russell Cave Road, contains a small residence, pole barn and storage shed structures on the southwest portion of the parcel at the address of 2188 Russell Cave Road. An abandoned and damaged small residential structure is also located along Russell Cave Road on the northeastern end of the Subject Property parcel. Apart from fencing and livestock feeding and herding infrastructure, the remaining area is entirely agricultural or forested land.
- Reed Property, situated approximately 0.5 miles east of Russell Cave Road, contains a gravel driveway that accesses the parcel from the east via Lail Lane and the eastern adjacent Reed Valley Orchard. The Subject Property portion of the parcel has no structures but contains a gravel driveway, planted rows of specialty crops and a forested area.



- Hines Property, situated south and southeast adjoining to the Reed Property and extending southeast to the South Fork Licking River, is entirely agricultural or forested land and contains no observed improvements.

Refer to Figure 2 and Appendix B for a site diagram and photographs showing the current configuration of the Subject Property.

## **2.5 CURRENT USES OF THE ADJOINING PROPERTIES**

The adjoining properties to the Subject Property consist of a mixture of agricultural land, rural residential properties, and farmsteads. Readily observable improvements on adjoining properties include a farmstead western adjacent to southern end of the McDowell Property, residential properties western adjacent to the McDowell Property across Russell Cave Road, pole barns southeast adjacent of the Hines Property and the Reed Valley Orchard and residential properties adjoining the eastern end of the Subject Property. The Reed Valley Orchard facility was observed to contain a store and pole-barn building along with a paved parking area and several other outbuildings.

## **3.0 USER PROVIDED INFORMATION**

User information was not provided to the project team during this Phase I ESA; however, based on review of available information and the past uses of the Subject Property, this is not expected to affect the ability of the EP to identify the presence of RECs associated with the Subject Property.

## **4.0 RECORDS REVIEW**

### **4.1 ENVIRONMENTAL RECORD SOURCES**

#### **4.1.1 Government Environmental Databases**

Environmental Data Resources, Inc. (EDR) of Shelton, Connecticut was contracted to conduct a search of reasonably ascertainable environmental record sources published by Federal, State, and/or Tribal regulatory agencies with jurisdiction over the Subject Property. EDR also searches their proprietary databases of historical auto station, dry cleaner, and manufactured gas plant locations. The search of each database was conducted using the approximate minimum search distances from the Subject Property defined by the Standard. The results of EDR's search were used to evaluate if the Subject Property and/or properties within prescribed search distances are listed as having a past or present record of actual or

potential environmental impact. Please note that regulatory listings include only those properties, which are known to the regulatory agencies at the time of publication to be 1) contaminated, 2) in the process of evaluation for potential contamination, or 3) regulated. Inclusion of a property in a government database list does not necessarily indicate that the property has an environmental problem.

EDR plotted the locations of the listed properties identified in the search relative to the Subject Property and provided the regulatory information available for each in an EDR Area / Corridor Report (Radius Map Report), dated August 19, 2020. Due to the size of the area of the Subject Property, a custom study of the area was conducted by EDR which provides several excerpts of areas encompassing the Subject Property. Refer to Appendix C for a copy of EDR's Radius Map Report, which provides a "Key Map" showing the entire Subject Property and surrounding searched area, as well as several "Focus Maps" showing closer detailed areas that were searched by EDR. A listing of the "standard" and "additional" record sources reviewed is also included.

#### *4.1.1.1 Subject Property Listings*

The Subject Property was not listed on the databases included in the EDR Radius Map Report.

#### *4.1.1.2 Non-Subject Property Listings*

EDR's Radius Map Report identified no non-Subject Property listing within the search area radius from the Subject Property. Please refer to EDR's Radius Map Report in Appendix C for complete detail.

#### *4.1.1.3 Orphan Listings*

Not all sites or facilities identified in the database records can be accurately located in relation to the Subject Property due to incomplete information being supplied to the regulatory agencies and are referred to as "orphan sites" by EDR. The "Orphan Summary" section of the EDR Radius Map Report identified Hinkle Contracting Corporation on KY 353/Russell Cave Road as an orphan site. Review of the provided information for the orphan site and a drive-by reconnaissance of the Subject Property and surrounding area indicated that it is unlikely that this orphan site was located on the Subject Property or adjoining properties.

#### *4.1.2 State Environmental Regulatory Agency*

A search of the Kentucky Department of Environmental Protection (KDEP)'s Search Online database was conducted for information pertaining to facilities in Harrison County, Kentucky. The search found no records indicative of agency interest facilities on or adjacent to the Subject Property.

#### 4.1.3 Local Agencies

On September 18, 2020, an online written requests was submitted to the City of Cynthiana and the WEDCO District Health Department & Home Health Agency to determine if any information is maintained on-file regarding potential environmental concerns for the Subject Property. As of the date of this report, a response has not received from local agencies with information pertaining to the Subject Property. If information is received which indicates conditions that would alter the conclusions of this Phase I ESA, notification will be sent to Bluebird Solar and BayWa r.e. and an addendum to this report will be issued.

## 4.2 PHYSICAL SETTING SOURCES

Information from physical setting sources were reviewed to evaluate the general characteristics of the subsurface geology in the vicinity of the Subject Property. This information was reviewed to evaluate how those characteristics may influence movement of potential subsurface impact identified on or near the Subject Property. It was not the intent of this review to evaluate the geotechnical conditions of the Subject Property or to assess geologic concerns such as foundation conditions, faulting, subsidence, mining, or oil/gas wells.

#### 4.2.1 Topography

Review of the 7.5-minute Topographic Leesburg and Shawhan, Kentucky Quadrangle Maps (U.S. Geological Survey, 2019) indicated that the Subject Property and surrounding area has rolling hills with an elevation ranging from approximately 800 to 900 feet above mean sea level with a radial slope generally to the south toward the South Fork Licking River. The Subject Property is shown as predominantly undeveloped except for two small structures indicating the location of the residence and pole barn on the southern end of the McDowell Property. Refer to Figure 1 for an excerpt of this map.

#### 4.2.2 Regional Geology and Hydrogeology

According to the University of Kentucky's Kentucky Geological Survey and Kentucky Soils Data Viewer, the Subject Property is located in the Inner Bluegrass region containing Upper Ordovician- to Middle Ordovician-aged limestone and shale overlain by one to three feet of well drained and fertile silty clay loam, silt loam and fine sandy loam soils.

The geologic formations in the area of the Subject Property may yield over 500 gallons per day to wells drilled in valley bottoms while only yielding small amounts of water to wells drilled on hillsides and hilltops. Small springs are also present in the area. The water is hard and may contain high iron content and salt levels.

### **4.3 HISTORICAL USE INFORMATION ON THE SUBJECT PROPERTY AND ADJOINING PROPERTIES**

The readily available historical sources described in the following sections were reviewed to ascertain the historical uses of the Subject Property and immediately adjacent properties to evaluate the presence of activity that could present RECs. Information, as summarized below, was obtained dating back to 1929.

#### **4.3.1 Ownership Records**

Ownership information for the Subject Property was obtained from the Harrison County PVA and indicates that the Subject Property parcels are owned by individual landowners. A detailed list of current ownership information is provided in Section 3.6. Prior ownership information was not provided. Limited parcel records are provided in Appendix A.

#### **4.3.2 Aerial Photographs**

Aerial photographs were obtained for the vicinity of the Subject Property from EDR. Photographs were available from 1952, 1960, 1984, 1997, 2008 and 2016. Due to the size of the area of the Subject Property, the EDR report provided two aerial photographs from each flight date. The scale, resolution, and/or quality of the aerial photographs limited our ability to discern specific Subject Property and vicinity features relative to historical uses. Copies of the aerial photographs obtained by EDR are included in Appendix D.

In the aerial photographs from 1952 and 2016, the Subject Property and surrounding area appeared in a similar configuration and with the same or similar agricultural and rural residential land uses and associated improvements as of the date of this report. Exceptions visible on the aerial photographs include the following:

- 1952-1984: The property south of the southern adjoining field to the McDowell Property, west of Russell Cave Road/KY 353, was depicted as an active limestone quarry (currently a pond).

#### 4.3.3 Historical Topographic Maps

Historical topographic maps were obtained for the vicinity of the Subject Property from EDR. Maps were available from 1929, 1934, 1954, 1978 and 2013. Copies of the topographic maps obtained by EDR are included in Appendix E.

Review of the historical maps indicate that the area of the Subject Property was depicted as rural and undeveloped with the exception of small structures and driveways depicted dating back to at least 1929; however, specific uses of the structures were not discerned (presumably farmstead and rural residential dwellings).

### 4.4 HISTORICAL USE SUMMARY

#### 4.4.1 Summary of the Historical Use of the Subject Property

The Subject Property has been predominantly agricultural land since 1952 and based on the rural location of the area and undeveloped depiction on the topographic maps dating back to 1929, is likely the first developed use of the Subject Property. Agricultural uses of the Subject Property land have included crop production, livestock farms and grazing pastures. Residential dwellings have also resided on the western portion of the Subject Property on the McDowell Property since at least the 1950's and possibly since at least the late 1920s.

#### 4.4.2 Summary of the Historical Use of the Adjacent Properties

Dating back to at least 1929, adjacent properties historically consisted of mostly of agricultural land and farmsteads with a few sparse residential dwellings located in each direction, along with an orchard farmstead to the east. The property beyond the adjoining field south of the McDowell Property, on the west side of Russell Cave Road/KY 353, was historically an active limestone quarry from at least 1952 to between 1984 and 1997.

## 5.0 SUBJECT PROPERTY RECONNAISSANCE

### 5.1 METHODOLOGY AND LIMITING CONDITIONS

On September 2, 2020, an environmental professional, conducted a reconnaissance survey to observe the Subject Property and the immediate vicinity visually and physically for potential evidence and/or practices that could represent RECs.

At the time of the reconnaissance, the visibility at the Subject Property was good and weather conditions did not restrict observation of the Subject Property. The following methodology was used when performing the reconnaissance:

- Observed the exterior portions of the Subject Property by traversing the grounds at accessible areas and traveling the perimeter. Pursuant to the Standard for large rural and forested areas, only areas deemed of environmental interest were closely observed during the site reconnaissance, which included farmsteads and areas accessible by vehicle.
- Observed readily accessible portions of the interior of the onsite structures; and
- Observed land use and types of operations of the immediate adjacent properties from the Subject Property and public areas.

Limitations encountered during the site reconnaissance included estimation of the Subject Property boundaries and inability to observe all areas and structures of the Subject Property due to the size of the area, accessibility, dense vegetation, and terrain.

A Subject Property Location Map and Subject Property Diagram are attached as Figures 1 and 2, respectively. Photographs are attached in Appendix B. Figure 3 depicts “Areas of Interest” in accordance with the Standard, including each of the four farmsteads observed during the site reconnaissance as discussed below

## **5.2 GENERAL SUBJECT PROPERTY SETTING**

The Subject Property is situated in a rural agricultural area located approximately 6.5 miles southwest of Cynthiana, Kentucky, east and west of KY 353/Russel Cave Road and just north of the South Fork Licking River. Nearby properties include agricultural fields, farmsteads, and rural residential properties, along with forested areas, creeks, and ponds. The topography of the Subject Property generally slopes to the south toward the South Fork Licking River.

## **5.3 SUBJECT PROPERTY WIDE OBSERVATIONS**

The following conditions were specifically assessed for their potential to indicate RECs and may include conditions inside or outside structures on the Subject Property.

### 5.3.1 Hazardous Substances and Petroleum Products

No hazardous substances or petroleum products were observed on the Subject Property during the reconnaissance.

### 5.3.2 Storage Tanks

#### 5.3.2.1 *Underground Storage Tanks (USTs)*

The Subject Property was observed for the presence of USTs. No obvious visual evidence indicating the current presence of USTs (i.e. vent pipes, fill ports, etc.) was noted.

#### 5.3.2.2 *Aboveground Storage Tanks (ASTs)*

No ASTs were observed at the Subject Property during the site reconnaissance.

### 5.3.3 Odors

No obvious strong, pungent, or noxious odors were noted during the site reconnaissance.

### 5.3.4 Pools of Liquid

No pools of liquid (other than water) were observed during the site reconnaissance.

### 5.3.5 Drums and Containers

Three unlabeled and abandoned 55-gallon drums were observed in and near the pole-barn on the southeastern portion of the McDowell Property at the address of 2188 Russell Cave Road. The drums were abandoned and rusted and appeared to be empty. An empty 55-gallon drum was also observed near the residence. Observation of the drums and surrounding ground surface did not indicate petroleum staining or odors and there was no observable evidence of the former uses of the drums.

### 5.3.6 Suspect Polychlorinated Biphenyl (PCB) Containing Equipment

The Subject Property and immediate vicinity were viewed for the presence of potential PCB containing equipment, such as electrical transformers, capacitors, and hydraulic equipment.



#### 5.3.6.1 *Transformers*

Two pole-mounted transformers were observed near the residence and pole barn on the McDowell Property at 2188 Russell Cave Road. No labels indicating PCBs or evidence of explosions or spills were observed in their surrounding area.

#### 5.3.6.2 *Other Potential PCB-Containing Equipment*

No other major classes of equipment suspected of containing PCBs were observed on the Subject Property.

### 5.4 INTERIOR OBSERVATIONS

The Subject Property included two residential structures, both of which were inaccessible during the reconnaissance. The interior of one pole barn was observed, which contained an exposed ground surface. No significant staining or corrosions were observed in this area.

### 5.5 EXTERIOR OBSERVATIONS

The following exterior conditions at the Subject Property were specifically assessed for their potential to indicate RECs.

#### 5.5.1 Pits, Ponds, Lagoons, and Surface Waters

A small pond was observed on the western portion of the Subject Property. No other pits, ponds, lagoons were identified within the Subject Property boundaries.

#### 5.5.2 Stained Surfaces and Distressed Vegetation

The EP did not encounter visual evidence of stressed vegetation or stains on soil at the Subject Property.

#### 5.5.3 Solid Waste

A few stockpiles of aggregate materials and abandoned fence posts and irrigation equipment were observed on the McDowell Property on the southwestern portion of the Subject Property.

A stockpile of miscellaneous refuse was observed on the eastern end of the Reed Property, near the orchard plantings. This waste was observed for the presence of petroleum or hazardous materials, which were not identified. No visual evidence indicating public dumping.

#### 5.5.4 Wastewater

It is presumed that the residences on or near the Subject Property have private septic systems; however, the EP did not observe or confirm their locations.

#### 5.5.5 Storm Water

The general surficial characteristics of the Subject Property indicate that storm water likely infiltrates into the soil or runs-off into the streams, ponds and/or wetlands onsite or on adjacent properties. No storm water infrastructure was observed on the Subject Property during the site reconnaissance.

#### 5.5.6 Wells

Evidence of a water well was observed on the McDowell Property, located just north of the residence at 2188 Russel Cave Road. A review of information from the Kentucky Groundwater Data Repository online mapping application identified the observed well with identification number 00063312 and indicates it is an agricultural – livestock watering supply well installed to 100 feet below ground surface with static water level of 6 feet, owned by McDowell Farms. No other wells were identified on the Subject Property. If encountered, it is recommended to abandon and remove unused water wells in accordance with state and local regulations.

### 5.6 ADJACENT PROPERTY OBSERVATIONS

To the extent that they were visibly and/or physically observable, the EP viewed each adjacent property from the Subject Property and adjacent public areas to evaluate the apparent land use for the potential to indicate RECs in connection with the Subject Property. Observations are summarized as follows:

- **North:** Rural agricultural land
- **West:** Rural agricultural land with a few adjacent residences and farmsteads.
- **Center (between the McDowell Property and Reed Property):** Agricultural land with few adjacent residences and farmsteads.
- **South:** Agricultural land and the South Fork Licking River.
- **East:** The Reed Valley Orchard, residences, and agricultural land.

No observations indicative of RECs was identified on adjacent properties. A Subject Property Location Map and Subject Property Diagram are attached as Figures 1 and 2, respectively. Photographs are attached as Appendix B.

## **6.0 INTERVIEWS**

### **6.1 INTERVIEW WITH OWNER REPRESENTATIVES**

On October 29, 2020, our EP interviewed owners or owner representatives of Subject Property parcel, including Mr. Sam Arnold (land trust manager of the McDowell Property) and Mr. Doug Hines (owner of the Hines Property). A representative of the Reed Property was previously spoken to during the Subject Property reconnaissance on September 2, 2020.

Each of the interviewees indicated that their properties had been used solely as either agricultural land (Hines Property, portions of McDowell and Reed Properties), livestock grazing land (portions of McDowell Property) or orchard plantings (portion of Reed Property) and stated that no underground storage tanks (USTs) existed on the properties and that there were no active bulk fuel tanks in use. Mr. Arnold indicated that the residential dwellings on the McDowell Property were vacant. When asked if they knew of any waste dumping, previous spills or releases of petroleum products or hazardous materials, fires, or other incidents at their respective properties, each responded stating that they were not aware of any. No additional information was obtained regarding potential environmental concerns.

### **6.2 CURRENT OCCUPANTS**

The Subject Property is currently vacant. Interviews with owner and former occupant are discussed above in Section 6.1. No other former occupants were interviewed during the Phase I ESA.

### **6.3 GOVERNMENT OFFICIALS**

Interviews were not conducted with local government officials. Written requests for information regarding the environmental condition of the Subject Property were submitted to local agency officials (Section 4.1.3).

## 6.4 OTHER INTERVIEWS

No other individuals were interviewed as part of this Phase I ESA.

## 7.0 EVALUATION

### 7.1 FINDINGS

Based upon the information gathered as part of this Phase I ESA, the following is a summary of findings:

- The approximately 323-acre Subject Property is situated in a rural agricultural and residential area located approximately 6.5 miles southwest of Cynthiana, Kentucky, east and west of Russell Cave Road/KY 353 and north of the South Fork Licking River near the southern end of Harrison County. Nearby properties include agricultural fields and farmsteads, an orchard farm, rural residential properties, and vacant grazing land. The topography of the Subject Property and surrounding area is rolling and generally slopes to the south toward the South Fork Licking River.
- The Subject Property is comprised of three tax parcels, described as follows:
  - McDowell Property, situated west of Russell Cave Road, contains a small residence, pole barn and storage shed structures on the southwest portion of the parcel at the address of 2188 Russell Cave Road. An abandoned and damaged small residential structure is also located along Russell Cave Road on the northeastern end of the Subject Property parcel. Except for fencing and livestock feeding and herding infrastructure, the remaining area is entirely agricultural or forested land.
  - Reed Property, situated approximately 0.5 miles east of Russell Cave Road, contains a gravel driveway that accesses the parcel from the east via Lail Lane and the eastern adjacent Reed Valley Orchard. The Subject Property portion of the parcel has no structures but contains a gravel driveway, planted rows of specialty crops and a forested area.
  - Hines Property, situated south and southeast adjoining to the Reed Property and extending southeast to the South Fork Licking River, is entirely agricultural or forested land and contains no observed improvements.

- The Subject Property has been agricultural land and in a similar configuration as of the date of this report (described above) since at least 1929. Agricultural uses of the Subject Property land have included crop production, livestock farms and grazing pastures. Residential dwellings have also resided west of Russell Cave Road/KY 353 on the McDowell Property since at least the 1950's and possibly since at least the late 1920's.
- Adjacent properties historically have also consisted of mostly of agricultural land and farmsteads with a few sparse residential dwellings located in each direction, along with an orchard farmstead to the east. The property beyond the adjoining field south of the McDowell Property, on the west side of Russell Cave Road/KY 353, was historically an active limestone quarry from at least 1952 to between 1984 and 1997.
- The Subject Property was not listed on the databases included in the EDR Radius Map Report.
- EDR's Radius Map Report identified no non-Subject Property listings within the approximate minimum search distances from the Subject Property.
- The "Orphan Summary" section of the EDR Radius Map Report identified one orphan site within the search area, identified as Hinkle Contracting Corporation at KY 353/Russell Cave Road. Review of the provided information for the orphan site and a drive-by reconnaissance of the Subject Property and surrounding area indicated that it is unlikely that the listed orphan site is located on the Subject Property or adjoining properties.
- During the Subject Property reconnaissance, operations that use, treat, store, dispose of, or generate hazardous materials or petroleum products were not observed at the Subject Property.
- During the Subject Property reconnaissance, observations relative to potential environmental concerns included the following:
  - Three unlabeled and abandoned 55-gallon drums in and near the pole-barn on the southeastern portion of the McDowell Property at the address of 2188 Russell Cave Road. The drums were abandoned and rusted and appeared to be empty. An empty 55-gallon drum was also observed near the residence. Observation of the drums and surrounding ground surface did not indicate petroleum staining or odors and there was no observable evidence of the former uses of the drums.

- Two pole-mounted transformers were observed near the residence and pole barn on the McDowell Property at 2188 Russell Cave Road. No labels indicating PCBs or evidence of explosions or spills were observed in their surrounding area.
  - A few stockpiles of aggregate materials and abandoned fence posts and irrigation equipment were observed on the McDowell Property on the southwestern portion of the Subject Property.
  - A stockpile of miscellaneous refuse was observed on the eastern end of the Reed Property, near the orchard plantings. This waste was observed for the presence of petroleum or hazardous materials, which were not identified.
  - Evidence of a water well was observed on the southern portion of the McDowell Property, located north of the residence at 2811 Russell Cave Road. The well was identified by the Kentucky Groundwater Data Repository as an agricultural and livestock supply well.
- Observations of adjacent properties during the Subject Property reconnaissance did not indicate conditions evident of RECs in connection with the Subject Property.

## 7.2 OPINIONS

Based on the findings of this ESA, the project team offers the following opinions relative to the potential for environmental impacts on the Subject Property by the conditions identified:

- Based upon the rural setting depicted in the 1929 historical topographic map, it is reasonable to assume that agricultural crop production, livestock grazing and rural single-family residential were the first developed uses of the Subject Property.
- The Subject Property's past agricultural land use does not represent a REC. While it is reasonable to anticipate that pesticides and herbicides were used as part of past agricultural activities, when applied for their intended purpose in accordance with label directions, pesticides and herbicides use does not constitute a release of hazardous substances and generally poses a low potential for environmental impact.
- Based on the regulatory status and/or interpreted distance/direction to the Subject Property, the listed orphan site on the regulatory database is considered to pose a low potential to impact the Subject Property such that it does not represent a REC to the Subject Property.

- The empty 55-gallon drums and stockpiles of aggregate and solid waste materials observed on the Subject Property are not interpreted to represent a REC. According to the property owners interviewed, no spills or historical dumping have occurred on the Subject Property nor has there been use or storage of petroleum or hazardous materials. No visual evidence of leakage, spills, staining, distressed vegetation, or other releases were observed during the site reconnaissance. It is recommended that the drums, containers, and solid waste be removed for disposal in accordance with state and local regulations.
- Based on the presumed age of construction of the residences on the McDowell Property portion of Subject Property, the potential for asbestos-containing materials cannot be ruled out. It is recommended that a pre-demolition survey for asbestos be performed for residences if they are to be demolished for redevelopment.
- No information was obtained regarding the status of the septic tanks potentially located on site near the two residences on the McDowell Property. It is recommended to abandon and remove a septic system if encountered in accordance with state and local regulations.
- If encountered, it is recommended to abandon and remove unused water wells in accordance with state and local regulations.
- Based on the observed and reported uses of the adjoining properties and lack of visual evidence of releases of petroleum products or hazardous materials, the adjoining properties have little potential for environmental impact to the Subject Property and do not represent a REC.

### 7.3 SIGNIFICANT DATA GAPS

ASTM E2247-13 recommends reviewing historical sources at intervals not less than five years. Several intervals of available aerial photographs and historical topographic maps as provided in Appendix D and Appendix E exceed this 5-year interval and represent a data gap. Based on the content of the historical sources, this data gap is not expected to affect the ability of the EP to evaluate RECs in connection with the Subject Property.

As of the date of this report, responses have not been received from local agencies. This data gap is not considered to be significant, nor is it expected to affect the ability of the EP to evaluate RECs in connection with the Subject Property.

Other data gaps experienced included the inability to observe all areas of the Subject Property due to its size and accessibility and inability to observe the interior conditions of a few of the structures observed on the Subject Property due to overgrown brush and structural safety concerns. Additionally, the inability to observe conditions of all the adjacent properties due to inaccessibility and limitations due to the size of the Subject Property represents a data gap. Based on review of aerial photographs and other records along with the reported uses of the Subject Property and adjacent properties, we do not believe these data gaps are likely to affect the ability to evaluate RECs in connection with the Subject Property.

#### **7.4 CONCLUSIONS**

The Phase I ESA was conducted in conformance with the scope and limitations of ASTM Practice E 1527-13 for the Subject Property. Any exception to, or deletions from, this practice are described in Sections 1.4 and 8.0 of this report. The ESA has revealed no RECs in connection with the Subject Property.

#### **8.0 DEVIATIONS**

The Phase I ESA was conducted in general conformance with the scope and limitations of the Standard with no identified deletions and no additions.

The project team did not observe the interior of all the residential structures on the Subject Property or observe the entire Subject Property and surrounding properties during the site reconnaissance. Considering historical agricultural uses, the presence of hazardous materials or petroleum products in small quantities that were not observed is possible; however, it is unlikely that a significant release has occurred with the potential to affect the proposed redevelopment efforts and future land use.



## 9.0 REFERENCES

**Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process;** ASTM; 2013.

**“Leesburg and Shawhan, Ohio” 7.5 Minute Topographic Quadrangle Map;** United States Geological Survey, 2019.

***The EDR Area / Corridor Report;*** Environmental Data Resources, Inc.; August 19, 2020.

***The EDR Aerial Photo Decade Package;*** Environmental Data Resources, Inc., August 19, 2020; Aerial Photos from 1952, 1960, 1984, 1997, 2008 and 2016.

