

**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: Nottingham Solar Site City/County: Harrison County Sampling Date: 1/12/2021  
 Applicant/Owner: Nottingham Solar LLC State: OH Sampling Point: Upland NS-6  
 Investigator(s): P. Renner; M. Thomayer Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 8  
 Subregion (LRR or MLRA): LRR N Lat: 40.191982 Long: -81.060557 Datum: NAD83  
 Soil Map Unit Name: Morristown silty clay loam, 8 to 25 percent slopes, reclaimed NWI classification: N/A  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: Non-wetland data point corresponding to Wetland NS-6	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)                      ___ True Aquatic Plants (B14) ___ High Water Table (A2)                  ___ Hydrogen Sulfide Odor (C1) ___ Saturation (A3)                            ___ Oxidized Rhizospheres on Living Roots (C3) ___ Water Marks (B1)                         ___ Presence of Reduced Iron (C4) ___ Sediment Deposits (B2)                 ___ Recent Iron Reduction in Tilled Soils (C6) ___ Drift Deposits (B3)                        ___ Thin Muck Surface (C7) ___ Algal Mat or Crust (B4)                  ___ Other (Explain in Remarks) ___ Iron Deposits (B5) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9) ___ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Sparsely Vegetated Concave Surface (B8) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	

Remarks:

**VEGETATION (Five Strata) – Use scientific names of plants.**

Sampling Point: Upland NS-6

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>r=30'</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
<b>Sapling Stratum</b> (Plot size: <u>r=15'</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
<b>Shrub Stratum</b> (Plot size: <u>r=15'</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
<b>Herb Stratum</b> (Plot size: <u>r=5'</u> )				
1. <u>Setaria faberi</u>	<u>100</u>	<u>Yes</u>	<u>UPL</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>50</u> 20% of total cover: <u>20</u>				
<b>Woody Vine Stratum</b> (Plot size: <u>r=30'</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
Remarks: (Include photo numbers here or on a separate sheet.)				

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

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**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>100</u>	x 5 = <u>500</u>
Column Totals: <u>100</u> (A)	<u>500</u> (B)

Prevalence Index = B/A = 5.00

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**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

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**Definitions of Five Vegetation Strata:**

**Tree** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

**Sapling** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

**Shrub** – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

**Herb** – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

**Woody vine** – All woody vines, regardless of height.

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**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No

**SOIL**

Sampling Point: Upland NS-6

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-16	10YR 4/3	100					silty clay loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10) <b>(MLRA 147)</b>
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> <b>(MLRA 147, 148)</b>
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> <b>(MLRA 136, 147)</b>
<input type="checkbox"/> 2 cm Muck (A10) <b>(LRR N)</b>	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1) <b>(LRR N, MLRA 147, 148)</b>	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7)	
<input type="checkbox"/> Polyvalue Below Surface (S8) <b>(MLRA 147, 148)</b>	
<input type="checkbox"/> Thin Dark Surface (S9) <b>(MLRA 147, 148)</b>	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Iron-Manganese Masses (F12) <b>(LRR N, MLRA 136)</b>	
<input type="checkbox"/> Umbric Surface (F13) <b>(MLRA 136, 122)</b>	
<input type="checkbox"/> Piedmont Floodplain Soils (F19) <b>(MLRA 148)</b>	
<input type="checkbox"/> Red Parent Material (F21) <b>(MLRA 127, 147)</b>	

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if observed):</b> Type: _____ Depth (inches): _____	Hydric Soil Present?    Yes _____    No <input checked="" type="checkbox"/>
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Remarks:

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Nottingham Solar Site City/County: Harrison County Sampling Date: 1/12/2021  
 Applicant/Owner: Nottingham Solar LLC State: OH Sampling Point: Upland NS-7  
 Investigator(s): P. Renner; M. Thomayer Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convex Slope (%): 2  
 Subregion (LRR or MLRA): LRR N Lat: 40.196304 Long: -81.063025 Datum: NAD83  
 Soil Map Unit Name: Morristown silty clay loam, 25 to 75 percent slopes, reclaimed NWI classification: N/A  
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Remarks: Non-wetland data point corresponding to Wetland NS-7	

### HYDROLOGY

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**VEGETATION (Five Strata) – Use scientific names of plants.**

Sampling Point: Upland NS-7

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Remarks: (Include photo numbers here or on a separate sheet.)																																																																																																																																																																																																			

**SOIL**

Sampling Point: Upland NS-7

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-16	10YR 4/3	100					silty clay loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> (MLRA 147, 148)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> (MLRA 136, 147)
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7)	
<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	
<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)	
<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)	
<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)	
<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)	

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if observed):</b> Type: _____ Depth (inches): _____	Hydric Soil Present?    Yes _____    No <input checked="" type="checkbox"/>
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Remarks:

**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: Nottingham Solar Site City/County: Harrison County Sampling Date: 1/13/2021  
 Applicant/Owner: Nottingham Solar LLC State: OH Sampling Point: Upland NS-8  
 Investigator(s): P. Renner; M. Thomayer Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 7  
 Subregion (LRR or MLRA): LRR N Lat: 40.192155 Long: -81.073744 Datum: NAD83  
 Soil Map Unit Name: Morristown silty clay loam, 0 to 8 percent slopes, reclaimed NWI classification: N/A  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: Non-wetland data point corresponding to Wetland NS-8	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)                      ___ True Aquatic Plants (B14) ___ High Water Table (A2)                      ___ Hydrogen Sulfide Odor (C1) ___ Saturation (A3)                                  ___ Oxidized Rhizospheres on Living Roots (C3) ___ Water Marks (B1)                              ___ Presence of Reduced Iron (C4) ___ Sediment Deposits (B2)                      ___ Recent Iron Reduction in Tilled Soils (C6) ___ Drift Deposits (B3)                              ___ Thin Muck Surface (C7) ___ Algal Mat or Crust (B4)                        ___ Other (Explain in Remarks) ___ Iron Deposits (B5) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9) ___ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Sparsely Vegetated Concave Surface (B8) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	

Remarks:

