A Updated Tables and Figures

A-1 Updated Tables

Table A-1 Potential Soil Impacts Based on Soil Attributes and Project Component

Project Component	Total Impact (Acres)[1]	High Erosion Potential[2]	High Compaction Potential	Poor Drainage[3]	Shallow Bedrock[4]	Slope >15%	Prime Farmland[5]	Statewide Importance
SDEIS								
Construction Impacts	282.6	59.2	85.5	8.7	65.8	17.6	139.4	133.0
Operational Impacts	98.1	20.0	32.1	2.5	17.9	3.4	51.5	43.1
Temporary Soil Impact[6,7]	184.5	39.2	53.4	6.2	47.9	14.2	87.9	89.9
FEIS								
Construction Impacts[8,9]	205.2	34.5	49.0	3.8	55.0	2.6	101.7	99.8
Operational Impacts	55.5	8.4	10.9	1.0	14.4	0.4	28.8	26.0
Temporary Soil Impact[6,7]	149.8	26.0	38.1	2.8	40.7	2.3	72.9	73.8
Change from SDEIS to FEIS								
Construction Impacts	(-77.4)	(-24.7)	(-36.5)	(-4.9)	(-10.8)	(-15.0)	(-37.7)	(-33.2)
Operational Impacts	(-42.6)	(-11.6)	(-21.2)	(-1.5)	(-3.5)	(-3.0)	(-22.7)	(-17.1)
Temporary Soil Impact[6,7]	(-34.7)	(-13.2)	(-15.3)	(-3.4)	(-7.2)	(-11.9)	(-15.0)	(-16.1)

Notes:

1 Total impact is the total soils impacted by each Project component and does not represent a sum of the types of soils presented in this table.

2 Includes severe and very severe.

3 Includes poorly drained and very poorly drained.

4 Includes all bedrock less than 6 feet from the surface.

5 Includes prime farmland and prime farmland if drained.

6 Temporary impact on soils equals the construction impact minus the operational impacts. The construction impact includes all soil impacted during construction, which is inclusive of temporary and operational impacts.

7 Individual values may not add up to totals due to rounding.

8 Construction impacts are defined as areas where grading (temporary and permanent) would occur for the construction of Project facilities with the exception of the Transmission Line, which is not included in the impact on soils as grading is not anticipated to occur. If grading were to occur within the limit of disturbance for the Transmission Line, and up to an additional 51.4 acres of soils may be temporarily impacted.

9 As noted in Section 1.3.3 and represented in the drawings presented in Appendix C of this FEIS, Project Drawings, there are an additional 62.3 acres within the proposed limits of disturbance (LOD) where grading is not expected to occur, but additional disturbance may include limited tree clearing and/or other minimal temporary disturbance required for construction of the Project facilities.

Table A-2 Impacts on Farmland Soils[1, 2, 3, 4, 5]

Soil Type	Temporary Impact[6] (acres)	Permanent Impact (acres)
SDEIS		
Prime Farmland Soils	**74.0**	**28.3**
Prime Farmland if Drained	**65.5**	**23.1**
Farmland of Statewide Importance	**132.9**	**43.0**
SDEIS Total Impact on Farmland Soils	**272.4**	**94.4**
FEIS		
Prime Farmland Soils		
Chautauqua silt loam, 3 to 8% slopes	29.1	11.6
Chenango channery loam, fan, 3 to 8% slopes	0.6	0.1
Chenango gravelly loam, 0 to 3% slopes	0.2	3.2
Chenango gravelly loam, 3 to 8% slopes	1.0	0.8
Collamer silt loam, 3 to 8% slopes	0.0	0.2
Elnora fine sandy loam, 3 to 8% slopes	0.0	0.2
Pompton silt loam	0.0	0
Schuyler silt loam, 3 to 8% slopes	0.0	0.2
Valois gravelly silt loam, 3 to 8% slopes	4.1	1.5
Subtotal Prime Farmland Soils	**35.0**	**17.8**
Prime Farmland if Drained		
Barcelona silt loam, 3 to 8% slopes	0.0	0.0
Busti silt loam, 0 to 3% slopes	2.9	1.1
Busti silt loam, 3 to 8% slopes	31.4	8.9
Darien silt loam, 0 to 3% slopes	0.4	0.0
Fremont silt loam, 0 to 3% slopes	2.7	1.0
Hornell silt loam, 0 to 3% slopes	0.0	0.0
Niagara silt loam, 0 to 3% slopes, loamy substratum	0.0	0.0
Orpark silt loam, 0 to 3% slopes	0.0	0.0
Orpark silt loam, 3 to 8% slopes	0.3	0.0
Raynham silt loam, 0 to 3% slopes	0.0	0.0
Swormville silt loam	0.2	0.1
Subtotal Prime Farmland if Drained	**37.9**	**11.1**
Farmland of Statewide Importance		
Ashville silt loam	2.1	0.7
Busti silt loam, 8 to 15% slopes	0.2	0.1
Canandaigua silt loam, loamy substratum	0.0	0.0
Chautauqua silt loam, 8 to 15% slopes	8.2	2.2
Chenango gravelly loam, 8 to 15% slopes	1.2	0.0
Collamer silt loam, 8 to 15% slopes	0.0	0.2
Dalton silt loam, 0 to 3% slopes	2.6	0.2
Erie silt loam, 0 to 3% slopes	1.5	0.6
Erie silt loam, 3 to 8% slopes	15.4	3.3
Fremont silt loam, 3 to 8% slopes	13.7	4.9
Fremont silt loam, 8 to 15% slopes	1.8	0.4
Hornell silt loam, 3 to 8% slopes	0.0	0.0
Langford silt loam, 3 to 8% slopes	13.5	8.3

