Large Filing Separator Sheet

Case Number: 10-2865-EL-BGN

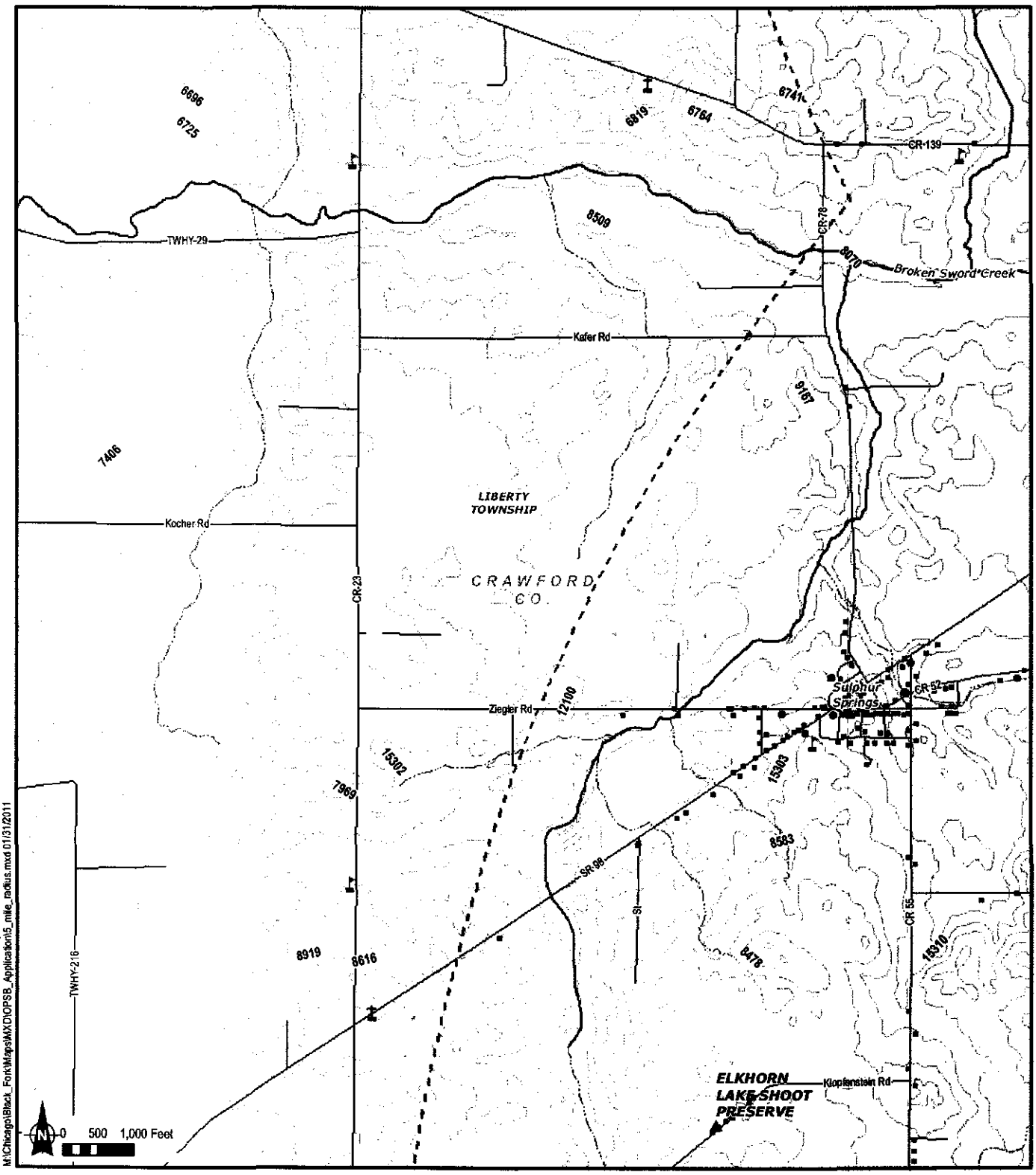
File Date: 3/10/11

Section: 2

Number of Pages: 201

Description of Document: Application

Black Fork Wind Energy, LLC - Five Mile Radius Map



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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)
- Collection Line (01-14-11)
- Access Roads (01-14-11)
- Substation (01-13-11)
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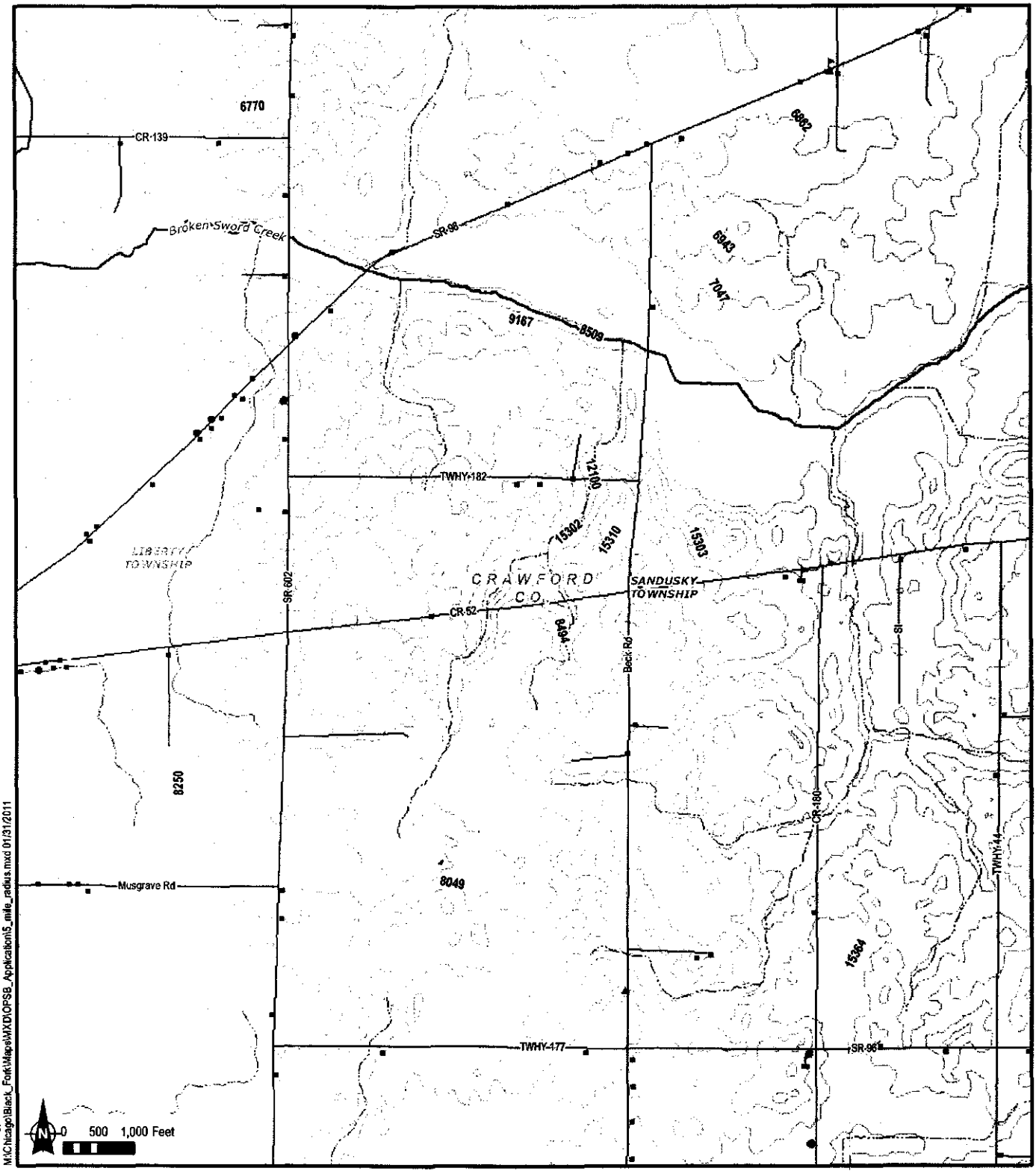
- Perennial Stream/River
- Intermittent

Figure 5-1
Black Fork Wind Energy, LLC Five-Mile Radius Map
Crawford and Richland Counties, Ohio
Map 21 of 45

Source: ESRI 2010; USGS NCLD 2001; USGS, 2008; USGS/EPA NHD 2008; OH DNR 2009; OGRIP, 2005-2008; EP 2011.

Black Fork Wind Energy, LLC - Five Mile Radius Map



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Intermittent

Figure 5-1
Black Fork Wind Energy, LLC Five-Mile Radius Map
Crawford and Richland Counties, Ohio
Map 22 of 45

Source: ESRI 2010; USGS NCLD 2001; USGS, 2008; USGS/EPA NHD 2008; OH DNR 2009; OGRIP, 2005-2008; EP 2011.

Black Fork Wind Energy, LLC - Five Mile Radius Map

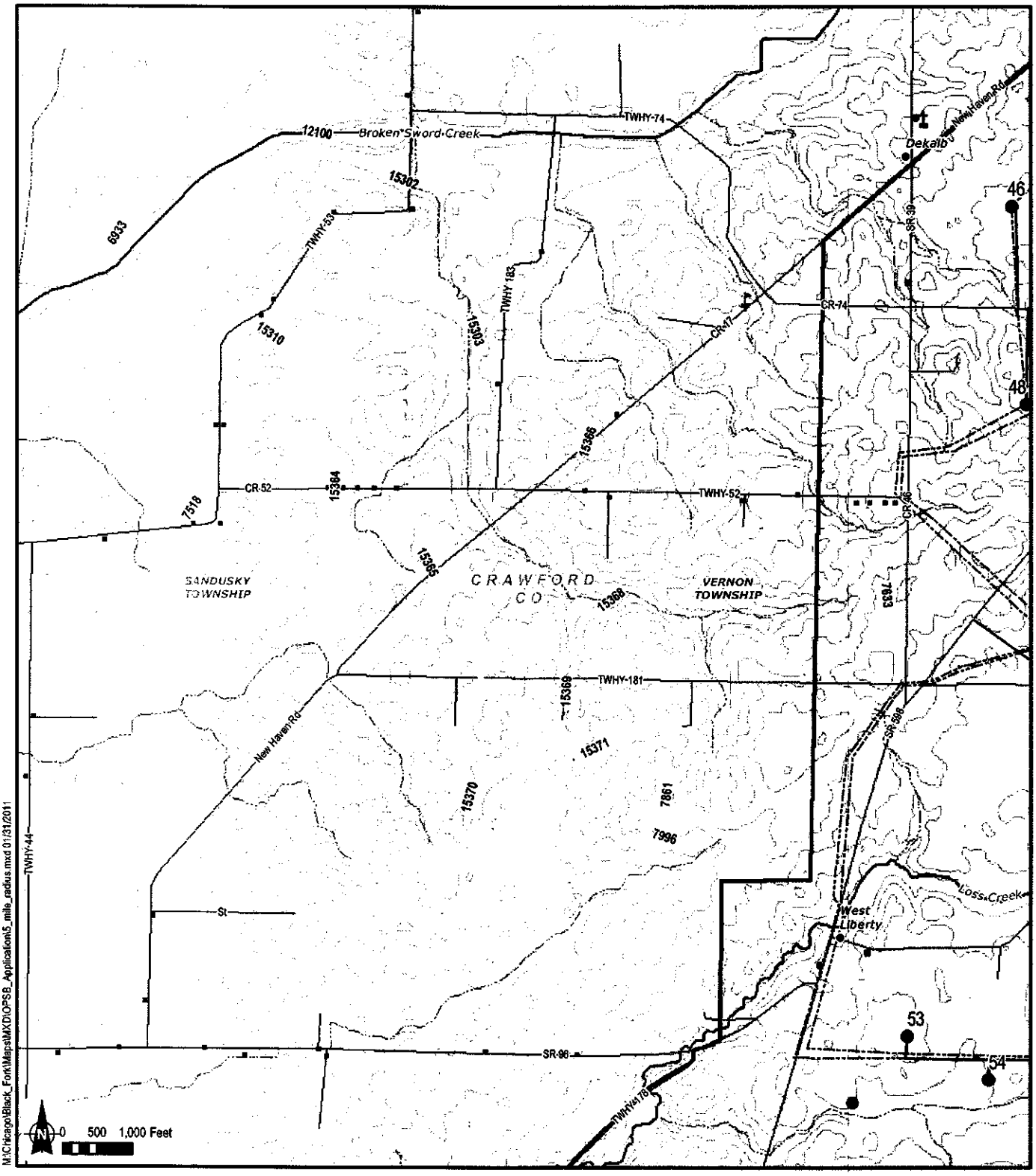

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Figure 5-1
Black Fork Wind Energy, LLC Five-Mile Radius Map
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Map 23 of 45

Source: ESRI 2010; USGS NCLD 2001; USGS, 2008; USGS/EPA NHD 2008; OH DNR 2009; OGRIP, 2005-2008; EP 2011.

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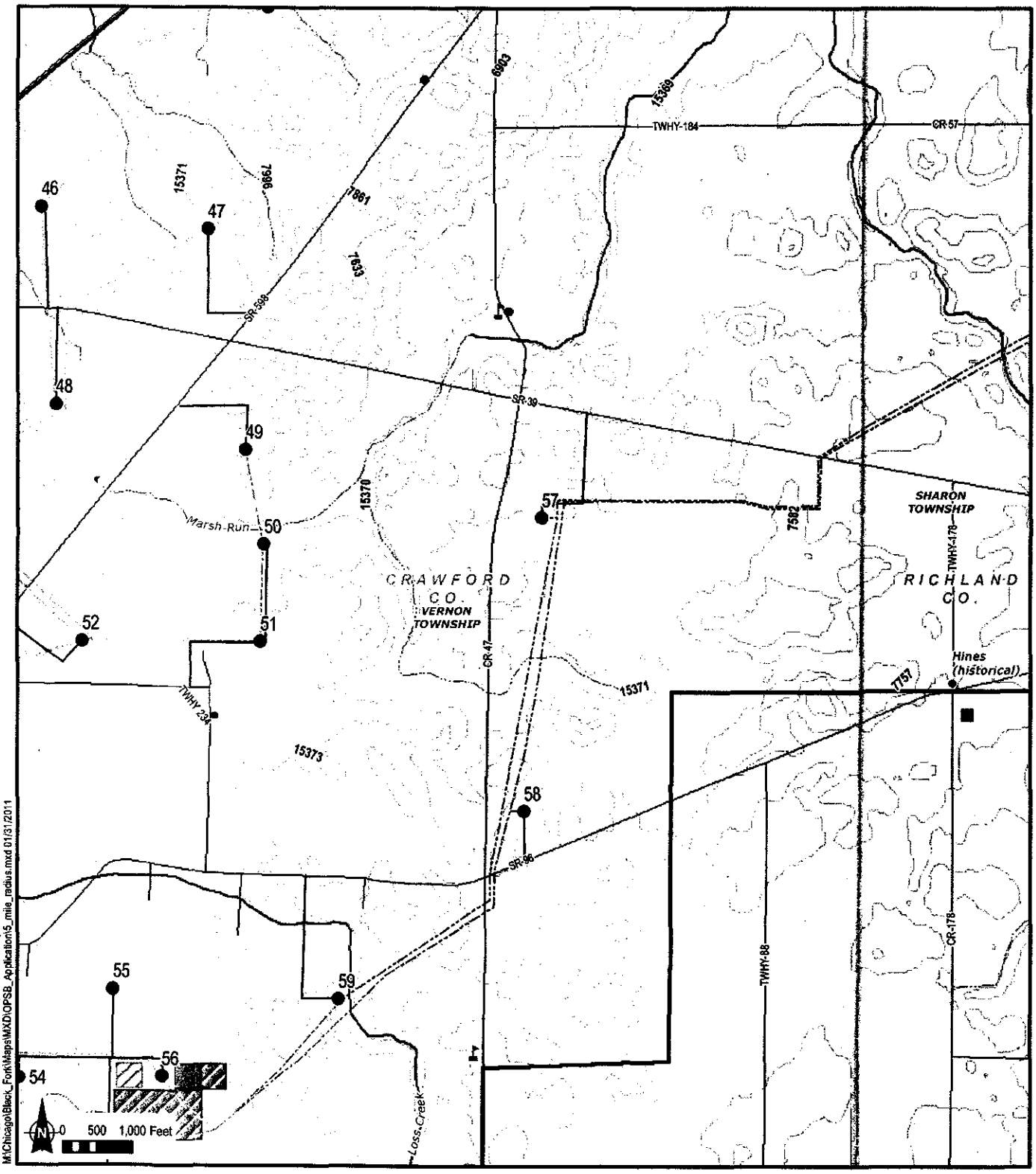

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Crawford and Richland Counties, Ohio
Map 24 of 45

Source: ESRI 2010; USGS NCLD 2001; USGS, 2008; USGS/EPA NHD 2008; OH DNR 2009; OGRIP, 2005-2008; EP 2011.

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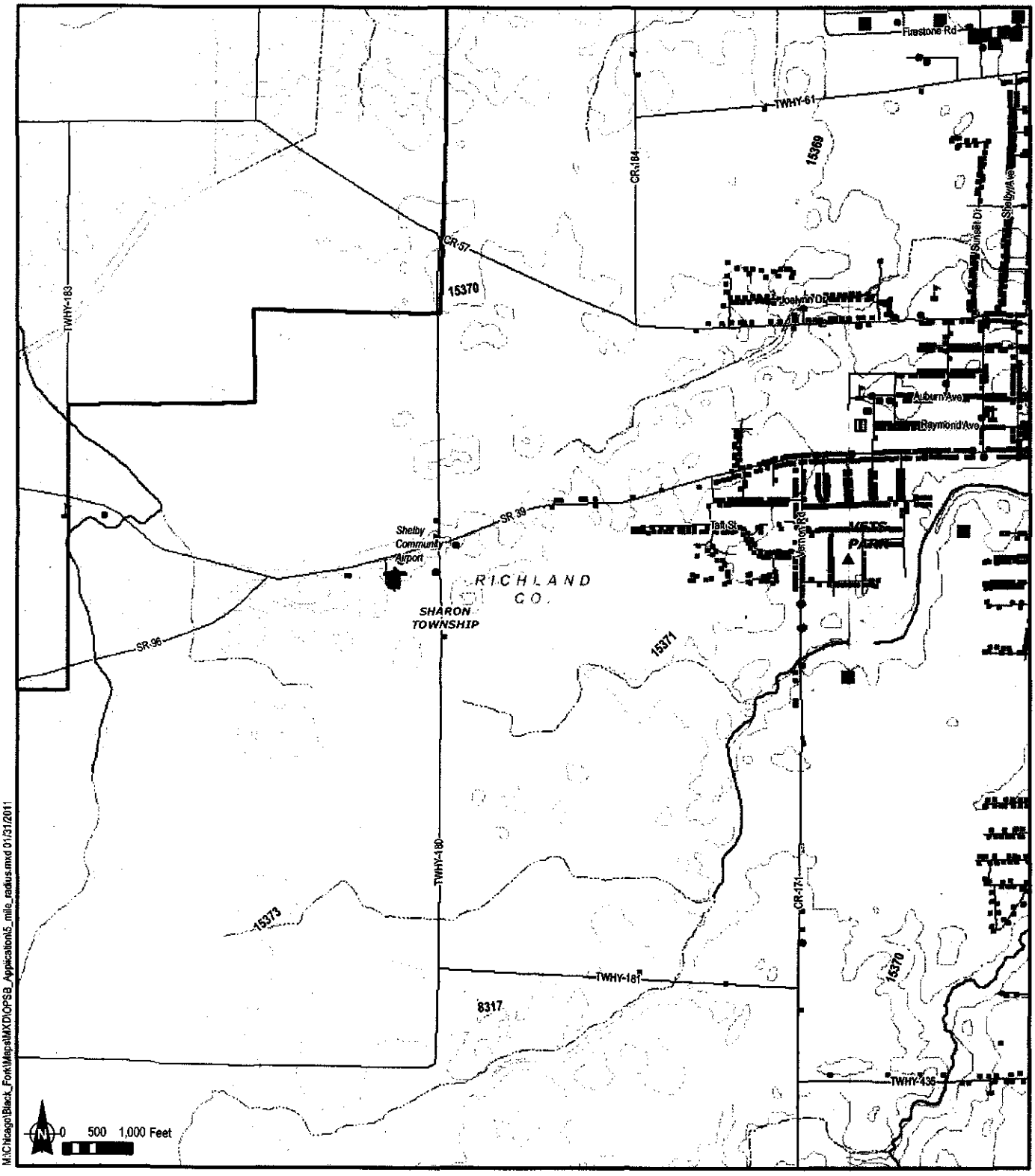

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Figure 5-1
Black Fork Wind Energy, LLC Five-Mile Radius Map
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Source: ESRI 2010; USGS NCLD 2001; USGS, 2008; USGS/EPA NHD 2008; OH DNR 2009; OGRIP, 2005-2008; EP 2011.

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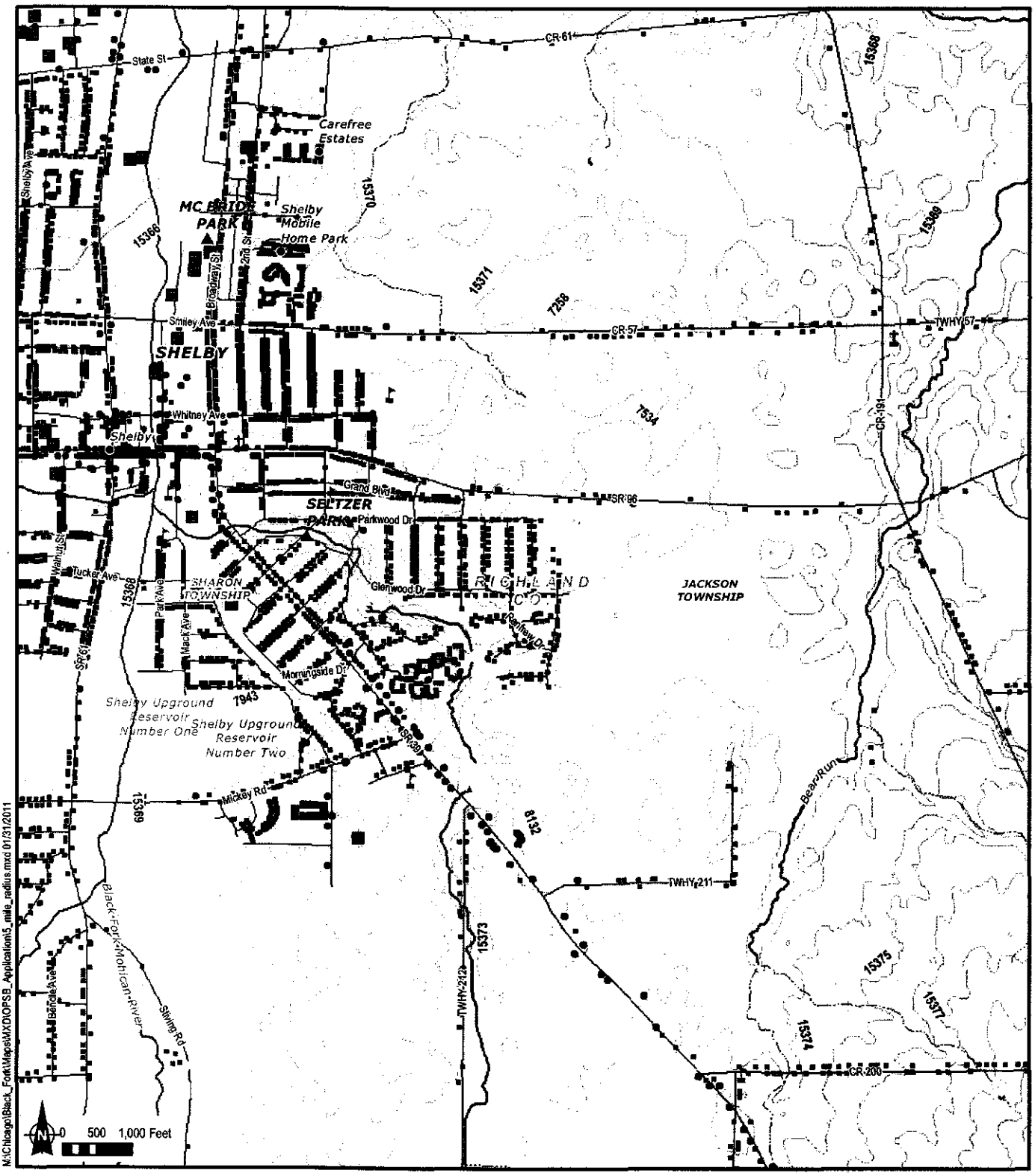

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Figure 5-1
Black Fork Wind Energy, LLC Five-Mile Radius Map
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Map 26 of 45

Source: ESRI 2010; USGS NCLD 2001; USGS, 2008; USGS/EPA NHD 2008; OH DNR 2009; OGRIP, 2005-2008; EP 2011.

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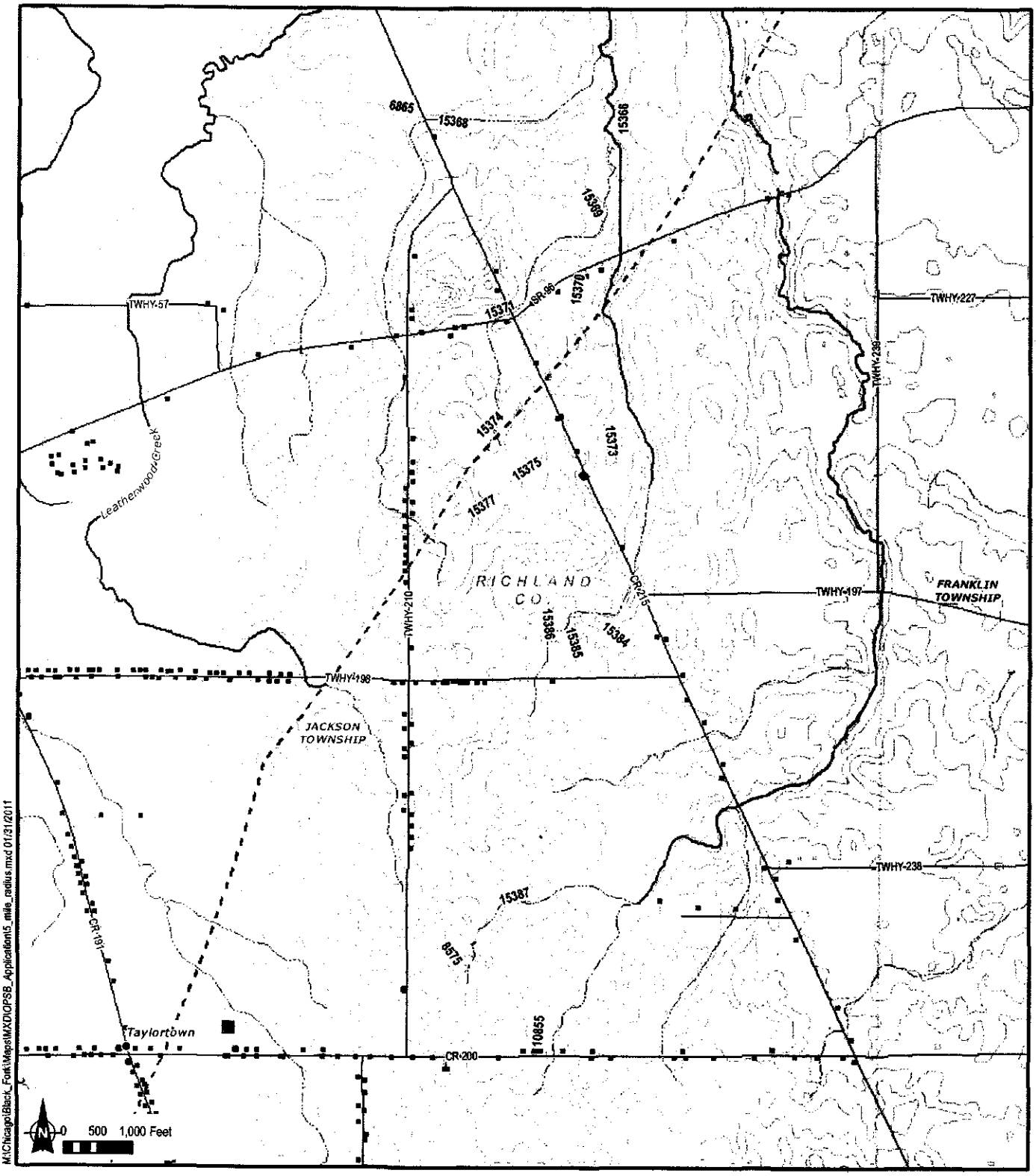

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Figure 5-1
Black Fork Wind Energy, LLC Five-Mile Radius Map
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Map 27 of 45

Source: ESRI 2010; USGS NCLD 2001; USGS, 2009; USGS/EPA NHD 2008; OH DNR 2009; OGRIP, 2005-2008; EP 2011.

Black Fork Wind Energy, LLC - Five Mile Radius Map

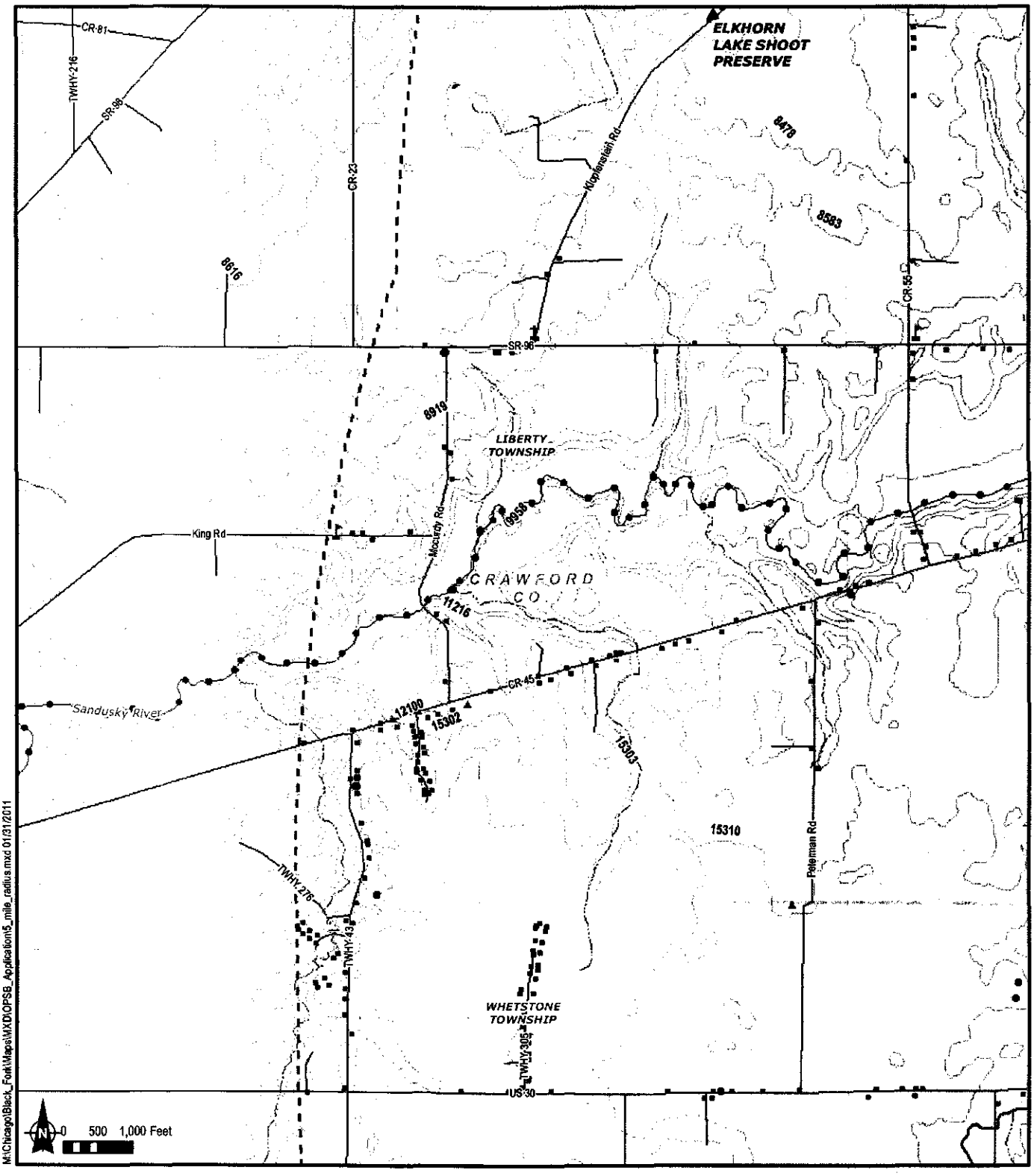

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Figure 5-1
Black Fork Wind Energy, LLC Five-Mile Radius Map
Crawford and Richland Counties, Ohio
Map 28 of 45

Source: ESRI 2010; USGS NCLD 2001; USGS, 2008; USGS/EPA NHD 2008; OH DNR 2009; OGRIP, 2005-2008; EP 2011.

Black Fork Wind Energy, LLC - Five-Mile Radius Map

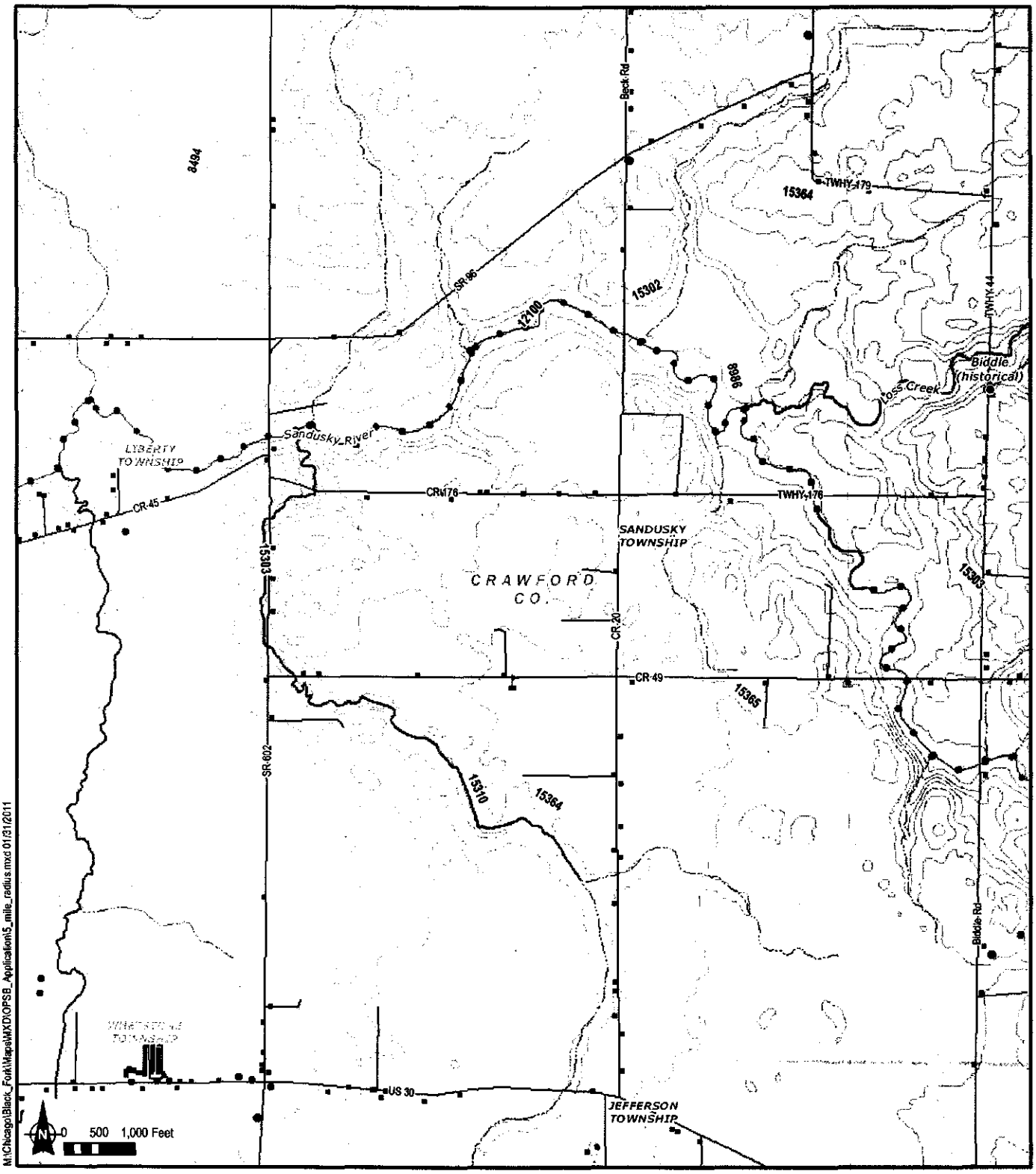

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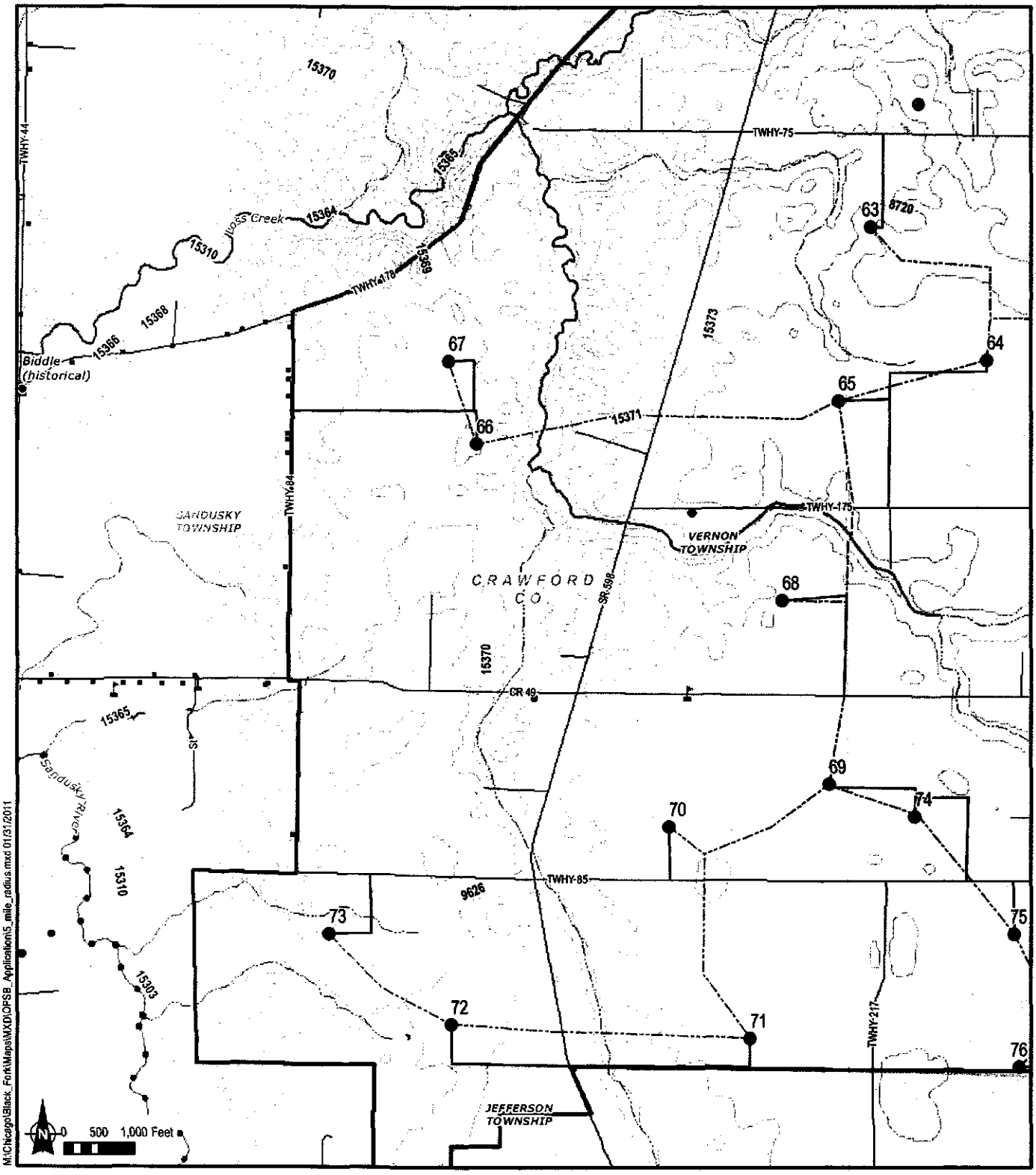
Figure 5-1
Black Fork Wind Energy, LLC Five-Mile Radius Map
Crawford and Richland Counties, Ohio
Map 29 of 45

Source: ESRI 2010; USGS NCLD 2001; USGS, 2008; USGS/EPA NHD 2008; OH DNR 2009; OGRIP, 2005-2008; EP 2011.

Black Fork Wind Energy, LLC - Five Mile Radius Map



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Turbines (01-14-11)
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Black Fork Wind Energy, LLC Five-Mile Radius Map
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Map 30 of 45

Source: ESRI 2010; USGS NCLD 2001; USGS, 2008; USGS/EPA NHD 2008; OH DNR 2009; OGRIP, 2005-2008; EP 2011.

Black Fork Wind Energy, LLC - Five Mile Radius Map

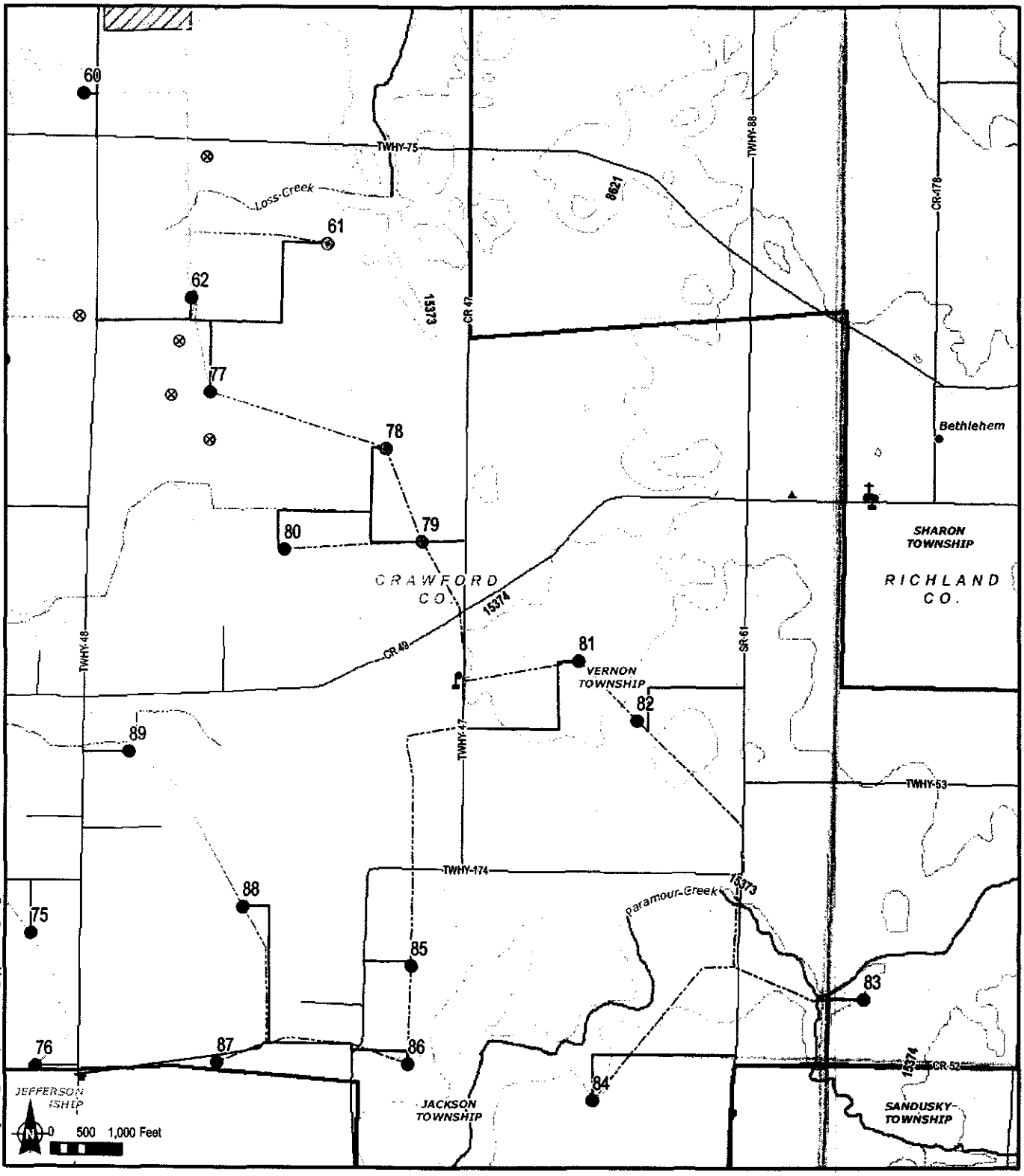

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Figure 5-1
Black Fork Wind Energy, LLC Five-Mile Radius Map
Crawford and Richland Counties, Ohio
Map 31 of 45

Source: ESRI 2010; USGS NCLD 2001; USGS, 2008; USGS/EPA NHD 2008; OH DNR 2009; OGRIP, 2005-2008; EP 2011.

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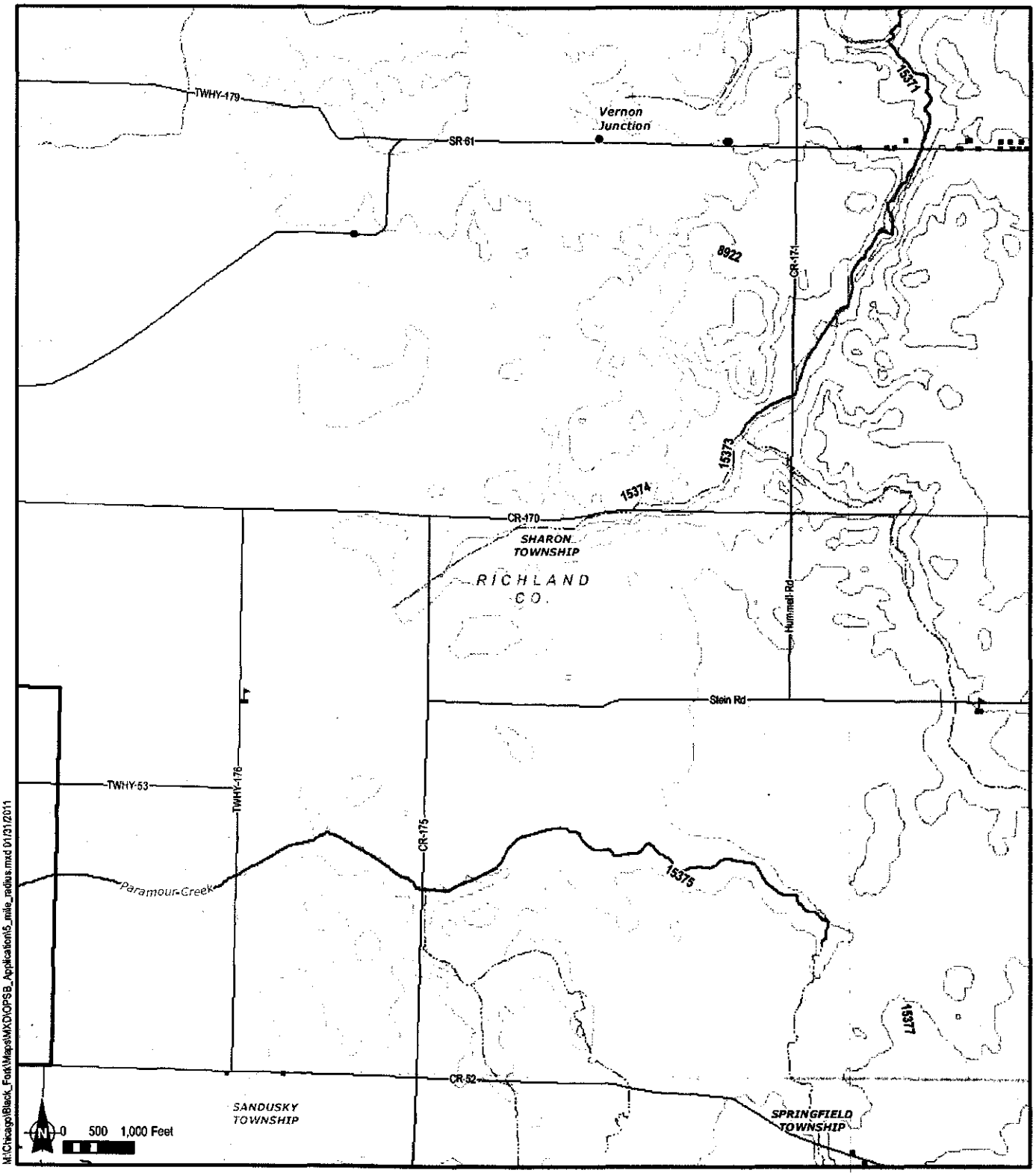

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Figure 5-1
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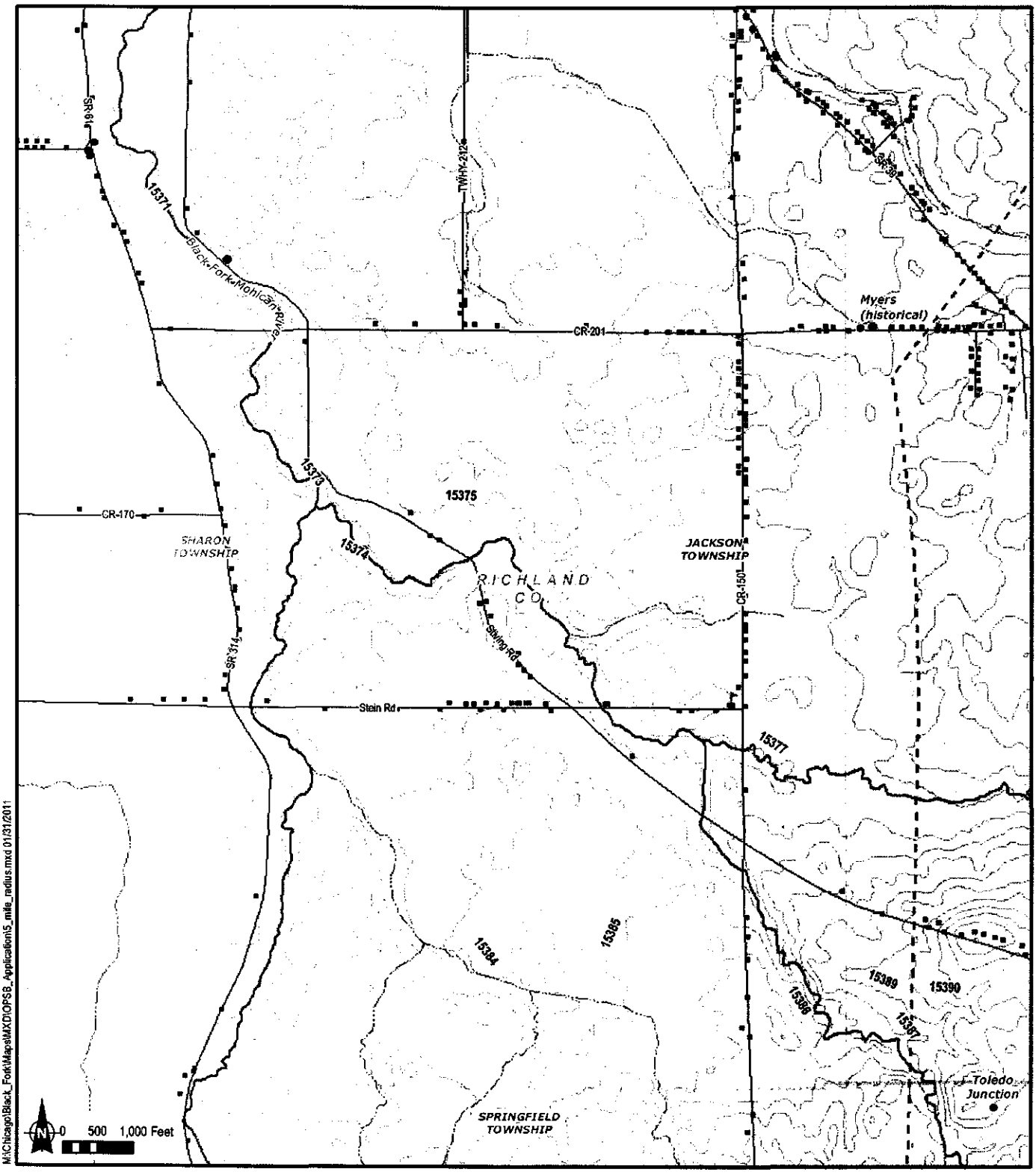

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Map 33 of 45

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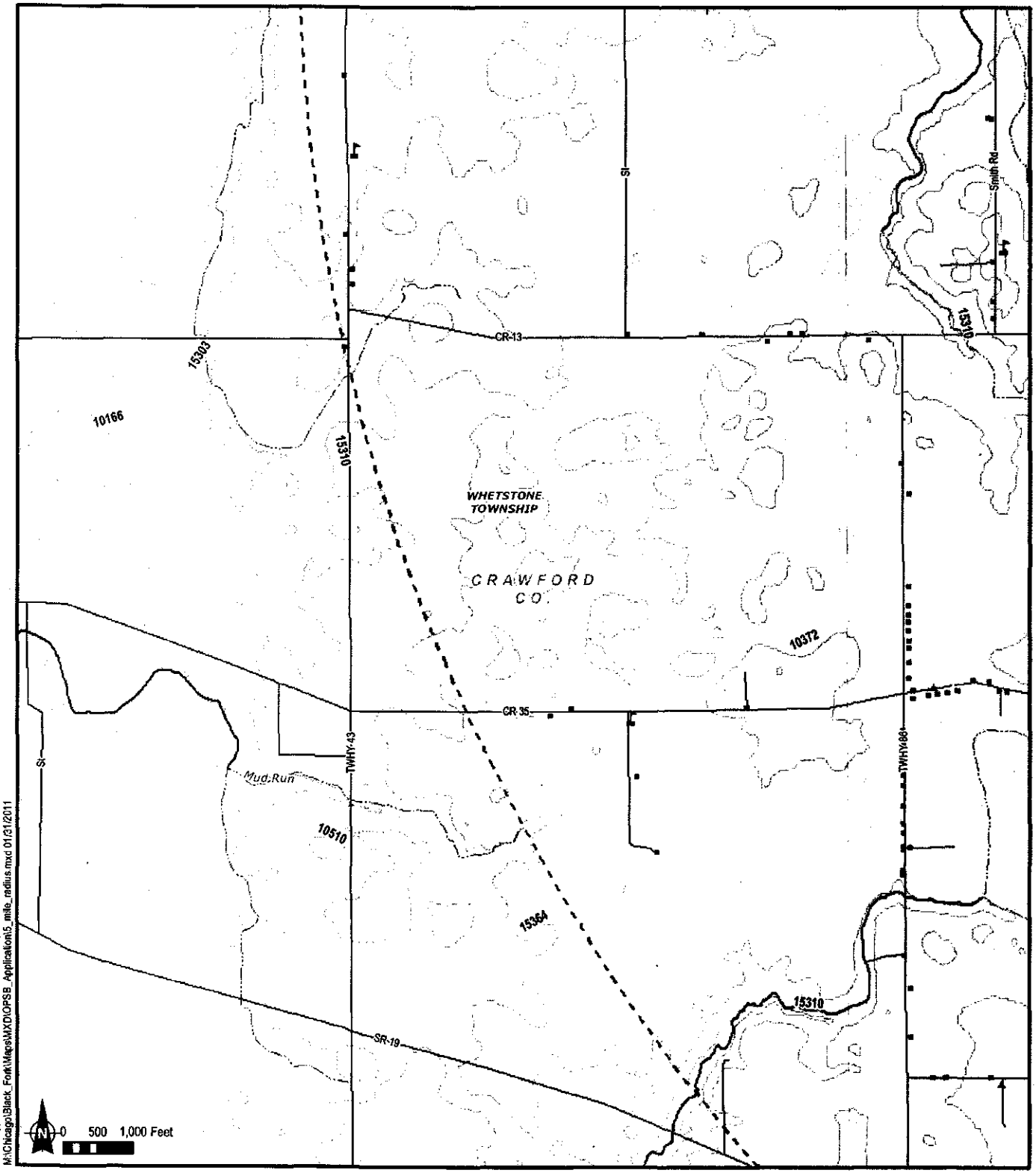

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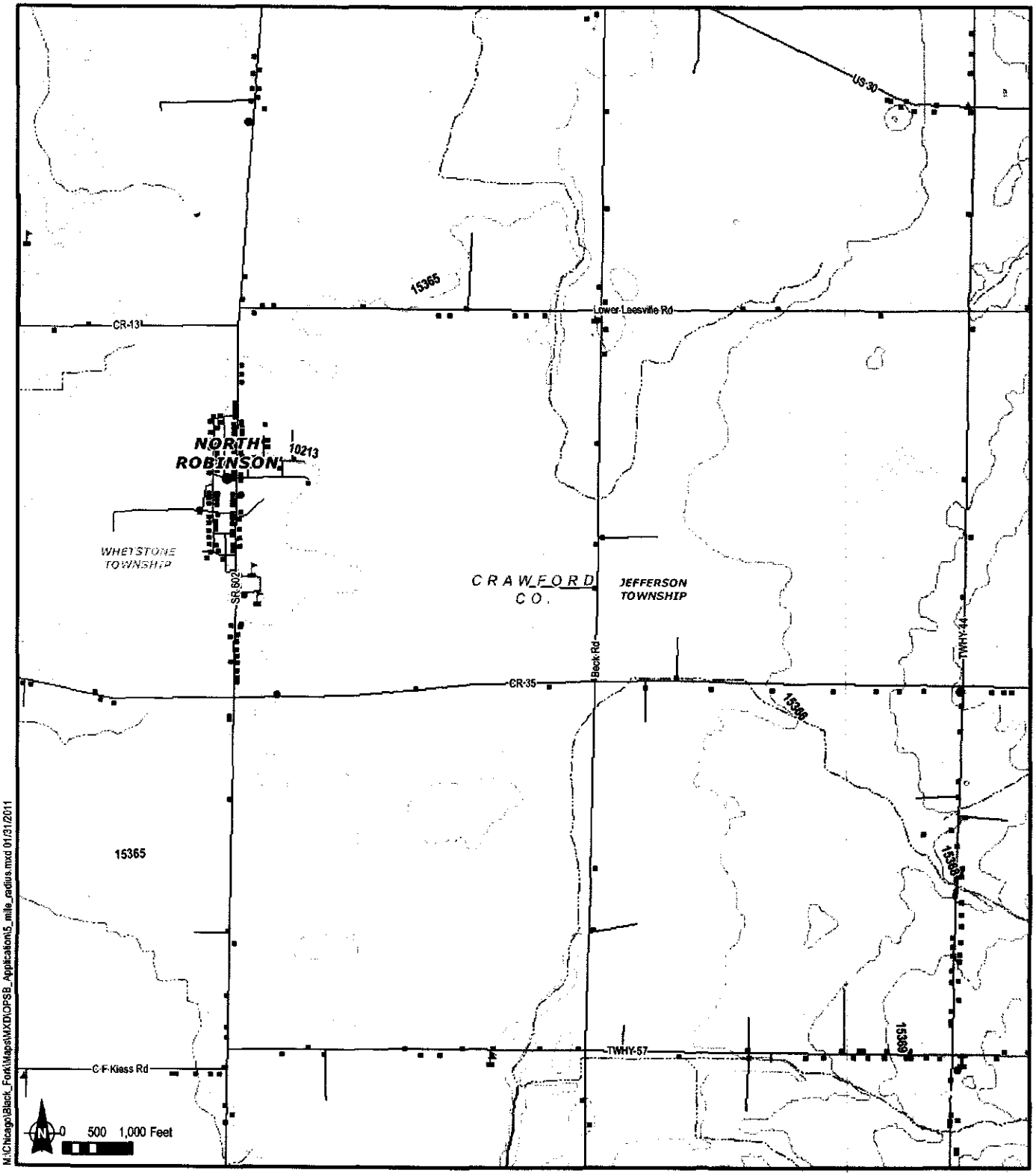

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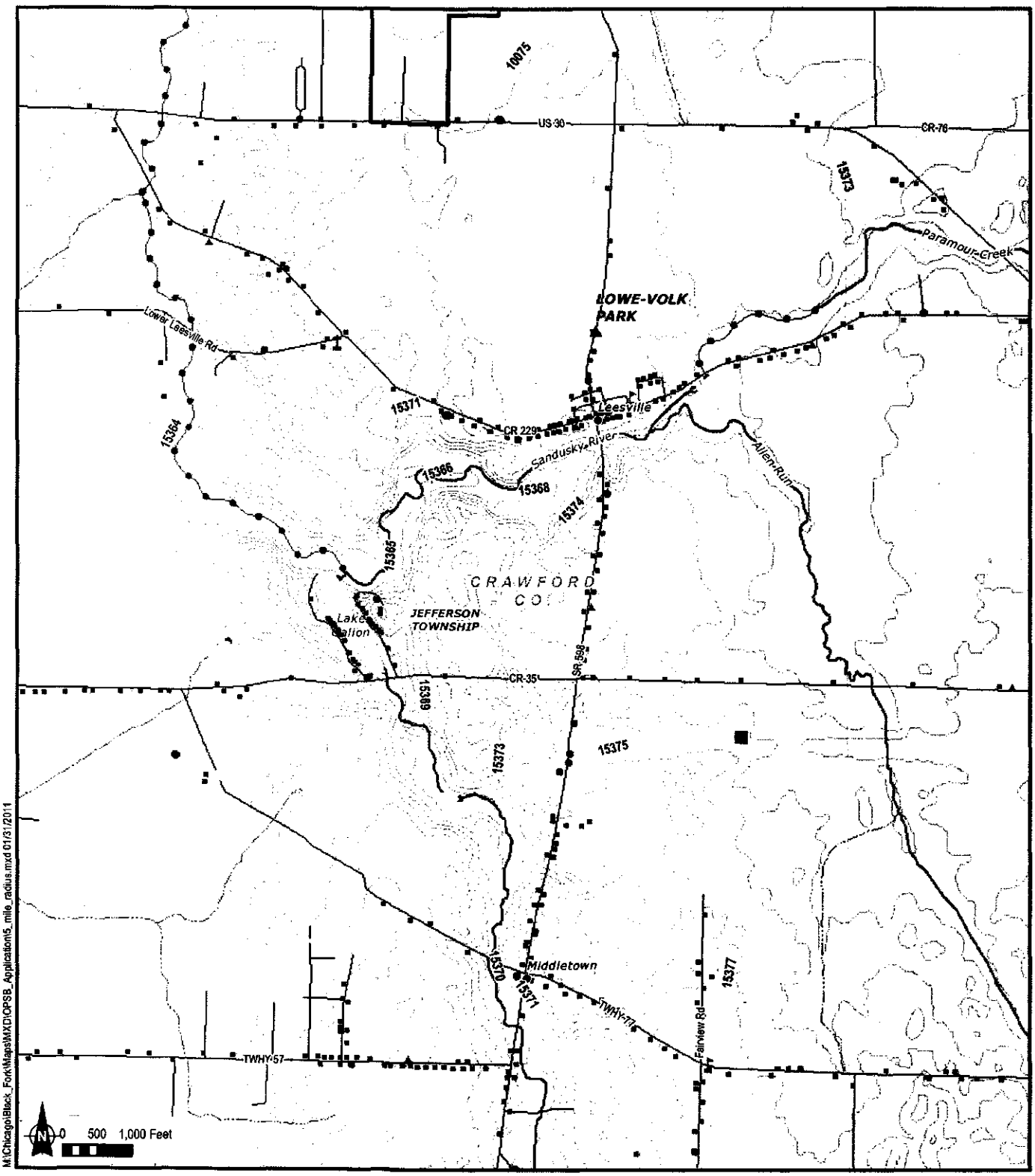
Figure 5-1
Black Fork Wind Energy, LLC Five-Mile Radius Map
Crawford and Richland Counties, Ohio
Map 35 of 45

Source: ESRI 2010; USGS NCLD 2001; USGS, 2008; USGS/EPA NHD 2008; OH DNR 2009; OGRIP, 2005-2008; EP 2011.