***The EDR Historical Topo Map Report;*** Environmental Data Resources, Inc., May 16, 2019; Historical Topographic Map excerpts from 1929, 1934, 1954, 1978 and 2013.

***Harrison County Property Records;*** Harrison County Property Valuation Administrator; Online at <http://harrisoncountypva.com>

***Kentucky Geologic Map Information Service;*** Kentucky Geological Survey, University of Kentucky; Available online at <https://kgs.uky.edu/kgsmap>

***Kentucky Groundwater Data Repository;*** Water Well and Spring Location Map, Kentucky Geological Survey, University of Kentucky; Online at <http://kgs.uky.edu/kgsmap/KGSWater/viewer.asp>

**Search Online;** *Kentucky Department of Environmental Protection;* Available online at <https://dep.gateway.ky.gov/eSearch>

## 10.0 QUALIFICATIONS AND SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

Environmental professional qualifications are attached in Appendix F.

We declare that, to the best of our professional knowledge and belief, we meet the definition of an Environmental Professional as defined in 40 CFR 312.10 and we have the specific qualifications based on the education, training, and experience to assess a property of the nature, history, and setting of the Subject Property. We have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Prepared by:



Nathan W. Hyde

Reviewed by:



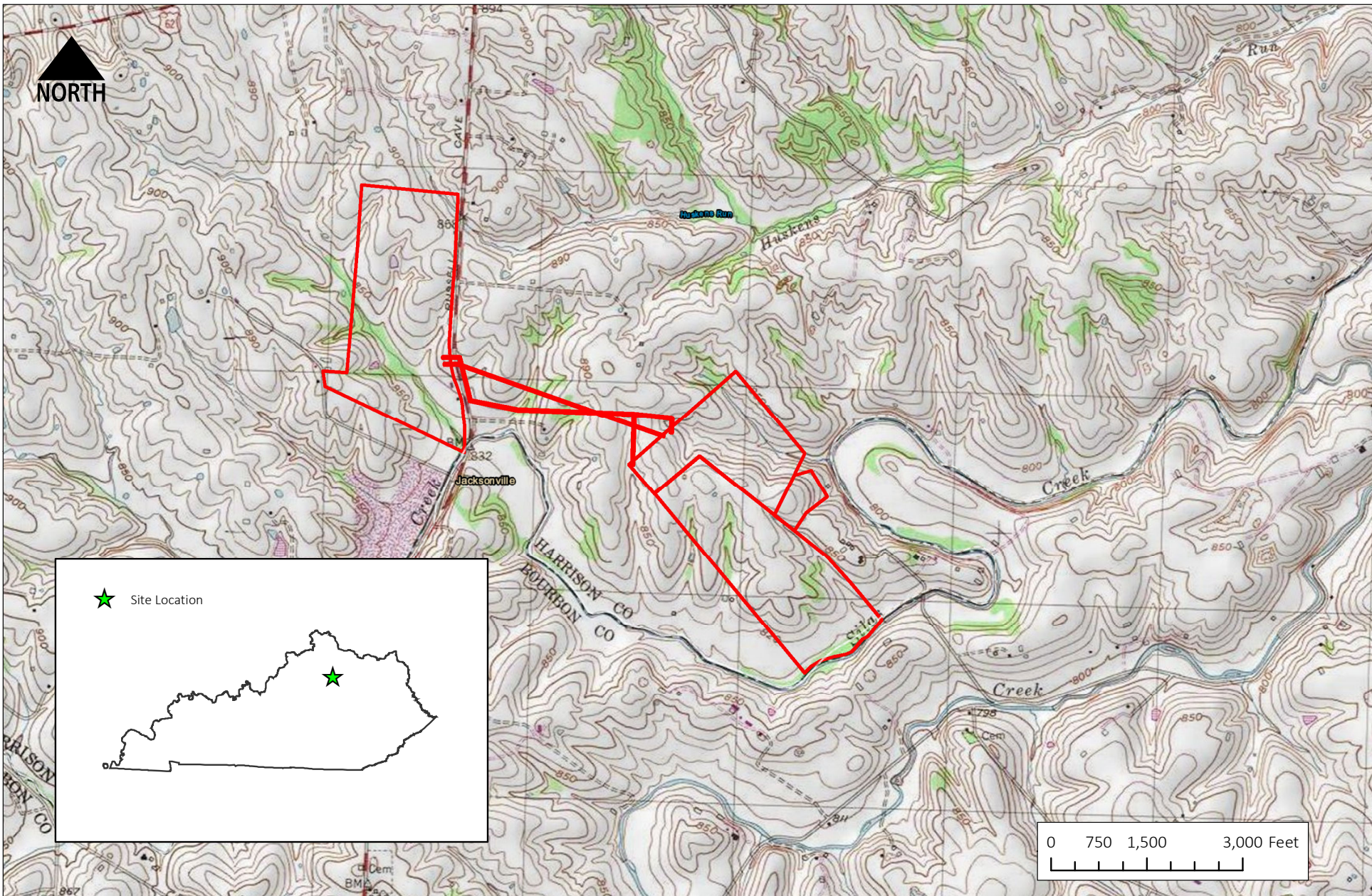
Shane Roberts  
Vice President

---

FIGURES

---





Legend

 Project Boundary

 **BayWa r.e.** BLUEBIRD SOLAR  
 Harrison County, KY

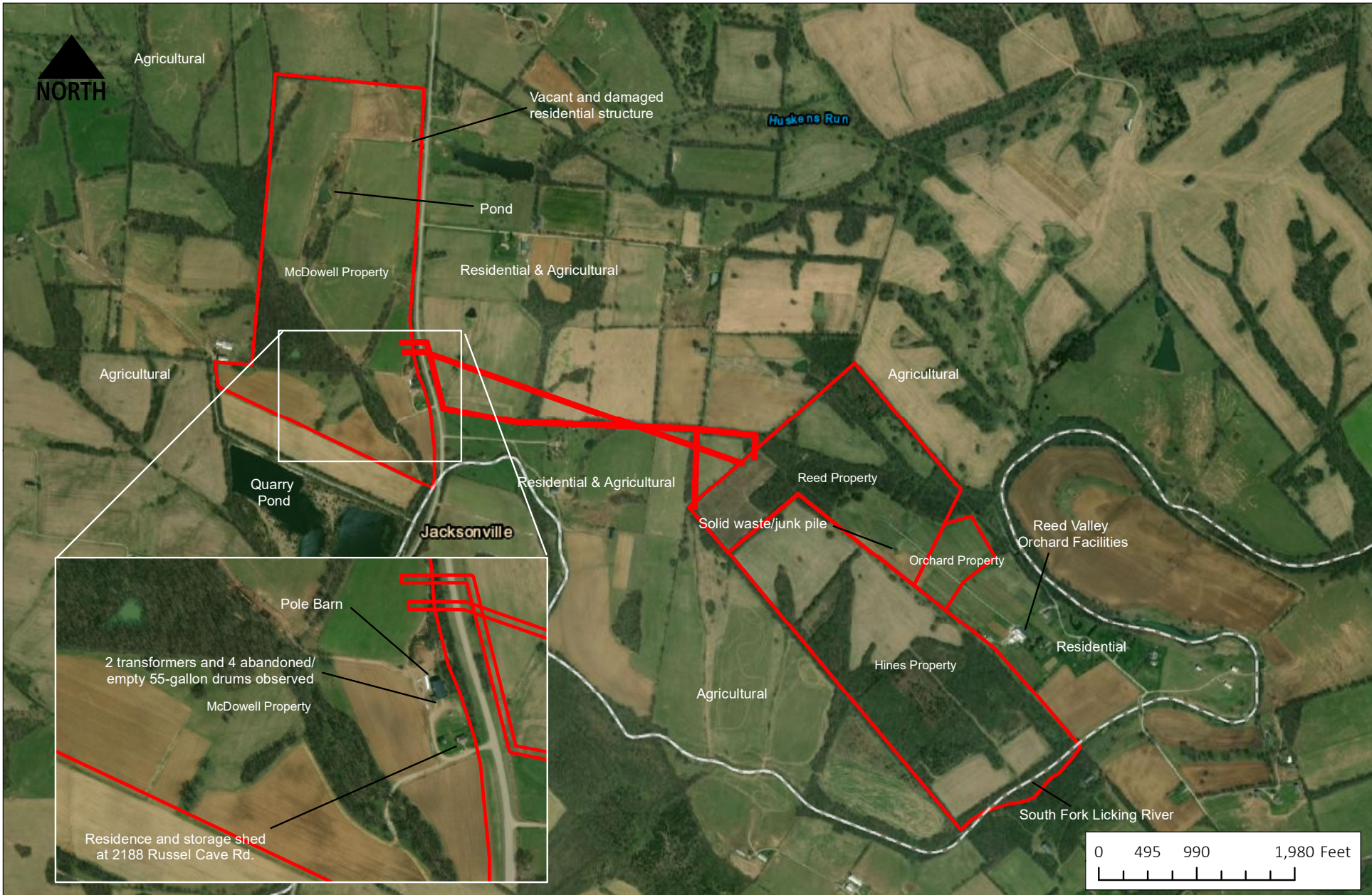
**JACKSON GROUP**

Figure No. 1

Subject Property Location

Scale: 1 in = 2,000 feet





Legend

 Project Boundary



**BayWa r.e.** BLUEBIRD SOLAR  
Harrison County, KY



Figure No. 2

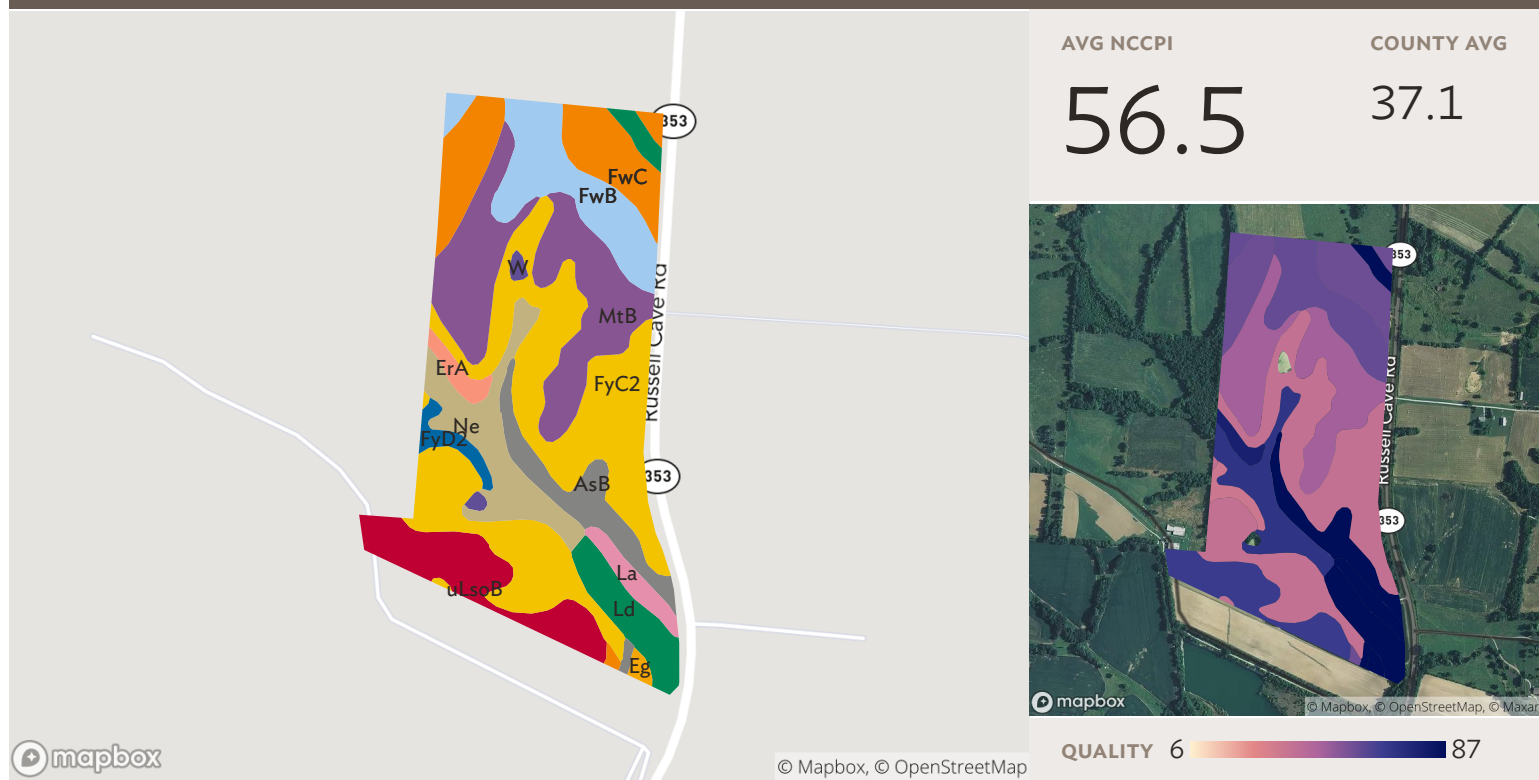
Subject Property Diagram

Scale: 1 in = 1,292 feet

APPENDIX A  
HARRISON COUNTY RECORDS

---

1 field, 137 acres in Harrison County, KY



## All fields

Source: NRCS Soil Survey

137 ac

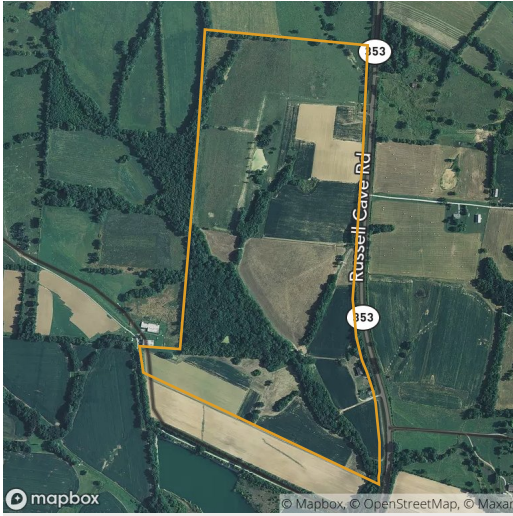
SOIL CODE	SOIL DESCRIPTION	ACRES	PERCENTAGE OF FIELD	SOIL CLASS	NCCPI
FyC2	Faywood silty clay loam, 6 to 12 percent slopes, eroded	41.17	30.0%	3	38.2
MtB	Mercer silt loam, 2 to 6 percent slopes	23.95	17.4%	2	48.1
FwC	Faywood silt loam, 6 to 12 percent slopes	14.00	10.2%	3	57.9
FwB	Faywood silt loam, 2 to 6 percent slopes	13.73	10.0%	2	59.4
uLsoB	Lowell-Sandview silt loams, 2 to 6 percent slopes	11.26	8.2%	2	67.4
Ne	Newark silt loam, 0 to 2 percent slopes, occasionally flooded	11.07	8.1%	2	70.5
AsB	Ashton silt loam, 2 to 6 percent slopes	7.53	5.5%	2	93.7
Ld	Lindside silt loam, 0 to 2 percent slopes, occasionally flooded	7.32	5.3%	2	89.7
La	Lanton silt loam	2.47	1.8%	2	89.2

**1 field, 137 acres in Harrison County, KY**

■	FyD2	Faywood silty clay loam, 12 to 20 percent slopes, eroded	1.91	1.4%	4	35.0
■	ErA	Elk silt loam, 0 to 2 percent slopes, rarely flooded	1.70	1.2%	1	78.6
■	W	Water	0.72	0.5%		N/A
■	Eg	Egam silt loam	0.59	0.4%	2	96.5
			<b>136.71</b>	<b>99.5%</b>		<b>56.5</b>

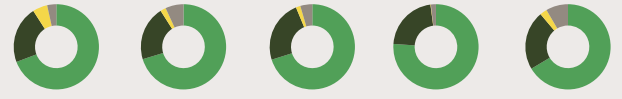


1 field, 137 acres in Harrison County, KY



**All fields**

137 ac



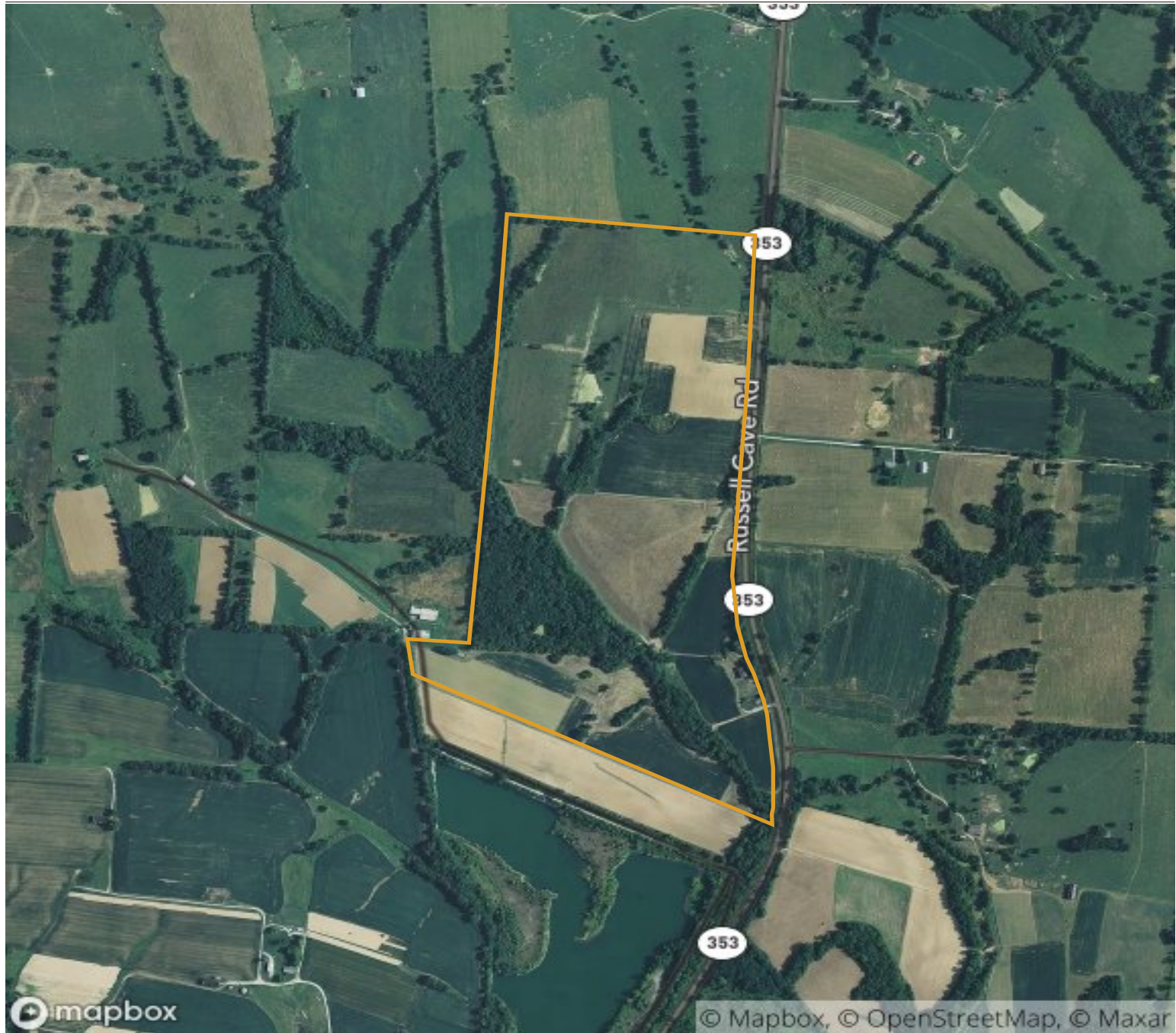
	2019	2018	2017	2016	2015
<span style="color: green;">■</span> Grass/Pasture	69.2%	70.3%	70.1%	76.1%	66.4%
<span style="color: darkgreen;">■</span> Forest	21.7%	20.7%	23.6%	21.8%	22.4%
<span style="color: yellow;">■</span> Corn	5.6%	2.1%	1.7%	0.2%	2.7%
<span style="color: grey;">■</span> Other	3.5%	6.9%	4.5%	1.9%	8.4%

Source: NASS Cropland Data Layer

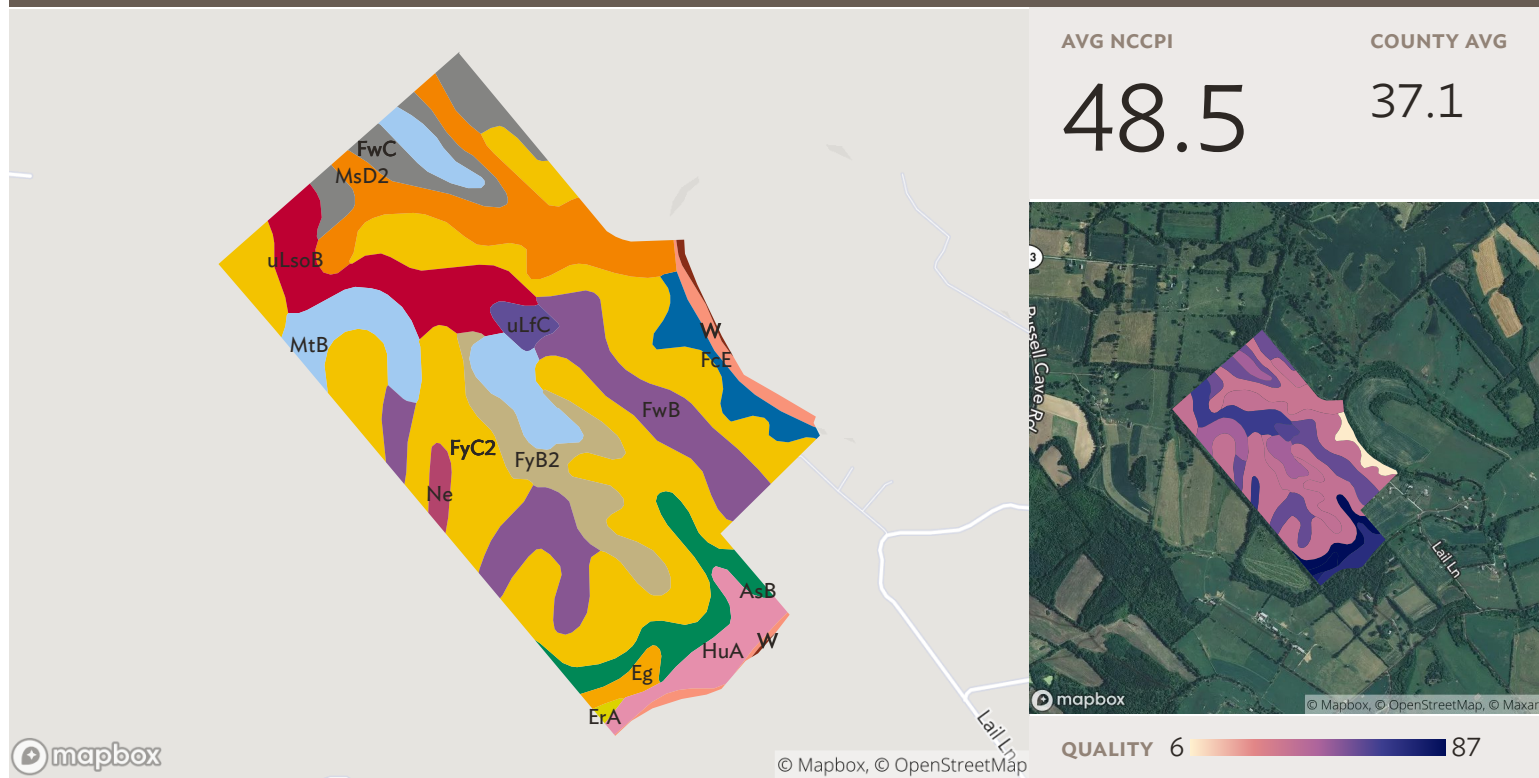
1 field, 137 acres in Harrison County, KY

## Harrison County, KY

FIELD	ACRES	LOCATION	OWNER (LAST UPDATED)
	137.43	APN: 066000000700000	MCDOWELL, AGNES S (09/11/2019)