Table A-2 Impacts on Farmland Soils[1, 2, 3, 4, 5]

Soil Type	Temporary Impact[6] (acres)	Permanent Impact (acres)
Langford silt loam, 8 to 15% slopes	7.3	2.0
Orpark silt loam, 8 to 15% slopes	0.0	0.0
Schuyler silt loam, 8 to 15% slopes	0.3	0.1
Towerville silt loam, 8 to 15 percent slopes	0.0	0.0
Unadilla silt loam, 8 to 15% slopes	0.4	0.3
Valois gravelly silt loam, 8 to 15% slopes	0.6	0.4
Valois gravelly silt loam, rolling	5.0	2.3
Subtotal Farmland of Statewide Importance	**73.8**	**26.0**
FEIS Total Impact on Farmland Soils	**146.7**	**54.9**
Change from SDEIS to FEIS		
Prime Farmland Soils	**(-39.0)**	**(-10.5)**
Prime Farmland if Drained	**(-27.6)**	**(-12.0)**
Farmland of Statewide Importance	**(-59.1)**	**(-17.0)**
Change from SDEIS to FEIS Total Impact on Farmland Soils	**(-125.7)**	**(-39.5)**

Notes:

1 Soils data taken from SSURGO Database (USDA 2015).

2 Impacts to soils considers all Project facilities that would require grading. Clearing of the Transmission Line right of way (ROW) would not require grading and, therefore, would not impact soils and are not included in this table.

3 Individual acreages may not add up to totals due to rounding.

4 Impacts to soils are defined as areas where grading (temporary and permanent) would occur for the construction of Project facilities with the exception of the Transmission Line, which is not included in the impact on soils, as grading is not anticipated to occur. If grading were to occur within the limits of disturbance (LOD) for the Transmission Line, up to an additional 51.4 acres of soils may be temporarily impacted.

5 As noted in Section 1.3.3 of this FEIS and represented in the drawings presented in Appendix C of this FEIS, Project Drawings, there are an additional 62.3 acres within the proposed LOD where grading is not expected to occur, but additional disturbance may include limited tree clearing and/or other minimal temporary disturbance required for construction of the Project facilities.

6 Temporary impacts are considered to be areas to be restored after construction.

Table A-3 Project Eco-Community Impacts

Eco-Community Type	Construction Impacts (Permanent and Temporary Impacts) (acres[1,2,3])	Project Operational Impacts (Permanent Impacts) (acres)	Areas to be Restored After Construction (Temporary Impacts) (acres)
SDEIS			
Agriculture (Hayfields, Row Crops, Pastures)	134.3	44.5	89.8
Beech Maple Mesic[4]	31.6	31.6	0.0
Hemlock – Northern[4] Hardwoods	72.5	72.5	0.0
Open Water	0.3	0.3	0.0
Successional Northern[4] Hardwoods	51.5	51.5	0.0
Successional Old Field	21.5	10.3	11.2
Successional Shrubland	6.2	4.5	1.7
Tree Farm/Vineyard	12.2	8.9	3.3
Total	**330.1**	**149.9**	**180.1**
FEIS			
Agriculture (Hayfields, Row Crops, Pastures)	133.1	30.0	103.1
Beech Maple Mesic[4,5]	9.2	9.2	0.0
Hemlock – Northern[4,5] Hardwoods	38.3	38.3	0.0
Open Water	0.3	<0.1	0.3
Successional Northern[4,5] Hardwoods	50.4	50.4	0.0
Successional Old Field	12.9	3.7	9.2
Successional Shrubland	3.6	0.0	3.6
Tree Farm/Vineyard	8.8	4.0	4.9
Total	**256.6**	**55.5**	**201.2**
Change from SDEIS to FEIS			
Agriculture (Hayfields, Row Crops, Pastures)	(-1.2)	(-14.5)	13.3
Beech Maple Mesic[4]	(-22.4)	(-22.4)	0.0
Hemlock – Northern[4] Hardwoods	(-34.2)	(-34.2)	0.0
Open Water	0.0	(-0.3)	0.3
Successional Northern[4] Hardwoods	(-1.1)	(-1.1)	0.0
Successional Old Field	(-8.6)	(-6.6)	(-2.0)

Table A-3 Project Eco-Community Impacts

Eco-Community Type	Construction Impacts (Permanent and Temporary Impacts) (acres[1,2,3])	Project Operational Impacts (Permanent Impacts) (acres)	Areas to be Restored After Construction (Temporary Impacts) (acres)
Successional Shrubland	(-2.6)	(-4.5)	1.9
Tree Farm/Vineyard	(-3.4)	(-4.9)	1.6
Total	**(-73.5)**	**(-94.5)**	**21.0**