Black Fork Wind Energy, LLC - Five Mile Radius Map



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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)
- Collection Line (01-14-11)
- Access Roads (01-14-11)
- Substation (01-13-11)
- Switchyard (01-13-11)
- O&M Building (01-13-11)
- Laydown Yard & Batch Plant (01-13-11)

- Residential Location
- Secondary Structure
- Commercial
- Utility
- Other
- Industrial Building
- Church
- School
- Hospital

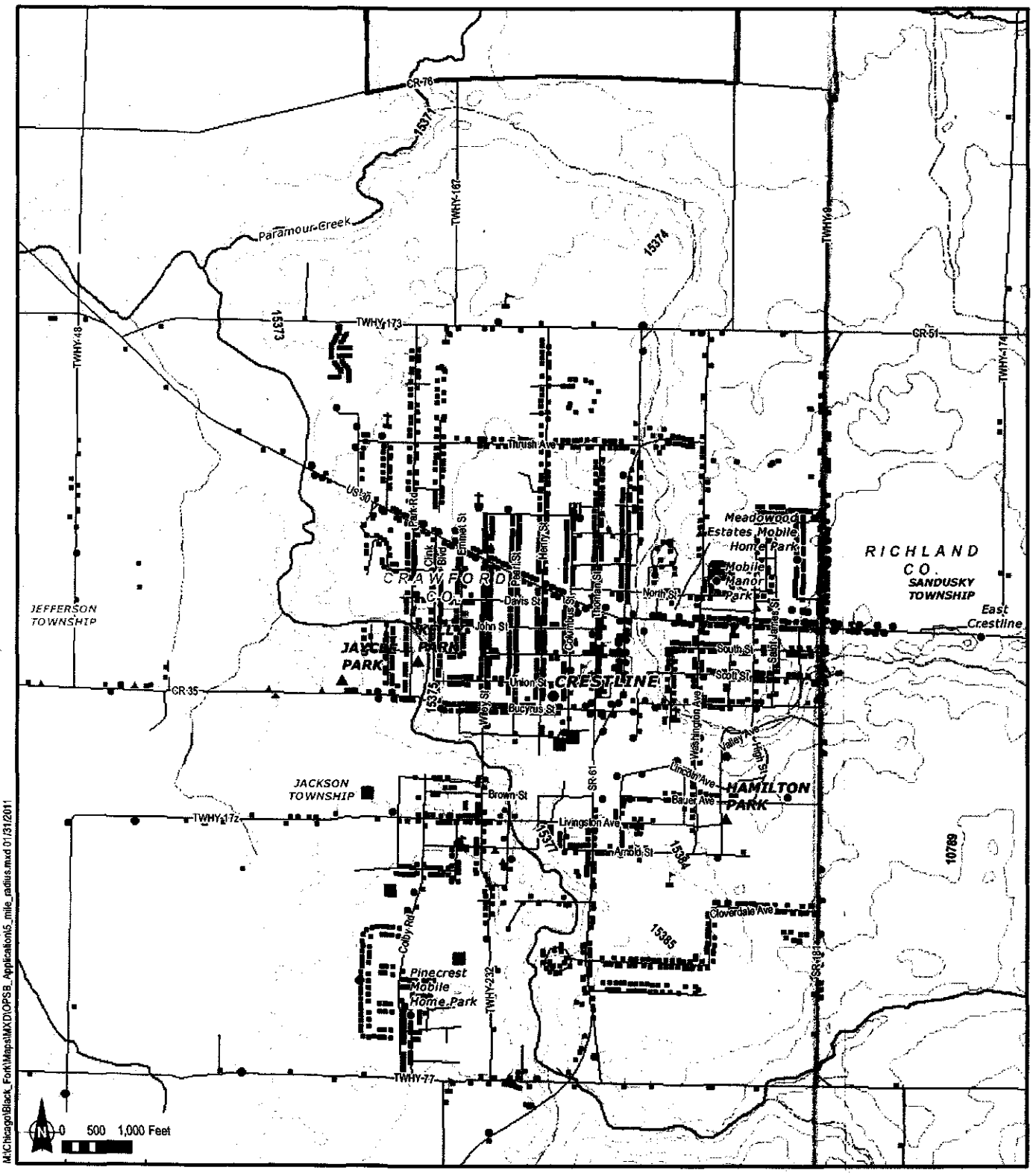
- Airport
- Places
- Parks
- Gas/Oil Well
- Project Area (01-03-11)
- 5 Mile Buffer Area
- County
- Township Boundary
- Water

- Road
- Contours (10-ft)
- Artificial Path
- Canal/Ditch
- Perennial Stream/River
- Intermittent

Figure 5-1
Black Fork Wind Energy, LLC Five-Mile Radius Map
Crawford and Richland Counties, Ohio
Map 36 of 45

Source: ESRI 2010; USGS NCLD 2001; USGS, 2008; USGS/EPA NHD 2008; OH DNR 2009; OGRIP, 2005-2008; EP 2011.

Black Fork Wind Energy, LLC - Five Mile Radius Map



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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)
- Collection Line (01-14-11)
- Access Roads (01-14-11)
- Substation (01-13-11)
- Switchyard (01-13-11)
- O&M Building (01-13-11)
- Laydown Yard & Batch Plant (01-13-11)

- Residential Location
- Secondary Structure
- Commercial
- Utility
- Other
- Industrial Building
- Church
- School
- Hospital

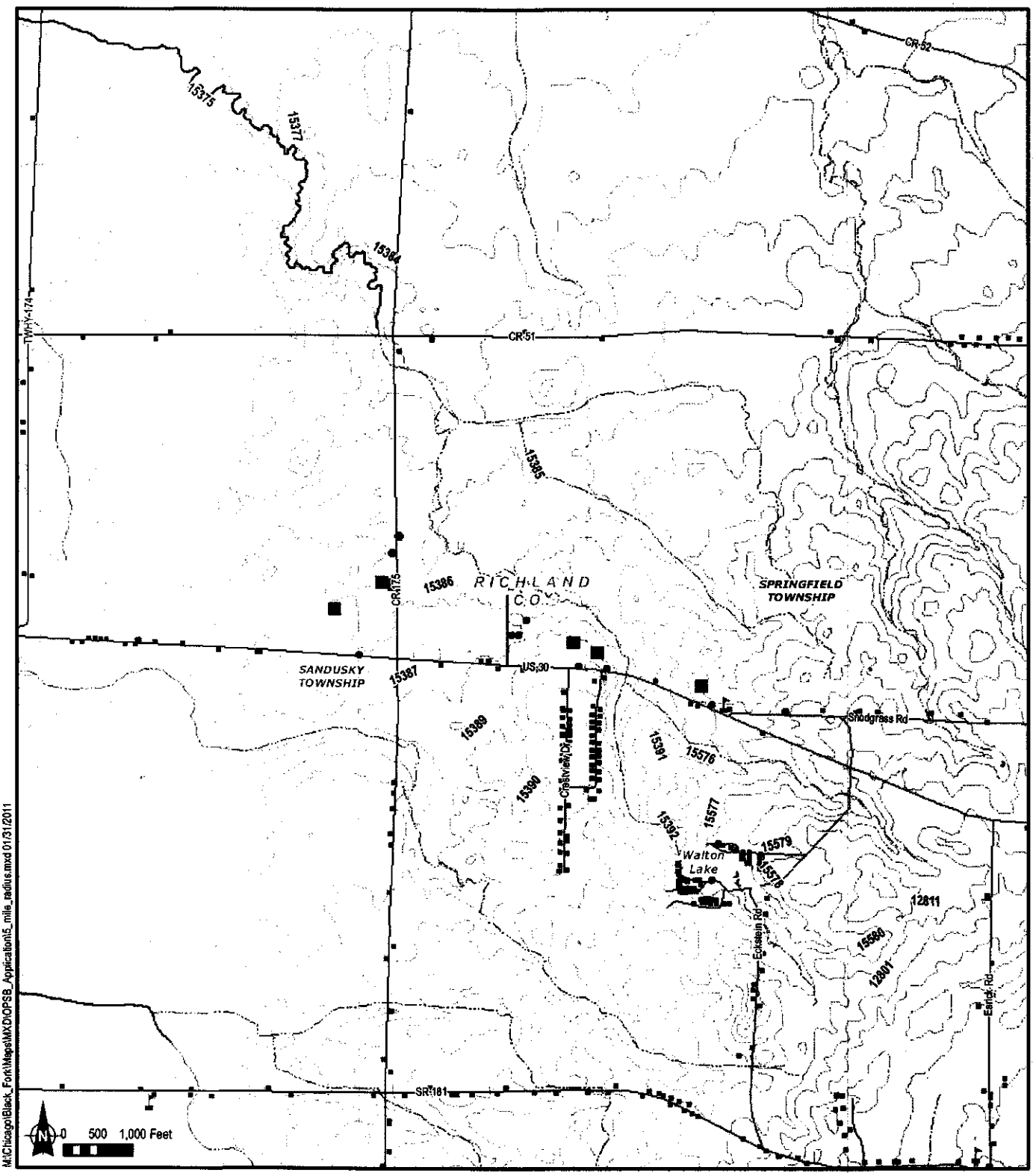
- Airport
- Places
- Parks
- Gas/Oil Well
- Project Area (01-03-11)
- 5 Mile Buffer Area
- County
- Township Boundary
- Water

- Road
- Contours (10-ft)
- Artificial Path
- Canal/Ditch
- Perennial Stream/River
- Intermittent

Figure 5-1
Black Fork Wind Energy, LLC Five-Mile Radius Map
Crawford and Richland Counties, Ohio
Map 37 of 45

Source: ESRI 2010; USGS NCLD 2001; USGS, 2008; USGS/EPA NHD 2008; OH DNR 2009; OGRIP, 2005-2008; EP 2011.

Fork Wind Energy, LLC - Five Mile Radius Map



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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)
- Collection Line (01-14-11)
- Access Roads (01-14-11)
- Substation (01-13-11)
- Switchyard (01-13-11)
- O&M Building (01-13-11)
- Laydown Yard & Batch Plant (01-13-11)

- Residential Location
- Secondary Structure
- Commercial
- Utility
- Other
- Industrial Building
- Church
- School
- Hospital

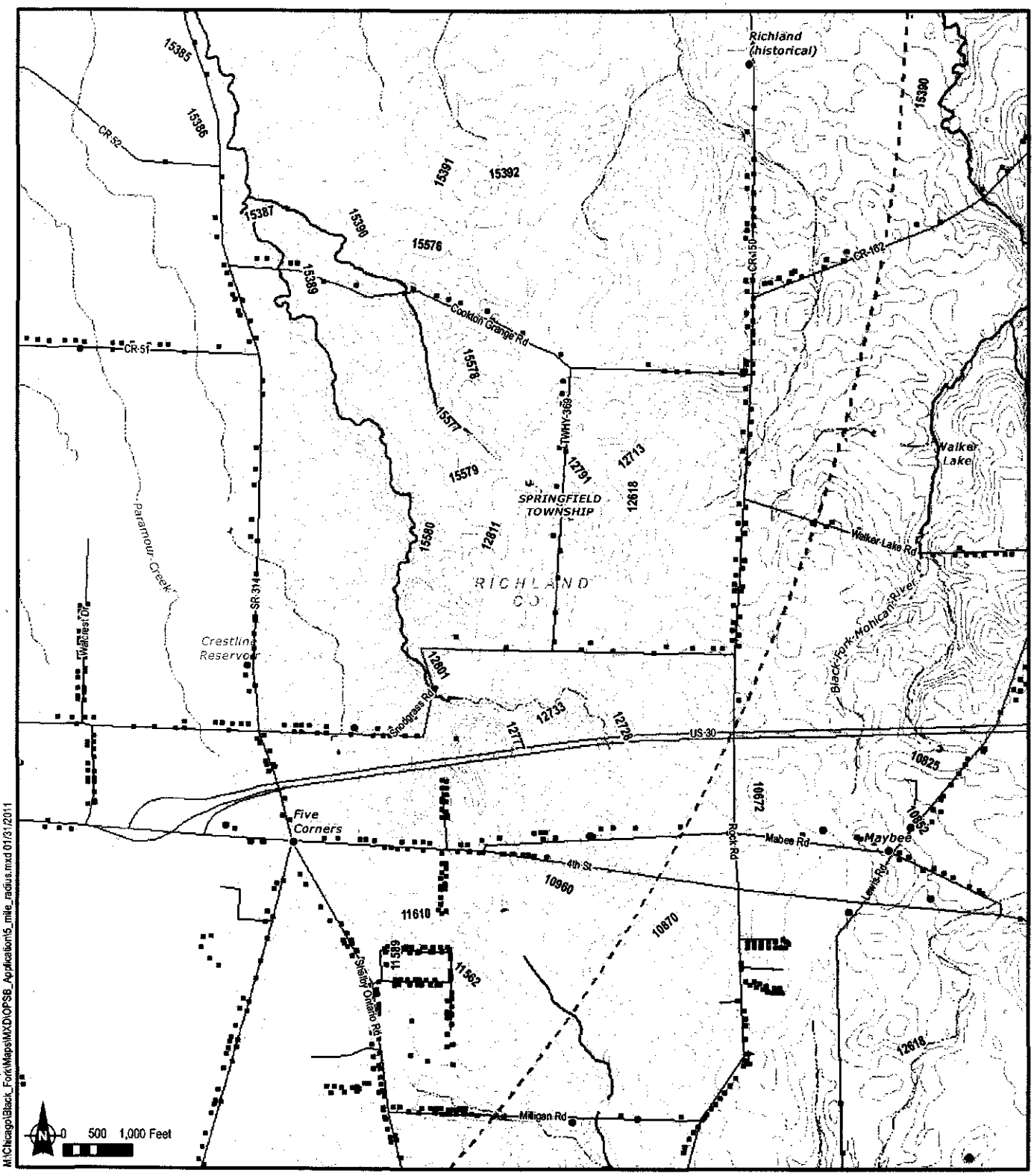
- Airport
- Places
- Parks
- Gas/Oil Well
- Project Area (01-03-11)
- 5 Mile Buffer Area
- County
- Township Boundary
- Water

- Road
- Contours (10-ft)
- Artificial Path
- Canal/Ditch
- Perennial Stream/River
- Intermittent

Figure 5-1
Black Fork Wind Energy, LLC Five-Mile Radius Map
Crawford and Richland Counties, Ohio
Map 38 of 45

Source: ESRI 2010; USGS NCLD 2001; USGS, 2008; USGS/EPA NHD 2008; OH DNR 2009; OGRIP, 2005-2008; EP 2011.

Black Fork Wind Energy, LLC - Five Mile Radius Map



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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)
- Collection Line (01-14-11)
- Access Roads (01-14-11)
- Substation (01-13-11)
- Switchyard (01-13-11)
- O&M Building (01-13-11)
- Laydown Yard & Batch Plant (01-13-11)

- Residential Location
- Secondary Structure
- Commercial
- Utility
- Other
- Industrial Building
- Church
- School
- Hospital

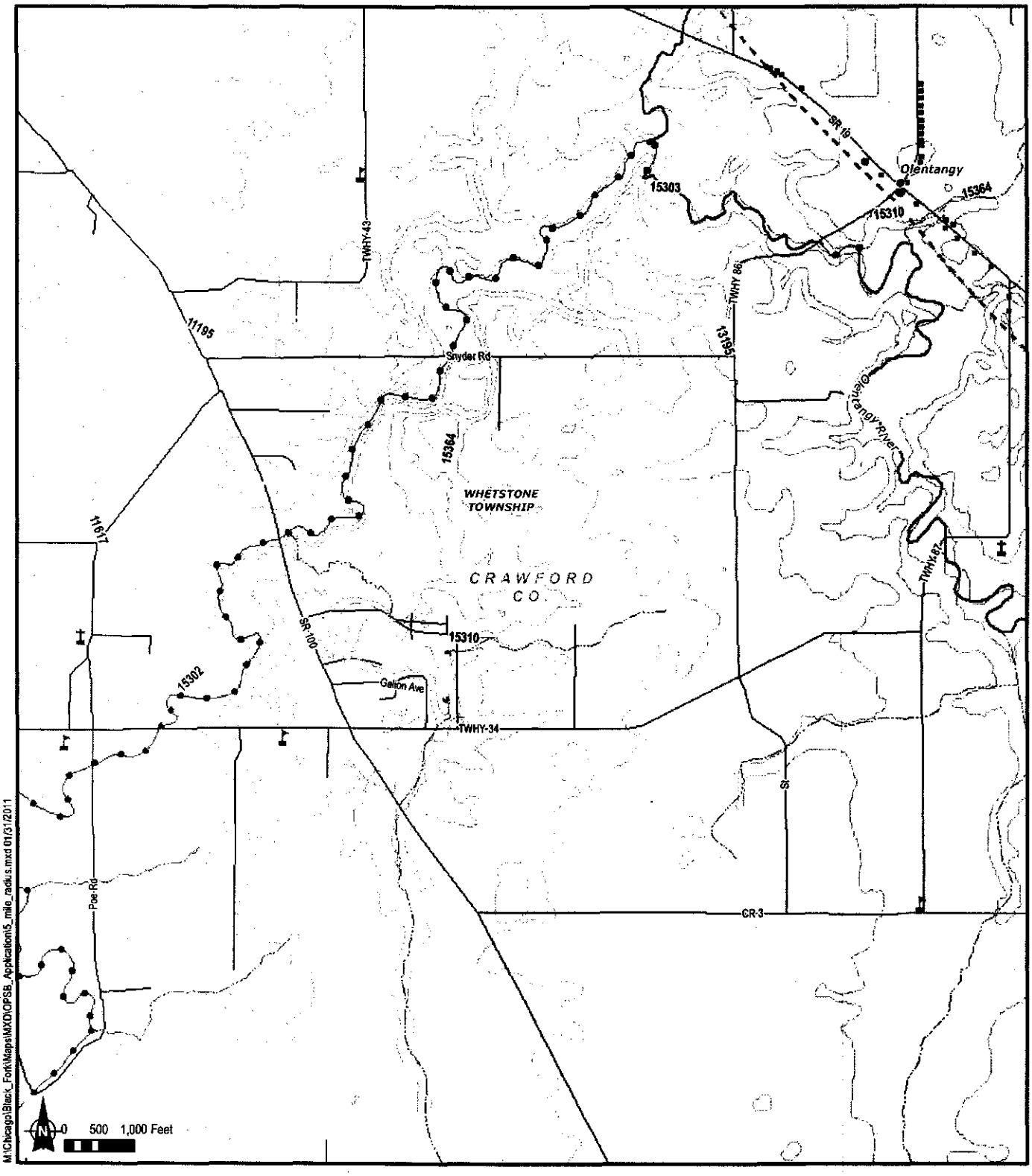
- Airport
- Places
- Parks
- Gas/Oil Well
- Project Area (01-03-11)
- 5 Mile Buffer Area
- County
- Township Boundary
- Water

- Road
- Contours (10-ft)
- Artificial Path
- Canal/Ditch
- Perennial Stream/River
- Intermittent

Figure 5-1
Black Fork Wind Energy, LLC Five-Mile Radius Map
Crawford and Richland Counties, Ohio
Map 39 of 45

Source: ESRI 2010; USGS NCLD 2001; USGS, 2008; USGS/EPA NHD 2008; OH DNR 2009; OGRIP, 2005-2008; EP 2011.

Black Fork Wind Energy, LLC - Five Mile Radius Map



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Turbines (01-14-11)
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- School
- Hospital

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- Parks
- Gas/Oil Well
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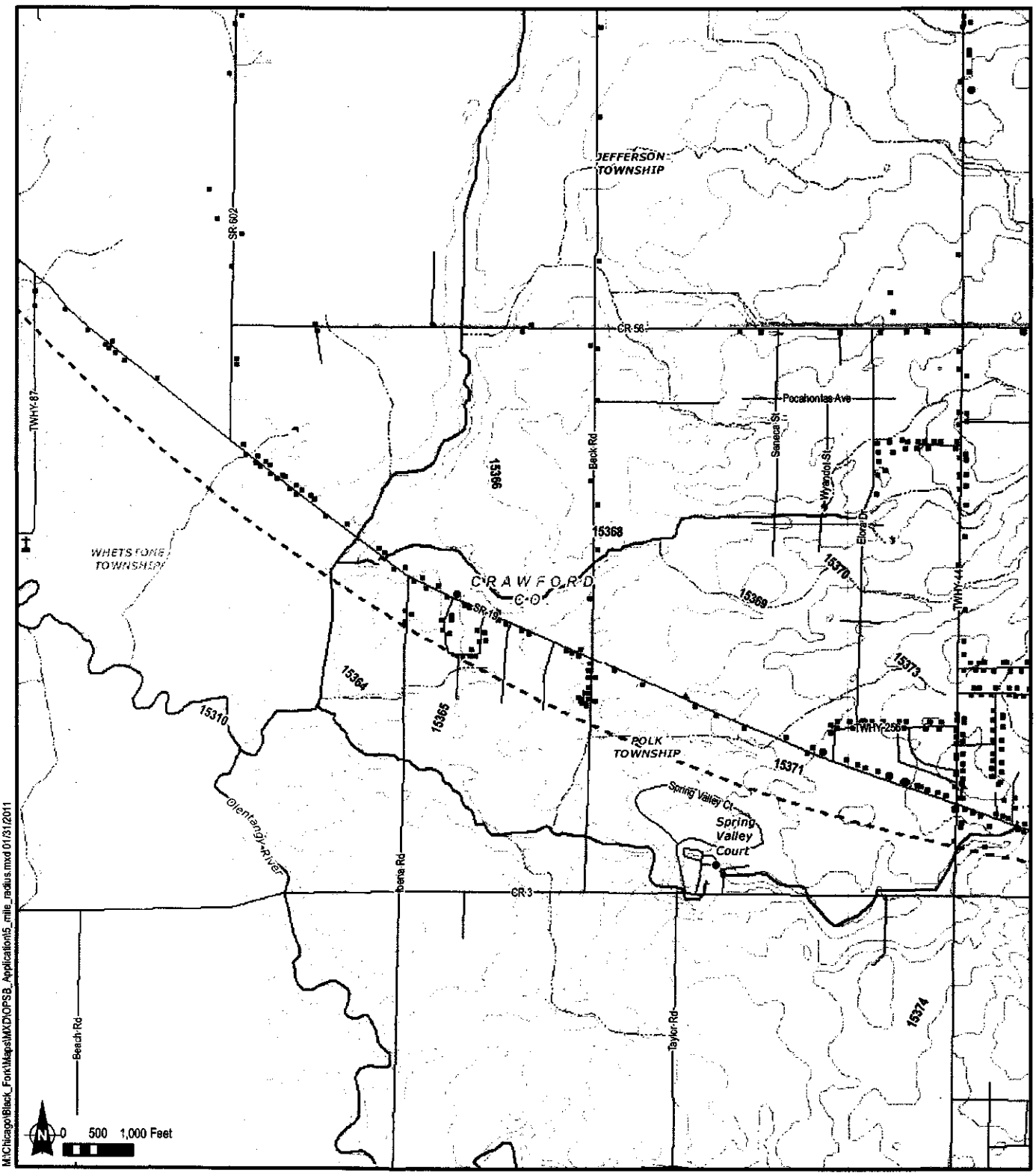
- County
- Township Boundary
- Water

- Road
- Contours (10-ft)
- Artificial Path
- Canal/Ditch
- Perennial Stream/River
- Intermittent

Figure 5-1
Black Fork Wind Energy, LLC Five-Mile Radius Map
Crawford and Richland Counties, Ohio
Map 40 of 45

Source: ESRI 2010; USGS NCLD 2001; USGS, 2008; USGS/EPA NHD 2008; OH DNR 2009; OGRIP, 2005-2008; EP 2011.

Black Fork Wind Energy, LLC - Five Mile Radius Map



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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)
- Collection Line (01-14-11)
- Access Roads (01-14-11)
- Substation (01-13-11)
- Switchyard (01-13-11)
- O&M Building (01-13-11)
- Laydown Yard & Batch Plant (01-13-11)

- Residential Location
- Secondary Structure
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- Utility
- Other
- Industrial Building
- Church
- School
- Hospital

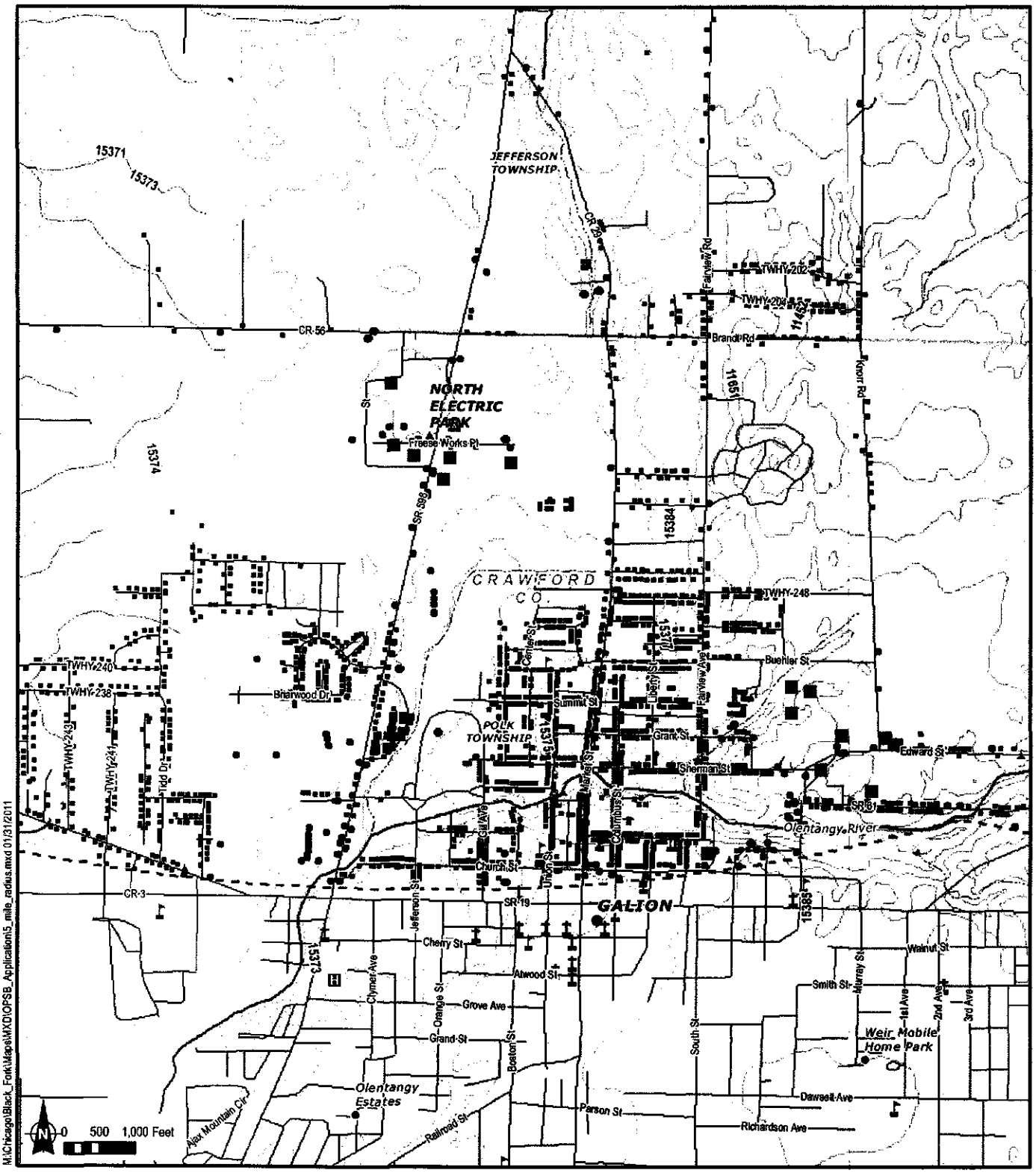
- Airport
- Places
- Parks
- Gas/Oil Well
- Project Area (01-03-11)
- 5 Mile Buffer Area
- County
- Township Boundary
- Water

- Road
- Contours (10-ft)
- Artificial Path
- Canal/Ditch
- Perennial Stream/River
- Intermittent

Figure 5-1
Black Fork Wind Energy, LLC Five-Mile Radius Map
Crawford and Richland Counties, Ohio
Map 41 of 45

Source: ESRI 2010; USGS NCLD 2001; USGS, 2008; USGS/EPA NHD 2008; OH DNR 2009; OGRIP, 2005-2008; EP 2011.

Black Fork Wind Energy, LLC - Five-Mile Radius Map



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Turbines (01-14-11)
Vestas V100
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- O&M Building (01-13-11)
- Laydown Yard & Batch Plant (01-13-11)

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- Other
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- Church
- School
- Hospital

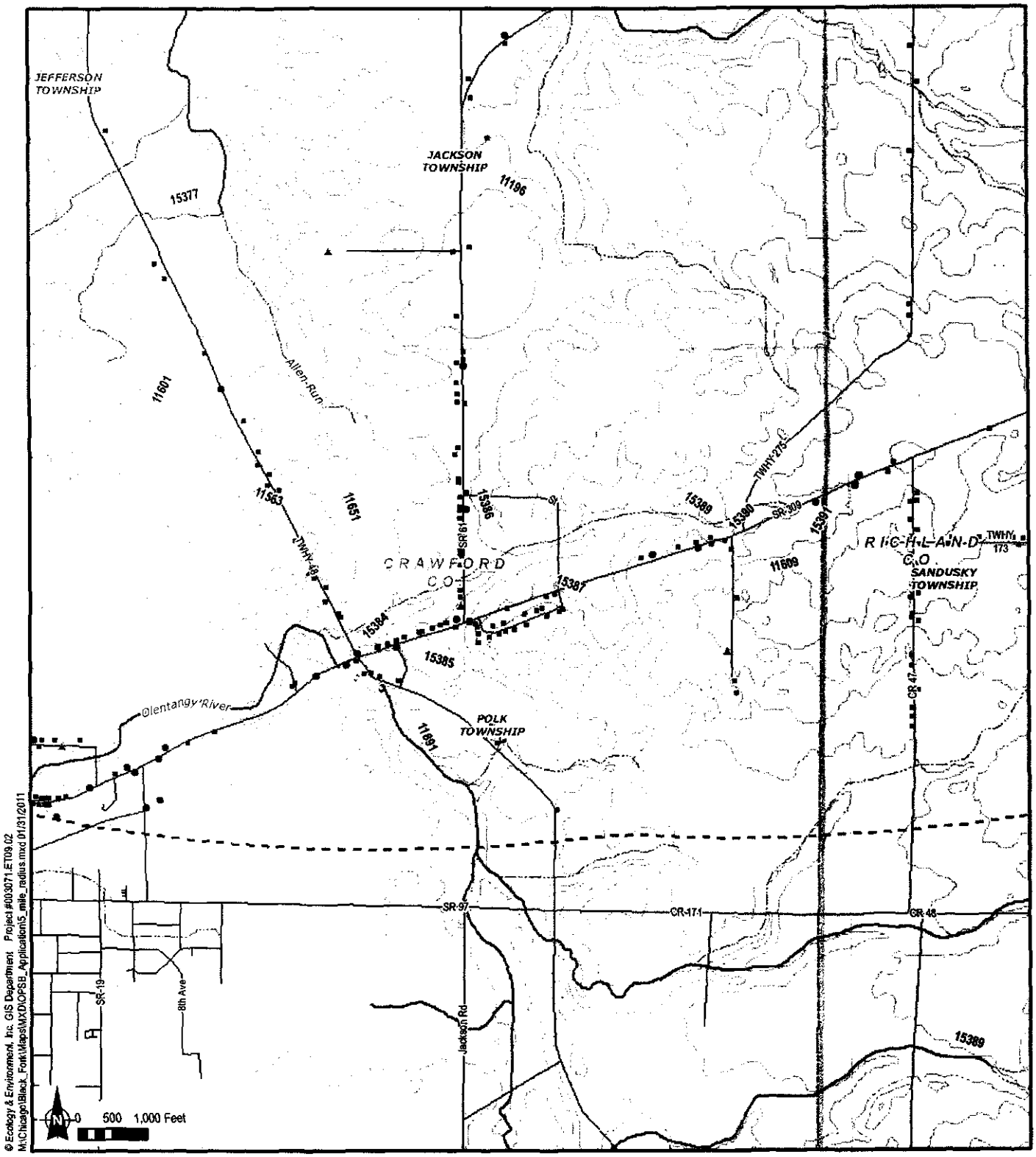
- Airport
- Places
- Parks
- Gas/Oil Well
- Project Area (01-03-11)
- 5 Mile Buffer Area
- County
- Township Boundary
- Water

- Road
- Contours (10-ft)
- Artificial Path
- Canal/Ditch
- Perennial Stream/River
- Intermittent

Figure 5-1
Black Fork Wind Energy, LLC Five-Mile Radius Map
Crawford and Richland Counties, Ohio
Map 42 of 45

Source: ESRI 2010; USGS NCLD 2001; USGS, 2008; USGS/EPA NHD 2008; OH DNR 2009; OGRIP, 2005-2008; EP 2011.

Black Fork Wind Energy, LLC - Five Mile Radius Map



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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)
- Collection Line (01-14-11)
- Access Roads (01-14-11)
- Substation (01-13-11)
- Switchyard (01-13-11)
- O&M Building (01-13-11)
- Laydown Yard & Batch Plant (01-13-11)

- Residential Location
- Secondary Structure
- Commercial
- Utility
- Other
- Industrial Building
- Church
- School
- Hospital

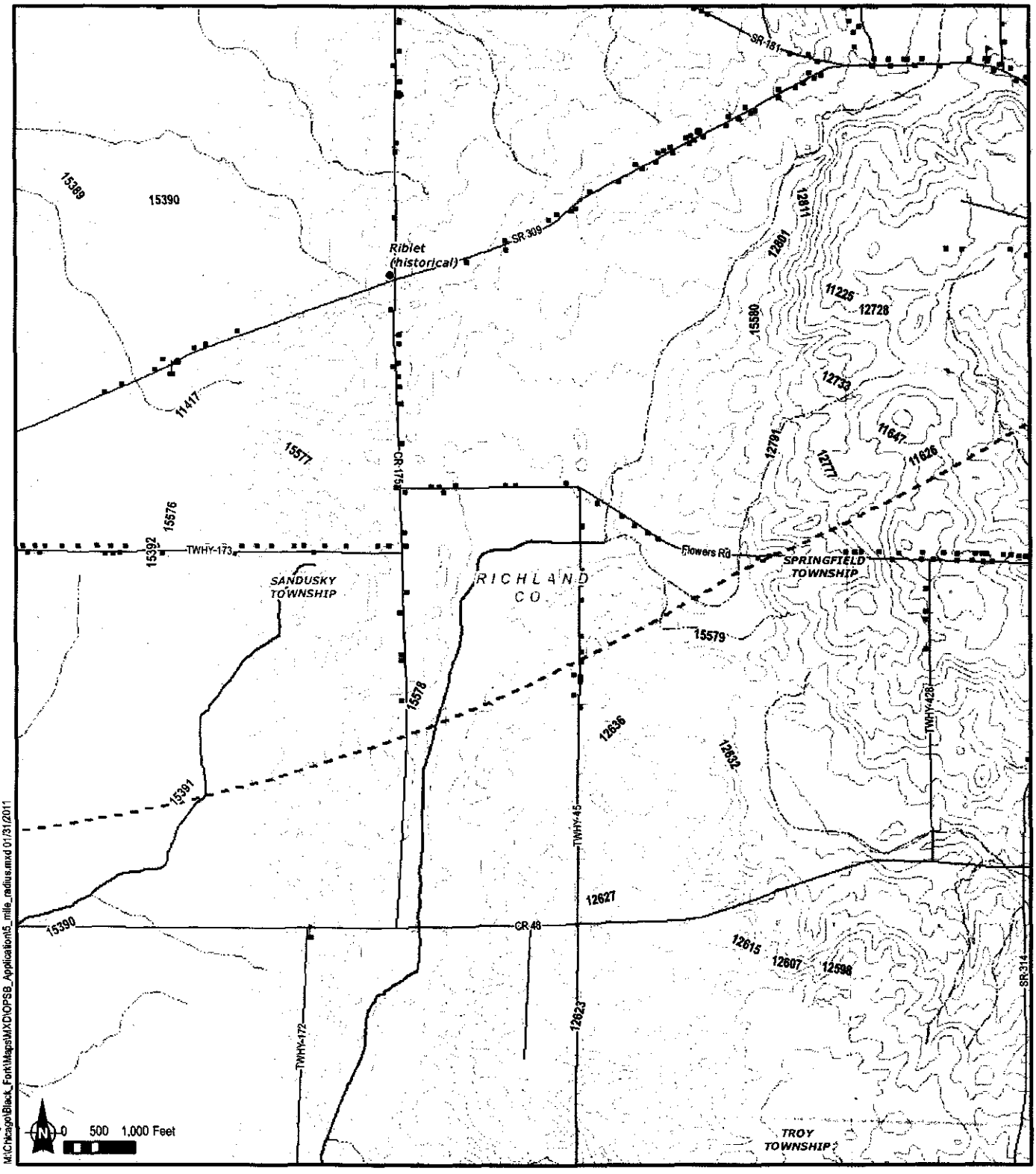
- Airport
- Places
- Parks
- Gas/Oil Well
- Project Area (01-03-11)
- 5 Mile Buffer Area
- County
- Township Boundary
- Water

- Road
- Contours (10-ft)
- Artificial Path
- Canal/Ditch
- Perennial Stream/River
- Intermittent

Figure 5-1
Black Fork Wind Energy, LLC Five-Mile Radius Map
Crawford and Richland Counties, Ohio
Map 43 of 45

Source: ESRI 2010; USGS NCLD 2001; USGS, 2006; USGS/EPA NHD 2006; OH DNR 2009; OGRIP, 2005-2008; EP 2011.

Black Fork Wind Energy, LLC - Five Mile Radius Map



Turbines (01-14-11)
Vestas V100
V100 w/ 80 m Hub (130m tip height)
V100 w/ 95 m Hub (145m tip height)
Collection Line (01-14-11)
Access Roads (01-14-11)
Substation (01-13-11)
Switchyard (01-13-11)
O&M Building (01-13-11)
Laydown Yard & Batch Plant (01-13-11)

Residential Location
Secondary Structure
Commercial
Utility
Other
Industrial Building
Church
School
Hospital

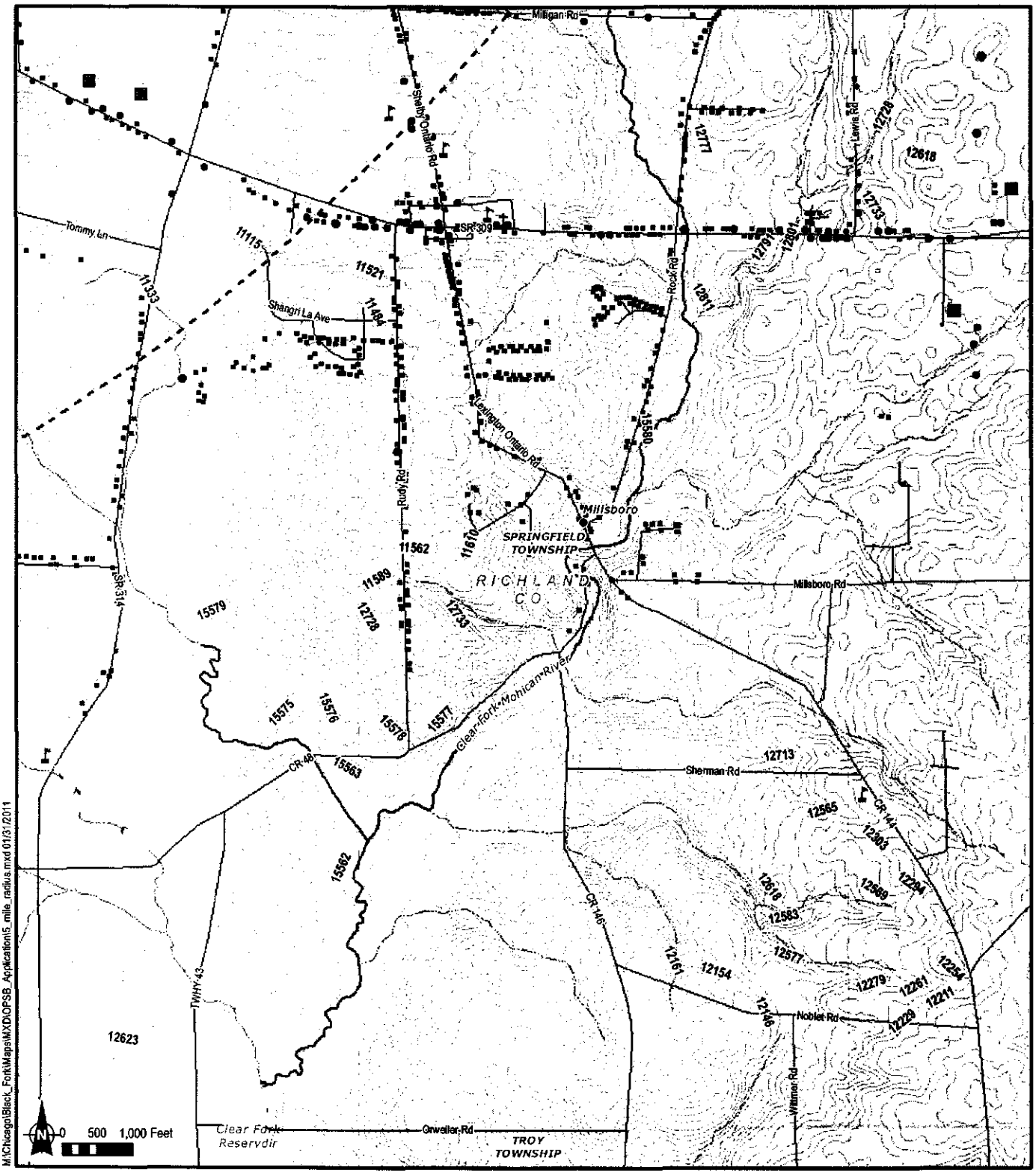
Airport
Places
Parks
Gas/Oil Well
Project Area (01-03-11)
5 Mile Buffer Area
County
Township Boundary
Water

Road
Contours (10-ft)
Artificial Path
Canal/Ditch
Perennial Stream/River
Intermittent

Figure 5-1
Black Fork Wind Energy, LLC Five-Mile Radius Map
Crawford and Richland Counties, Ohio
Map 44 of 45

Source: ESRI 2010; USGS NCLD 2001; USGS, 2008; USGS/EPA NHD 2008; OH DNR 2009; OGRIP, 2005-2008; EP 2011.

Black Fork Wind Energy, LLC - Five Mile Radius Map



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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)
- Collection Line (01-14-11)
- Access Roads (01-14-11)
- Substation (01-13-11)
- Switchyard (01-13-11)
- O&M Building (01-13-11)
- Laydown Yard & Batch Plant (01-13-11)

- Residential Location
- Secondary Structure
- Commercial
- Utility
- Other
- Industrial Building
- Church
- School
- Hospital

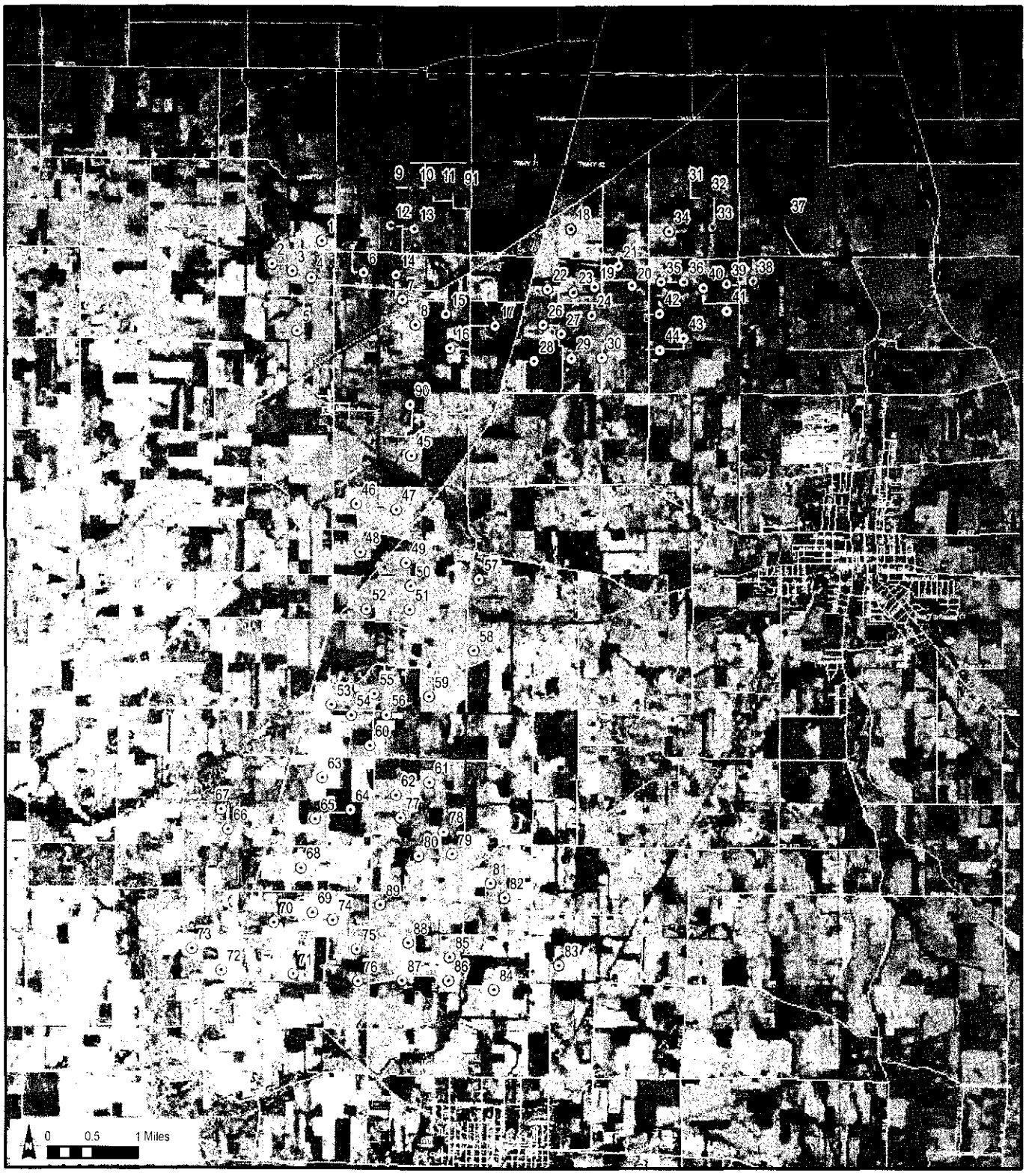
- Airport
- Places
- Parks
- Gas/Oil Well
- Project Area (01-03-11)
- 5 Mile Buffer Area
- County
- Township Boundary
- Water

- Road
- Contours (10-ft)
- Artificial Path
- Canal/Ditch
- Perennial Stream/River
- Intermittent

Figure 5-1
Black Fork Wind Energy, LLC Five-Mile Radius Map
Crawford and Richland Counties, Ohio
Map 45 of 45

Source: ESRI 2010; USGS NCLD 2001; USGS, 2008; USGS/EPA NHD 2008; OH DNR 2009; OGRIP, 2005-2008; EP 2011.

Black Fork Wind Energy, LLC One-Mile Radius Figure



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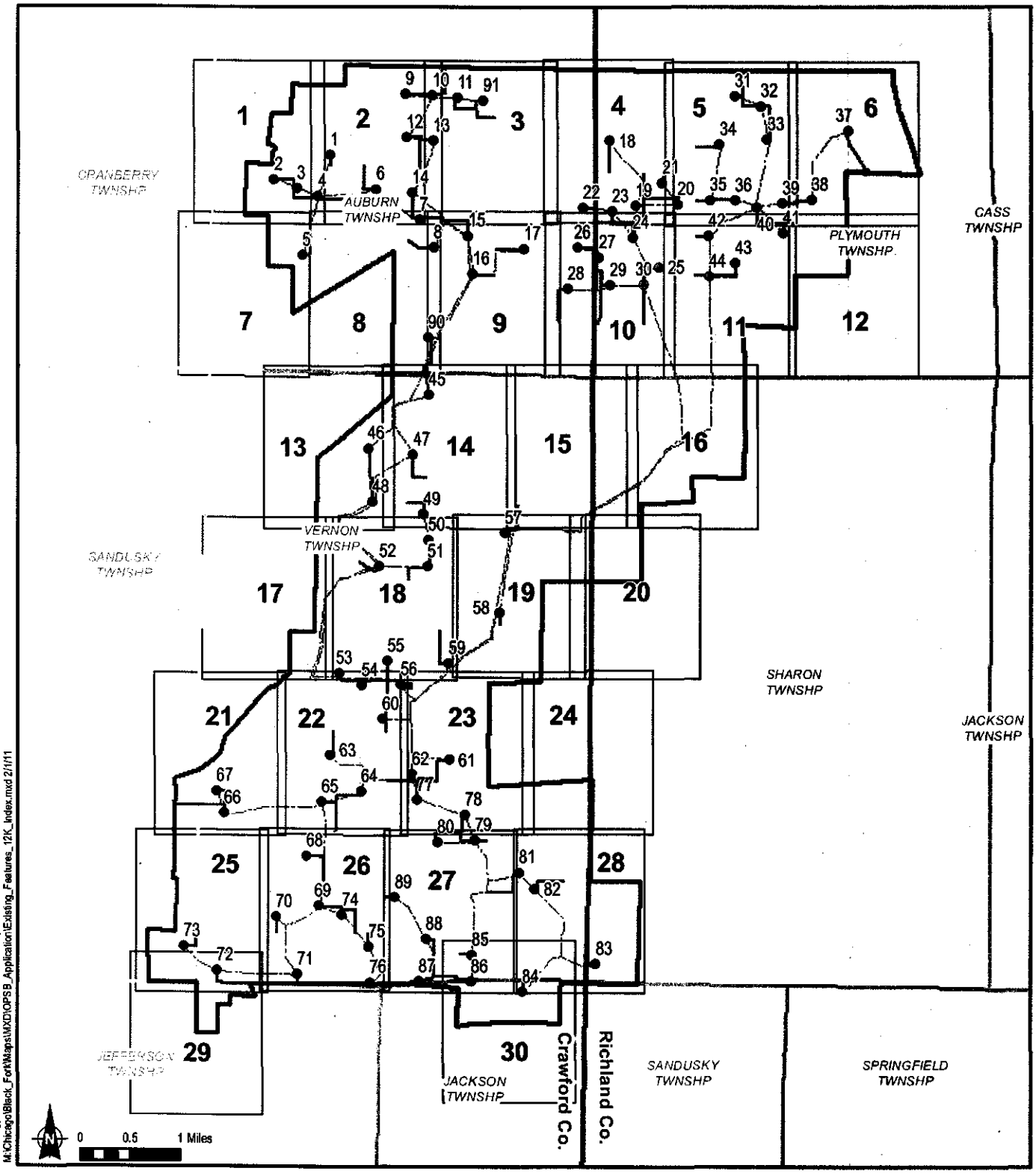
Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)

Access Roads (01-14-11)
Laydown Yard & Batch Plant (01-13-11)
O&M Building (01-13-11)
Switchyard (01-13-11)
Substation (01-13-11)
1 Mile Buffer of Project Area
Project Area (01-03-11)

Figure 5-2
Black Fork Wind Energy, LLC One-Mile Radius
Crawford and Richland Counties, Ohio

Source: ESRI 2010; OH DNR 2009; EP 2011.

Black Fork Wind Energy, LLC Project Area Geology and Topography
Index Map



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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)

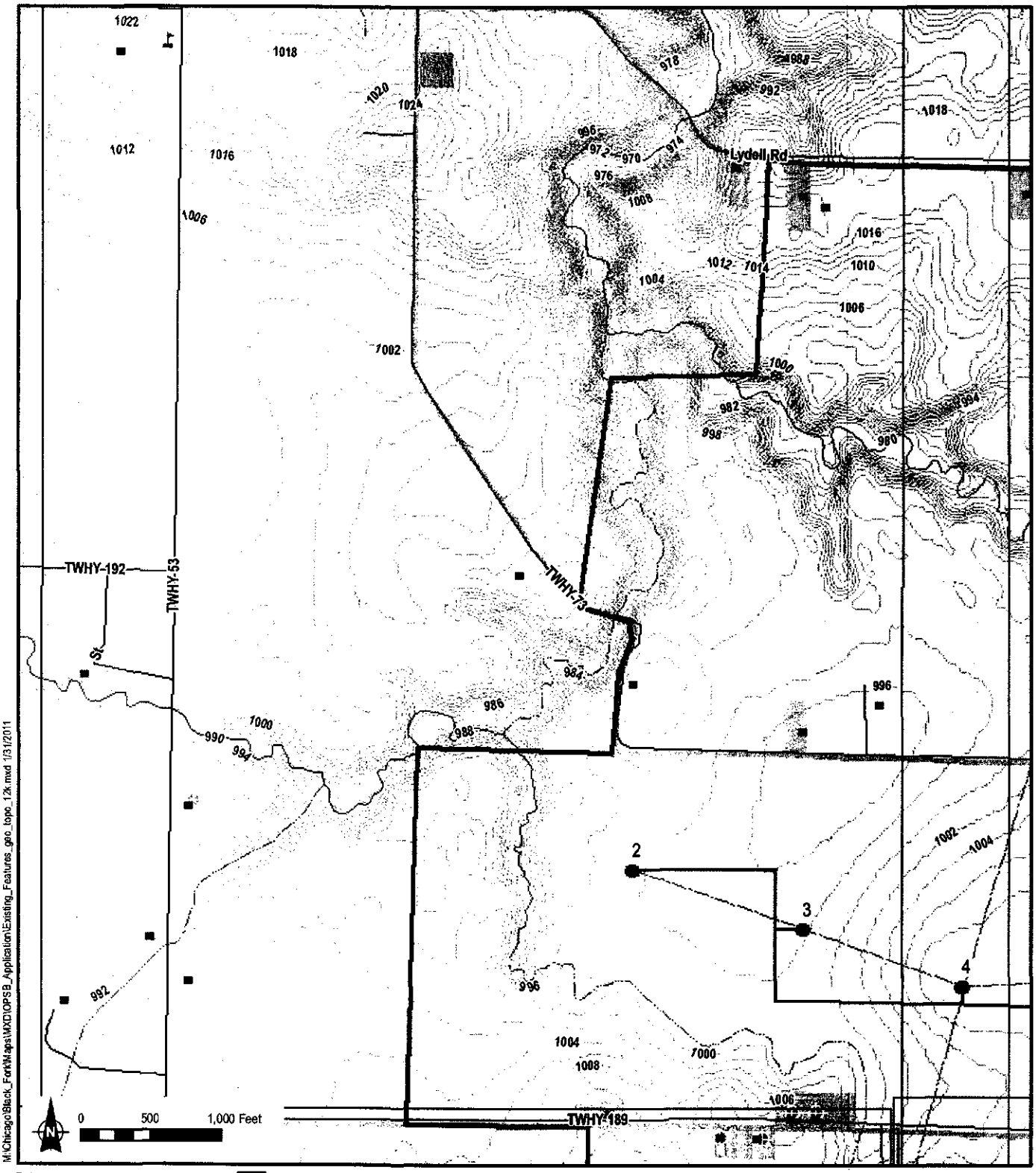
Collection Line (01-14-11)
Access Roads (01-14-11)

Project Area (01-03-11)
Substation (01-13-11)
Township boundary
County boundary

Figure 5-3
Black Fork Wind Energy, LLC
Project Area Geology and Topography
Index Map 1:12,000 Scale
Crawford and Richland Counties, OH

Source: ESRI 2010; EP 2011.

Black Fork Wind Energy, LLC Project Area Geology and Topography



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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)

Collection Line (01-14-11)
Access Roads (01-14-11)
Substation (01-13-11)
O&M Building (01-13-11)
Switchyard (01-13-11)
Laydown Yard & Batch Plant (01-13-11)

Project Area (01-03-11)
Residential Locations
Schools
Church
Hospital
Industrial Building
Water Well
Gas/Oil Well

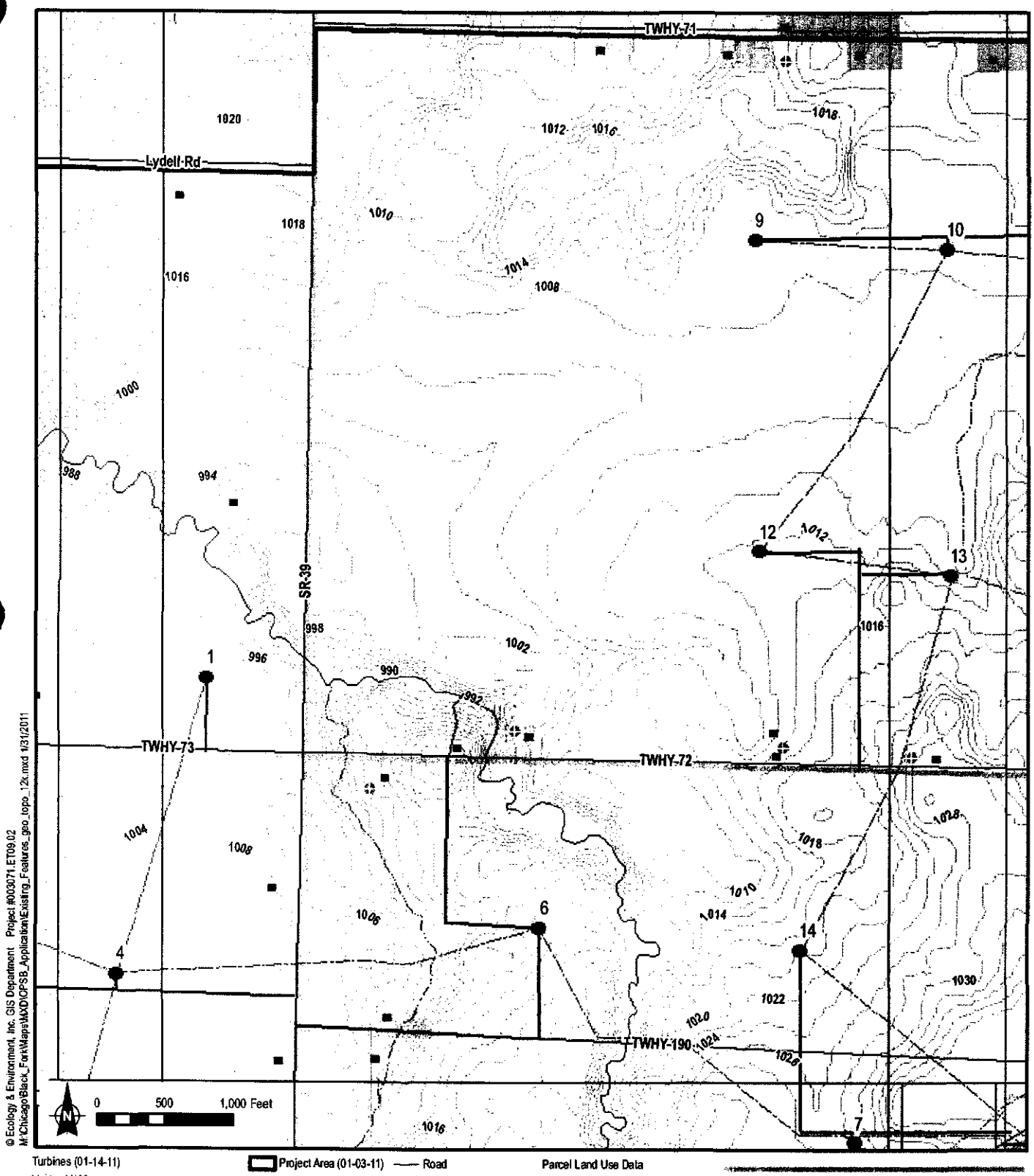
Road
Contours (2-ft)
Artificial Path
Canal/Ditch
Perennial Stream/River
Intermittent

Parcel Land Use Data
Agricultural
Commercial
Residential
Exempt
Industrial
Abatement
Mineral Rights
Public Utility
Transportation
Unknown

Figure 5-3
Black Fork Wind Energy, LLC
Project Area Geology and Topography
Crawford and Richland Counties, Ohio
Map 1 of 30

Source: ESRI 2010; NHD, 2008 USGS/EPA NHD 2008; OH DNR 2009; Crawford and Richland County Auditor, 2009; EP 2011.

Black Fork Wind Energy, LLC Project Area Geology and Topography



Turbines (01-14-11)
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Project Area (01-03-11)
Residential Locations
Schools
Church
Hospital
Industrial Building
Water Well
Gas/Oil Well

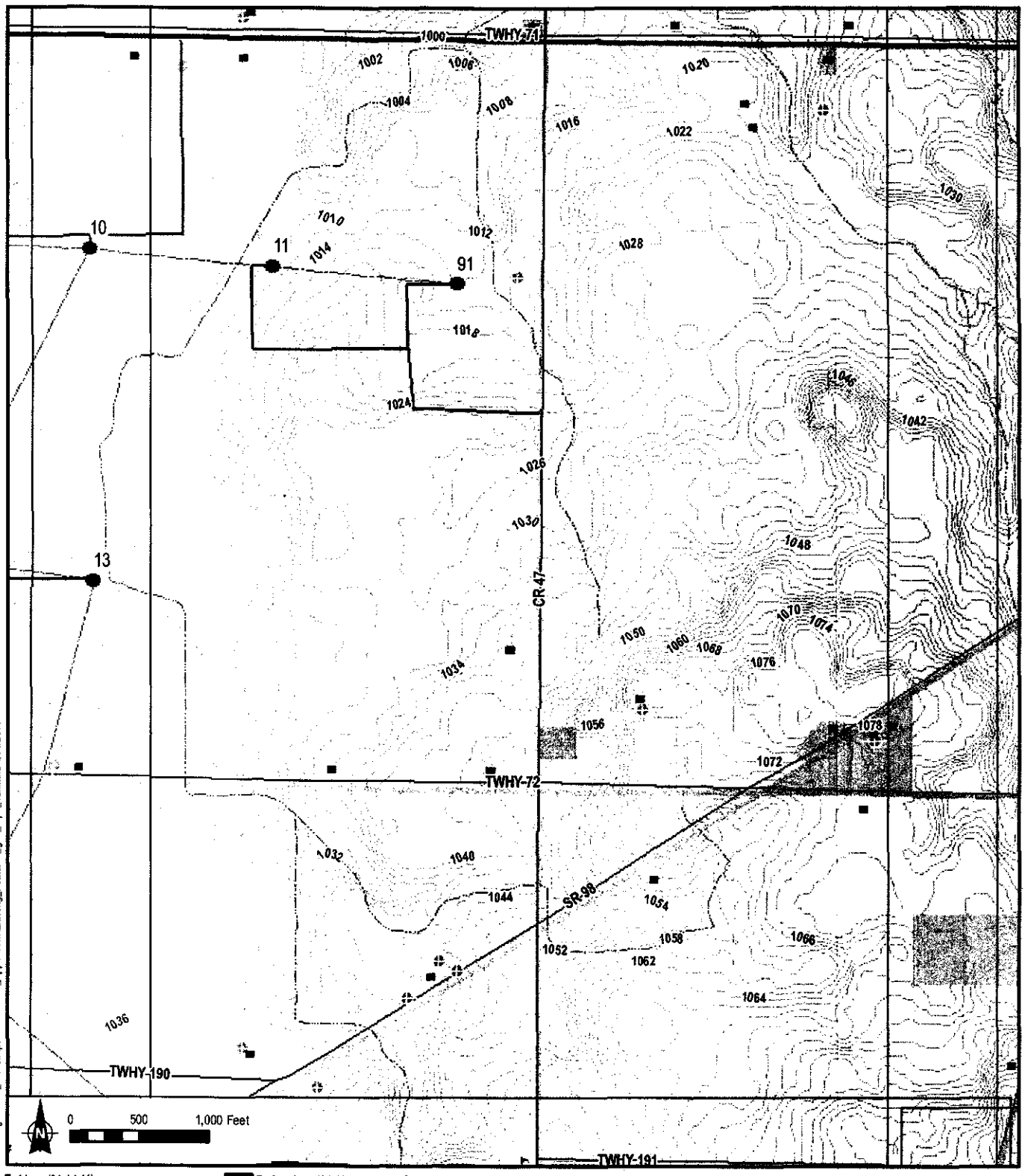
Road
Contours (2-ft)
Artificial Path
Canal/Ditch
Perennial Stream/River
Intermittent

Parcel Land Use Data
Agricultural
Commercial
Residential
Exempt
Industrial
Abatement
Mineral Rights
Public Utility
Transportation
Unknown

Figure 5-3
Black Fork Wind Energy, LLC
Project Area Geology and Topography
Crawford and Richland Counties, Ohio
Map 2 of 30

Source: ESRI 2010; NHD, 2008 USGS/EPA NHD 2008; OH DNR 2009; Crawford and Richland County Auditor, 2009; EP 2011.

Black Fork Wind Energy, LLC Project Area Geology and Topography



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Turbines (01-14-11)
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Collection Line (01-14-11)
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Project Area (01-03-11)
Residential Locations
Schools
Church
Hospital
Industrial Building
Water Well
Gas/Oil Well

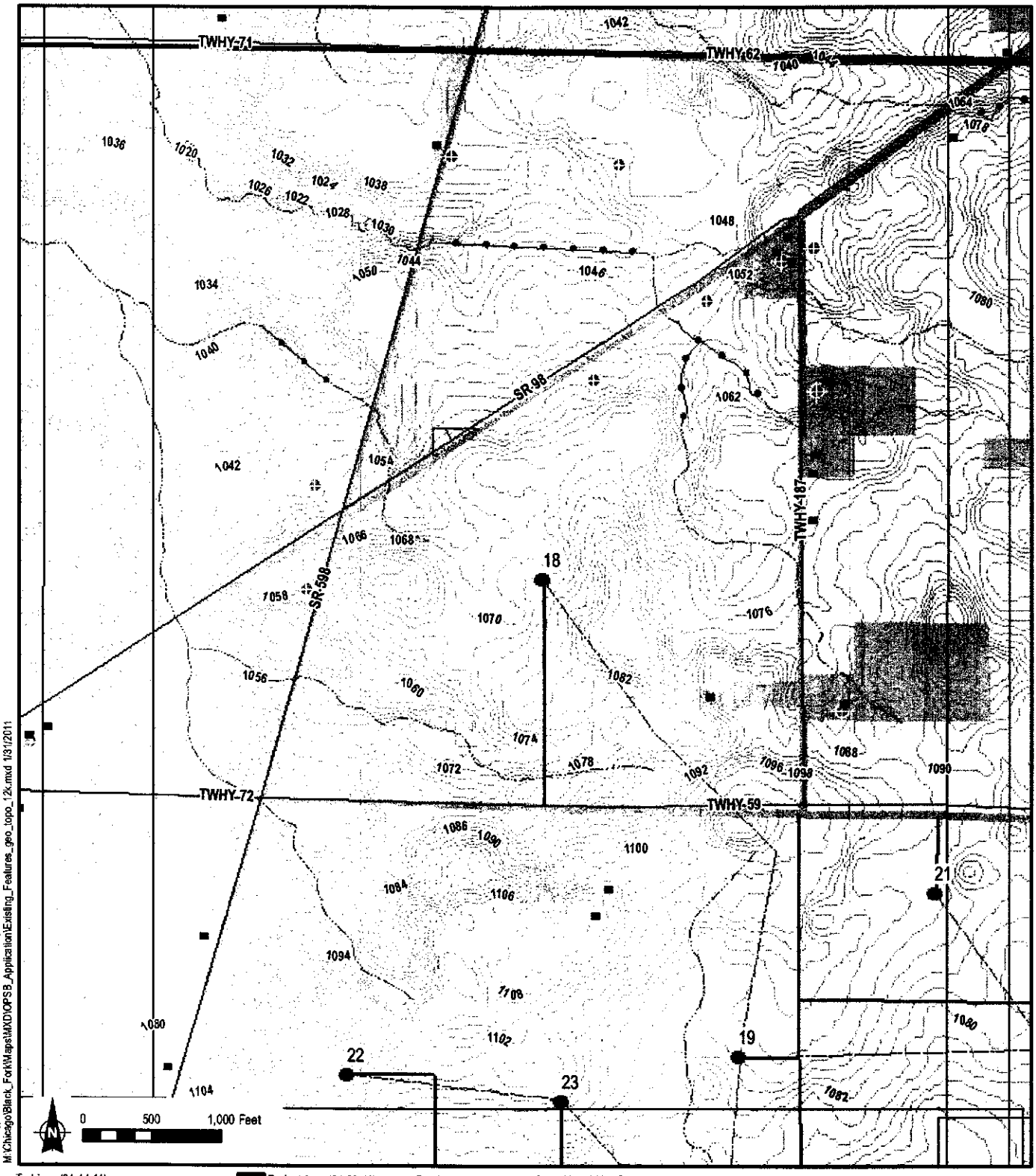
Road
Contours (2-ft)
Artificial Path
Canal/Ditch
Perennial Stream/River
Intermittent

Parcel Land Use Data
Agricultural
Commercial
Residential
Exempt
Industrial
Abatement
Mineral Rights
Public Utility
Transportation
Unknown

Figure 5-3
Black Fork Wind Energy, LLC
Project Area Geology and Topography
Crawford and Richland Counties, Ohio
Map 3 of 30

Source: ESRI 2010; NHD, 2008 USGS/EPA NHD 2008; OH DNR 2009; Crawford and Richland County Auditor, 2009; EP 2011.