**VEGETATION (Five Strata) – Use scientific names of plants.**

Sampling Point: Upland NS-8

<p><b>Tree Stratum</b> (Plot size: <u>r=30'</u> )</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:40%;"></th> <th style="width:15%; text-align: center;">Absolute % Cover</th> <th style="width:15%; text-align: center;">Dominant Species?</th> <th style="width:10%; text-align: center;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>3. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>6. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td colspan="4" style="text-align: right;">_____ = Total Cover</td></tr> <tr><td colspan="4" style="text-align: center;">50% of total cover: _____ 20% of total cover: _____</td></tr> </tbody> </table> <p><b>Sapling Stratum</b> (Plot size: <u>r=15'</u> )</p> <table style="width:100%; border-collapse: collapse;"> <tbody> <tr><td>1. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>3. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>6. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td colspan="4" style="text-align: right;">_____ = Total Cover</td></tr> <tr><td colspan="4" style="text-align: center;">50% of total cover: _____ 20% of total cover: _____</td></tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot size: <u>r=15'</u> )</p> <table style="width:100%; border-collapse: collapse;"> <tbody> <tr><td>1. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>3. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>6. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td colspan="4" style="text-align: right;">_____ = Total Cover</td></tr> <tr><td colspan="4" style="text-align: center;">50% of total cover: _____ 20% of total cover: _____</td></tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot size: <u>r=5'</u> )</p> <table style="width:100%; border-collapse: collapse;"> <tbody> <tr><td>1. <u>Setaria faberi</u></td><td style="text-align: center;"><u>60</u></td><td style="text-align: center;"><u>Yes</u></td><td style="text-align: center;"><u>UPL</u></td></tr> <tr><td>2. <u>Phleum pratense</u></td><td style="text-align: center;"><u>30</u></td><td style="text-align: center;"><u>Yes</u></td><td style="text-align: center;"><u>FACU</u></td></tr> <tr><td>3. <u>Phalaris arundinacea</u></td><td style="text-align: center;"><u>10</u></td><td style="text-align: center;"><u>No</u></td><td style="text-align: center;"><u>FACW</u></td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>6. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>7. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>8. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>9. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>10. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>11. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td colspan="4" style="text-align: right;">_____ = Total Cover</td></tr> <tr><td colspan="4" style="text-align: center;">50% of total cover: <u>50</u> 20% of total cover: <u>20</u></td></tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot size: <u>r=30'</u> )</p> <table style="width:100%; border-collapse: collapse;"> <tbody> <tr><td>1. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>3. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td colspan="4" style="text-align: right;">_____ = Total Cover</td></tr> <tr><td colspan="4" style="text-align: center;">50% of total cover: _____ 20% of total cover: _____</td></tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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(7.6 cm) or larger in diameter at breast height (DBH).</p> <p><b>Sapling</b> – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</p> <p><b>Shrub</b> – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</p> <p><b>Herb</b> – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.</p> <p><b>Woody vine</b> – All woody vines, regardless of height.</p> <hr/> <p><b>Hydrophytic Vegetation Present?</b>      Yes _____ No <input checked="" type="checkbox"/></p>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>10</u>	x 2 = <u>20</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>30</u>	x 4 = <u>120</u>	UPL species <u>60</u>	x 5 = <u>300</u>	Column Totals: <u>100</u> (A)	<u>440</u> (B)
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<p>Remarks: (Include photo numbers here or on a separate sheet.)</p>																																																																																																																																																																																																			



**SOIL**

Sampling Point: Upland NS-8

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-16	10YR 4/4	100					silty clay loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10) <b>(MLRA 147)</b>
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> <b>(MLRA 147, 148)</b>
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> <b>(MLRA 136, 147)</b>
<input type="checkbox"/> 2 cm Muck (A10) <b>(LRR N)</b>	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1) <b>(LRR N, MLRA 147, 148)</b>	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7)	
<input type="checkbox"/> Polyvalue Below Surface (S8) <b>(MLRA 147, 148)</b>	
<input type="checkbox"/> Thin Dark Surface (S9) <b>(MLRA 147, 148)</b>	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Iron-Manganese Masses (F12) <b>(LRR N, MLRA 136)</b>	
<input type="checkbox"/> Umbric Surface (F13) <b>(MLRA 136, 122)</b>	
<input type="checkbox"/> Piedmont Floodplain Soils (F19) <b>(MLRA 148)</b>	
<input type="checkbox"/> Red Parent Material (F21) <b>(MLRA 127, 147)</b>	

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if observed):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes _____    No <input checked="" type="checkbox"/>
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Remarks:

**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: Nottingham Solar Site City/County: Harrison County Sampling Date: 1/13/2021  
 Applicant/Owner: Nottingham Solar LLC State: OH Sampling Point: Upland NS-9  
 Investigator(s): P. Renner; M. Thomayer Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 5  
 Subregion (LRR or MLRA): LRR N Lat: 40.193554 Long: -81.067567 Datum: NAD83  
 Soil Map Unit Name: Morristown silty clay loam, 8 to 25 percent slopes, reclaimed NWI classification: N/A  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: Non-wetland data point corresponding to Wetland NS-9	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)                      ___ True Aquatic Plants (B14) ___ High Water Table (A2)                 ___ Hydrogen Sulfide Odor (C1) ___ Saturation (A3)                            ___ Oxidized Rhizospheres on Living Roots (C3) ___ Water Marks (B1)                         ___ Presence of Reduced Iron (C4) ___ Sediment Deposits (B2)                 ___ Recent Iron Reduction in Tilled Soils (C6) ___ Drift Deposits (B3)                        ___ Thin Muck Surface (C7) ___ Algal Mat or Crust (B4)                  ___ Other (Explain in Remarks) ___ Iron Deposits (B5) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9) ___ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Sparsely Vegetated Concave Surface (B8) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	

Remarks:

**VEGETATION (Five Strata) – Use scientific names of plants.**

Sampling Point: Upland NS-9

<p><b>Tree Stratum</b> (Plot size: <u>r=30'</u> )</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:40%;"></th> <th style="width:10%; text-align: center;">Absolute % Cover</th> <th style="width:10%; text-align: center;">Dominant Species?</th> <th style="width:10%; text-align: center;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>3. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>6. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td colspan="4" style="text-align: right;">_____ = Total Cover</td></tr> <tr><td colspan="4" style="text-align: center;">50% of total cover: _____ 20% of total cover: _____</td></tr> </tbody> </table> <p><b>Sapling Stratum</b> (Plot size: <u>r=15'</u> )</p> <table style="width:100%; border-collapse: collapse;"> <tbody> <tr><td>1. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>3. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>6. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td colspan="4" style="text-align: right;">_____ = Total Cover</td></tr> <tr><td colspan="4" style="text-align: center;">50% of total cover: _____ 20% of total cover: _____</td></tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot size: <u>r=15'</u> )</p> <table style="width:100%; border-collapse: collapse;"> <tbody> <tr><td>1. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>3. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>6. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td colspan="4" style="text-align: right;">_____ = Total Cover</td></tr> <tr><td colspan="4" style="text-align: center;">50% of total cover: _____ 20% of total cover: _____</td></tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot size: <u>r=5'</u> )</p> <table style="width:100%; border-collapse: collapse;"> <tbody> <tr><td>1. <u>Setaria faberi</u></td><td style="text-align: center;"><u>65</u></td><td style="text-align: center;"><u>Yes</u></td><td style="text-align: center;"><u>UPL</u></td></tr> <tr><td>2. <u>Phleum pratense</u></td><td style="text-align: center;"><u>30</u></td><td style="text-align: center;"><u>Yes</u></td><td style="text-align: center;"><u>FACU</u></td></tr> <tr><td>3. <u>Cirsium arvense</u></td><td style="text-align: center;"><u>5</u></td><td style="text-align: center;"><u>No</u></td><td style="text-align: center;"><u>FACU</u></td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>6. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>7. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>8. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>9. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>10. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>11. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td colspan="4" style="text-align: right;">_____ = Total Cover</td></tr> <tr><td colspan="4" style="text-align: center;">50% of total cover: <u>50</u> 20% of total cover: <u>20</u></td></tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot size: <u>r=30'</u> )</p> <table style="width:100%; border-collapse: collapse;"> <tbody> <tr><td>1. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>3. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td colspan="4" style="text-align: right;">_____ = Total Cover</td></tr> <tr><td colspan="4" style="text-align: center;">50% of total cover: _____ 20% of total cover: _____</td></tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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(7.6 cm) or larger in diameter at breast height (DBH).</p> <p><b>Sapling</b> – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</p> <p><b>Shrub</b> – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</p> <p><b>Herb</b> – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.</p> <p><b>Woody vine</b> – All woody vines, regardless of height.</p> <hr/> <p><b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/></p>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>35</u>	x 4 = <u>140</u>	UPL species <u>65</u>	x 5 = <u>325</u>	Column Totals: <u>100</u> (A)	<u>465</u> (B)
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<p>Remarks: (Include photo numbers here or on a separate sheet.)</p>																																																																																																																																																																																																			

**SOIL**

Sampling Point: Upland NS-9

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-16	10YR 4/4	100					silty clay loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> (MLRA 147, 148)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> (MLRA 136, 147)
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7)	
<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	
<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)	
<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)	
<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)	
<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)	

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if observed):</b> Type: _____ Depth (inches): _____	Hydric Soil Present?    Yes _____    No <input checked="" type="checkbox"/>
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Remarks:

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Nottingham Solar Site City/County: Harrison County Sampling Date: 1/13/2021  
 Applicant/Owner: Nottingham Solar LLC State: OH Sampling Point: Upland NS-10  
 Investigator(s): P. Renner; M. Thomayer Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 5  
 Subregion (LRR or MLRA): LRR N Lat: 40.193475 Long: -81.067316 Datum: NAD83  
 Soil Map Unit Name: Morristown silty clay loam, 8 to 25 percent slopes, reclaimed NWI classification: N/A  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: Non-wetland data point corresponding to Wetland NS-6	

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)                      ___ True Aquatic Plants (B14) ___ High Water Table (A2)                      ___ Hydrogen Sulfide Odor (C1) ___ Saturation (A3)                                  ___ Oxidized Rhizospheres on Living Roots (C3) ___ Water Marks (B1)                              ___ Presence of Reduced Iron (C4) ___ Sediment Deposits (B2)                      ___ Recent Iron Reduction in Tilled Soils (C6) ___ Drift Deposits (B3)                              ___ Thin Muck Surface (C7) ___ Algal Mat or Crust (B4)                        ___ Other (Explain in Remarks) ___ Iron Deposits (B5) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9) ___ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Sparsely Vegetated Concave Surface (B8) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

**VEGETATION (Five Strata) – Use scientific names of plants.**

Sampling Point: Upland NS-10

<p><b>Tree Stratum</b> (Plot size: <u>r=30'</u> )</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:40%;"></th> <th style="width:15%; text-align: center;">Absolute % Cover</th> <th style="width:15%; text-align: center;">Dominant Species?</th> <th style="width:10%; text-align: center;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>3. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>6. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td colspan="4" style="text-align: right;">_____ = Total Cover</td></tr> <tr><td colspan="4" style="text-align: center;">50% of total cover: _____ 20% of total cover: _____</td></tr> </tbody> </table> <p><b>Sapling Stratum</b> (Plot size: <u>r=15'</u> )</p> <table style="width:100%; border-collapse: collapse;"> <tbody> <tr><td>1. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>3. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>6. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td colspan="4" style="text-align: right;">_____ = Total Cover</td></tr> <tr><td colspan="4" style="text-align: center;">50% of total cover: _____ 20% of total cover: _____</td></tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot size: <u>r=15'</u> )</p> <table style="width:100%; border-collapse: collapse;"> <tbody> <tr><td>1. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>3. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>6. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td colspan="4" style="text-align: right;">_____ = Total Cover</td></tr> <tr><td colspan="4" style="text-align: center;">50% of total cover: _____ 20% of total cover: _____</td></tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot size: <u>r=5'</u> )</p> <table style="width:100%; border-collapse: collapse;"> <tbody> <tr><td>1. <u>Setaria faberi</u></td><td style="text-align: center;"><u>65</u></td><td style="text-align: center;"><u>Yes</u></td><td style="text-align: center;"><u>UPL</u></td></tr> <tr><td>2. <u>Phleum pratense</u></td><td style="text-align: center;"><u>30</u></td><td style="text-align: center;"><u>Yes</u></td><td style="text-align: center;"><u>FACU</u></td></tr> <tr><td>3. <u>Juncus tenuis</u></td><td style="text-align: center;"><u>5</u></td><td style="text-align: center;"><u>No</u></td><td style="text-align: center;"><u>FAC</u></td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>6. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>7. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>8. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>9. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>10. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>11. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td colspan="4" style="text-align: right;">_____ = Total Cover</td></tr> <tr><td colspan="4" style="text-align: center;">50% of total cover: <u>50</u> 20% of total cover: <u>20</u></td></tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot size: <u>r=30'</u> )</p> <table style="width:100%; border-collapse: collapse;"> <tbody> <tr><td>1. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>3. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td colspan="4" style="text-align: right;">_____ = Total Cover</td></tr> <tr><td colspan="4" style="text-align: center;">50% of total cover: _____ 20% of total cover: _____</td></tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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(7.6 cm) or larger in diameter at breast height (DBH).</p> <p><b>Sapling</b> – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</p> <p><b>Shrub</b> – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</p> <p><b>Herb</b> – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.</p> <p><b>Woody vine</b> – All woody vines, regardless of height.</p> <hr/> <p><b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/></p>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>5</u>	x 3 = <u>15</u>	FACU species <u>30</u>	x 4 = <u>120</u>	UPL species <u>65</u>	x 5 = <u>325</u>	Column Totals: <u>100</u> (A)	<u>460</u> (B)
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Remarks: (Include photo numbers here or on a separate sheet.)																																																																																																																																																																																																			