Notes:

1 The sum of temporary and permanent impacts may not exactly equal construction impacts due to rounding.
2 Construction impacts are defined as areas where grading (temporary and permanent) would occur for the construction of Project facilities with the exception of the Transmission Line for which construction impacts are considered to be the entire 80-foot ROW.
3 As noted in Section 1.3.3 of this FEIS and represented in the drawings presented in Appendix C of this FEIS, Project Drawings, there are an additional 62.3 acres within the proposed limits of disturbance (LOD) where grading is not expected to occur, but additional disturbance may include limited tree clearing and/or other minimal temporary disturbance required for construction of the Project facilities.
4 Impacts on forested ecological community types are considered permanent as NYSDEC staff considers the clearing of all forested habitat to be a permanent impact due to the time it takes a forest to regenerate to pre-construction conditions.
5 As described in Section 1.3.3, of this FEIS, an additional 21 acres of tree clearing would be required in the additional LOD area of the Project. In total, 118.9 acres of tree clearing is anticipated from the Project.

Land use data was derived from the USGS Land Use/Land Cover dataset (Fry et al. 2011); the acreages of eco-communities are defined based on field visits and aerial photo interpretation.

Table A-4 Potential Habitat Fragmentation, Ball Hill Wind Project (acres)[1]

Impact Type	Town of Hanover	Town of Villenova	Total
Direct[2]	61.4	36.6	97.9
Indirect[3]	535.8	446.6	982.3
Total	**597.2**	**483.2**	**1,080.2**

[1] Table totals may not add up due to rounding.
[2] Direct impacts equal the amount of clearing (acres) in the limits of disturbance (LOD) that will occur within forest blocks that are greater than 150 acres.
[3] Indirect impacts equal the amount land (acres) that is within a 300-foot buffer of the clearing that will occur.

Table A-5 Existing Land Use, Ball Hill Wind Project (acres)

Land Use/Land Cover	Town of Villenova	Town of Hanover	Total
SDEIS			
Agricultural[1]	3,443	2,184	5,627
Forested[2]	4,745	2,884	7,630
Developed[3]	216	178	394
Open Water	5	4	9
Total[4]	**8,409**	**5,250**	**13,659**
FEIS			
Agricultural[1]	3,263	998	4,261
Forested[2]	3,614	1,597	5,211
Developed[3]	168	63	231
Open Water	10	1	12
Total[4]	**7,055**	**2,659**	**9,715**
Change from SDEIS to FEIS			
Agricultural[1]	(-180)	(-1,186)	(-1,366)
Forested[2]	(-1,131)	(-1,287)	(-2,419)
Developed[3]	(-48)	(-115)	(-163)
Open Water	5	(-3)	3
Total[4]	**(-1,354)**	**(-2,591)**	**(-3,945)**

Source: Homer et al. 2015.

Notes:

[1] Agricultural land use includes the U.S. Geological Survey (USGS) Land Use/Land Cover categories of Pasture/Hay; Grassland/Herbaceous; Cultivated Crops; and Emergent Herbaceous Wetlands. Section 2.4, Wetlands, provides a summary of the acreages of wetlands that were field-delineated within the survey corridor.

[2] Forested land use includes the USGS Land Use/Land Cover categories of Deciduous Forest; Evergreen Forest; Mixed Forests; Scrub-Shrub; and Woody Wetlands. Section 2.4, Wetlands, provides a summary of the acreages of wetlands that were field-delineated within the survey corridor.

[3] Developed land use includes the USGS Land Use/Land Cover categories of Developed, Open Space; Developed Low Intensity; and Developed High Intensity.

[4] Table totals may not add up due to rounding.

Table A-6 Summary of Project Land Use Impacts, Entire Project Site

Land Use/ Land Cover	Construction Impacts (Permanent and Temporary Impacts) [acres]			Project Operational Impacts (Permanent Impacts) [acres]			Areas to be Restored to Existing Condition After Construction (Temporary Impacts) [acres]		
	Total[1,5]	Town of Hanover	Town of Villenova	Total[1]	Town of Hanover	Town of Villenova	Total[1]	Town of Hanover	Town of Villenova
SDEIS									
Agricultural[2]	161.8	58.1	103.6	65.8	36.9	28.9	96.0	21.2	74.7
Forested[3]	160.3	62.4	97.9	160.3	62.4	97.9	0.0	0.0	0.0
Developed[4]	8.0	3.4	4.6	2.2	1.7	0.5	5.8	1.7	4.1
SDEIS Total acreage	**330.1**	**124.0**	**206.1**	**228.3**	**101.0**	**127.3**	**101.8**	**22.9**	**78.8**
FEIS									
Agricultural	145.1	45.8	99.3	34.5	10.0	24.6	110.6	35.9	74.7
Forested[6]	101.5	59.7	41.8	20.1	8.6	11.5	81.5	51.1	30.4
Developed	10.0	3.4	6.5	0.9	0.1	0.7	9.1	3.3	5.8
FEIS Total acreage	**256.6**	**109.0**	**147.6**	**55.5**	**18.7**	**36.8**	**201.2**	**90.3**	**110.9**
Change from SDEIS to FEIS									
Agricultural	(-16.7)	(-12.3)	(-4.3)	(-31.3)	(-26.9)	(-4.3)	14.6	14.7	0.0
Forested	(-58.8)	(-2.7)	(-56.1)	(-140.2)	(-53.8)	(-86.4)	81.5	51.1	30.4
Developed	2.0	0.0	1.9	(-1.3)	(-1.6)	0.2	3.3	1.6	1.7
Total	**(-73.5)**	**(-14.9)**	**(-58.5)**	**(-172.8)**	**(-82.3)**	**(-90.5)**	**99.4**	**67.4**	**32.1**