Black Fork Wind Energy, LLC Project Area Geology and Topography



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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)
- Collection Line (01-14-11)
- Access Roads (01-14-11)
- Substation (01-13-11)
- O&M Building (01-13-11)
- Switchyard (01-13-11)
- Laydown Yard & Batch Plant (01-13-11)

- Project Area (01-03-11)
- Residential Locations
- Schools
- Church
- Hospital
- Industrial Building
- Water Well
- Gas/Oil Well

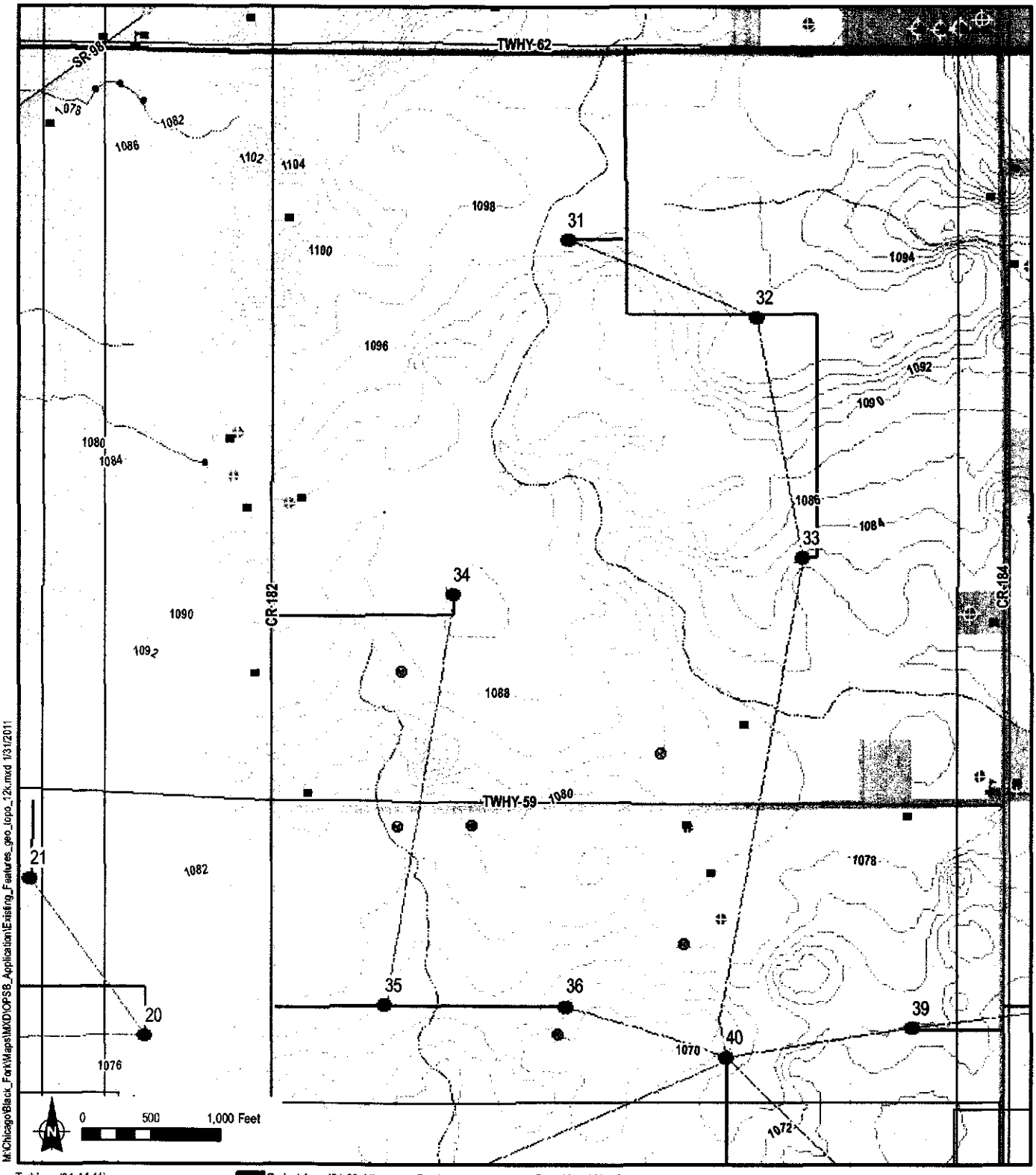
- Road
- Contours (2-ft)
- Artificial Path
- Canal/Ditch
- Perennial Stream/River
- Intermittent

Parcel Land Use Data
- Agricultural
- Commercial
- Residential
- Exempt
- Industrial
- Abatement
- Mineral Rights
- Public Utility
- Transportation
- Unknown

Figure 5-3
Black Fork Wind Energy, LLC
Project Area Geology and Topography
Crawford and Richland Counties, Ohio
Map 4 of 30

Source: ESRI 2010; NHD, 2008 USGS/EPA NHD 2008; OH DNR 2009; Crawford and Richland County Auditor, 2009; EP 2011.

Black Fork Wind Energy, LLC Project Area Geology and Topography



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Project Area (01-03-11)
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Schools
Church
Hospital
Industrial Building
Water Well
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Road
Contours (2-ft)
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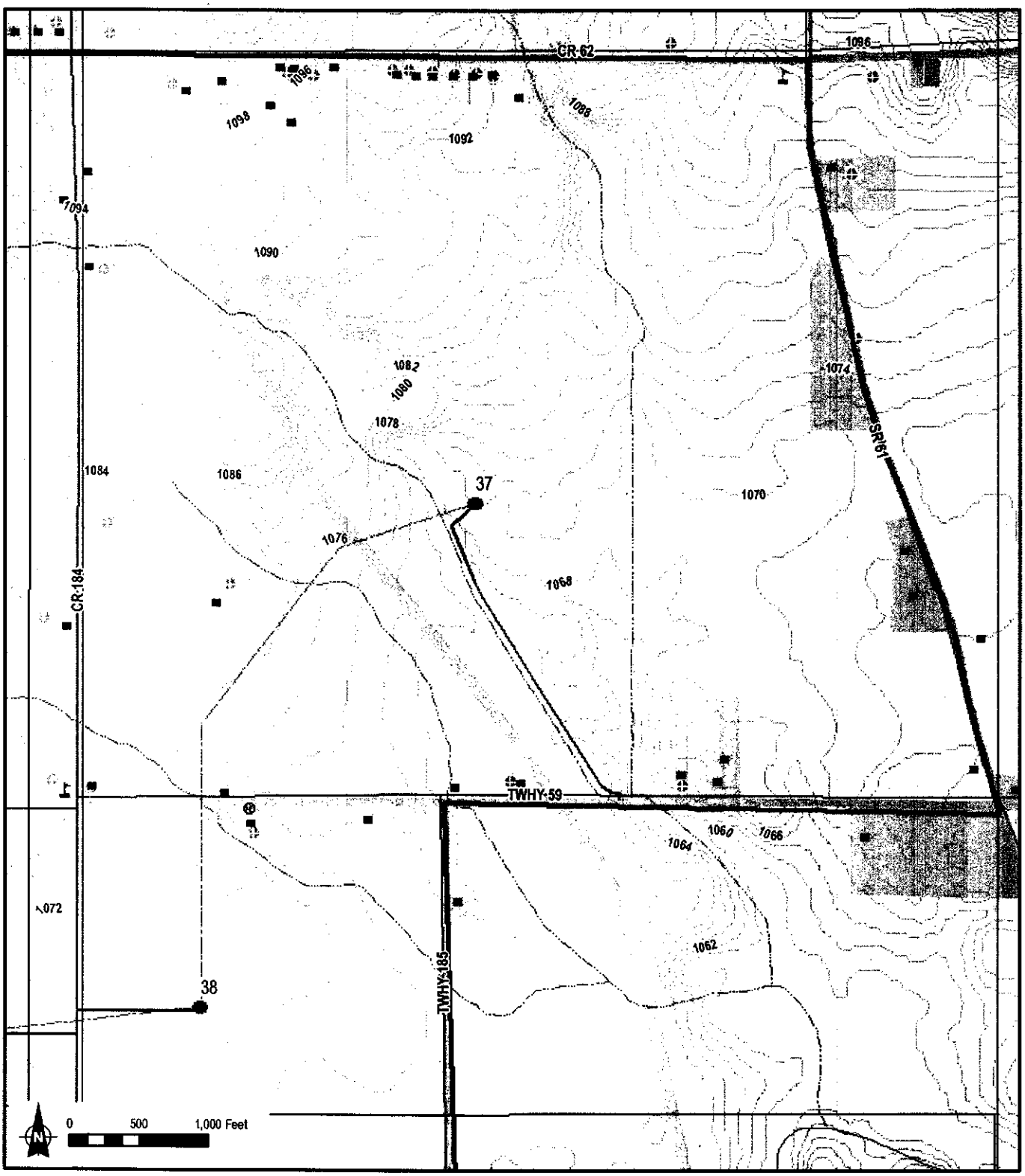
Intermittent

Parcel Land Use Data
Agricultural
Commercial
Residential
Exempt
Industrial
Abatement
Mineral Rights
Public Utility
Transportation
Unknown

Figure 5-3
Black Fork Wind Energy, LLC
Project Area Geology and Topography
Crawford and Richland Counties, Ohio
Map 5 of 30

Source: ESRI 2010; NHD, 2008 USGS/EPA NHD 2008; OH DNR 2009; Crawford and Richland County Auditor, 2009; EP 2011.

Wind Energy, LLC Project Area Geology and Topography



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Turbines (01-14-11)
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Water Well
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Road
Contours (2-ft)
Artificial Path
Canal/Ditch
Perennial Stream/River
Intermittent

Parcel Land Use Data
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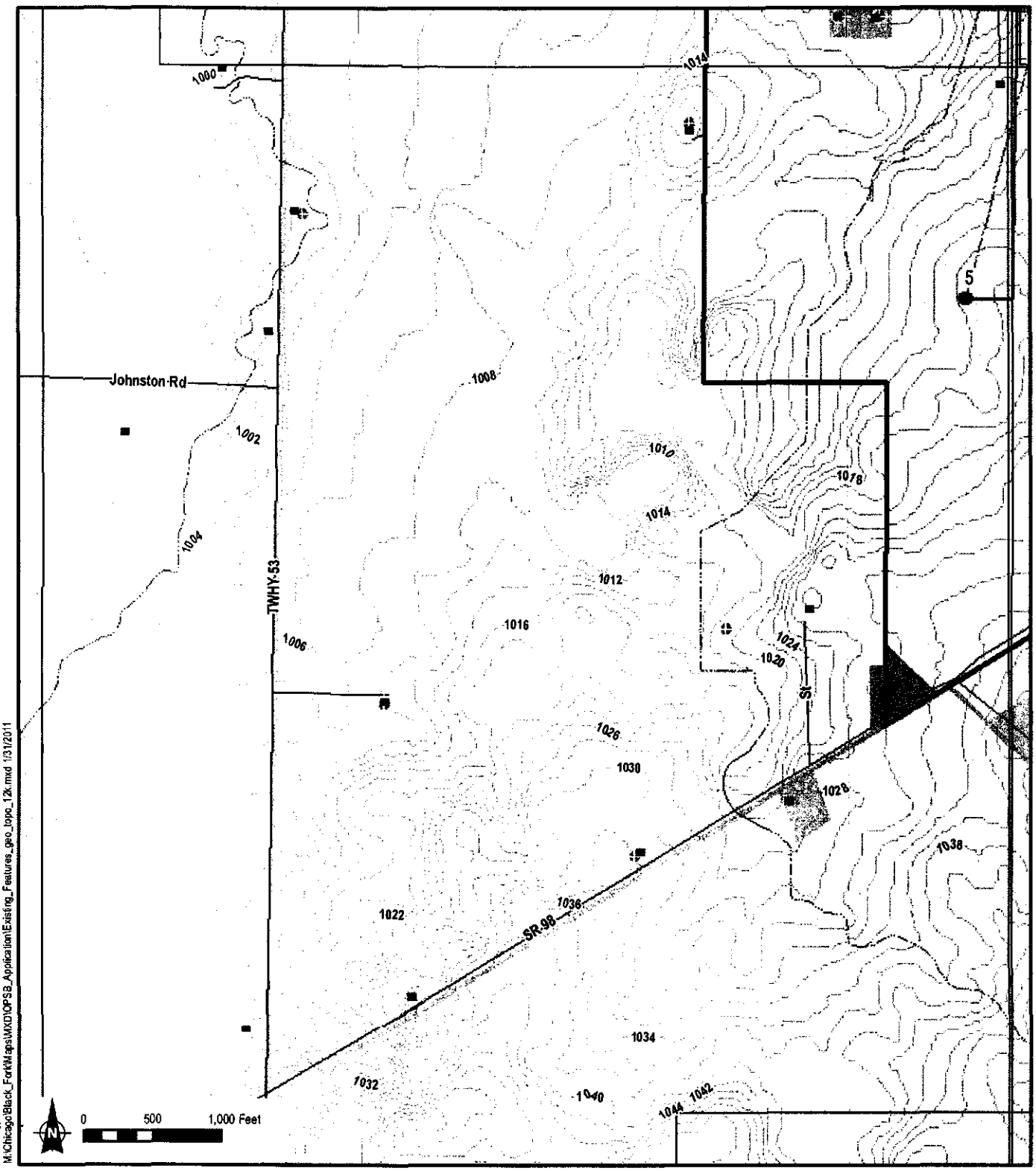
- Abatement
- Mineral Rights
- Public Utility
- Transportation
- Unknown

Figure 5-3
Black Fork Wind Energy, LLC
Project Area Geology and Topography
Crawford and Richland Counties, Ohio
Map 6 of 30

Source: ESRI 2010; NHD, 2008 USGS/EPA NHD 2008; OH DNR 2009; Crawford and Richland County Auditor, 2009; EP 2011.

Black Fork Wind Energy, LLC Project Area Geology and Topography



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- Mineral Rights
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Figure 5-3
Black Fork Wind Energy, LLC
Project Area Geology and Topography
Crawford and Richland Counties, Ohio
Map 7 of 30

Source: ESRI 2010; NHD, 2008 USGS/EPA NHD 2008; OH DNR 2009; Crawford and Richland County Auditor, 2009; EP 2011.

Wind Energy, LLC Project Area Geology and Topography

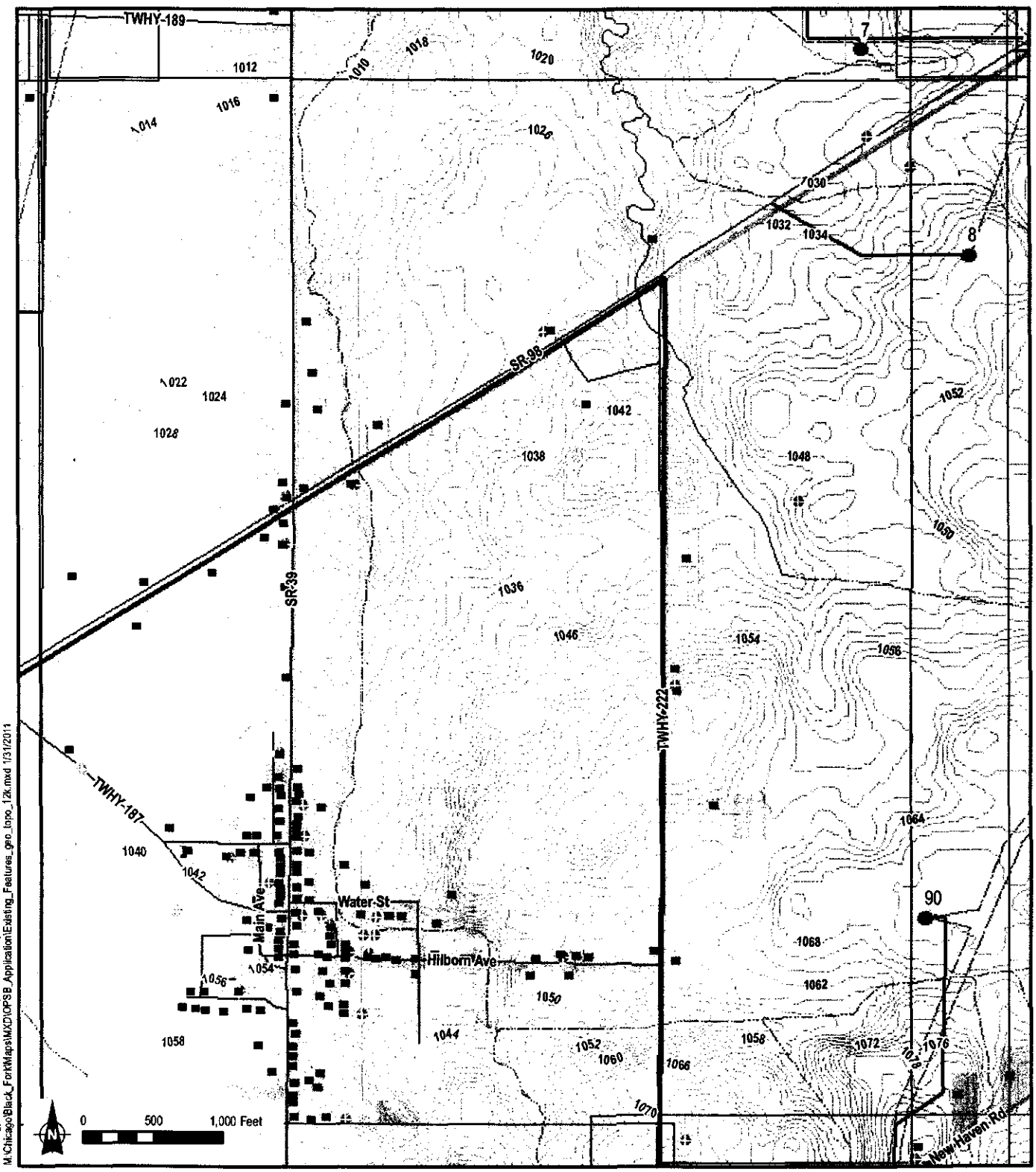

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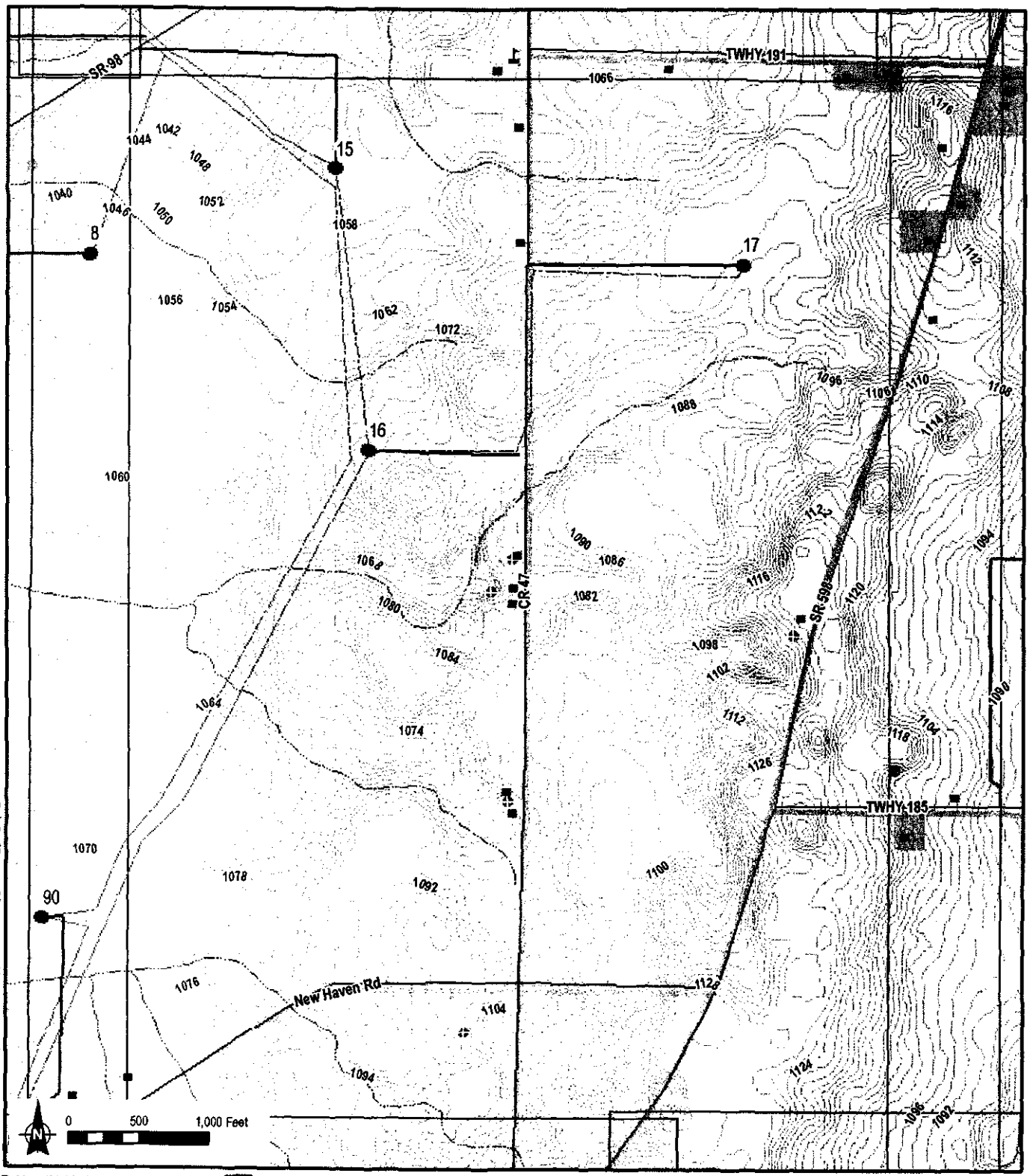
Figure 5-3
Black Fork Wind Energy, LLC
Project Area Geology and Topography
Crawford and Richland Counties, Ohio
Map 8 of 30

Source: ESRI 2010; NHD, 2008 USGS/EPA NHD 2008; OH DNR 2009; Crawford and Richland County Auditor, 2009; EP 2011.

Black Fork Wind Energy, LLC Project Area Geology and Topography



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- Mineral Rights
- Public Utility
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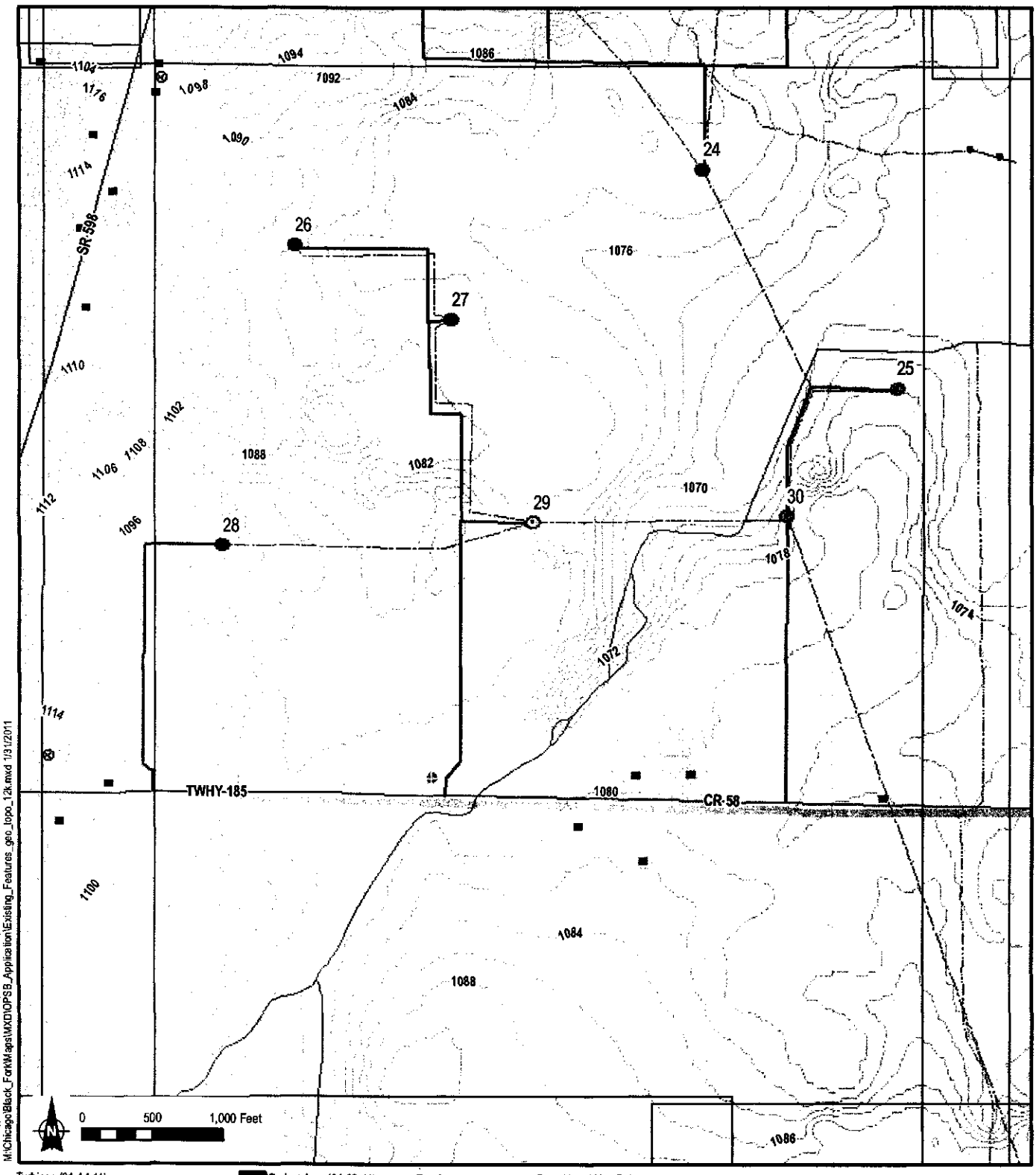
Figure 5-3
Black Fork Wind Energy, LLC
Project Area Geology and Topography
Crawford and Richland Counties, Ohio
Map 9 of 30

Source: ESRI 2010; NHD, 2008 USGS/EPA NHD 2008; OH DNR 2009; Crawford and Richland County Auditor, 2009; EP 2011.

Black Fork Wind Energy, LLC Project Area Geology and Topography



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Turbines (01-14-11)
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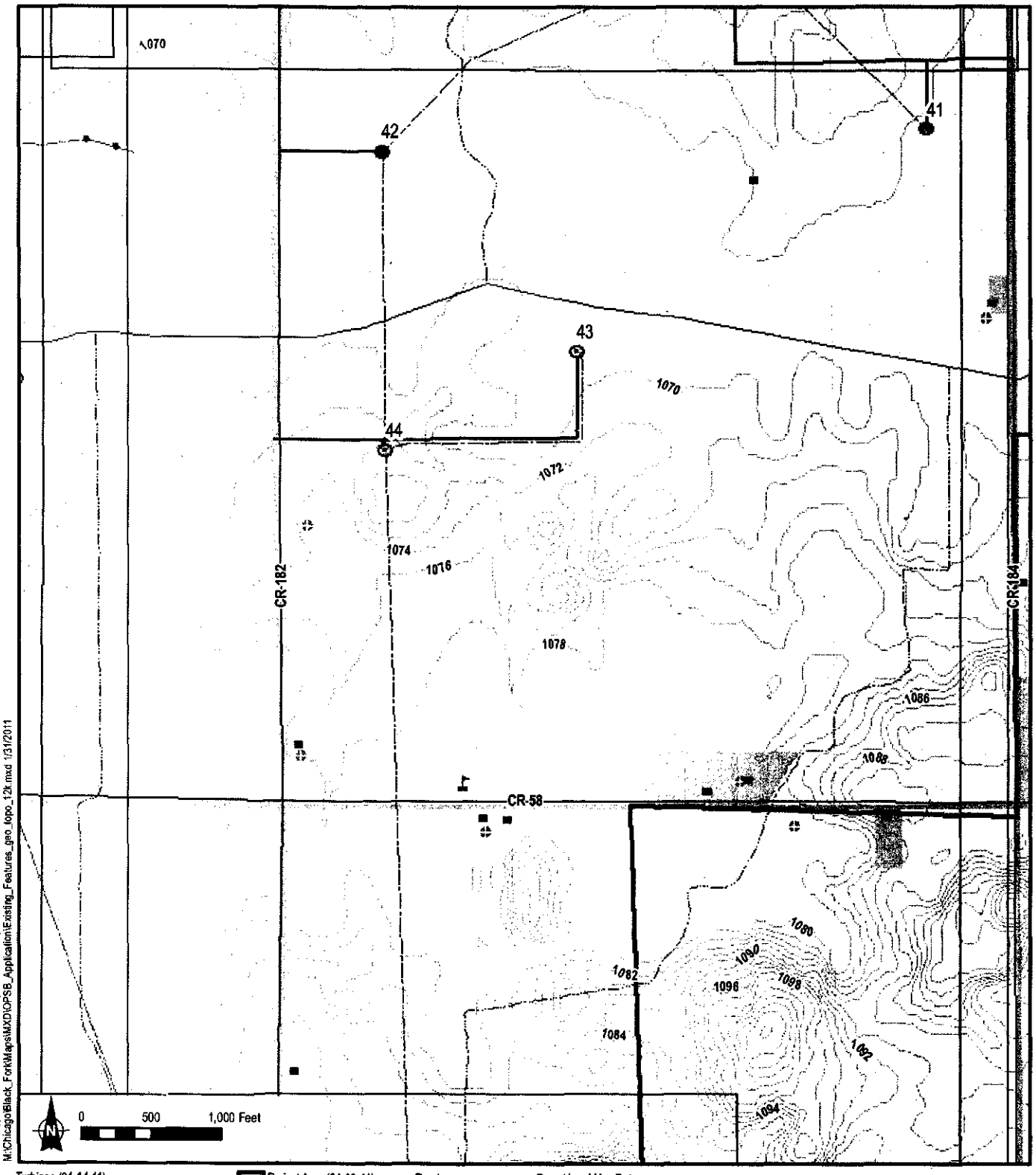
Intermittent

Parcel Land Use Data
Agricultural
Commercial
Residential
Exempt
Industrial
Abatement
Mineral Rights
Public Utility
Transportation
Unknown

Figure 5-3
Black Fork Wind Energy, LLC
Project Area Geology and Topography
Crawford and Richland Counties, Ohio
Map 10 of 30

Source: ESRI 2010; NHD, 2008 USGS/EPA NHD 2008; OH DNR 2009; Crawford and Richland County Auditor, 2009; EP 2011.

Black Fork Wind Energy, LLC Project Area Geology and Topography



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Turbines (01-14-11)
Vestas V100
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Road
Contours (2-ft)
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Intermittent

Parcel Land Use Data
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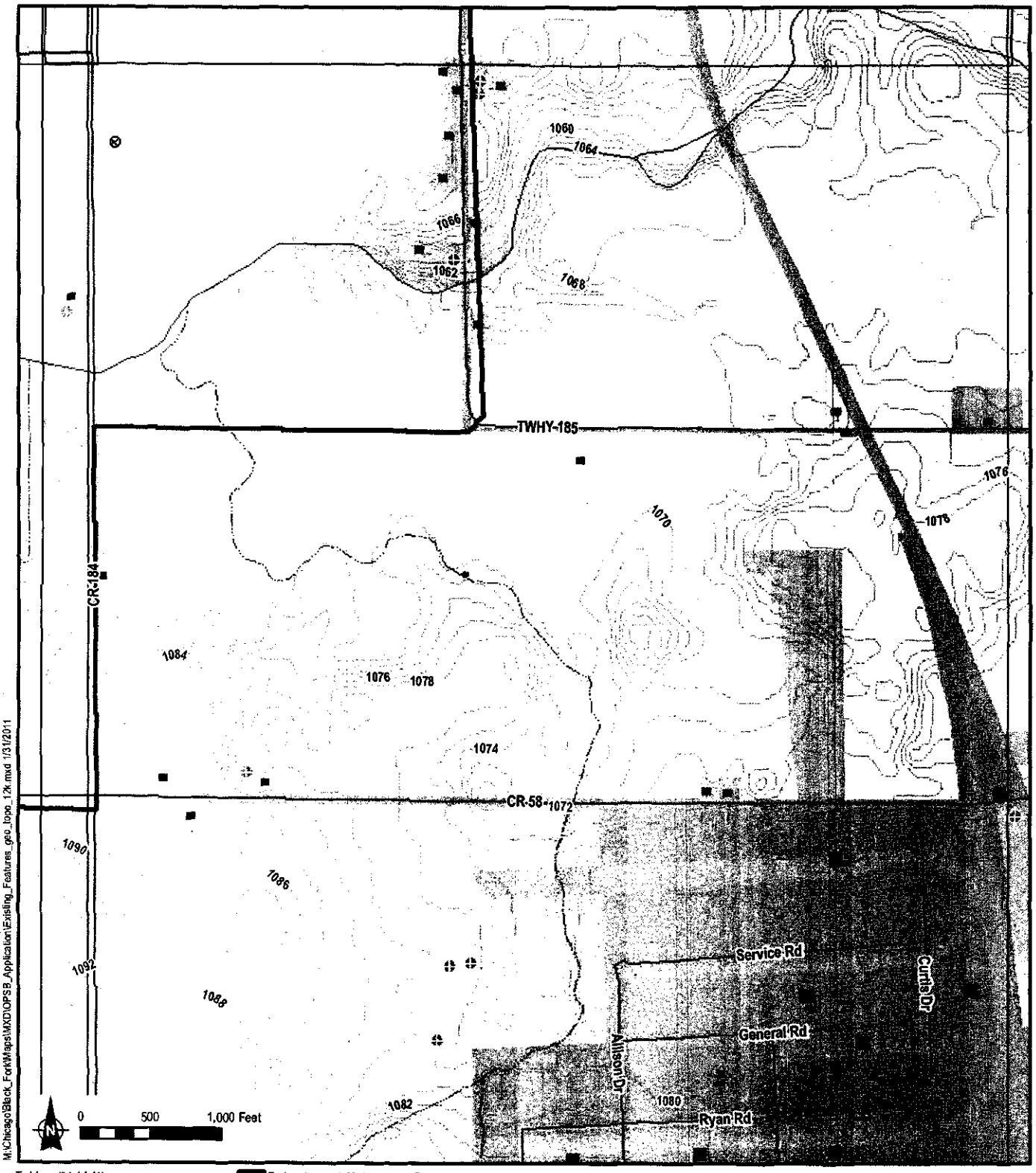
Residential
Exempt
Industrial
Abatement
Mineral Rights
Public Utility
Transportation
Unknown

Figure 5-3
Black Fork Wind Energy, LLC
Project Area Geology and Topography
Crawford and Richland Counties, Ohio
Map 11 of 30

Source: ESRI 2010; NHD, 2008 USGS/EPA NHD 2008; OH DNR 2009; Crawford and Richland County Auditor, 2009; EP 2011.

Black Fork Wind Energy, LLC Project Area Geology and Topography



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Turbines (01-14-11)
Vestas V100
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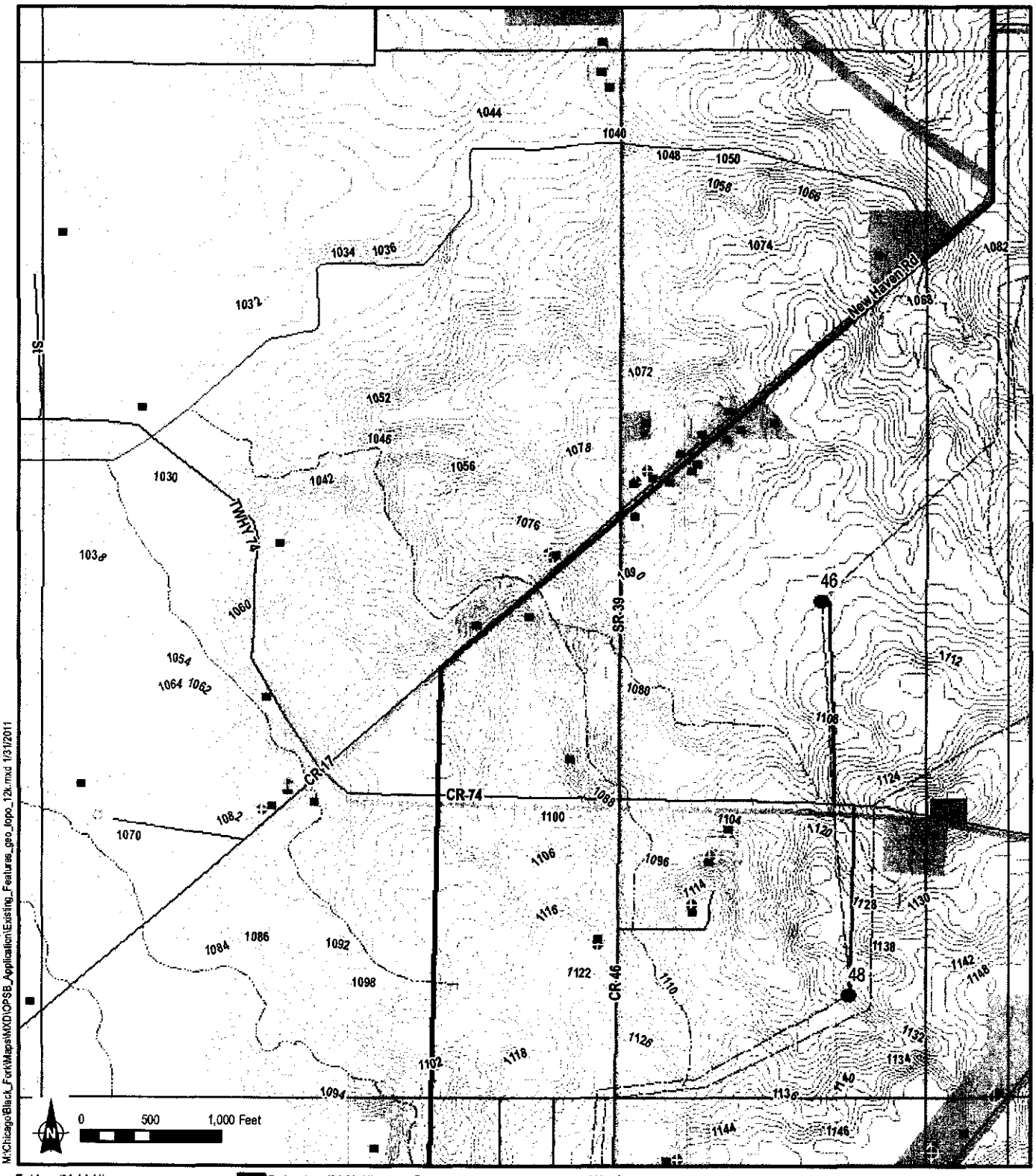
Project Area (01-03-11)
Residential Locations
Schools
Church
Hospital
Industrial Building
Water Well
Gas/Oil Well
Road
Contours (2-ft)
Artificial Path
Canal/Ditch
Perennial Stream/River
Intermittent

Parcel Land Use Data
- Agricultural
- Commercial
- Residential
- Exempt
- Industrial
- Abatement
- Mineral Rights
- Public Utility
- Transportation
- Unknown

Figure 5-3
Black Fork Wind Energy, LLC
Project Area Geology and Topography
Crawford and Richland Counties, Ohio
Map 12 of 30

Source: ESRI 2010; NHD, 2008 USGS/EPA NHD 2008; OH DNR 2009; Crawford and Richland County Auditor, 2009; EP 2011.

Black Fork Wind Energy, LLC Project Area Geology and Topography



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Parcel Land Use Data
Agricultural
Commercial
Residential
Exempt
Industrial
Abatement
Mineral Rights
Public Utility
Transportation
Unknown

Figure 5-3
Black Fork Wind Energy, LLC
Project Area Geology and Topography
Crawford and Richland Counties, Ohio
Map 13 of 30

Source: ESRI 2010; NHD, 2008 USGS/EPA NHD 2008; OH DNR 2009; Crawford and Richland County Auditor, 2009; EP 2011.

Black Fork Wind Energy, LLC Project Area Geology and Topography

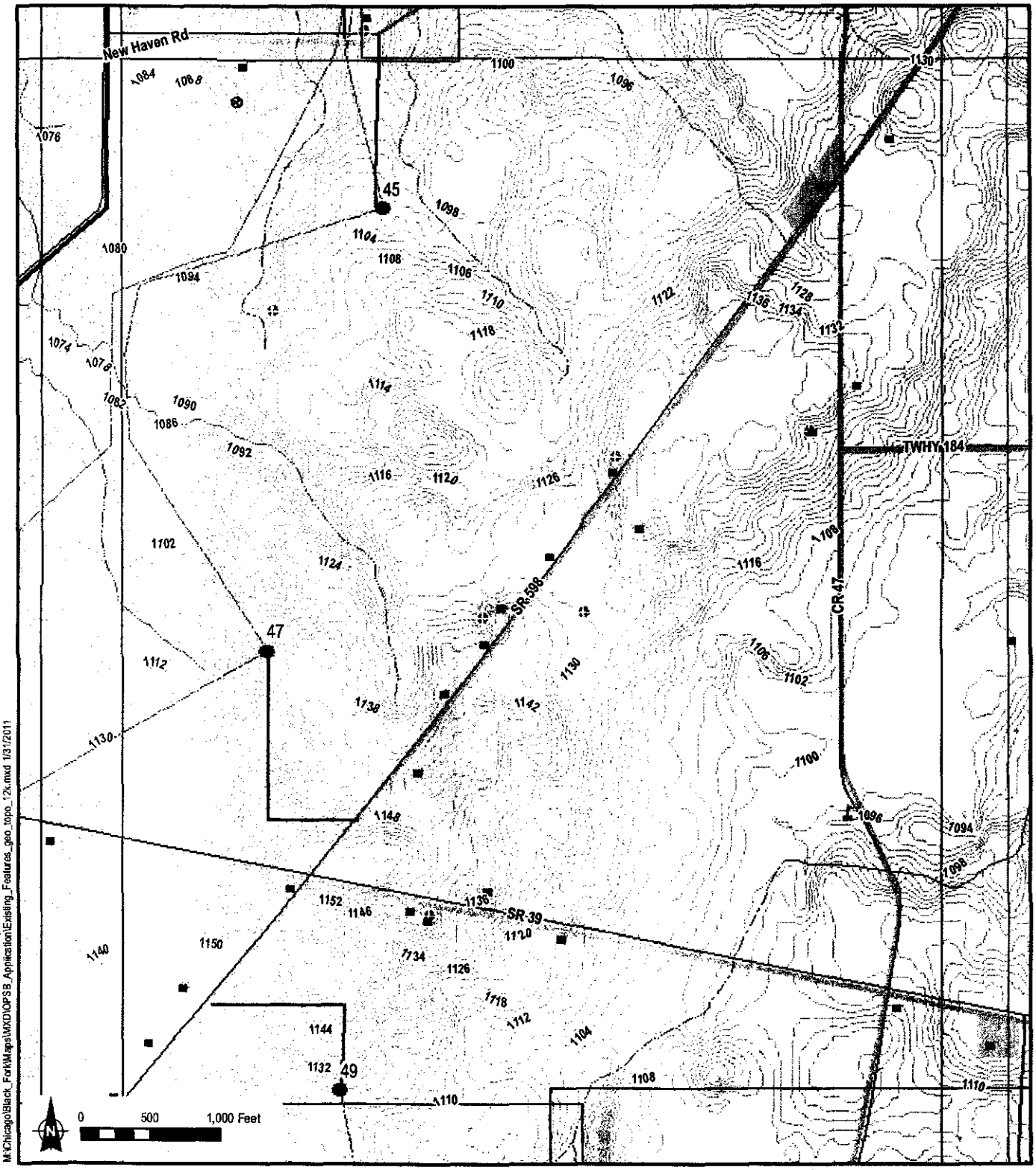

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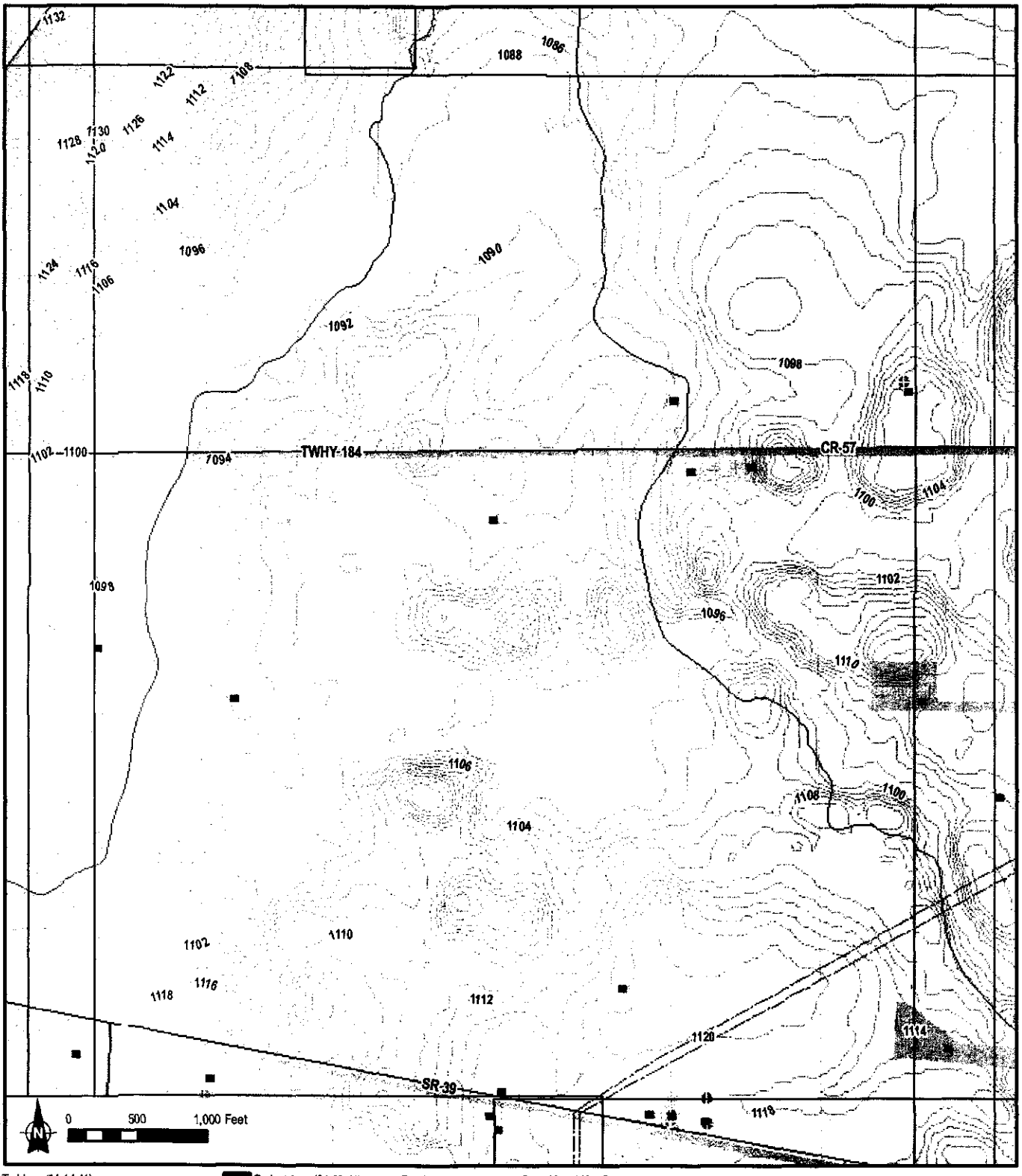
Figure 5-3
Black Fork Wind Energy, LLC
Project Area Geology and Topography
Crawford and Richland Counties, Ohio
Map 14 of 30

Source: ESRI 2010; NHD, 2008 USGS/EPA NHD 2008; OH DNR 2009; Crawford and Richland County Auditor, 2009; EP 2011.

Wind Energy, LLC Project Area Geology and Topography



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Project Area (01-03-11)
Residential Locations
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Parcel Land Use Data
Agricultural
Commercial
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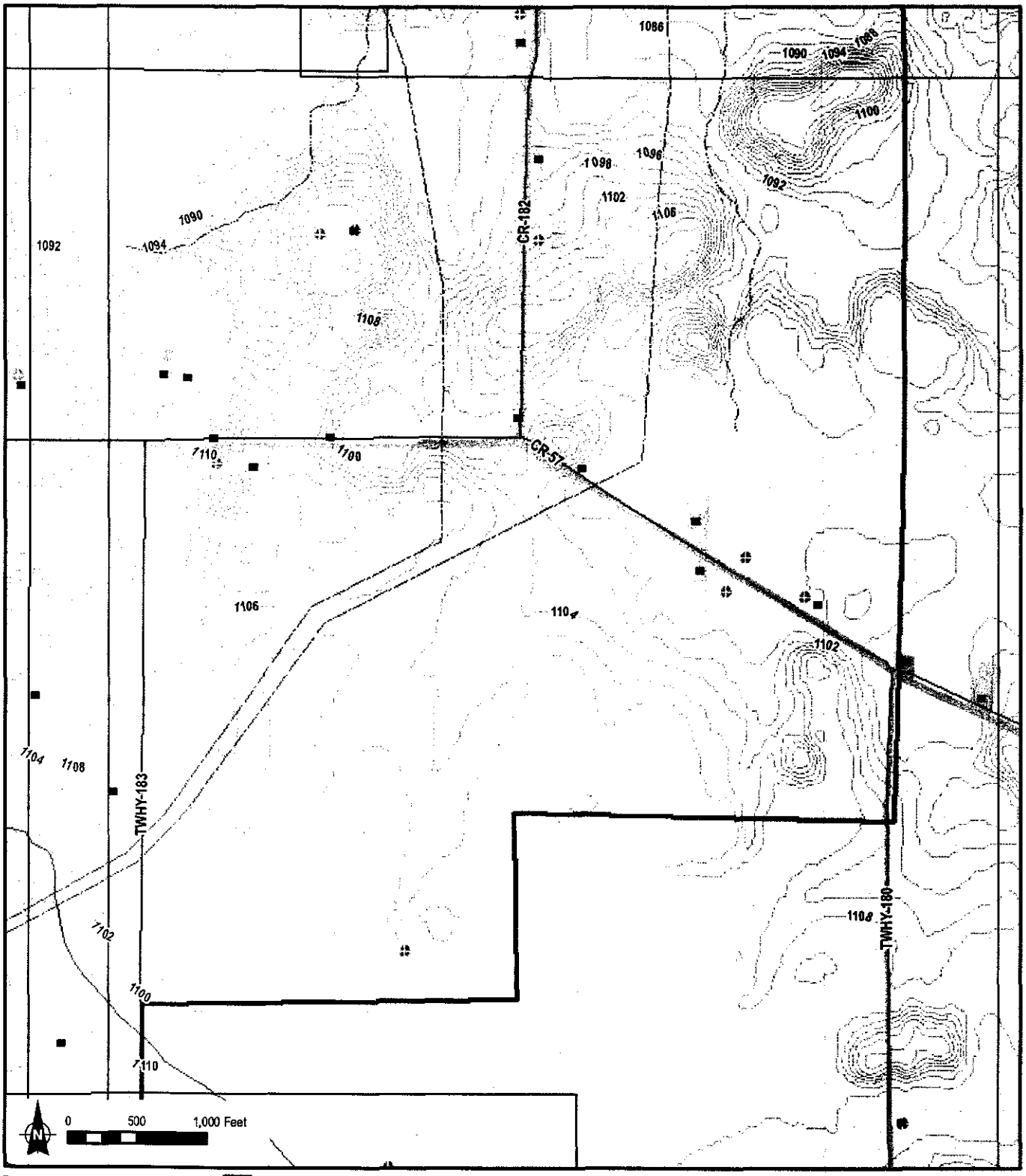
Industrial
Abatement
Mineral Rights
Public Utility
Transportation
Unknown

Figure 5-3
Black Fork Wind Energy, LLC
Project Area Geology and Topography
Crawford and Richland Counties, Ohio
Map 15 of 30

Source: ESRI 2010; NHD, 2008
USGS/EPA NHD 2008; OH DNR 2009;
Crawford and Richland County Auditor, 2009; EP 2011.

Black Fork Wind Energy, LLC Project Area Geology and Topography



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- Transportation
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Figure 5-3
Black Fork Wind Energy, LLC
Project Area Geology and Topography
Crawford and Richland Counties, Ohio
Map 16 of 30

Source: ESRI 2010; NHD, 2008 USGS/EPA NHD 2008; OH DNR 2009; Crawford and Richland County Auditor, 2009; EP 2011.

Black Fork Wind Energy, LLC Project Area Geology and Topography

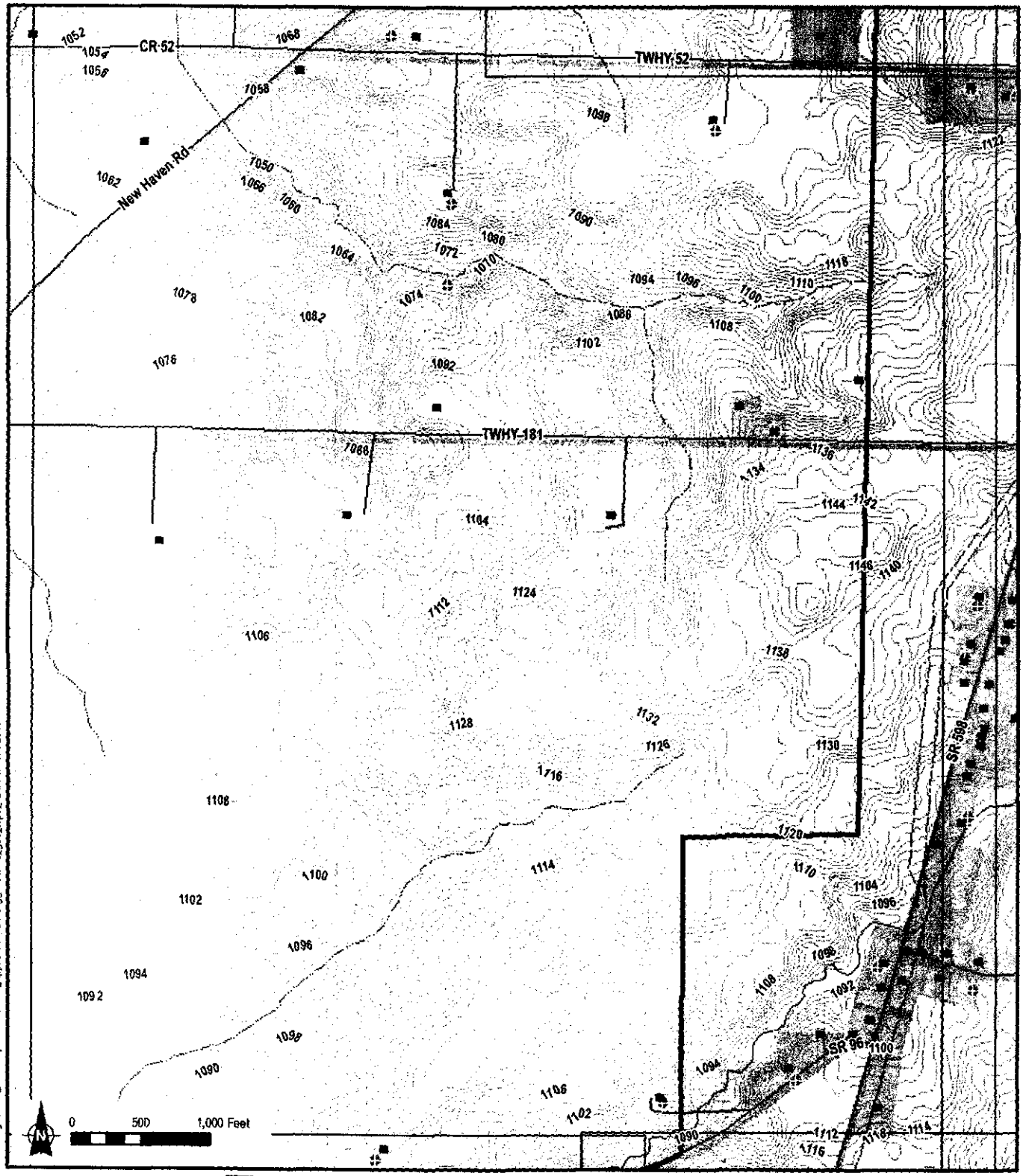

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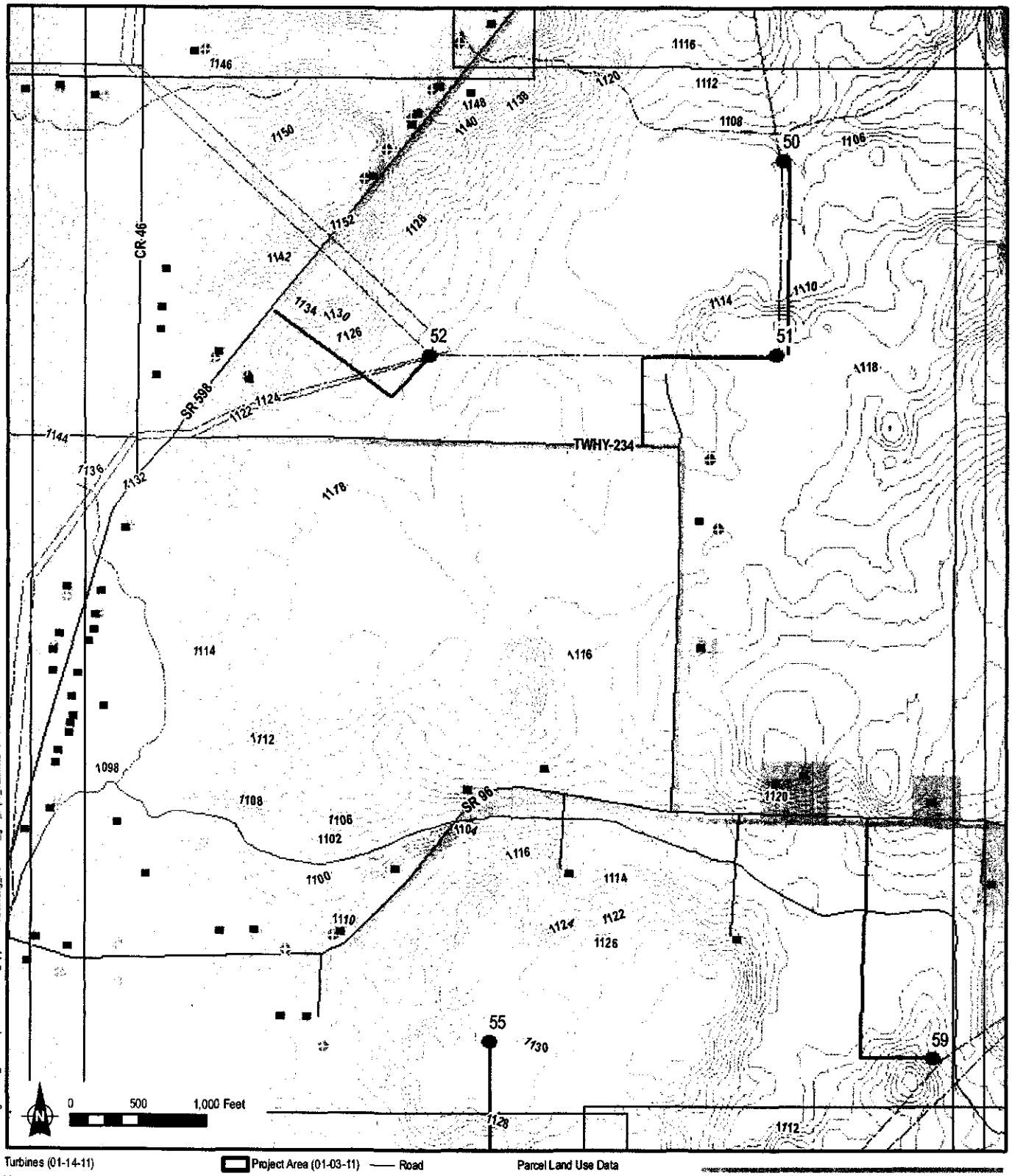
Figure 5-3
Black Fork Wind Energy, LLC
Project Area Geology and Topography
Crawford and Richland Counties, Ohio
Map 17 of 30

Source: ESRI 2010; NHD, 2008 USGS/EPA NHD 2008; OH DNR 2009; Crawford and Richland County Auditor, 2009; EP 2011

Black Fork Wind Energy, LLC Project Area Geology and Topography



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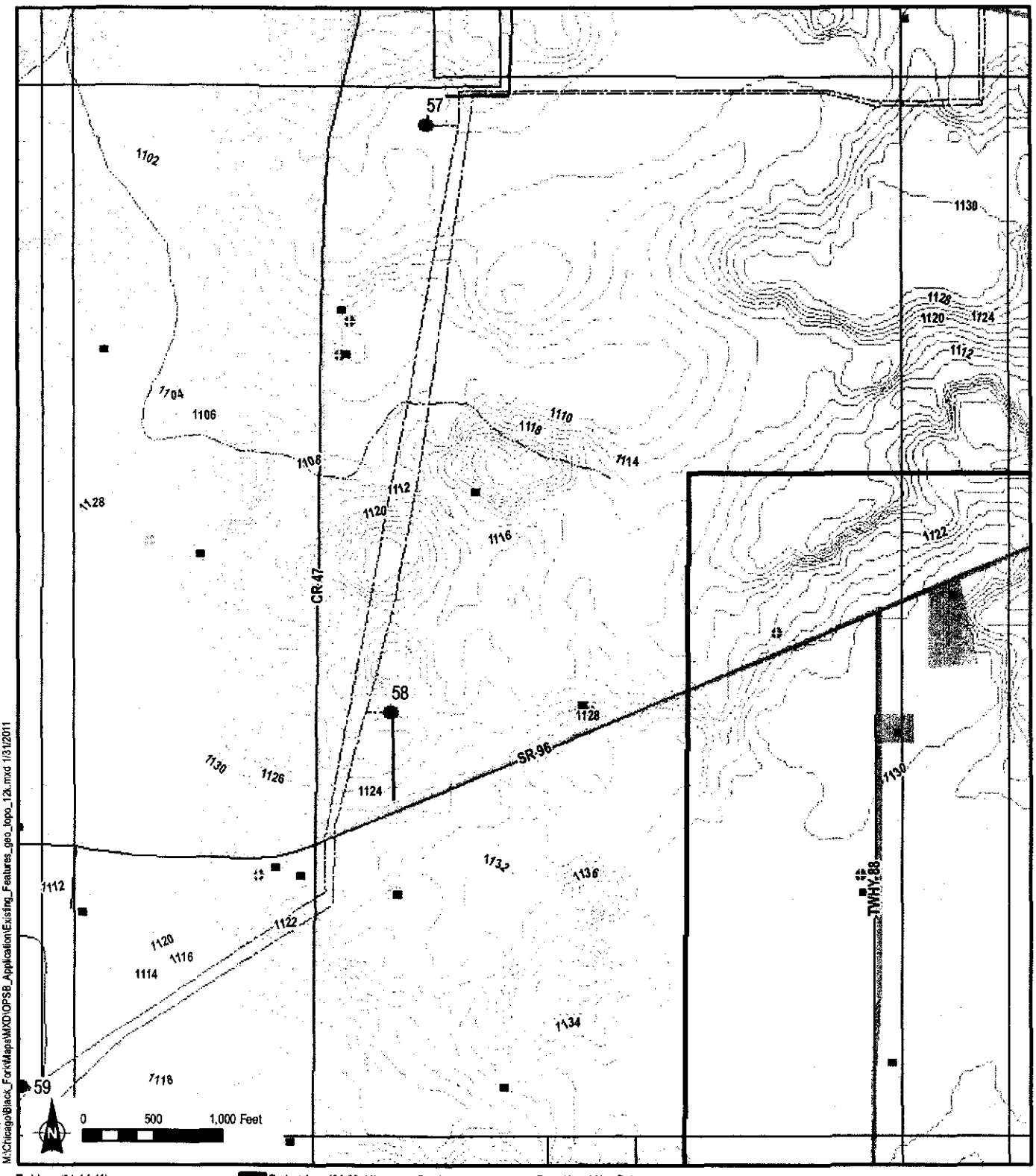
Road
Contours (2-ft)
Artificial Path
Canal/Ditch
Perennial Stream/River
Intermittent

Parcel Land Use Data
Agricultural
Commercial
Residential
Exempt
Industrial
Abatement
Mineral Rights
Public Utility
Transportation
Unknown

Figure 5-3
Black Fork Wind Energy, LLC
Project Area Geology and Topography
Crawford and Richland Counties, Ohio
Map 18 of 30

Source: ESRI 2010; NHD, 2008 USGS/EPA NHD 2008; OH DNR 2009; Crawford and Richland County Auditor, 2009; EP 2011.