**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: Nottingham Solar Site City/County: Harrison County Sampling Date: 1/13/2021  
 Applicant/Owner: Nottingham Solar LLC State: OH Sampling Point: Upland NS-11  
 Investigator(s): P. Renner; M. Thomayer Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 5  
 Subregion (LRR or MLRA): LRR N Lat: 40.190630 Long: -81.065477 Datum: NAD83  
 Soil Map Unit Name: Morristown silty clay loam, 0 to 8 percent slopes, reclaimed NWI classification: N/A  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: Non-wetland data point corresponding to Wetland NS-11	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)                      ___ True Aquatic Plants (B14) ___ High Water Table (A2)                      ___ Hydrogen Sulfide Odor (C1) ___ Saturation (A3)                                  ___ Oxidized Rhizospheres on Living Roots (C3) ___ Water Marks (B1)                              ___ Presence of Reduced Iron (C4) ___ Sediment Deposits (B2)                      ___ Recent Iron Reduction in Tilled Soils (C6) ___ Drift Deposits (B3)                              ___ Thin Muck Surface (C7) ___ Algal Mat or Crust (B4)                        ___ Other (Explain in Remarks) ___ Iron Deposits (B5) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9) ___ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Sparsely Vegetated Concave Surface (B8) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	

Remarks:



**VEGETATION (Five Strata) – Use scientific names of plants.**

Sampling Point: Upland NS-11

<p><u>Tree Stratum</u> (Plot size: <u>r=30'</u> )</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:40%;"></th> <th style="width:10%; text-align: center;">Absolute % Cover</th> <th style="width:10%; text-align: center;">Dominant Species?</th> <th style="width:10%; text-align: center;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>3. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>6. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td colspan="4" style="text-align: right;">_____ = Total Cover</td></tr> <tr><td colspan="4" style="text-align: center;">50% of total cover: _____ 20% of total cover: _____</td></tr> </tbody> </table> <p><u>Sapling Stratum</u> (Plot size: <u>r=15'</u> )</p> <table style="width:100%; border-collapse: collapse;"> <tbody> <tr><td>1. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>3. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>6. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td colspan="4" style="text-align: right;">_____ = Total Cover</td></tr> <tr><td colspan="4" style="text-align: center;">50% of total cover: _____ 20% of total cover: _____</td></tr> </tbody> </table> <p><u>Shrub Stratum</u> (Plot size: <u>r=15'</u> )</p> <table style="width:100%; border-collapse: collapse;"> <tbody> <tr><td>1. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>3. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>6. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td colspan="4" style="text-align: right;">_____ = Total Cover</td></tr> <tr><td colspan="4" style="text-align: center;">50% of total cover: _____ 20% of total cover: _____</td></tr> </tbody> </table> <p><u>Herb Stratum</u> (Plot size: <u>r=5'</u> )</p> <table style="width:100%; border-collapse: collapse;"> <tbody> <tr><td>1. <u>Andropogon virginicus</u></td><td style="text-align: center;">50</td><td style="text-align: center;">Yes</td><td style="text-align: center;">FACU</td></tr> <tr><td>2. <u>Daucus carota</u></td><td style="text-align: center;">10</td><td style="text-align: center;">No</td><td style="text-align: center;">UPL</td></tr> <tr><td>3. <u>Juncus tenuis</u></td><td style="text-align: center;">10</td><td style="text-align: center;">No</td><td style="text-align: center;">FAC</td></tr> <tr><td>4. <u>Solidago canadensis</u></td><td style="text-align: center;">5</td><td style="text-align: center;">No</td><td style="text-align: center;">FACU</td></tr> <tr><td>5. <u>Symphotrichum ericoides</u></td><td style="text-align: center;">5</td><td style="text-align: center;">No</td><td style="text-align: center;">FACU</td></tr> <tr><td>6. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>7. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>8. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>9. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>10. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>11. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td colspan="4" style="text-align: right;">_____ = Total Cover</td></tr> <tr><td colspan="4" style="text-align: center;">50% of total cover: <u>40</u> 20% of total cover: <u>16</u></td></tr> </tbody> </table> <p><u>Woody Vine Stratum</u> (Plot size: <u>r=30'</u> )</p> <table style="width:100%; border-collapse: collapse;"> <tbody> <tr><td>1. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>3. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td colspan="4" style="text-align: right;">_____ = Total Cover</td></tr> <tr><td colspan="4" style="text-align: center;">50% of total cover: _____ 20% of total cover: _____</td></tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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(7.6 cm) or larger in diameter at breast height (DBH).</p> <p><b>Sapling</b> – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</p> <p><b>Shrub</b> – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</p> <p><b>Herb</b> – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.</p> <p><b>Woody vine</b> – All woody vines, regardless of height.</p> <hr/> <p><b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/></p>		Total % Cover of:		Multiply by:		OBL species	<u>0</u>	x 1 =	<u>0</u>		FACW species	<u>0</u>	x 2 =	<u>0</u>		FAC species	<u>10</u>	x 3 =	<u>30</u>		FACU species	<u>60</u>	x 4 =	<u>240</u>		UPL species	<u>10</u>	x 5 =	<u>50</u>		Column Totals:	<u>80</u> (A)		<u>320</u> (B)	
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**SOIL**

Sampling Point: Upland NS-11

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-16	10YR 5/3	50	10YR 6/6	30			silty clay loam	
			10YR 6/2	20				

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

<b>Hydric Soil Indicators:</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 136, 147)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)		

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**  
 Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes \_\_\_\_\_    No

Remarks:

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Nottingham Solar Site City/County: Harrison County Sampling Date: 1/13/2021  
 Applicant/Owner: Nottingham Solar LLC State: OH Sampling Point: Upland NS-12  
 Investigator(s): P. Renner; M. Thomayer Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 5  
 Subregion (LRR or MLRA): LRR N Lat: 40.190835 Long: -81.064219 Datum: NAD83  
 Soil Map Unit Name: Morristown silty clay loam, 0 to 8 percent slopes, reclaimed NWI classification: N/A  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: Non-wetland data point corresponding to Wetland NS-12	