2 fields, 219 acres in Harrison County, KY



### All fields

219 ac

Source: NRCS Soil Survey

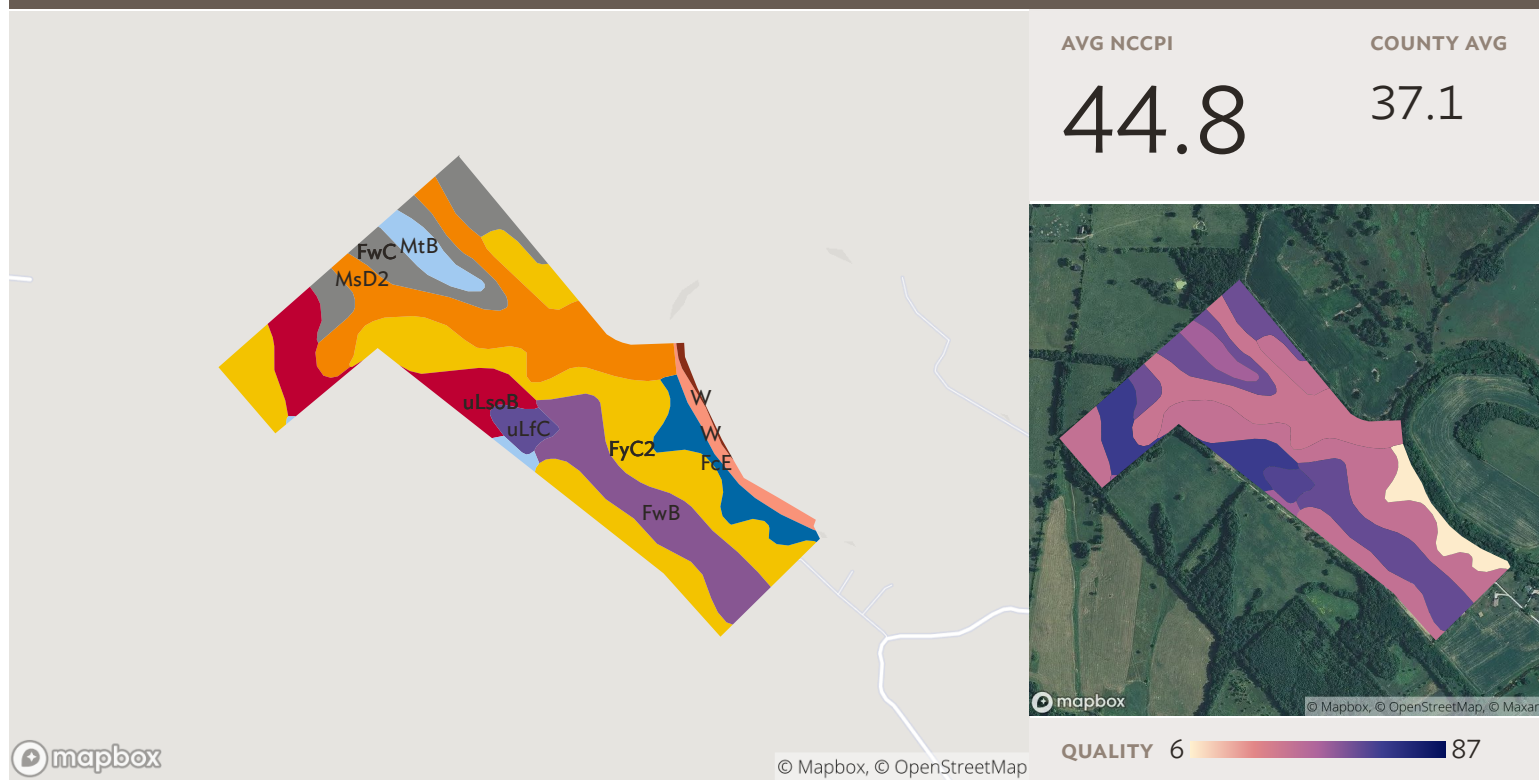
SOIL CODE	SOIL DESCRIPTION	ACRES	PERCENTAGE OF FIELD	SOIL CLASS	NCCPI
FyC2	Faywood silty clay loam, 6 to 12 percent slopes, eroded	79.71	36.4%	3	38.2
FwB	Faywood silt loam, 2 to 6 percent slopes	25.67	11.7%	2	59.4
MsD2	McAfee silt loam, 12 to 20 percent slopes, eroded	21.80	9.9%	4	36.1
MtB	Mercer silt loam, 2 to 6 percent slopes	18.65	8.5%	2	48.1
uLsoB	Lowell-Sandview silt loams, 2 to 6 percent slopes	15.66	7.1%	2	67.4
FyB2	Faywood silty clay loam, 2 to 6 percent slopes, eroded	13.43	6.1%	2	39.0
FwC	Faywood silt loam, 6 to 12 percent slopes	11.89	5.4%	3	57.9
AsB	Ashton silt loam, 2 to 6 percent slopes	9.24	4.2%	2	93.7
HuA	Huntington silt loam, 0 to 4 percent slopes	7.58	3.5%	2	73.1

2 fields, 219 acres in Harrison County, KY

■	FcE	Fairmount and Cynthiana extremely rocky soils, 20 to 30 percent slopes	5.84	2.7%	6	7.0
■	W	Water	3.21	1.5%		N/A
■	uLFC	Lowell-Faywood silt loams, 6 to 12 percent slopes	2.34	1.1%	3	62.8
■	Eg	Egam silt loam	2.12	1.0%	2	96.5
■	Ne	Newark silt loam, 0 to 2 percent slopes, occasionally flooded	1.73	0.8%	2	70.5
■	ErA	Elk silt loam, 0 to 2 percent slopes, rarely flooded	0.35	0.2%	1	78.6
■	W	Water	0.05	0.0%		N/A
			<b>215.99</b>	<b>98.5%</b>		<b>48.5</b>



2 fields, 219 acres in Harrison County, KY



# Field 1

108 ac

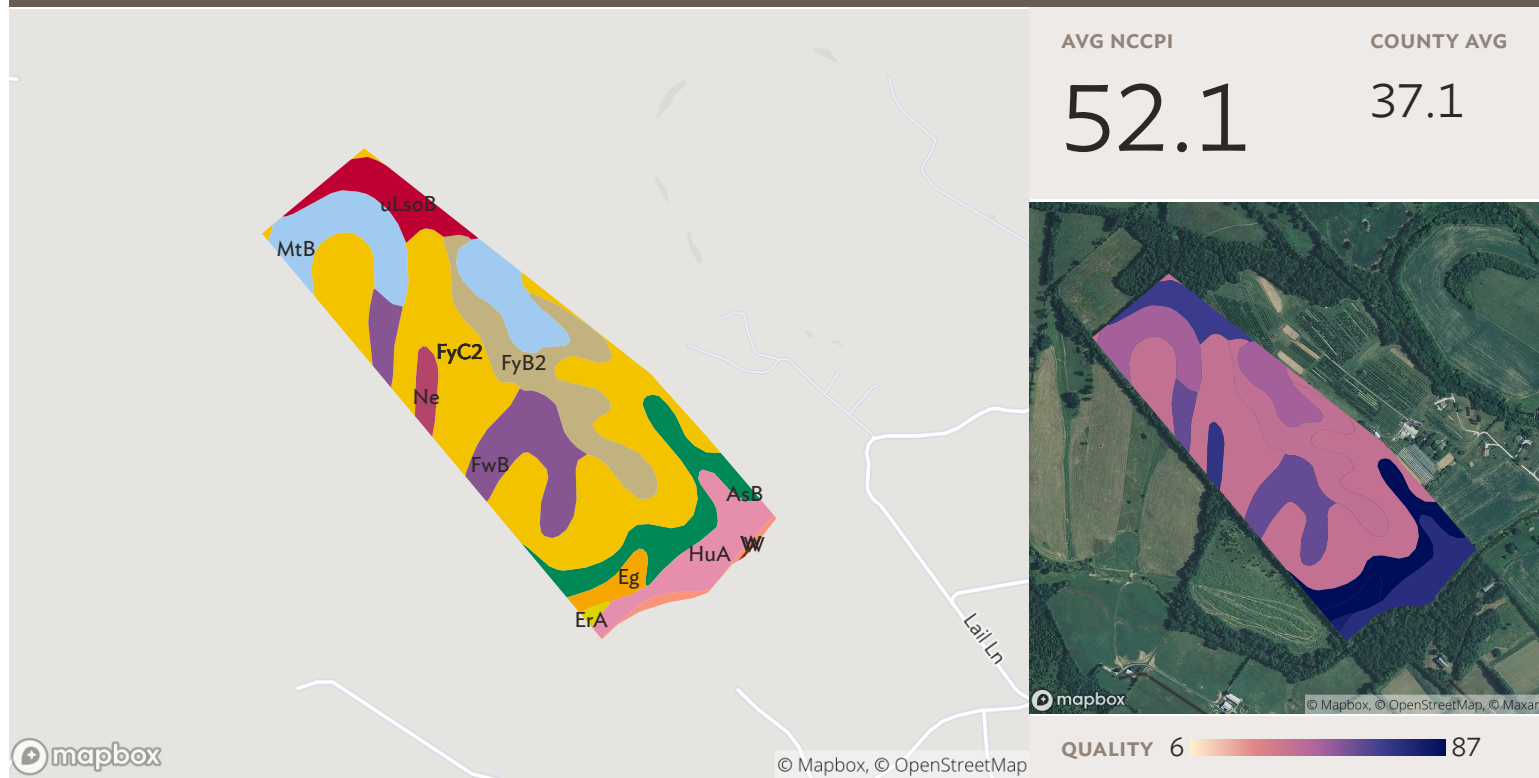
Source: NRCS Soil Survey

SOIL CODE	SOIL DESCRIPTION	ACRES	PERCENTAGE OF FIELD	SOIL CLASS	NCCPI
FyC2	Faywood silty clay loam, 6 to 12 percent slopes, eroded	35.58	32.8%	3	38.2
MsD2	McAfee silt loam, 12 to 20 percent slopes, eroded	21.80	20.1%	4	36.1
FwB	Faywood silt loam, 2 to 6 percent slopes	14.24	13.1%	2	59.4
FwC	Faywood silt loam, 6 to 12 percent slopes	11.89	11.0%	3	57.9
uLsoB	Lowell-Sandview silt loams, 2 to 6 percent slopes	10.02	9.2%	2	67.4
FcE	Fairmount and Cynthiana extremely rocky soils, 20 to 30 percent slopes	5.84	5.4%	6	7.0
MtB	Mercer silt loam, 2 to 6 percent slopes	3.90	3.6%	2	48.1
W	Water	2.68	2.5%		N/A
uLfc	Lowell-Faywood silt loams, 6 to 12 percent slopes	2.34	2.2%	3	62.8

2 fields, 219 acres in Harrison County, KY

■	W	Water	0.05	0.0%		N/A
■	FyB2	Faywood silty clay loam, 2 to 6 percent slopes, eroded	0.01	0.0%	2	39.0
			<b>105.60</b>	<b>97.5%</b>		<b>44.8</b>

2 fields, 219 acres in Harrison County, KY



AVG NCCPI **52.1** COUNTY AVG 37.1

QUALITY 6 87

## Field 2

111 ac

Source: NRCS Soil Survey

SOIL CODE	SOIL DESCRIPTION	ACRES	PERCENTAGE OF FIELD	SOIL CLASS	NCCPI
FyC2	Faywood silty clay loam, 6 to 12 percent slopes, eroded	44.13	39.8%	3	38.2
MtB	Mercer silt loam, 2 to 6 percent slopes	14.75	13.3%	2	48.1
FyB2	Faywood silty clay loam, 2 to 6 percent slopes, eroded	13.42	12.1%	2	39.0
FwB	Faywood silt loam, 2 to 6 percent slopes	11.43	10.3%	2	59.4
AsB	Ashton silt loam, 2 to 6 percent slopes	9.24	8.3%	2	93.7
HuA	Huntington silt loam, 0 to 4 percent slopes	7.58	6.8%	2	73.1
uLsoB	Lowell-Sandview silt loams, 2 to 6 percent slopes	5.64	5.1%	2	67.4
Eg	Egam silt loam	2.12	1.9%	2	96.5
Ne	Newark silt loam, 0 to 2 percent slopes, occasionally flooded	1.73	1.6%	2	70.5

2 fields, 219 acres in Harrison County, KY					
■	W	Water	0.52	0.5%	N/A
■	ErA	Elk silt loam, 0 to 2 percent slopes, rarely flooded	0.35	0.3%	1 78.6
			<b>110.39</b>	<b>99.5%</b>	<b>52.1</b>



2 fields, 219 acres in Harrison County, KY



### All fields

219 ac



2019 2018 2017 2016 2015

■ Forest	47.1%	44.2%	44.9%	43.1%	42.5%
■ Grass/Pasture	34.4%	40.8%	43.6%	47.6%	44.1%
■ Corn	17.5%	0.2%	11.2%	-	-
■ Soybeans	0.1%	14.6%	0.2%	8.6%	12.5%
■ Other	0.9%	0.2%	0.1%	0.7%	0.9%



### Field 1

108 ac



2019 2018 2017 2016 2015

■ Grass/Pasture	53.5%	56.6%	56.0%	57.8%	58.6%
■ Forest	44.5%	41.9%	43.6%	40.8%	40.7%
■ Other	2.1%	1.5%	0.3%	1.4%	0.6%

2 fields, 219 acres in Harrison County, KY



## Field 2

111 ac




	2019	2018	2017	2016	2015
■ Forest	49.7%	46.4%	46.2%	45.3%	44.3%
■ Grass/Pasture	15.8%	25.3%	31.4%	37.6%	30.0%
■ Corn	34.4%	0.4%	22.0%	-	-
■ Soybeans	0.1%	27.6%	0.2%	17.0%	24.6%
■ Other	-	0.3%	0.2%	-	1.1%

Source: NASS Cropland Data Layer



2 fields, 219 acres in Harrison County, KY

## Harrison County, KY

FIELD	ACRES	LOCATION	OWNER (LAST UPDATED)
1 	108.33	APN: 080000000201000	REED, DANA H & TRUDIE (09/11/2019)
2 	110.91	APN: 080000000202000	HINES, DOUGLAS & SARA (09/11/2019)

**219.24**



8/21/2020

PVDNet Web Portal  
Property Info

[Back To Results](#)

<b>066-0000-007-00-000</b> <b>MCDOWELL AGNES S TRUST</b> <b>KY HWY 353 1849 (RUSSELL CAVE)</b>
<b>Owner Information</b>
<b>Owner Name:</b> MCDOWELL AGNES S TRUST
<b>Mailing Address:</b> C/O SAM ARNOLD III 103 COURT ST
<b>City, State, and Zip:</b> CYNTHIANA KY 410311516
<b>Previous Owner:</b> NA
<b>Property Information</b>

Tax Calculator

Property Search

HARRISON COUNTY, N.T.

(TaxCalculator.aspx)

(PubPropertySearch.aspx)

Property Info

Back To Results

**080-0000-002-01-000 REED DANA H & TRUDIE LAIL LN 248 & 227**

Owner Information

Property Information

<b>Parcel Number:</b>	080-0000-002-01-000		
<b>Description:</b>	FARM 116 ACRES		
<b>Location:</b>	LAIL LN 248 & 227 ( <a href="https://maps.google.com/maps?q=LAIL+LN+248+&amp;+227+">https://maps.google.com/maps?q=LAIL+LN+248+&amp;+227+</a> )		
<b>Property Class:</b>	Farm	<b>Plat Book Page:</b>	NA
<b>Subdivision:</b>	NA	<b>District:</b>	CO-County
<b>Neighborhood:</b>	Typical	<b>Neighborhood:</b>	
<b>Block:</b>	NA	<b>Neighborhood:</b>	
<b>Township:</b>	NA	<b>Exemption:</b>	\$39,300.00

8/21/2020

PVDNet Web Portal  
Property Info

[Back To Results](#)

**080-0000-002-02-000 HINES DOUGLAS & SARA TOWNSEND VALLEY RD**

Owner Information

**Owner Name:**

HINES DOUGLAS & SARA

**Mailing Address:**

NA  
679 TOWNSEND VALLEY RD

**City, State, and Zip:**

PARIS KY 40361

**Previous Owner:**

CLYDE COCKRELL

Property Information

APPENDIX B  
PHOTOGRAPHS

---





**Photograph Number: 1**

**Description:**

View of the residential driveway entrance on the south side of the McDowell property east of Kentucky Route (KY) 353, consisting of the southeastern portion of the Subject Property.



**Photograph Number: 2**

**Description:**

View of the back (west) side of the residence on the south side of the McDowell property east of Kentucky Route (KY) 353 at 2188 Russell Cave Road.

**Phase I Environmental Site Assessment**  
Additional Bluebird Properties, Harrison County, KY

Client Name:

BayWa r.e.

Photographs Taken On:

September 2, 2020





**Photograph Number: 3**

**Description:**

View of the back (west) side of the residence on the south side of the McDowell property east of Kentucky Route (KY) 353 at 2188 Russell Cave Road.



**Photograph Number: 4**

**Description:**

An empty old 55-gallon drum observed west of the Subject Property residence at 2188 Russell Cave Road.

**Phase I Environmental Site Assessment**  
Additional Bluebird Properties, Harrison County, KY

Client Name: BayWa r.e.  
Photographs Taken On: September 2, 2020





**Photograph Number: 5**

**Description:**

An empty plastic tote drum observed north of the Subject Property residence at 2188 Russell Cave Road.



**Photograph Number: 6**

**Description:**

A water well observed on the Subject Property north of the residence at 2188 Russell Cave Road.

**Phase I Environmental Site Assessment**  
Additional Bluebird Properties, Harrison County, KY

Client Name:  
Photographs Taken On:

BayWa r.e.  
September 2, 2020





**Photograph Number: 7**

**Description:**

Waste pile on the Subject Property of what appeared to be metal posts west of the residence at 2188 Russell Cave Road.



**Photograph Number: 8**

**Description:**

Pole barn observed on the Subject Property north of the residence at 2188 Russell Cave Road.

**Phase I Environmental Site Assessment**  
Additional Bluebird Properties, Harrison County, KY

Client Name: BayWare  
Photographs Taken On: September 2, 2020





**Photograph Number: 9**

**Description:**

Waste pile observed on the Subject Property of what appeared to be construction debris near the pole barn north of the residence at 2188 Russell Cave Road.



**Photograph Number: 10**

**Description:**

Old 55-gallon drum observed on the Subject Property adjacent to the pole barn north of the residence at 2188 Russell Cave Road. The drum appeared empty.

**Phase I Environmental Site Assessment**  
Additional Bluebird Properties, Harrison County, KY

Client Name:  
Photographs Taken On:

BayWa r.e.  
September 2, 2020





**Photograph Number: 11**

**Description:**  
Pole-mounted transformer observed on the Subject Property adjacent to the pole barn north of the residence at 2188 Russell Cave Road.



**Photograph Number: 12**

**Description:**  
View inside the pole-barn on the McDowell portion of the Subject Property at 2188 Russell Cave Road.

**Phase I Environmental Site Assessment**  
Additional Bluebird Properties, Harrison County, KY

Client Name: BayWa r.e.  
Photographs Taken On: September 2, 2020



**Photograph Number: 13**

**Description:**

Another view inside the pole-barn on the McDowell portion of the Subject Property at 2188 Russell Cave Road



**Photograph Number: 14**

**Description:**

Scattered debris and trash inside the pole-barn on the McDowell portion of the Subject Property at 2188 Russell Cave Road



**Phase I Environmental Site Assessment**  
Additional Bluebird Properties, Harrison County, KY

Client Name: BayWa r.e.  
Photographs Taken On: September 2, 2020





**Photograph Number: 15**

**Description:**  
Two abandoned 55-gallon drums were observed inside the pole-barn on the McDowell portion of the Subject Property at 2188 Russell Cave Road. No evidence of petroleum use or staining was observed and they appeared empty.



**Photograph Number: 16**

**Description:**  
View from the northwest of the pole-barn on the McDowell portion of the Subject Property at 2188 Russell Cave Road.

**Phase I Environmental Site Assessment**  
Additional Bluebird Properties, Harrison County, KY

Client Name: BayWa r.e.  
Photographs Taken On: September 2, 2020



**Photograph Number: 17**

**Description:**

Stockpiled debris observed on the McDowell portion of the Subject Property, north/northwest of the pole-barn



**Photograph Number: 18**

**Description:**

View of the east-central grazing land on the McDowell portion of the Subject Property, facing north.



**Phase I Environmental Site Assessment**  
Additional Bluebird Properties, Harrison County, KY

Client Name:

BayWa r.e.

Photographs Taken On:

September 2, 2020





**Photograph Number: 19**

**Description:**  
Culvert and ditch running north and south on the McDowell portion of the Subject Property, facing north.



**Photograph Number: 20**

**Description:**  
Another view of the grazing land on McDowell portion of the Subject Property, facing south.

**Phase I Environmental Site Assessment**  
Additional Bluebird Properties, Harrison County, KY

Client Name: BayWa r.e.  
Photographs Taken On: September 2, 2020



**Photograph Number: 21**

**Description:**

Gravel and grass driveway observed on the south end of the McDowell portion of the Subject Property, leading west.



**Photograph Number: 22**

**Description:**

Evidence of damage pipe on the driveway on the south end of the McDowell portion of the Subject Property.



**Phase I Environmental Site Assessment**  
Additional Bluebird Properties, Harrison County, KY

Client Name: BayWa r.e.  
Photographs Taken On: September 2, 2020





**Photograph Number: 23**

**Description:** Abandoned materials observed along the grass driveway on the south end of the McDowell portion of the Subject Property.



**Photograph Number: 24**

**Description:** View toward the south end of the McDowell portion of the Subject Property.

**Phase I Environmental Site Assessment**  
Additional Bluebird Properties, Harrison County, KY

Client Name: BayWa r.e.  
Photographs Taken On: September 2, 2020





**Photograph Number: 25**

**Description:**

View of the area of the proposed access road east of Russell Cave Road (KY 353), along with adjoining farmland.



**Photograph Number: 26**

**Description:**

Dirt driveway that leads back to additional barns and a vacant residence on eastern portion of the Whalen property (facing east).

**Phase I Environmental Site Assessment**  
Additional Bluebird Properties, Harrison County, KY

Client Name: BayWa r.e.  
Photographs Taken On: September 2, 2020





**Photograph Number: 27**

**Description:**  
Abandoned barn and farming equipment on the east end of the Whalen property, located near the central portion of the Subject Property.



**Photograph Number: 28**

**Description:**  
Water pump and scattered debris inside the abandoned barn on the Whalen property.

**Phase I Environmental Site Assessment**  
Additional Bluebird Properties, Harrison County, KY

Client Name: BayWa r.e.  
Photographs Taken On: September 2, 2020



**Photograph Number: 29**

**Description:**  
Empty containers and debris scattered inside the abandoned barn on the Whalen property.



**Photograph Number: 30**



**Phase I Environmental Site Assessment**  
Additional Bluebird Properties, Harrison County, KY

Client Name: BayWa r.e.  
Photographs Taken On: September 2, 2020



Photograph Number: 31



Photograph Number: 32



**Phase I Environmental Site Assessment**  
Additional Bluebird Properties, Harrison County, KY

Client Name: BayWa r.e.  
Photographs Taken On: September 2, 2020





Photograph Number: 33



Photograph Number: 34

**Phase I Environmental Site Assessment**  
Additional Bluebird Properties, Harrison County, KY

Client Name: BayWa r.e.  
Photographs Taken On: September 2, 2020



Photograph Number: 35



Photograph Number: 36



**Phase I Environmental Site Assessment**  
Additional Bluebird Properties, Harrison County, KY

Client Name: BayWa r.e.  
Photographs Taken On: September 2, 2020



Photograph Number: 37



Photograph Number: 38



**Phase I Environmental Site Assessment**  
Additional Bluebird Properties, Harrison County, KY

Client Name: BayWa r.e.  
Photographs Taken On: September 2, 2020





Photograph Number: 39



Photograph Number: 40

**Phase I Environmental Site Assessment**  
Additional Bluebird Properties, Harrison County, KY

Client Name: BayWa r.e.  
Photographs Taken On: September 2, 2020





Photograph Number: 41



Photograph Number: 42

**Description:**  
Empty unlabeled plastic bulk container in the abandoned barn on the Whalen property.

**Phase I Environmental Site Assessment**  
Additional Bluebird Properties, Harrison County, KY

Client Name: BayWa r.e.  
Photographs Taken On: September 2, 2020

APPENDIX C

EDR RADIUS AREA STUDY REPORT

---

**Bluebird - Additional Land**  
Russell Cave Road  
Cynthiana, KY 41031

Inquiry Number: 6161853.3s  
August 19, 2020

## EDR Area / Corridor Report



6 Armstrong Road, 4th floor  
Shelton, CT 06484  
Toll Free: 800.352.0050  
[www.edrnet.com](http://www.edrnet.com)

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Orphan Summary .....	OR-1
Government Records Searched/Data Currency Tracking .....	GR-1

***Thank you for your business.***  
Please contact EDR at 1-800-352-0050  
with any questions or comments.

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## EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

### SUBJECT PROPERTY INFORMATION

#### ADDRESS

RUSSELL CAVE ROAD  
CYNTHIANA, KY 41031

### TARGET PROPERTY SEARCH RESULTS

The Target Property was identified in the following databases.

Page Numbers and Map Identifications refer to the EDR Area/Corridor Report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

### SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were not identified.

Unmappable (orphan) sites are not considered in the foregoing analysis.