Black Fork Wind Energy, LLC Project Area Geology and Topography



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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)
- Collection Line (01-14-11)
- Access Roads (01-14-11)
- Substation (01-13-11)
- O&M Building (01-13-11)
- Switchyard (01-13-11)
- Laydown Yard & Batch Plant (01-13-11)

- Project Area (01-03-11)
- Residential Locations
- Schools
- Church
- Hospital
- Industrial Building
- Water Well
- Gas/Oil Well

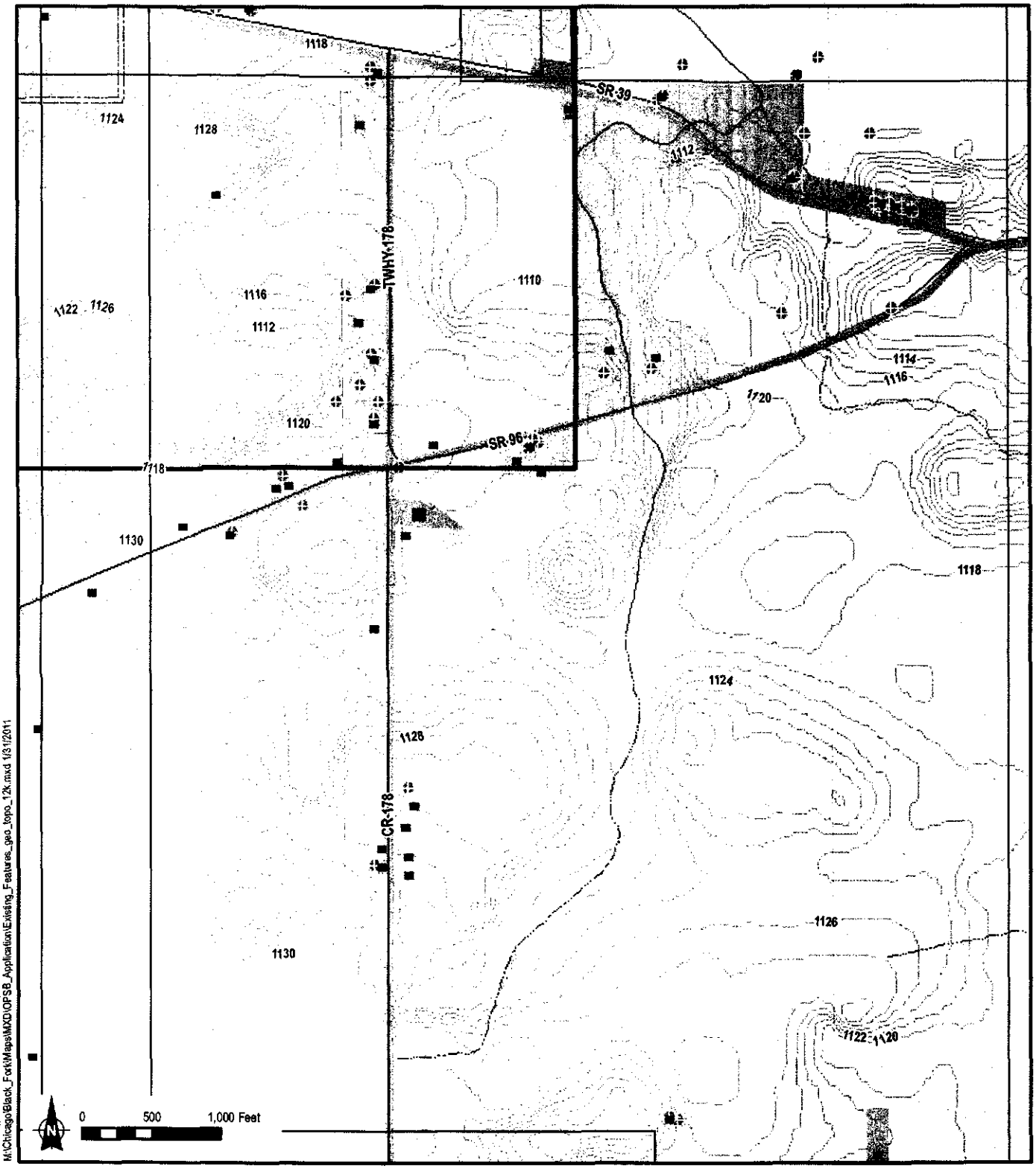
- Road
- Contours (2-ft)
- Artificial Path
- Canal/Ditch
- Perennial Stream/River
- Intermittent

Parcel Land Use Data
- Agricultural
- Commercial
- Residential
- Exempt
- Industrial
- Abatement
- Mineral Rights
- Public Utility
- Transportation
- Unknown

Figure 5-3
Black Fork Wind Energy, LLC
Project Area Geology and Topography
Crawford and Richland Counties, Ohio
Map 19 of 30

Source: ESRI 2010; NHD, 2008 USGS/EPA NHD 2008; OH DNR 2009; Crawford and Richland County Auditor, 2009; EP 2011.

Black Fork Wind Energy, LLC Project Area Geology and Topography



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Turbines (01-14-11)
Vestas V100
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- V100 w/ 95 m Hub (145m tip height)
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- Access Roads (01-14-11)
- Substation (01-13-11)
- O&M Building (01-13-11)
- Switchyard (01-13-11)
- Laydown Yard & Batch Plant (01-13-11)

- Project Area (01-03-11)
- Residential Locations
- Schools
- Church
- Hospital
- Industrial Building
- Water Well
- Gas/Oil Well

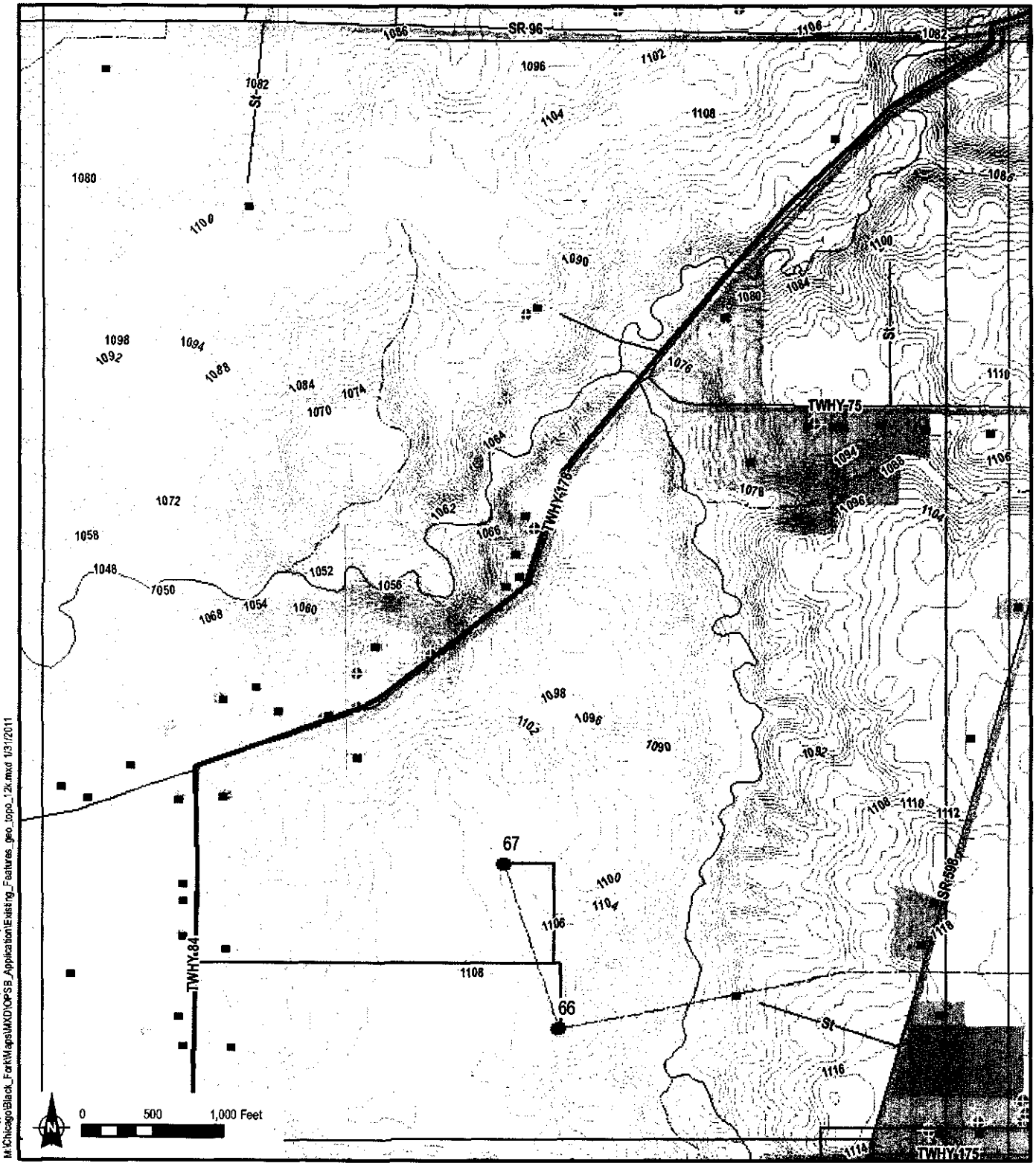
- Road
- Contours (2-ft)
- Artificial Path
- Canal/Ditch
- Perennial Stream/River
- Intermittent

Parcel Land Use Data
- Agricultural
- Commercial
- Residential
- Exempt
- Industrial
- Abatement
- Mineral Rights
- Public Utility
- Transportation
- Unknown

Figure 5-3
Black Fork Wind Energy, LLC
Project Area Geology and Topography
Crawford and Richland Counties, Ohio
Map 20 of 30

Source: ESRI 2010; NHD, 2008 USGS/EPA NHD 2008; OH DNR 2009; Crawford and Richland County Auditor, 2009; EP 2011.

Black Fork Wind Energy, LLC Project Area Geology and Topography



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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)
- Collection Line (01-14-11)
- Access Roads (01-14-11)
- Substation (01-13-11)
- O&M Building (01-13-11)
- Switchyard (01-13-11)
- Laydown Yard & Batch Plant (01-13-11)

- Project Area (01-03-11)
- Residential Locations
- Schools
- Church
- Hospital
- Industrial Building
- Water Well
- Gas/Oil Well

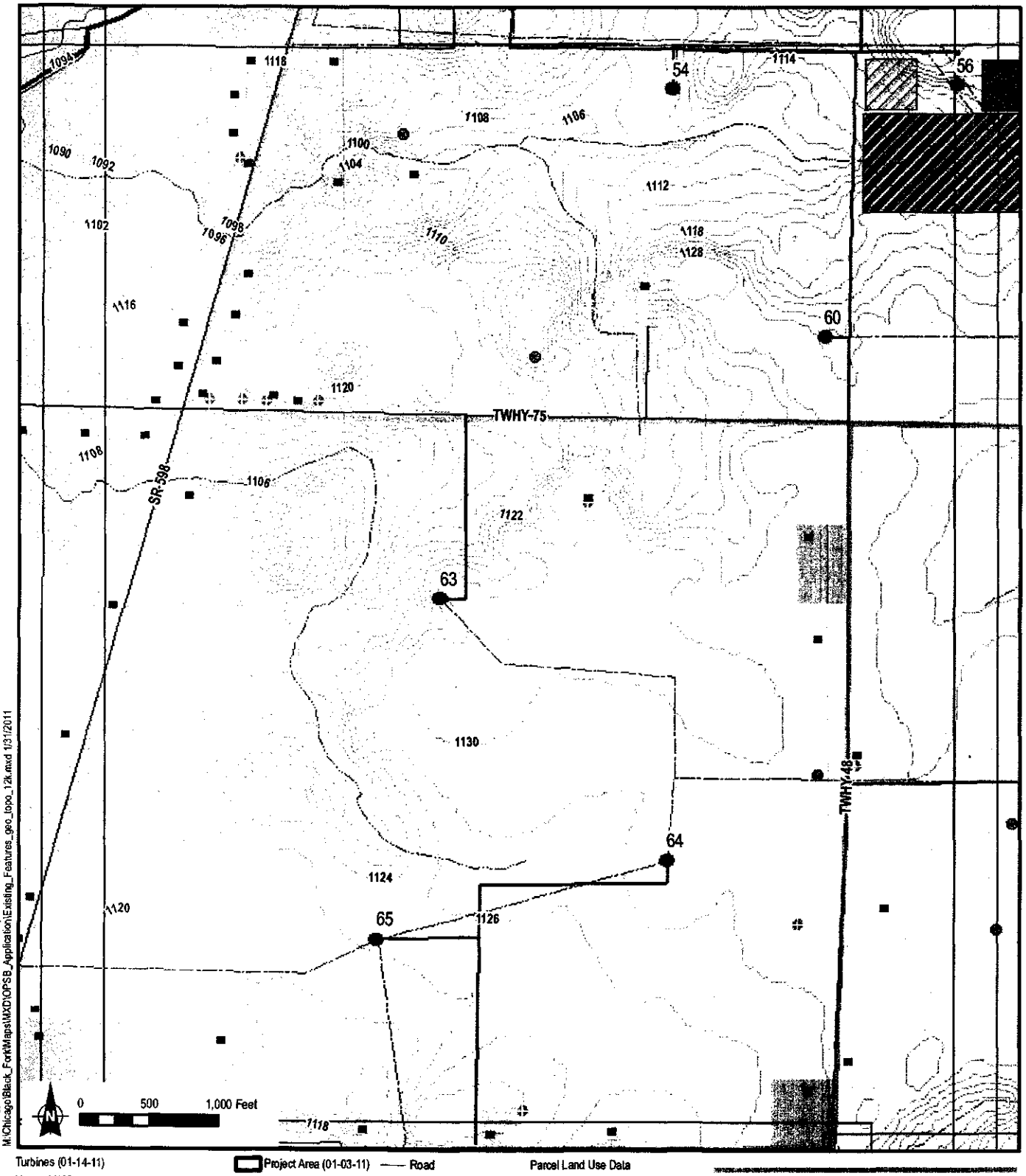
- Road
- Contours (2-ft)
- Artificial Path
- Canal/Ditch
- Perennial Stream/River
- Intermittent

Parcel Land Use Data
- Agricultural
- Commercial
- Residential
- Exempt
- Industrial
- Abatement
- Mineral Rights
- Public Utility
- Transportation
- Unknown

Figure 5-3
Black Fork Wind Energy, LLC
Project Area Geology and Topography
Crawford and Richland Counties, Ohio
Map 21 of 30

Source: ESRI 2010; NHD, 2008 USGS/EPA NHD 2008; OH DNR 2009; Crawford and Richland County Auditor, 2009; EP 2011.

Wind Energy, LLC Project Area Geology and Topography



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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)

Collection Line (01-14-11)
Access Roads (01-14-11)
Substation (01-13-11)
O&M Building (01-13-11)
Switchyard (01-13-11)
Laydown Yard & Batch Plant (01-13-11)

Project Area (01-03-11)
Residential Locations
Schools
Church
Hospital
Industrial Building
Water Well
Gas/Oil Well

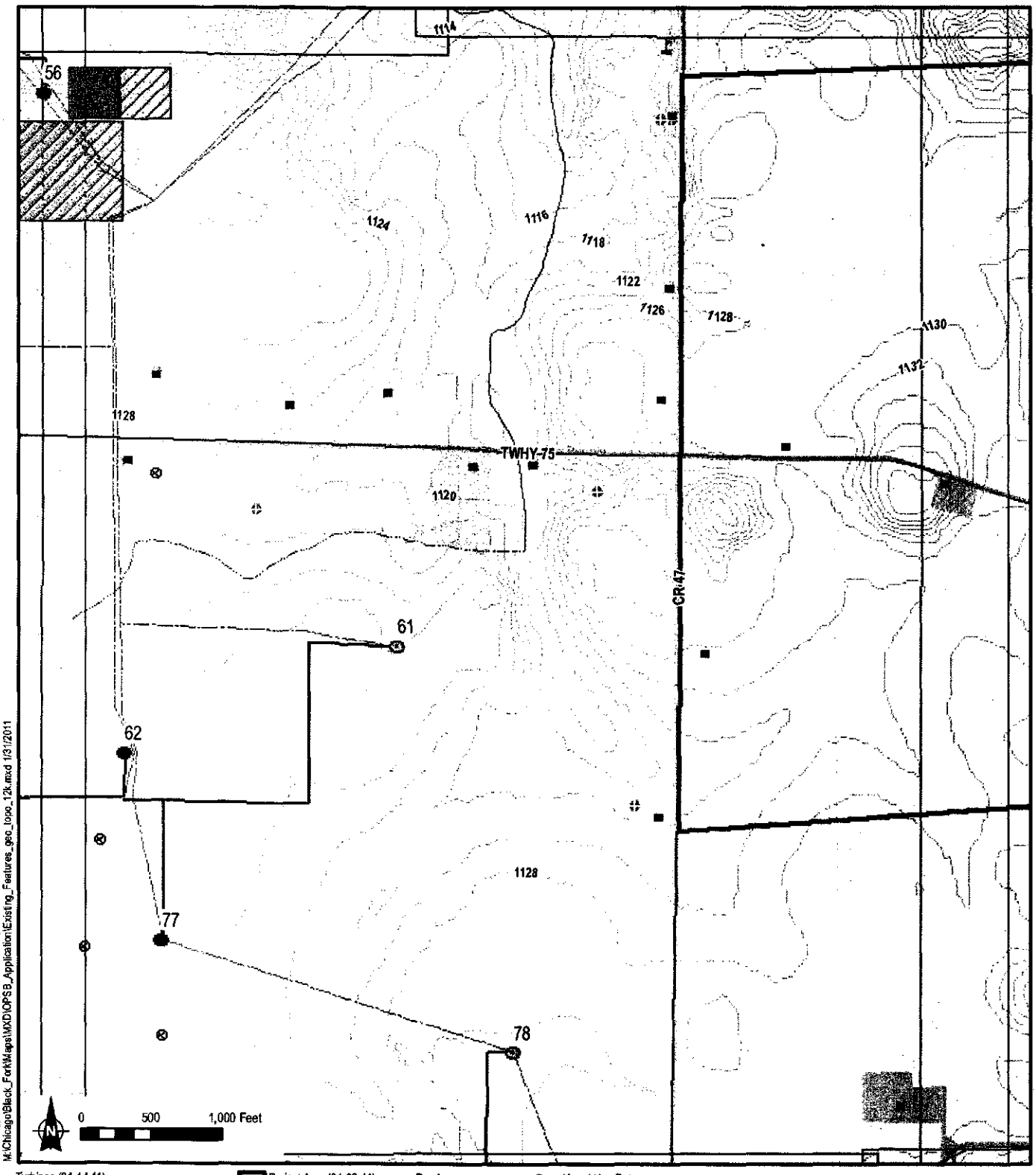
Road
Contours (2-ft)
Artificial Path
Canal/Ditch
Perennial Stream/River
Intermittent

Parcel Land Use Data
Agricultural
Commercial
Residential
Exempt
Industrial
Abatement
Mineral Rights
Public Utility
Transportation
Unknown

Figure 5-3
Black Fork Wind Energy, LLC
Project Area Geology and Topography
Crawford and Richland Counties, Ohio
Map 22 of 30

Source: ESRI 2010; NHD, 2008 USGS/EPA NHD 2008; OH DNR 2009; Crawford and Richland County Auditor, 2009; EP 2011.

Wind Energy, LLC Project Area Geology and Topography



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Turbines (01-14-11)
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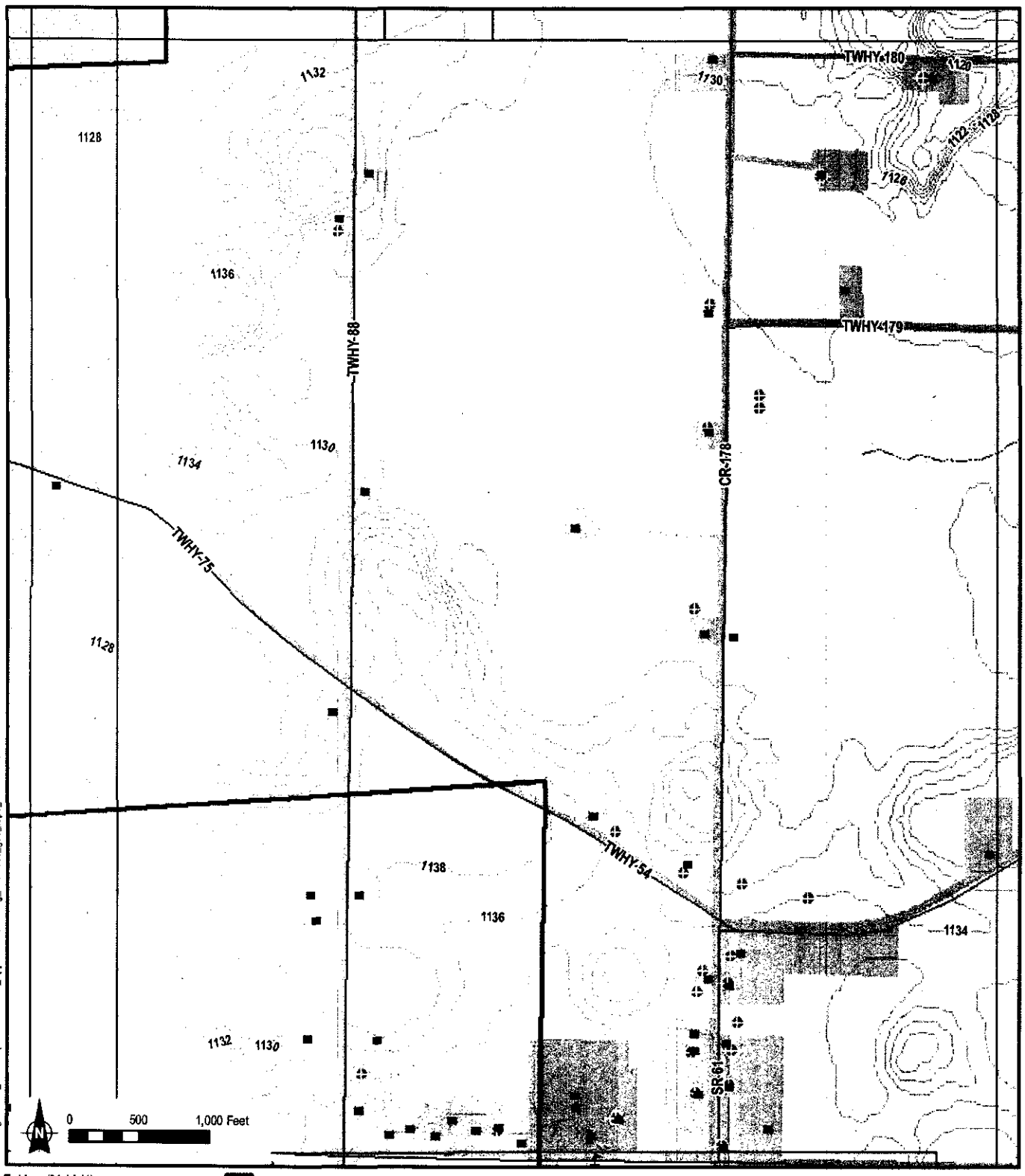
Collection Line (01-14-11)
Access Roads (01-14-11)
Substation (01-13-11)
O&M Building (01-13-11)
Switchyard (01-13-11)
Laydown Yard & Batch Plant (01-13-11)
Project Area (01-03-11)
Residential Locations
Schools
Church
Hospital
Industrial Building
Water Well
Gas/Oil Well
Road
Contours (2-ft)
Artificial Path
Canal/Ditch
Perennial Stream/River
Intermittent

Parcel Land Use Data
- Agricultural
- Commercial
- Residential
- Exempt
- Industrial
- Abatement
- Mineral Rights
- Public Utility
- Transportation
- Unknown

Figure 5-3
Black Fork Wind Energy, LLC
Project Area Geology and Topography
Crawford and Richland Counties, Ohio
Map 23 of 30

Source: ESRI 2010; NHD, 2008 USGS/EPA NHD 2008; OH DNR 2009; Crawford and Richland County Auditor, 2009; EP 2011.

Black Fork Wind Energy, LLC Project Area Geology and Topography



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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)

Collection Line (01-14-11)
Access Roads (01-14-11)
Substation (01-13-11)
O&M Building (01-13-11)
Switchyard (01-13-11)
Laydown Yard & Batch Plant (01-13-11)

Project Area (01-03-11)
Residential Locations
Schools
Church
Hospital
Industrial Building
Water Well
Gas/Oil Well

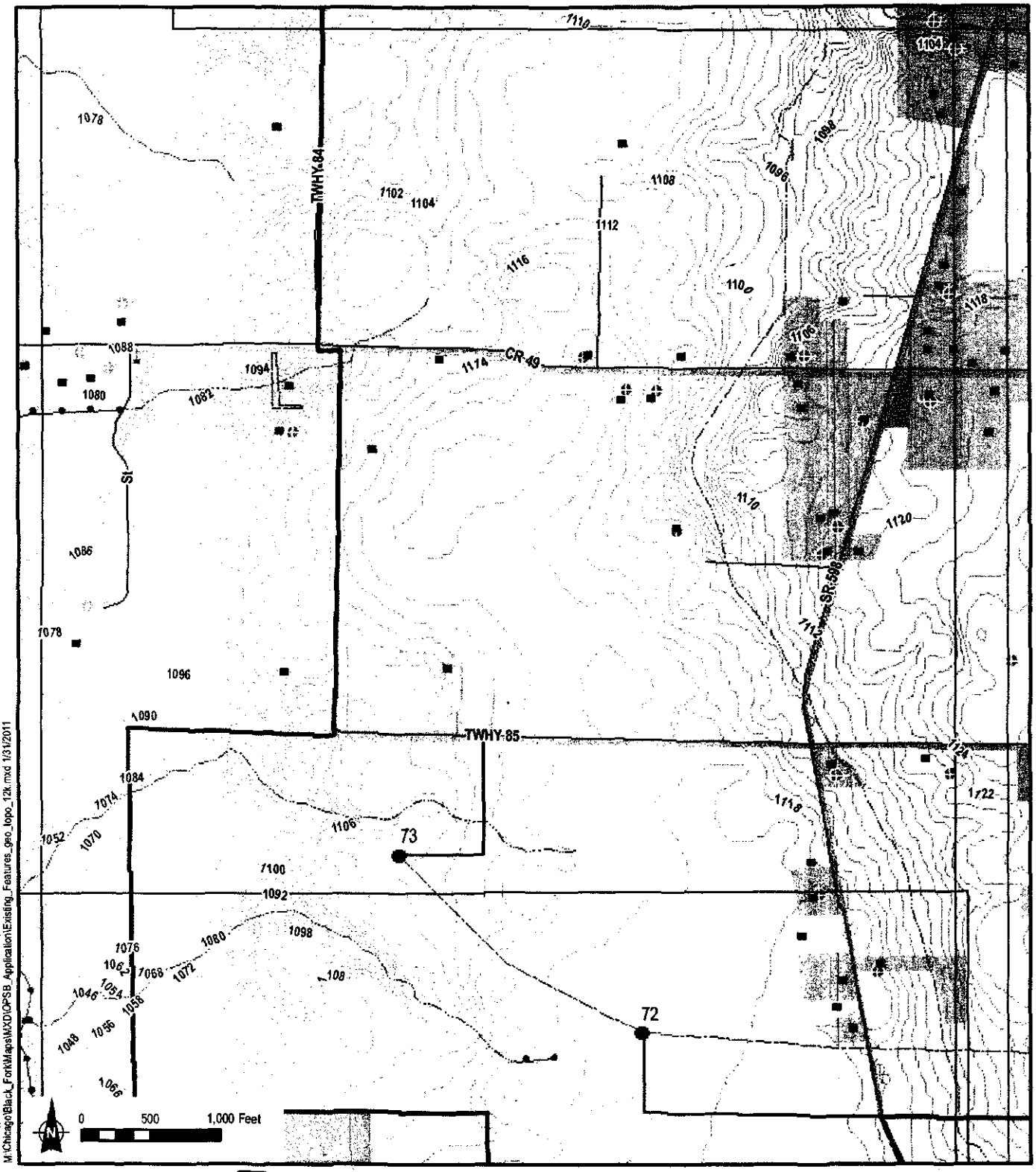
Road
Contours (2-ft)
Artificial Path
Canal/Ditch
Perennial Stream/River
Intermittent

Parcel Land Use Data
Agricultural
Commercial
Residential
Exempt
Industrial
Abatement
Mineral Rights
Public Utility
Transportation
Unknown

Figure 5-3
Black Fork Wind Energy, LLC
Project Area Geology and Topography
Crawford and Richland Counties, Ohio
Map 24 of 30

Source: ESRI 2010; NHD, 2008 USGS/EPA NHD 2008; OH DNR 2009; Crawford and Richland County Auditor, 2009; EP 2011.

Black Fork Wind Energy, LLC Project Area Geology and Topography



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Turbines (01-14-11)
Vestas V100
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- V100 w/ 95 m Hub (145m tip height)

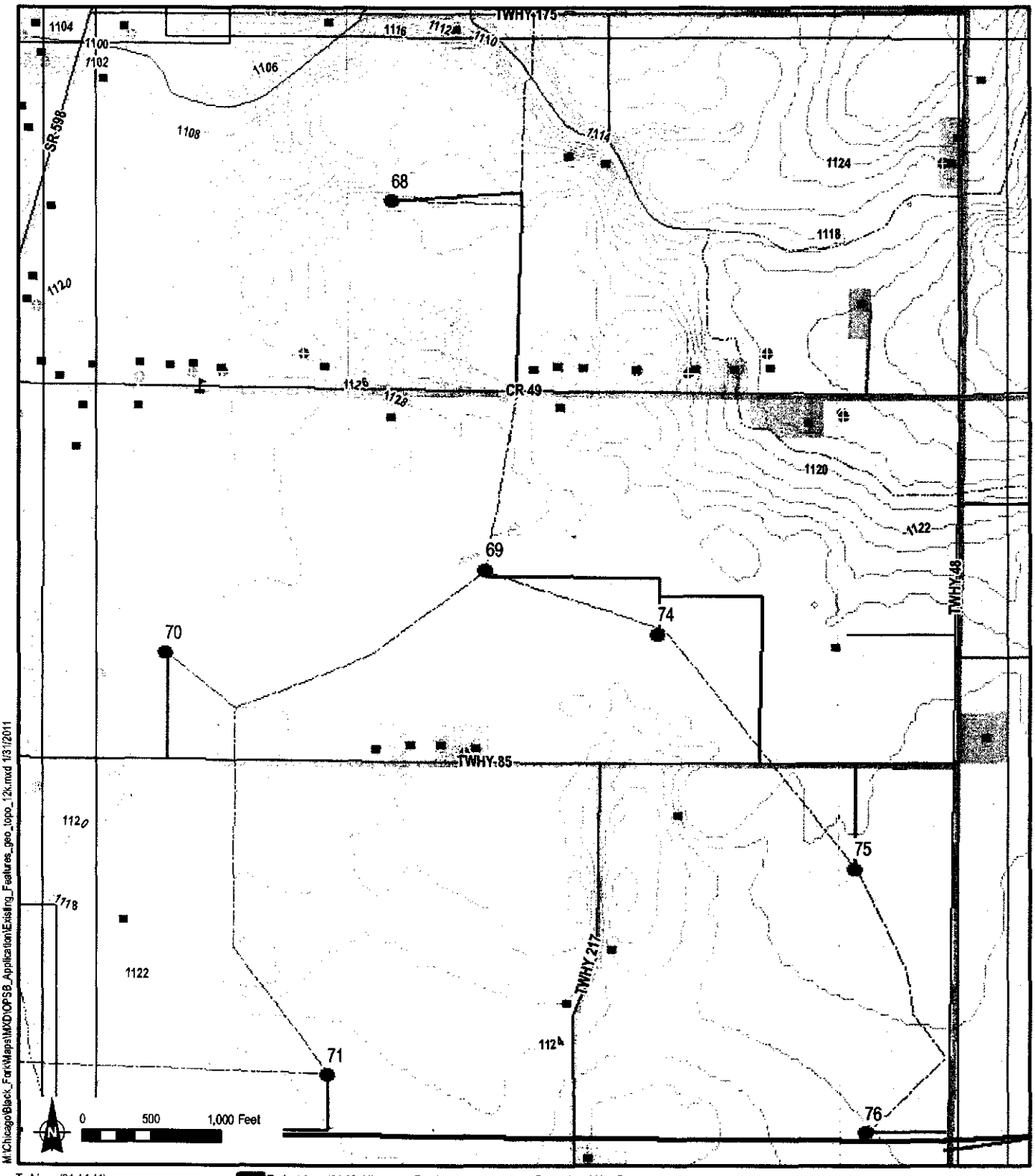
Collection Line (01-14-11)
Access Roads (01-14-11)
Substation (01-13-11)
O&M Building (01-13-11)
Switchyard (01-13-11)
Laydown Yard & Batch Plant (01-13-11)
Project Area (01-03-11)
Residential Locations
Schools
Church
Hospital
Industrial Building
Water Well
Gas/Oil Well
Road
Contours (2-ft)
Artificial Path
Canal/Ditch
Perennial Stream/River
Intermittent

Parcel Land Use Data
- Agricultural
- Commercial
- Residential
- Exempt
- Industrial
- Abatement
- Mineral Rights
- Public Utility
- Transportation
- Unknown

Figure 5-3
Black Fork Wind Energy, LLC
Project Area Geology and Topography
Crawford and Richland Counties, Ohio
Map 25 of 30

Source: ESRI 2010; NHD, 2008 USGS/EPA NHD 2008; OH DNR 2009; Crawford and Richland County Auditor, 2009; EP 2011.

Black Fork Wind Energy, LLC Project Area Geology and Topography



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Turbines (01-14-11)
Vestas V100
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- V100 w/ 95 m Hub (145m tip height)

Collection Line (01-14-11)
Access Roads (01-14-11)
Substation (01-13-11)
O&M Building (01-13-11)
Switchyard (01-13-11)
Laydown Yard & Batch Plant (01-13-11)

Project Area (01-03-11)
Residential Locations
Schools
Church
Hospital
Industrial Building
Water Well
Gas/Oil Well

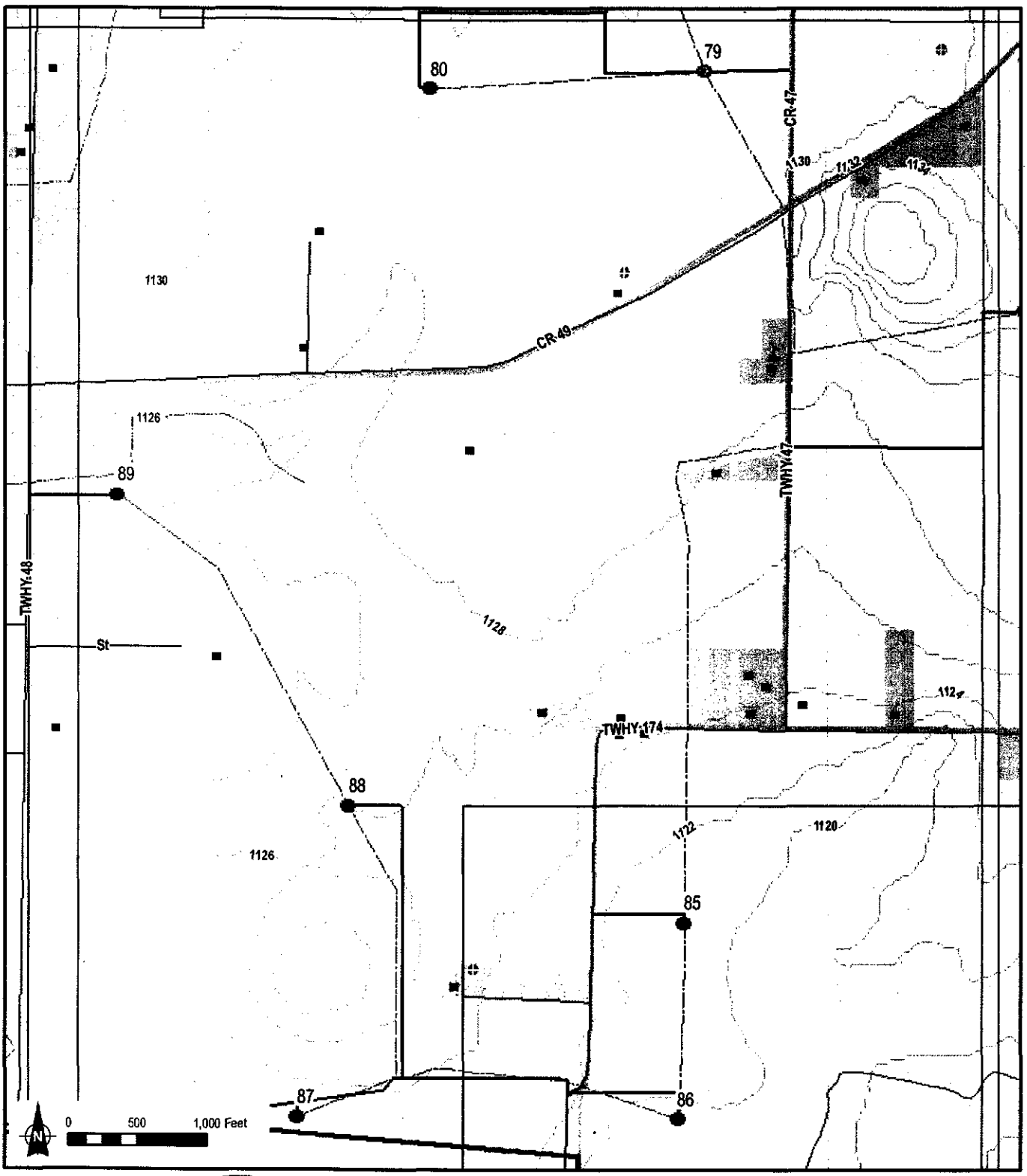
Road
Contours (2-ft)
Artificial Path
Canal/Ditch
Perennial Stream/River
Intermittent

Parcel Land Use Data
Agricultural
Commercial
Residential
Exempt
Industrial
Abatement
Mineral Rights
Public Utility
Transportation
Unknown

Figure 5-3
Black Fork Wind Energy, LLC
Project Area Geology and Topography
Crawford and Richland Counties, Ohio
Map 26 of 30

Source: ESRI 2010; NHD, 2008 USGS/EPA NHD 2008; OH DNR 2009; Crawford and Richland County Auditor, 2009; EP 2011.

Black Fork Wind Energy, LLC Project Area Geology and Topography



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Turbines (01-14-11)
Vestas V100
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- V100 w/ 95 m Hub (145m tip height)

Collection Line (01-14-11)
Access Roads (01-14-11)
Substation (01-13-11)
O&M Building (01-13-11)
Switchyard (01-13-11)
Laydown Yard & Batch Plant (01-13-11)

Project Area (01-03-11)
Residential Locations
Schools
Church
Hospital
Industrial Building
Water Well
Gas/Oil Well

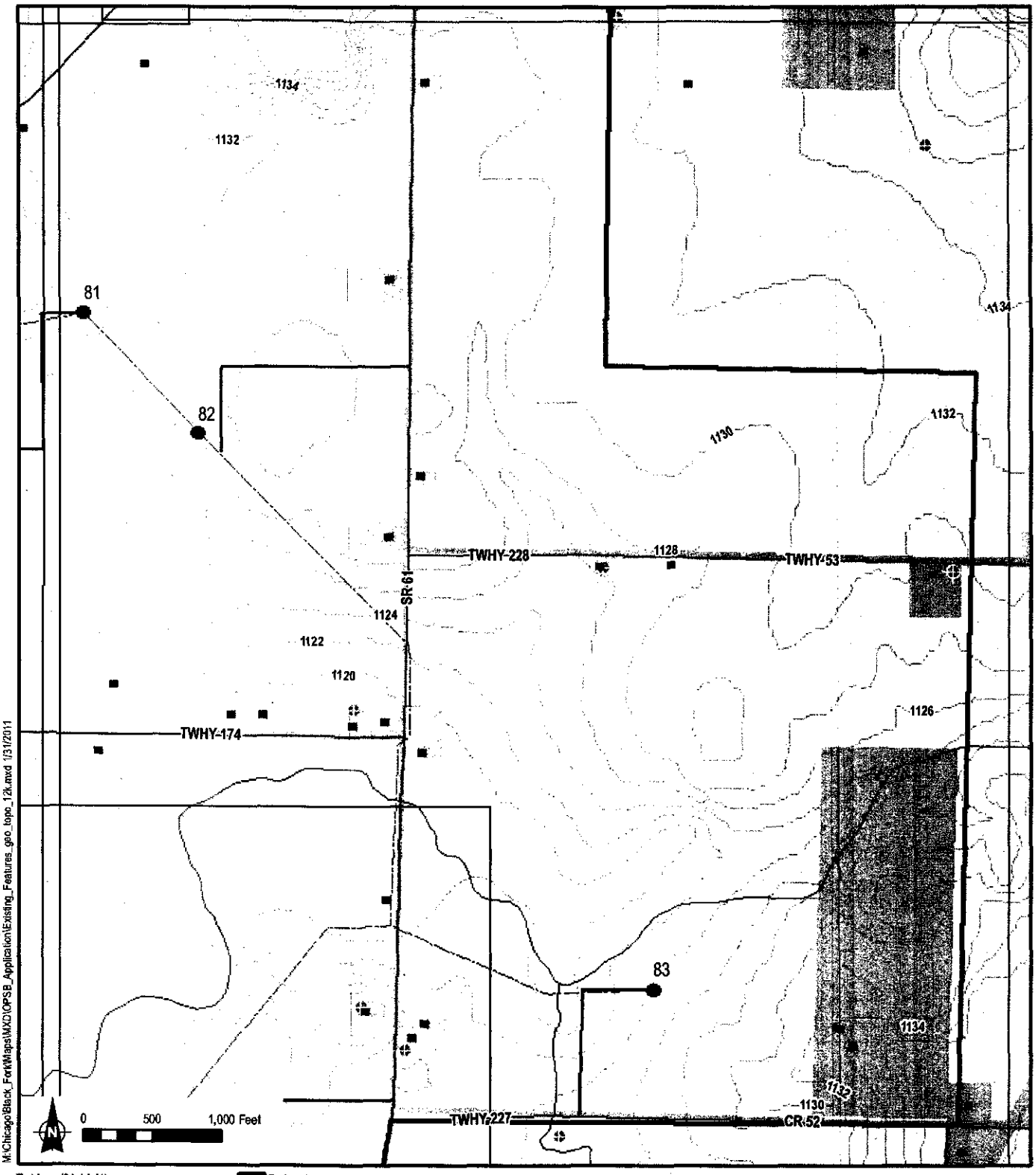
Road
Contours (2-ft)
Artificial Path
Canal/Ditch
Perennial Stream/River
Intermittent

Parcel Land Use Data
Agricultural
Commercial
Residential
Exempt
Industrial
Abatement
Mineral Rights
Public Utility
Transportation
Unknown

Figure 5-3
Black Fork Wind Energy, LLC
Project Area Geology and Topography
Crawford and Richland Counties, Ohio
Map 27 of 30

Source: ESRI 2010; NHD, 2008 USGS/EPA NHD 2008; OH DNR 2009; Crawford and Richland County Auditor, 2009; EP 2011.

Black Fork Wind Energy, LLC Project Area Geology and Topography



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Turbines (01-14-11)
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- Collection Line (01-14-11)
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- Substation (01-13-11)
- O&M Building (01-13-11)
- Switchyard (01-13-11)
- Laydown Yard & Batch Plant (01-13-11)

- Project Area (01-03-11)
- Residential Locations
- Schools
- Church
- Hospital
- Industrial Building
- Water Well
- Gas/Oil Well

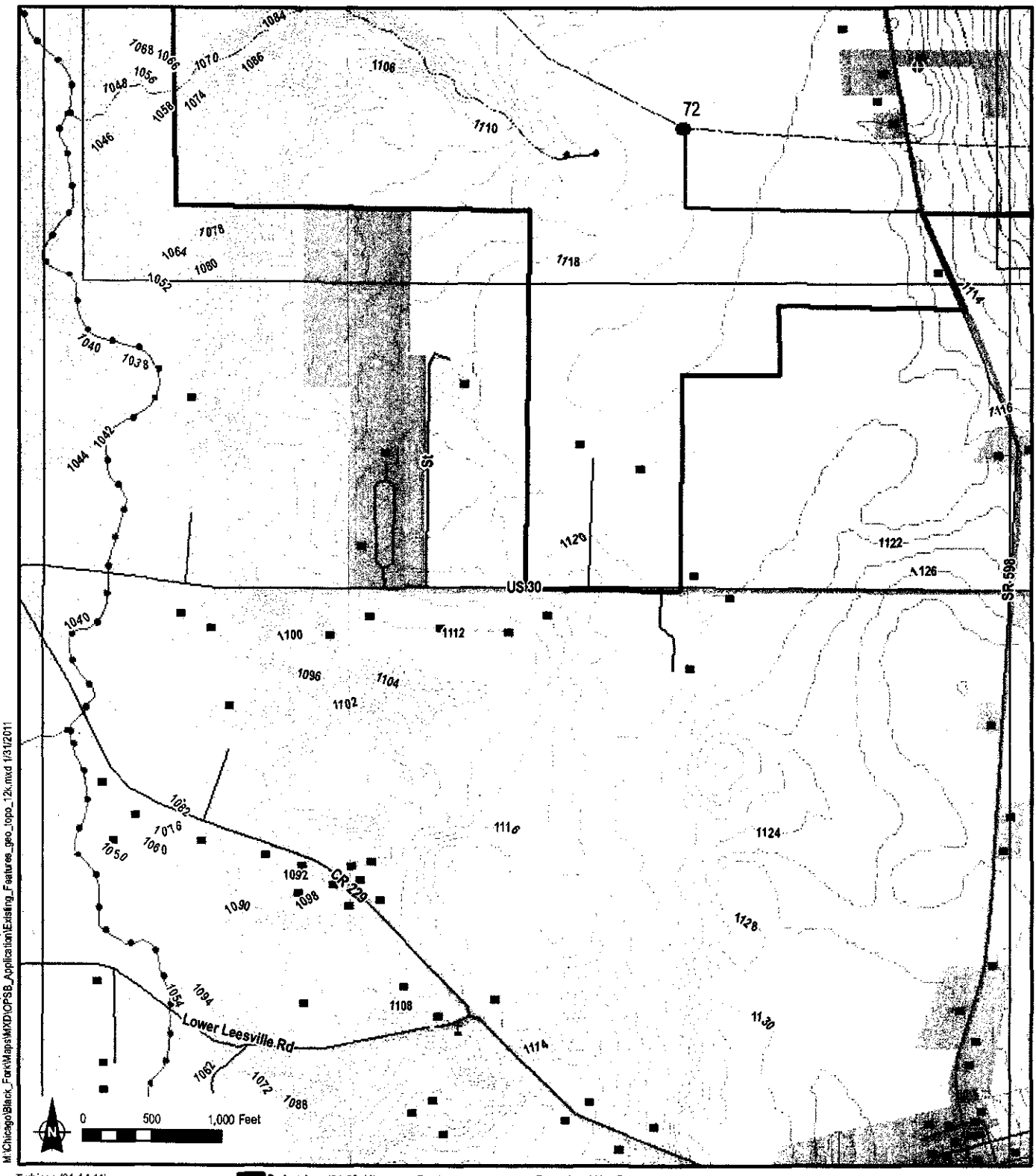
- Road
- Contours (2-ft)
- Artificial Path
- Canal/Ditch
- Perennial Stream/River
- Intermittent

Parcel Land Use Data
- Agricultural
- Commercial
- Residential
- Exempt
- Industrial
- Abatement
- Mineral Rights
- Public Utility
- Transportation
- Unknown

Figure 5-3
Black Fork Wind Energy, LLC
Project Area Geology and Topography
Crawford and Richland Counties, Ohio
Map 28 of 30

Source: ESRI 2010; NHD, 2008 USGS/EPA NHD 2008; OH DNR 2009; Crawford and Richland County Auditor, 2009; EP 2011.

Wind Energy, LLC Project Area Geology and Topography



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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)

Collection Line (01-14-11)
Access Roads (01-14-11)
Substation (01-13-11)
O&M Building (01-13-11)
Switchyard (01-13-11)
Laydown Yard & Batch Plant (01-13-11)

Project Area (01-03-11)
Residential Locations
Schools
Church
Hospital
Industrial Building
Water Well
Gas/Oil Well

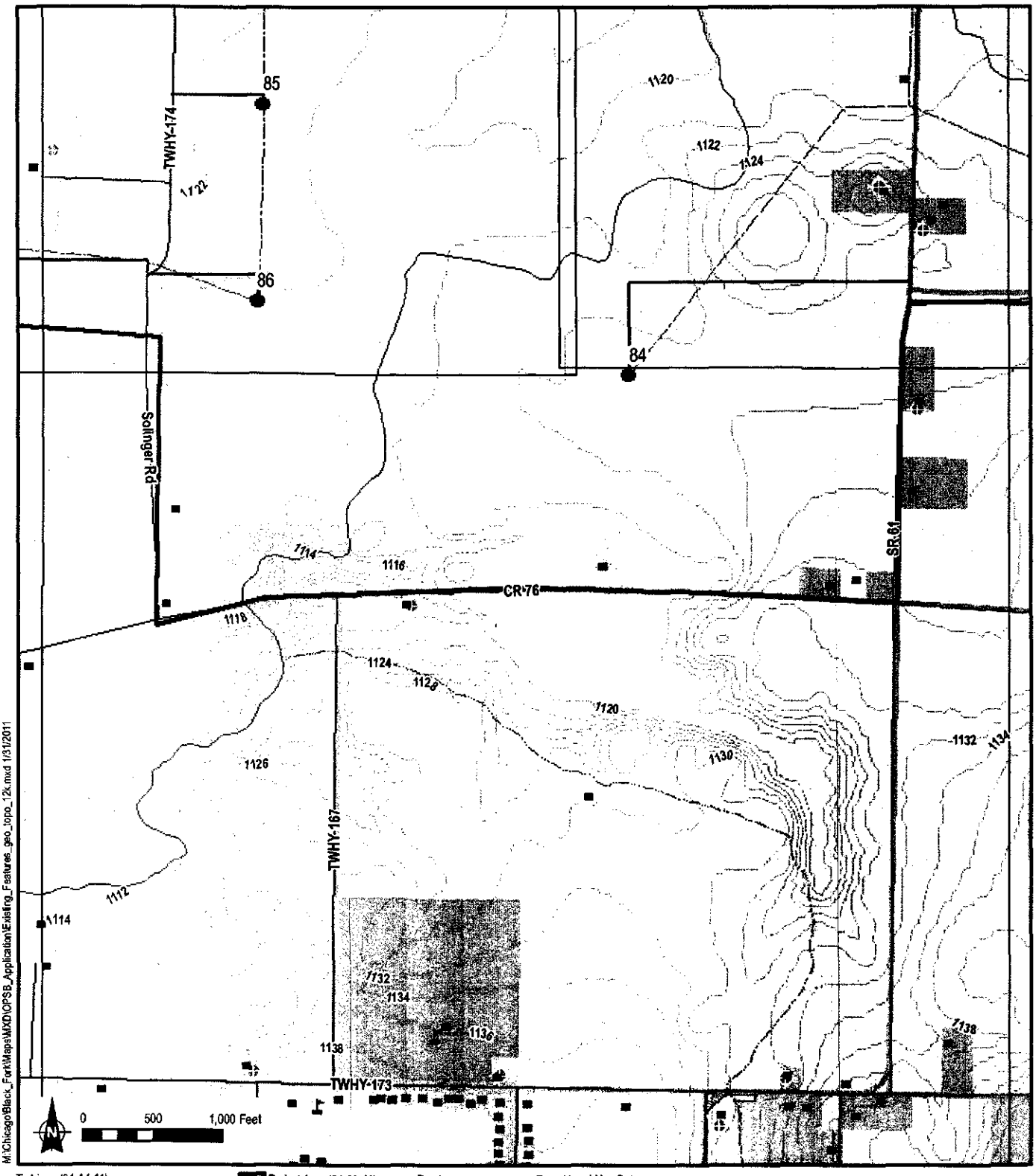
Road
Contours (2-ft)
Artificial Path
Canal/Ditch
Perennial Stream/River
Intermittent

Parcel Land Use Data
Agricultural
Commercial
Residential
Exempt
Industrial
Abatement
Mineral Rights
Public Utility
Transportation
Unknown

Figure 5-3
Black Fork Wind Energy, LLC
Project Area Geology and Topography
Crawford and Richland Counties, Ohio
Map 29 of 30

Source: ESRI 2010; NHD, 2008 USGS/EPA NHD 2008; OH DNR 2009; Crawford and Richland County Auditor, 2009; EP 2011.

Black Fork Wind Energy, LLC Project Area Geology and Topography



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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)

Collection Line (01-14-11)
Access Roads (01-14-11)
Substation (01-13-11)
O&M Building (01-13-11)
Switchyard (01-13-11)
Laydown Yard & Batch Plant (01-13-11)

Project Area (01-03-11)
Residential Locations
Schools
Church
Hospital
Industrial Building
Water Well
Gas/Oil Well

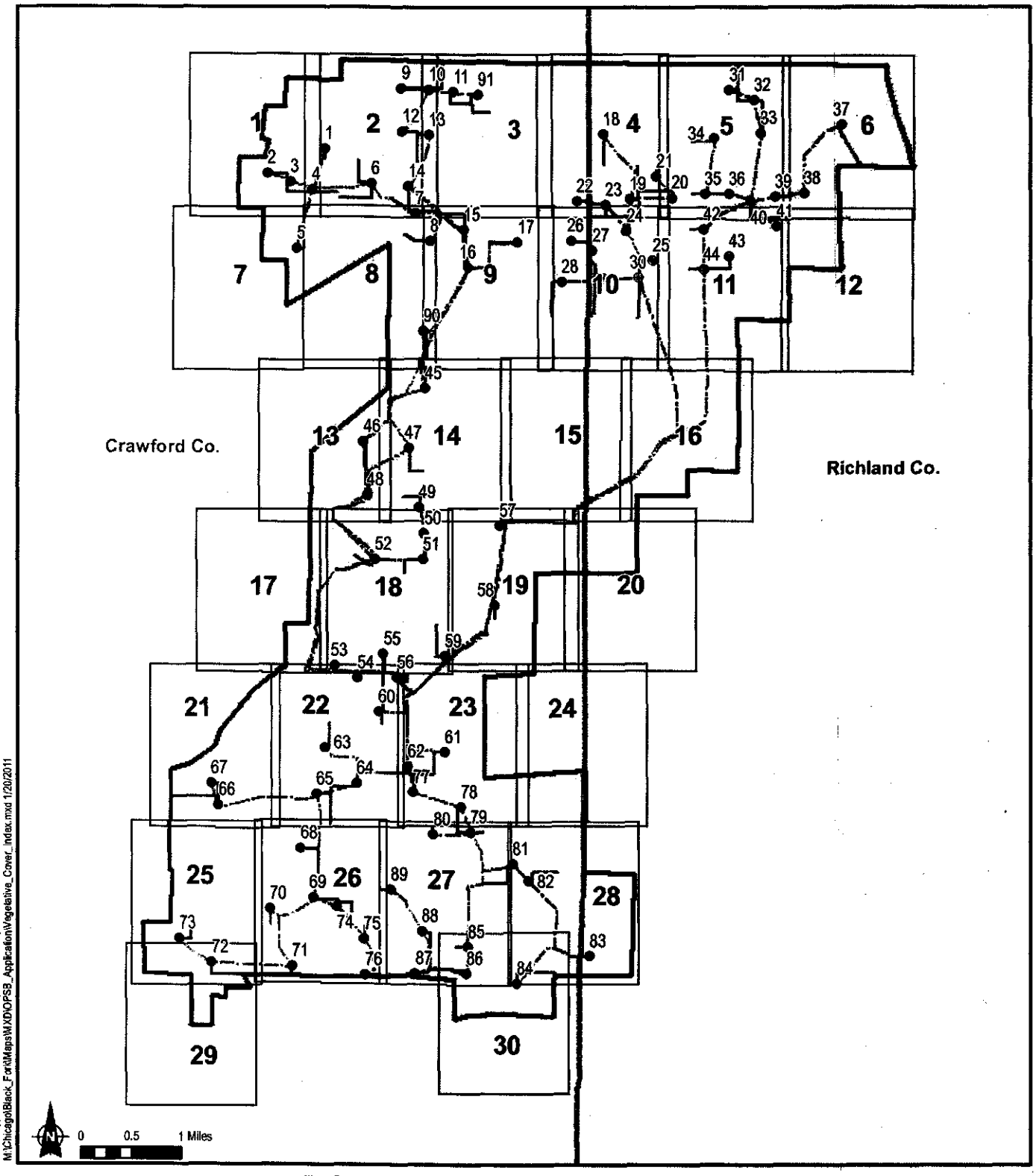
Road
Contours (2-ft)
Artificial Path
Canal/Ditch
Perennial Stream/River
Intermittent

Parcel Land Use Data
Agricultural
Commercial
Residential
Exempt
Industrial
Abatement
Mineral Rights
Public Utility
Transportation
Unknown

Figure 5-3
Black Fork Wind Energy, LLC
Project Area Geology and Topography
Crawford and Richland Counties, Ohio
Map 30 of 30

Source: ESRI 2010; NHD, 2008 USGS/EPA NHD 2008; OH DNR 2009; Crawford and Richland County Auditor, 2009; EP 2011.

Black Fork Wind Energy, LLC - Vegetative Cover Index Map



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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)

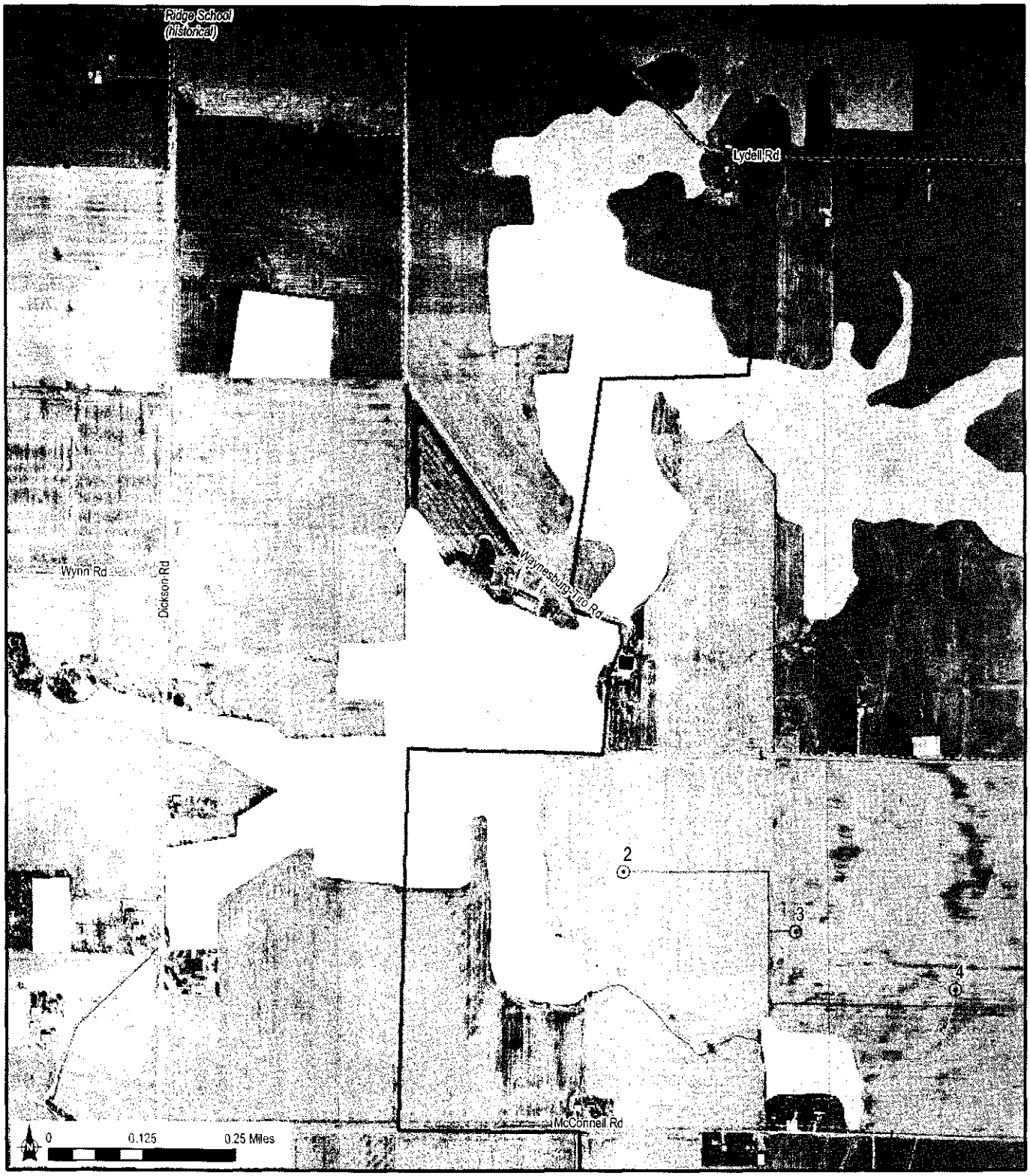
Access Roads (01-14-11)
Collection Line (01-14-11)

Substation (01-13-11)
Project Area (01-03-11)
County boundary

Figure 5-4
Black Fork Wind Energy, LLC Index Map 1:12,000 Scale
Crawford and Richland Counties, Ohio

Source: ESRI 2010; OH DNR 2009; EP 2011.

Black Fork Wind Energy, LLC - Vegetative Cover



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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)

Access Roads (01-14-11)
Collection Line (01-14-11)
Project Area (01-03-11)

Substation (01-13-11)
O&M Building (01-13-11)
Switchyard (01-13-11)
Laydown Yard & Batch Plant (01-13-11)
Forest
Old Field
Wetland

Impact to Forest Vegetation
School
Church
Hospital
Industrial Building
Major Road

Figure 5-4
Black Fork Wind Energy, LLC - Vegetative Cover
Crawford and Richland Counties, Ohio
Map 1 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; USGS NLCD 2001; EP 2011.

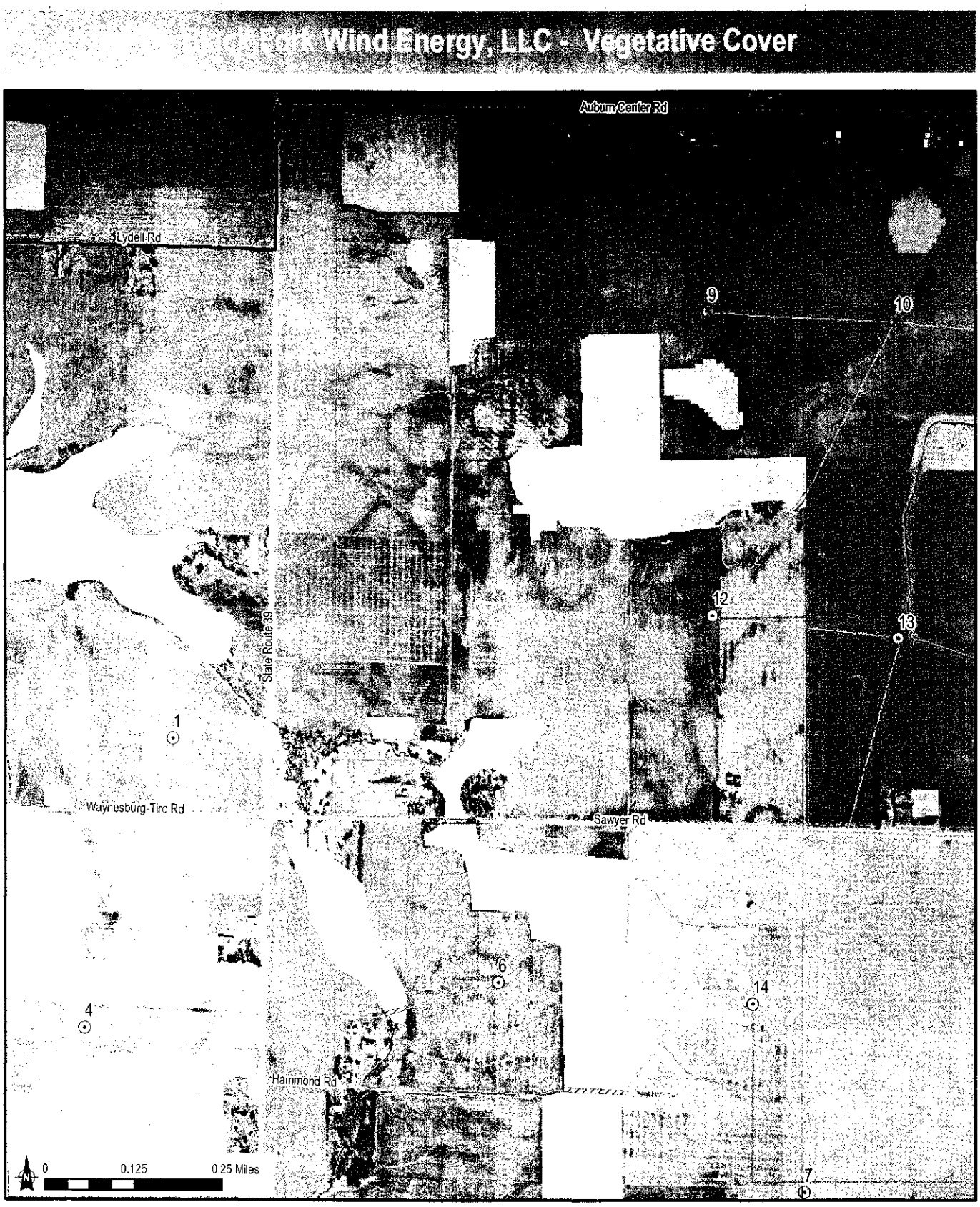

Figure 5-4
Black Fork Wind Energy, LLC - Vegetative Cover
Crawford and Richland Counties, Ohio
Map 2 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; USGS NLCD 2001; EP 2011.