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)                      ___ True Aquatic Plants (B14) ___ High Water Table (A2)                      ___ Hydrogen Sulfide Odor (C1) ___ Saturation (A3)                                  ___ Oxidized Rhizospheres on Living Roots (C3) ___ Water Marks (B1)                              ___ Presence of Reduced Iron (C4) ___ Sediment Deposits (B2)                      ___ Recent Iron Reduction in Tilled Soils (C6) ___ Drift Deposits (B3)                              ___ Thin Muck Surface (C7) ___ Algal Mat or Crust (B4)                        ___ Other (Explain in Remarks) ___ Iron Deposits (B5) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9) ___ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Sparsely Vegetated Concave Surface (B8) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	

Remarks:
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**VEGETATION (Five Strata) – Use scientific names of plants.**

Sampling Point: Upland NS-12

<p><b>Tree Stratum</b> (Plot size: <u>r=30'</u> )</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:40%;"></th> <th style="width:10%; text-align: center;">Absolute % Cover</th> <th style="width:10%; text-align: center;">Dominant Species?</th> <th style="width:10%; text-align: center;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>3. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>6. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td colspan="4" style="text-align: right;">_____ = Total Cover</td></tr> <tr><td colspan="4" style="text-align: center;">50% of total cover: _____ 20% of total cover: _____</td></tr> </tbody> </table> <p><b>Sapling Stratum</b> (Plot size: <u>r=15'</u> )</p> <table style="width:100%; border-collapse: collapse;"> <tbody> <tr><td>1. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>3. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>6. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td colspan="4" style="text-align: right;">_____ = Total Cover</td></tr> <tr><td colspan="4" style="text-align: center;">50% of total cover: _____ 20% of total cover: _____</td></tr> </tbody> </table> <p><b>Shrub Stratum</b> (Plot size: <u>r=15'</u> )</p> <table style="width:100%; border-collapse: collapse;"> <tbody> <tr><td>1. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>3. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>6. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td colspan="4" style="text-align: right;">_____ = Total Cover</td></tr> <tr><td colspan="4" style="text-align: center;">50% of total cover: _____ 20% of total cover: _____</td></tr> </tbody> </table> <p><b>Herb Stratum</b> (Plot size: <u>r=5'</u> )</p> <table style="width:100%; border-collapse: collapse;"> <tbody> <tr><td>1. <u>Setaria faberi</u></td><td style="text-align: center;">70</td><td style="text-align: center;">Yes</td><td style="text-align: center;">UPL</td></tr> <tr><td>2. <u>Phleum pratense</u></td><td style="text-align: center;">20</td><td style="text-align: center;">Yes</td><td style="text-align: center;">FACU</td></tr> <tr><td>3. <u>Symphotrichum ericoides</u></td><td style="text-align: center;">10</td><td style="text-align: center;">No</td><td style="text-align: center;">FACU</td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>6. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>7. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>8. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>9. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>10. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>11. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td colspan="4" style="text-align: right;">_____ = Total Cover</td></tr> <tr><td colspan="4" style="text-align: center;">50% of total cover: <u>50</u> 20% of total cover: <u>20</u></td></tr> </tbody> </table> <p><b>Woody Vine Stratum</b> (Plot size: <u>r=30'</u> )</p> <table style="width:100%; border-collapse: collapse;"> <tbody> <tr><td>1. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>3. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td colspan="4" style="text-align: right;">_____ = Total Cover</td></tr> <tr><td colspan="4" style="text-align: center;">50% of total cover: _____ 20% of total cover: _____</td></tr> </tbody> </table>		Absolute % Cover	Dominant Species?	Indicator Status	1. _____	_____	_____	_____	2. _____	_____	_____	_____	3. _____	_____	_____	_____	4. _____	_____	_____	_____	5. _____	_____	_____	_____	6. _____	_____	_____	_____	_____ = Total Cover				50% of total cover: _____ 20% of total cover: _____				1. _____	_____	_____	_____	2. _____	_____	_____	_____	3. _____	_____	_____	_____	4. _____	_____	_____	_____	5. _____	_____	_____	_____	6. _____	_____	_____	_____	_____ = Total Cover				50% of total cover: _____ 20% of total cover: _____				1. _____	_____	_____	_____	2. _____	_____	_____	_____	3. _____	_____	_____	_____	4. _____	_____	_____	_____	5. _____	_____	_____	_____	6. _____	_____	_____	_____	_____ = Total Cover				50% of total cover: _____ 20% of total cover: _____				1. <u>Setaria faberi</u>	70	Yes	UPL	2. <u>Phleum pratense</u>	20	Yes	FACU	3. <u>Symphotrichum ericoides</u>	10	No	FACU	4. _____	_____	_____	_____	5. _____	_____	_____	_____	6. _____	_____	_____	_____	7. _____	_____	_____	_____	8. _____	_____	_____	_____	9. _____	_____	_____	_____	10. _____	_____	_____	_____	11. _____	_____	_____	_____	_____ = Total Cover				50% of total cover: <u>50</u> 20% of total cover: <u>20</u>				1. _____	_____	_____	_____	2. _____	_____	_____	_____	3. _____	_____	_____	_____	4. _____	_____	_____	_____	5. _____	_____	_____	_____	_____ = Total Cover				50% of total cover: _____ 20% of total cover: _____				<p><b>Dominance Test worksheet:</b></p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>2</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)</p> <hr/> <p><b>Prevalence Index worksheet:</b></p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:50%;">Total % Cover of:</th> <th style="width:50%;">Multiply by:</th> </tr> </thead> <tbody> <tr><td>OBL species <u>0</u></td><td>x 1 = <u>0</u></td></tr> <tr><td>FACW species <u>0</u></td><td>x 2 = <u>0</u></td></tr> <tr><td>FAC species <u>0</u></td><td>x 3 = <u>0</u></td></tr> <tr><td>FACU species <u>30</u></td><td>x 4 = <u>120</u></td></tr> <tr><td>UPL species <u>70</u></td><td>x 5 = <u>350</u></td></tr> <tr><td>Column Totals: <u>100</u> (A)</td><td><u>470</u> (B)</td></tr> </tbody> </table> <p style="text-align: right;">Prevalence Index = B/A = <u>4.70</u></p> <hr/> <p><b>Hydrophytic Vegetation Indicators:</b></p> <p><input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation</p> <p><input type="checkbox"/> 2 - Dominance Test is &gt;50%</p> <p><input type="checkbox"/> 3 - Prevalence Index is ≤3.0<sup>1</sup></p> <p><input type="checkbox"/> 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</p> <p><input type="checkbox"/> Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</p> <p><sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.</p> <hr/> <p><b>Definitions of Five Vegetation Strata:</b></p> <p><b>Tree</b> – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).</p> <p><b>Sapling</b> – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</p> <p><b>Shrub</b> – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</p> <p><b>Herb</b> – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.</p> <p><b>Woody vine</b> – All woody vines, regardless of height.</p> <hr/> <p><b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/></p>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>30</u>	x 4 = <u>120</u>	UPL species <u>70</u>	x 5 = <u>350</u>	Column Totals: <u>100</u> (A)	<u>470</u> (B)
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**SOIL**