Notes

[1] Individual values may not add up to totals due to rounding.

[2] Agricultural land use includes the U.S. Geological Survey (USGS) Land Use/Land Cover categories of Pasture/Hay; Grassland/Herbaceous; Cultivated Crops; and Emergent Herbaceous Wetlands. Appendix E, Wetland and Waterbodies, provides a summary of the acreages of wetlands that were field-delineated within the survey corridor.

[3] Forested land use includes the USGS Land Use/Land Cover categories of Deciduous Forest; Evergreen Forest; Mixed Forests; Shrub/Scrub; and Woody Wetlands. Section 2.4, Wetlands, provides a summary of the acreages of wetlands that were field-delineated within the survey corridor.

[4] Developed land use includes the USGS Land Use/Land Cover categories of Developed Open Space and Developed Low Intensity.

[5] As noted in Section 1.3.3 of this FEIS and represented in the drawings presented in Appendix C of this FEIS, Project Drawings, there are an additional 62.3 acres within the proposed limits of disturbance (LOD) where grading is not expected to occur but additional disturbance may include limited tree clearing and/or other minimal temporary disturbance required for construction of the Project facilities.

[6] As noted in Section 1.3.3,of this FEIS an additional 21 acres of tree clearing would be required in the additional LOD area of the Project. In total, 118.9 acres of tree clearing is anticipated from the Project.

A-2 Updated Figures

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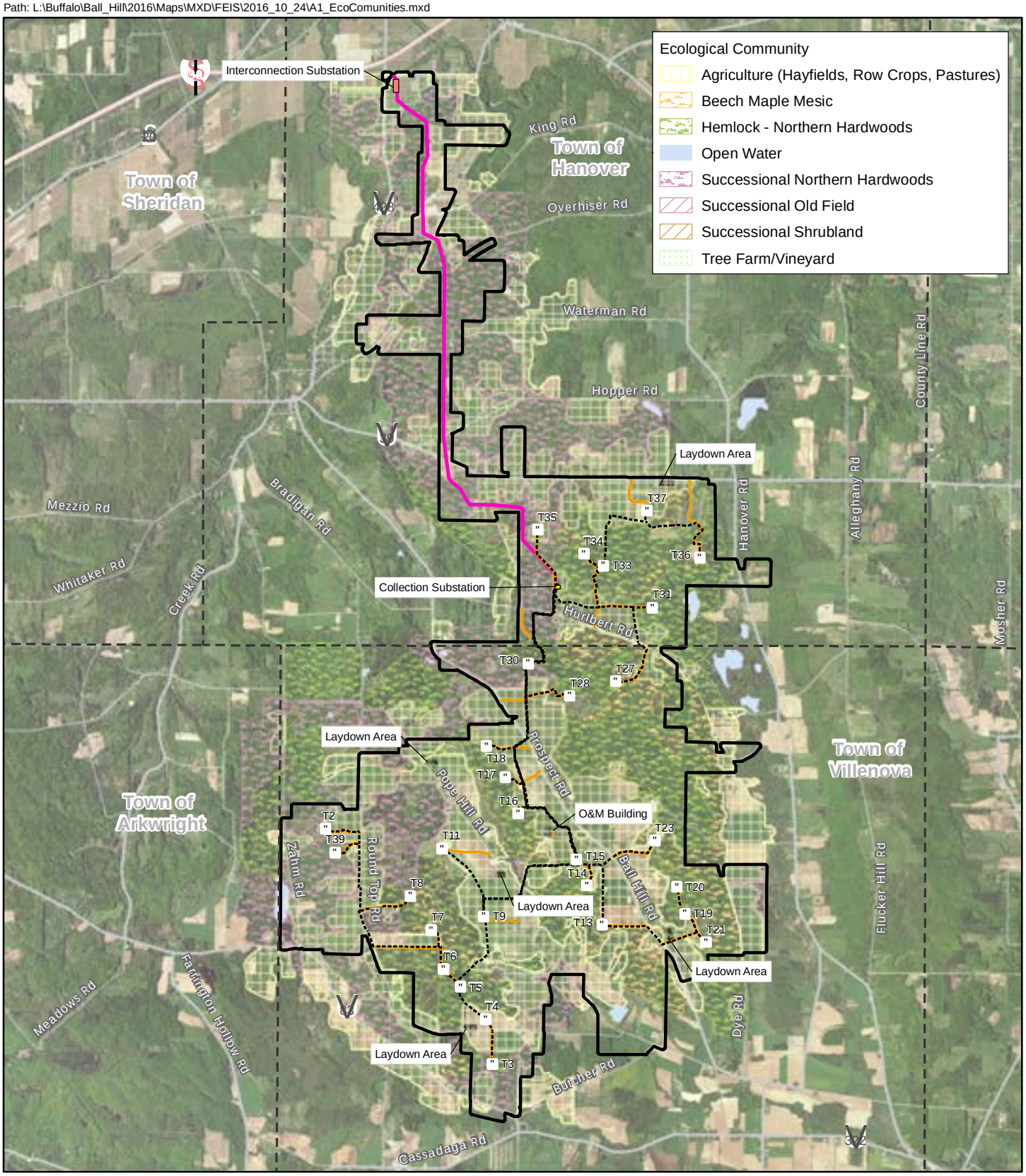