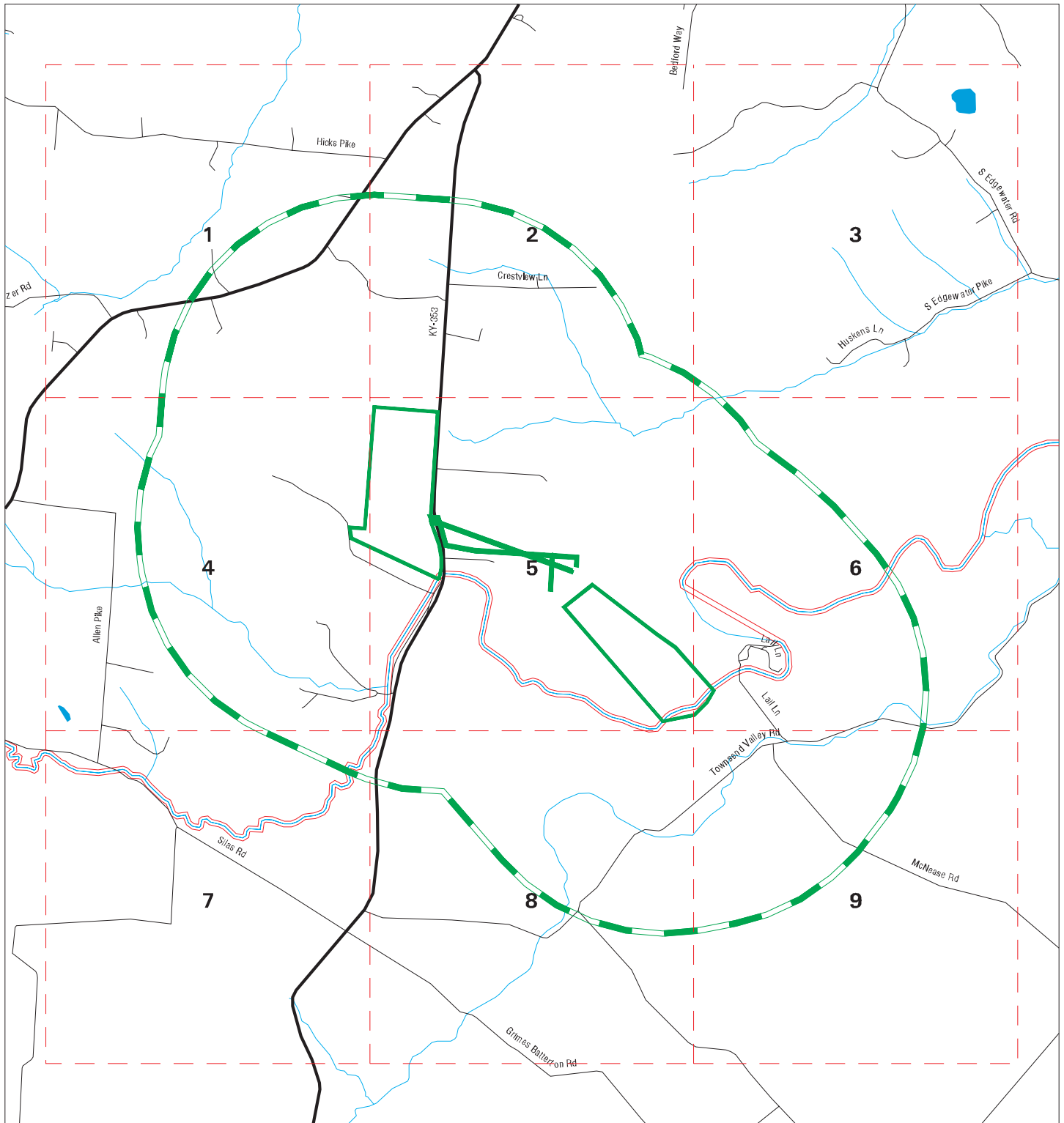
MAPPED SITES SUMMARY

Target Property:  
RUSSELL CAVE ROAD  
CYNTHIANA, KY 41031

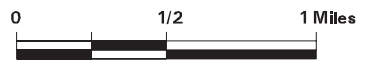
MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
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NO MAPPED SITES FOUND

### Key Map - 6161853.3s



- ▲ Sites
- ▬ Target Property
- ▬ Search Buffer
- ▬ Focus Map - No Sites
- ▬ Focus Map - Sites
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA



SITE NAME: Bluebird - Additional Land ADDRESS: Russell Cave Road CITY/STATE: Cynthiana KY ZIP: 41031	CLIENT: Civil & Environmental Consultants, Inc. CONTACT: Nate Hyde INQUIRY #: 6161853.3s DATE: 08/19/20 <span style="float: right;">3:49 PM</span>
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## MAP FINDINGS SUMMARY

<u>Database</u>	<u>Search Distance (Miles)</u>	<u>Target Property</u>	<u>&lt; 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>&gt; 1</u>	<u>Total Plotted</u>
<b><u>STANDARD ENVIRONMENTAL RECORDS</u></b>								
<b><i>Federal NPL site list</i></b>								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
<b><i>Federal Delisted NPL site list</i></b>								
Delisted NPL	1.000		0	0	0	0	NR	0
<b><i>Federal CERCLIS list</i></b>								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
<b><i>Federal CERCLIS NFRAP site list</i></b>								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
<b><i>Federal RCRA CORRACTS facilities list</i></b>								
CORRACTS	1.000		0	0	0	0	NR	0
<b><i>Federal RCRA non-CORRACTS TSD facilities list</i></b>								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
<b><i>Federal RCRA generators list</i></b>								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
<b><i>Federal institutional controls / engineering controls registries</i></b>								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
<b><i>Federal ERNS list</i></b>								
ERNS	TP		NR	NR	NR	NR	NR	0
<b><i>State- and tribal - equivalent CERCLIS</i></b>								
SHWS	1.000		0	0	0	0	NR	0
<b><i>State and tribal landfill and/or solid waste disposal site lists</i></b>								
SWF/LF	0.500		0	0	0	NR	NR	0
<b><i>State and tribal leaking storage tank lists</i></b>								
PSTEAF	0.500		0	0	0	NR	NR	0
INDIAN LUST	0.500		0	0	0	NR	NR	0
SB193	0.500		0	0	0	NR	NR	0
<b><i>State and tribal registered storage tank lists</i></b>								
FEMA UST	0.250		0	0	NR	NR	NR	0

## MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
<b>State and tribal institutional control / engineering control registries</b>								
ENG CONTROLS	0.500		0	0	0	NR	NR	0
INST CONTROL	0.500		0	0	0	NR	NR	0
<b>State and tribal voluntary cleanup sites</b>								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
<b>State and tribal Brownfields sites</b>								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
<b><u>ADDITIONAL ENVIRONMENTAL RECORDS</u></b>								
<b>Local Brownfield lists</b>								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
<b>Local Lists of Landfill / Solid Waste Disposal Sites</b>								
HIST LF	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
<b>Local Lists of Hazardous waste / Contaminated Sites</b>								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
US CDL	TP		NR	NR	NR	NR	NR	0
<b>Local Land Records</b>								
LIENS 2	TP		NR	NR	NR	NR	NR	0
<b>Records of Emergency Release Reports</b>								
HMIRS	TP		NR	NR	NR	NR	NR	0
SPILLS	TP		NR	NR	NR	NR	NR	0
<b>Other Ascertainable Records</b>								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0

## MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
ECHO	TP		NR	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
AIRS	TP		NR	NR	NR	NR	NR	0
ASBESTOS	TP		NR	NR	NR	NR	NR	0
COAL ASH	0.500		0	0	0	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
LEAD	TP		NR	NR	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
MINES MRDS	TP		NR	NR	NR	NR	NR	0

### EDR HIGH RISK HISTORICAL RECORDS

#### ***EDR Exclusive Records***

EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0

### EDR RECOVERED GOVERNMENT ARCHIVES

#### ***Exclusive Recovered Govt. Archives***

RGA HWS	TP		NR	NR	NR	NR	NR	0
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## MAP FINDINGS SUMMARY

<u>Database</u>	<u>Search Distance (Miles)</u>	<u>Target Property</u>	<u>&lt; 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>&gt; 1</u>	<u>Total Plotted</u>
RGA LF	TP		NR	NR	NR	NR	NR	0
- Totals --		0	0	0	0	0	0	0

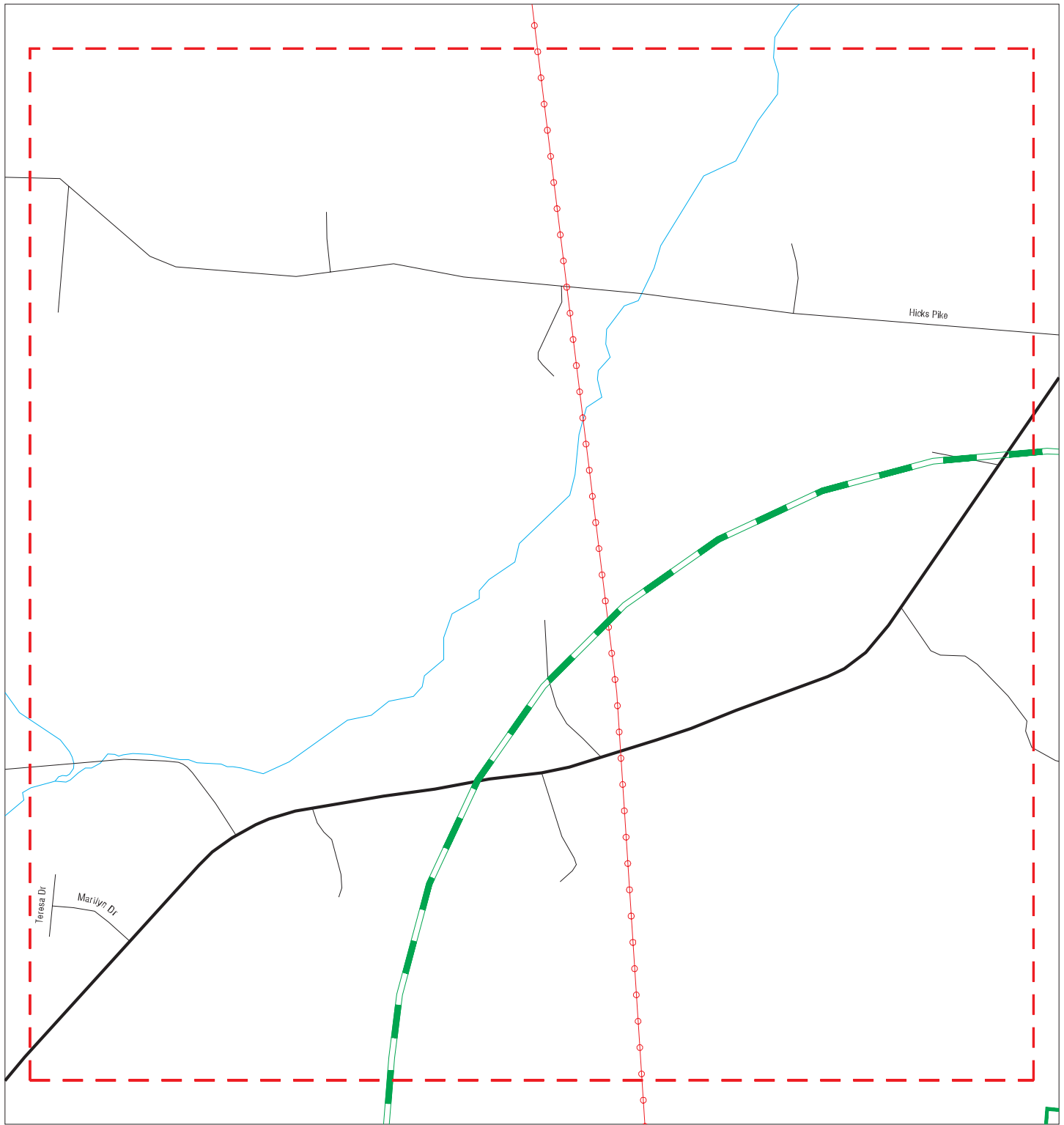
**NOTES:**

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

### Focus Map - 1 - 6161853.3s



- ▲ Sites
- ▬ Target Property
- - - Search Buffer
- ▬ Focus Map - No Sites
- ▬ Focus Map - Sites
- ⚡ Power Line
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA



SITE NAME: Bluebird - Additional Land ADDRESS: Russell Cave Road CITY/STATE: Cynthiana KY ZIP: 41031	CLIENT: Civil & Environmental Consultants, Inc. CONTACT: Nate Hyde INQUIRY #: 6161853.3s DATE: 08/19/20
---	--

MAPPED SITES SUMMARY - FOCUS MAP 1

Target Property:  
RUSSELL CAVE ROAD  
CYNTHIANA, KY 41031

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
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NO MAPPED SITES FOUND

### Focus Map - 2 - 6161853.3s



- ▲ Sites
- ▬ Target Property
- ▬ Search Buffer
- ▬ Focus Map - No Sites
- ▬ Focus Map - Sites
- ▬ Power Line
- ▬ National Priority List Sites
- ▬ Dept. Defense Sites
- ▬ Indian Reservations BIA



SITE NAME: Bluebird - Additional Land ADDRESS: Russell Cave Road CITY/STATE: Cynthiana KY ZIP: 41031	CLIENT: Civil & Environmental Consultants, Inc. CONTACT: Nate Hyde INQUIRY #: 6161853.3s DATE: 08/19/20
---	--

MAPPED SITES SUMMARY - FOCUS MAP 2

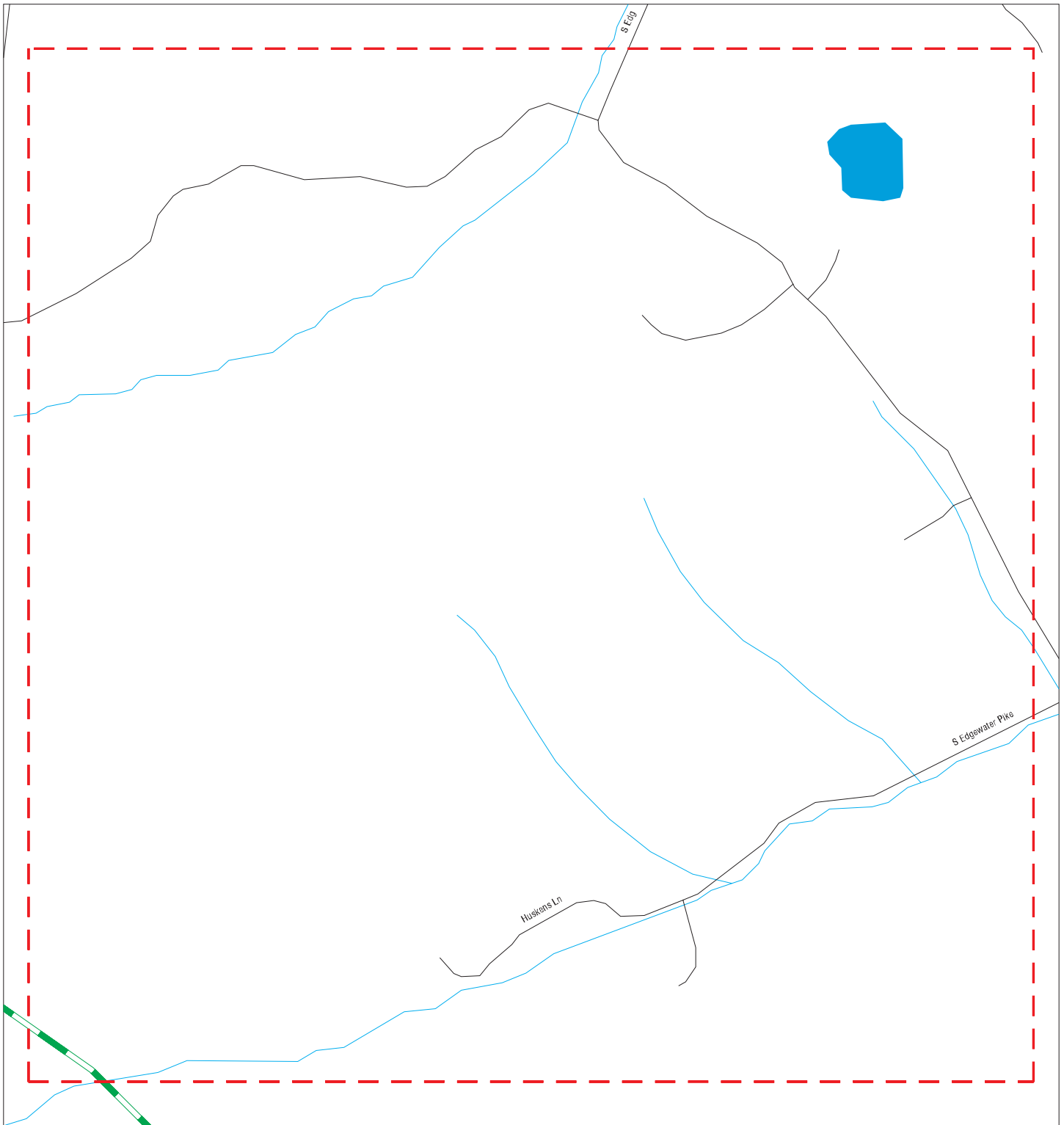
Target Property:  
RUSSELL CAVE ROAD  
CYNTHIANA, KY 41031










MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
-----------------------	-----------	---------	-------------------	-------------------------------

NO MAPPED SITES FOUND



### Focus Map - 3 - 6161853.3s



-  Sites
-  Focus Map - Sites
-  Indian Reservations BIA
-  Target Property
-  Power Line
-  Search Buffer
-  National Priority List Sites
-  Focus Map - No Sites
-  Dept. Defense Sites



<p>SITE NAME: Bluebird - Additional Land ADDRESS: Russell Cave Road CITY/STATE: Cynthiana KY ZIP: 41031</p>	<p>CLIENT: Civil &amp; Environmental Consultants, Inc. CONTACT: Nate Hyde INQUIRY #: 6161853.3s DATE: 08/19/20</p>
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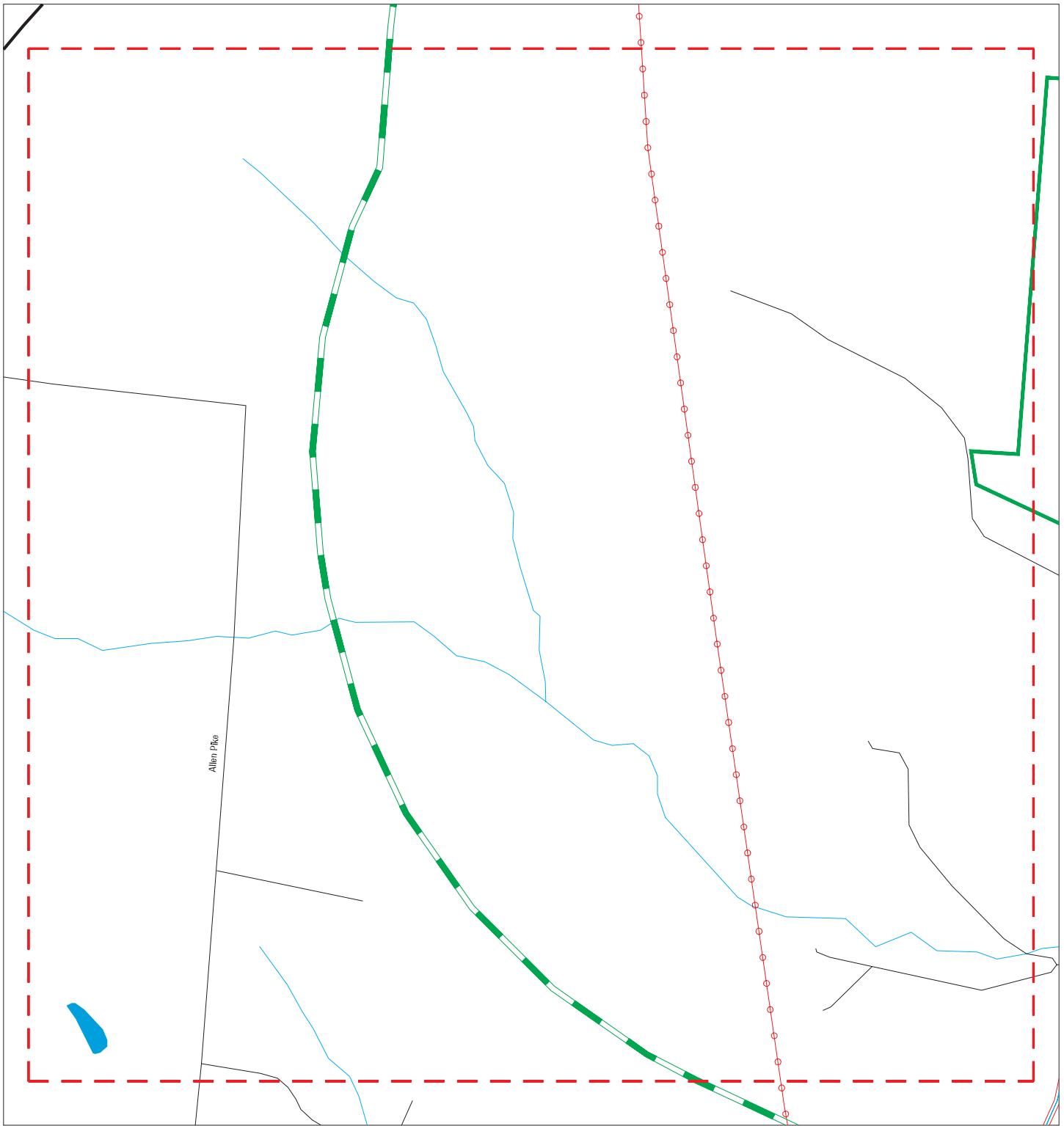
MAPPED SITES SUMMARY - FOCUS MAP 3

Target Property:  
RUSSELL CAVE ROAD  
CYNTHIANA, KY 41031

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
-----------------------	-----------	---------	-------------------	-------------------------------

NO MAPPED SITES FOUND

### Focus Map - 4 - 6161853.3s



- ▲ Sites
- ▲ Focus Map - Sites
- ▨ Indian Reservations BIA
- ▬ Target Property
- ▬ Power Line
- ▬ Search Buffer
- ▨ National Priority List Sites
- ▬ Focus Map - No Sites
- ▨ Dept. Defense Sites



SITE NAME: Bluebird - Additional Land  
 ADDRESS: Russell Cave Road  
 CITY/STATE: Cynthiana KY  
 ZIP: 41031

CLIENT: Civil & Environmental Consultants, Inc.  
 CONTACT: Nate Hyde  
 INQUIRY #: 6161853.3s  
 DATE: 08/19/20

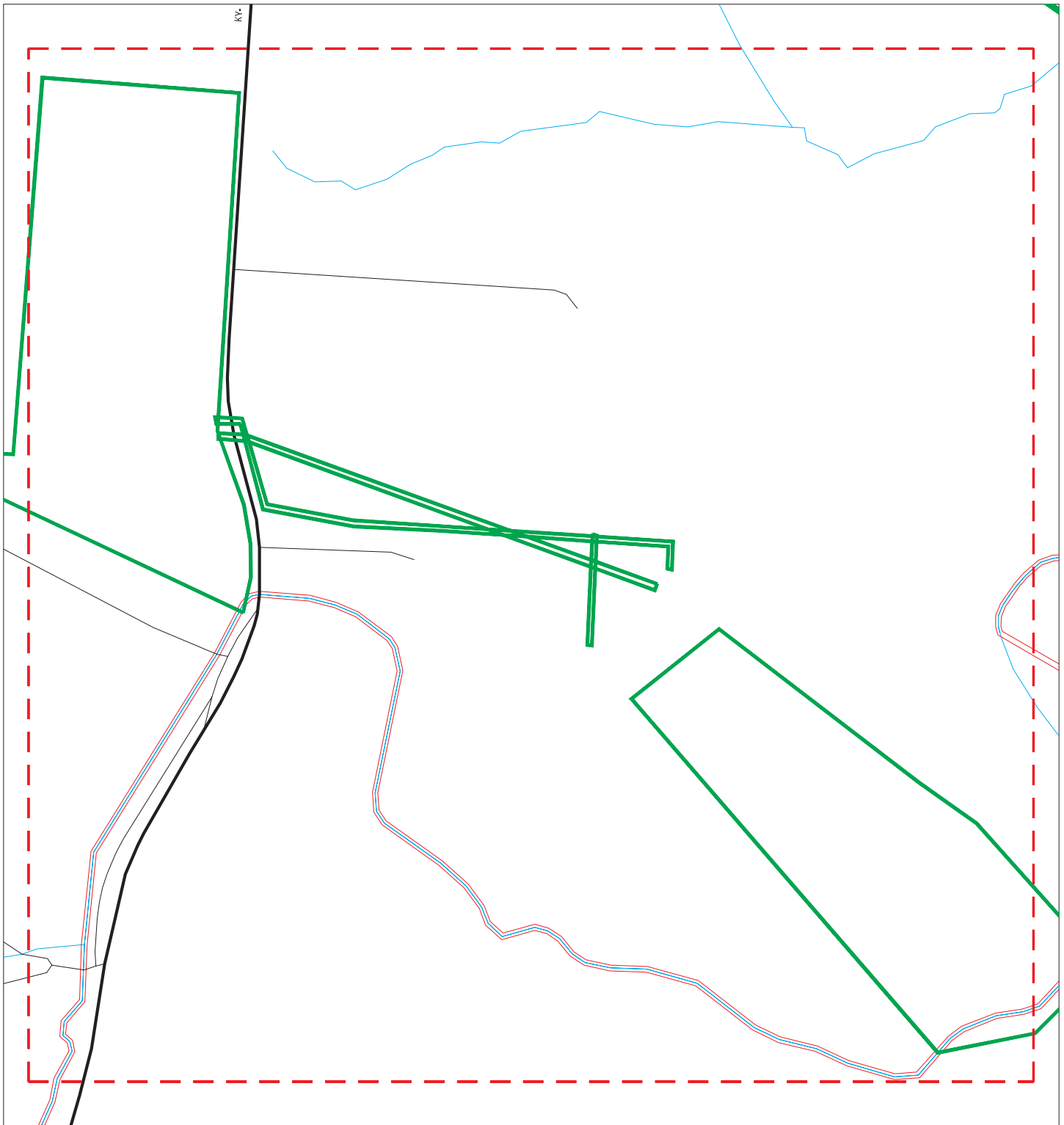
MAPPED SITES SUMMARY - FOCUS MAP 4

Target Property:  
RUSSELL CAVE ROAD  
CYNTHIANA, KY 41031

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
-----------------------	-----------	---------	-------------------	-------------------------------

NO MAPPED SITES FOUND

### Focus Map - 5 - 6161853.3s



- ▲ Sites
- Focus Map - Sites
- Indian Reservations BIA
- Target Property
- Power Line
- Search Buffer
- National Priority List Sites
- Focus Map - No Sites
- Dept. Defense Sites