Sampling Point: Upland NS-12

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
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Hydric Soil Indicators:		Indicators for Problematic Hydric Soils <sup>3</sup> :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> (MLRA 147, 148)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> (MLRA 136, 147)	
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)		

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if observed):</b> Type: _____ Depth (inches): _____	Hydric Soil Present?    Yes _____    No <input checked="" type="checkbox"/>
---	---

Remarks:

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Nottingham Solar Site City/County: Harrison County Sampling Date: 1/13/2021  
 Applicant/Owner: Nottingham Solar LLC State: OH Sampling Point: Upland NS-13  
 Investigator(s): P. Renner; M. Thomayer Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): 2  
 Subregion (LRR or MLRA): LRR N Lat: 40.191479 Long: -81.062789 Datum: NAD83  
 Soil Map Unit Name: Morristown silty clay loam, 0 to 8 percent slopes, reclaimed NWI classification: N/A  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: Non-wetland data point corresponding to Wetland NS-13	

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)                      ___ True Aquatic Plants (B14) ___ High Water Table (A2)                  ___ Hydrogen Sulfide Odor (C1) ___ Saturation (A3)                            ___ Oxidized Rhizospheres on Living Roots (C3) ___ Water Marks (B1)                         ___ Presence of Reduced Iron (C4) ___ Sediment Deposits (B2)                 ___ Recent Iron Reduction in Tilled Soils (C6) ___ Drift Deposits (B3)                        ___ Thin Muck Surface (C7) ___ Algal Mat or Crust (B4)                  ___ Other (Explain in Remarks) ___ Iron Deposits (B5) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9) ___ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Sparsely Vegetated Concave Surface (B8) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	

Remarks:
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**VEGETATION (Five Strata) – Use scientific names of plants.**

Sampling Point: Upland NS-13

<p><u>Tree Stratum</u> (Plot size: <u>r=30'</u> )</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:40%;"></th> <th style="width:10%; text-align: center;">Absolute % Cover</th> <th style="width:10%; text-align: center;">Dominant Species?</th> <th style="width:10%; text-align: center;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>3. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>6. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td colspan="4" style="text-align: right;">_____ = Total Cover</td></tr> <tr><td colspan="4" style="text-align: center;">50% of total cover: _____ 20% of total cover: _____</td></tr> </tbody> </table> <p><u>Sapling Stratum</u> (Plot size: <u>r=15'</u> )</p> <table style="width:100%; border-collapse: collapse;"> <tbody> <tr><td>1. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>3. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>6. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td colspan="4" style="text-align: right;">_____ = Total Cover</td></tr> <tr><td colspan="4" style="text-align: center;">50% of total cover: _____ 20% of total cover: _____</td></tr> </tbody> </table> <p><u>Shrub Stratum</u> (Plot size: <u>r=15'</u> )</p> <table style="width:100%; border-collapse: collapse;"> <tbody> <tr><td>1. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>3. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>6. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td colspan="4" style="text-align: right;">_____ = Total Cover</td></tr> <tr><td colspan="4" style="text-align: center;">50% of total cover: _____ 20% of total cover: _____</td></tr> </tbody> </table> <p><u>Herb Stratum</u> (Plot size: <u>r=5'</u> )</p> <table style="width:100%; border-collapse: collapse;"> <tbody> <tr><td>1. <u>Setaria faberi</u></td><td style="text-align: center;">40</td><td style="text-align: center;">Yes</td><td style="text-align: center;">UPL</td></tr> <tr><td>2. <u>Daucus carota</u></td><td style="text-align: center;">15</td><td style="text-align: center;">No</td><td style="text-align: center;">UPL</td></tr> <tr><td>3. <u>Symphotrichum ericoides</u></td><td style="text-align: center;">10</td><td style="text-align: center;">No</td><td style="text-align: center;">FACU</td></tr> <tr><td>4. <u>Juncus tenuis</u></td><td style="text-align: center;">10</td><td style="text-align: center;">No</td><td style="text-align: center;">FAC</td></tr> <tr><td>5. <u>Juncus effusus</u></td><td style="text-align: center;">5</td><td style="text-align: center;">No</td><td style="text-align: center;">FACW</td></tr> <tr><td>6. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>7. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>8. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>9. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>10. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>11. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td colspan="4" style="text-align: right;">_____ = Total Cover</td></tr> <tr><td colspan="4" style="text-align: center;">50% of total cover: <u>45</u> 20% of total cover: <u>18</u></td></tr> </tbody> </table> <p><u>Woody Vine Stratum</u> (Plot size: <u>r=30'</u> )</p> <table style="width:100%; border-collapse: collapse;"> <tbody> <tr><td>1. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>3. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td colspan="4" style="text-align: right;">_____ = Total Cover</td></tr> <tr><td colspan="4" style="text-align: center;">50% of total cover: _____ 20% of total cover: _____</td></tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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(7.6 cm) or larger in diameter at breast height (DBH).</p> <p><b>Sapling</b> – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</p> <p><b>Shrub</b> – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</p> <p><b>Herb</b> – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.</p> <p><b>Woody vine</b> – All woody vines, regardless of height.</p> <hr/> <p><b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/></p>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>5</u>	x 2 = <u>10</u>	FAC species <u>10</u>	x 3 = <u>30</u>	FACU species <u>10</u>	x 4 = <u>40</u>	UPL species <u>55</u>	x 5 = <u>275</u>	Column Totals: <u>80</u> (A)	<u>355</u> (B)
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**SOIL**

Sampling Point: Upland NS-13

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-16	10YR 5/4	100					silty clay loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils <sup>3</sup> :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> (MLRA 147, 148)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)	
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<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)		

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if observed):</b> Type: _____ Depth (inches): _____	Hydric Soil Present?    Yes _____    No <input checked="" type="checkbox"/>
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Remarks:



**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: Nottingham Solar Site City/County: Harrison County Sampling Date: 1/12/2021  
 Applicant/Owner: Nottingham Solar LLC State: OH Sampling Point: Upland NS-14  
 Investigator(s): P. Renner; M. Thomayer Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convex Slope (%): 2  
 Subregion (LRR or MLRA): LRR N Lat: 40.40.196101 Long: -81.059705 Datum: NAD83  
 Soil Map Unit Name: Morristown silty clay loam, 8 to 25 percent slopes, reclaimed NWI classification: N/A  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: Non-wetland data point corresponding to Wetland NS-14	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)                      ___ True Aquatic Plants (B14) ___ High Water Table (A2)                      ___ Hydrogen Sulfide Odor (C1) ___ Saturation (A3)                                  ___ Oxidized Rhizospheres on Living Roots (C3) ___ Water Marks (B1)                              ___ Presence of Reduced Iron (C4) ___ Sediment Deposits (B2)                      ___ Recent Iron Reduction in Tilled Soils (C6) ___ Drift Deposits (B3)                              ___ Thin Muck Surface (C7) ___ Algal Mat or Crust (B4)                        ___ Other (Explain in Remarks) ___ Iron Deposits (B5) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9) ___ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Sparsely Vegetated Concave Surface (B8) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

**VEGETATION (Five Strata) – Use scientific names of plants.**

Sampling Point: Upland NS-14

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>r=30'</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
<b>Sapling Stratum</b> (Plot size: <u>r=15'</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
<b>Shrub Stratum</b> (Plot size: <u>r=15'</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
<b>Herb Stratum</b> (Plot size: <u>r=5'</u> )				
1. <u>Setaria faberi</u>	<u>30</u>	<u>Yes</u>	<u>UPL</u>	
2. <u>Phleum pratense</u>	<u>50</u>	<u>Yes</u>	<u>FACU</u>	
3. <u>Solidago canadensis</u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>50</u> 20% of total cover: <u>20</u>				
<b>Woody Vine Stratum</b> (Plot size: <u>r=30'</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>				

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

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**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>70</u>	x 4 = <u>280</u>
UPL species <u>30</u>	x 5 = <u>150</u>
Column Totals: <u>100</u> (A)	<u>430</u> (B)

Prevalence Index = B/A = 4.30

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**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

---

**Definitions of Five Vegetation Strata:**

**Tree** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

**Sapling** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

**Shrub** – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

**Herb** – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

**Woody vine** – All woody vines, regardless of height.

Remarks: (Include photo numbers here or on a separate sheet.)

**SOIL**

Sampling Point: Upland NS-14

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-16	10YR 4/3	100					silty clay loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils <sup>3</sup> :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> (MLRA 147, 148)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> (MLRA 136, 147)	
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)		

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if observed):</b> Type: _____ Depth (inches): _____	Hydric Soil Present?    Yes _____    No <input checked="" type="checkbox"/>
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Remarks:

**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: Nottingham Solar Site City/County: Harrison County Sampling Date: 1/12/2021  
 Applicant/Owner: Nottingham Solar LLC State: OH Sampling Point: Upland NS-15  
 Investigator(s): P. Renner; M. Thomayer Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Concave Slope (%): 2  
 Subregion (LRR or MLRA): LRR N Lat: 40.195512 Long: -81.052528 Datum: NAD83  
 Soil Map Unit Name: Morristown silty clay loam, 8 to 25 percent slopes, reclaimed NWI classification: N/A  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: Non-wetland data point corresponding to Wetland NS-15	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)                      ___ True Aquatic Plants (B14) ___ High Water Table (A2)                      ___ Hydrogen Sulfide Odor (C1) ___ Saturation (A3)                                  ___ Oxidized Rhizospheres on Living Roots (C3) ___ Water Marks (B1)                              ___ Presence of Reduced Iron (C4) ___ Sediment Deposits (B2)                      ___ Recent Iron Reduction in Tilled Soils (C6) ___ Drift Deposits (B3)                            ___ Thin Muck Surface (C7) ___ Algal Mat or Crust (B4)                        ___ Other (Explain in Remarks) ___ Iron Deposits (B5) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9) ___ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Sparsely Vegetated Concave Surface (B8) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	

Remarks:

**VEGETATION (Five Strata) – Use scientific names of plants.**

Sampling Point: Upland NS-15

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>r=30'</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
<b>Sapling Stratum</b> (Plot size: <u>r=15'</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
<b>Shrub Stratum</b> (Plot size: <u>r=15'</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
<b>Herb Stratum</b> (Plot size: <u>r=5'</u> )				
1. <u>Setaria faberi</u>	<u>30</u>	<u>Yes</u>	<u>UPL</u>	
2. <u>Phleum pratense</u>	<u>50</u>	<u>Yes</u>	<u>FACU</u>	
3. <u>Solidago canadensis</u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>50</u> 20% of total cover: <u>20</u>				
<b>Woody Vine Stratum</b> (Plot size: <u>r=30'</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>				

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

---

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>70</u>	x 4 = <u>280</u>
UPL species <u>30</u>	x 5 = <u>150</u>
Column Totals: <u>100</u> (A)	<u>430</u> (B)

Prevalence Index = B/A = 4.30

---

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

---

**Definitions of Five Vegetation Strata:**

**Tree** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

**Sapling** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

**Shrub** – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

**Herb** – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

**Woody vine** – All woody vines, regardless of height.

Remarks: (Include photo numbers here or on a separate sheet.)

**SOIL**

Sampling Point: Upland NS-15

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-16	10YR 4/3	100					silty clay loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils <sup>3</sup> :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> (MLRA 147, 148)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> (MLRA 136, 147)	
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)		

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if observed):</b> Type: _____ Depth (inches): _____	Hydric Soil Present?    Yes _____    No <input checked="" type="checkbox"/>
---	---

Remarks:

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Nottingham Solar Site City/County: Harrison County Sampling Date: 1/12/2021  
 Applicant/Owner: Nottingham Solar LLC State: OH Sampling Point: Upland NS-16  
 Investigator(s): P. Renner; M. Thomayer Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convex Slope (%): 2  
 Subregion (LRR or MLRA): LRR N Lat: 40.194905 Long: -81.052927 Datum: NAD83  
 Soil Map Unit Name: Morristown silty clay loam, 0 to 8 percent slopes, reclaimed NWI classification: N/A  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: Non-wetland data point corresponding to Wetland NS-16	

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)                      ___ True Aquatic Plants (B14) ___ High Water Table (A2)                      ___ Hydrogen Sulfide Odor (C1) ___ Saturation (A3)                                  ___ Oxidized Rhizospheres on Living Roots (C3) ___ Water Marks (B1)                              ___ Presence of Reduced Iron (C4) ___ Sediment Deposits (B2)                      ___ Recent Iron Reduction in Tilled Soils (C6) ___ Drift Deposits (B3)                              ___ Thin Muck Surface (C7) ___ Algal Mat or Crust (B4)                        ___ Other (Explain in Remarks) ___ Iron Deposits (B5) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9) ___ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Sparsely Vegetated Concave Surface (B8) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