" Turbine
Town Boundary
Street
Access Road
Collection Line
Transmission Line

Collection Substation
Interconnection Substation
O&M Building
Laydown Area
Project Area

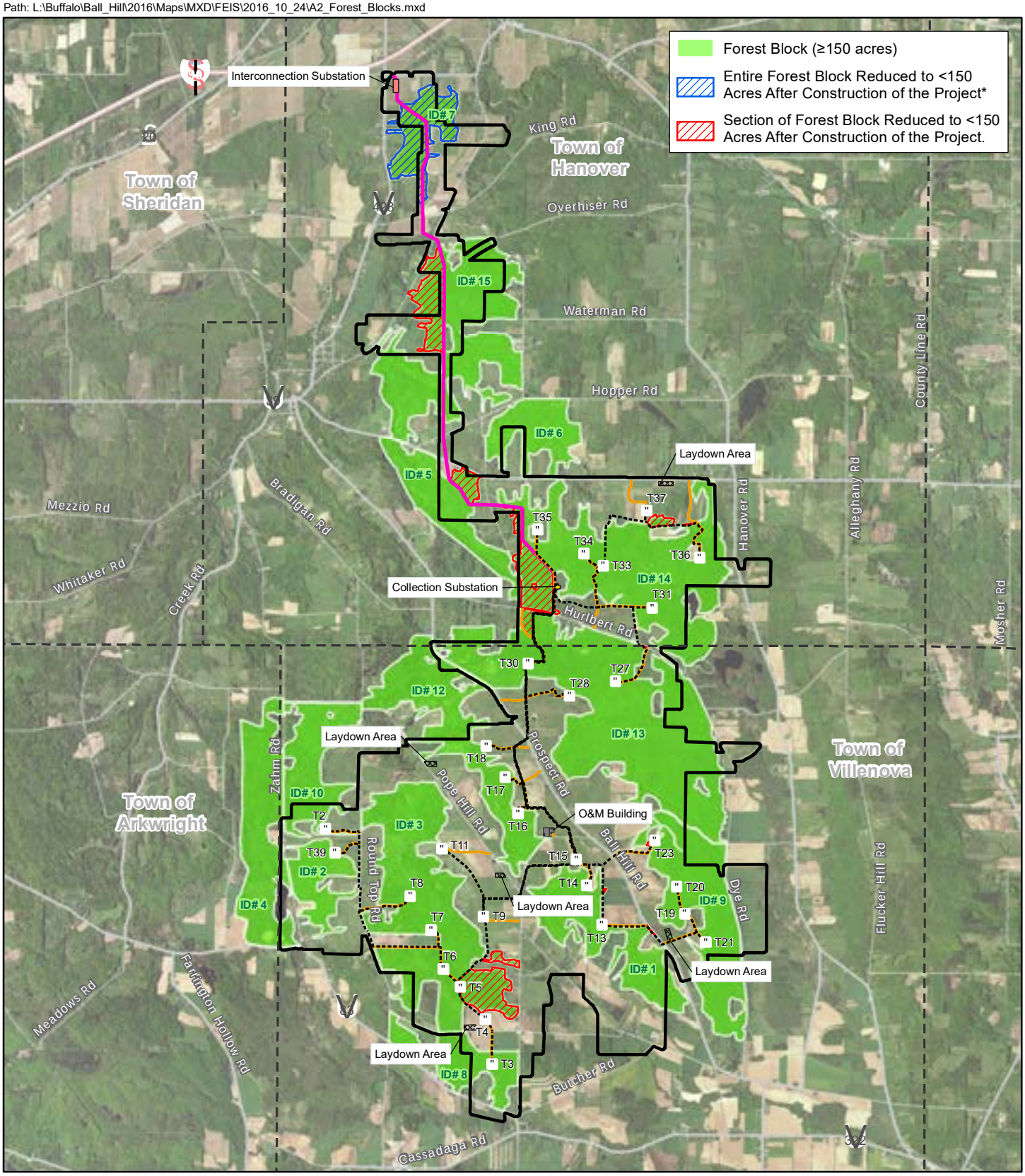
Figure A-1
Ecological Community Types
Ball Hill Wind Project
Chautauqua County, New York
Ball Hill Wind Energy, LLC

0 1 2 Miles

Ecological community data was collected based on the Project Area of the SDEIS. This data is not available for small areas on the eastern and southern edges of the revised, smaller Project Area. There are no data gaps within the Project Site and therefore all construction impacts on ecological communities are captured.