Black Fork Wind Energy, LLC - Vegetative Cover

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Turbines (01-14-11)
Vestas V100
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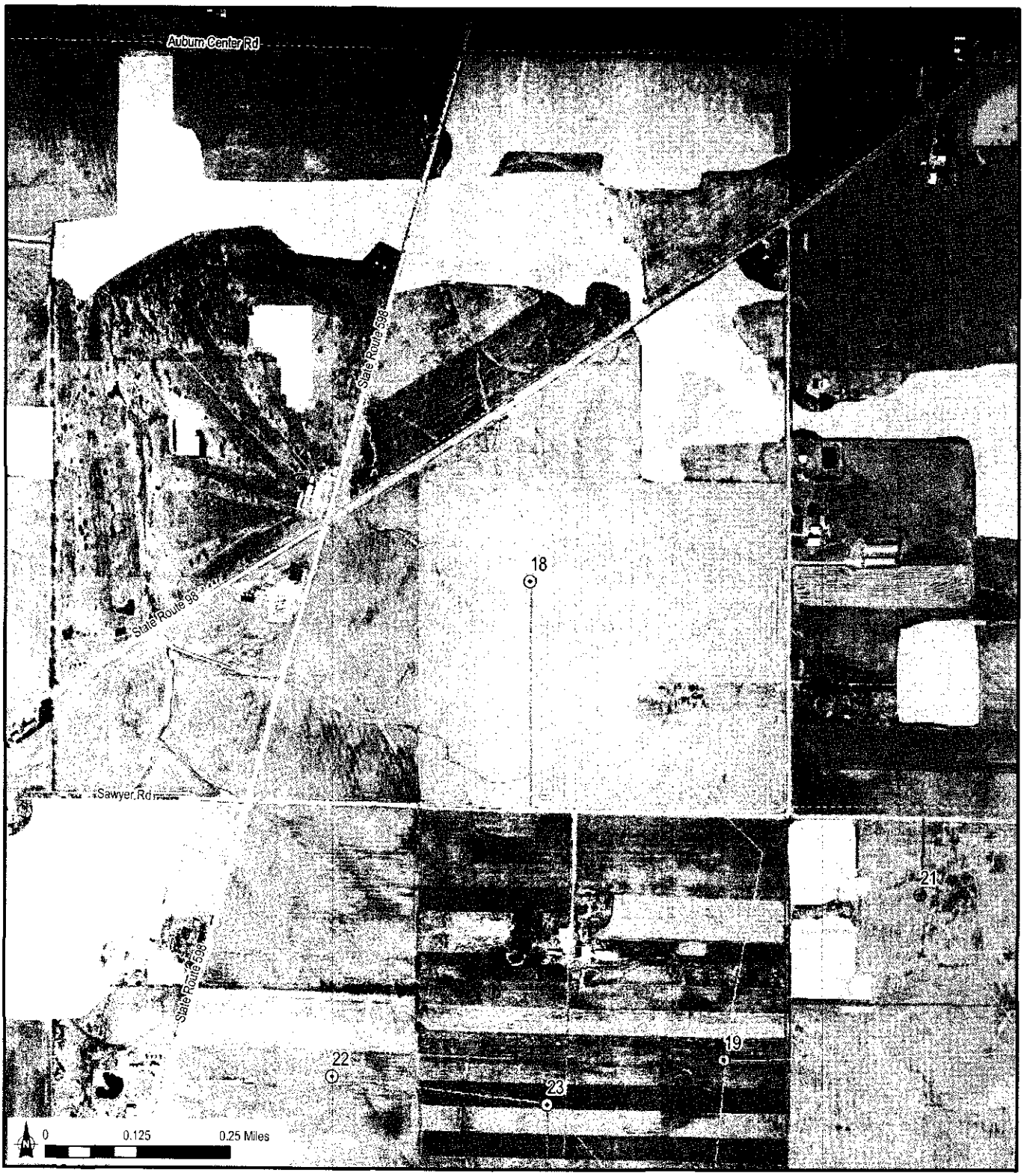
Access Roads (01-14-11)
Collection Line (01-14-11)
Project Area (01-03-11)
Substation (01-13-11)
O&M Building (01-13-11)
Switchyard (01-13-11)
Laydown Yard & Batch Plant (01-13-11)
Forest
Old Field
Wetland
Impact to Forest Vegetation
School
Church
Hospital
Industrial Building
Major Road

Figure 5-4
Black Fork Wind Energy, LLC - Vegetative Cover
Crawford and Richland Counties, Ohio
Map 3 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; USGS NLCD 2001; EP 2011.

Black Fork Wind Energy, LLC - Vegetative Cover



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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)

Access Roads (01-14-11)
Collection Line (01-14-11)
Project Area (01-03-11)

Substation (01-13-11)
O&M Building (01-13-11)
Switchyard (01-13-11)
Laydown Yard & Batch Plant (01-13-11)
Forest
Old Field
Wetland

Impact to Forest Vegetation
School
Church
Hospital
Industrial Building
Major Road

Figure 5-4
Black Fork Wind Energy, LLC - Vegetative Cover
Crawford and Richland Counties, Ohio
Map 4 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; USGS NLCD 2001; EP 2011.

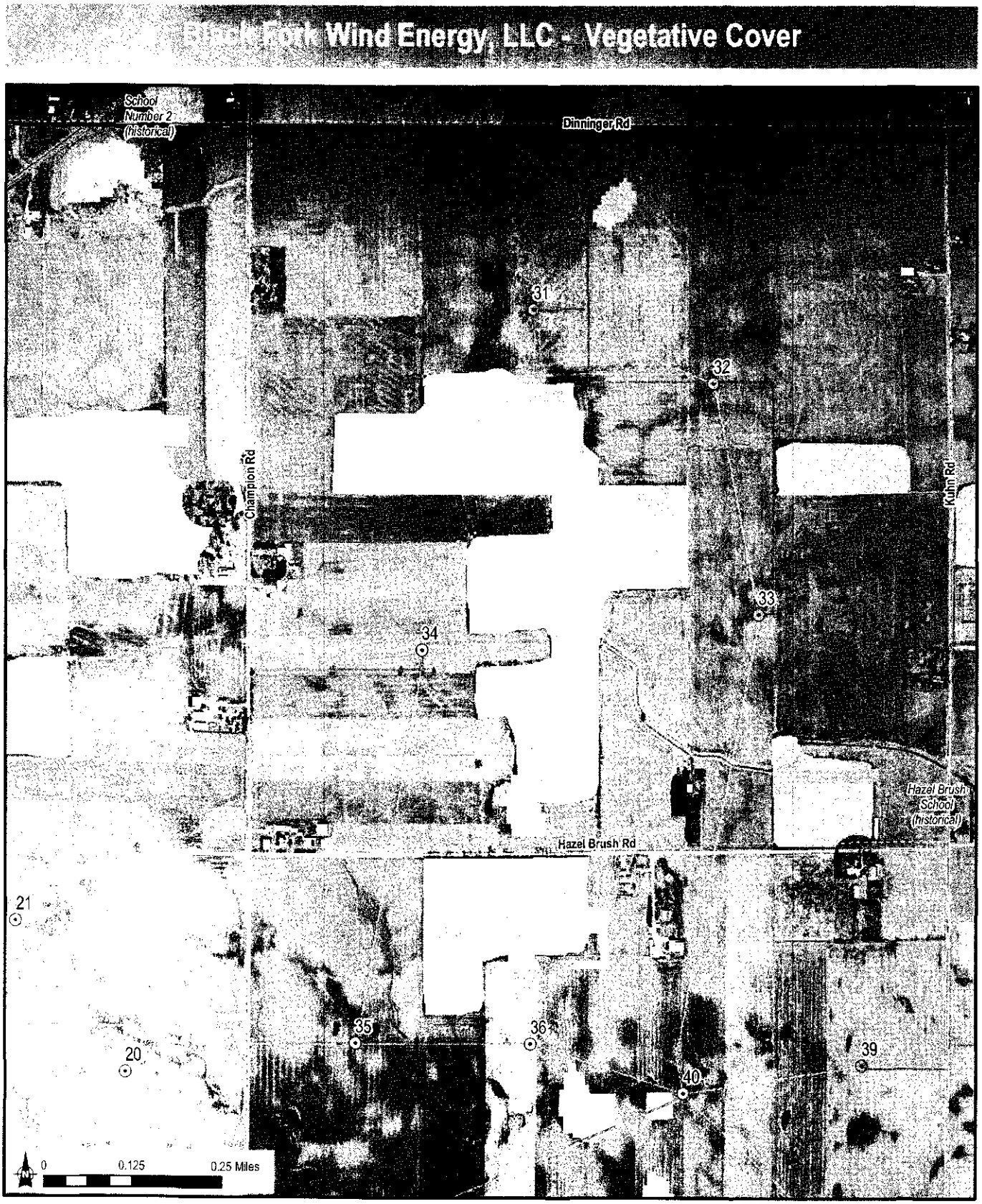


Figure 5-4
Black Fork Wind Energy, LLC - Vegetative Cover
Crawford and Richland Counties, Ohio
Map 5 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; USGS NLCD 2001; EP 2011.

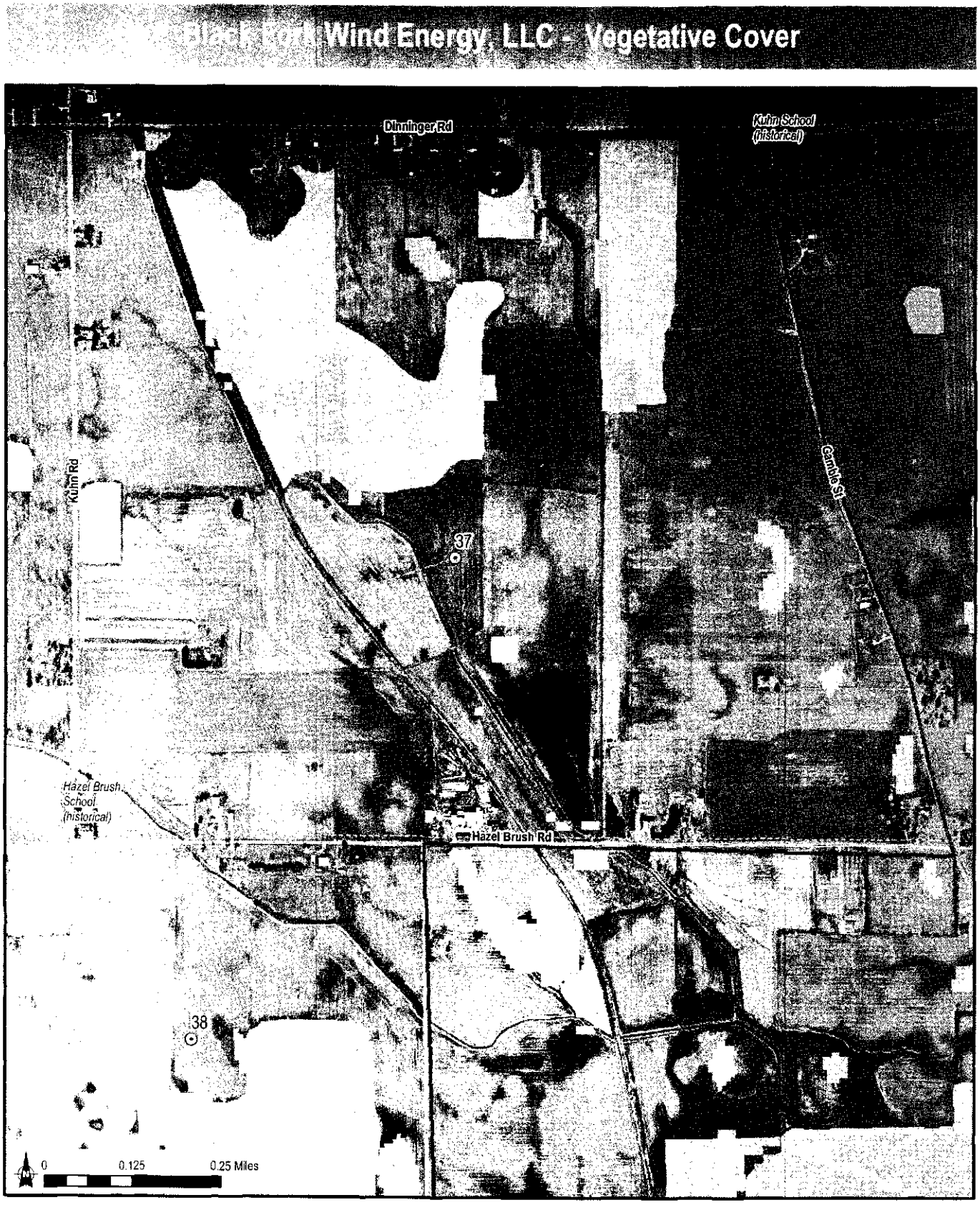
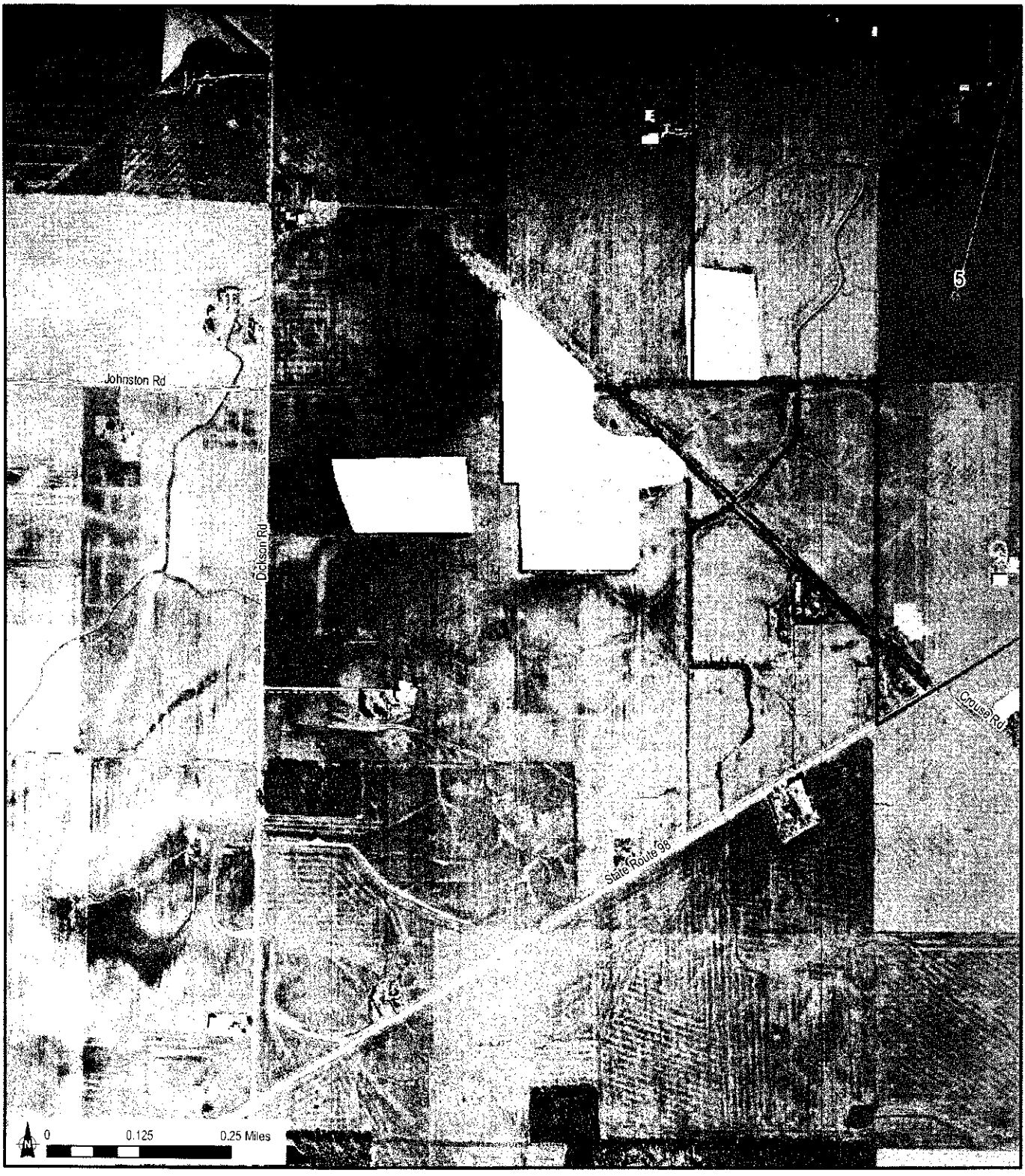


Figure 5-4
Black Fork Wind Energy, LLC - Vegetative Cover
Crawford and Richland Counties, Ohio
Map 6 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; USGS NLCD 2001; EP 2011.

Black Fork Wind Energy, LLC - Vegetative Cover



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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)

Access Roads (01-14-11)
Collection Line (01-14-11)
Project Area (01-03-11)
Substation (01-13-11)
O&M Building (01-13-11)
Switchyard (01-13-11)
Laydown Yard & Batch Plant (01-13-11)
Forest
Old Field
Wetland
Impact to Forest Vegetation
School
Church
Hospital
Industrial Building
Major Road

Figure 5-4
Black Fork Wind Energy, LLC - Vegetative Cover
Crawford and Richland Counties, Ohio
Map 7 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; USGS NLCD 2001; EP 2011.

Black Fork Wind Energy, LLC - Vegetative Cover

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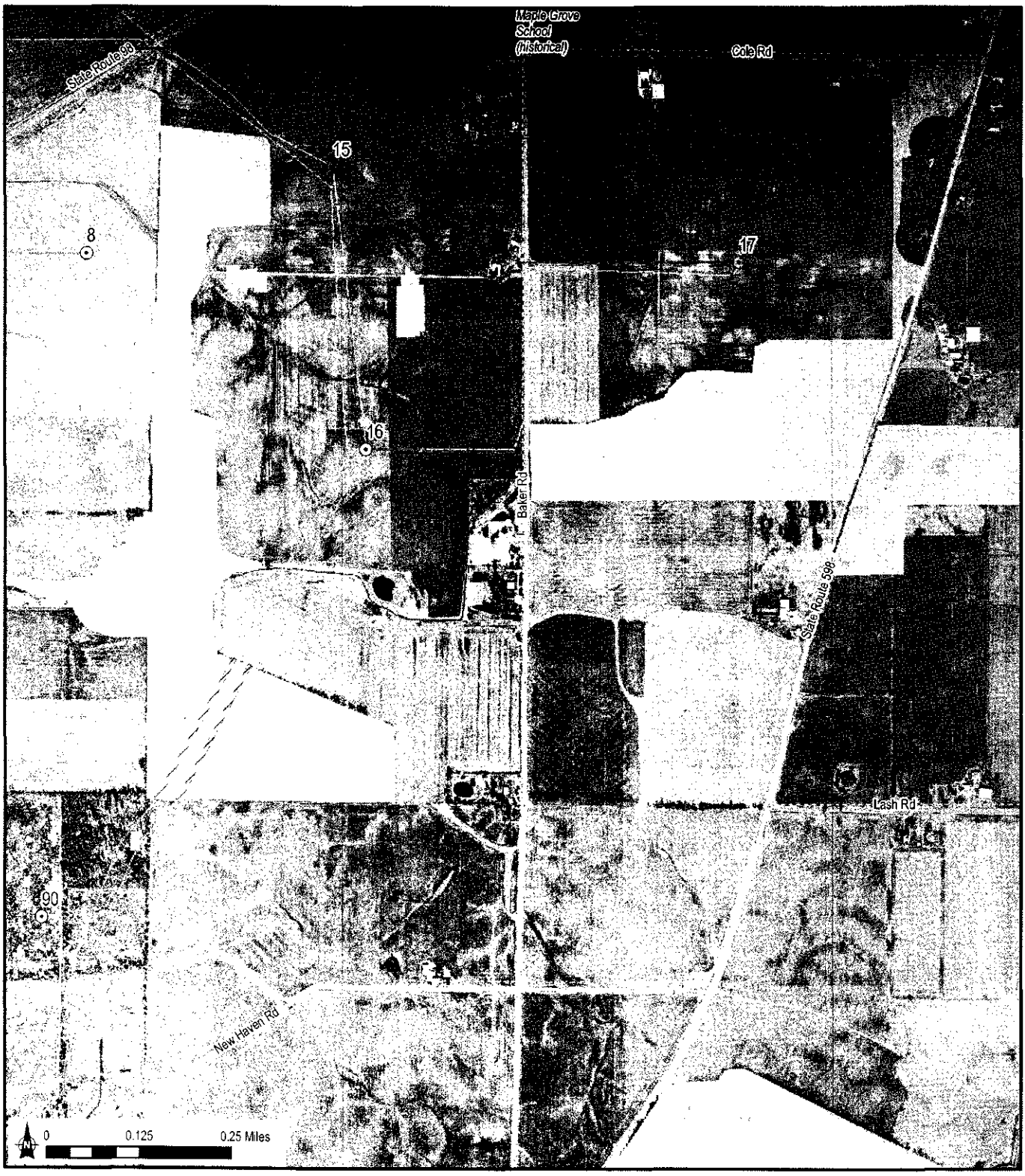
Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)

Access Roads (01-14-11)
Collection Line (01-14-11)
Project Area (01-03-11)
Substation (01-13-11)
O&M Building (01-13-11)
Switchyard (01-13-11)
Laydown Yard & Batch Plant (01-13-11)
Forest
Old Field
Wetland
Impact to Forest Vegetation
School
Church
Hospital
Industrial Building
Major Road

Figure 5-4
Black Fork Wind Energy, LLC - Vegetative Cover
Crawford and Richland Counties, Ohio
Map 8 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; USGS NLCD 2001; EP 2011.

Black Fork Wind Energy, LLC - Vegetative Cover



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Turbines (01-14-11)
Vestas V100
V100 w/ 80 m Hub (130m tip height)
V100 w/ 95 m Hub (145m tip height)
Access Roads (01-14-11)
Collection Line (01-14-11)
Project Area (01-03-11)

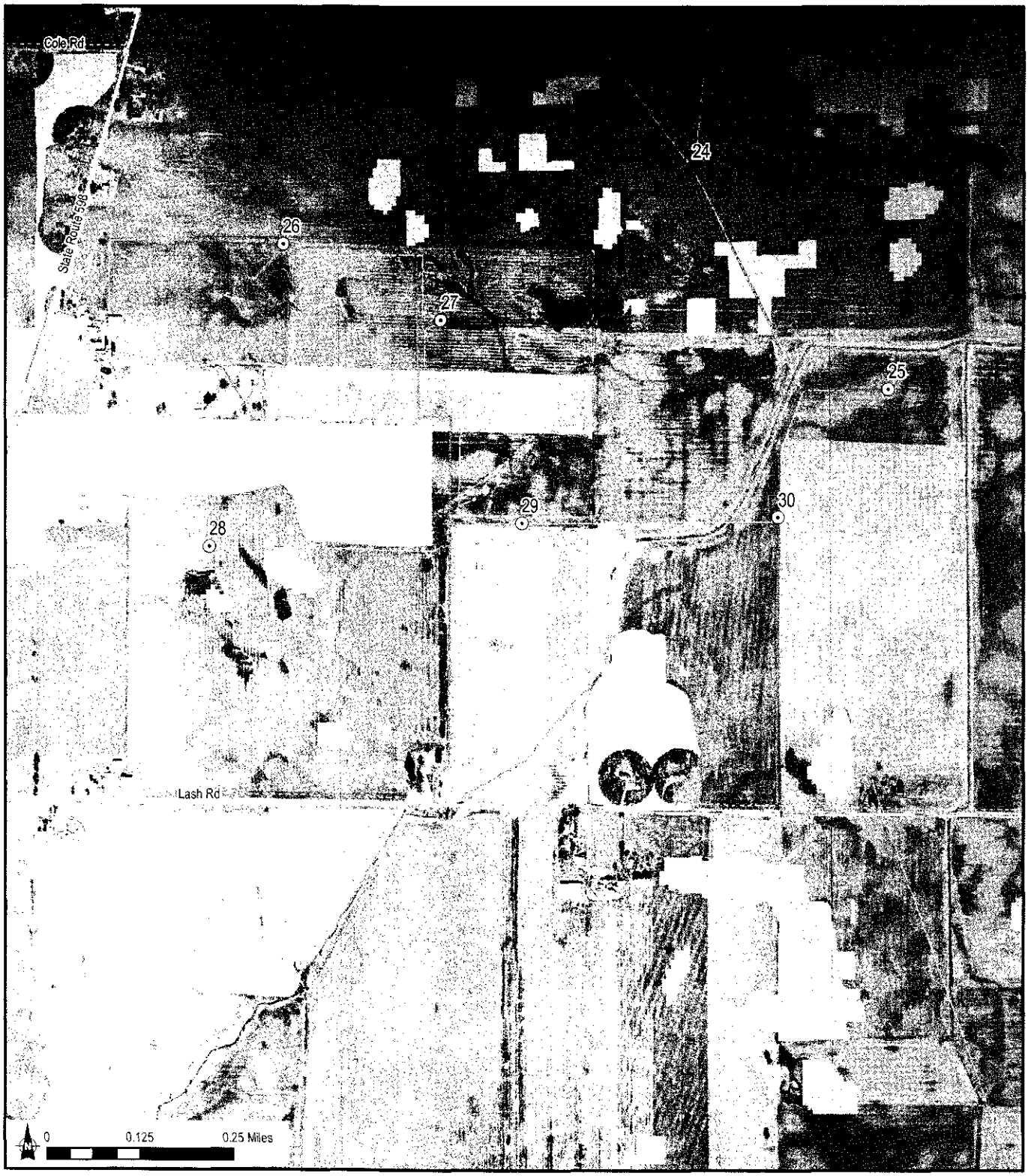
Substation (01-13-11)
O&M Building (01-13-11)
Switchyard (01-13-11)
Laydown Yard & Batch Plant (01-13-11)
Forest
Old Field
Wetland

Impact to Forest Vegetation
School
Church
Hospital
Industrial Building
Major Road

Figure 5-4
Black Fork Wind Energy, LLC - Vegetative Cover
Crawford and Richland Counties, Ohio
Map 9 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; USGS NLCD 2001; EP 2011.

Black Fork Wind Energy, LLC - Vegetative Cover



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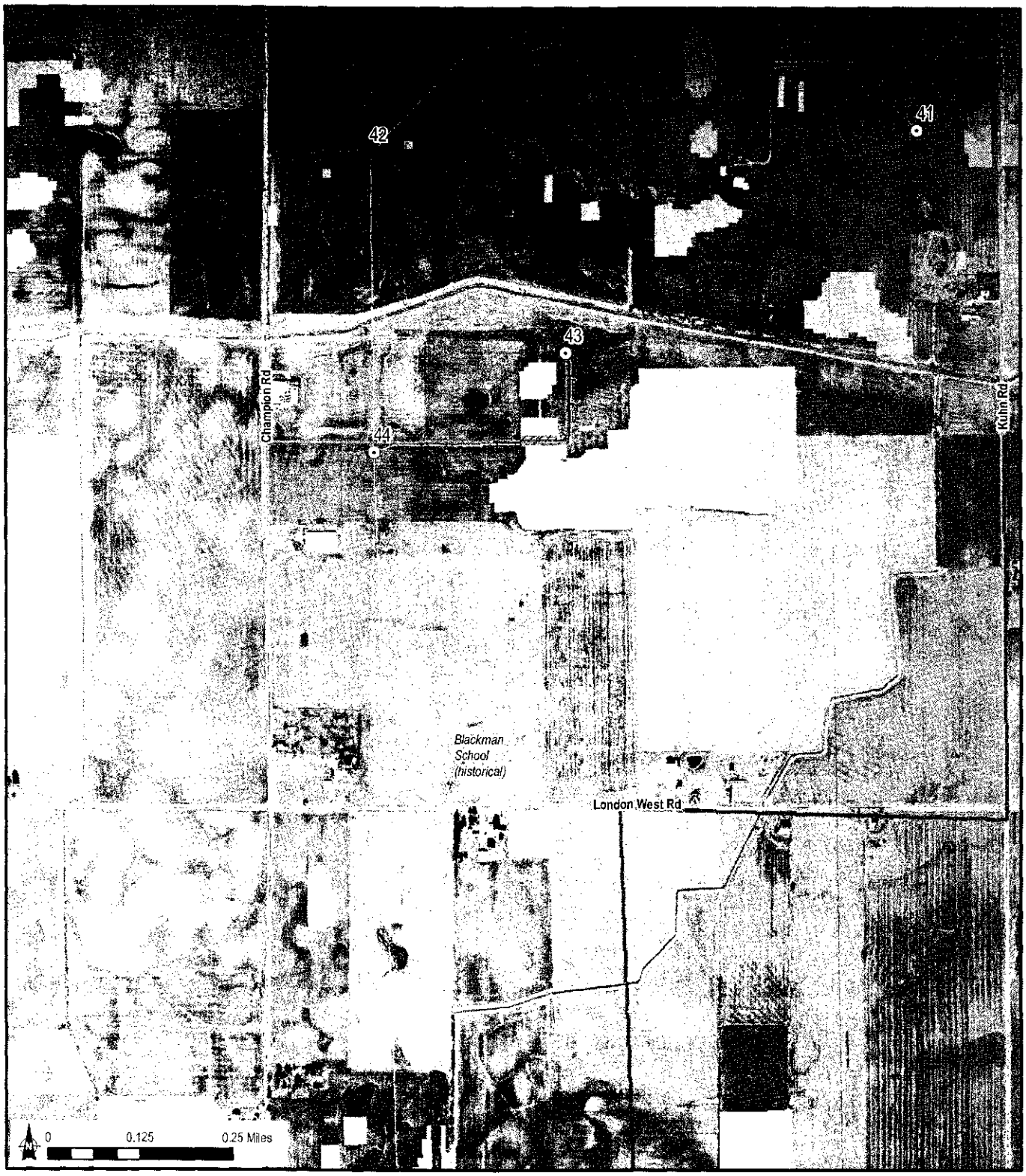
Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)

Access Roads (01-14-11)
Collection Line (01-14-11)
Project Area (01-03-11)
Substation (01-13-11)
O&M Building (01-13-11)
Switchyard (01-13-11)
Laydown Yard & Batch Plant (01-13-11)
Forest
Old Field
Wetland
Impact to Forest Vegetation
School
Church
Hospital
Industrial Building
Major Road

Figure 5-4
Black Fork Wind Energy, LLC - Vegetative Cover
Crawford and Richland Counties, Ohio
Map 10 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; USGS NLCD 2001; EP 2011.

Black Fork Wind Energy, LLC - Vegetative Cover



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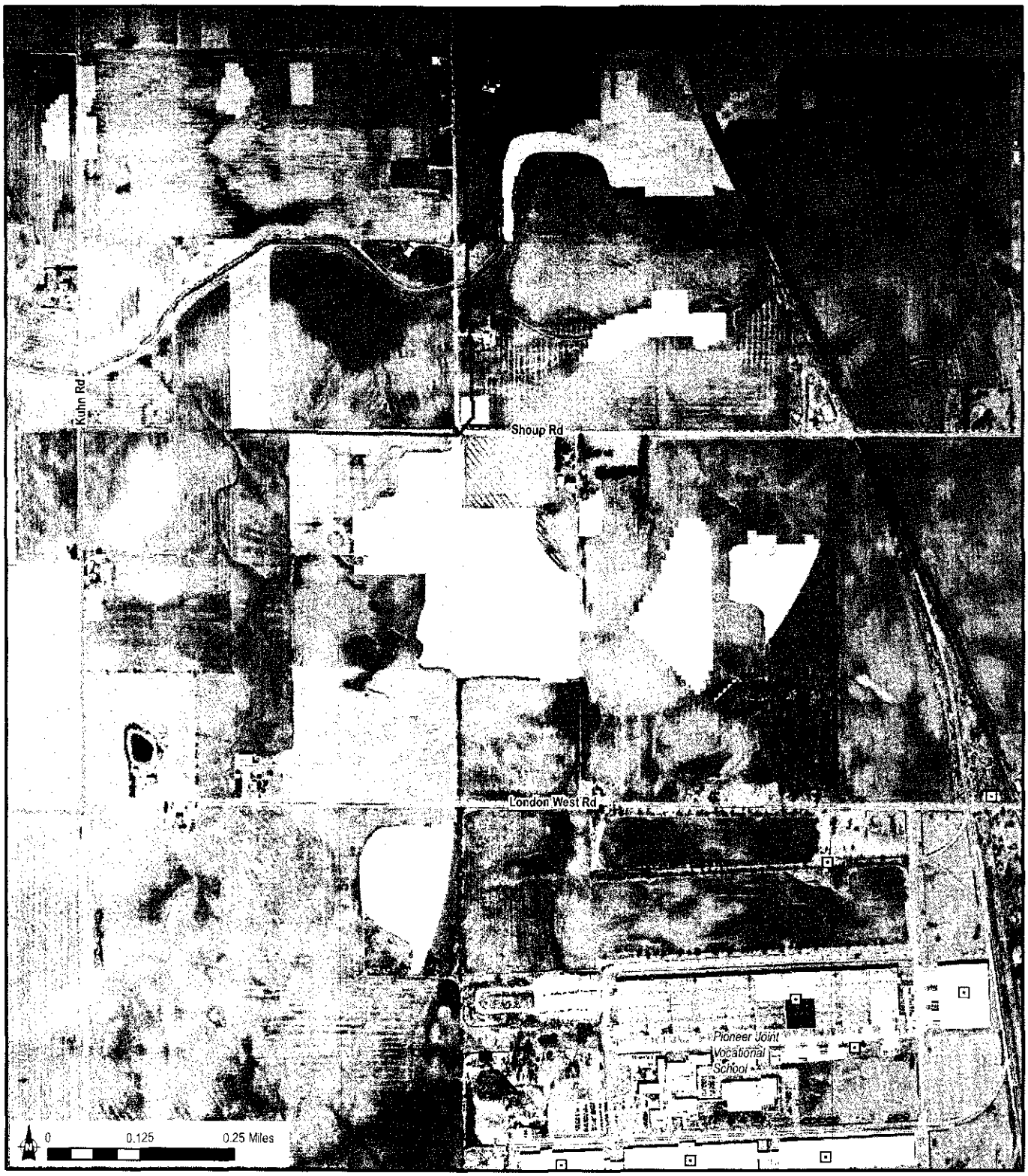
Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)

Access Roads (01-14-11)
Collection Line (01-14-11)
Project Area (01-03-11)
Substation (01-13-11)
O&M Building (01-13-11)
Switchyard (01-13-11)
Laydown Yard & Batch Plant (01-13-11)
Forest
Old Field
Wetland
Impact to Forest Vegetation
School
Church
Hospital
Industrial Building
Major Road

Figure 5-4
Black Fork Wind Energy, LLC - Vegetative Cover
Crawford and Richland Counties, Ohio
Map 11 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; USGS NLCD 2001; EP 2011.

Black Fork Wind Energy, LLC - Vegetative Cover



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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)

Access Roads (01-14-11)
Collection Line (01-14-11)
Project Area (01-03-11)
Substation (01-13-11)
O&M Building (01-13-11)
Switchyard (01-13-11)
Laydown Yard & Batch Plant (01-13-11)
Forest
Old Field
Wetland
Impact to Forest Vegetation
School
Church
Hospital
Industrial Building
Major Road

Figure 5-4
Black Fork Wind Energy, LLC - Vegetative Cover
Crawford and Richland Counties, Ohio
Map 12 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; USGS NLCD 2001; EP 2011.

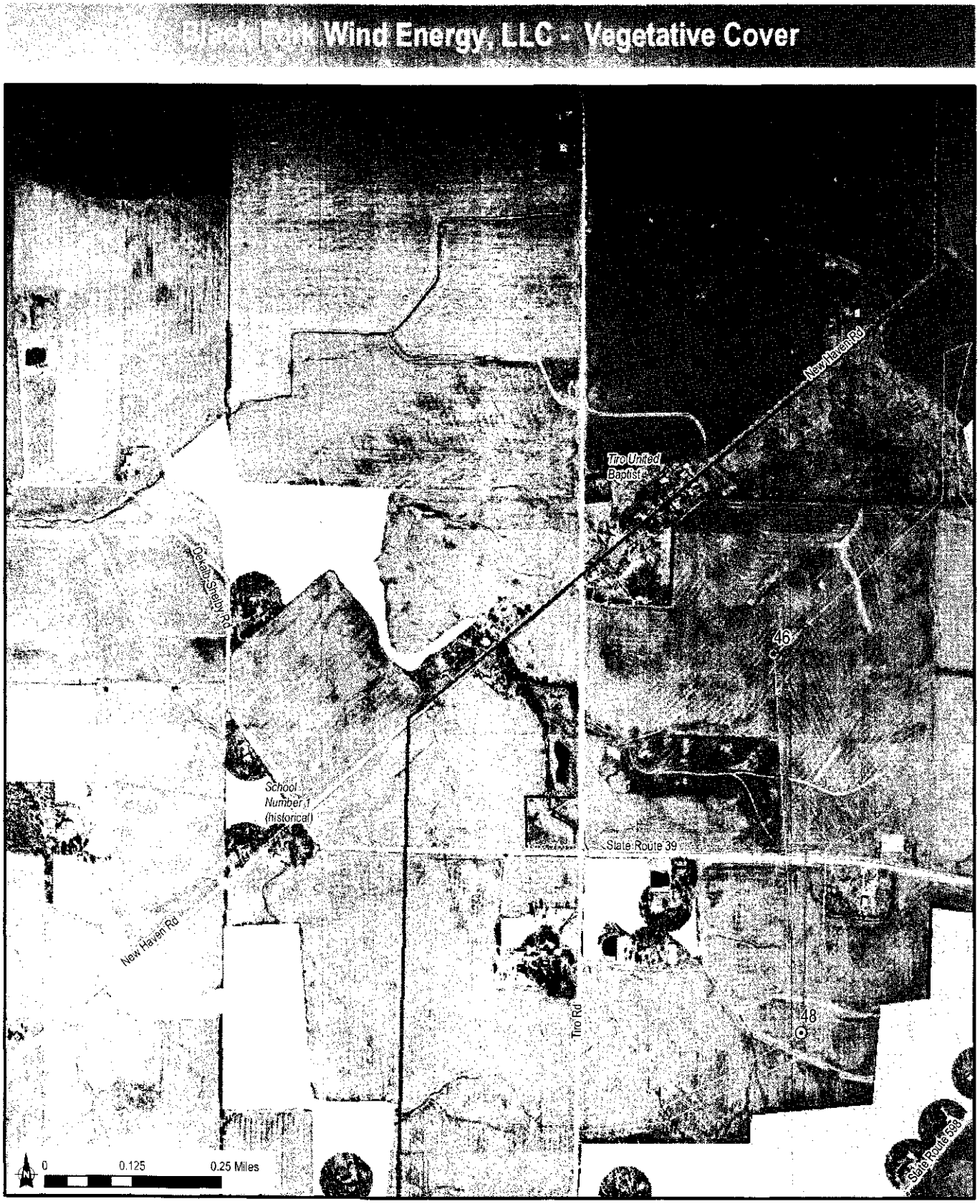


Figure 5-4
Black Fork Wind Energy, LLC - Vegetative Cover
Crawford and Richland Counties, Ohio
Map 13 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; USGS NLCD 2001; EP 2011.

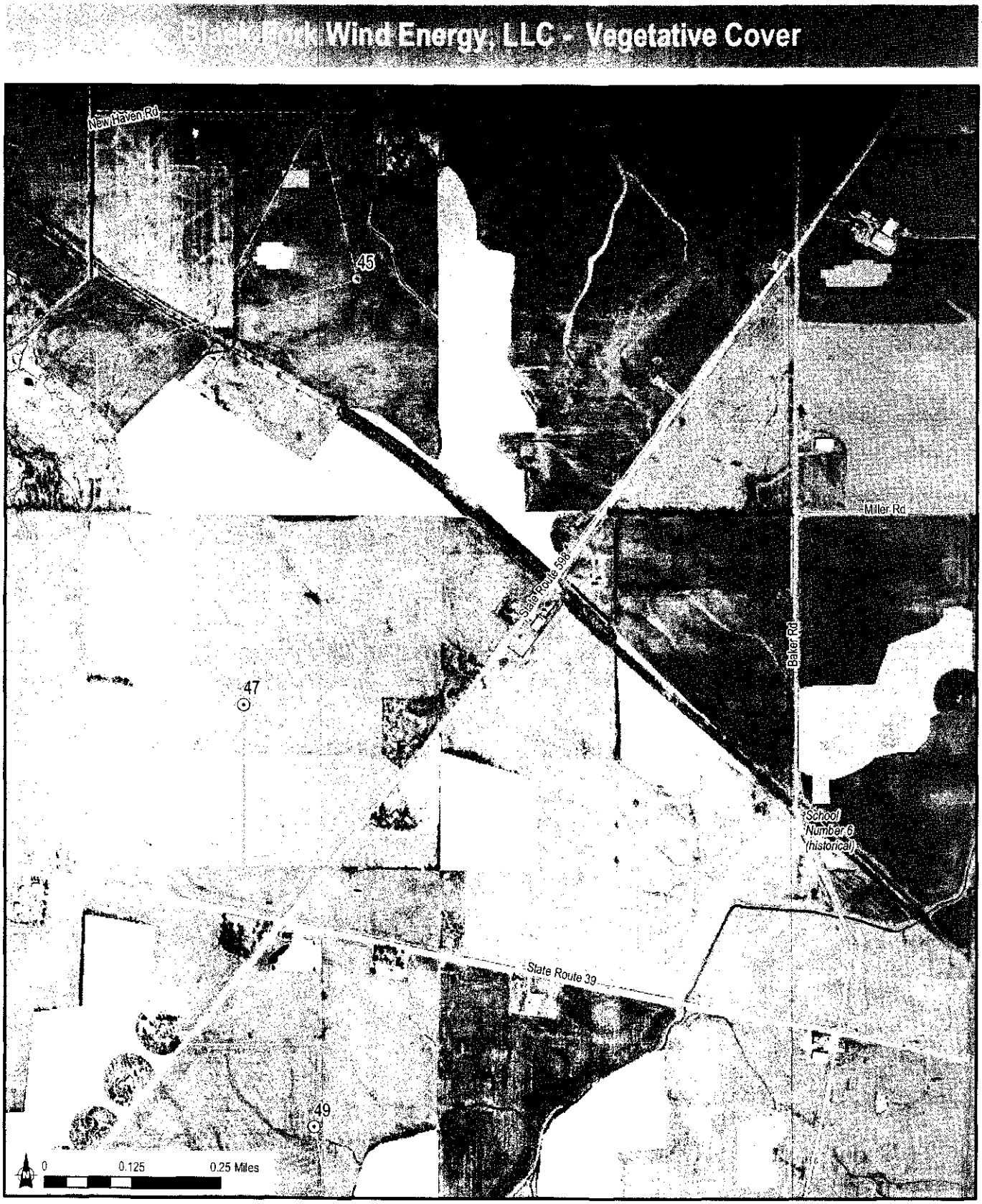


Figure 5-4
Black Fork Wind Energy, LLC - Vegetative Cover
Crawford and Richland Counties, Ohio
Map 14 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; USGS NLCD 2001; EP 2011.

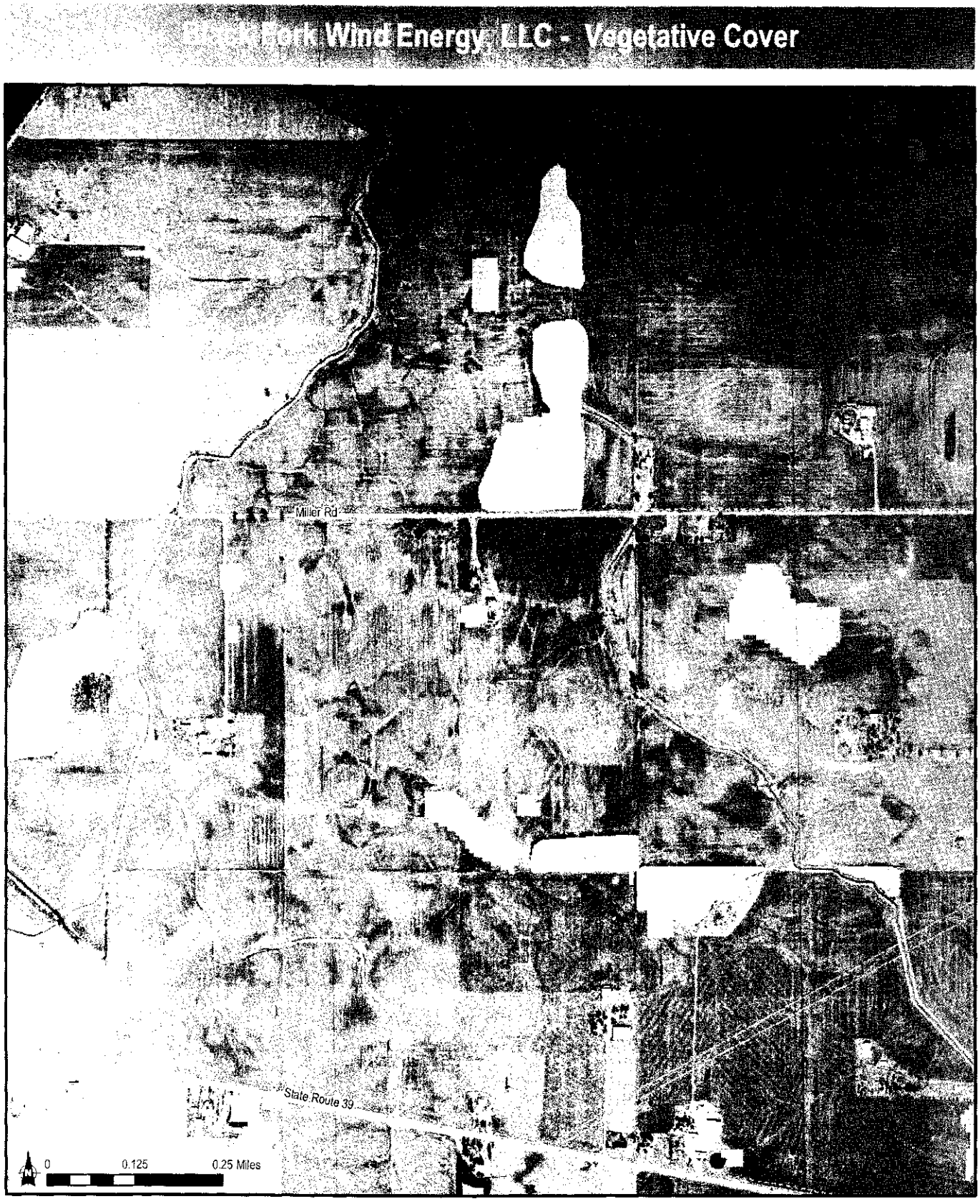


Figure 5-4
Black Fork Wind Energy, LLC - Vegetative Cover
Crawford and Richland Counties, Ohio
Map 15 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; USGS NLCD 2001; EP 2011.

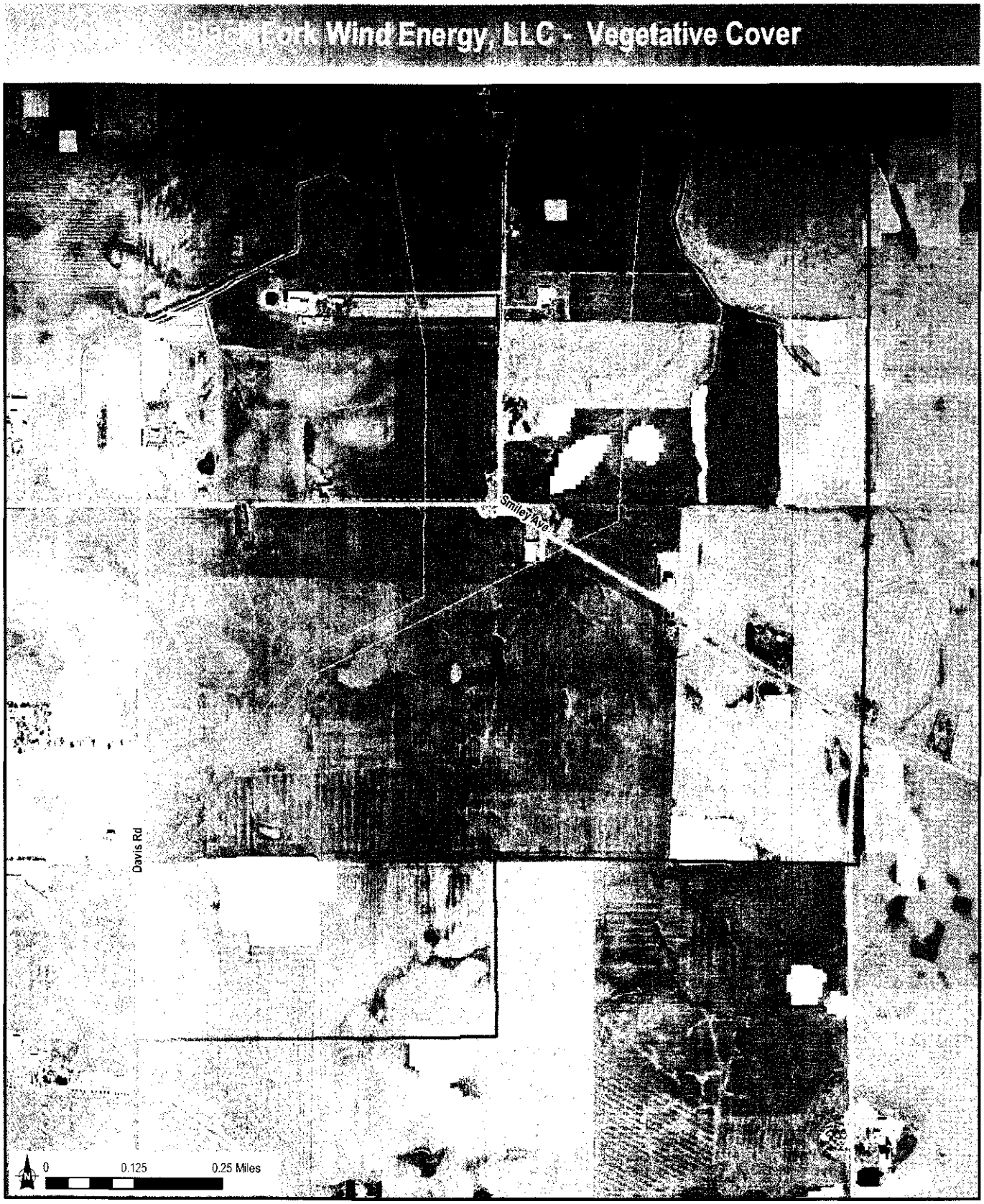


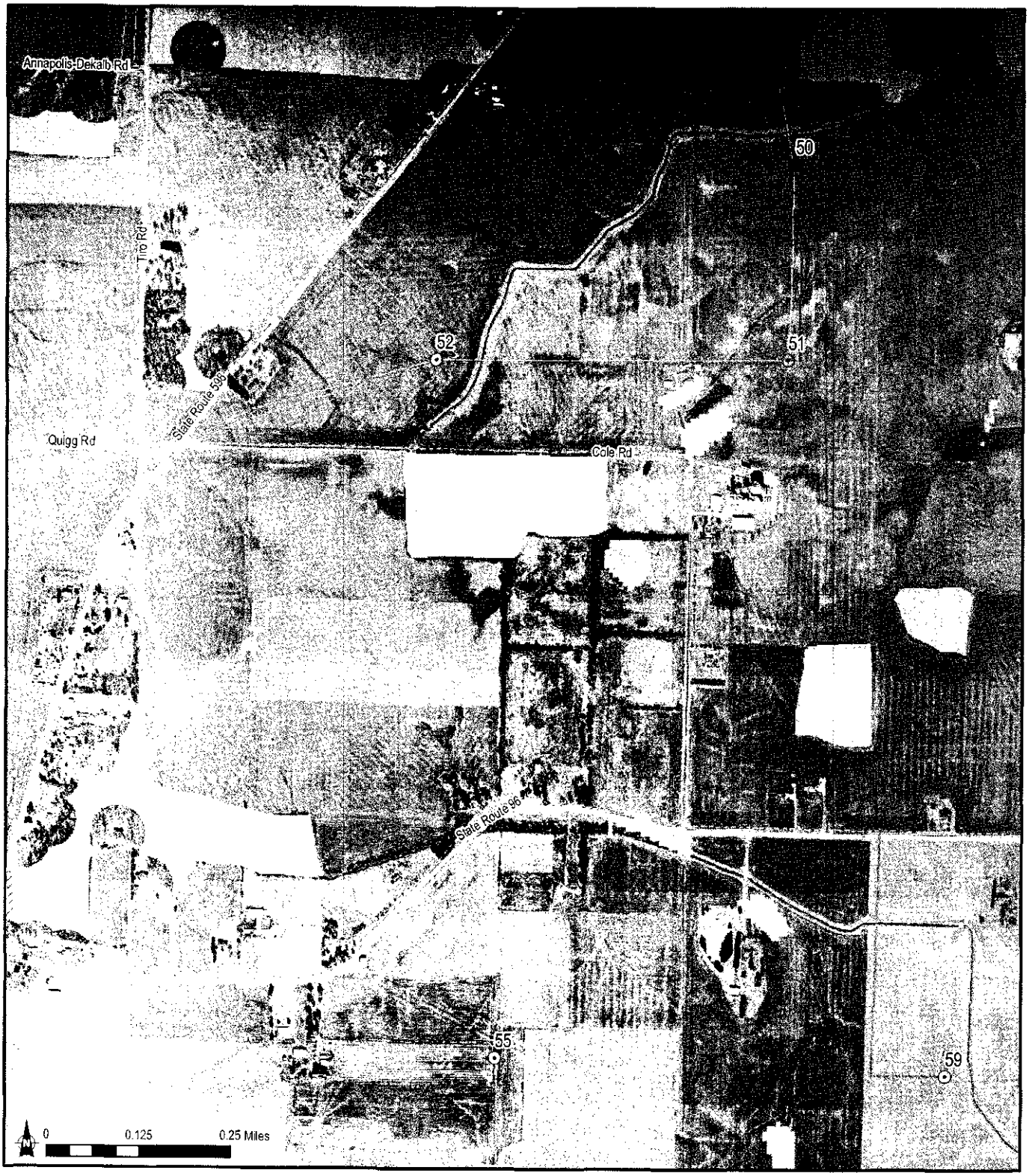
Figure 5-4
Black Fork Wind Energy, LLC - Vegetative Cover
Crawford and Richland Counties, Ohio
Map 16 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; USGS NLCD 2001; EP 2011.

Figure 5-4
Black Fork Wind Energy, LLC - Vegetative Cover
Crawford and Richland Counties, Ohio
Map 17 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; USGS NLCD 2001; EP 2011.

Black Fork Wind Energy, LLC - Vegetative Cover



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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)

Access Roads (01-14-11)
Collection Line (01-14-11)
Project Area (01-03-11)
Substation (01-13-11)
O&M Building (01-13-11)
Switchyard (01-13-11)
Laydown Yard & Batch Plant (01-13-11)
Forest
Old Field
Wetland
Impact to Forest Vegetation
School
Church
Hospital
Industrial Building
Major Road

Figure 5-4
Black Fork Wind Energy, LLC - Vegetative Cover
Crawford and Richland Counties, Ohio
Map 18 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; USGS NLCD 2001; EP 2011.

Black Fork Wind Energy, LLC - Vegetative Cover

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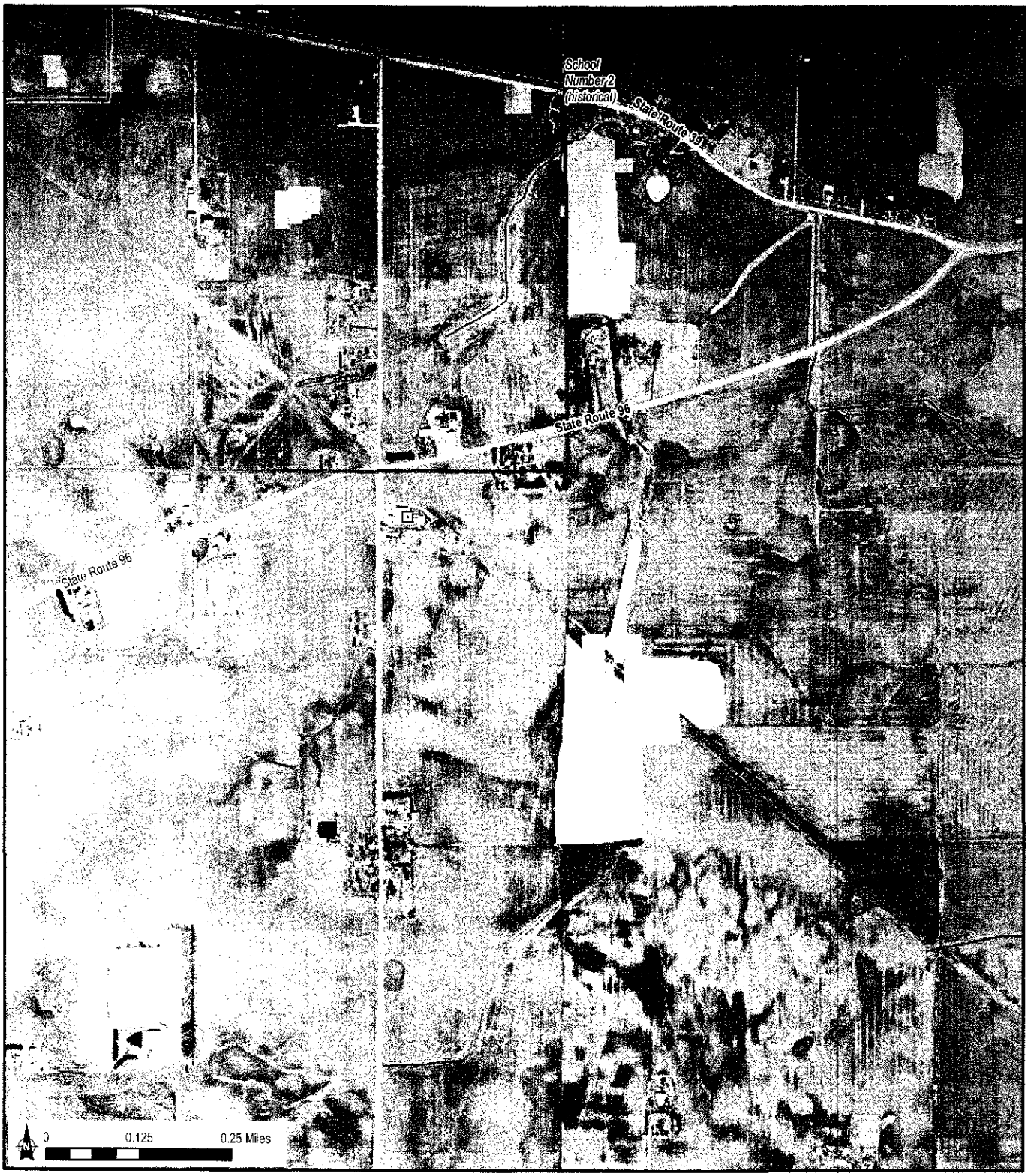
Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)

Access Roads (01-14-11)
Collection Line (01-14-11)
Project Area (01-03-11)
Substation (01-13-11)
O&M Building (01-13-11)
Switchyard (01-13-11)
Laydown Yard & Batch Plant (01-13-11)
Forest
Old Field
Wetland
Impact to Forest Vegetation
School
Church
Hospital
Industrial Building
Major Road

Figure 5-4
Black Fork Wind Energy, LLC - Vegetative Cover
Crawford and Richland Counties, Ohio
Map 19 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; USGS NLCD 2001; EP 2011.

Black Fork Wind Energy, LLC - Vegetative Cover



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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)

Access Roads (01-14-11)
Collection Line (01-14-11)
Project Area (01-03-11)
Substation (01-13-11)
O&M Building (01-13-11)
Switchyard (01-13-11)
Laydown Yard & Batch Plant (01-13-11)
Forest
Old Field
Wetland
Impact to Forest Vegetation
School
Church
Hospital
Industrial Building
Major Road

Figure 5-4
Black Fork Wind Energy, LLC - Vegetative Cover
Crawford and Richland Counties, Ohio
Map 20 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; USGS NLCD 2001; EP 2011.

Black Fork Wind Energy, LLC - Vegetative Cover

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Turbines (01-14-11)
Vestas V100
V100 w/ 80 m Hub (130m tip height)
V100 w/ 95 m Hub (145m tip height)
Access Roads (01-14-11)
Collection Line (01-14-11)
Project Area (01-03-11)
Substation (01-13-11)
O&M Building (01-13-11)
Switchyard (01-13-11)
Laydown Yard & Batch Plant (01-13-11)
Forest
Old Field
Wetland
Impact to Forest Vegetation
School
Church
Hospital
Industrial Building
Major Road

Figure 5-4
Black Fork Wind Energy, LLC - Vegetative Cover
Crawford and Richland Counties, Ohio
Map 21 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; USGS NLCD 2001; EP 2011.

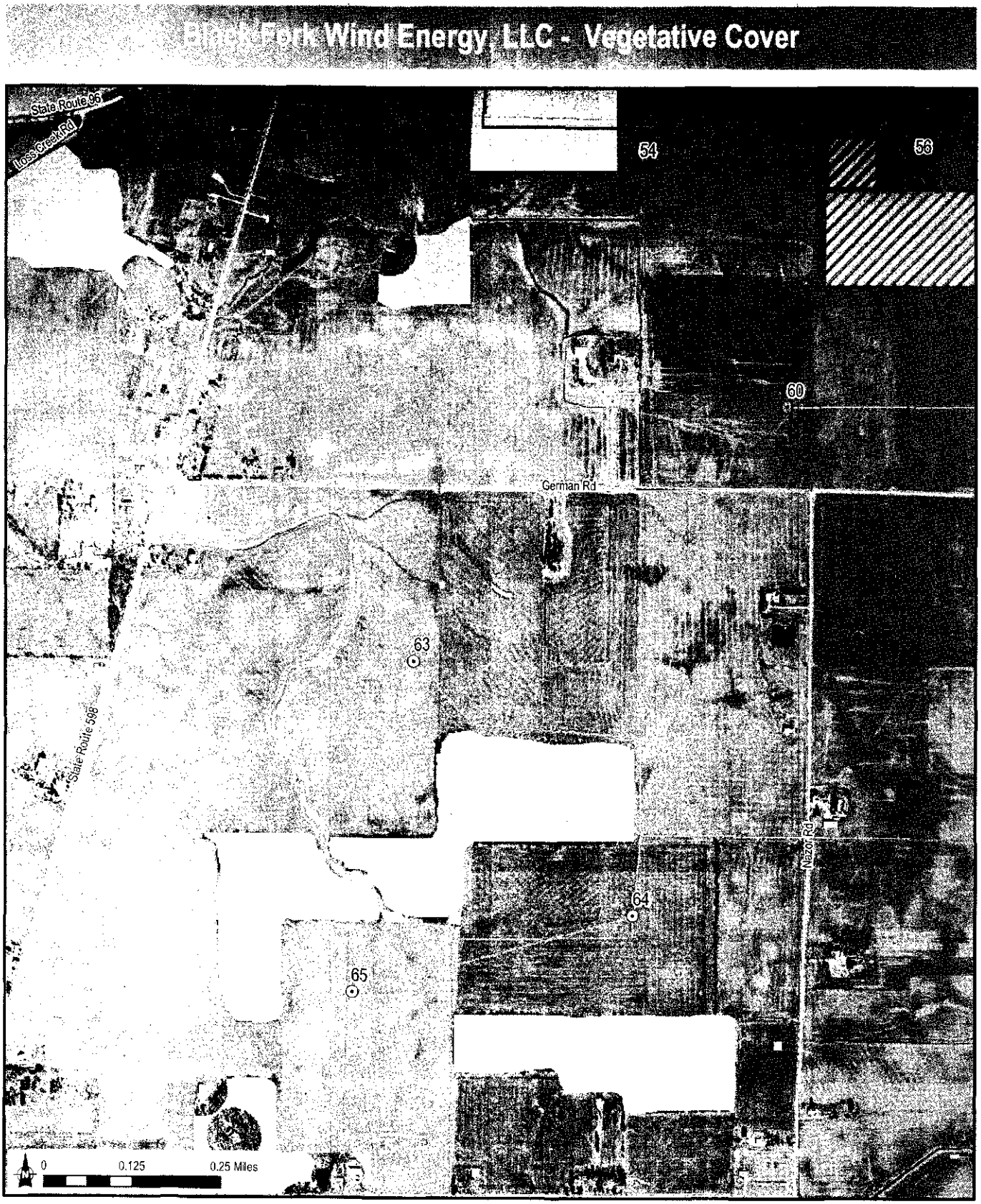

Figure 5-4
Black Fork Wind Energy, LLC - Vegetative Cover
Crawford and Richland Counties, Ohio
Map 22 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; USGS NLCD 2001; EP 2011.

Figure 5-4
Black Fork Wind Energy, LLC - Vegetative Cover
Crawford and Richland Counties, Ohio
Map 23 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; USGS NLCD 2001; EP 2011.

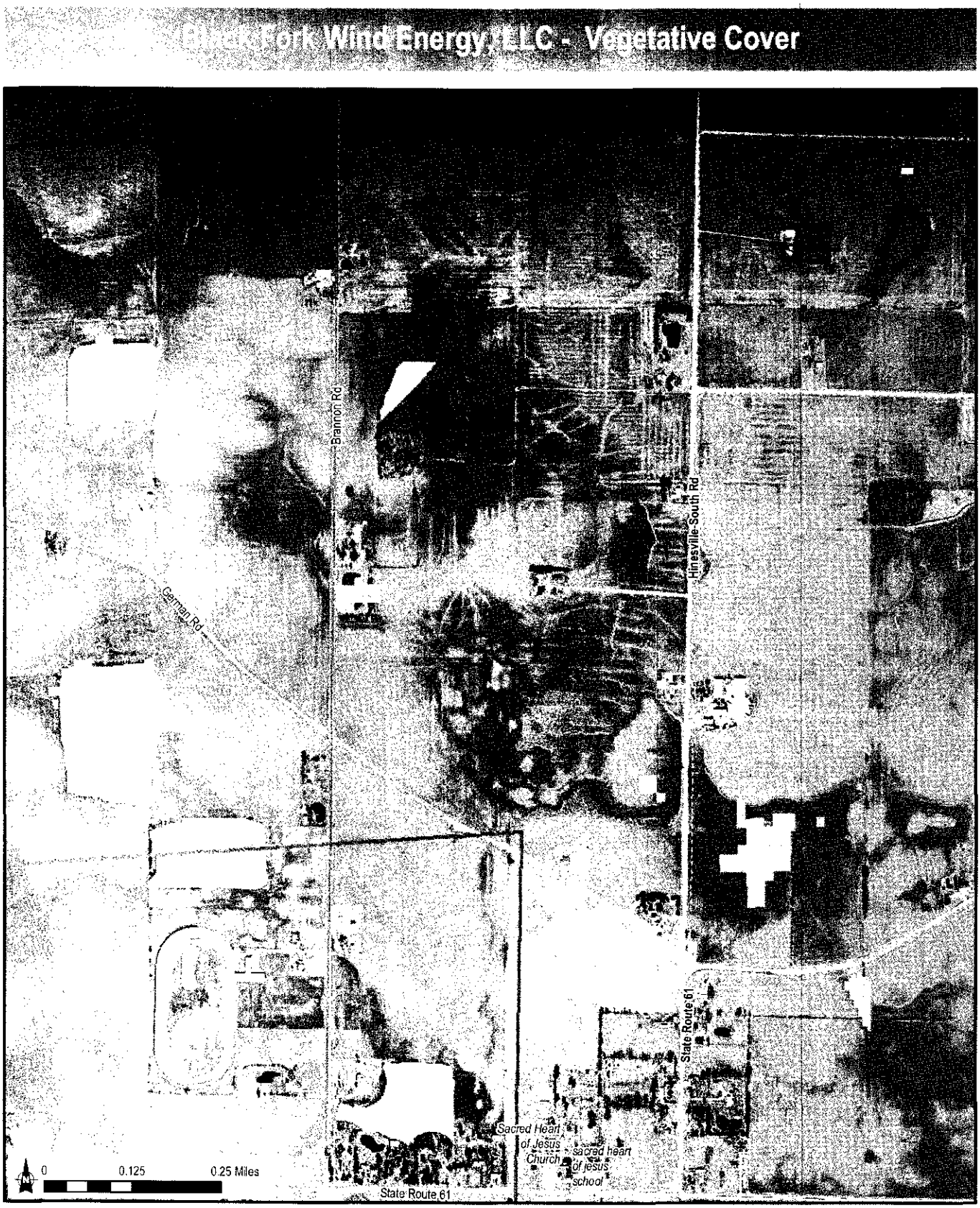

Figure 5-4
Black Fork Wind Energy, LLC - Vegetative Cover
Crawford and Richland Counties, Ohio
Map 24 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; USGS NLCD 2001; EP 2011.