**VEGETATION (Five Strata) – Use scientific names of plants.**

Sampling Point: Upland NS-16

<p><u>Tree Stratum</u> (Plot size: <u>r=30'</u> )</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:40%;"></th> <th style="width:10%; text-align: center;">Absolute % Cover</th> <th style="width:10%; text-align: center;">Dominant Species?</th> <th style="width:10%; text-align: center;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>3. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>6. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td colspan="4" style="text-align: right;">_____ = Total Cover</td></tr> <tr><td colspan="4" style="text-align: center;">50% of total cover: _____ 20% of total cover: _____</td></tr> </tbody> </table> <p><u>Sapling Stratum</u> (Plot size: <u>r=15'</u> )</p> <table style="width:100%; border-collapse: collapse;"> <tbody> <tr><td>1. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>3. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>6. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td colspan="4" style="text-align: right;">_____ = Total Cover</td></tr> <tr><td colspan="4" style="text-align: center;">50% of total cover: _____ 20% of total cover: _____</td></tr> </tbody> </table> <p><u>Shrub Stratum</u> (Plot size: <u>r=15'</u> )</p> <table style="width:100%; border-collapse: collapse;"> <tbody> <tr><td>1. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>3. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>6. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td colspan="4" style="text-align: right;">_____ = Total Cover</td></tr> <tr><td colspan="4" style="text-align: center;">50% of total cover: _____ 20% of total cover: _____</td></tr> </tbody> </table> <p><u>Herb Stratum</u> (Plot size: <u>r=5'</u> )</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:40%;"></th> <th style="width:10%; text-align: center;">Absolute % Cover</th> <th style="width:10%; text-align: center;">Dominant Species?</th> <th style="width:10%; text-align: center;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. <u>Asclepias syriaca</u></td><td style="text-align: center;">5</td><td style="text-align: center;">No</td><td style="text-align: center;">FACU</td></tr> <tr><td>2. <u>Phleum pratense</u></td><td style="text-align: center;">55</td><td style="text-align: center;">Yes</td><td style="text-align: center;">FACU</td></tr> <tr><td>3. <u>Phalaris arundinacea</u></td><td style="text-align: center;">40</td><td style="text-align: center;">Yes</td><td style="text-align: center;">FACW</td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>6. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>7. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>8. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>9. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>10. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>11. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td colspan="4" style="text-align: right;">_____ = Total Cover</td></tr> <tr><td colspan="4" style="text-align: center;">50% of total cover: <u>50</u> 20% of total cover: <u>20</u></td></tr> </tbody> </table> <p><u>Woody Vine Stratum</u> (Plot size: <u>r=30'</u> )</p> <table style="width:100%; border-collapse: collapse;"> <tbody> <tr><td>1. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>3. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td colspan="4" style="text-align: right;">_____ = Total Cover</td></tr> <tr><td colspan="4" style="text-align: center;">50% of total cover: _____ 20% of total cover: _____</td></tr> </tbody> </table>		Absolute % Cover	Dominant Species?	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(7.6 cm) or larger in diameter at breast height (DBH).</p> <p><b>Sapling</b> – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</p> <p><b>Shrub</b> – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</p> <p><b>Herb</b> – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.</p> <p><b>Woody vine</b> – All woody vines, regardless of height.</p> <hr/> <p><b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/></p>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>40</u>	x 2 = <u>80</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>60</u>	x 4 = <u>240</u>	UPL species <u>0</u>	x 5 = <u>320</u>	Column Totals: <u>100</u> (A)	<u>3.20</u> (B)
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**SOIL**

Sampling Point: Upland NS-16

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-16	10YR 5/4	100					silty clay loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils <sup>3</sup> :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> (MLRA 147, 148)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> (MLRA 136, 147)	
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)		

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if observed):</b> Type: _____ Depth (inches): _____	Hydric Soil Present?    Yes _____    No <input checked="" type="checkbox"/>
---	---

Remarks:

**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: Nottingham Solar Site City/County: Harrison County Sampling Date: 1/13/2021  
 Applicant/Owner: Nottingham Solar LLC State: OH Sampling Point: Upland NS-17  
 Investigator(s): P. Renner; M. Thomayer Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 5  
 Subregion (LRR or MLRA): LRR N Lat: 40.189923 Long: -81.063496 Datum: NAD83  
 Soil Map Unit Name: Morristown silty clay loam, 0 to 8 percent slopes, reclaimed NWI classification: N/A  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: Non-wetland data point corresponding to Wetland NS-17	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)                      ___ True Aquatic Plants (B14) ___ High Water Table (A2)                  ___ Hydrogen Sulfide Odor (C1) ___ Saturation (A3)                            ___ Oxidized Rhizospheres on Living Roots (C3) ___ Water Marks (B1)                         ___ Presence of Reduced Iron (C4) ___ Sediment Deposits (B2)                 ___ Recent Iron Reduction in Tilled Soils (C6) ___ Drift Deposits (B3)                        ___ Thin Muck Surface (C7) ___ Algal Mat or Crust (B4)                  ___ Other (Explain in Remarks) ___ Iron Deposits (B5) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9) ___ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Sparsely Vegetated Concave Surface (B8) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

**VEGETATION (Five Strata) – Use scientific names of plants.**

Sampling Point: Upland NS-17

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>r=30'</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
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_____ = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
<b>Sapling Stratum</b> (Plot size: <u>r=15'</u> )				
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2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
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3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
<b>Herb Stratum</b> (Plot size: <u>r=5'</u> )				
1. <u>Solidago canadensis</u>	5	No	FACU	
2. <u>Daucus carota</u>	10	No	UPL	
3. <u>Setaria faberi</u>	25	Yes	UPL	
4. <u>Phleum pratense</u>	50	Yes	FACU	
5. <u>Festuca rubra</u>	10	Yes	FACU	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>50</u> 20% of total cover: <u>20</u>				
<b>Woody Vine Stratum</b> (Plot size: <u>r=30'</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>				
Remarks: (Include photo numbers here or on a separate sheet.)				

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

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**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>65</u>	x 4 = <u>260</u>
UPL species <u>35</u>	x 5 = <u>175</u>
Column Totals: <u>100</u> (A)	<u>435</u> (B)

Prevalence Index = B/A = 4.35

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**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

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**Definitions of Five Vegetation Strata:**

**Tree** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

**Sapling** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

**Shrub** – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

**Herb** – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

**Woody vine** – All woody vines, regardless of height.