SITE NAME: Bluebird - Additional Land  
ADDRESS: Russell Cave Road  
CITY/STATE: Cynthiana KY  
ZIP: 41031

CLIENT: Civil & Environmental Consultants, Inc.  
CONTACT: Nate Hyde  
INQUIRY #: 6161853.3s  
DATE: 08/19/20



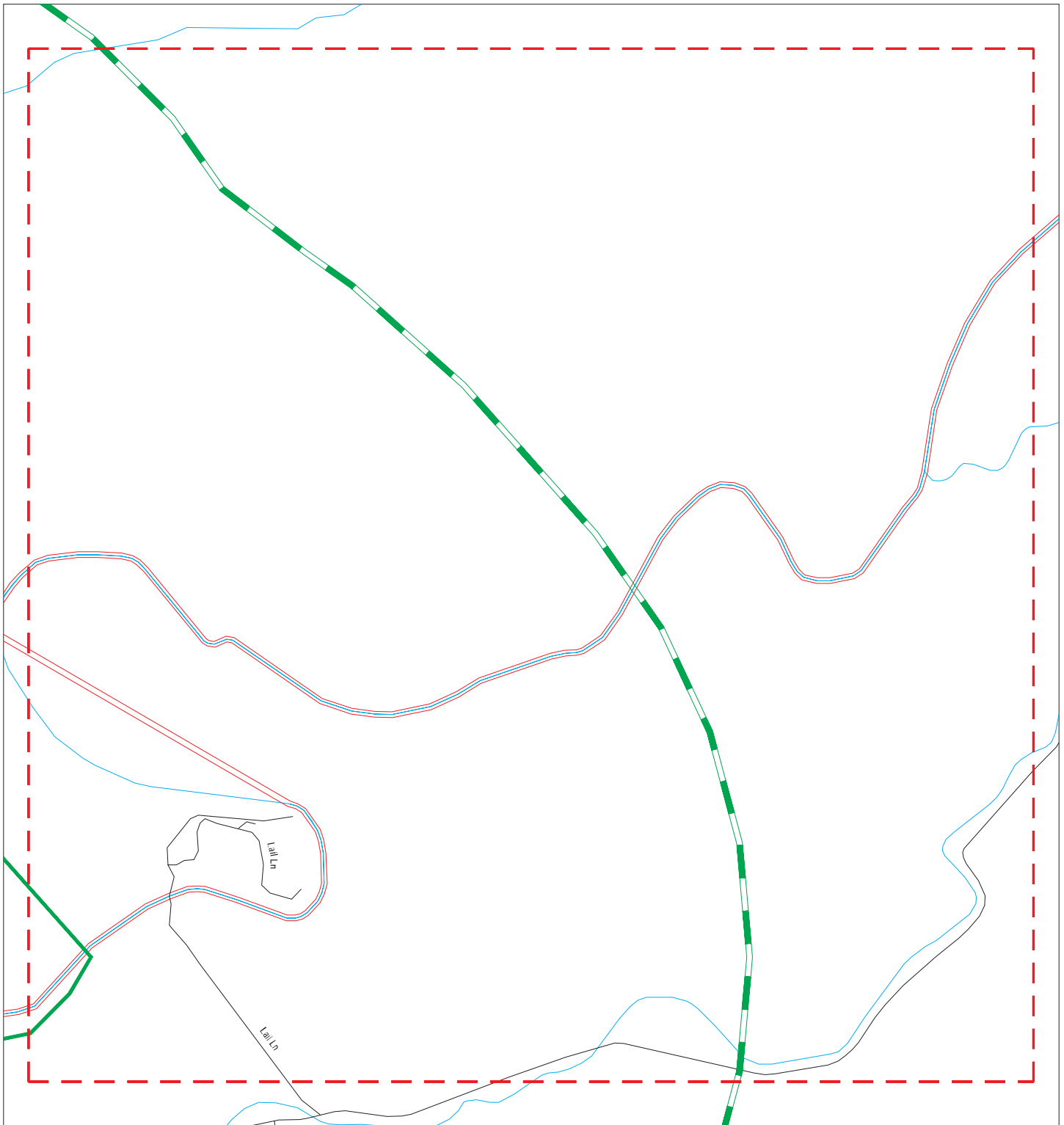
MAPPED SITES SUMMARY - FOCUS MAP 5

Target Property:  
RUSSELL CAVE ROAD  
CYNTHIANA, KY 41031

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
-----------------------	-----------	---------	-------------------	-------------------------------

NO MAPPED SITES FOUND

### Focus Map - 6 - 6161853.3s



- ▲ Sites
- Focus Map - Sites
- Indian Reservations BIA
- Target Property
- Power Line
- Search Buffer
- National Priority List Sites
- Focus Map - No Sites
- Dept. Defense Sites



SITE NAME: Bluebird - Additional Land  
ADDRESS: Russell Cave Road  
CITY/STATE: Cynthiana KY  
ZIP: 41031

CLIENT: Civil & Environmental Consultants, Inc.  
CONTACT: Nate Hyde  
INQUIRY #: 6161853.3s  
DATE: 08/19/20

MAPPED SITES SUMMARY - FOCUS MAP 6

Target Property:  
RUSSELL CAVE ROAD  
CYNTHIANA, KY 41031

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
-----------------------	-----------	---------	-------------------	-------------------------------

NO MAPPED SITES FOUND

### Focus Map - 7 - 6161853.3s



- ▲ Sites
- ▲ Focus Map - Sites
- Indian Reservations BIA
- Target Property
- Power Line
- Search Buffer
- National Priority List Sites
- Focus Map - No Sites
- Dept. Defense Sites



SITE NAME: Bluebird - Additional Land ADDRESS: Russell Cave Road CITY/STATE: Cynthiana KY ZIP: 41031	CLIENT: Civil & Environmental Consultants, Inc. CONTACT: Nate Hyde INQUIRY #: 6161853.3s DATE: 08/19/20
---	--

MAPPED SITES SUMMARY - FOCUS MAP 7

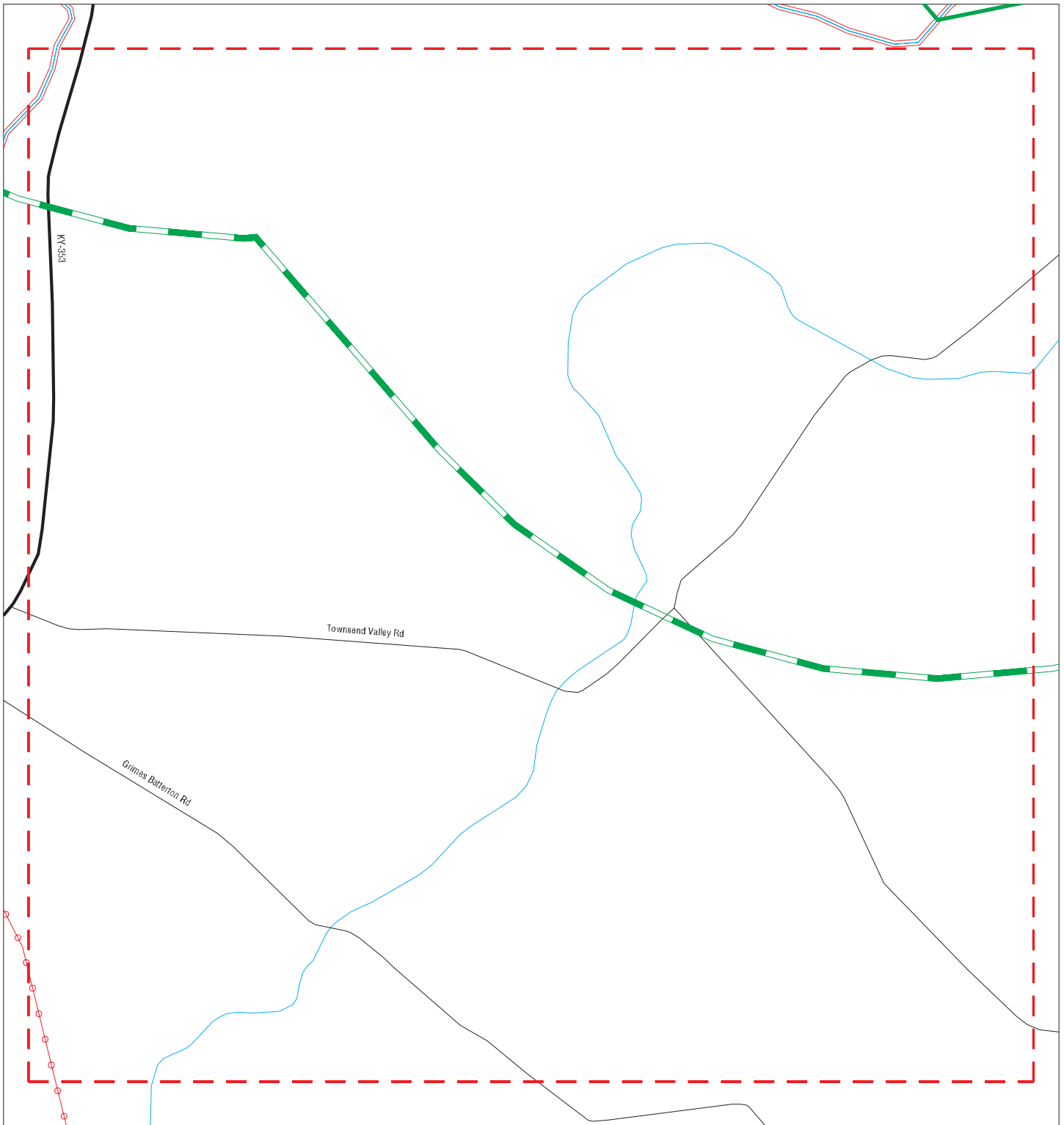
Target Property:  
RUSSELL CAVE ROAD  
CYNTHIANA, KY 41031

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
-----------------------	-----------	---------	-------------------	-------------------------------

NO MAPPED SITES FOUND



### Focus Map - 8 - 6161853.3s



- ▲ Sites
- ▬ Focus Map - Sites
- ▨ Indian Reservations BIA
- ▬ Target Property
- ⚡ Power Line
- ▬ Search Buffer
- ▨ National Priority List Sites
- ▬ Focus Map - No Sites
- ▨ Dept. Defense Sites

SITE NAME: Bluebird - Additional Land  
 ADDRESS: Russell Cave Road  
 CITY/STATE: Cynthiana KY  
 ZIP: 41031

CLIENT: Civil & Environmental Consultants, Inc.  
 CONTACT: Nate Hyde  
 INQUIRY #: 6161853.3s  
 DATE: 08/19/20

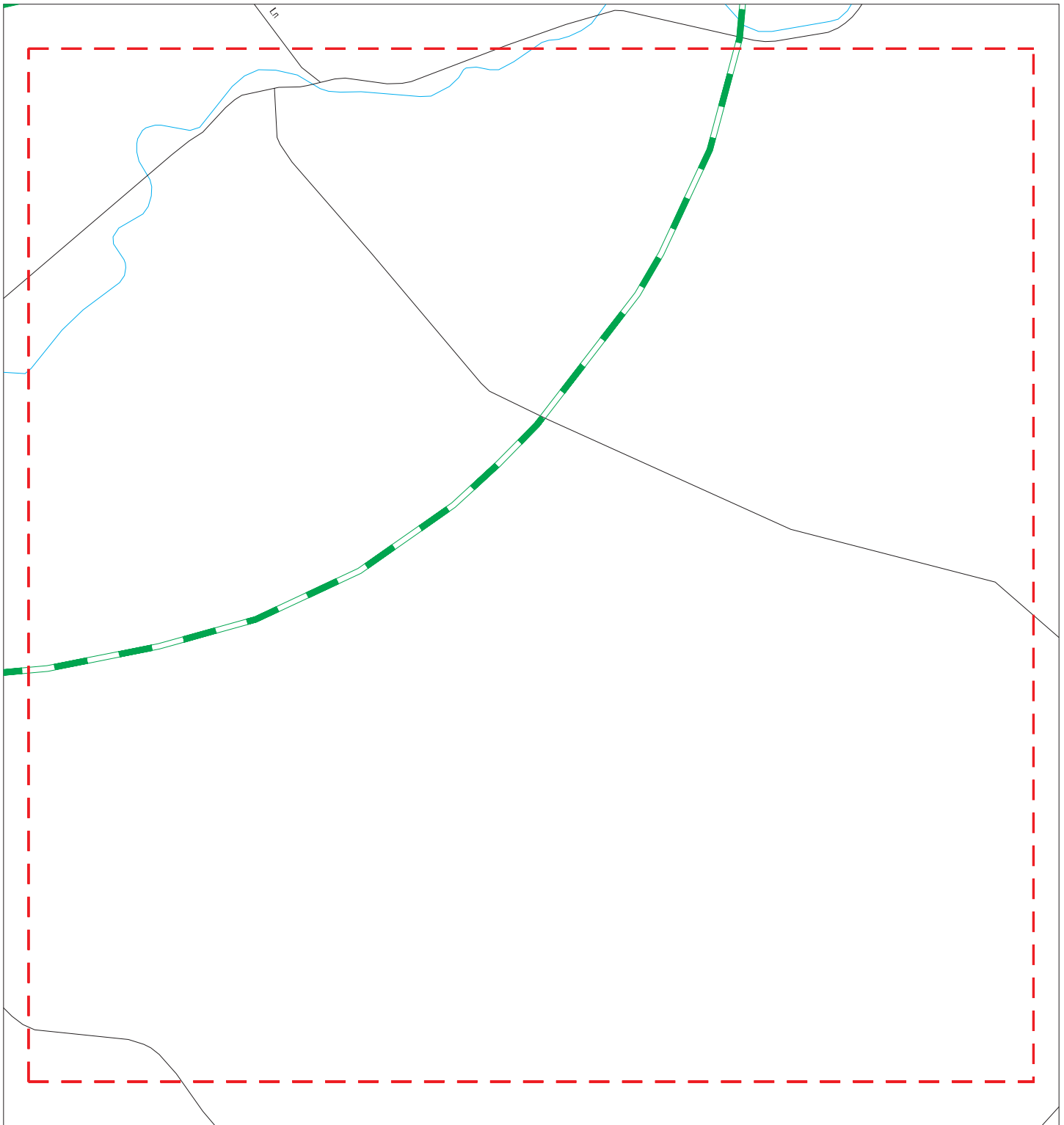
MAPPED SITES SUMMARY - FOCUS MAP 8

Target Property:  
RUSSELL CAVE ROAD  
CYNTHIANA, KY 41031

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
-----------------------	-----------	---------	-------------------	-------------------------------

NO MAPPED SITES FOUND

### Focus Map - 9 - 6161853.3s



- ▲ Sites
- Focus Map - Sites
- Indian Reservations BIA
- Target Property
- Power Line
- Search Buffer
- National Priority List Sites
- Focus Map - No Sites
- Dept. Defense Sites



<b>SITE NAME:</b> Bluebird - Additional Land <b>ADDRESS:</b> Russell Cave Road <b>CITY/STATE:</b> Cynthiana KY <b>ZIP:</b> 41031	<b>CLIENT:</b> Civil & Environmental Consultants, Inc. <b>CONTACT:</b> Nate Hyde <b>INQUIRY #:</b> 6161853.3s <b>DATE:</b> 08/19/20
---	--

MAPPED SITES SUMMARY - FOCUS MAP 9

Target Property:  
RUSSELL CAVE ROAD  
CYNTHIANA, KY 41031

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
-----------------------	-----------	---------	-------------------	-------------------------------

NO MAPPED SITES FOUND

MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Site

Database(s)

EDR ID Number  
EPA ID Number

NO SITES FOUND



Count: 2 records

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
CYNTHIANA	1000271191	HINKLE CONTRACTING CORPORATION	HWY 353, RUSSELL CAVE ROAD	41031	RCRA NonGen / NLR
CYNTHIANA	1016269296	HINKLE CONTRACTING CORPORATION	HWY 353, RUSSELL CAVE ROAD	41031	FINDS, ECHO

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

**Number of Days to Update:** Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

### STANDARD ENVIRONMENTAL RECORDS

#### ***Federal NPL site list***

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/27/2020	Source: EPA
Date Data Arrived at EDR: 05/06/2020	Telephone: N/A
Date Made Active in Reports: 05/28/2020	Last EDR Contact: 08/03/2020
Number of Days to Update: 22	Next Scheduled EDR Contact: 10/12/2020
	Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)  
Telephone: 202-564-7333

EPA Region 1  
Telephone 617-918-1143

EPA Region 6  
Telephone: 214-655-6659

EPA Region 3  
Telephone 215-814-5418

EPA Region 7  
Telephone: 913-551-7247

EPA Region 4  
Telephone 404-562-8033

EPA Region 8  
Telephone: 303-312-6774

EPA Region 5  
Telephone 312-886-6686

EPA Region 9  
Telephone: 415-947-4246

EPA Region 10  
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 04/27/2020	Source: EPA
Date Data Arrived at EDR: 05/06/2020	Telephone: N/A
Date Made Active in Reports: 05/28/2020	Last EDR Contact: 08/03/2020
Number of Days to Update: 22	Next Scheduled EDR Contact: 10/12/2020
	Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/15/1991	Source: EPA
Date Data Arrived at EDR: 02/02/1994	Telephone: 202-564-4267
Date Made Active in Reports: 03/30/1994	Last EDR Contact: 08/15/2011
Number of Days to Update: 56	Next Scheduled EDR Contact: 11/28/2011
	Data Release Frequency: No Update Planned

### ***Federal Delisted NPL site list***

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/27/2020	Source: EPA
Date Data Arrived at EDR: 05/06/2020	Telephone: N/A
Date Made Active in Reports: 05/28/2020	Last EDR Contact: 08/03/2020
Number of Days to Update: 22	Next Scheduled EDR Contact: 10/12/2020
	Data Release Frequency: Quarterly

### ***Federal CERCLIS list***

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 04/03/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 04/05/2019	Telephone: 703-603-8704
Date Made Active in Reports: 05/14/2019	Last EDR Contact: 07/02/2020
Number of Days to Update: 39	Next Scheduled EDR Contact: 10/12/2020
	Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly known as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 04/27/2020	Source: EPA
Date Data Arrived at EDR: 05/06/2020	Telephone: 800-424-9346
Date Made Active in Reports: 05/28/2020	Last EDR Contact: 08/03/2020
Number of Days to Update: 22	Next Scheduled EDR Contact: 10/26/2020
	Data Release Frequency: Quarterly

### ***Federal CERCLIS NFRAP site list***

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 04/27/2020	Source: EPA
Date Data Arrived at EDR: 05/06/2020	Telephone: 800-424-9346
Date Made Active in Reports: 05/28/2020	Last EDR Contact: 08/03/2020
Number of Days to Update: 22	Next Scheduled EDR Contact: 10/26/2020
	Data Release Frequency: Quarterly

### ***Federal RCRA CORRACTS facilities list***

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/23/2020	Source: EPA
Date Data Arrived at EDR: 03/25/2020	Telephone: 800-424-9346
Date Made Active in Reports: 05/21/2020	Last EDR Contact: 06/22/2020
Number of Days to Update: 57	Next Scheduled EDR Contact: 10/05/2020
	Data Release Frequency: Quarterly

### ***Federal RCRA non-CORRACTS TSD facilities list***

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/23/2020	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/25/2020	Telephone: (404) 562-8651
Date Made Active in Reports: 05/21/2020	Last EDR Contact: 06/22/2020
Number of Days to Update: 57	Next Scheduled EDR Contact: 10/05/2020
	Data Release Frequency: Quarterly

### ***Federal RCRA generators list***

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/23/2020	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/25/2020	Telephone: (404) 562-8651
Date Made Active in Reports: 05/21/2020	Last EDR Contact: 06/22/2020
Number of Days to Update: 57	Next Scheduled EDR Contact: 10/05/2020
	Data Release Frequency: Quarterly

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/23/2020	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/25/2020	Telephone: (404) 562-8651
Date Made Active in Reports: 05/21/2020	Last EDR Contact: 06/22/2020
Number of Days to Update: 57	Next Scheduled EDR Contact: 10/05/2020
	Data Release Frequency: Quarterly

### RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/23/2020	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/25/2020	Telephone: (404) 562-8651
Date Made Active in Reports: 05/21/2020	Last EDR Contact: 06/22/2020
Number of Days to Update: 57	Next Scheduled EDR Contact: 10/05/2020
	Data Release Frequency: Quarterly

### ***Federal institutional controls / engineering controls registries***

#### LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/15/2020	Source: Department of the Navy
Date Data Arrived at EDR: 05/19/2020	Telephone: 843-820-7326
Date Made Active in Reports: 06/18/2020	Last EDR Contact: 08/04/2020
Number of Days to Update: 30	Next Scheduled EDR Contact: 11/23/2020
	Data Release Frequency: Varies

#### US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 02/13/2020	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/20/2020	Telephone: 703-603-0695
Date Made Active in Reports: 05/15/2020	Last EDR Contact: 05/15/2020
Number of Days to Update: 85	Next Scheduled EDR Contact: 09/07/2020
	Data Release Frequency: Varies

#### US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 02/13/2020	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/20/2020	Telephone: 703-603-0695
Date Made Active in Reports: 05/15/2020	Last EDR Contact: 05/15/2020
Number of Days to Update: 85	Next Scheduled EDR Contact: 09/07/2020
	Data Release Frequency: Varies

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### **Federal ERNS list**

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 03/22/2020  
Date Data Arrived at EDR: 03/24/2020  
Date Made Active in Reports: 06/18/2020  
Number of Days to Update: 86

Source: National Response Center, United States Coast Guard  
Telephone: 202-267-2180  
Last EDR Contact: 06/22/2020  
Next Scheduled EDR Contact: 10/05/2020  
Data Release Frequency: Quarterly

### **State- and tribal - equivalent CERCLIS**

SHWS: State Leads List

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 05/15/2020  
Date Data Arrived at EDR: 05/20/2020  
Date Made Active in Reports: 06/03/2020  
Number of Days to Update: 14

Source: Department of Environmental Protection  
Telephone: 502-564-6716  
Last EDR Contact: 05/19/2020  
Next Scheduled EDR Contact: 09/07/2020  
Data Release Frequency: Quarterly

### **State and tribal landfill and/or solid waste disposal site lists**

SWF/LF: Solid Waste Facilities List

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 02/11/2020  
Date Data Arrived at EDR: 04/20/2020  
Date Made Active in Reports: 07/07/2020  
Number of Days to Update: 78

Source: Department of Environmental Protection  
Telephone: 502-564-6716  
Last EDR Contact: 07/21/2020  
Next Scheduled EDR Contact: 11/09/2020  
Data Release Frequency: Semi-Annually

### **State and tribal leaking storage tank lists**

PSTEAF: Facility Ranking List

The Underground Storage Tank Branch (USTB) has ranked all PSTEAF reimbursable facilities requiring corrective action, in accordance with 401 KAR 42:290. Directive letters will be issued on the basis of facility ranking and available PSTEAF funding in sequential order as ranked. For example, Rank 2 facilities will be issued directives before Rank 3 facilities.

Date of Government Version: 03/01/2020  
Date Data Arrived at EDR: 04/07/2020  
Date Made Active in Reports: 06/22/2020  
Number of Days to Update: 76

Source: Department of Environmental Protection  
Telephone: 502-564-5981  
Last EDR Contact: 07/07/2020  
Next Scheduled EDR Contact: 10/19/2020  
Data Release Frequency: Quarterly

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 04/08/2020  
Date Data Arrived at EDR: 05/20/2020  
Date Made Active in Reports: 08/12/2020  
Number of Days to Update: 84

Source: EPA Region 6  
Telephone: 214-665-6597  
Last EDR Contact: 07/24/2020  
Next Scheduled EDR Contact: 11/02/2020  
Data Release Frequency: Varies



## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land  
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 04/15/2020	Source: EPA Region 7
Date Data Arrived at EDR: 05/20/2020	Telephone: 913-551-7003
Date Made Active in Reports: 08/12/2020	Last EDR Contact: 07/24/2020
Number of Days to Update: 84	Next Scheduled EDR Contact: 11/02/2020
	Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land  
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/29/2020	Source: EPA Region 1
Date Data Arrived at EDR: 05/20/2020	Telephone: 617-918-1313
Date Made Active in Reports: 08/12/2020	Last EDR Contact: 07/24/2020
Number of Days to Update: 84	Next Scheduled EDR Contact: 11/02/2020
	Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land  
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 04/14/2020	Source: EPA Region 8
Date Data Arrived at EDR: 05/20/2020	Telephone: 303-312-6271
Date Made Active in Reports: 08/12/2020	Last EDR Contact: 07/24/2020
Number of Days to Update: 84	Next Scheduled EDR Contact: 11/02/2020
	Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land  
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 04/14/2020	Source: EPA Region 10
Date Data Arrived at EDR: 05/20/2020	Telephone: 206-553-2857
Date Made Active in Reports: 08/12/2020	Last EDR Contact: 07/24/2020
Number of Days to Update: 84	Next Scheduled EDR Contact: 11/02/2020
	Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land  
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 04/08/2020	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/20/2020	Telephone: 415-972-3372
Date Made Active in Reports: 08/12/2020	Last EDR Contact: 07/24/2020
Number of Days to Update: 84	Next Scheduled EDR Contact: 11/02/2020
	Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land  
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 04/14/2020	Source: EPA Region 4
Date Data Arrived at EDR: 05/26/2020	Telephone: 404-562-8677
Date Made Active in Reports: 08/12/2020	Last EDR Contact: 07/24/2020
Number of Days to Update: 78	Next Scheduled EDR Contact: 11/02/2020
	Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land  
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/14/2020	Source: EPA, Region 5
Date Data Arrived at EDR: 05/20/2020	Telephone: 312-886-7439
Date Made Active in Reports: 08/12/2020	Last EDR Contact: 07/24/2020
Number of Days to Update: 84	Next Scheduled EDR Contact: 11/02/2020
	Data Release Frequency: Varies

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### SB193: SB193 Branch Site Inventory List

The inventory indicates facilities that have performed permanent closure activities at a regulated underground storage tank facility and have known soil and/or groundwater contamination.