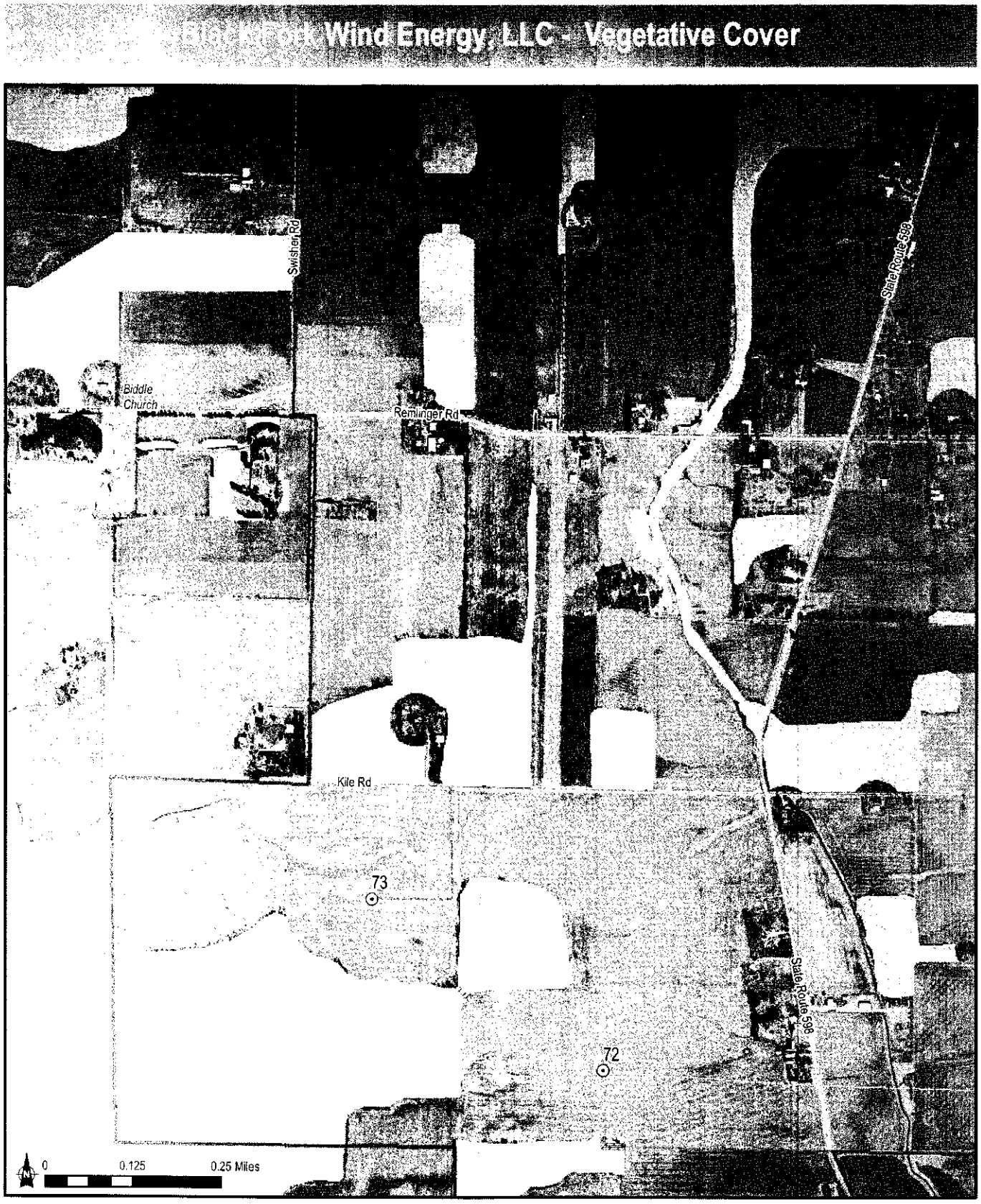

Figure 5-4
Black Fork Wind Energy, LLC - Vegetative Cover
Crawford and Richland Counties, Ohio
Map 25 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; USGS NLCD 2001; EP 2011.

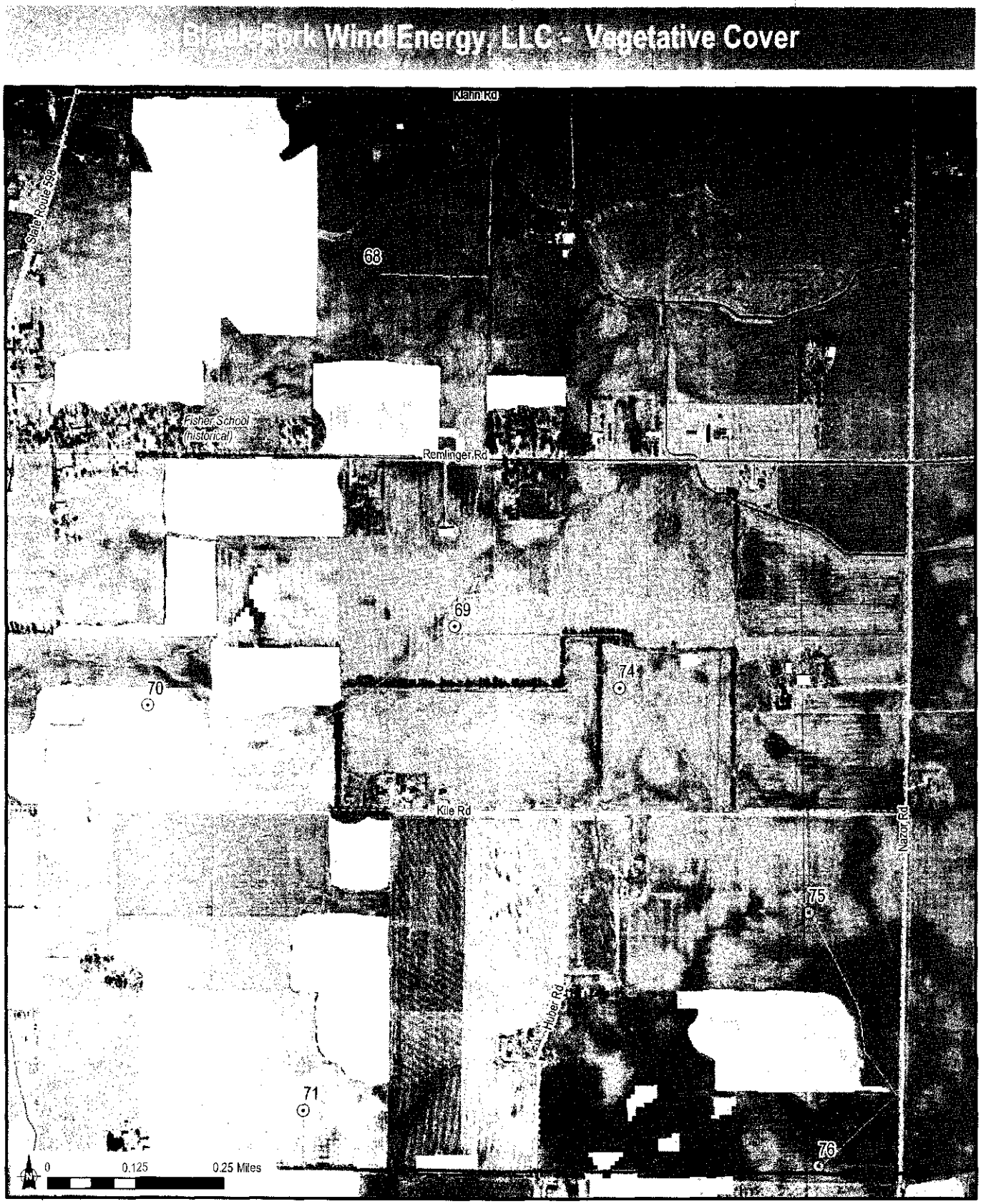

Figure 5-4
Black Fork Wind Energy, LLC - Vegetative Cover
Crawford and Richland Counties, Ohio
Map 26 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; USGS NLCD 2001; EP 2011.

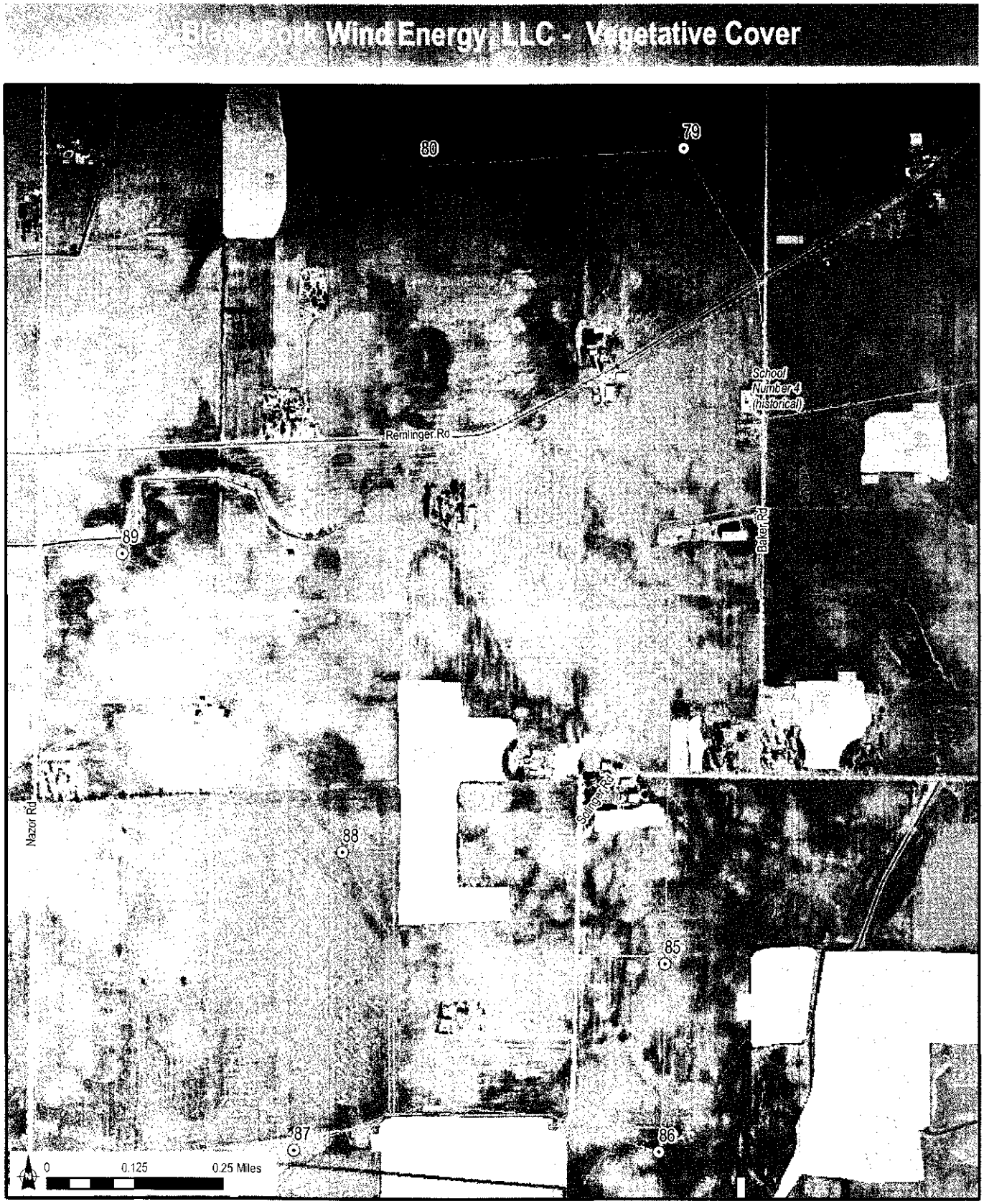

Figure 5-4
Black Fork Wind Energy, LLC - Vegetative Cover
Crawford and Richland Counties, Ohio
Map 27 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; USGS NLCD 2001; EP 2011.

Figure 5-4
Black Fork Wind Energy, LLC - Vegetative Cover
Crawford and Richland Counties, Ohio
Map 28 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; USGS NLCD 2001; EP 2011.

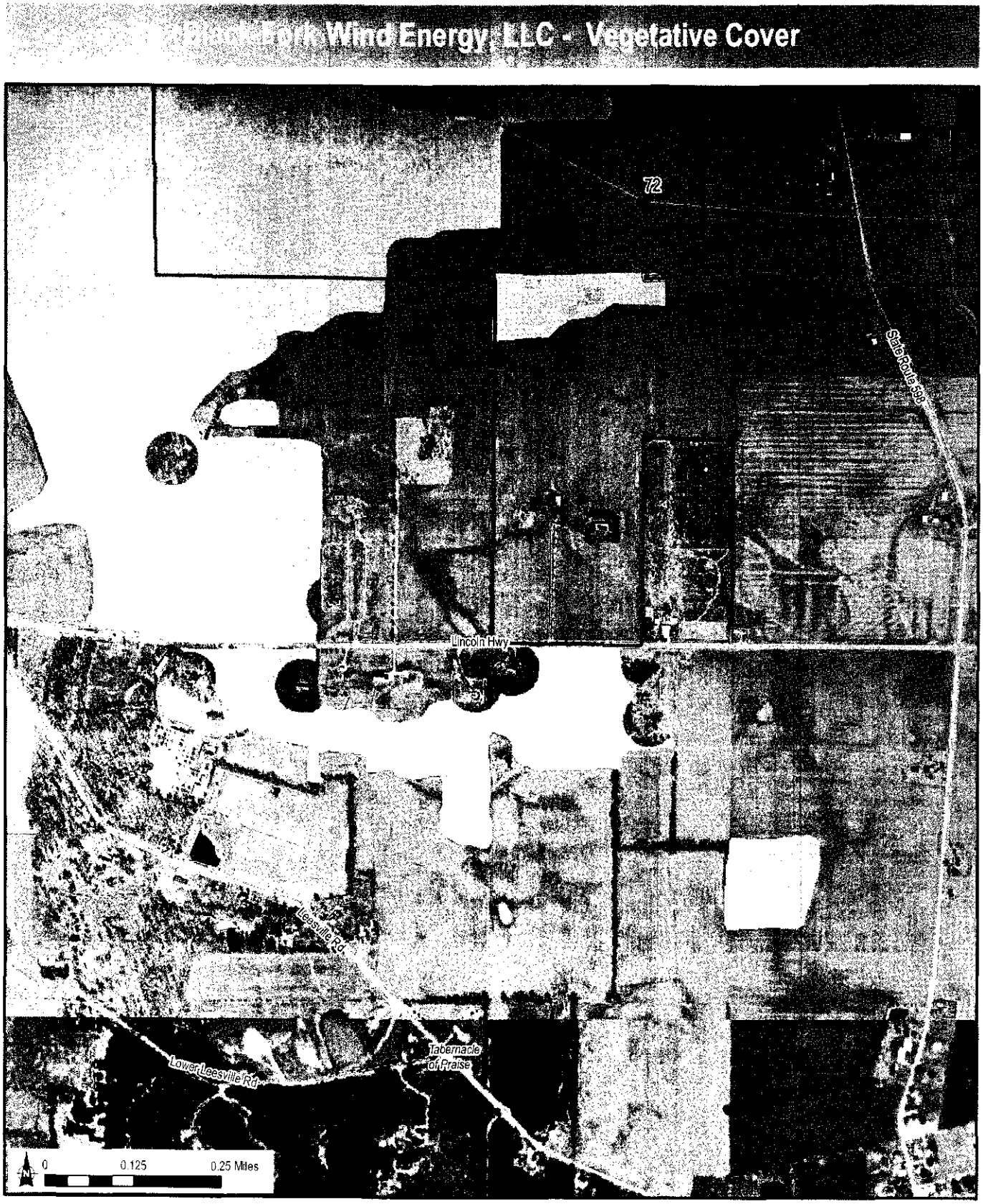

Figure 5-4
Black Fork Wind Energy, LLC - Vegetative Cover
Crawford and Richland Counties, Ohio
Map 29 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; USGS NLCD 2001; EP 2011.

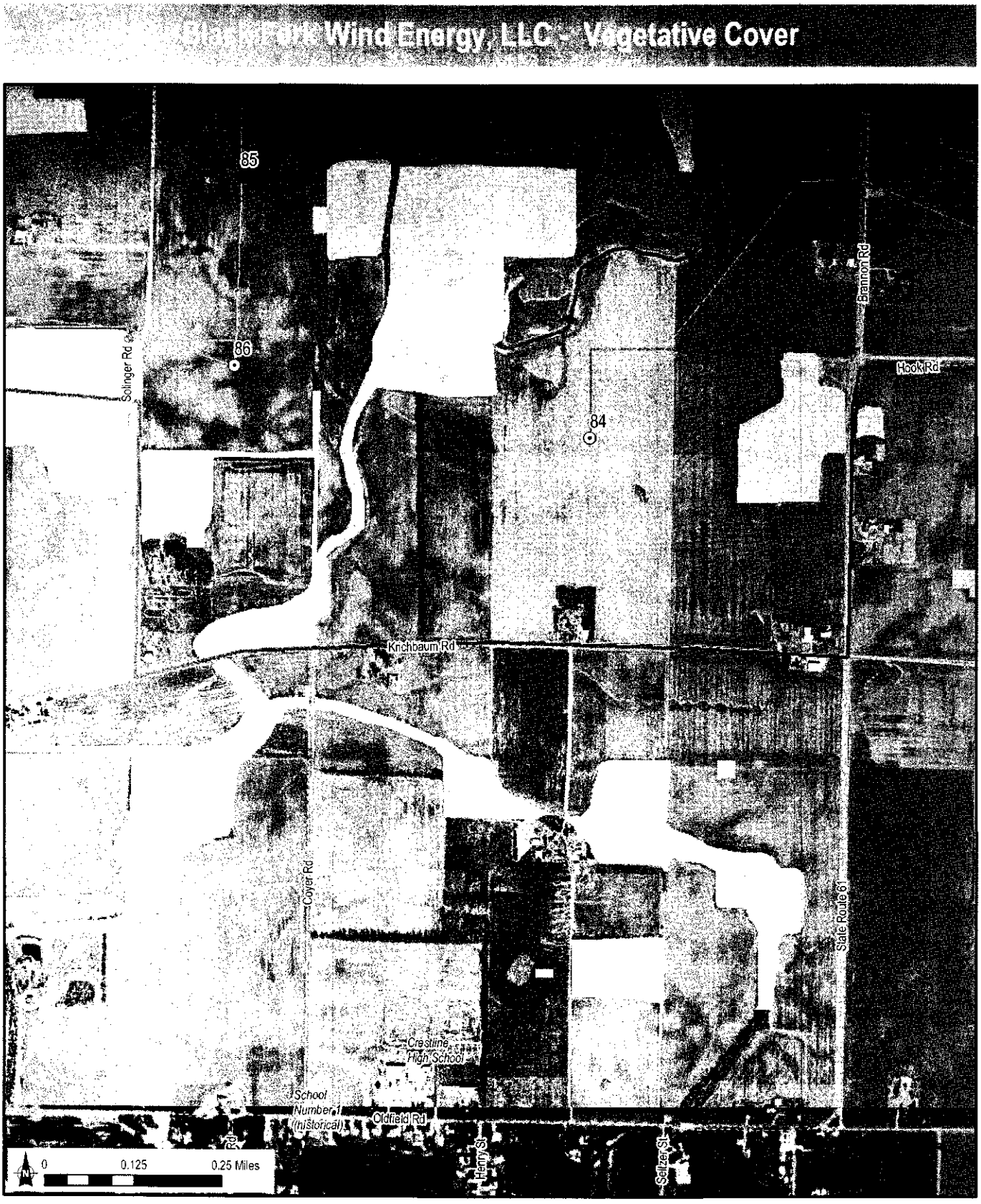

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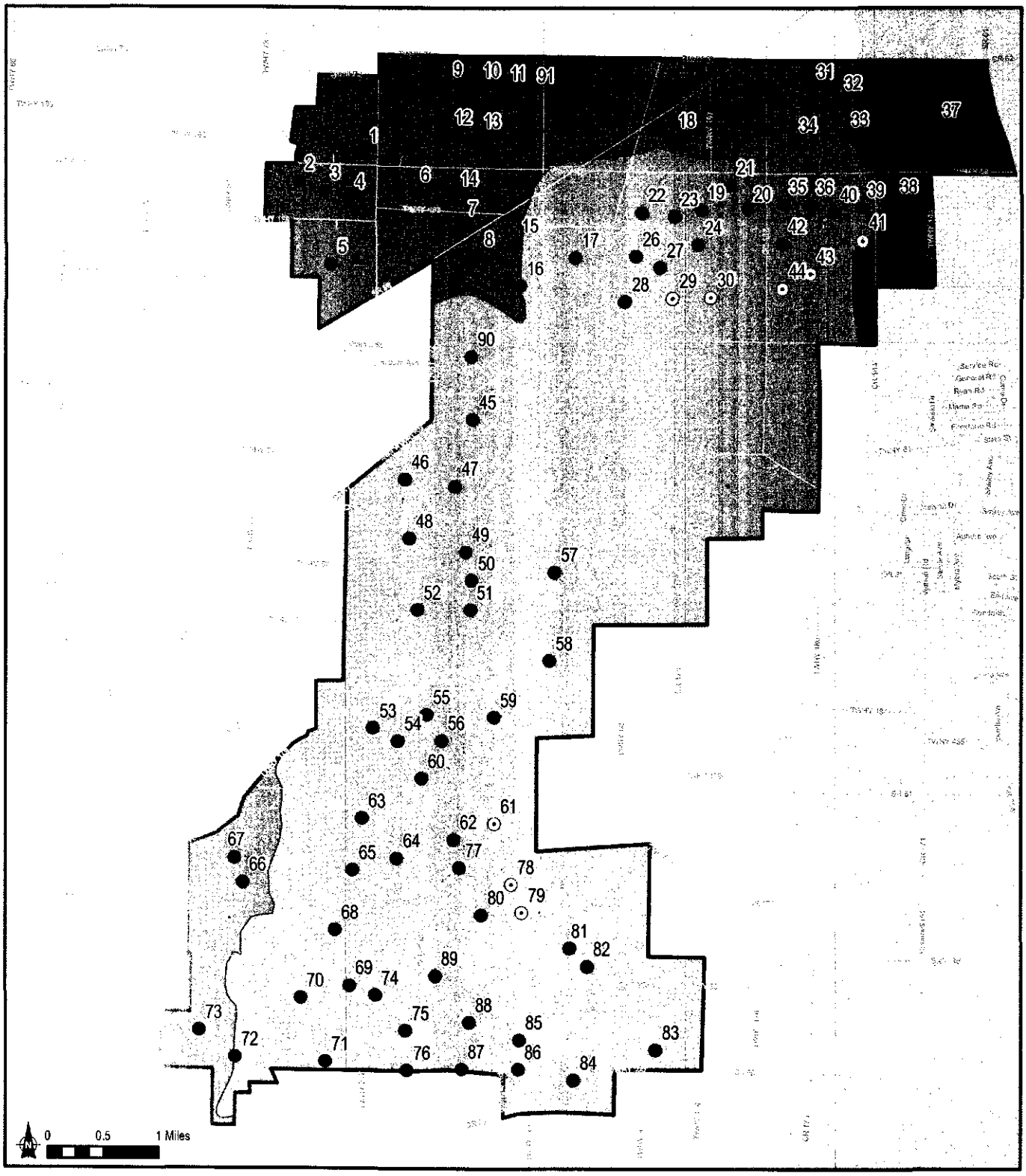
Figure 5-4
Black Fork Wind Energy, LLC - Vegetative Cover
Crawford and Richland Counties, Ohio
Map 30 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; USGS NLCD 2001; EP 2011.

Black Fork Wind Energy, LLC - Bedrock Geology



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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)

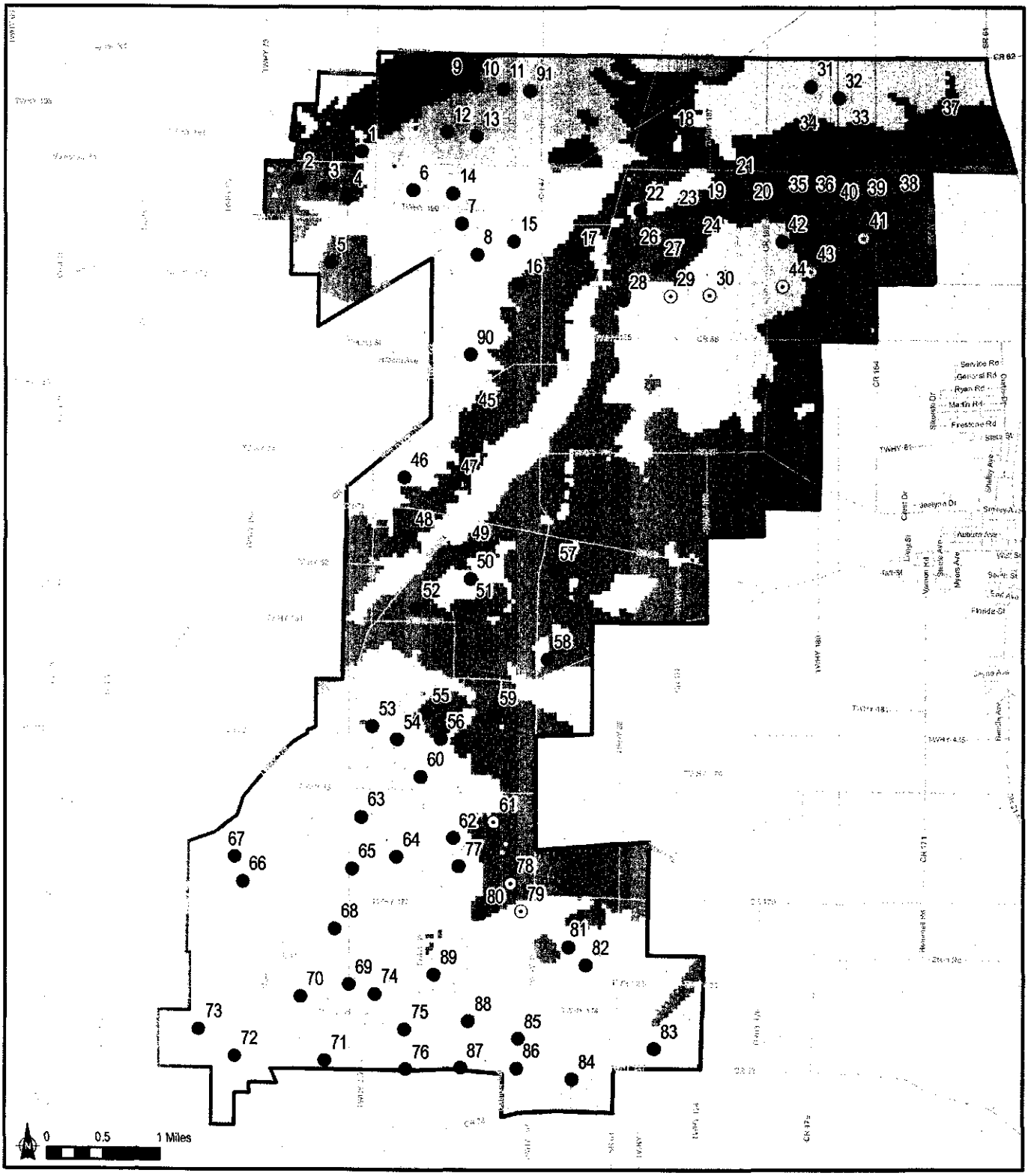
Project Area (01-03-11)
Road

Bedrock Unit Name
- Berea Sandstone and Bedford Shale, Undivided
- Logan and Cuyahoga Formations Undivided
- Sunbury Shale

Figure 5-5
Black Fork Wind Energy, LLC
Bedrock Geology
Crawford and Richland Counties, Ohio

Source: ESRI 2010; OH DNR 2009; EP 2011.

Black Fork Wind Energy, LLC - Surficial Geology



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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)

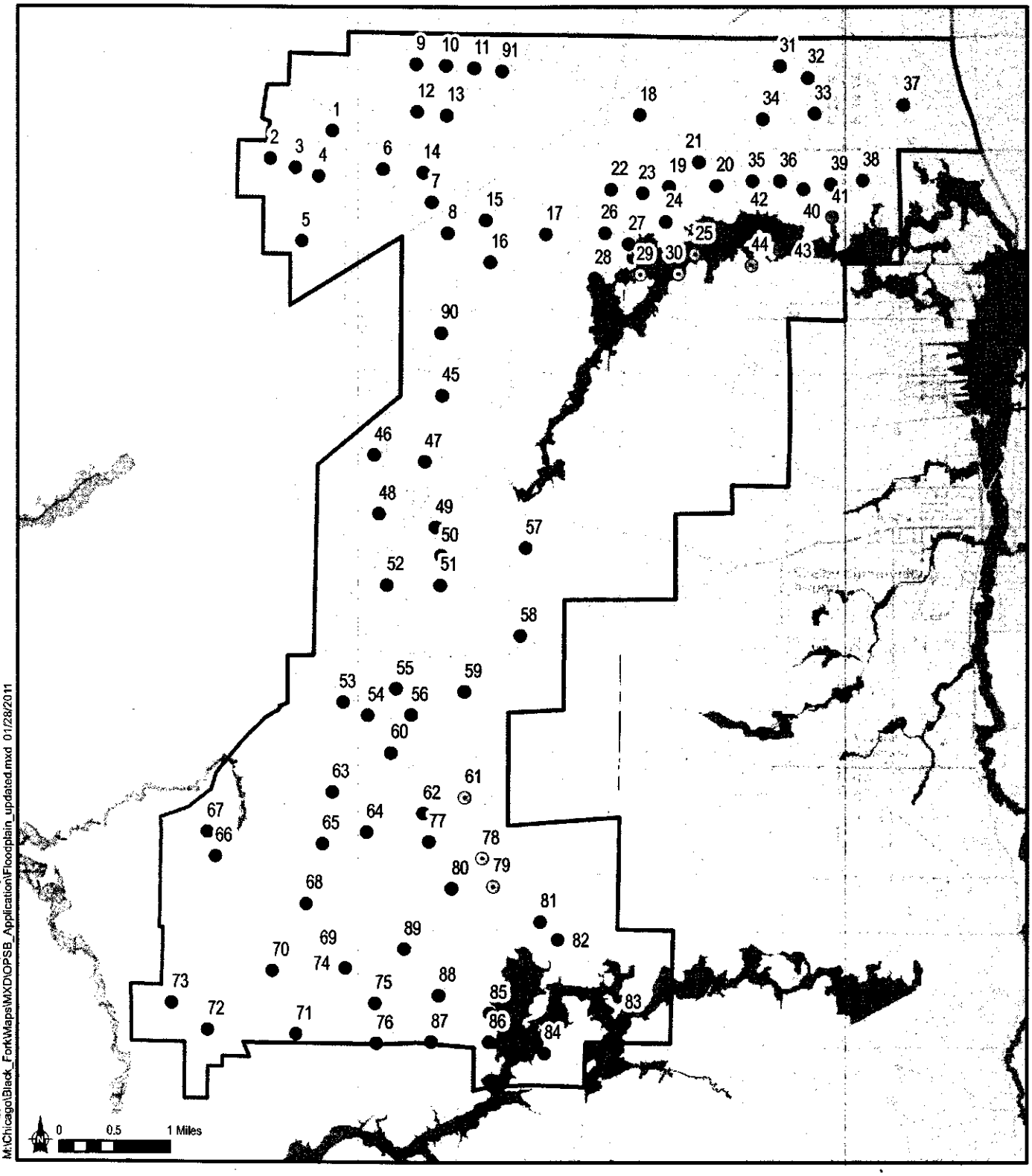
Project Area (01-03-11)
Road

Thickness of Glacial Drift (1-24-2011)
- 0 to 20
- 21 to 50
- 51 to 80
- 81 to 133

Figure 5-6
Black Fork Wind Energy, LLC
Thickness (in feet) of Glaciated and Non-Glaciated Areas
Crawford and Richland Counties, Ohio

Source: ESRI 2010; OH DNR 2009; EP 2011.

Black Fork Wind Energy, LLC - Floodplains in Project Area



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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)

Project Area (Jan-03-2011)

FEMA Q3

A: An area inundated by 100-year flooding, for which no BFEs have been determined.

ANI: An area that is located within a community or county that is not mapped on any published FIRM.

X: An area that is determined to be outside the 100- and 500-year floodplains.

Figure 5-7
Black Fork Wind Energy, LLC Floodplains in Project Area
Crawford and Richland Counties, Ohio

Source: ESRI 2010; EP 2011; FEMA 2011.

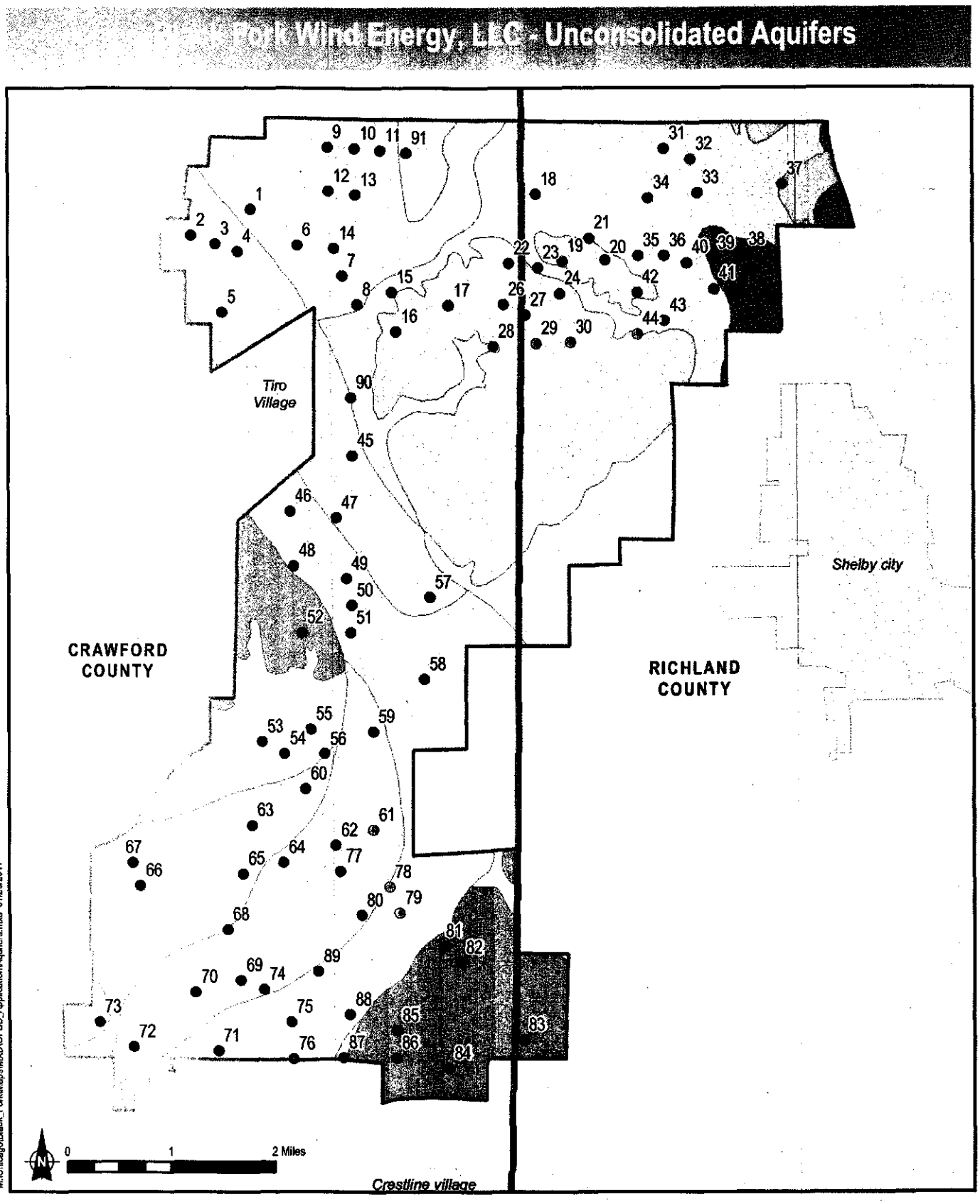


Figure 5-8
Black Fork Wind Energy, LLC
Unconsolidated Aquifers
Crawford and Richland Counties, Ohio

Source: ESRI 2010; USGS 1981-83; EP 2011.

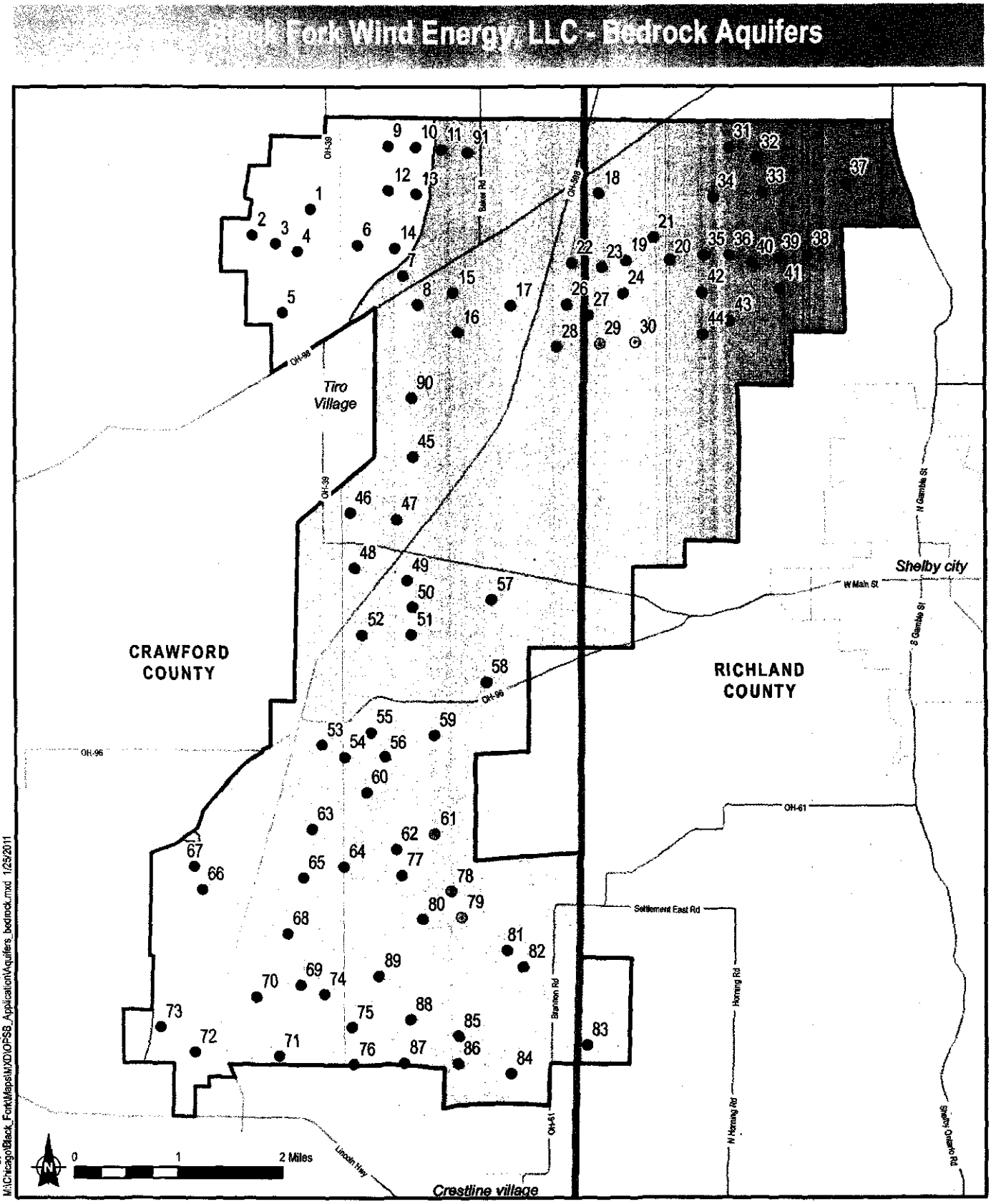
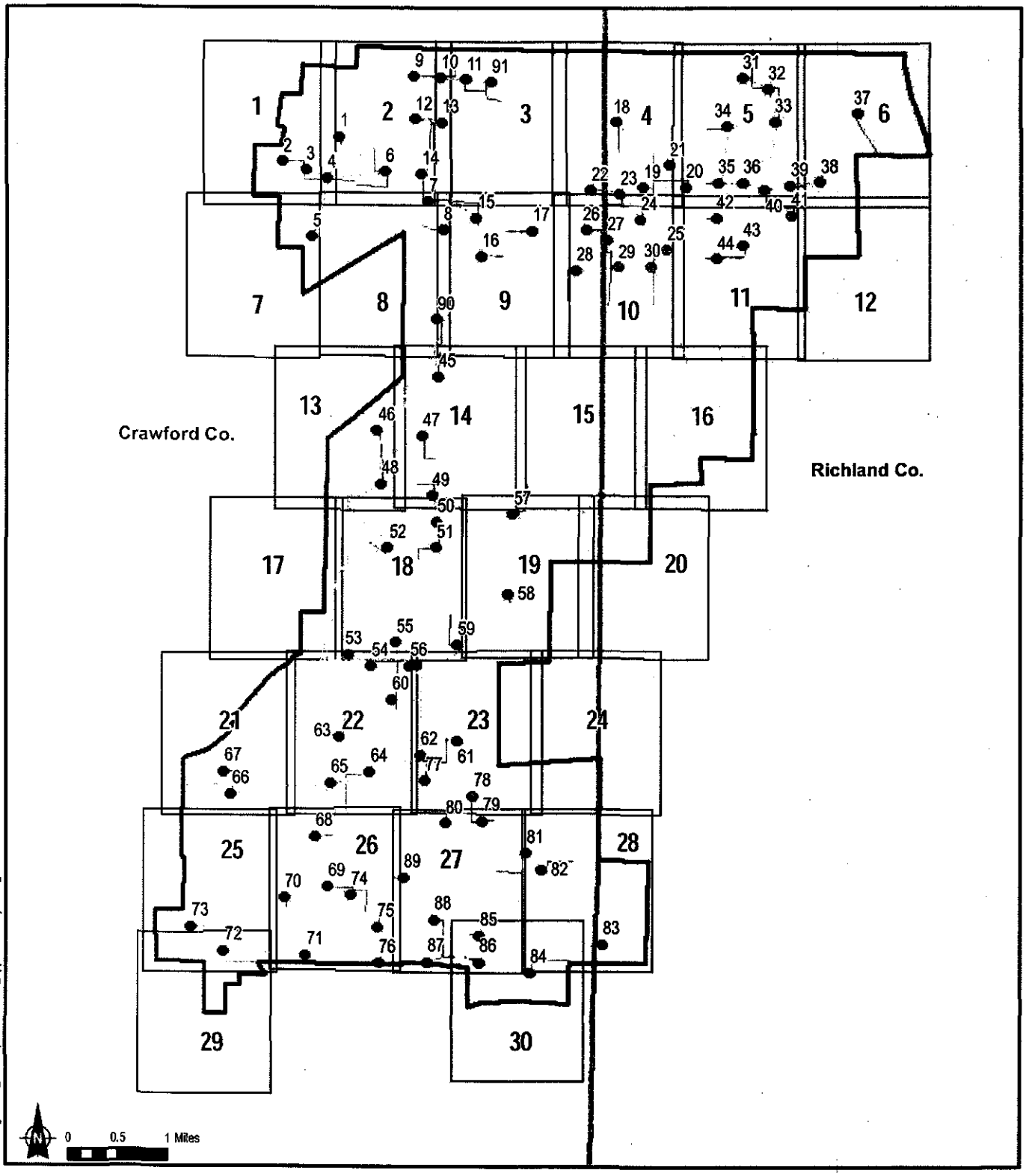


Figure 5-9
Black Fork Wind Energy, LLC
Bedrock Aquifers
Crawford and Richland Counties, Ohio

Source: ESRI 2010; USGS 1981-83; EP 2011.

Black Fork Wind Energy, LLC - Project Site Index Map



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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)

Collection Line (01-14-11)
Access Roads (01-14-11)

Project Area (01-03-11)
Substation (01-13-11)
County boundary
Township boundary

Figure 5-10
Black Fork Wind Energy, LLC Project Site Index Map
Crawford and Richland Counties, Ohio

Source: ESRI 2010; OH DNR 2009; EP 2011.

Figure 5-10
Black Fork Wind Energy, LLC Project Site
Crawford and Richland Counties, Ohio
Map 1 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; EP 2011.

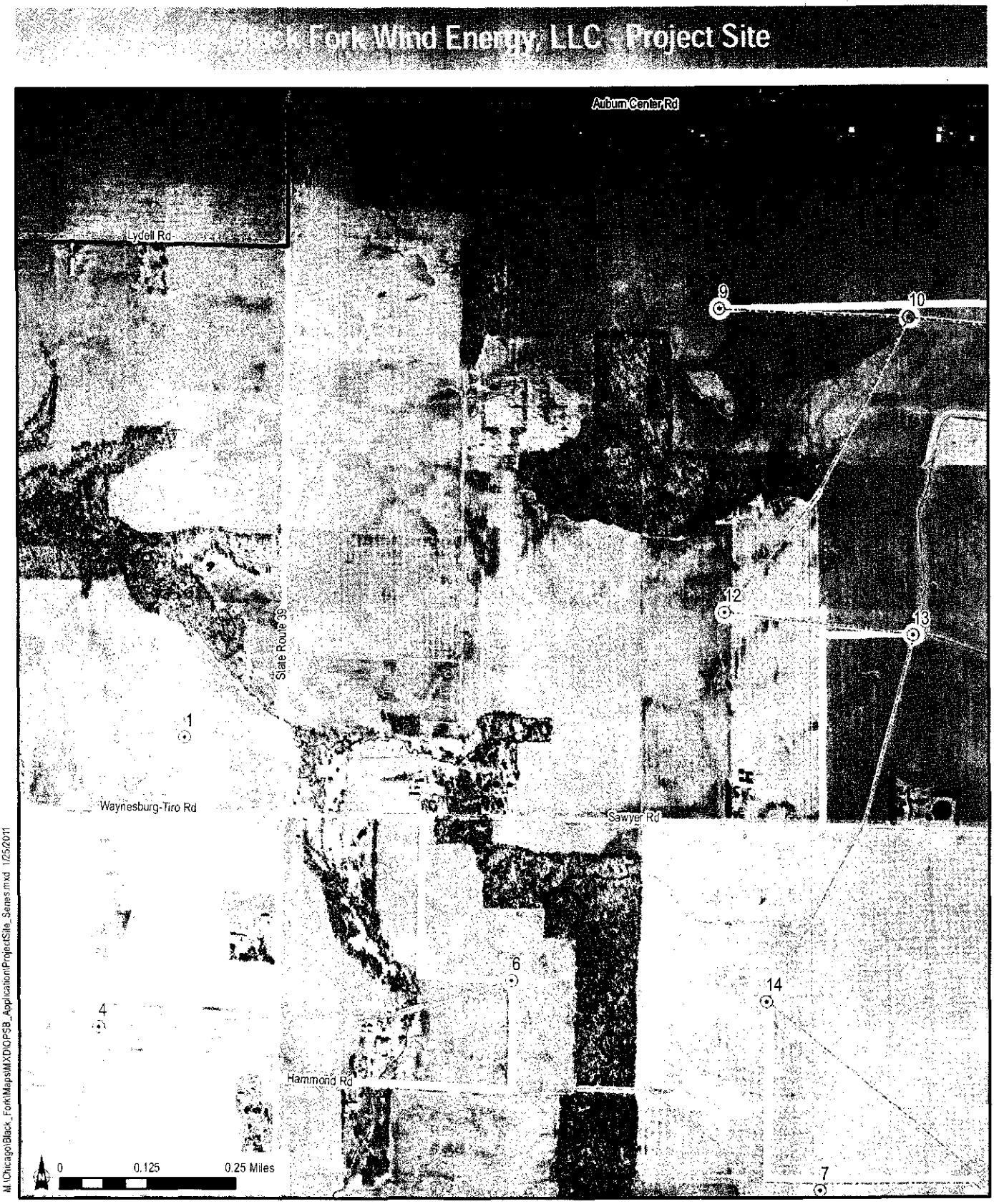


Figure 5-10
Black Fork Wind Energy, LLC Project Site
Crawford and Richland Counties, Ohio
Map 2 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; EP 2011.

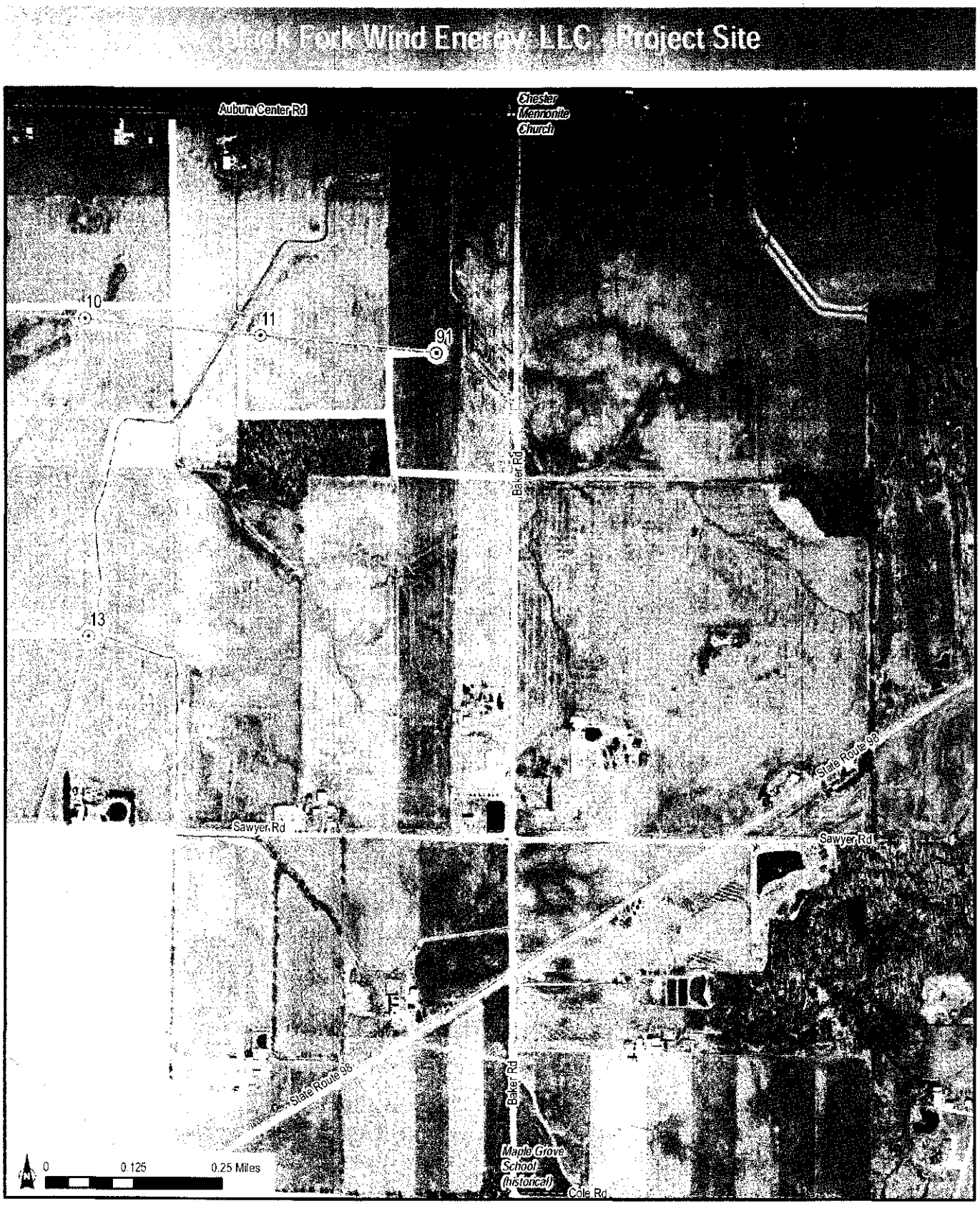
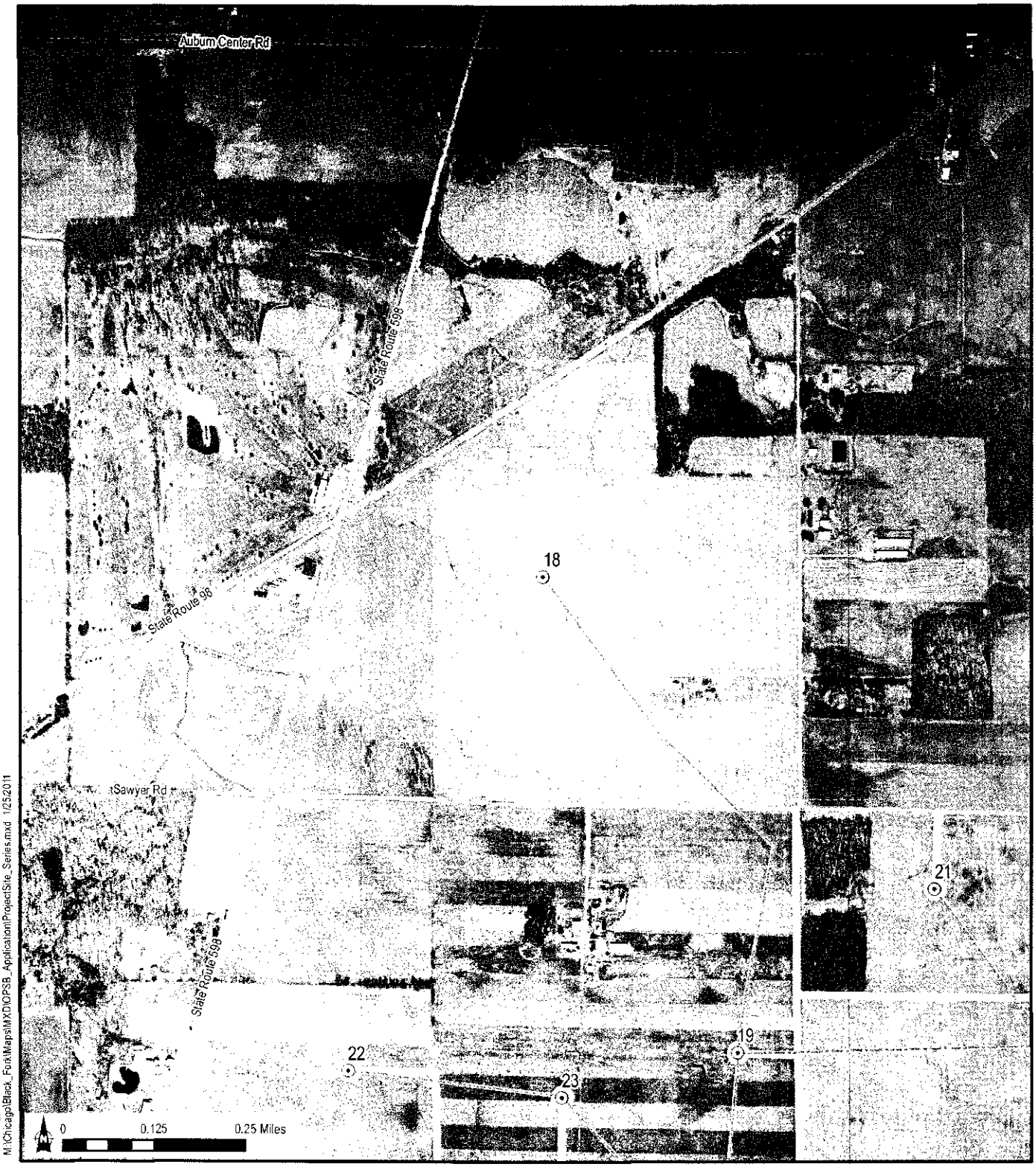


Figure 5-10
Black Fork Wind Energy, LLC Project Site
Crawford and Richland Counties, Ohio
Map 3 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; EP 2011.

Black Fork Wind Energy, LLC - Project Site



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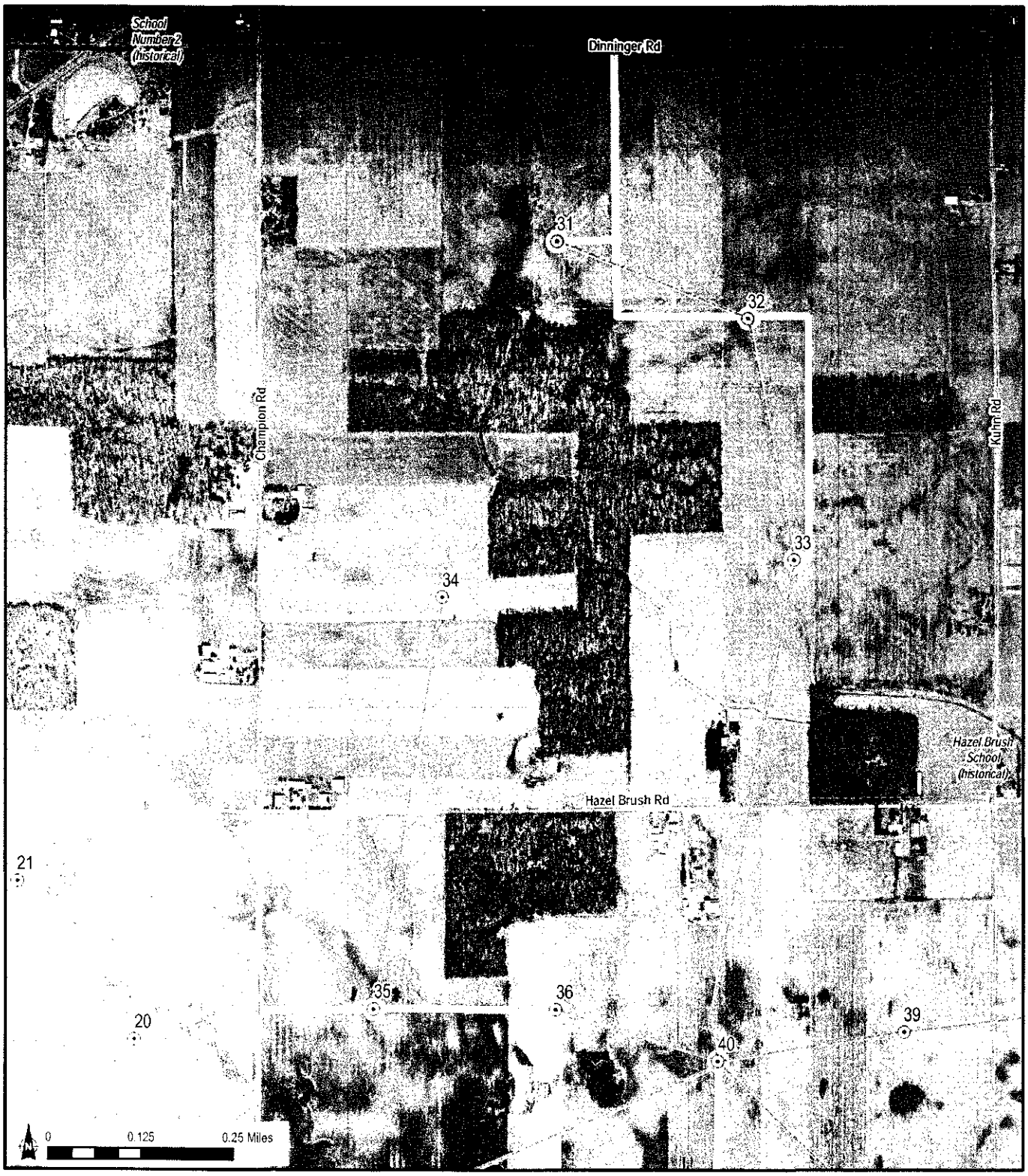
Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)

Access Roads (01-14-11)
Collection Line (01-14-11)
Project Area (01-03-11)
Substation (01-13-11)
Switchyard (01-13-11)
O&M Building (01-13-11)
Laydown Yard & Batch Plant (01-13-11)
Permanent Impact Area
Temporary Impact Area
School
Church
Hospital
Industrial Building
Major Road

Figure 5-10
Black Fork Wind Energy, LLC Project Site
Crawford and Richland Counties, Ohio
Map 4 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; EP 2011.

Black Fork Wind Energy, LLC Project Site



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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)

Access Roads (01-14-11)
Collection Line (01-14-11)
Project Area (01-03-11)
Substation (01-13-11)
Switchyard (01-13-11)
O&M Building (01-13-11)
Laydown Yard & Batch Plant (01-13-11)
Permanent Impact Area
Temporary Impact Area
School
Church
Hospital
Industrial Building
Major Road

Figure 5-10
Black Fork Wind Energy, LLC Project Site
Crawford and Richland Counties, Ohio
Map 5 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; EP 2011.

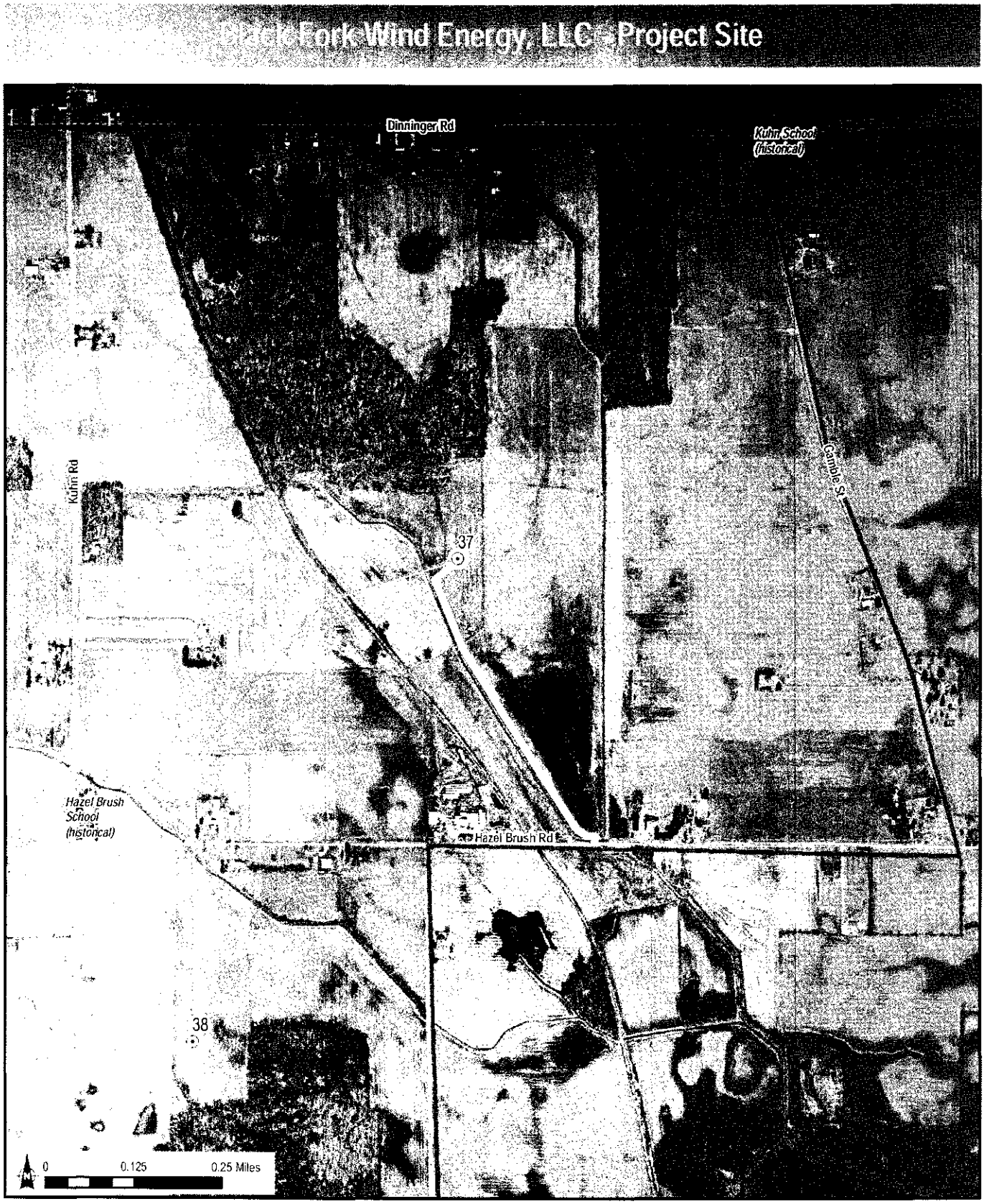
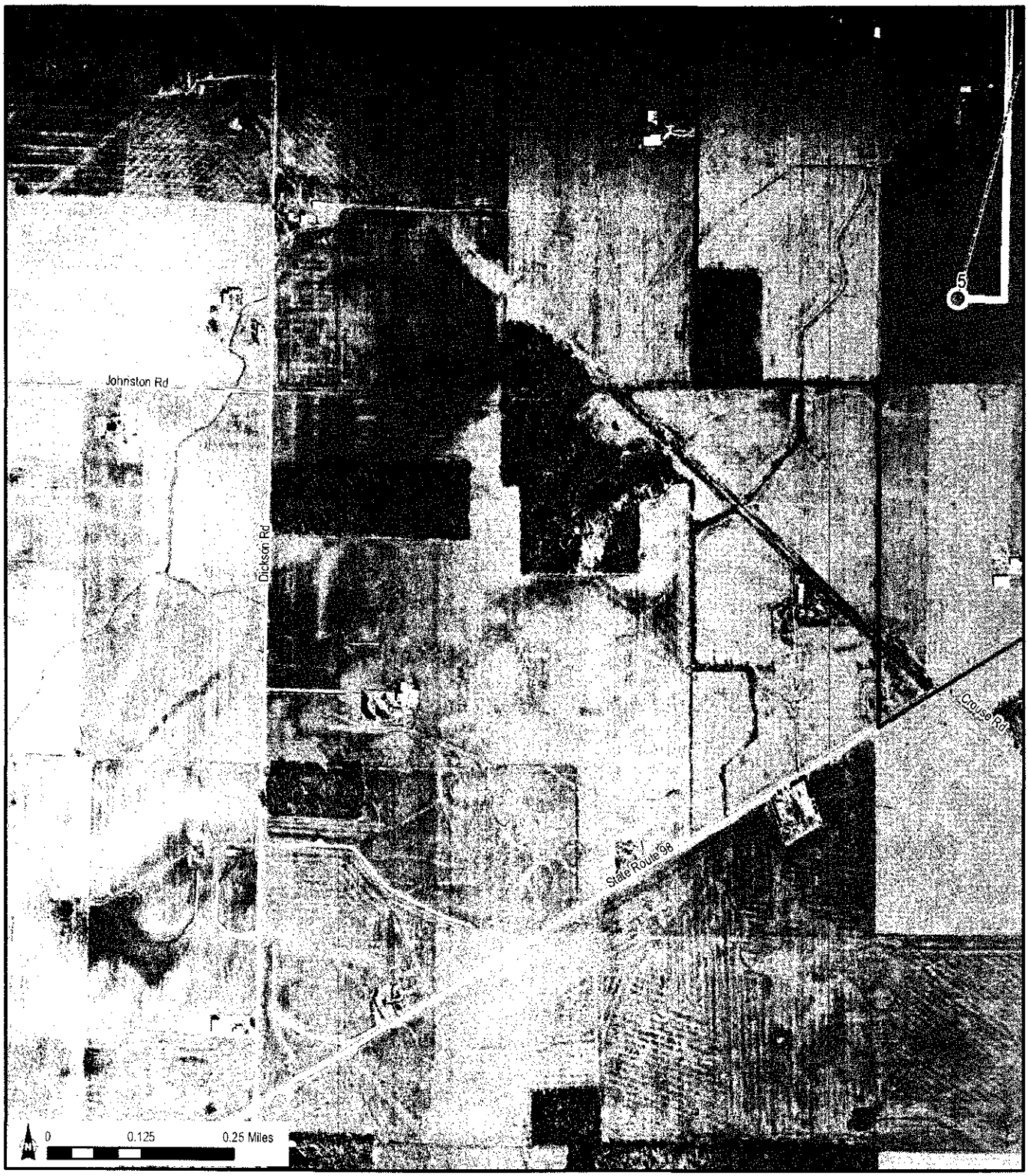


Figure 5-10
Black Fork Wind Energy, LLC Project Site
Crawford and Richland Counties, Ohio
Map 6 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; EP 2011.