Source: ESRI 2012; Fisher Associates 2016; NAIP 2015.

Path: L:\Buffalo\Ball_Hill\2016\Maps\MXD\FEIS\2016_10_24\A2_Forest_Blocks.mxd



" Turbine
Town Boundary
Street
Access Road
Collection Line
Transmission Line

Collection Substation
Interconnection Substation
O&M Building
Laydown Area
Project Area

Figure A-2
Forest Blocks ≥150 Acres
Ball Hill Wind Project
Chautauqua County, New York
Ball Hill Wind Energy, LLC

0 1 2 Miles

Forest block #7 will be split by the construction workspace, resulting in a change in acreage from 211.4 acres to three smaller sections of 7.1, 89.6, and 105.6 acres each. While other contiguous forest blocks are split by the construction workspace, forest block #7 is the only one in which no contiguous block of ≥150 acres will remain after construction.

Source: ESRI 2012; Fisher Associates 2016; NAIP 2015.

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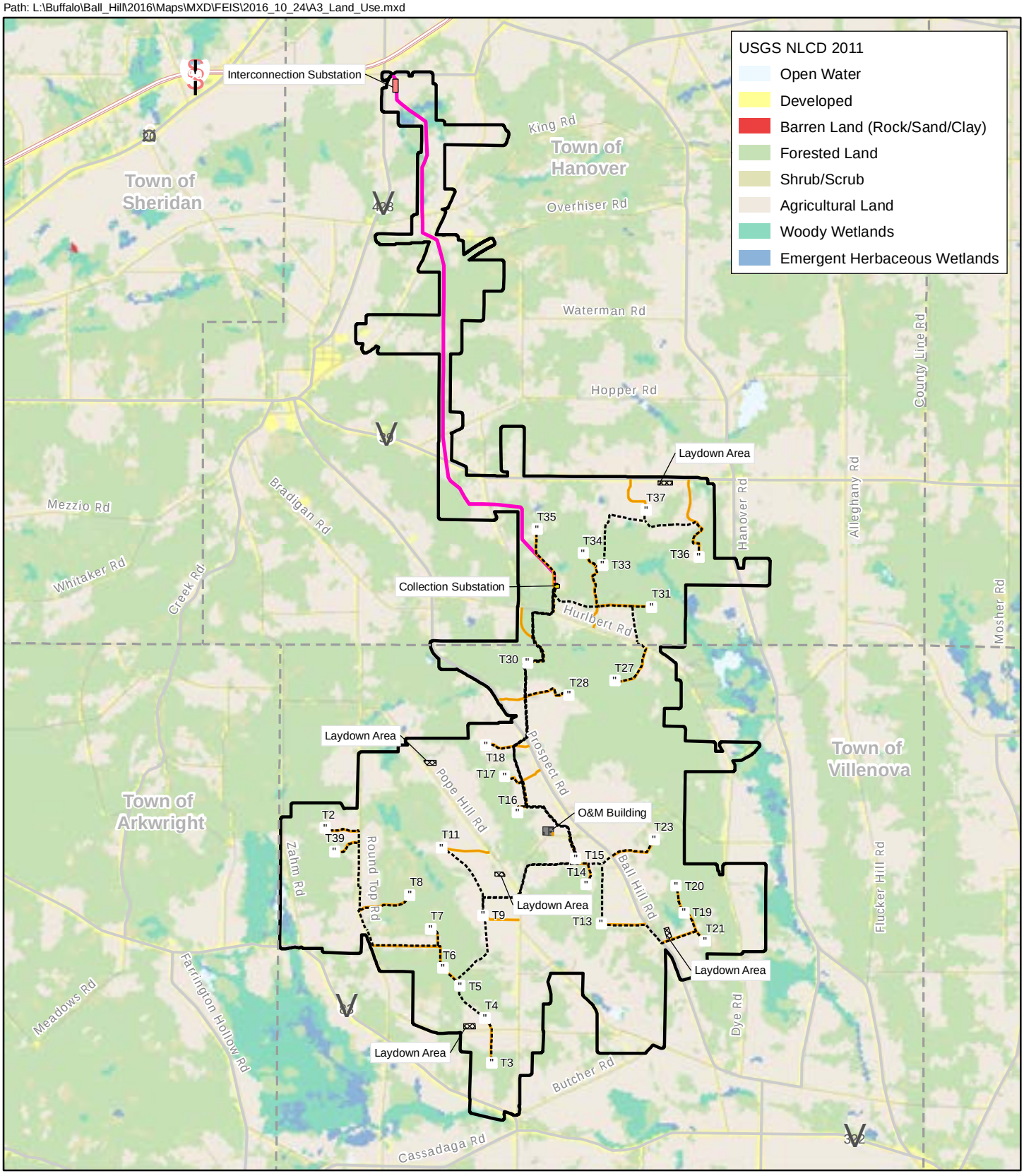