Date of Government Version: 09/05/2006	Source: Department of Environmental Protection
Date Data Arrived at EDR: 09/13/2006	Telephone: 502-564-5981
Date Made Active in Reports: 10/18/2006	Last EDR Contact: 04/08/2016
Number of Days to Update: 35	Next Scheduled EDR Contact: 07/25/2016
	Data Release Frequency: No Update Planned

### **State and tribal registered storage tank lists**

#### FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 02/01/2020	Source: FEMA
Date Data Arrived at EDR: 03/19/2020	Telephone: 202-646-5797
Date Made Active in Reports: 06/09/2020	Last EDR Contact: 07/06/2020
Number of Days to Update: 82	Next Scheduled EDR Contact: 10/19/2020
	Data Release Frequency: Varies

#### UST: Underground Storage Tank Database

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 05/08/2020	Source: Department of Environmental Protection
Date Data Arrived at EDR: 05/26/2020	Telephone: 502-564-5981
Date Made Active in Reports: 08/10/2020	Last EDR Contact: 05/26/2020
Number of Days to Update: 76	Next Scheduled EDR Contact: 09/07/2020
	Data Release Frequency: Quarterly

#### AST: Above Ground Storage Tanks

A listing of aboveground storage tank site locations.

Date of Government Version: 05/26/2020	Source: Office of State Fire Marshal
Date Data Arrived at EDR: 05/27/2020	Telephone: 502-564-4010
Date Made Active in Reports: 08/11/2020	Last EDR Contact: 05/19/2020
Number of Days to Update: 76	Next Scheduled EDR Contact: 09/07/2020
	Data Release Frequency: Varies

#### INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/14/2020	Source: EPA Region 10
Date Data Arrived at EDR: 05/20/2020	Telephone: 206-553-2857
Date Made Active in Reports: 08/12/2020	Last EDR Contact: 07/24/2020
Number of Days to Update: 84	Next Scheduled EDR Contact: 11/02/2020
	Data Release Frequency: Varies

#### INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/14/2020	Source: EPA Region 5
Date Data Arrived at EDR: 05/20/2020	Telephone: 312-886-6136
Date Made Active in Reports: 08/12/2020	Last EDR Contact: 07/24/2020
Number of Days to Update: 84	Next Scheduled EDR Contact: 11/02/2020
	Data Release Frequency: Varies

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 04/14/2020	Source: EPA Region 8
Date Data Arrived at EDR: 05/20/2020	Telephone: 303-312-6137
Date Made Active in Reports: 08/13/2020	Last EDR Contact: 07/24/2020
Number of Days to Update: 85	Next Scheduled EDR Contact: 11/02/2020
	Data Release Frequency: Varies

### INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/29/2020	Source: EPA, Region 1
Date Data Arrived at EDR: 05/20/2020	Telephone: 617-918-1313
Date Made Active in Reports: 08/12/2020	Last EDR Contact: 07/24/2020
Number of Days to Update: 84	Next Scheduled EDR Contact: 11/02/2020
	Data Release Frequency: Varies

### INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 04/14/2020	Source: EPA Region 4
Date Data Arrived at EDR: 05/26/2020	Telephone: 404-562-9424
Date Made Active in Reports: 08/12/2020	Last EDR Contact: 07/24/2020
Number of Days to Update: 78	Next Scheduled EDR Contact: 11/02/2020
	Data Release Frequency: Varies

### INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 04/08/2020	Source: EPA Region 6
Date Data Arrived at EDR: 05/20/2020	Telephone: 214-665-7591
Date Made Active in Reports: 08/12/2020	Last EDR Contact: 07/24/2020
Number of Days to Update: 84	Next Scheduled EDR Contact: 11/02/2020
	Data Release Frequency: Varies

### INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 04/03/2020	Source: EPA Region 7
Date Data Arrived at EDR: 05/20/2020	Telephone: 913-551-7003
Date Made Active in Reports: 08/12/2020	Last EDR Contact: 07/24/2020
Number of Days to Update: 84	Next Scheduled EDR Contact: 11/02/2020
	Data Release Frequency: Varies

### INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 04/08/2020	Source: EPA Region 9
Date Data Arrived at EDR: 05/20/2020	Telephone: 415-972-3368
Date Made Active in Reports: 08/12/2020	Last EDR Contact: 07/23/2020
Number of Days to Update: 84	Next Scheduled EDR Contact: 11/01/2020
	Data Release Frequency: Varies

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### **State and tribal institutional control / engineering control registries**

ENG CONTROLS: Engineering Controls Site Listing  
A listing of sites that use engineering controls.

Date of Government Version: 05/19/2020	Source: Department of Environmental Protection
Date Data Arrived at EDR: 05/20/2020	Telephone: 502-564-6716
Date Made Active in Reports: 06/04/2020	Last EDR Contact: 05/19/2020
Number of Days to Update: 15	Next Scheduled EDR Contact: 09/07/2020
	Data Release Frequency: Varies

INST CONTROL: State Superfund Database

A list of closed sites in the State Superfund Database. Institutional controls would be in place at any site that uses Contained or Managed as a Closure Option.

Date of Government Version: 05/19/2020	Source: Department of Environmental Protection
Date Data Arrived at EDR: 05/20/2020	Telephone: 502-564-6716
Date Made Active in Reports: 06/03/2020	Last EDR Contact: 05/19/2020
Number of Days to Update: 14	Next Scheduled EDR Contact: 09/07/2020
	Data Release Frequency: Varies

### **State and tribal voluntary cleanup sites**

INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008	Source: EPA, Region 7
Date Data Arrived at EDR: 04/22/2008	Telephone: 913-551-7365
Date Made Active in Reports: 05/19/2008	Last EDR Contact: 04/20/2009
Number of Days to Update: 27	Next Scheduled EDR Contact: 07/20/2009
	Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Sites

Sites that have been accepted into the Voluntary Cleanup Program or have submitted an application.

Date of Government Version: 03/23/2020	Source: Department of Environmental Protection
Date Data Arrived at EDR: 03/24/2020	Telephone: 502-564-6716
Date Made Active in Reports: 06/04/2020	Last EDR Contact: 06/24/2020
Number of Days to Update: 72	Next Scheduled EDR Contact: 10/12/2020
	Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015	Source: EPA, Region 1
Date Data Arrived at EDR: 09/29/2015	Telephone: 617-918-1102
Date Made Active in Reports: 02/18/2016	Last EDR Contact: 06/17/2020
Number of Days to Update: 142	Next Scheduled EDR Contact: 10/05/2020
	Data Release Frequency: Varies

### **State and tribal Brownfields sites**

BROWNFIELDS: Kentucky Brownfield Inventory

The Kentucky Brownfield Program has created an inventory of brownfield sites in order to market the properties to those interested in brownfield redevelopment. The Kentucky Brownfield Program is working to promote the redevelopment of these sites by helping to remove barriers that prevent reuse, providing useful information to communities, developers and the public and encouraging a climate that fosters redevelopment of contaminated sites.

Date of Government Version: 02/10/2020	Source: Division of Compliance Assistance
Date Data Arrived at EDR: 02/11/2020	Telephone: 502-564-0323
Date Made Active in Reports: 04/20/2020	Last EDR Contact: 07/08/2020
Number of Days to Update: 69	Next Scheduled EDR Contact: 10/26/2020
	Data Release Frequency: Varies

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### ADDITIONAL ENVIRONMENTAL RECORDS

#### **Local Brownfield lists**

##### US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/01/2020	Source: Environmental Protection Agency
Date Data Arrived at EDR: 06/02/2020	Telephone: 202-566-2777
Date Made Active in Reports: 06/09/2020	Last EDR Contact: 06/02/2020
Number of Days to Update: 7	Next Scheduled EDR Contact: 09/28/2020
	Data Release Frequency: Semi-Annually

#### **Local Lists of Landfill / Solid Waste Disposal Sites**

##### SWRCY: Recycling Facilities

A listing of recycling facilities located in the state of Kentucky.

Date of Government Version: 09/13/2019	Source: Department of Environmental Protection
Date Data Arrived at EDR: 10/23/2019	Telephone: 502-564-6716
Date Made Active in Reports: 01/03/2020	Last EDR Contact: 07/16/2020
Number of Days to Update: 72	Next Scheduled EDR Contact: 10/26/2020
	Data Release Frequency: Varies

##### HIST LF: Historical Landfills

This solid waste facility listing contains detail information that is not included in the landfill listing. A listing with detail information is no longer available by the Department of Environmental Protection.

Date of Government Version: 05/01/2003	Source: Department of Environmental Protection
Date Data Arrived at EDR: 03/30/2006	Telephone: 502-564-6716
Date Made Active in Reports: 05/01/2006	Last EDR Contact: 02/23/2009
Number of Days to Update: 32	Next Scheduled EDR Contact: 05/25/2009
	Data Release Frequency: No Update Planned

##### INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/03/2007	Telephone: 703-308-8245
Date Made Active in Reports: 01/24/2008	Last EDR Contact: 07/21/2020
Number of Days to Update: 52	Next Scheduled EDR Contact: 11/09/2020
	Data Release Frequency: Varies

##### DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009	Source: EPA, Region 9
Date Data Arrived at EDR: 05/07/2009	Telephone: 415-947-4219
Date Made Active in Reports: 09/21/2009	Last EDR Contact: 07/14/2020
Number of Days to Update: 137	Next Scheduled EDR Contact: 11/02/2020
	Data Release Frequency: No Update Planned

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/09/2004	Telephone: 800-424-9346
Date Made Active in Reports: 09/17/2004	Last EDR Contact: 06/09/2004
Number of Days to Update: 39	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

### IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014	Source: Department of Health & Human Services, Indian Health Service
Date Data Arrived at EDR: 08/06/2014	Telephone: 301-443-1452
Date Made Active in Reports: 01/29/2015	Last EDR Contact: 07/31/2020
Number of Days to Update: 176	Next Scheduled EDR Contact: 11/09/2020
	Data Release Frequency: Varies

### **Local Lists of Hazardous waste / Contaminated Sites**

#### US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 03/18/2020	Source: Drug Enforcement Administration
Date Data Arrived at EDR: 03/19/2020	Telephone: 202-307-1000
Date Made Active in Reports: 06/09/2020	Last EDR Contact: 05/18/2020
Number of Days to Update: 82	Next Scheduled EDR Contact: 09/07/2020
	Data Release Frequency: No Update Planned

#### CDL: Clandestine Drug Lab Location Listing

Clandestine drug lab site locations.

Date of Government Version: 04/03/2020	Source: Department of Environmental Protection
Date Data Arrived at EDR: 04/08/2020	Telephone: 502-564-6716
Date Made Active in Reports: 06/03/2020	Last EDR Contact: 05/19/2020
Number of Days to Update: 56	Next Scheduled EDR Contact: 09/07/2020
	Data Release Frequency: Varies

#### US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 03/18/2020	Source: Drug Enforcement Administration
Date Data Arrived at EDR: 03/19/2020	Telephone: 202-307-1000
Date Made Active in Reports: 06/09/2020	Last EDR Contact: 05/18/2020
Number of Days to Update: 82	Next Scheduled EDR Contact: 09/07/2020
	Data Release Frequency: Quarterly

### **Local Land Records**

#### LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.



## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/27/2020  
Date Data Arrived at EDR: 05/06/2020  
Date Made Active in Reports: 05/28/2020  
Number of Days to Update: 22

Source: Environmental Protection Agency  
Telephone: 202-564-6023  
Last EDR Contact: 08/03/2020  
Next Scheduled EDR Contact: 10/12/2020  
Data Release Frequency: Semi-Annually

### **Records of Emergency Release Reports**

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 02/27/2020  
Date Data Arrived at EDR: 03/24/2020  
Date Made Active in Reports: 06/18/2020  
Number of Days to Update: 86

Source: U.S. Department of Transportation  
Telephone: 202-366-4555  
Last EDR Contact: 06/23/2020  
Next Scheduled EDR Contact: 10/05/2020  
Data Release Frequency: Quarterly

SPILLS: State spills

A listing of spill and/or release related incidents.

Date of Government Version: 04/02/2020  
Date Data Arrived at EDR: 04/07/2020  
Date Made Active in Reports: 06/23/2020  
Number of Days to Update: 77

Source: DEP, Emergency Response  
Telephone: 502-564-2380  
Last EDR Contact: 07/08/2020  
Next Scheduled EDR Contact: 10/26/2020  
Data Release Frequency: Varies

### **Other Ascertainable Records**

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/23/2020  
Date Data Arrived at EDR: 03/25/2020  
Date Made Active in Reports: 05/21/2020  
Number of Days to Update: 57

Source: Environmental Protection Agency  
Telephone: (404) 562-8651  
Last EDR Contact: 06/22/2020  
Next Scheduled EDR Contact: 10/05/2020  
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 05/13/2020  
Date Data Arrived at EDR: 05/18/2020  
Date Made Active in Reports: 08/12/2020  
Number of Days to Update: 86

Source: U.S. Army Corps of Engineers  
Telephone: 202-528-4285  
Last EDR Contact: 08/13/2020  
Next Scheduled EDR Contact: 11/30/2020  
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005  
Date Data Arrived at EDR: 11/10/2006  
Date Made Active in Reports: 01/11/2007  
Number of Days to Update: 62

Source: USGS  
Telephone: 888-275-8747  
Last EDR Contact: 07/09/2020  
Next Scheduled EDR Contact: 10/19/2020  
Data Release Frequency: Semi-Annually

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

**FEDLAND: Federal and Indian Lands**

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018	Source: U.S. Geological Survey
Date Data Arrived at EDR: 04/11/2018	Telephone: 888-275-8747
Date Made Active in Reports: 11/06/2019	Last EDR Contact: 07/06/2020
Number of Days to Update: 574	Next Scheduled EDR Contact: 10/19/2020
	Data Release Frequency: N/A

**SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing**

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/03/2017	Telephone: 615-532-8599
Date Made Active in Reports: 04/07/2017	Last EDR Contact: 08/05/2020
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/23/2020
	Data Release Frequency: Varies

**US FIN ASSUR: Financial Assurance Information**

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 03/23/2020	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/24/2020	Telephone: 202-566-1917
Date Made Active in Reports: 06/18/2020	Last EDR Contact: 06/22/2020
Number of Days to Update: 86	Next Scheduled EDR Contact: 10/05/2020
	Data Release Frequency: Quarterly

**EPA WATCH LIST: EPA WATCH LIST**

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/21/2014	Telephone: 617-520-3000
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 07/31/2020
Number of Days to Update: 88	Next Scheduled EDR Contact: 11/16/2020
	Data Release Frequency: Quarterly

**2020 COR ACTION: 2020 Corrective Action Program List**

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/08/2018	Telephone: 703-308-4044
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 08/06/2020
Number of Days to Update: 73	Next Scheduled EDR Contact: 11/16/2020
	Data Release Frequency: Varies

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016	Source: EPA
Date Data Arrived at EDR: 06/21/2017	Telephone: 202-260-5521
Date Made Active in Reports: 01/05/2018	Last EDR Contact: 06/17/2020
Number of Days to Update: 198	Next Scheduled EDR Contact: 09/28/2020
	Data Release Frequency: Every 4 Years

### TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2018	Source: EPA
Date Data Arrived at EDR: 02/05/2020	Telephone: 202-566-0250
Date Made Active in Reports: 04/24/2020	Last EDR Contact: 08/14/2020
Number of Days to Update: 79	Next Scheduled EDR Contact: 11/30/2020
	Data Release Frequency: Annually

### SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 03/01/2020	Source: EPA
Date Data Arrived at EDR: 04/21/2020	Telephone: 202-564-4203
Date Made Active in Reports: 07/15/2020	Last EDR Contact: 07/21/2020
Number of Days to Update: 85	Next Scheduled EDR Contact: 11/02/2020
	Data Release Frequency: Annually

### ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 04/27/2020	Source: EPA
Date Data Arrived at EDR: 05/06/2020	Telephone: 703-416-0223
Date Made Active in Reports: 05/28/2020	Last EDR Contact: 08/03/2020
Number of Days to Update: 22	Next Scheduled EDR Contact: 09/14/2020
	Data Release Frequency: Annually

### RMP: Risk Management Plans

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 01/31/2020	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/13/2020	Telephone: 202-564-8600
Date Made Active in Reports: 08/03/2020	Last EDR Contact: 07/15/2020
Number of Days to Update: 82	Next Scheduled EDR Contact: 11/02/2020
	Data Release Frequency: Varies

**RAATS: RCRA Administrative Action Tracking System**

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995	Source: EPA
Date Data Arrived at EDR: 07/03/1995	Telephone: 202-564-4104
Date Made Active in Reports: 08/07/1995	Last EDR Contact: 06/02/2008
Number of Days to Update: 35	Next Scheduled EDR Contact: 09/01/2008
	Data Release Frequency: No Update Planned

**PRP: Potentially Responsible Parties**

A listing of verified Potentially Responsible Parties

Date of Government Version: 04/27/2020	Source: EPA
Date Data Arrived at EDR: 05/06/2020	Telephone: 202-564-6023
Date Made Active in Reports: 06/09/2020	Last EDR Contact: 08/03/2020
Number of Days to Update: 34	Next Scheduled EDR Contact: 11/16/2020
	Data Release Frequency: Quarterly

**PADS: PCB Activity Database System**

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 10/09/2019	Source: EPA
Date Data Arrived at EDR: 10/11/2019	Telephone: 202-566-0500
Date Made Active in Reports: 12/20/2019	Last EDR Contact: 07/13/2020
Number of Days to Update: 70	Next Scheduled EDR Contact: 10/19/2020
	Data Release Frequency: Annually

**ICIS: Integrated Compliance Information System**

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/23/2016	Telephone: 202-564-2501
Date Made Active in Reports: 02/10/2017	Last EDR Contact: 06/30/2020
Number of Days to Update: 79	Next Scheduled EDR Contact: 10/19/2020
	Data Release Frequency: Quarterly

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

**FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)**  
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: No Update Planned

**FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)**  
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009	Source: EPA
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: No Update Planned

**MLTS: Material Licensing Tracking System**

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 10/25/2019	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 10/25/2019	Telephone: 301-415-7169
Date Made Active in Reports: 01/15/2020	Last EDR Contact: 07/20/2020
Number of Days to Update: 82	Next Scheduled EDR Contact: 11/02/2020
	Data Release Frequency: Quarterly

**COAL ASH DOE: Steam-Electric Plant Operation Data**

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2018	Source: Department of Energy
Date Data Arrived at EDR: 12/04/2019	Telephone: 202-586-8719
Date Made Active in Reports: 01/15/2020	Last EDR Contact: 06/05/2020
Number of Days to Update: 42	Next Scheduled EDR Contact: 09/14/2020
	Data Release Frequency: Varies

**COAL ASH EPA: Coal Combustion Residues Surface Impoundments List**

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/05/2019	Telephone: N/A
Date Made Active in Reports: 11/11/2019	Last EDR Contact: 06/01/2020
Number of Days to Update: 251	Next Scheduled EDR Contact: 09/14/2020
	Data Release Frequency: Varies

**PCB TRANSFORMER: PCB Transformer Registration Database**

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/06/2019	Telephone: 202-566-0517
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 08/06/2020
Number of Days to Update: 96	Next Scheduled EDR Contact: 11/16/2020
	Data Release Frequency: Varies

**RADINFO: Radiation Information Database**

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/01/2019  
Date Data Arrived at EDR: 07/01/2019  
Date Made Active in Reports: 09/23/2019  
Number of Days to Update: 84

Source: Environmental Protection Agency  
Telephone: 202-343-9775  
Last EDR Contact: 06/24/2020  
Next Scheduled EDR Contact: 10/12/2020  
Data Release Frequency: Quarterly

### HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006  
Date Data Arrived at EDR: 03/01/2007  
Date Made Active in Reports: 04/10/2007  
Number of Days to Update: 40

Source: Environmental Protection Agency  
Telephone: 202-564-2501  
Last EDR Contact: 12/17/2007  
Next Scheduled EDR Contact: 03/17/2008  
Data Release Frequency: No Update Planned

### HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006  
Date Data Arrived at EDR: 03/01/2007  
Date Made Active in Reports: 04/10/2007  
Number of Days to Update: 40

Source: Environmental Protection Agency  
Telephone: 202-564-2501  
Last EDR Contact: 12/17/2008  
Next Scheduled EDR Contact: 03/17/2008  
Data Release Frequency: No Update Planned

### DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/02/2020  
Date Data Arrived at EDR: 01/28/2020  
Date Made Active in Reports: 04/17/2020  
Number of Days to Update: 80

Source: Department of Transportation, Office of Pipeline Safety  
Telephone: 202-366-4595  
Last EDR Contact: 07/27/2020  
Next Scheduled EDR Contact: 11/09/2020  
Data Release Frequency: Quarterly

### CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 06/30/2020  
Date Data Arrived at EDR: 07/15/2020  
Date Made Active in Reports: 07/21/2020  
Number of Days to Update: 6

Source: Department of Justice, Consent Decree Library  
Telephone: Varies  
Last EDR Contact: 07/06/2020  
Next Scheduled EDR Contact: 10/19/2020  
Data Release Frequency: Varies

### BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015  
Date Data Arrived at EDR: 02/22/2017  
Date Made Active in Reports: 09/28/2017  
Number of Days to Update: 218

Source: EPA/NTIS  
Telephone: 800-424-9346  
Last EDR Contact: 06/22/2020  
Next Scheduled EDR Contact: 10/05/2020  
Data Release Frequency: Biennially



## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014	Source: USGS
Date Data Arrived at EDR: 07/14/2015	Telephone: 202-208-3710
Date Made Active in Reports: 01/10/2017	Last EDR Contact: 07/07/2020
Number of Days to Update: 546	Next Scheduled EDR Contact: 10/19/2020
	Data Release Frequency: Semi-Annually

### FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017	Source: Department of Energy
Date Data Arrived at EDR: 09/11/2018	Telephone: 202-586-3559
Date Made Active in Reports: 09/14/2018	Last EDR Contact: 07/28/2020
Number of Days to Update: 3	Next Scheduled EDR Contact: 11/16/2020
	Data Release Frequency: Varies

### UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 08/30/2019	Source: Department of Energy
Date Data Arrived at EDR: 11/15/2019	Telephone: 505-845-0011
Date Made Active in Reports: 01/28/2020	Last EDR Contact: 05/18/2020
Number of Days to Update: 74	Next Scheduled EDR Contact: 08/31/2020
	Data Release Frequency: Varies

### LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 04/27/2020	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/06/2020	Telephone: 703-603-8787
Date Made Active in Reports: 05/28/2020	Last EDR Contact: 08/03/2020
Number of Days to Update: 22	Next Scheduled EDR Contact: 10/12/2020
	Data Release Frequency: Varies

### LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001	Source: American Journal of Public Health
Date Data Arrived at EDR: 10/27/2010	Telephone: 703-305-6451
Date Made Active in Reports: 12/02/2010	Last EDR Contact: 12/02/2009
Number of Days to Update: 36	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

### US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/12/2016  
Date Data Arrived at EDR: 10/26/2016  
Date Made Active in Reports: 02/03/2017  
Number of Days to Update: 100

Source: EPA  
Telephone: 202-564-2496  
Last EDR Contact: 09/26/2017  
Next Scheduled EDR Contact: 01/08/2018  
Data Release Frequency: Annually

### US AIRS MINOR: Air Facility System Data A listing of minor source facilities.

Date of Government Version: 10/12/2016  
Date Data Arrived at EDR: 10/26/2016  
Date Made Active in Reports: 02/03/2017  
Number of Days to Update: 100

Source: EPA  
Telephone: 202-564-2496  
Last EDR Contact: 09/26/2017  
Next Scheduled EDR Contact: 01/08/2018  
Data Release Frequency: Annually

### MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 05/28/2020  
Date Data Arrived at EDR: 05/28/2020  
Date Made Active in Reports: 08/13/2020  
Number of Days to Update: 77

Source: DOL, Mine Safety & Health Admi  
Telephone: 202-693-9424  
Last EDR Contact: 05/27/2020  
Next Scheduled EDR Contact: 09/14/2020  
Data Release Frequency: Quarterly

### US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 05/01/2020  
Date Data Arrived at EDR: 05/21/2020  
Date Made Active in Reports: 08/13/2020  
Number of Days to Update: 84

Source: Department of Labor, Mine Safety and Health Administration  
Telephone: 303-231-5959  
Last EDR Contact: 05/21/2020  
Next Scheduled EDR Contact: 09/07/2020  
Data Release Frequency: Semi-Annually

### US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 05/06/2020  
Date Data Arrived at EDR: 05/27/2020  
Date Made Active in Reports: 08/13/2020  
Number of Days to Update: 78

Source: USGS  
Telephone: 703-648-7709  
Last EDR Contact: 05/27/2020  
Next Scheduled EDR Contact: 09/07/2020  
Data Release Frequency: Varies

### US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011  
Date Data Arrived at EDR: 06/08/2011  
Date Made Active in Reports: 09/13/2011  
Number of Days to Update: 97

Source: USGS  
Telephone: 703-648-7709  
Last EDR Contact: 05/21/2020  
Next Scheduled EDR Contact: 09/07/2020  
Data Release Frequency: Varies

### ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/05/2020	Source: Department of Interior
Date Data Arrived at EDR: 03/06/2020	Telephone: 202-208-2609
Date Made Active in Reports: 05/29/2020	Last EDR Contact: 06/19/2020
Number of Days to Update: 84	Next Scheduled EDR Contact: 09/21/2020
	Data Release Frequency: Quarterly

### FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 02/03/2020	Source: EPA
Date Data Arrived at EDR: 03/03/2020	Telephone: (404) 562-9900
Date Made Active in Reports: 05/28/2020	Last EDR Contact: 06/02/2020
Number of Days to Update: 86	Next Scheduled EDR Contact: 09/14/2020
	Data Release Frequency: Quarterly

### ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 04/04/2020	Source: Environmental Protection Agency
Date Data Arrived at EDR: 04/07/2020	Telephone: 202-564-2280
Date Made Active in Reports: 06/26/2020	Last EDR Contact: 07/02/2020
Number of Days to Update: 80	Next Scheduled EDR Contact: 10/19/2020
	Data Release Frequency: Quarterly

### DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/31/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/26/2018	Telephone: 202-564-0527
Date Made Active in Reports: 10/05/2018	Last EDR Contact: 05/18/2020
Number of Days to Update: 71	Next Scheduled EDR Contact: 09/07/2020
	Data Release Frequency: Varies

### UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2017	Source: Department of Defense
Date Data Arrived at EDR: 01/17/2019	Telephone: 703-704-1564
Date Made Active in Reports: 04/01/2019	Last EDR Contact: 07/09/2020
Number of Days to Update: 74	Next Scheduled EDR Contact: 10/26/2020
	Data Release Frequency: Varies

### FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 05/18/2020	Source: EPA
Date Data Arrived at EDR: 05/19/2020	Telephone: 800-385-6164
Date Made Active in Reports: 08/03/2020	Last EDR Contact: 08/17/2020
Number of Days to Update: 76	Next Scheduled EDR Contact: 11/30/2020
	Data Release Frequency: Quarterly

### AIRS: Permitted Airs Facility Listing

A listing of permitted Airs facilities.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/14/2020  
Date Data Arrived at EDR: 07/15/2020  
Date Made Active in Reports: 07/22/2020  
Number of Days to Update: 7

Source: Department of Environmental Protection  
Telephone: 502-573-3382  
Last EDR Contact: 07/06/2020  
Next Scheduled EDR Contact: 11/09/2020  
Data Release Frequency: Semi-Annually

### ASBESTOS: Asbestos Notification Listing Asbestos sites

Date of Government Version: 05/28/2020  
Date Data Arrived at EDR: 05/29/2020  
Date Made Active in Reports: 06/04/2020  
Number of Days to Update: 6

Source: Department of Environmental Protection  
Telephone: 502-782-6780  
Last EDR Contact: 05/27/2020  
Next Scheduled EDR Contact: 09/14/2020  
Data Release Frequency: Varies

### COAL ASH: Coal Ash Disposal Sites A listing of coal ash pond site locations.

Date of Government Version: 04/17/2020  
Date Data Arrived at EDR: 04/20/2020  
Date Made Active in Reports: 05/06/2020  
Number of Days to Update: 16

Source: Department of Environmental Protection  
Telephone: 502-564-6716  
Last EDR Contact: 07/21/2020  
Next Scheduled EDR Contact: 11/09/2020  
Data Release Frequency: No Update Planned

### DRYCLEANERS: Drycleaner Listing A listing of drycleaner facility locations.

Date of Government Version: 07/14/2020  
Date Data Arrived at EDR: 07/15/2020  
Date Made Active in Reports: 07/22/2020  
Number of Days to Update: 7

Source: Department of Environmental Protection  
Telephone: 502-573-3382  
Last EDR Contact: 07/06/2020  
Next Scheduled EDR Contact: 11/09/2020  
Data Release Frequency: Semi-Annually

### Financial Assurance 1: Financial Assurance Information Listing A listing of financial assurance information.

Date of Government Version: 04/17/2020  
Date Data Arrived at EDR: 04/20/2020  
Date Made Active in Reports: 07/07/2020  
Number of Days to Update: 78

Source: Department of Environmental Protection  
Telephone: 502-564-6716  
Last EDR Contact: 07/21/2020  
Next Scheduled EDR Contact: 11/09/2020  
Data Release Frequency: Varies

### Financial Assurance 2: Financial Assurance Information Listing Financial Assurance information for underground storage tank facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 05/14/2014  
Date Data Arrived at EDR: 06/06/2014  
Date Made Active in Reports: 06/24/2014  
Number of Days to Update: 18

Source: Department of Environmental Protection  
Telephone: 502-564-5981  
Last EDR Contact: 07/21/2020  
Next Scheduled EDR Contact: 11/09/2020  
Data Release Frequency: Varies

### Financial Assurance 3: Financial Assurance Information Listing A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 05/08/2020  
Date Data Arrived at EDR: 05/08/2020  
Date Made Active in Reports: 07/22/2020  
Number of Days to Update: 75

Source: Department of Environmental Protection  
Telephone: 502-564-6716  
Last EDR Contact: 07/21/2020  
Next Scheduled EDR Contact: 11/09/2020  
Data Release Frequency: Varies

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### LEAD: Environmental Lead Program Report Tracking Database Lead Report Tracking Database

Date of Government Version: 01/27/2017  
Date Data Arrived at EDR: 02/02/2017  
Date Made Active in Reports: 08/21/2017  
Number of Days to Update: 200

Source: Department of Public Health  
Telephone: 502-564-4537  
Last EDR Contact: 07/28/2020  
Next Scheduled EDR Contact: 11/16/2020  
Data Release Frequency: Varies

### NPDES: Permitted Facility Listing A listing of permitted wastewater facilities.

Date of Government Version: 04/27/2020  
Date Data Arrived at EDR: 04/29/2020  
Date Made Active in Reports: 07/16/2020  
Number of Days to Update: 78

Source: Department of Environmental Protection  
Telephone: 502-564-3410  
Last EDR Contact: 07/28/2020  
Next Scheduled EDR Contact: 11/16/2020  
Data Release Frequency: Semi-Annually

### UIC: UIC Information

A listing of wells identified as underground injection wells, in the Kentucky Oil & Gas Wells data base.

Date of Government Version: 01/14/2020  
Date Data Arrived at EDR: 04/14/2020  
Date Made Active in Reports: 07/01/2020  
Number of Days to Update: 78

Source: Kentucky Geological Survey  
Telephone: 859-323-0544  
Last EDR Contact: 07/14/2020  
Next Scheduled EDR Contact: 10/26/2020  
Data Release Frequency: Quarterly

### PCS ENF: Enforcement data

No description is available for this data

Date of Government Version: 12/31/2014  
Date Data Arrived at EDR: 02/05/2015  
Date Made Active in Reports: 03/06/2015  
Number of Days to Update: 29

Source: EPA  
Telephone: 202-564-2497  
Last EDR Contact: 07/01/2020  
Next Scheduled EDR Contact: 10/19/2020  
Data Release Frequency: Varies

### PCS INACTIVE: Listing of Inactive PCS Permits

An inactive permit is a facility that has shut down or is no longer discharging.

Date of Government Version: 11/05/2014  
Date Data Arrived at EDR: 01/06/2015  
Date Made Active in Reports: 05/06/2015  
Number of Days to Update: 120

Source: EPA  
Telephone: 202-564-2496  
Last EDR Contact: 07/09/2020  
Next Scheduled EDR Contact: 10/19/2020  
Data Release Frequency: Semi-Annually

### PCS: Permit Compliance System

PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

Date of Government Version: 07/14/2011  
Date Data Arrived at EDR: 08/05/2011  
Date Made Active in Reports: 09/29/2011  
Number of Days to Update: 55

Source: EPA, Office of Water  
Telephone: 202-564-2496  
Last EDR Contact: 06/08/2020  
Next Scheduled EDR Contact: 09/21/2020  
Data Release Frequency: Semi-Annually

### MINES MRDS: Mineral Resources Data System Mineral Resources Data System

Date of Government Version: 04/06/2018  
Date Data Arrived at EDR: 10/21/2019  
Date Made Active in Reports: 10/24/2019  
Number of Days to Update: 3

Source: USGS  
Telephone: 703-648-6533  
Last EDR Contact: 05/21/2020  
Next Scheduled EDR Contact: 09/07/2020  
Data Release Frequency: Varies

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### EDR HIGH RISK HISTORICAL RECORDS

#### ***EDR Exclusive Records***

##### EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A	Source: EDR, Inc.
Date Data Arrived at EDR: N/A	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: N/A
Number of Days to Update: N/A	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

##### EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A	Source: EDR, Inc.
Date Data Arrived at EDR: N/A	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: N/A
Number of Days to Update: N/A	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

##### EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A	Source: EDR, Inc.
Date Data Arrived at EDR: N/A	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: N/A
Number of Days to Update: N/A	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

### EDR RECOVERED GOVERNMENT ARCHIVES

#### ***Exclusive Recovered Govt. Archives***

##### RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists.

Date of Government Version: N/A	Source: Department of Environmental Protection
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 01/03/2014	Last EDR Contact: 06/01/2012
Number of Days to Update: 186	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies



## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists.

Date of Government Version: N/A	Source: Department of Environmental Protection
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 01/15/2014	Last EDR Contact: 06/01/2012
Number of Days to Update: 198	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

### OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

### CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 05/12/2020	Source: Department of Energy & Environmental Protection
Date Data Arrived at EDR: 05/12/2020	Telephone: 860-424-3375
Date Made Active in Reports: 07/27/2020	Last EDR Contact: 08/10/2020
Number of Days to Update: 76	Next Scheduled EDR Contact: 11/23/2020
	Data Release Frequency: No Update Planned

### NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2018	Source: Department of Environmental Protection
Date Data Arrived at EDR: 04/10/2019	Telephone: N/A
Date Made Active in Reports: 05/16/2019	Last EDR Contact: 07/09/2020
Number of Days to Update: 36	Next Scheduled EDR Contact: 10/19/2020
	Data Release Frequency: Annually

### NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019	Source: Department of Environmental Conservation
Date Data Arrived at EDR: 04/29/2020	Telephone: 518-402-8651
Date Made Active in Reports: 07/10/2020	Last EDR Contact: 07/31/2020
Number of Days to Update: 72	Next Scheduled EDR Contact: 11/09/2020
	Data Release Frequency: Quarterly

### PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 06/30/2018	Source: Department of Environmental Protection
Date Data Arrived at EDR: 07/19/2019	Telephone: 717-783-8990
Date Made Active in Reports: 09/10/2019	Last EDR Contact: 07/09/2020
Number of Days to Update: 53	Next Scheduled EDR Contact: 10/26/2020
	Data Release Frequency: Annually

### RI MANIFEST: Manifest information

Hazardous waste manifest information

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2018  
Date Data Arrived at EDR: 10/02/2019  
Date Made Active in Reports: 12/10/2019  
Number of Days to Update: 69

Source: Department of Environmental Management  
Telephone: 401-222-2797  
Last EDR Contact: 08/11/2020  
Next Scheduled EDR Contact: 11/30/2020  
Data Release Frequency: Annually

### WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 05/31/2018  
Date Data Arrived at EDR: 06/19/2019  
Date Made Active in Reports: 09/03/2019  
Number of Days to Update: 76

Source: Department of Natural Resources  
Telephone: N/A  
Last EDR Contact: 06/04/2020  
Next Scheduled EDR Contact: 09/21/2020  
Data Release Frequency: Annually

### Oil/Gas Pipelines

Source: Endeavor Business Media

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

### Electric Power Transmission Line Data

Source: Endeavor Business Media

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**Sensitive Receptors:** There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

### AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

### Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

### Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

### Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

### Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

### Daycare Centers: Certified Child Care Homes

Source: Cabinet for Families & Children

Telephone: 502-564-7130

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory

Source: Environmental & Public Protection Cabinet

Telephone: 502-564-6736

### STREET AND ADDRESS INFORMATION

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APPENDIX D

EDR AERIAL PHOTOGRAPHS

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**Bluebird - Additional Land**

Russell Cave Road

Cynthiana, KY 41031

Inquiry Number: 6161853.2

August 19, 2020

## The EDR Aerial Photo Decade Package



6 Armstrong Road, 4th floor  
Shelton, CT 06484  
Toll Free: 800.352.0050  
[www.edrnet.com](http://www.edrnet.com)

## EDR Aerial Photo Decade Package

08/19/20

**Site Name:**

Bluebird - Additional Land  
 Russell Cave Road  
 Cynthiana, KY 41031  
 EDR Inquiry # 6161853.2

**Client Name:**

Civil & Environmental Consultants, Inc.  
 530 E. Ohio Street Suite G  
 INDIANAPOLIS, IN 46204  
 Contact: Nate Hyde



Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

**Search Results:**

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
2016	1"=1000'	Flight Date: June 07, 2016	USDA
2008	1"=1000'	Flight Date: June 24, 2008	USDA
1997	1"=1000'	Flight Date: March 11, 1997	USGS
1984	1"=1000'	Flight Date: April 17, 1984	USGS
1960	1"=1000'	Flight Date: January 09, 1960	USGS
1952	1"=1000'	Flight Date: October 15, 1952	USGS

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INQUIRY #: 6161853.2

YEAR: 2016

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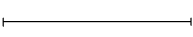
Subject boundary not shown because it exceeds image extent or image is not georeferenced.





INQUIRY #: 6161853.2

YEAR: 2016

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INQUIRY #: 6161853.2

YEAR: 2008

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INQUIRY #: 6161853.2

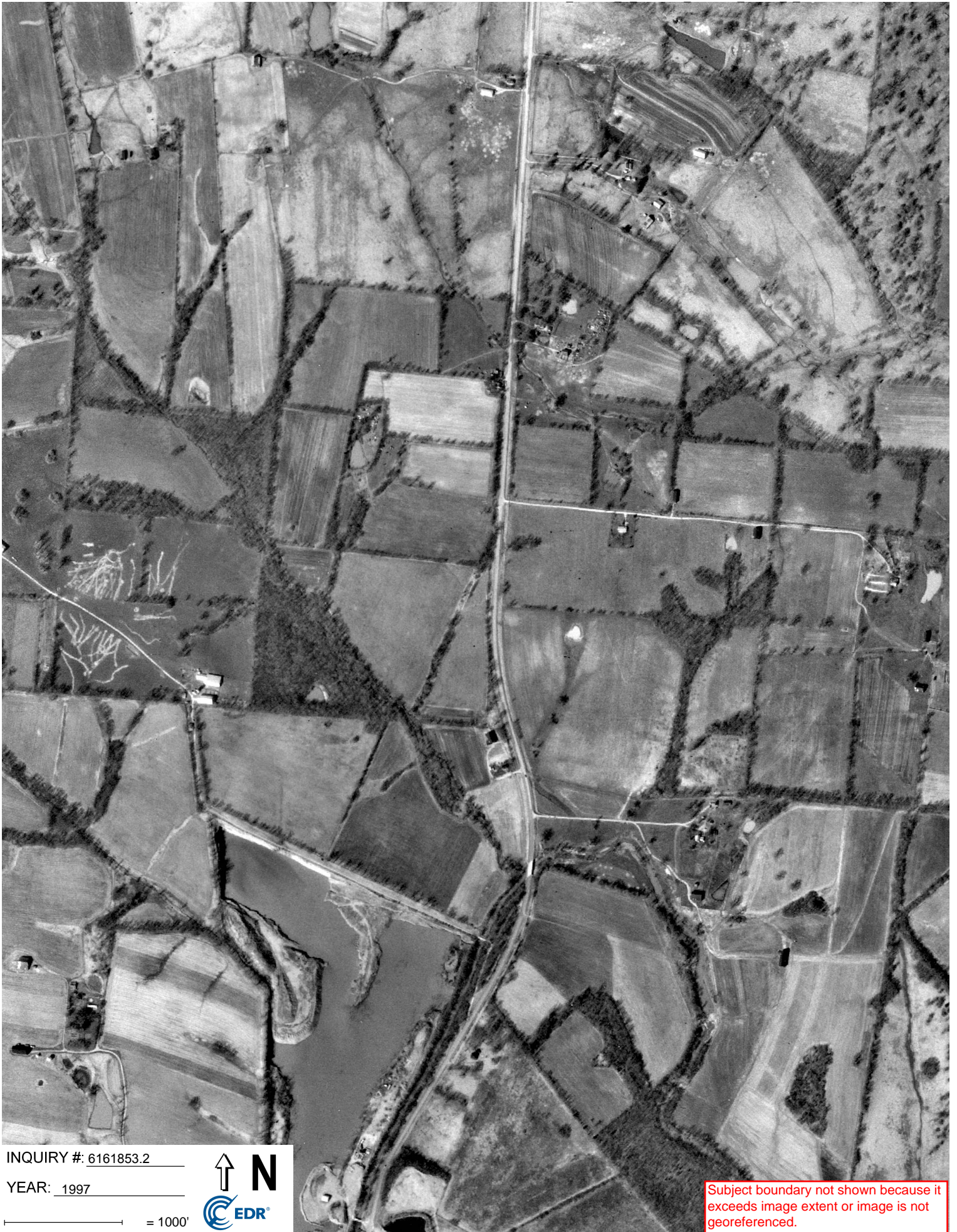
YEAR: 2008

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INQUIRY #: 6161853.2

YEAR: 1997

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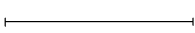
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INQUIRY #: 6161853.2

YEAR: 1997

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INQUIRY #: 6161853.2

YEAR: 1984

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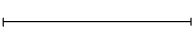


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INQUIRY #: 6161853.2

YEAR: 1984

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Subject boundary not shown because it exceeds image extent or image is not georeferenced.





INQUIRY #: 6161853.2

YEAR: 1960

\_\_\_\_\_ = 1000'



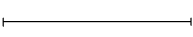
Subject boundary not shown because it exceeds image extent or image is not georeferenced.





INQUIRY #: 6161853.2

YEAR: 1960

 = 1000'



Subject boundary not shown because it exceeds image extent or image is not georeferenced.





INQUIRY #: 6161853.2

YEAR: 1952

\_\_\_\_\_ = 1000'



Subject boundary not shown because it exceeds image extent or image is not georeferenced.





INQUIRY #: 6161853.2

YEAR: 1952

\_\_\_\_\_ = 1000'



Subject boundary not shown because it exceeds image extent or image is not georeferenced.

APPENDIX E

EDR HISTORICAL TOPO MAP REPORT

---

Bluebird - Additional Land  
Russell Cave Road  
Cynthiana, KY 41031

Inquiry Number: 6161853.1  
August 19, 2020

## EDR Historical Topo Map Report with QuadMatch™



6 Armstrong Road, 4th floor  
Shelton, CT 06484  
Toll Free: 800.352.0050  
[www.edrnet.com](http://www.edrnet.com)

## EDR Historical Topo Map Report

08/19/20

**Site Name:**

Bluebird - Additional Land  
 Russell Cave Road  
 Cynthiana, KY 41031  
 EDR Inquiry # 6161853.1

**Client Name:**

Civil & Environmental Consultants, Inc.  
 530 E. Ohio Street Suite G  
 INDIANAPOLIS, IN 46204  
 Contact: Nate Hyde



EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Civil & Environmental Consultants, Inc. were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDR's Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

**Search Results:**

**Coordinates:**

<b>P.O.#</b>	NA	<b>Latitude:</b>	38.296111 38° 17' 46" North
<b>Project:</b>	190-643.0018	<b>Longitude:</b>	-84.354722 -84° 21' 17" West
		<b>UTM Zone:</b>	Zone 16 North
		<b>UTM X Meters:</b>	731330.62
		<b>UTM Y Meters:</b>	4241980.72
		<b>Elevation:</b>	882.00' above sea level

**Maps Provided:**

- 2013
- 1978
- 1954
- 1934
- 1929

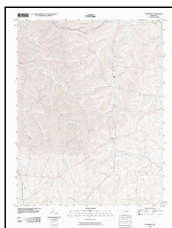
**Disclaimer - Copyright and Trademark Notice**

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.  
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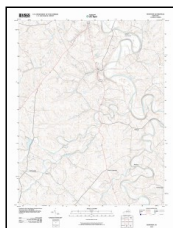
## Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

### 2013 Source Sheets



Leesburg  
2013  
7.5-minute, 24000



Shawhan  
2013  
7.5-minute, 24000

### 1978 Source Sheets

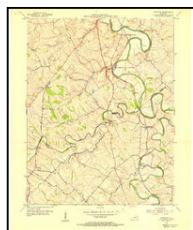


Shawhan  
1978  
7.5-minute, 24000  
Aerial Photo Revised 1976

### 1954 Source Sheets

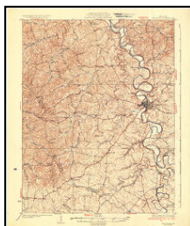


Leesburg  
1954  
7.5-minute, 24000  
Aerial Photo Revised 1952



Shawhan  
1954  
7.5-minute, 24000  
Aerial Photo Revised 1952

### 1934 Source Sheets



Cynthiana  
1934  
15-minute, 62500

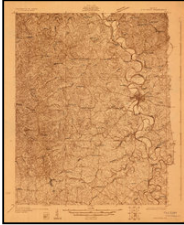


## **Topo Sheet Key**

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This EDR Topo Map Report is based upon the following USGS topographic map sheets.

### **1929 Source Sheets**

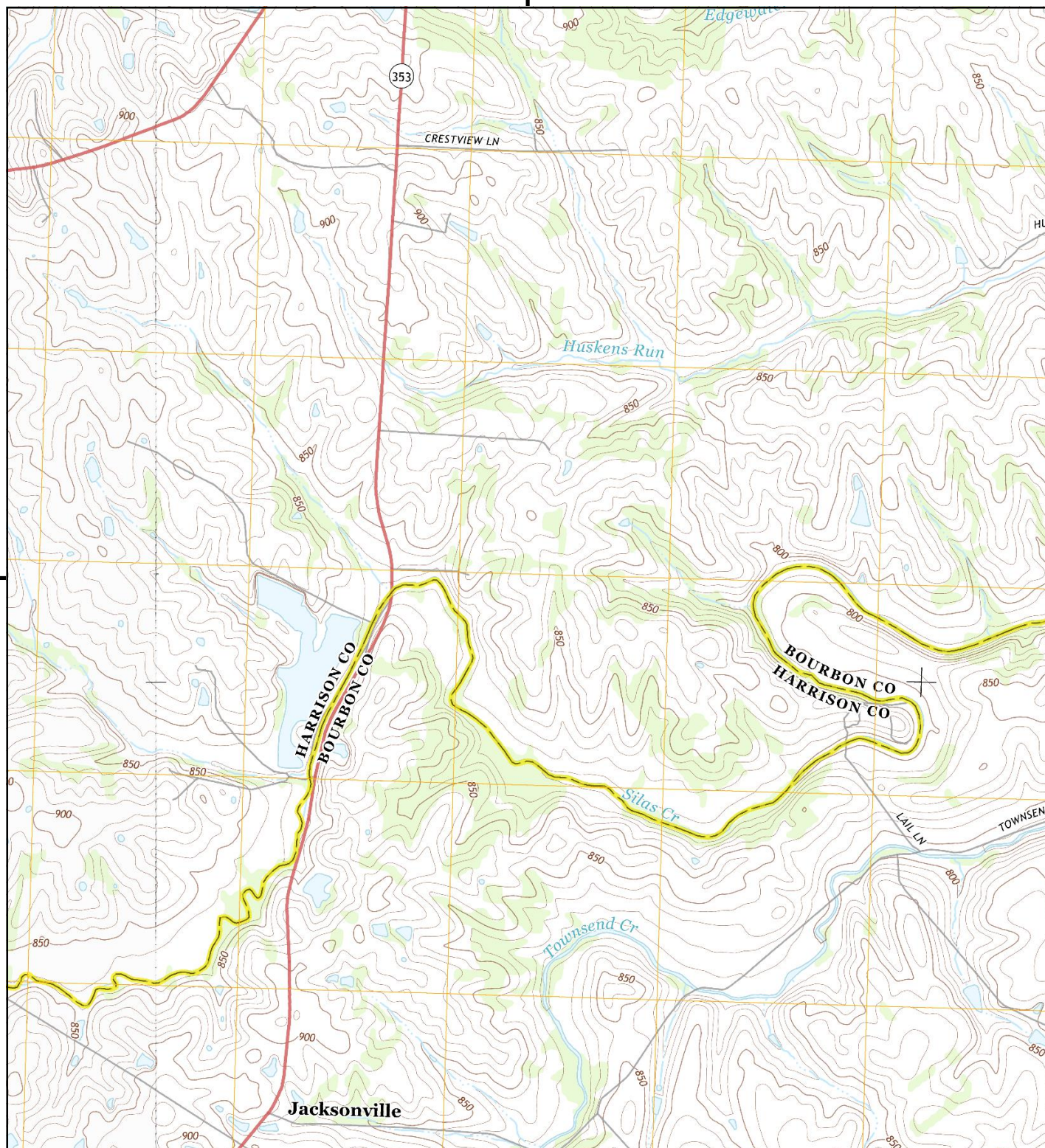


Cynthiana  
1929  
15-minute, 48000

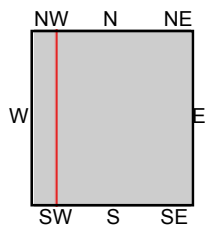
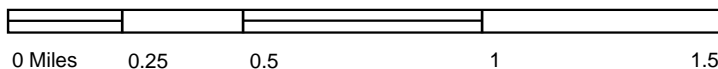


# Historical Topo Map

2013



This report includes information from the following map sheet(s).



TP, Shawhan, 2013, 7.5-minute  
W, Leesburg, 2013, 7.5-minute

**SITE NAME:** Bluebird - Additional Land  
**ADDRESS:** Russell Cave Road  
Cynthiana, KY 41031  
**CLIENT:** Civil & Environmental Consultants, Inc.