Black Fork Wind Energy, LLC - Project Site



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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)

Access Roads (01-14-11)
Collection Line (01-14-11)
Project Area (01-03-11)
Substation (01-13-11)
Switchyard (01-13-11)
O&M Building (01-13-11)
Laydown Yard & Batch Plant (01-13-11)
Permanent Impact Area
Temporary Impact Area
School
Church
Hospital
Industrial Building
Major Road

Figure 5-10
Black Fork Wind Energy, LLC Project Site
Crawford and Richland Counties, Ohio
Map 7 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; EP 2011.

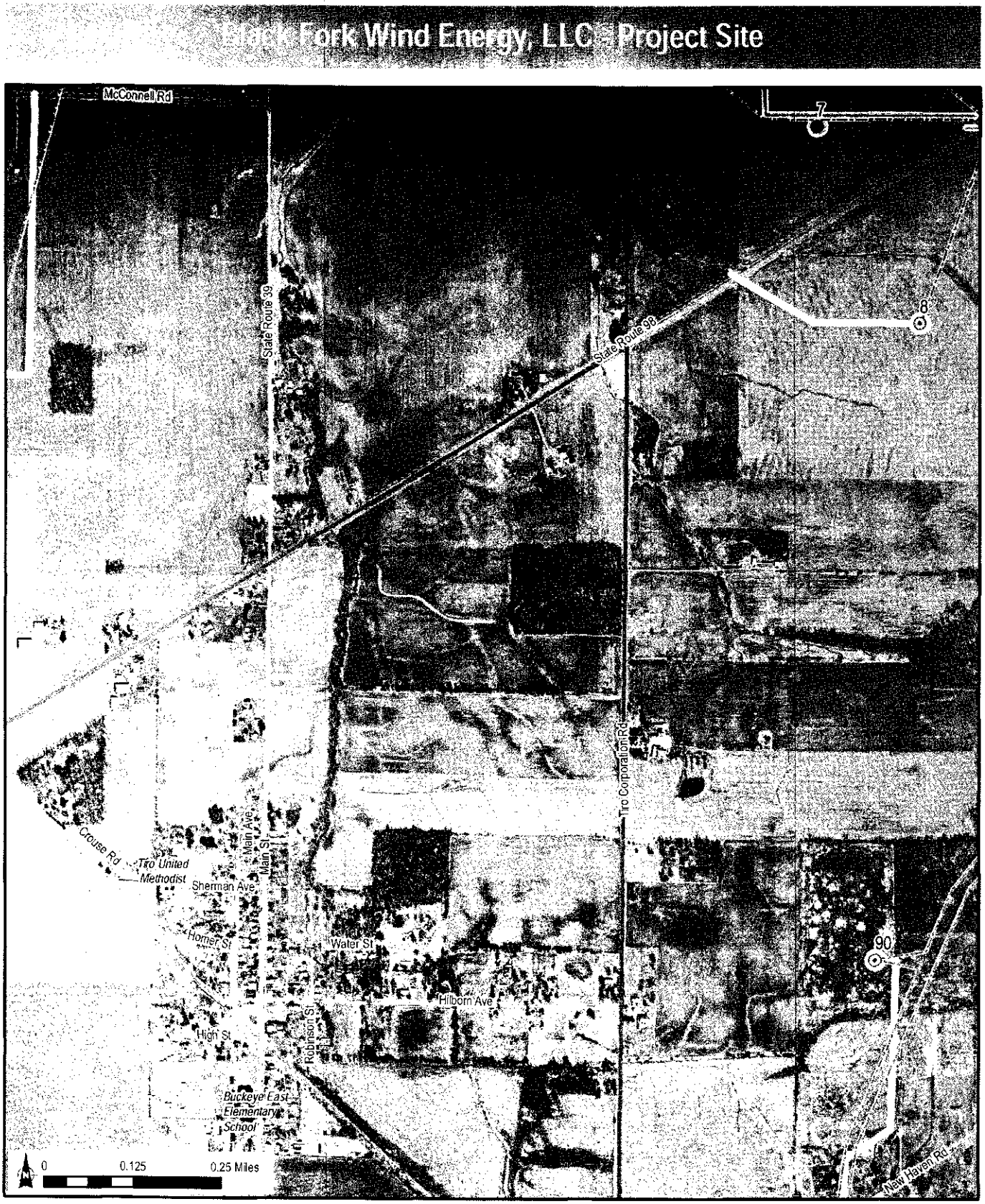

Figure 5-10
Black Fork Wind Energy, LLC Project Site
Crawford and Richland Counties, Ohio
Map 8 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; EP 2011.

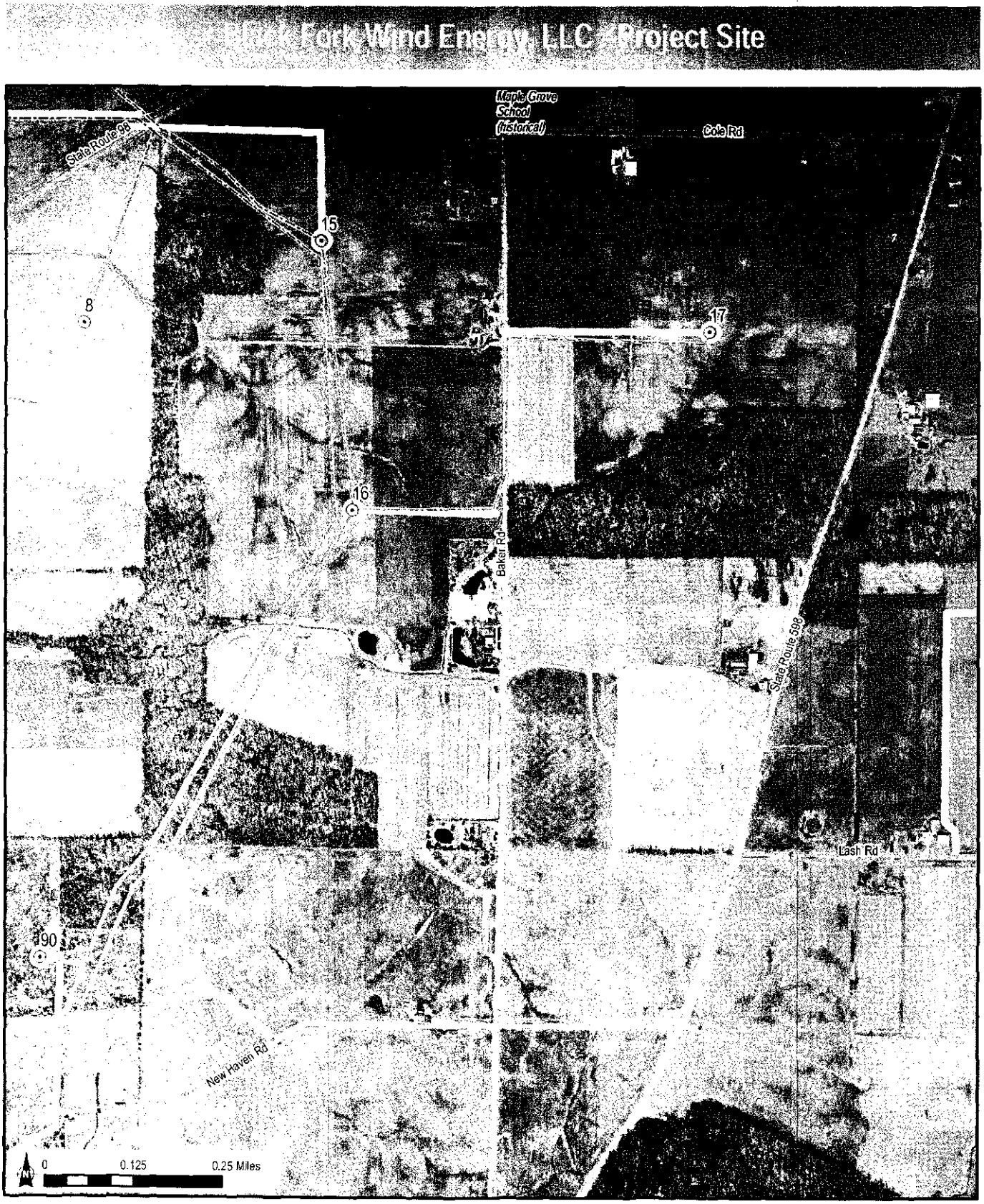

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Figure 5-10
Black Fork Wind Energy, LLC Project Site
Crawford and Richland Counties, Ohio
Map 9 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; EP 2011.

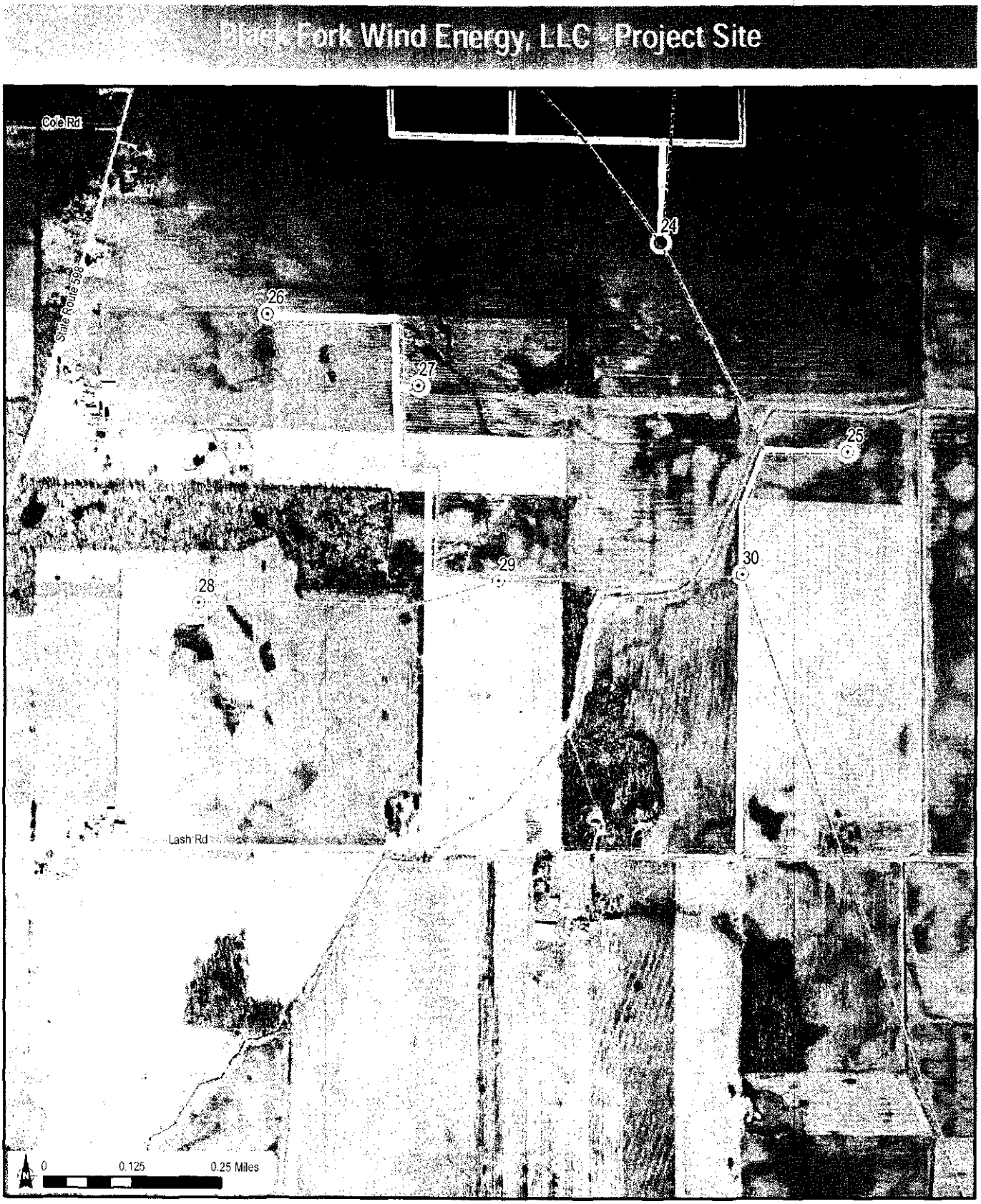

Figure 5-10
Black Fork Wind Energy, LLC Project Site
Crawford and Richland Counties, Ohio
Map 10 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; EP 2011.

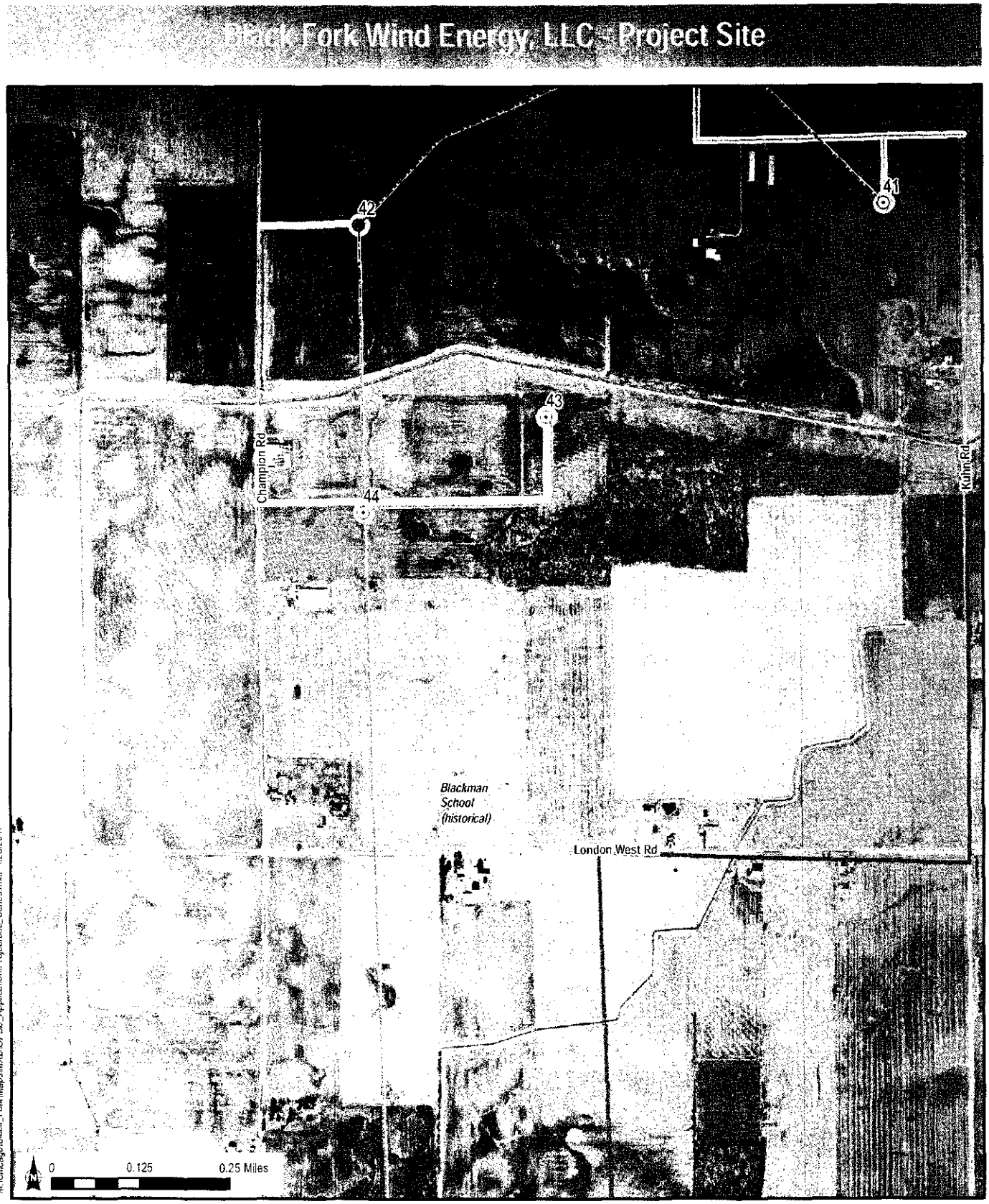

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Figure 5-10
Black Fork Wind Energy, LLC Project Site
Crawford and Richland Counties, Ohio
Map 11 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; EP 2011.

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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)

Access Roads (01-14-11)
Collection Line (01-14-11)
Project Area (01-03-11)
Substation (01-13-11)
Switchyard (01-13-11)
O&M Building (01-13-11)
Laydown Yard & Batch Plant (01-13-11)
Permanent Impact Area
Temporary Impact Area
School
Church
Hospital
Industrial Building
Major Road

Figure 5-10
Black Fork Wind Energy, LLC Project Site
Crawford and Richland Counties, Ohio
Map 12 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; EP 2011.

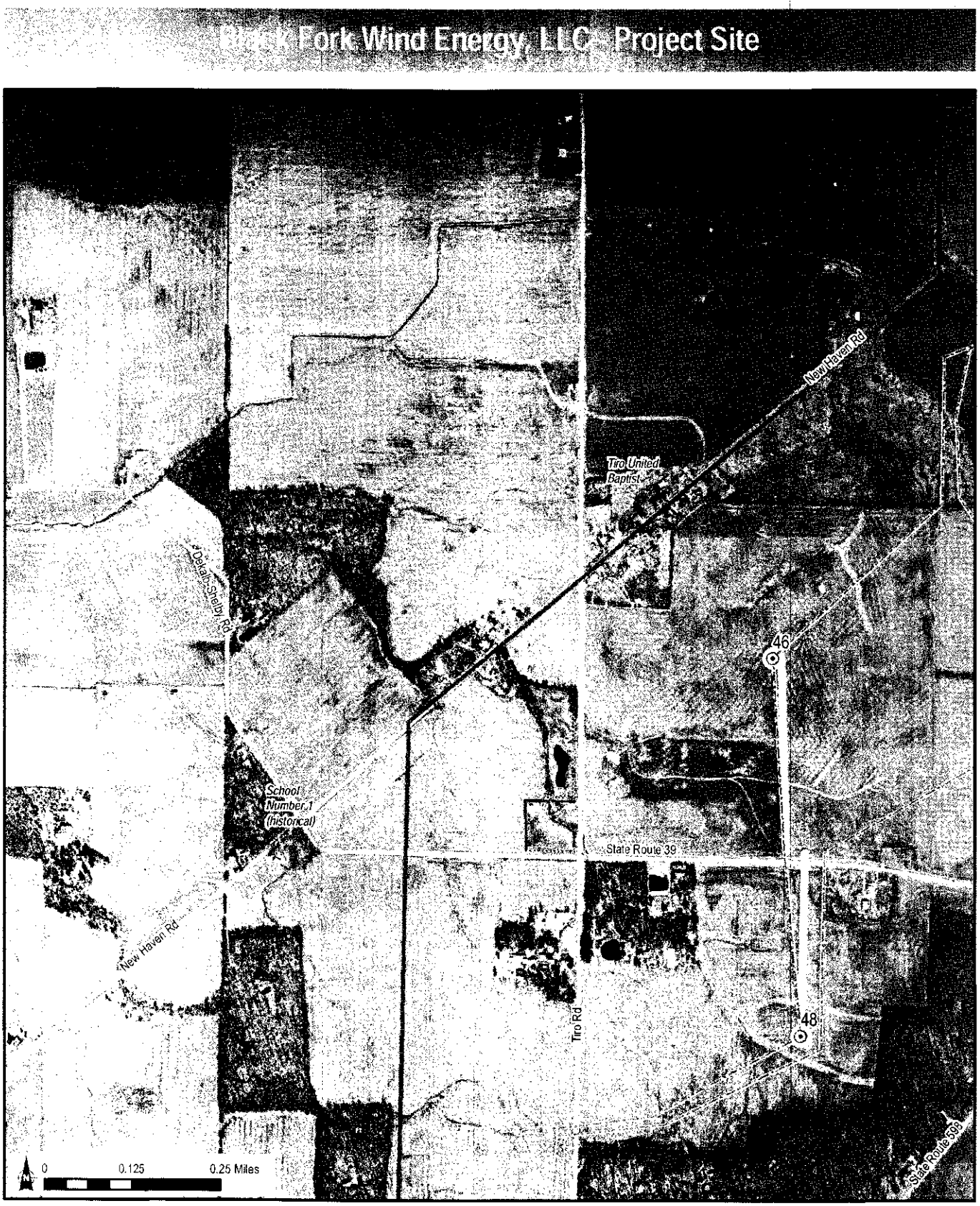

Figure 5-10
Black Fork Wind Energy, LLC Project Site
Crawford and Richland Counties, Ohio
Map 13 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; EP 2011.

Black Fork Wind Energy, LLC Project Site

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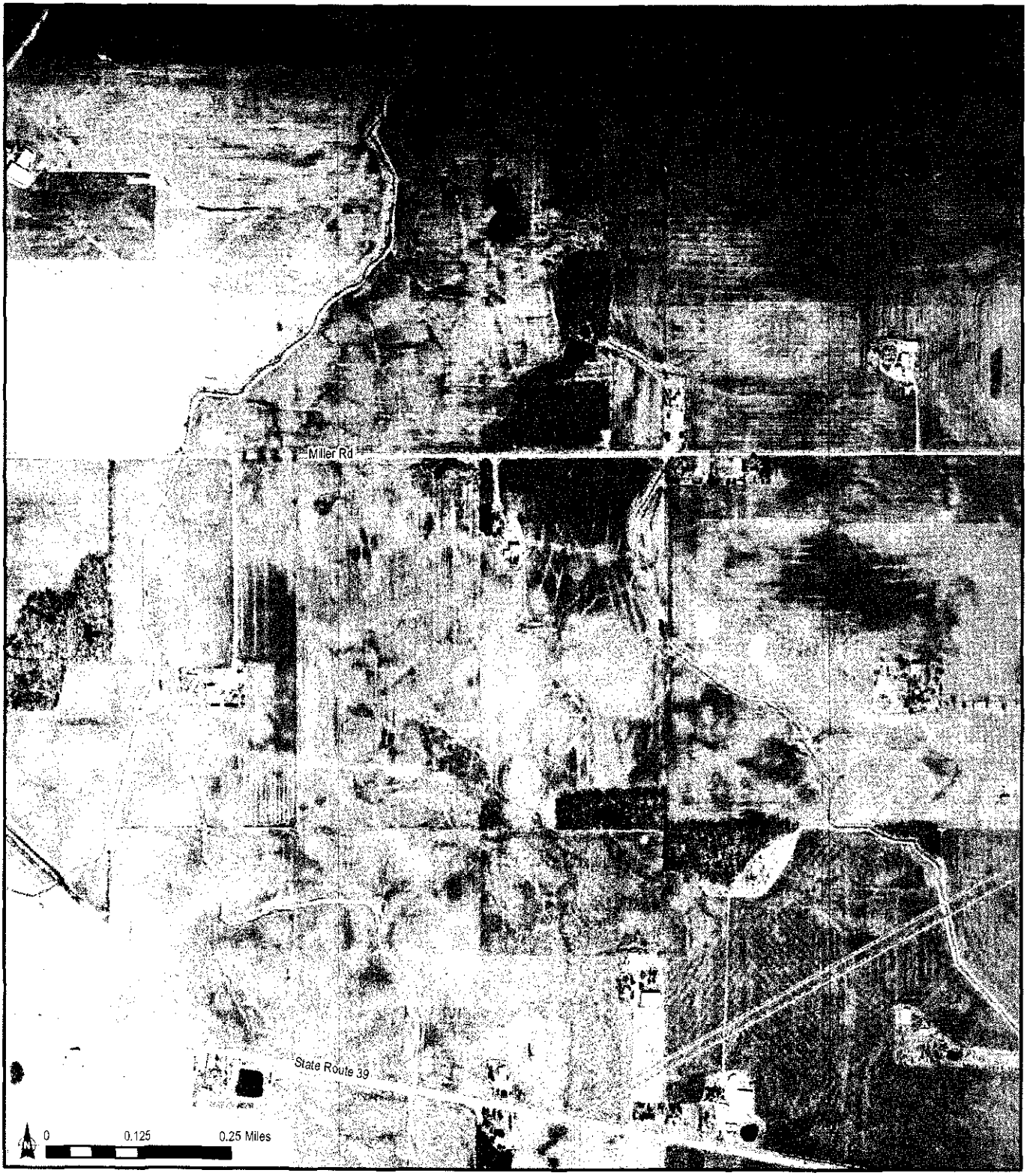
Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)

Access Roads (01-14-11)
Collection Line (01-14-11)
Project Area (01-03-11)
Substation (01-13-11)
Switchyard (01-13-11)
O&M Building (01-13-11)
Laydown Yard & Batch Plant (01-13-11)
Permanent Impact Area
Temporary Impact Area
School
Church
Hospital
Industrial Building
Major Road

Figure 5-10
Black Fork Wind Energy, LLC Project Site
Crawford and Richland Counties, Ohio
Map 14 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; EP 2011.

Black Fork Wind Energy, LLC - Project Site



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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)

Access Roads (01-14-11)
Collection Line (01-14-11)
Project Area (01-03-11)
Substation (01-13-11)
Switchyard (01-13-11)
O&M Building (01-13-11)
Laydown Yard & Batch Plant (01-13-11)
Permanent Impact Area
Temporary Impact Area
School
Church
Hospital
Industrial Building
Major Road

Figure 5-10
Black Fork Wind Energy, LLC Project Site
Crawford and Richland Counties, Ohio
Map 15 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; EP 2011.

Black Fork Wind Energy, LLC - Project Site

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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)

Access Roads (01-14-11)
Collection Line (01-14-11)
Project Area (01-03-11)
Substation (01-13-11)
Switchyard (01-13-11)
O&M Building (01-13-11)
Laydown Yard & Batch Plant (01-13-11)
Permanent Impact Area
Temporary Impact Area
School
Church
Hospital
Industrial Building
Major Road

Figure 5-10
Black Fork Wind Energy, LLC Project Site
Crawford and Richland Counties, Ohio
Map 16 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; EP 2011.

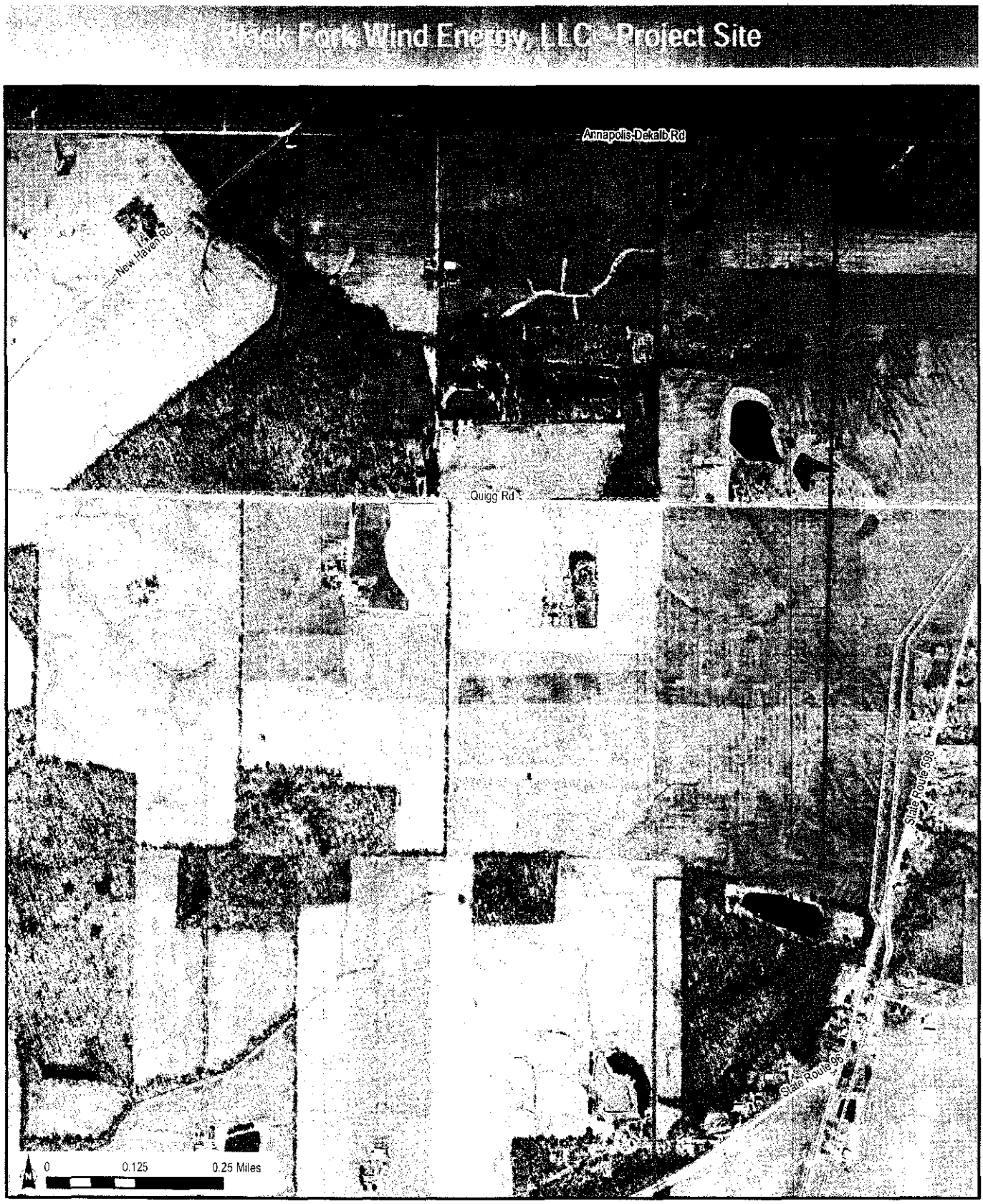

Figure 5-10
Black Fork Wind Energy, LLC Project Site
Crawford and Richland Counties, Ohio
Map 17 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; EP 2011.

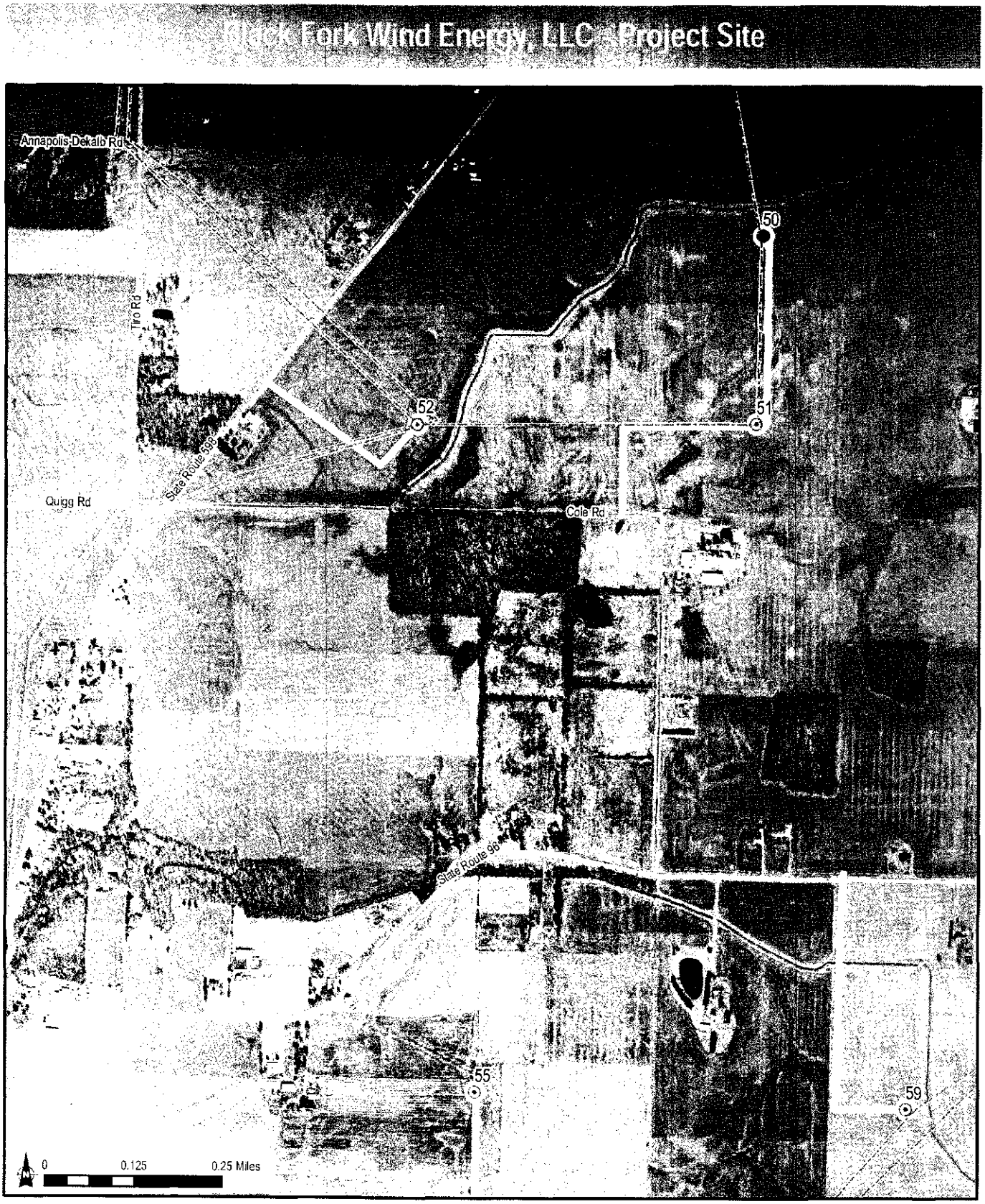

Figure 5-10
Black Fork Wind Energy, LLC Project Site
Crawford and Richland Counties, Ohio
Map 18 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; EP 2011.

Figure 5-10
Black Fork Wind Energy, LLC Project Site
Crawford and Richland Counties, Ohio
Map 19 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; EP 2011.

Black Fork Wind Energy, LLC Project Site

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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)

Access Roads (01-14-11)
Collection Line (01-14-11)
Project Area (01-03-11)
Substation (01-13-11)
Switchyard (01-13-11)
O&M Building (01-13-11)
Laydown Yard & Batch Plant (01-13-11)
Permanent Impact Area
Temporary Impact Area
School
Church
Hospital
Industrial Building
Major Road

Figure 5-10
Black Fork Wind Energy, LLC Project Site
Crawford and Richland Counties, Ohio
Map 20 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; EP 2011.

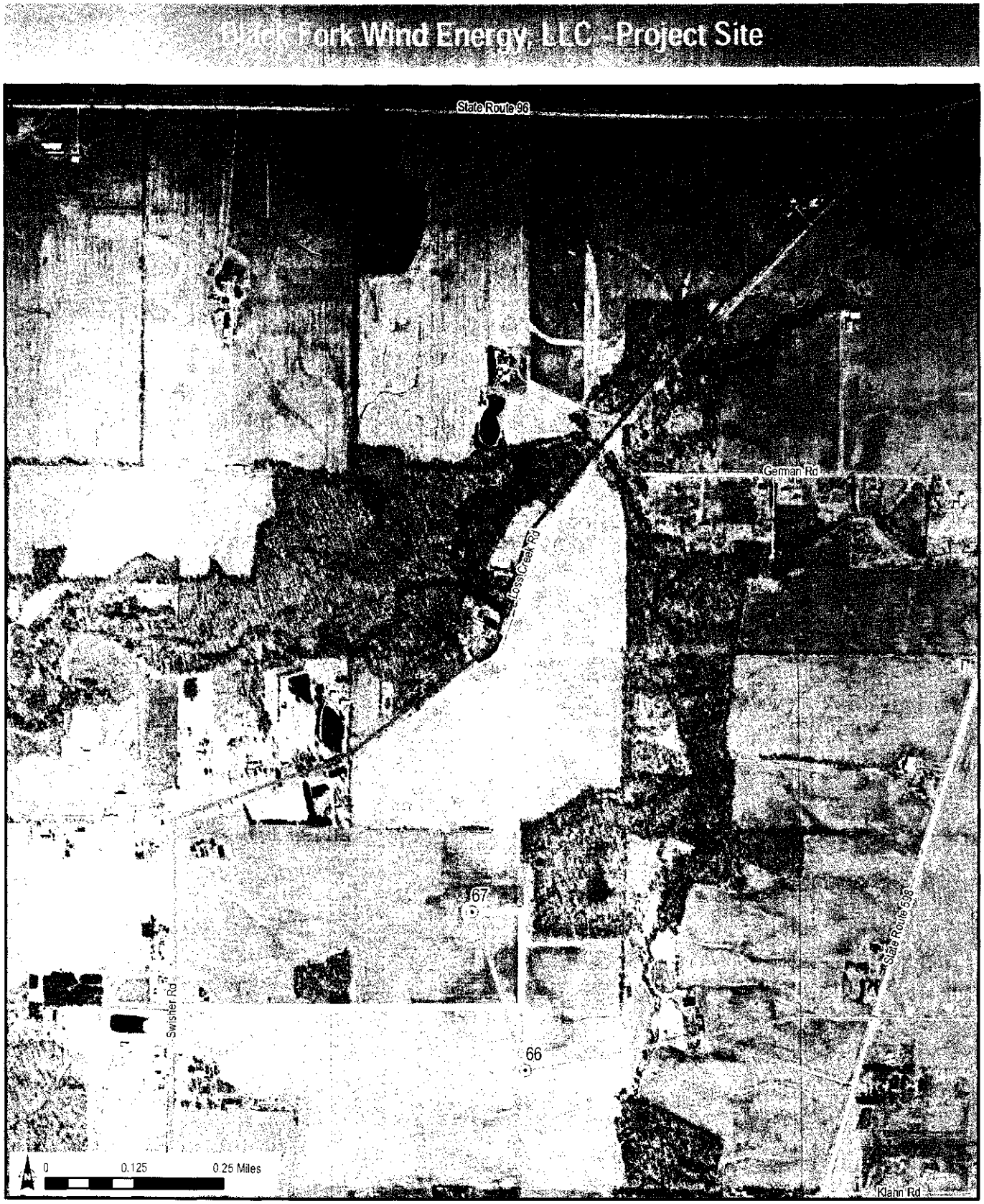
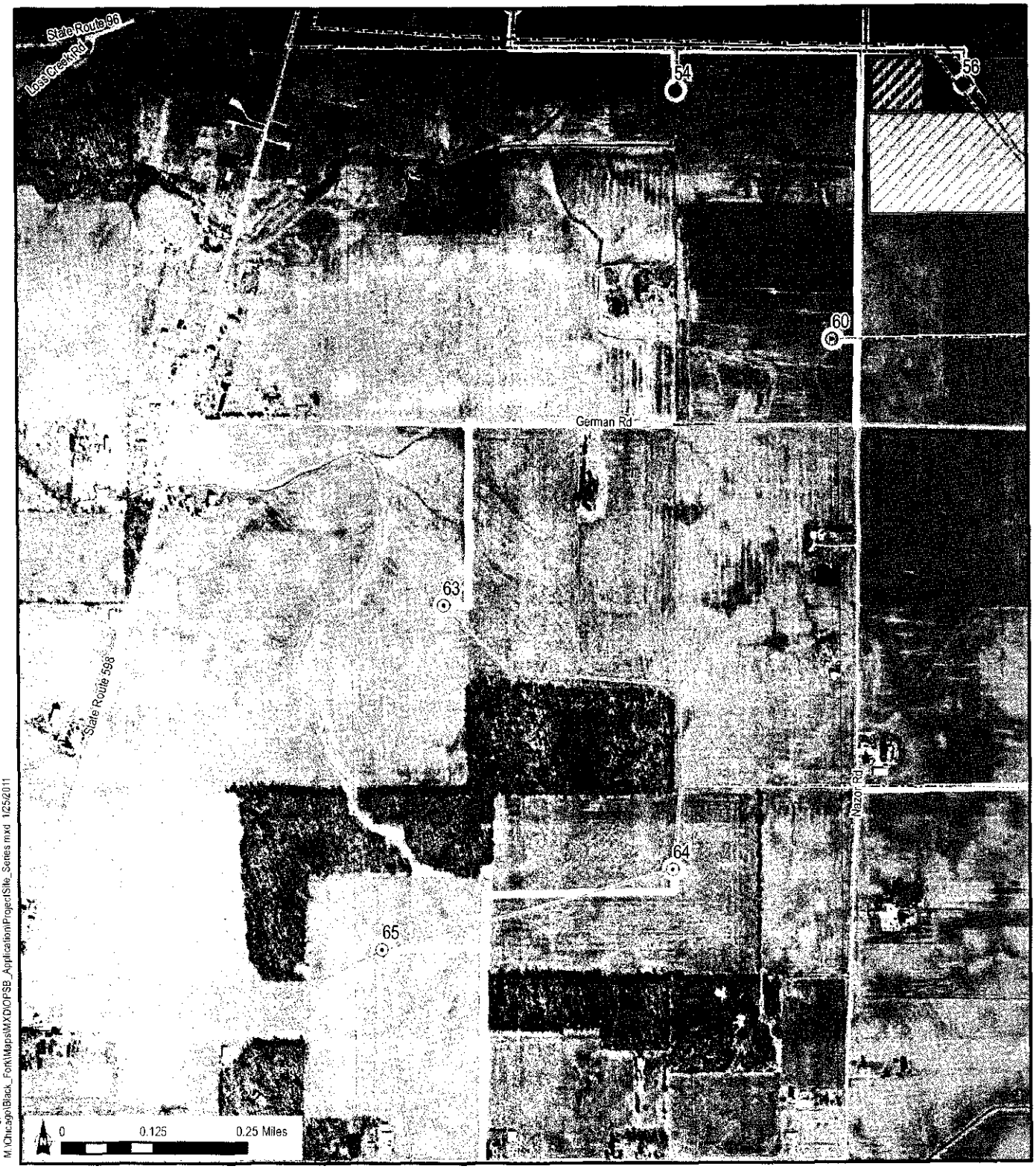


Figure 5-10
Black Fork Wind Energy, LLC Project Site
Crawford and Richland Counties, Ohio
Map 21 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; EP 2011.

Black Fork Wind Energy, LLC - Project Site



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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)

Access Roads (01-14-11)
Collection Line (01-14-11)
Project Area (01-03-11)
Substation (01-13-11)
Switchyard (01-13-11)
O&M Building (01-13-11)
Laydown Yard & Batch Plant (01-13-11)
Permanent Impact Area
Temporary Impact Area
School
Church
Hospital
Industrial Building
Major Road

Figure 5-10
Black Fork Wind Energy, LLC Project Site
Crawford and Richland Counties, Ohio
Map 22 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; EP 2011.

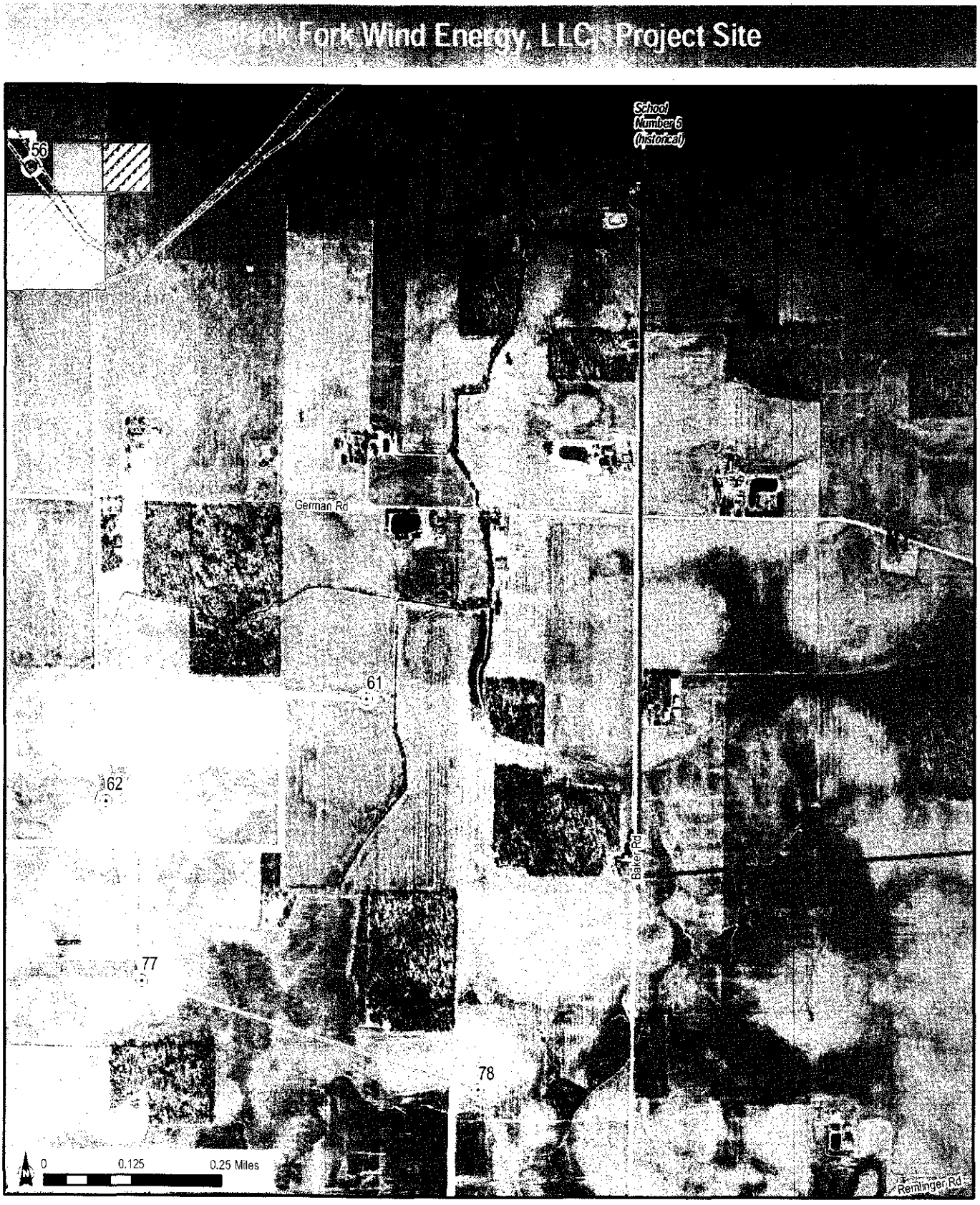
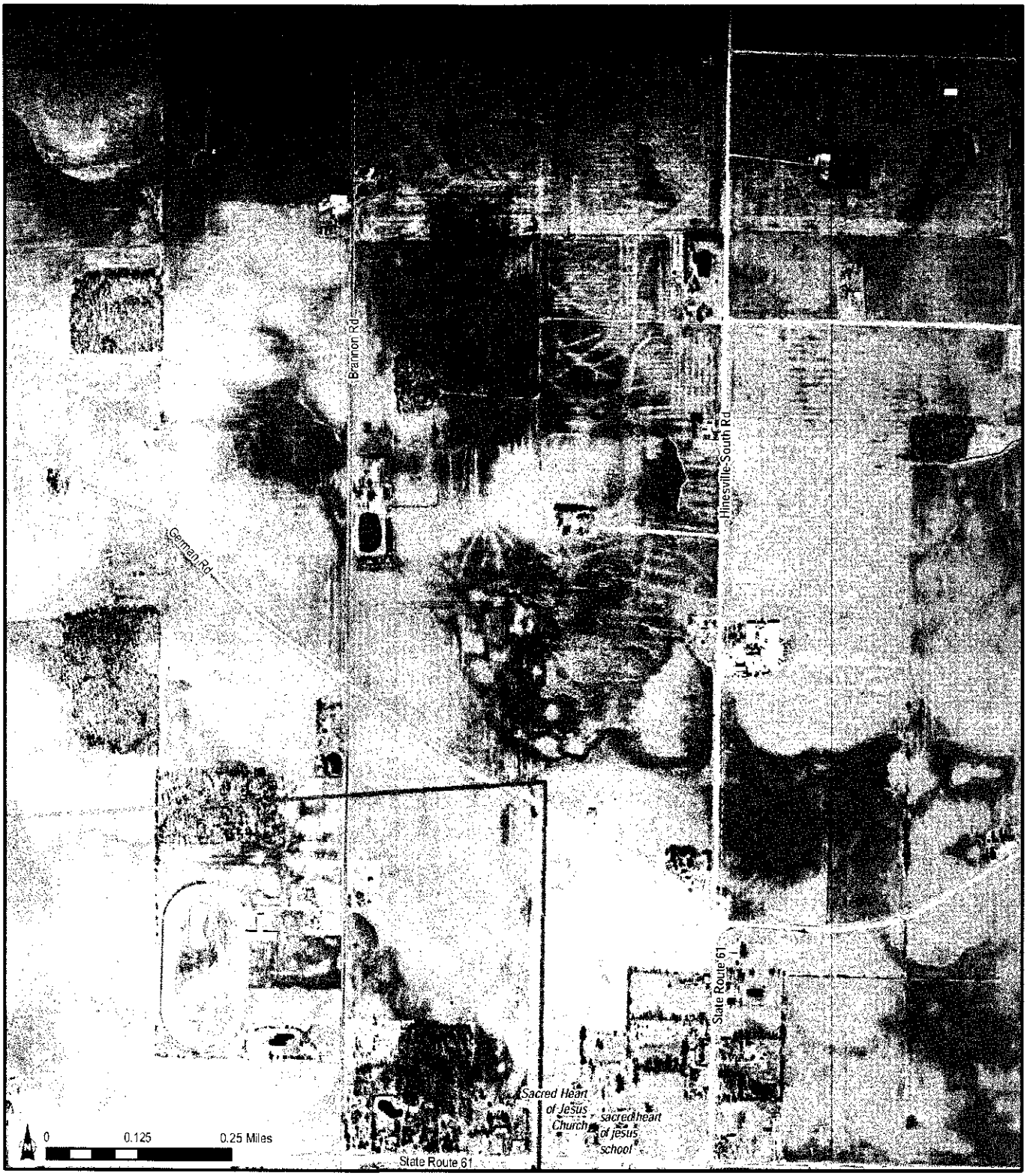


Figure 5-10
Black Fork Wind Energy, LLC Project Site
Crawford and Richland Counties, Ohio
Map 23 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; EP 2011.



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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)

Access Roads (01-14-11)
Collection Line (01-14-11)
Project Area (01-03-11)
Substation (01-13-11)
Switchyard (01-13-11)
O&M Building (01-13-11)
Laydown Yard & Batch Plant (01-13-11)
Permanent Impact Area
Temporary Impact Area
School
Church
Hospital
Industrial Building
Major Road

Figure 5-10
Black Fork Wind Energy, LLC Project Site
Crawford and Richland Counties, Ohio
Map 24 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; EP 2011.

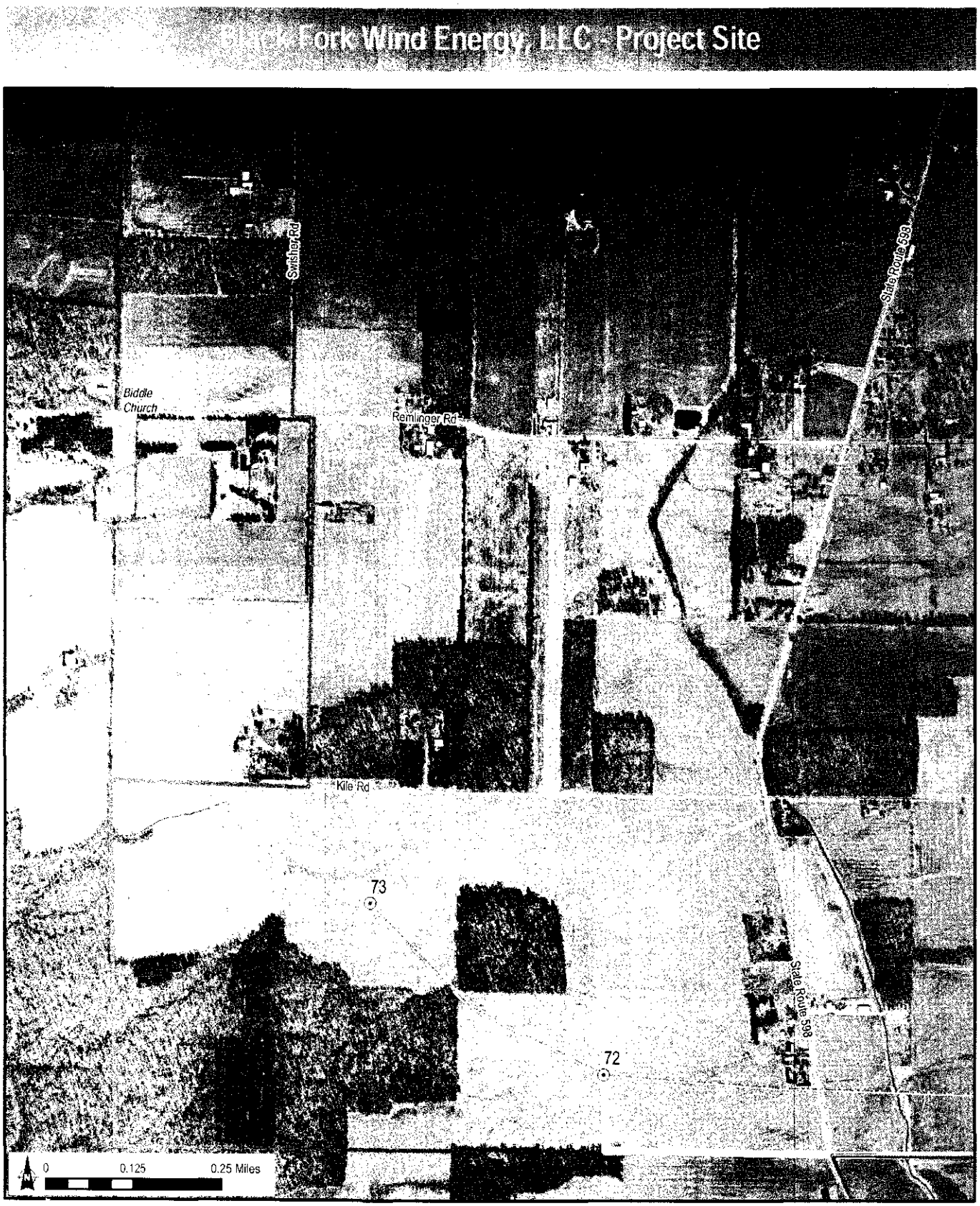

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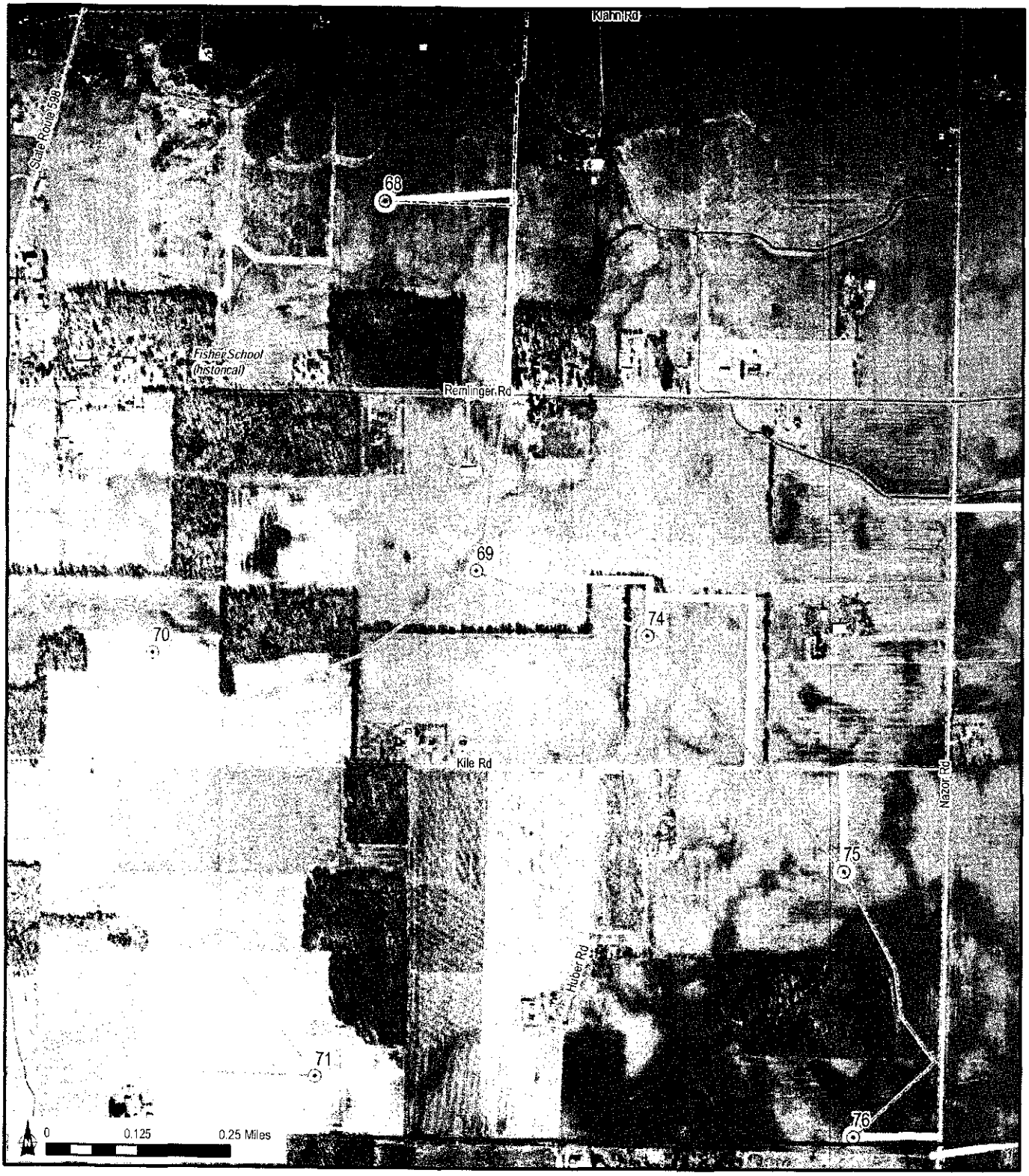
Figure 5-10
Black Fork Wind Energy, LLC Project Site
Crawford and Richland Counties, Ohio
Map 25 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; EP 2011.

Black Fork Wind Energy, LLC's Project Site



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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)

Access Roads (01-14-11)
Collection Line (01-14-11)
Project Area (01-03-11)
Substation (01-13-11)
Switchyard (01-13-11)
O&M Building (01-13-11)
Laydown Yard & Batch Plant (01-13-11)
Permanent Impact Area
Temporary Impact Area
School
Church
Hospital
Industrial Building
Major Road

Figure 5-10
Black Fork Wind Energy, LLC Project Site
Crawford and Richland Counties, Ohio
Map 26 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; EP 2011.

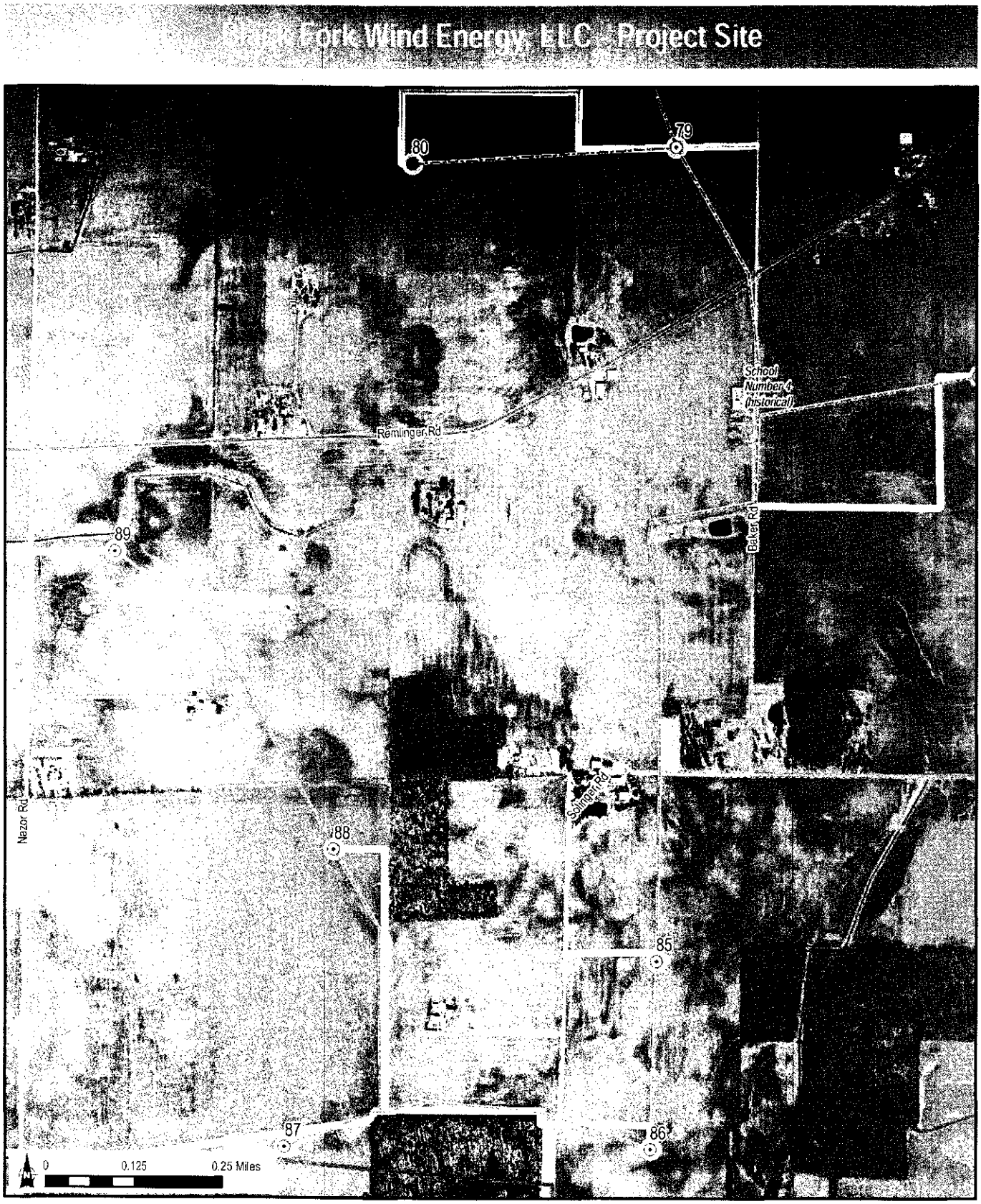

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Figure 5-10
Black Fork Wind Energy, LLC Project Site
Crawford and Richland Counties, Ohio
Map 27 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; EP 2011.