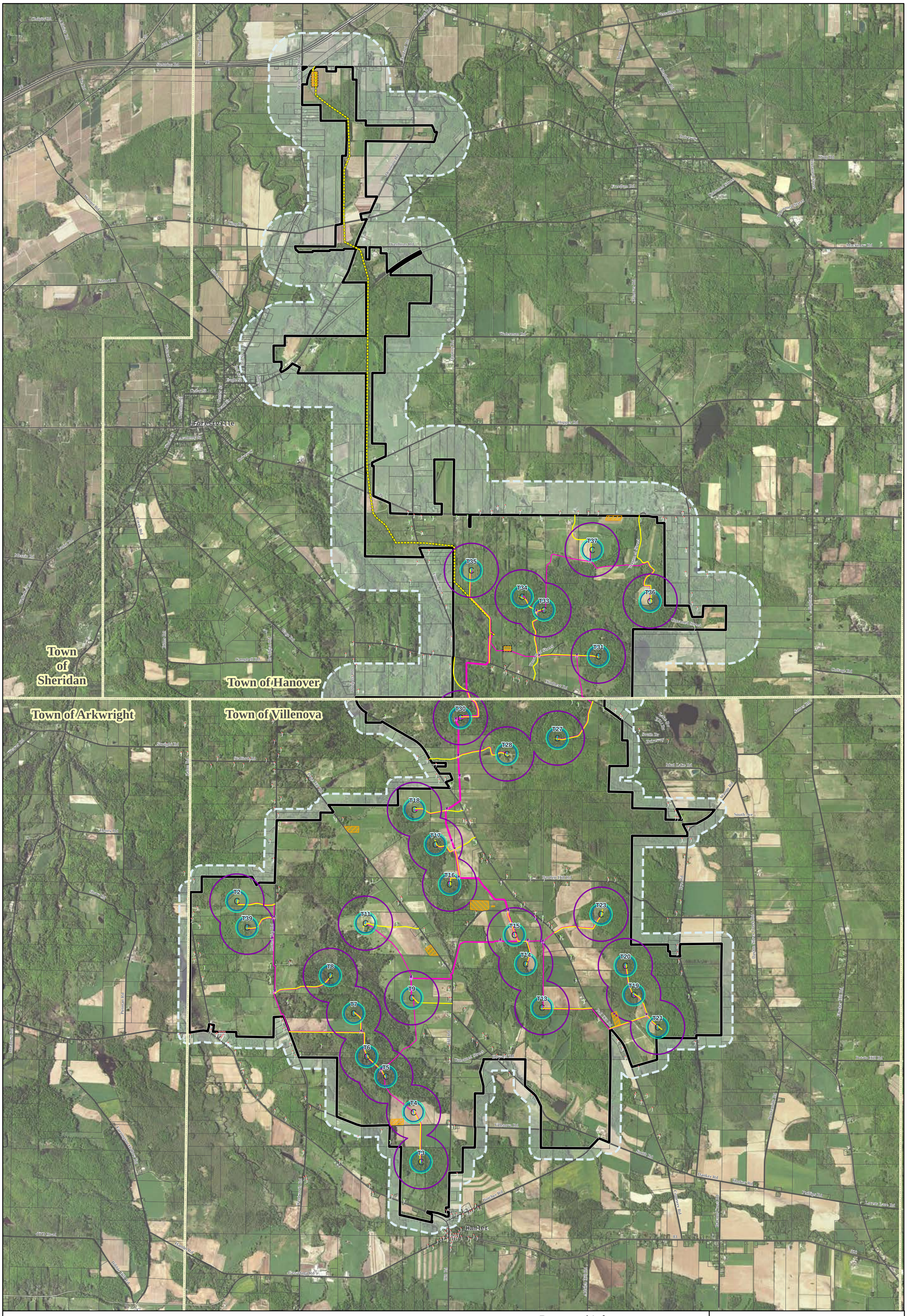
" Turbine
Town Boundary
Street
Access Road
Collection Line
Transmission Line

Collection Substation
Interconnection Substation
O&M Building
Laydown Area
Project Area

Figure A-3
Land Use Types
Ball Hill Wind Project
Chautauqua County, New York
Ball Hill Wind Energy, LLC

0 1 2 Miles

Source: ESRI 2012; Fisher Associates 2016; NAIP 2015; USGS National Land Cover Dataset 2011.



Ball Hill Wind Project

Wind Overlay District
Wind Overlay District Buffer
1.5 Tower Height Radius (428ft)
1200' Radius
500' Radius

Town Boundary

Structure:
Participating Residence
Non-participating Residence
Non-residential Structure