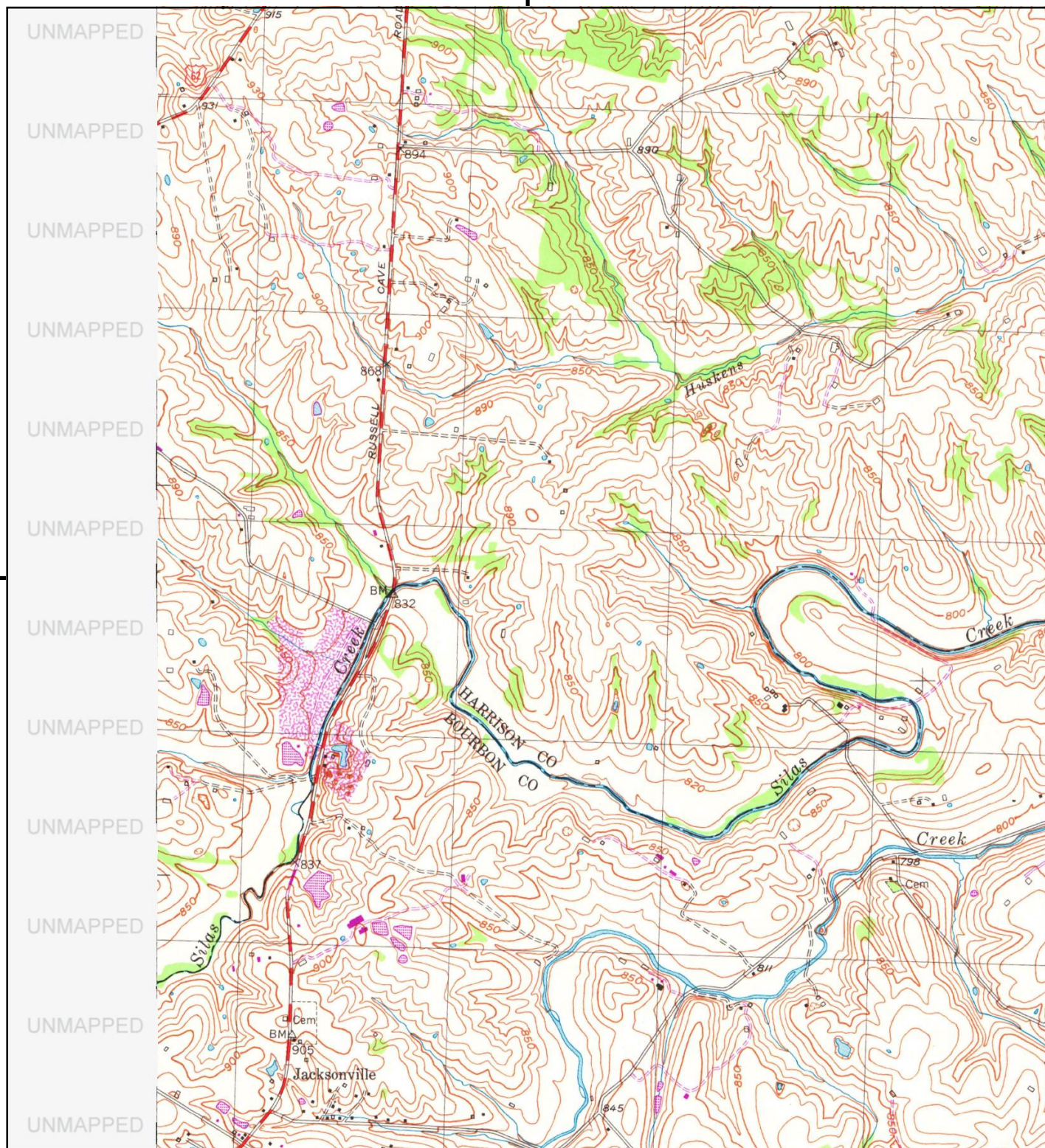




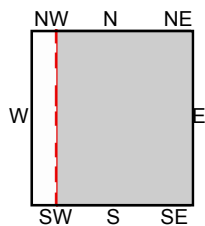
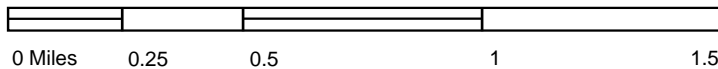


# Historical Topo Map

1978



This report includes information from the following map sheet(s).



TP, Shawhan, 1978, 7.5-minute

SITE NAME: Bluebird - Additional Land  
 ADDRESS: Russell Cave Road  
 Cynthiana, KY 41031  
 CLIENT: Civil & Environmental Consultants, Inc.

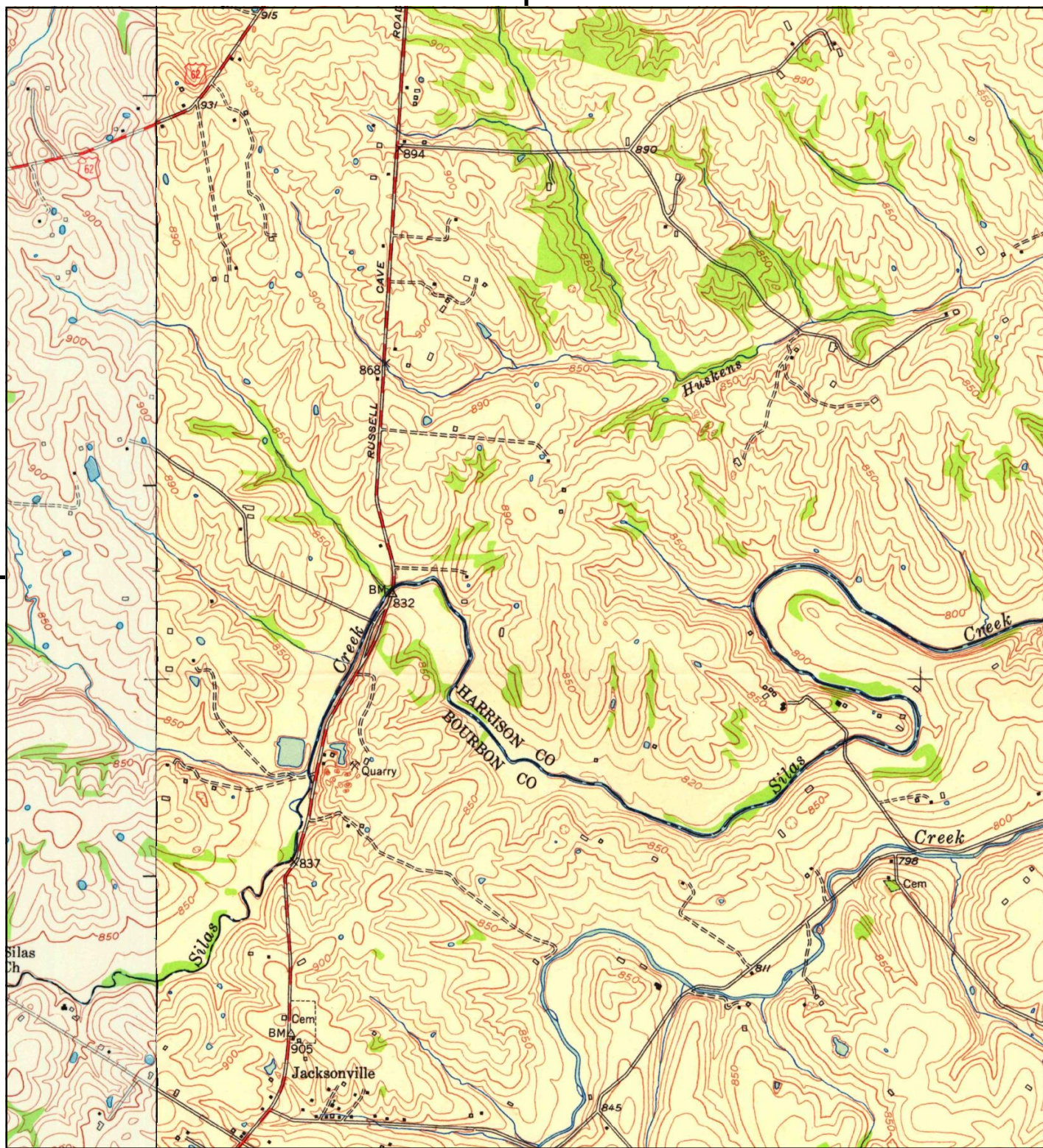




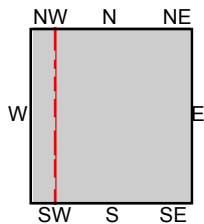
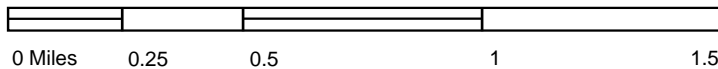


# Historical Topo Map

1954



This report includes information from the following map sheet(s).



TP, Shawhan, 1954, 7.5-minute  
W, Leesburg, 1954, 7.5-minute

SITE NAME: Bluebird - Additional Land  
ADDRESS: Russell Cave Road  
Cynthiana, KY 41031  
CLIENT: Civil & Environmental Consultants, Inc.





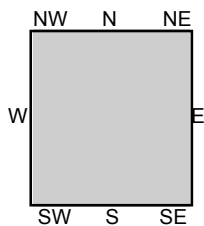
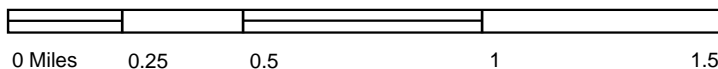


# Historical Topo Map

1934



This report includes information from the following map sheet(s).



TP, Cynthiana, 1934, 15-minute

SITE NAME: Bluebird - Additional Land  
ADDRESS: Russell Cave Road  
Cynthiana, KY 41031  
CLIENT: Civil & Environmental Consultants, Inc.





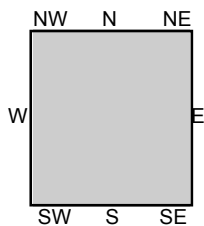
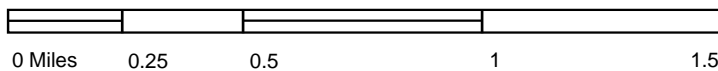


# Historical Topo Map

1929



This report includes information from the following map sheet(s).



TP, Cynthiana, 1929, 15-minute

SITE NAME: Bluebird - Additional Land  
ADDRESS: Russell Cave Road  
Cynthiana, KY 41031  
CLIENT: Civil & Environmental Consultants, Inc.



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APPENDIX F

PERSONNEL QUALIFICATIONS

---



## Nathan W. Hyde Project Manager I



### 13 YEARS EXPERIENCE

#### EDUCATION

B.S., Environmental Management, Indiana University at Bloomington, 2006

#### CERTIFICATIONS

8-hour HAZWOPER Refresher Training, Safety Unlimited, Inc.

40-Hour OSHA HAZWOPER, Occupational Safety & Health Administration

Mr. Hyde is an Environmental Consultant with over 12 years of experience conducting all phases of environmental assessments, investigations, mitigations and remediation with the objective of providing professional expertise and client satisfaction while solving a broad range of environmental needs and challenges. Having managed a vast and varying array of environmental projects from the cradle to the grave, he is an expert in environmental due diligence and site assessments, incident response and reporting, site investigation and characterization, sampling of contaminated media (soil, groundwater and air), data analysis, regulatory reporting, remedial oversight, providing technical lines of evidence for site closure, and client, stakeholder and regulatory agency communications.

Mr. Hyde has successfully managed more than 20 multi-year projects with complicated environmental challenges to "No Further Action" status issued by the Indiana Department of Environmental Management (IDEM) for properties of varying land use, including facilities with underground and aboveground storage tank (USTs/ASTs) (i.e. gasoline service stations, automotive repair shops, bulk oil facilities), former drycleaners, industrial and chemical manufacturers, historical manufactured gas plants (MGPs) and other industrial and commercial properties.

Mr. Hyde has also conducted environmental due diligence site assessments (ESAs), including ASTM (E1527-13 and E2247-16) Phase I ESAs, Phase II ESAs and Transaction Screens (TSA), in support of varying land development projects and property transactions, including various single and mixed-use commercial developments for manufacturing and warehouse, multi-family residential, retail, office, health-care and education, along with industrial waste water treatment plants, municipal solid waste landfills, aggregate mines, solar farms and cultural trail and roadway expansion projects.

#### PROJECT EXPERIENCE

##### **Site Investigation and Remediation - Underground Storage Tanks (USTs) / Aboveground Storage Tanks (ASTs) and Bulk Petroleum Facilities City of Whiting, Indiana, Three Locations\***

Served as Project Manager for site investigation and remediation at three petroleum-impacted properties owned and operated by the City of Whiting, Indiana. Project challenges included comingling petroleum plumes and large quantities of subsurface light non-aqueous phase liquid (LNAPL). Prepared remediation work plans and oversaw successful implementation of corrective action technologies including LNAPL removal, source area excavations, oxygen release compound injections and institutional controls to bring the sites to closure.

## Nathan W. Hyde Project Manager I

### **Good-To-Go Fueling Stations, 10 Locations\*, Good Oil Company, IN**

Served as Project Manager for 10 Good Oil Company retail fueling stations and redevelopment properties across Indiana with varying technical challenges inherent to petroleum releases. Conducted all phases of site investigation and remediation, including work plan development and budgeting, UST removal oversight, incident reporting, conceptual site model development, technical report writing, remediation work plan preparation and implementation, quarterly monitoring, and providing lines of evidence for site closure.

### **E85 Release Investigation & Remediation\*, Good Oil Company, Culver, IN**

Served as Project Manager for the Good-To-Go Culver Express Station where a substantial release of E85 occurred from a leaking UST. Responsibilities included coordination of immediate spill response by quickly mobilizing a vacuum truck to empty the UST of its contents to prevent further leaking. Prepared investigation work plan and implemented indoor air testing of the adjacent public library along with methane vapor testing of soil gas ports, sewer grates and inside surrounding commercial buildings. Assisted in preparation of Corrective Action Plan and provided oversight of dual phase extraction (DPE) remediation system installation and operation. Maintained public relations with surrounding businesses, residents and the Town of Culver.

### **Shell Oil Stations, >20 Locations\*, Shell Oil Company, IN**

Served as Field Environmental Scientist and Assistant Project Manager for a former employer on many Shell Oil stations across Indiana. Responsibilities included conducting quarterly groundwater monitoring events and general field work activities, installation of groundwater monitoring wells, soils classification and sampling, subcontractor coordination and oversight, project scheduling, corrective action implementation oversight, waste disposal coordination and technical report writing.

### **Site Investigation and Remediation - Manufactured Gas Plant (MGP)**

#### **Indiana State University, Manufactured Gas Plant Investigation & Remediation\*, Terre Haute, IN**

Served as Project Manager during investigation and cleanup of a redevelopment property on the Indiana State University (ISU) campus where historical MGP brick gas holders containing coal tar were discovered during construction of student housing. Required expedited investigation and remediation activities while working with ISU and the Indiana Brownfields Program (IBP) to ensure human health safety in a densely populated area of the ISU campus. Site investigation, characterization and cleanup of subsurface coal tar impacts were completed in less than four weeks with the cleanup phase occurring entirely while students were on winter break to minimize exposure risks. Responsibilities included work plan development, subcontractor oversight, waste characterization, remediation oversight, confirmation sample collection, client communications and regulatory reporting.

### **Site Investigation and Remediation - Dry Cleaners / Industrial Manufacturing Facilities**

#### **CAMCO Chemicals Spill Remediation\*, Florence, KY**

Served as Project Manager during site cleanup following mass chemicals spill and emergency response at their chemicals manufacturing facility. Responsibilities included remediation work plan implementation, subcontractor coordination and oversight, stream water sampling, regulatory reporting and stakeholder communications. Worked closely with the Kentucky Department of Environmental Protection (KDEP) to develop site specific cleanup goals which were successfully met following injections of remedial agents into the subsurface.

### **Fancil Welding Service, TCE Investigation\*, Warsaw, IN**

Served as Project Manager for environmental site investigation at a historical industrial manufacturing property that contained comingling chlorinated solvent plumes and multiple responsible parties and stakeholders. Responsibilities included work plan development and budgeting, site investigation oversight, subcontractor coordination, vapor intrusion investigation preparation and oversight, remediation work plan preparation, stakeholder communication and regulatory reporting.

## Nathan W. Hyde Project Manager I

### **Environmental Site Assessments (ESAs) / Due Diligence**

#### **Indy Tech Campus, Confidential, Indianapolis, IN**

Developed and implemented a work plan to further assess known chlorinated solvent contamination residing in the subsurface below several contiguous properties, for the purpose of providing remediation cost estimates for potential buyers. The Phase II ESA work plan included soil and groundwater characterization and sampling and vapor intrusion evaluations inside commercial/industrial buildings to assess potential exposure risks. Provided a cost analysis of potential remedial options based on the results of the Phase II for redevelopment considerations.

#### **University Campus Expansion, University of Indianapolis, Indianapolis, IN**

Conducted a Phase I ESA on a large industrial manufacturing property, results of which found evidence of previous releases of chlorinated solvent chemicals from historical industrial processes. Conducted a subsequent Phase II ESA and based on the results, provided a risk assessment analysis to aid stakeholders in business decisions.

#### **University Student Housing Development, Confidential, Indianapolis, IN**

Conducted several Phase I ESAs for a real estate developer in coordination with the University in their effort to expand their campus with the construction of new student housing complex and additional faculty buildings.

### **Real Estate Transactions / Phase I ESAs**

Conducted numerous Phase I ESAs for real estate transactions in Indiana, Kentucky and Illinois to satisfy due diligence requirements on various small and large commercial retail and industrial properties, agricultural lands, aggregate mining facilities, single-family and multi-family residential properties, and other mixed-use properties.

### **TRAINING**

ASTM E1527 - Environmental Site Assessments for Commercial Real Estate

### **PROFESSIONAL AFFILIATIONS**

Midwestern States Environmental Consultants Association

Urban Land Institute



Case No. 2021-00141  
Bluebird Solar, LLC  
Responses to Siting Board's Post-Hearing Request for Information

**Request for Information SITING BOARD PHDR\_5:**

Provide any easement or crossing agreements that have been, or are in the process of being, negotiated to connect the project sections.

**Response:** Bluebird has negotiated an easement to connect the adjacent parcel, the Reed property, to the rest of the project at the time the McDowell Swap occurs. This will provide Bluebird with an underground utility line easement, an access for roadway traffic, and a Highway 353 access easement. The grant of this easement is Exhibit 8 to the McDowell Swap Agreement. Bluebird has already provided the McDowell Swap Agreement to the Siting Board in response to Item 14 of the Siting Board's First Request for Information. The Siting Board granted confidential treatment of that document on May 13, 2022, so Bluebird incorporates Exhibit 8 of the McDowell Swap Agreement by reference to this response.

Bluebird has also provided with this response a copy of its Preliminary Electrical Site Plan that includes proposed MV AC cable routings for the projects.

See attached Electrical Site Plan: "Bluebird Preliminary Electrical Site Plan,"

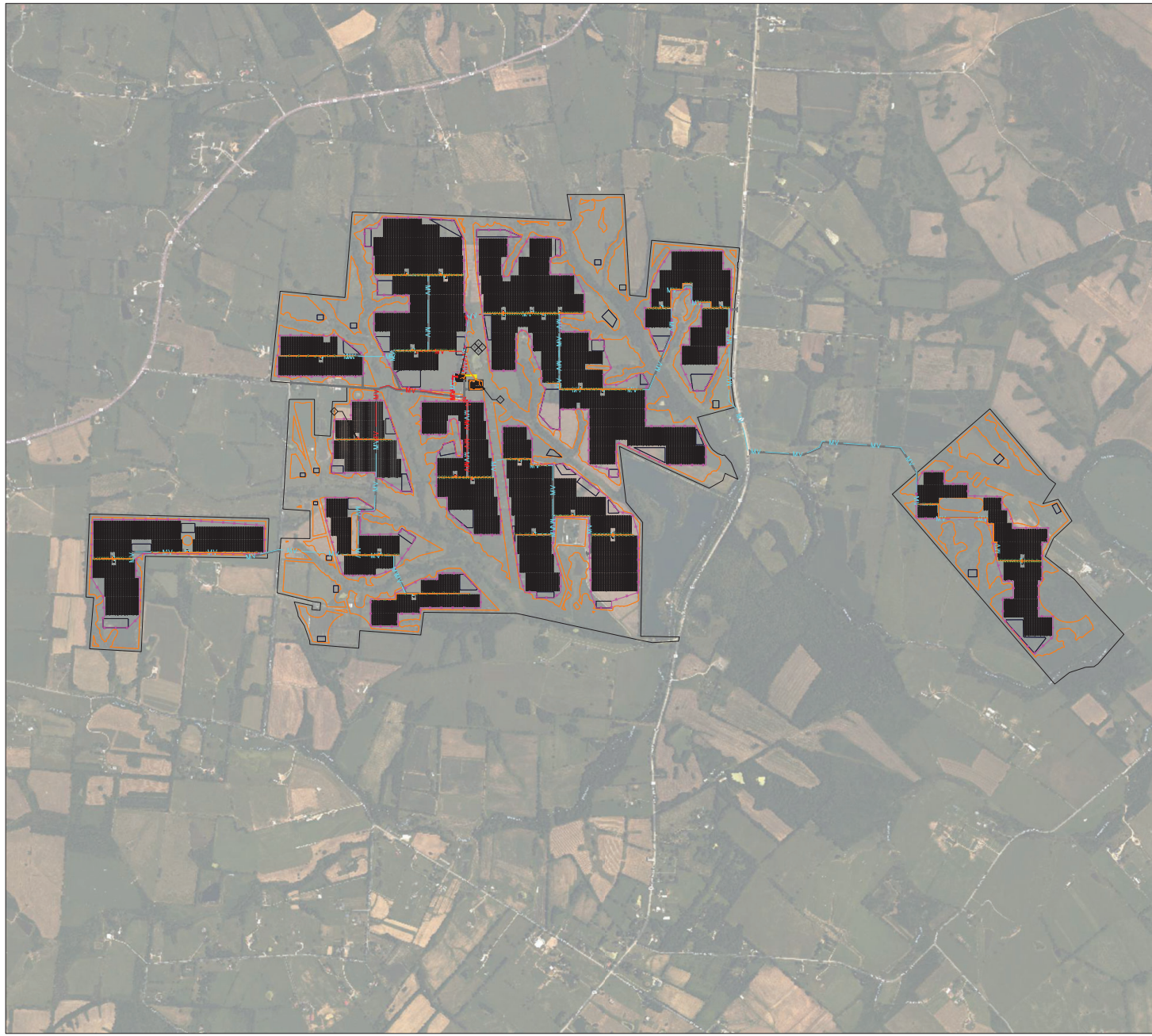
\_BSLLC\_R\_SITING\_BOARD\_PHDR\_5\_Attachment.

**Witness:** Andrea Parra

**PROJECT SITE DESCRIPTION**  
 T:348.27- PROPERTY ACRES  
 638.74- FENCED ACRES  
 LATITUDE: 38.299894°  
 LONGITUDE: -84.382485°  
 ELEVATION: 886 FT

- LEGEND**
- PROJECT BOUNDARY
  - PERIMETER FENCE
  - PROPOSED ACCESS ROAD
  - PROPOSED BUILDABLE AREA
  - PROPOSED ARRAY
  - PROPOSED INVERTER/ BATTERY
  - DETENTION BASIN
  - MV
  - MV CABLE
  - MV CABLE-HOMERUN

- KEYNOTES**
- ◇ POI
  - ◇ GEN-TIE LINE
  - ◇ UTILITY SUBSTATION
  - ◇ CUSTOMER SUBSTATION
  - ◇ REVENUE METER
  - ◇ GENERATOR PROTECTION WITH SCADA CONTROLS
  - ◇ GENERATOR LOAD BREAK DISCONNECT POLE
  - ◇ INVERTER AND STEP-UP TRANSFORMER



**BayWa r.e.  
Solar Projects LLC**  
 18075 Jamboree Road, Suite 850  
 Irvine, CA 92612  
 Phone: 949.771.2970 | Fax: 949.398.3014  
 www.baywars.us

**PROJECT DIRECTOR**

**PROJECT ENGINEER**  
 ANDREA PARRA  
 (52)81-121-11262

NO.	ISSUE	DATE
1	PRELIMINARY	05.04.22

**PROJECT NUMBER**  
**DRAWN BY** I.P.  
**REVIEWED BY** DC  
**APPROVED BY**

**BLUEBIRD**  
 100 MW-AC  
 HARRISON COUNTY,  
 KY 41031

**ELECTRICAL SITE  
PLAN**  
**DRAWING  
NUMBER** PV-E1.01  
 SHEET SIZE: ARCH D - 24 x 36

**COMMONWEALTH OF KENTUCKY  
BEFORE THE KENTUCKY STATE BOARD  
ON ELECTRIC GENERATION AND TRANSMISSION SITING**

**IN THE MATTER OF THE APPLICATION OF )  
BLUEBIRD SOLAR LLC FOR A CONSTRUCTION )  
CERTIFICATE TO CONSTRUCT A MERCHANT ) Case No. 2021-00141  
ELECTRIC GENERATING FACILITY )**

---

**CERTIFICATION**

---

This is to certify that I have supervised the preparation of Bluebird Solar LLC's responses to the Siting Board Staff's Post-Hearing Request for Information and that the responses are true and accurate to the best of my knowledge, information, and belief after reasonable inquiry.

Date: June 16, 2022

*Michael Stanton*

---

Michael Stanton  
Senior Vice President of Development,  
BayWa r.e. Solar Projects