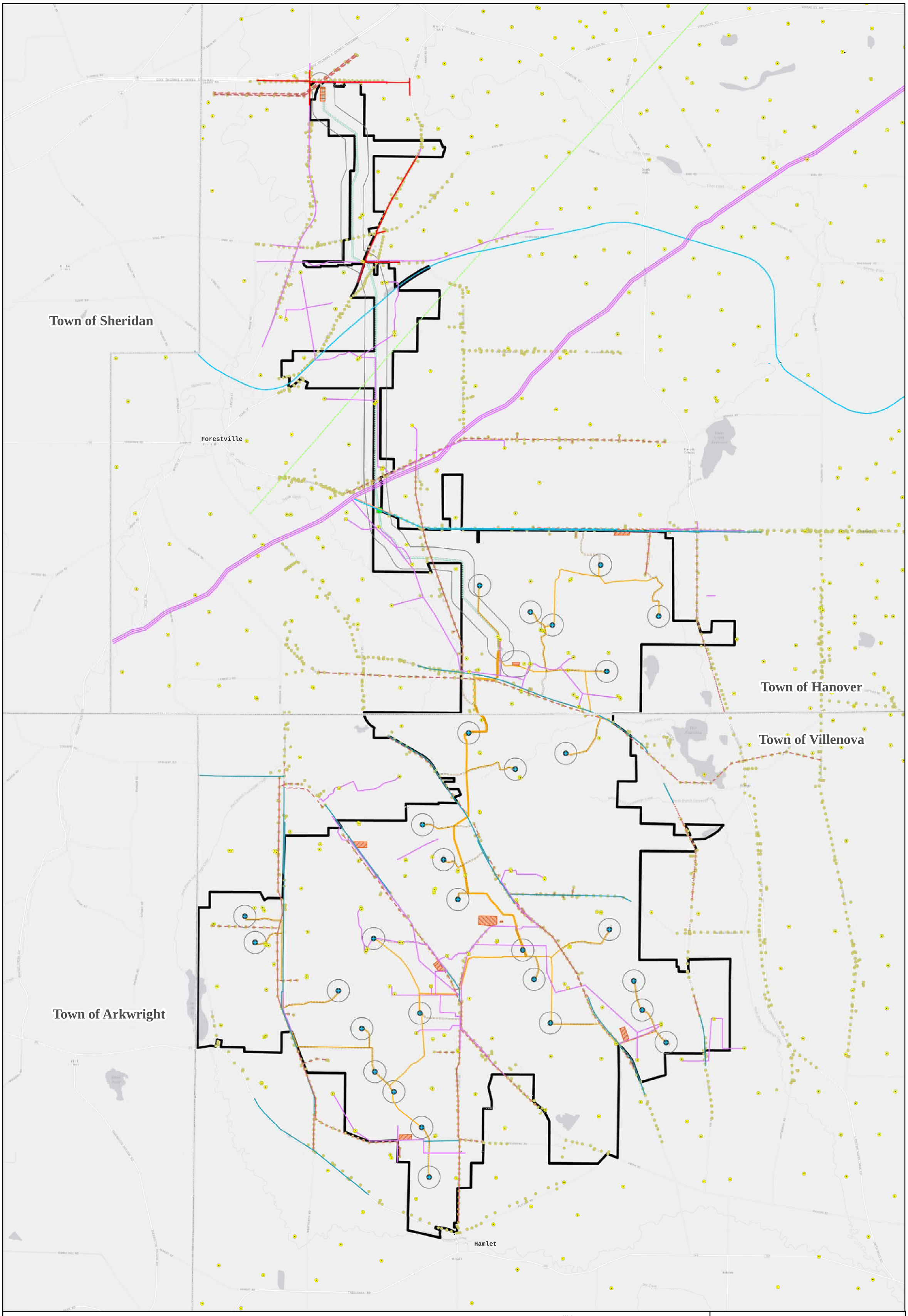
Proposed Infrastructure:
Turbine (87m hub height)
Junction Box
Transmission Line
Access Road
Collection
Substation/Switchyard Proposed to be Fenced
Laydown Area
O & M Building/Laydown

Renewable Energy Systems
res powering change®
11101 W. 120th Ave., Suite 400
Broomfield, CO, 80021
Phone: (303) 429-4200
Fax: (303) 429-4299

COORDINATE SYSTEM: NY West Zone, NAD83
LAYOUT NUMBER:
DRAWN BY: AP DATE: 9/7/2016
DRAWING NO.: 23105D6914-01

0 2,000
Feet
1 inch equals 2,000 feet

Figure A-4: Zoning Setback Map
Ball Hill Wind Project, Chautauqua County, New York
Ball Hill Wind Energy LLC



Proposed Infrastruture:

- Turbine (87m hub height)
- Access Road
- Collection
- Transmission Line
- Substation/Switchyard
- Laydown Area
- O & M Building/Laydown

Ball Hill Wind Project

- Wind Overlay District
- 492' Buffer
- Town Boundary

Utilities:

- Utility Pole
- Fiber Level 3 Comm
- Gas Well
- Gas
- National Fuel Distribution Lines
- Telephone
- CAT 5
- Fiber Level 3 Comm
- Overhead
- Underground (Verizon)

Renewable Energy Systems
res powering change
11101 W. 120th Ave., Suite 400
Broomfield, CO, 80021
Phone: (303) 429-4200
Fax: (303) 429-4299

COORDINATE SYSTEM: NY West Zone, NAD83
LAYOUT NUMBER:
DRAWN BY: DATE: 02/09/2016
DRAWING NO.: 23105D6908-01

0 2,000
Feet
1 inch equals 2,000 feet

Figure A-5: Utility Setback Map
Ball Hill Wind Project, Chautauqua County, New York
Ball Hill Wind Energy LLC