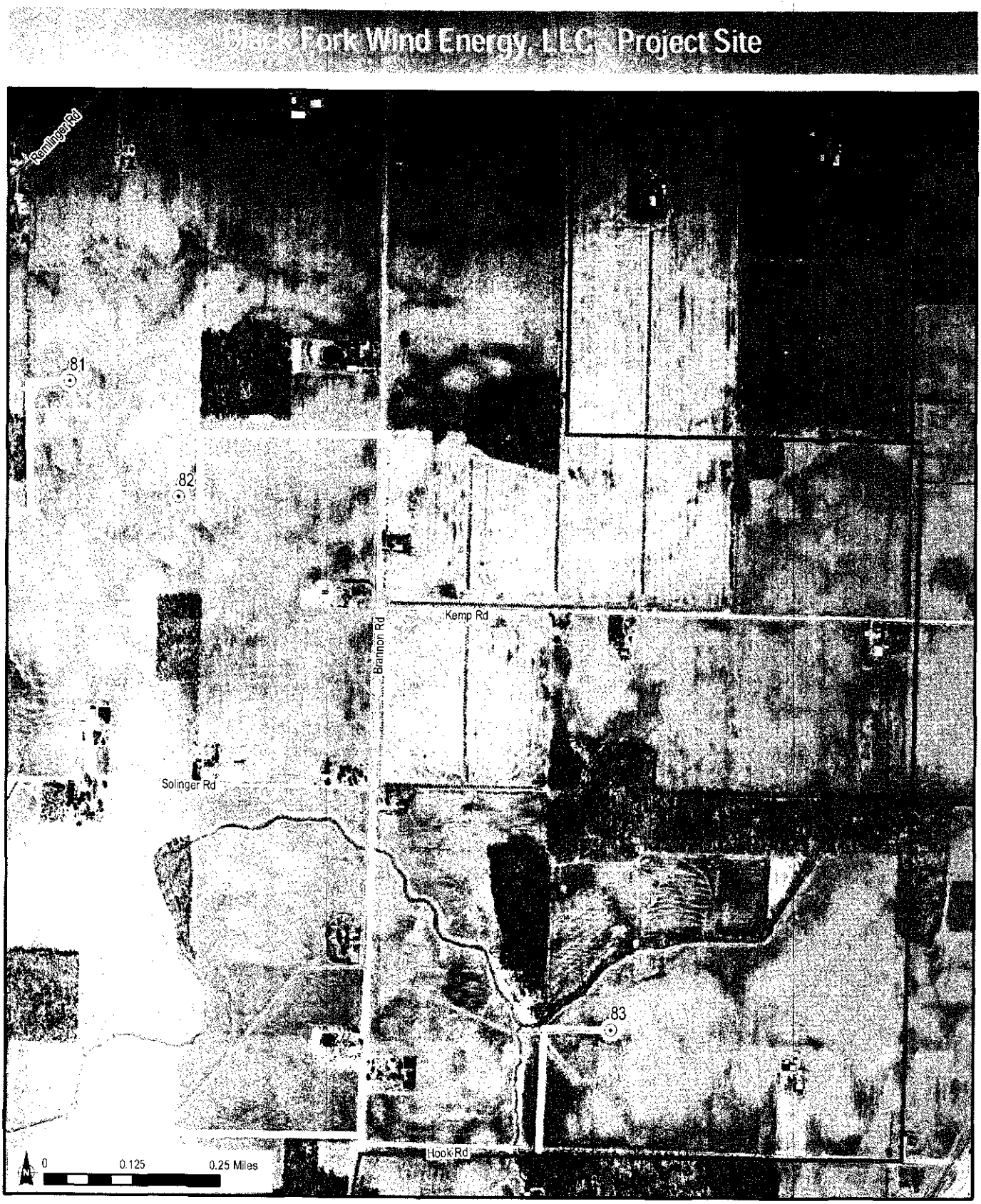
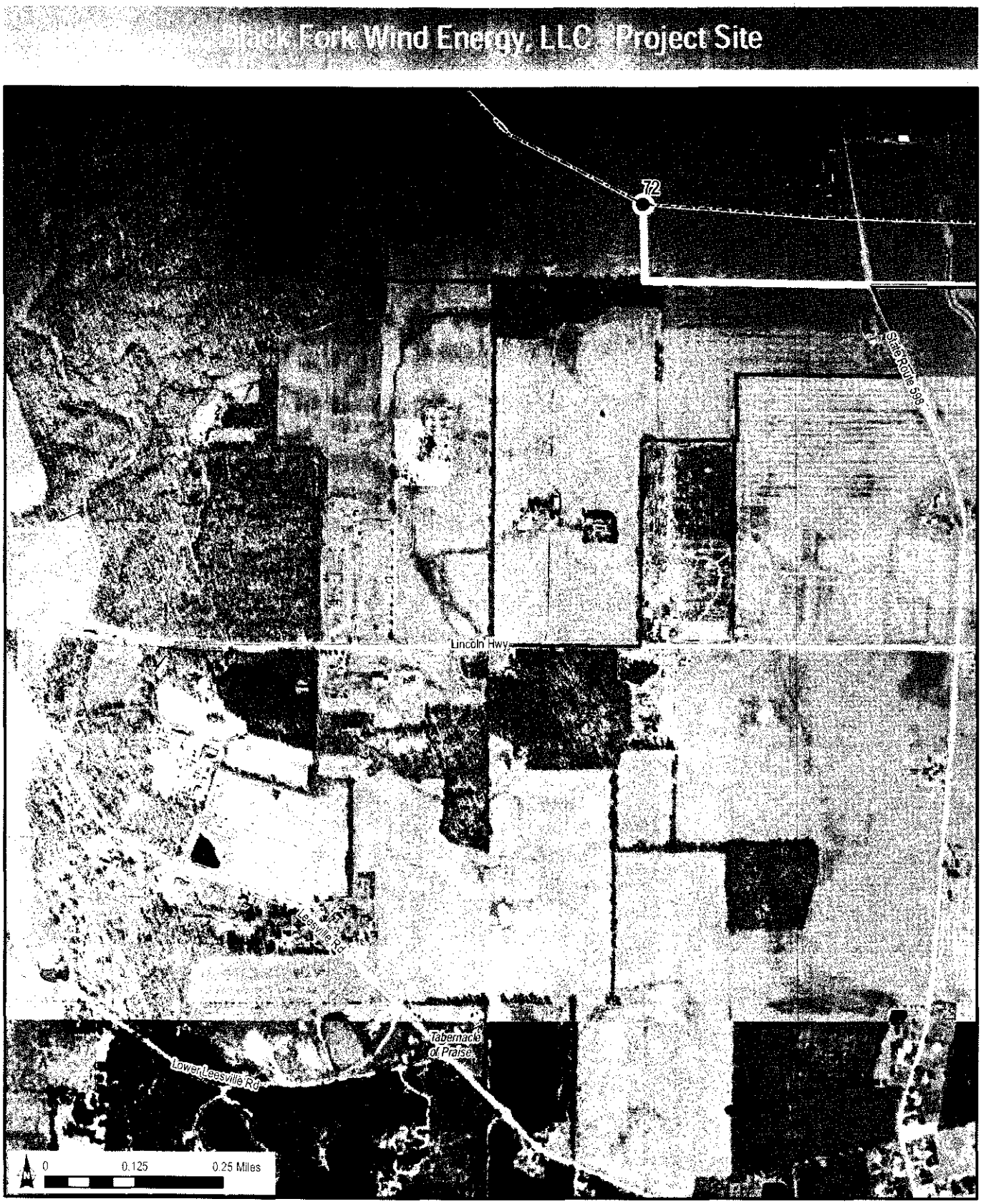


Figure 5-10
Black Fork Wind Energy, LLC Project Site
Crawford and Richland Counties, Ohio
Map 28 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; EP 2011.



Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)

Access Roads (01-14-11)
Collection Line (01-14-11)
Project Area (01-03-11)
Substation (01-13-11)
Switchyard (01-13-11)
O&M Building (01-13-11)
Laydown Yard & Batch Plant (01-13-11)
Permanent Impact Area
Temporary Impact Area
School
Church
Hospital
Industrial Building
Major Road

Figure 5-10
Black Fork Wind Energy, LLC Project Site
Crawford and Richland Counties, Ohio
Map 29 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; EP 2011.

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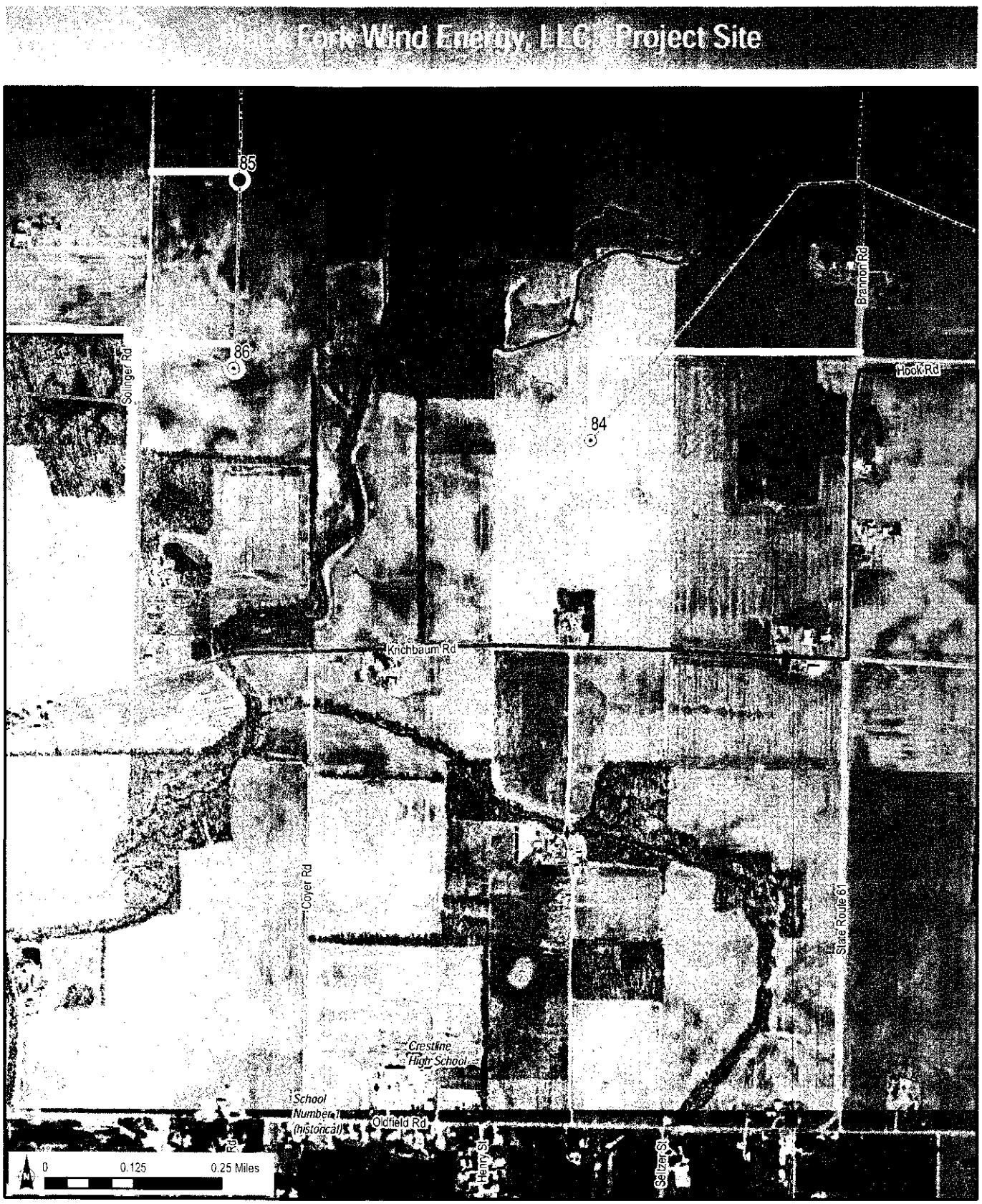

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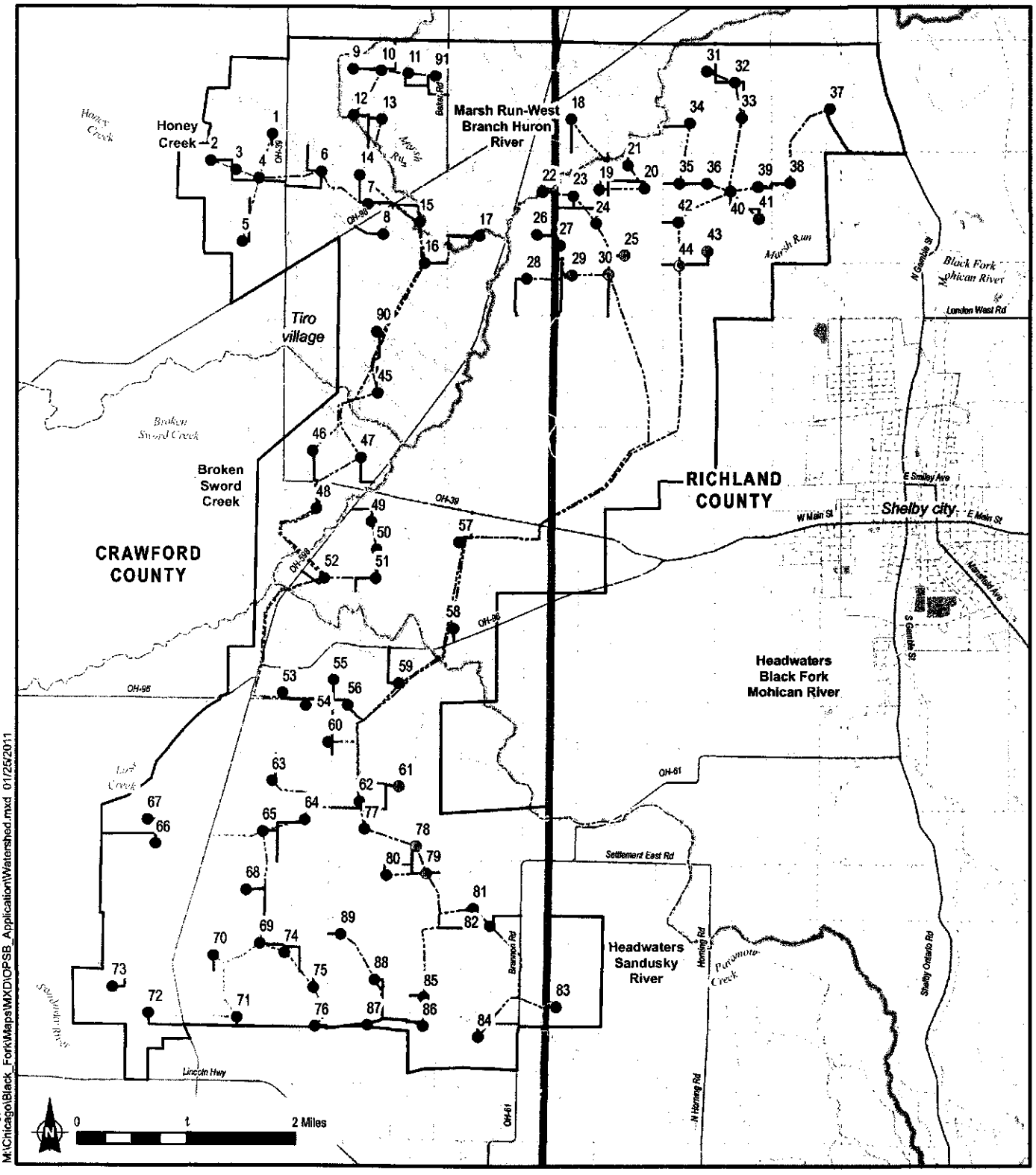
Figure 5-10
Black Fork Wind Energy, LLC Project Site
Crawford and Richland Counties, Ohio
Map 30 of 30

Source: ESRI 2010; E & E 2009; ODNR 2008; EP 2011.

Black Fork Wind Energy, LLC - Surface Water and Watersheds



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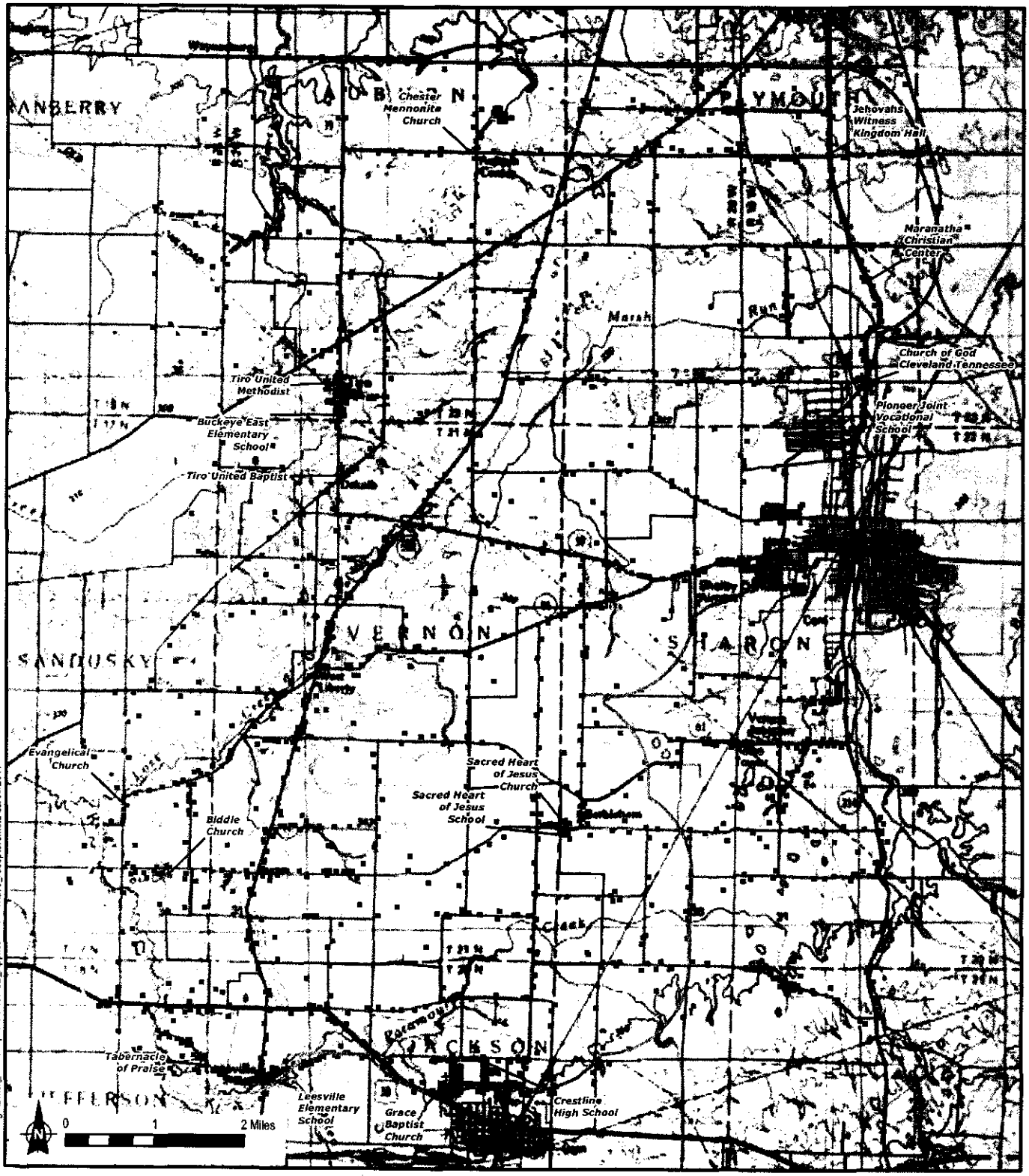
Turbines (01-14-11)
Vestas V100
V100 w/ 80 m Hub (130m tip height)
V100 w/ 95 m Hub (145m tip height)
Access Roads (01-14-11)
Collection Line (01-14-11)
Project Area (01-03-11)

National Hydrography Dataset (NHD)
Stream and Waterbody
10-Digit HUC Boundary
Major Road
Municipality Boundary
County Boundary

Figure 7-1
Black Fork Wind Energy, LLC
Surface Water and Watersheds
Crawford and Richland Counties, Ohio

Source: ESRI 2010; USGS 1981-83; EP 2011.

Black Fork Wind Energy, LLC - Potential Sensitive Receptors



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- Church
- School
- Residential Structures

Figure 8-1
Black Fork Wind Energy, LLC
Potential Sensitive Receptors
Crawford and Richland Counties, Ohio

Source: ESRI 2010; EP 2011; Google Earth 2010; USGS 2008.

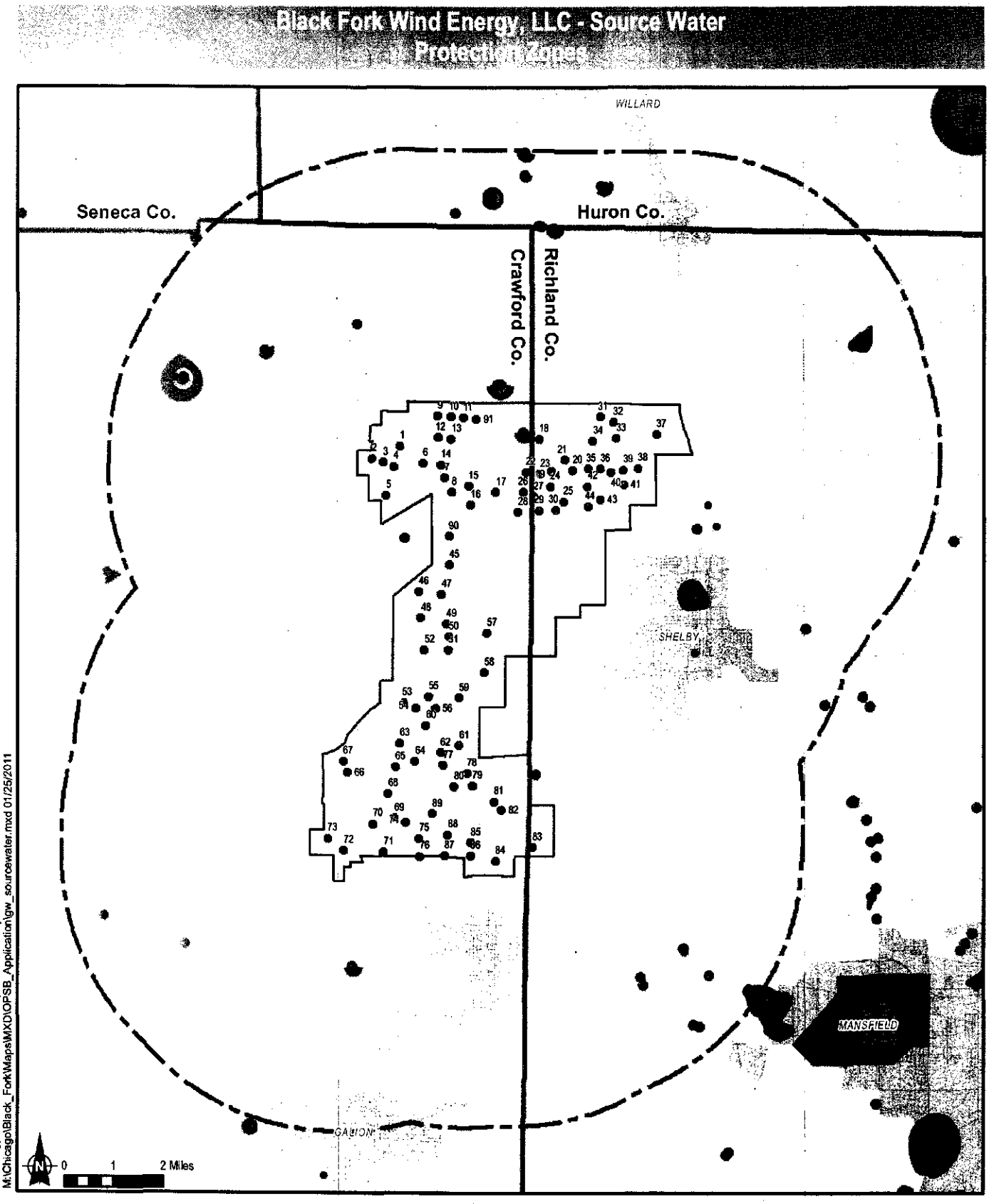


Figure 8-2
Black Fork Wind Energy, LLC
Source Water Protection Zones
Public Water Supply Wells, and Intakes
Crawford, Richland, Huron and Seneca Counties Ohio

Source: ESRI 2010; OH DNR 2009; OHIO EPA 2010; EP 2011.

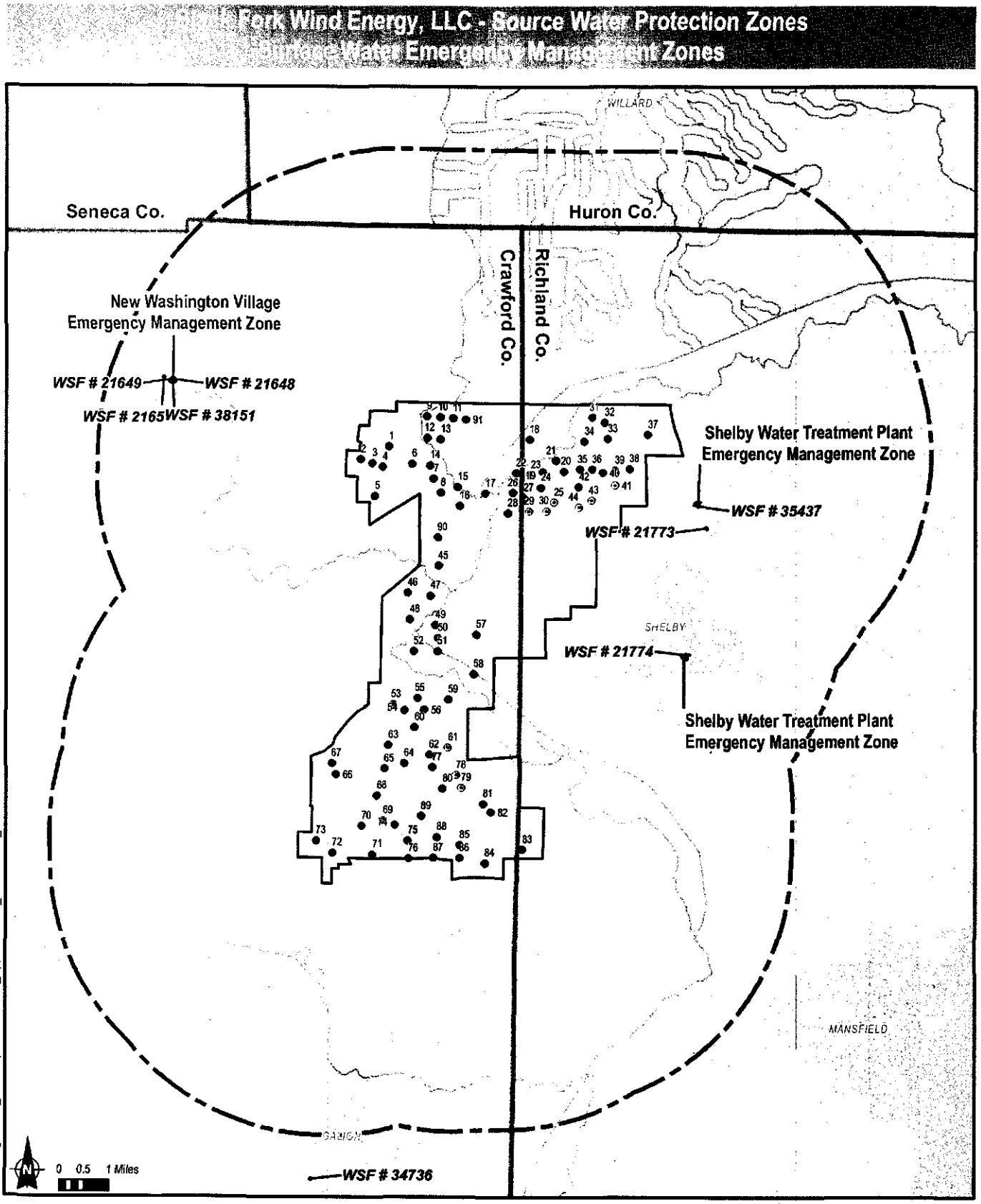
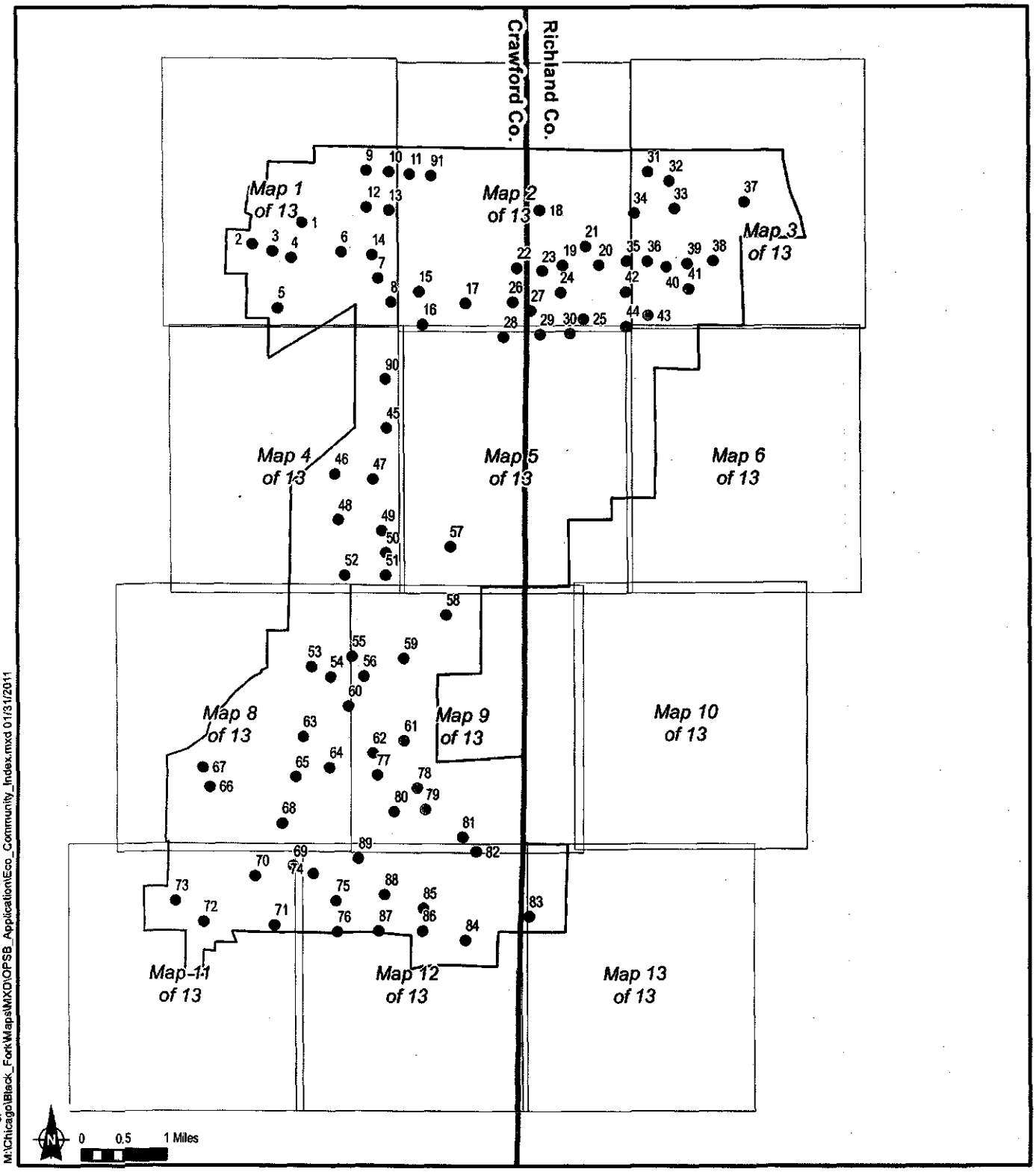


Figure 8-3
Black Fork Wind Energy, LLC
Source Water Protection Zones and
Surface Water Emergency Management Zones
Crawford, Richland, Huron and Seneca Counties Ohio
Source: ESRI 2010; OH DNR 2009; OHIO EPA 2010; EP 2011.

Black Fork Wind Energy, LLC - Ecological Communities Index Map



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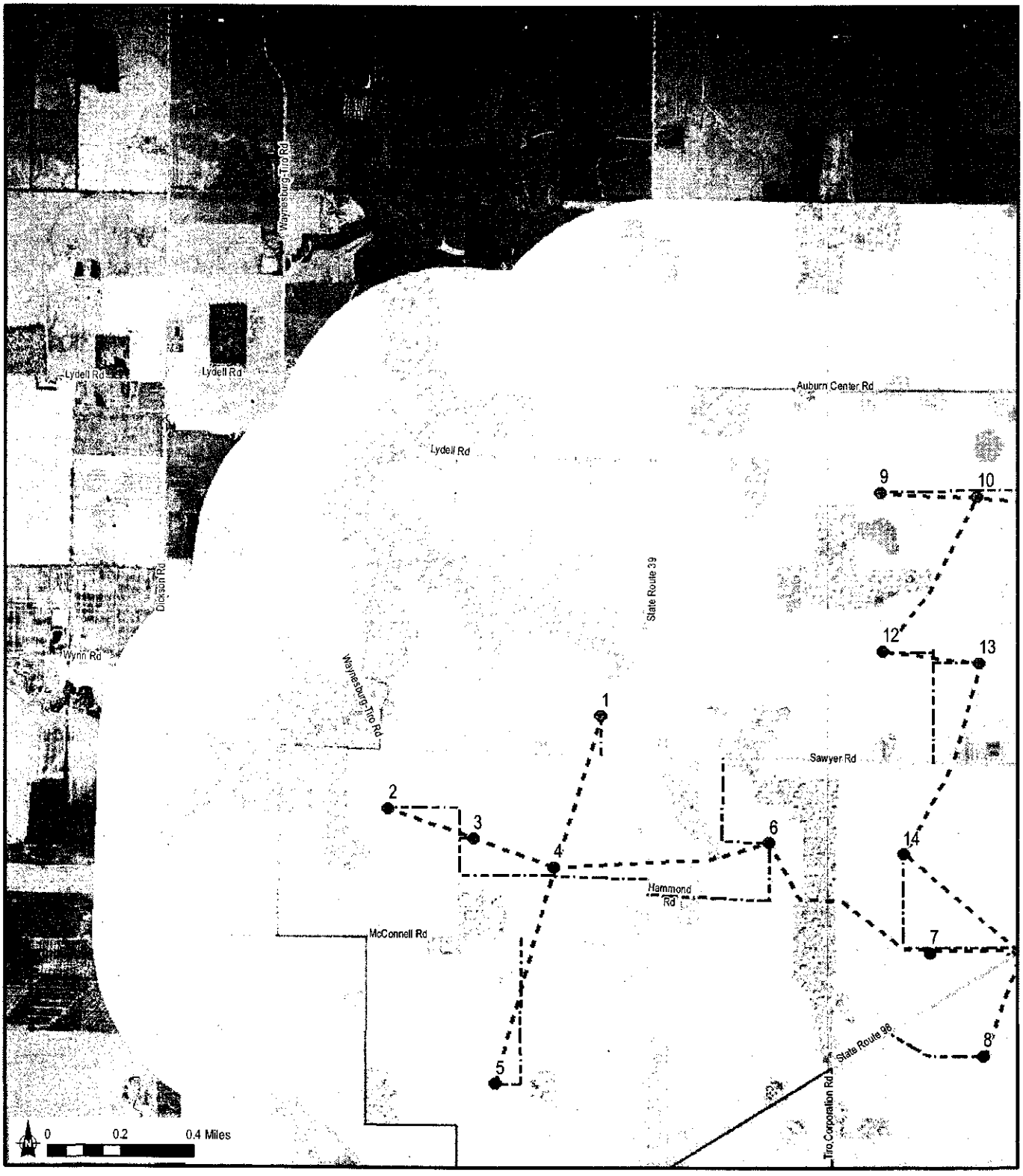
Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)

Project Area (01-03-11)
County boundary

Figure 8-4
Black Fork Wind Energy, LLC Index Map 1:24,000 Scale
Crawford and Richland Counties, Ohio

Source: ESRI 2010; OH DNR 2009; EP 2011.

Black Fork Wind Energy, LLC - Ecological Communities



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Turbines (01-14-11)
Vestas V100
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- V100 w/ 95 m Hub (145m tip height)

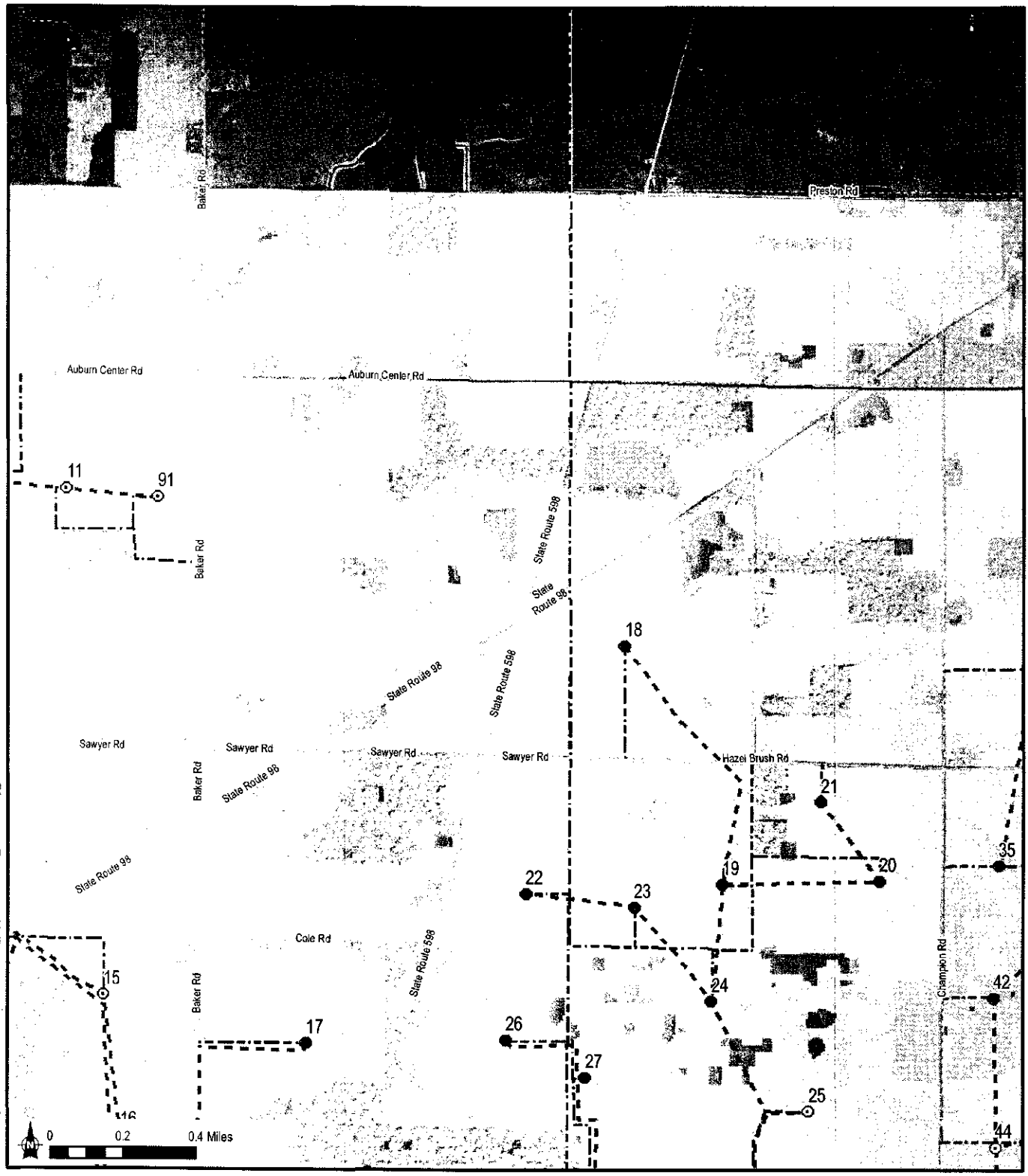
Access Roads (01-14-11)
Collection Line (01-14-11)
Project Area (01-03-11)
Substation (01-13-11)
O&M Building (01-13-11)
Switchyard (01-13-11)
Laydown Yard & Batch Plant (01-13-11)
County Boundary
Major Road

Ecological Community
- Agriculture
- Airport
- American Beech-Sugar Maple Glaciated Midwest Forest
- Old Field
- Residential
- Transportation
- Utility
- Wetland

Figure 8-4
Black Fork Wind Energy, LLC
Ecological Communities
Crawford and Richland Counties, Ohio
Map 1 of 13

Source: ESRI 2010; E & E 2011; ODNR 2008; EP 2011.

Black Fork Wind Energy, LLC - Ecological Communities



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Turbines (01-14-11)
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Project Area (01-03-11)

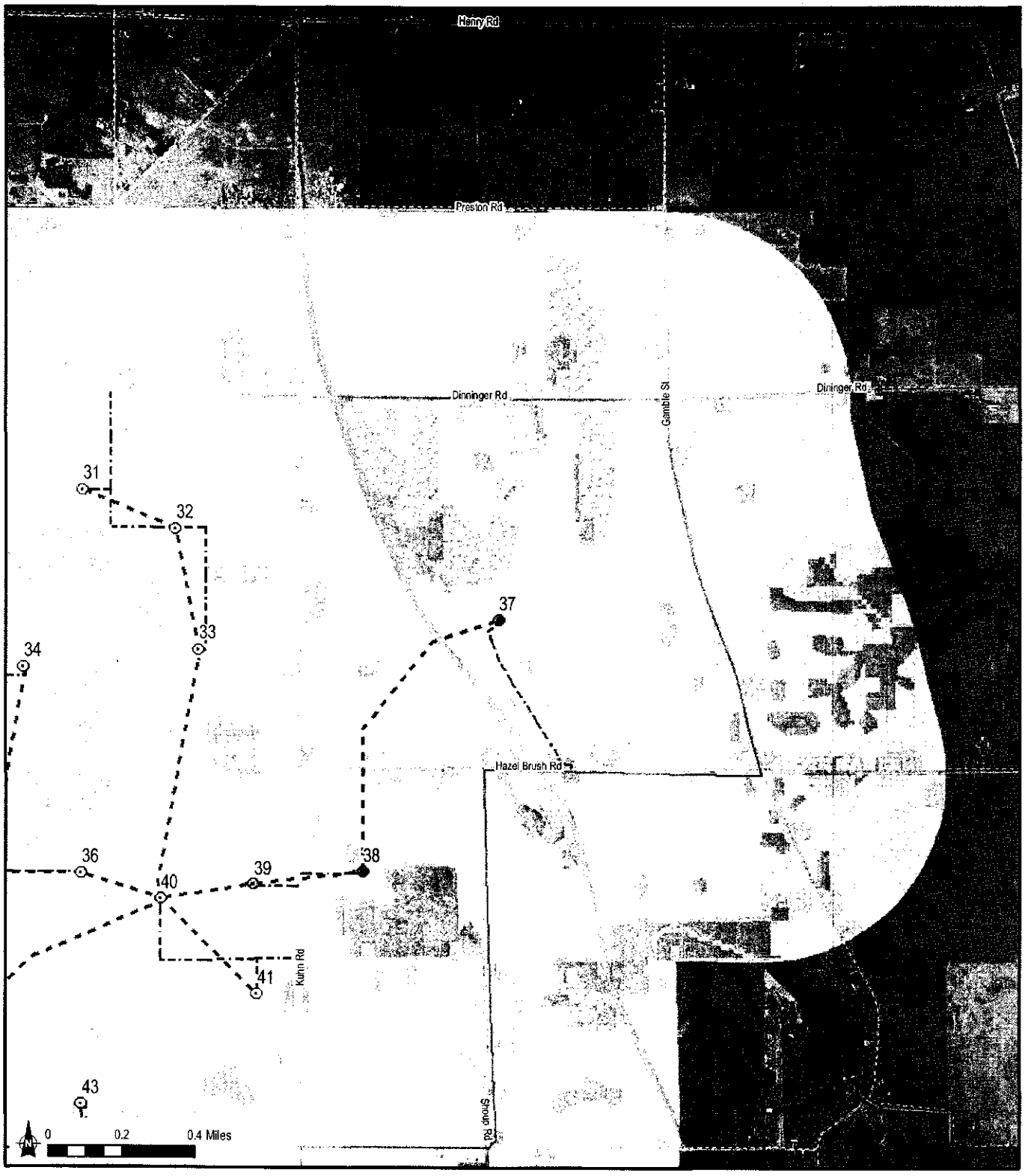
Substation (01-13-11)
O&M Building (01-13-11)
Switchyard (01-13-11)
Laydown Yard & Batch Plant (01-13-11)
County Boundary
Major Road

Ecological Community
- Agriculture
- Airport
- American Beech-Sugar Maple Glaciated Midwest Forest
- Old Field
- Residential
- Transportation
- Utility
- Wetland

Figure 8-4
Black Fork Wind Energy, LLC
Ecological Communities
Crawford and Richland Counties, Ohio
Map 2 of 13

Source: ESRI 2010; E & E 2011; ODNR 2008; EP 2011.

Black Fork Wind Energy, LLC - Ecological Communities



Turbines (01-14-11)
Vestas V100
V100 w/ 80 m Hub (130m tip height)
V100 w/ 95 m Hub (145m tip height)
Access Roads (01-14-11)
Collection Line (01-14-11)
Project Area (01-03-11)

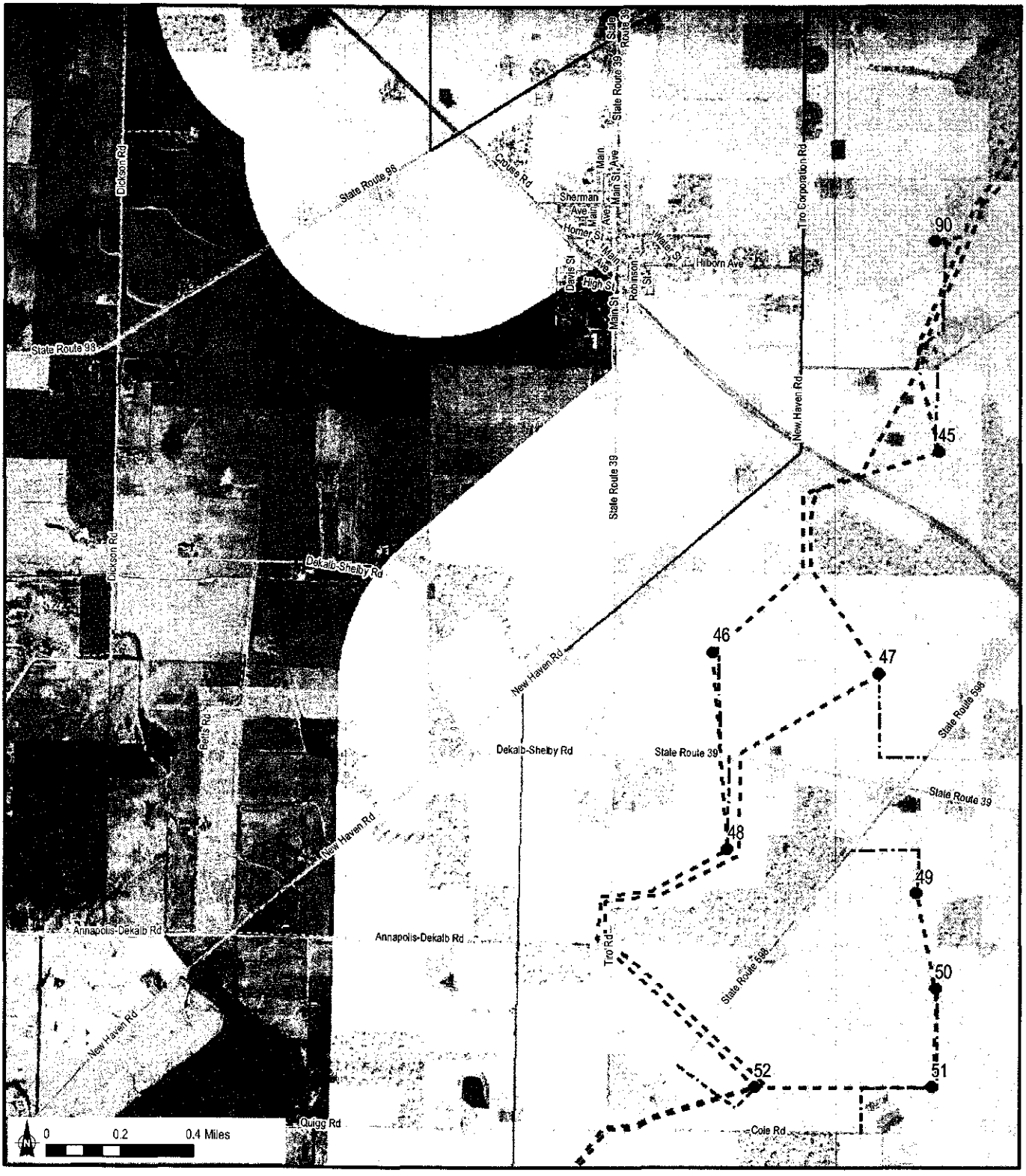
Substation (01-13-11)
O&M Building (01-13-11)
Switchyard (01-13-11)
Laydown Yard & Batch Plant (01-13-11)
County Boundary
Major Road

Ecological Community
Agriculture
Airport
American Beech-Sugar Maple Glaciated Midwest Forest
Old Field
Residential
Transportation
Utility
Wetland

Figure 8-4
Black Fork Wind Energy, LLC
Ecological Communities
Crawford and Richland Counties, Ohio
Map 3 of 13

Source: ESRI 2010; E & E 2011; ODNR 2008; EP 2011.

Black Fork Wind Energy, LLC - Ecological Communities



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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)

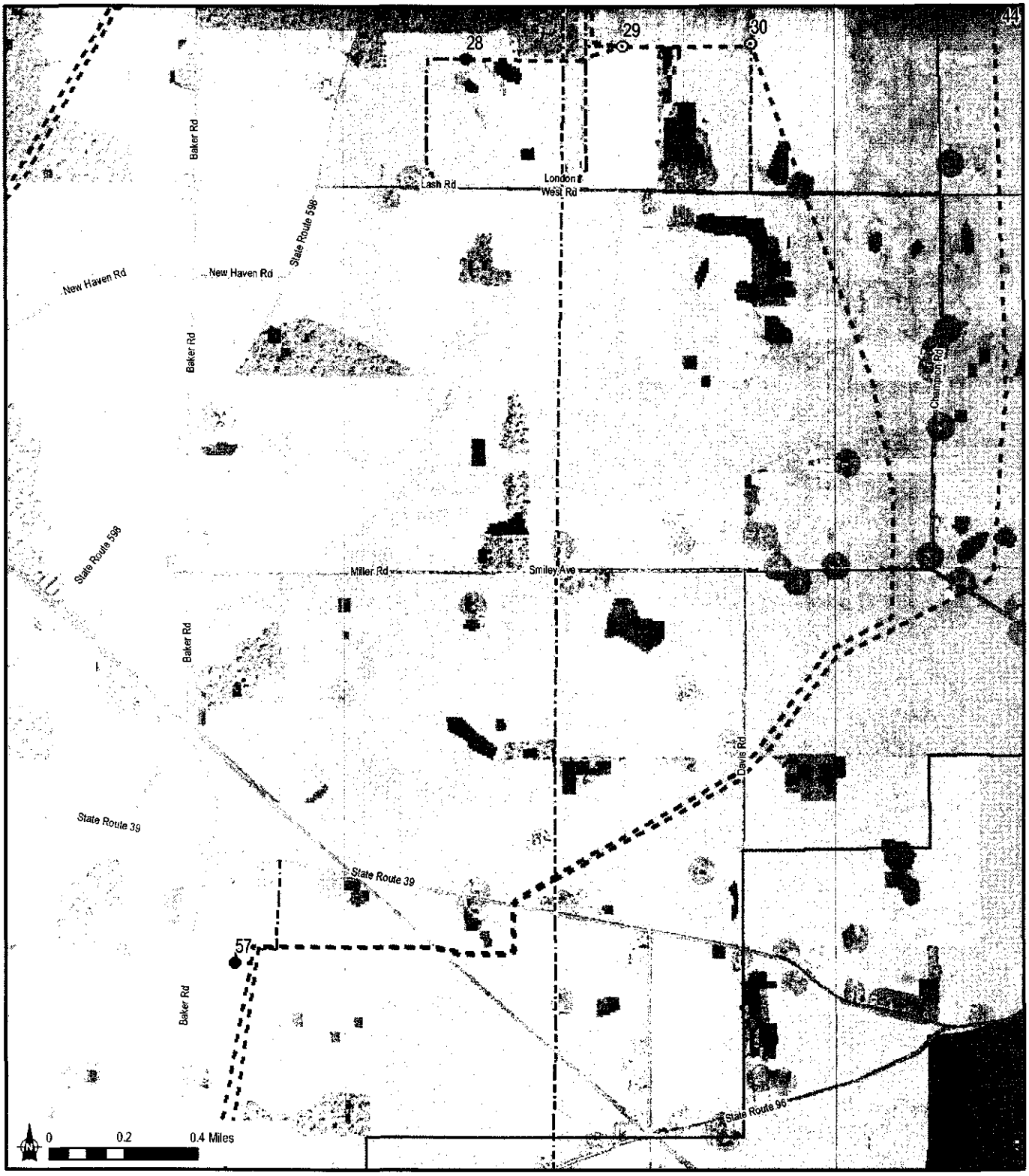
Access Roads (01-14-11)
Collection Line (01-14-11)
Project Area (01-03-11)
Substation (01-13-11)
O&M Building (01-13-11)
Switchyard (01-13-11)
Laydown Yard & Batch Plant (01-13-11)
County Boundary
Major Road

Ecological Community
- Agriculture
- Airport
- American Beech-Sugar Maple Glaciated Midwest Forest
- Old Field
- Residential
- Transportation
- Utility
- Wetland

Figure 8-4
Black Fork Wind Energy, LLC
Ecological Communities
Crawford and Richland Counties, Ohio
Map 4 of 13

Source: ESRI 2010; E & E 2011; ODNR 2008; EP 2011.

Black Fork Wind Energy, LLC - Ecological Communities



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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)

Access Roads (01-14-11)
Collection Line (01-14-11)
Project Area (01-03-11)
Substation (01-13-11)
O&M Building (01-13-11)
Switchyard (01-13-11)
Laydown Yard & Batch Plant (01-13-11)
County Boundary
Major Road

Ecological Community
- Agriculture
- Airport
- American Beech-Sugar Maple Glaciated Midwest Forest
- Old Field
- Residential
- Transportation
- Utility
- Wetland

Figure 8-4
Black Fork Wind Energy, LLC
Ecological Communities
Crawford and Richland Counties, Ohio
Map 5 of 13

Source: ESRI 2010; E & E 2011; ODNR 2008; EP 2011.

Black Fork Wind Energy, LLC - Ecological Communities

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Turbines (01-14-11)
Vestas V100
V100 w/ 80 m Hub (130m tip height)
V100 w/ 95 m Hub (145m tip height)
Access Roads (01-14-11)
Collection Line (01-14-11)
Project Area (01-03-11)

Substation (01-13-11)
O&M Building (01-13-11)
Switchyard (01-13-11)
Laydown Yard & Batch Plant (01-13-11)
County Boundary
Major Road

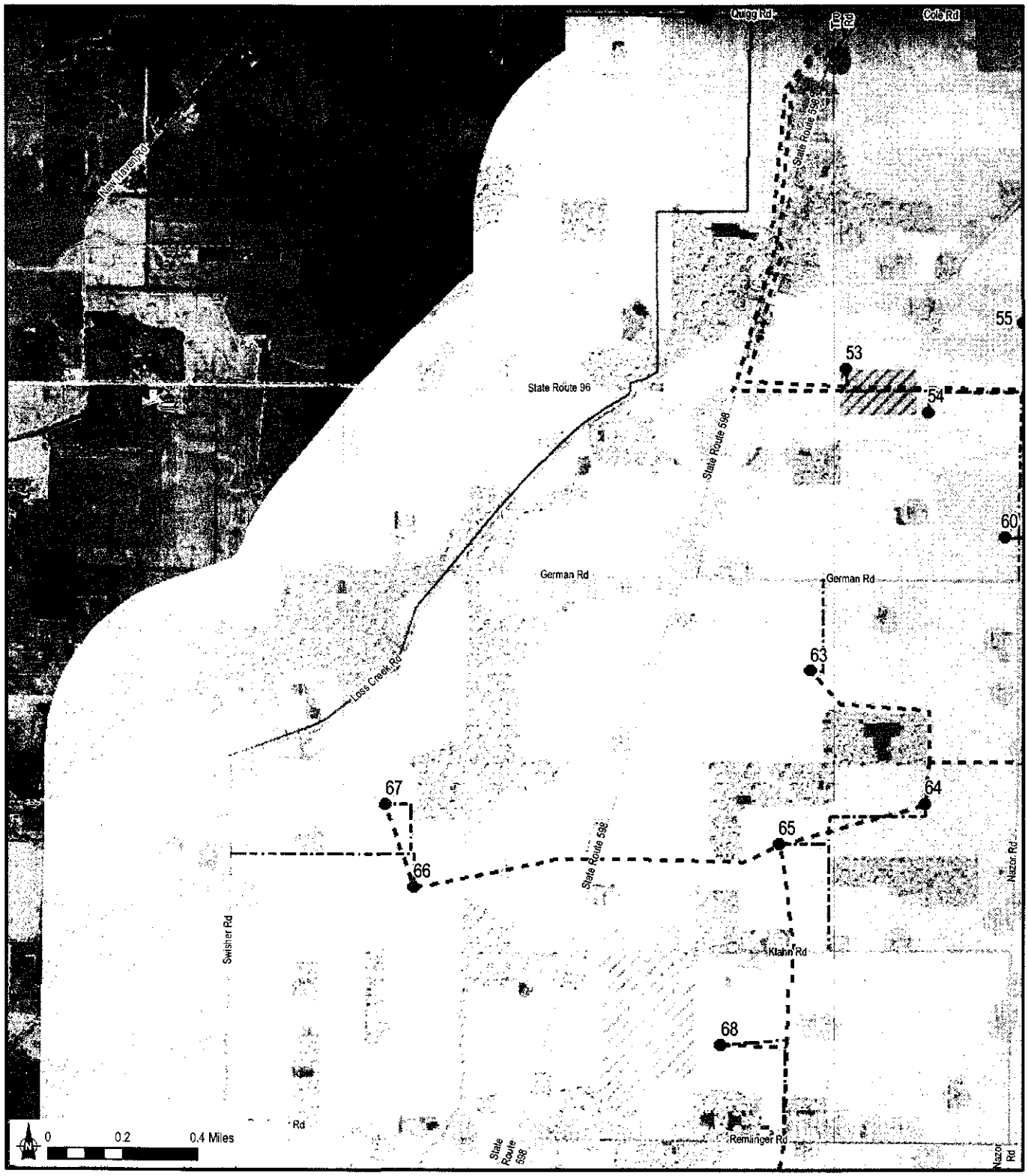
Ecological Community
Agriculture
Airport
American Beech-Sugar Maple Glaciated Midwest Forest
Old Field

Residential
Transportation
Utility
Wetland

Figure 8-4
Black Fork Wind Energy, LLC
Ecological Communities
Crawford and Richland Counties, Ohio
Map 6 of 13

Source: ESRI 2010; E & E 2011; ODNR 2008; EP 2011.

Black Fork Wind Energy, LLC - Ecological Communities



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Turbines (01-14-11)
Vestas V100
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Access Roads (01-14-11)
Collection Line (01-14-11)
Project Area (01-03-11)

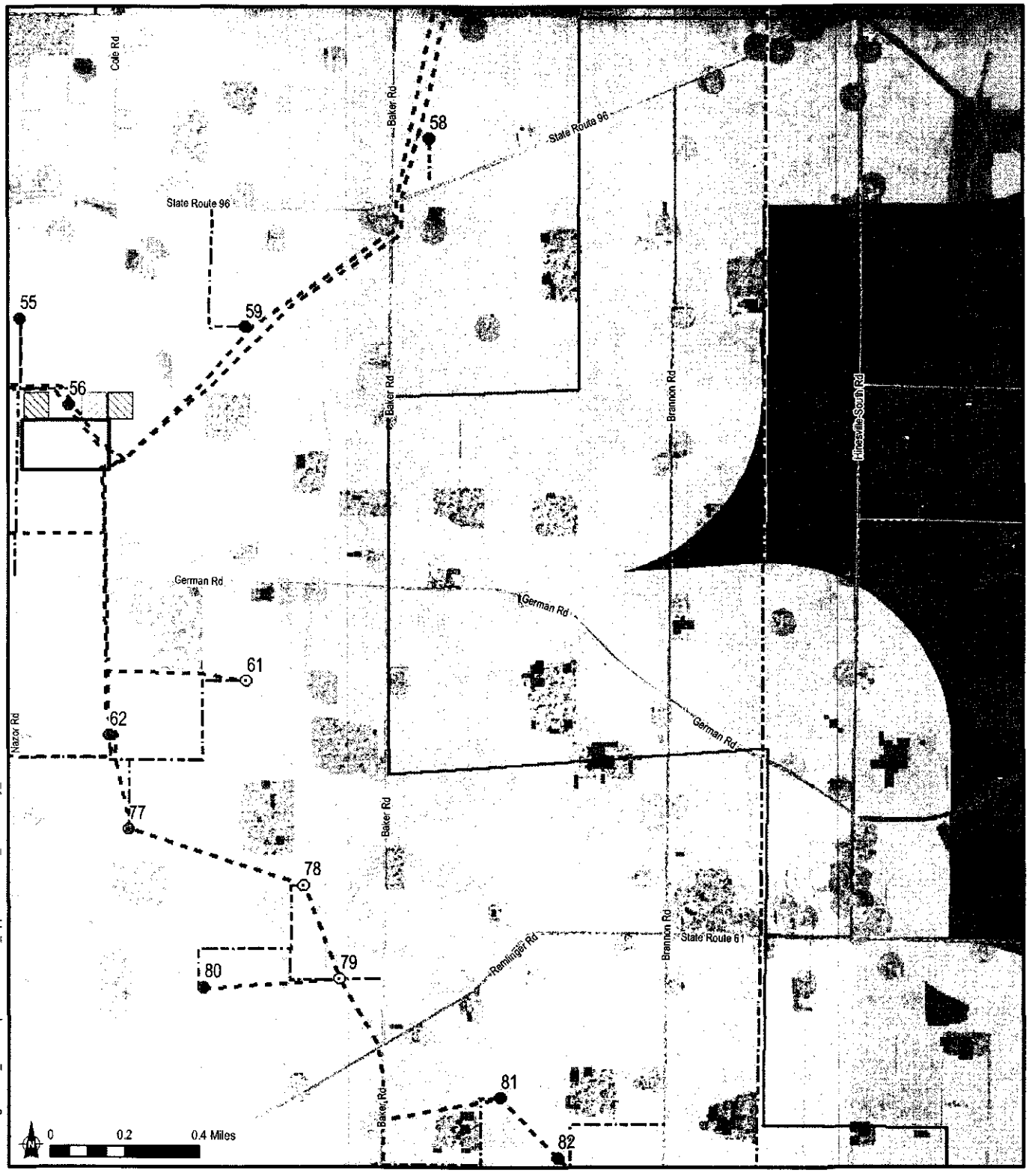
Substation (01-13-11)
O&M Building (01-13-11)
Switchyard (01-13-11)
Laydown Yard & Batch Plant (01-13-11)
County Boundary
Major Road

Ecological Community
Agriculture
Airport
American Beech-Sugar Maple Glaciated Midwest Forest
Old Field
Residential
Transportation
Utility
Wetland

Figure 8-4
Black Fork Wind Energy, LLC
Ecological Communities
Crawford and Richland Counties, Ohio
Map 8 of 13

Source: ESRI 2010; E & E 2011; ODNR 2008; EP 2011.

Black Fork Wind Energy, LLC - Ecological Communities



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Turbines (01-14-11)
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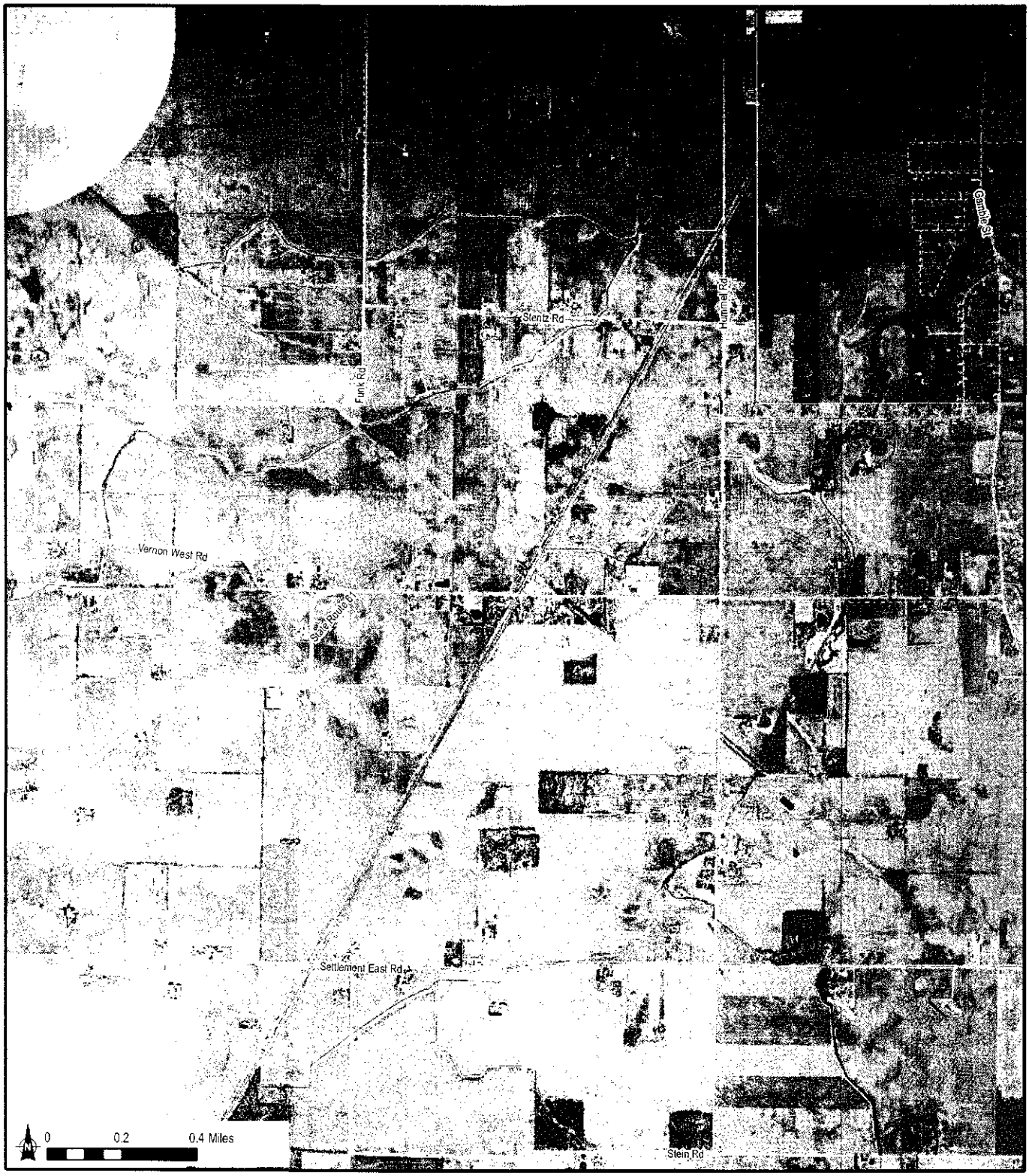
Substation (01-13-11)
O&M Building (01-13-11)
Switchyard (01-13-11)
Laydown Yard & Batch Plant (01-13-11)
County Boundary
Major Road

Ecological Community
- Agriculture
- Airport
- American Beech-Sugar Maple Glaciated Midwest Forest
- Old Field
- Residential
- Transportation
- Utility
- Wetland

Figure 8-4
Black Fork Wind Energy, LLC
Ecological Communities
Crawford and Richland Counties, Ohio
Map 9 of 13

Source: ESRI 2010; E & E 2011; ODNR 2008; EP 2011.

Black Fork Wind Energy, LLC - Ecological Communities



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Turbines (01-14-11)
Vestas V100
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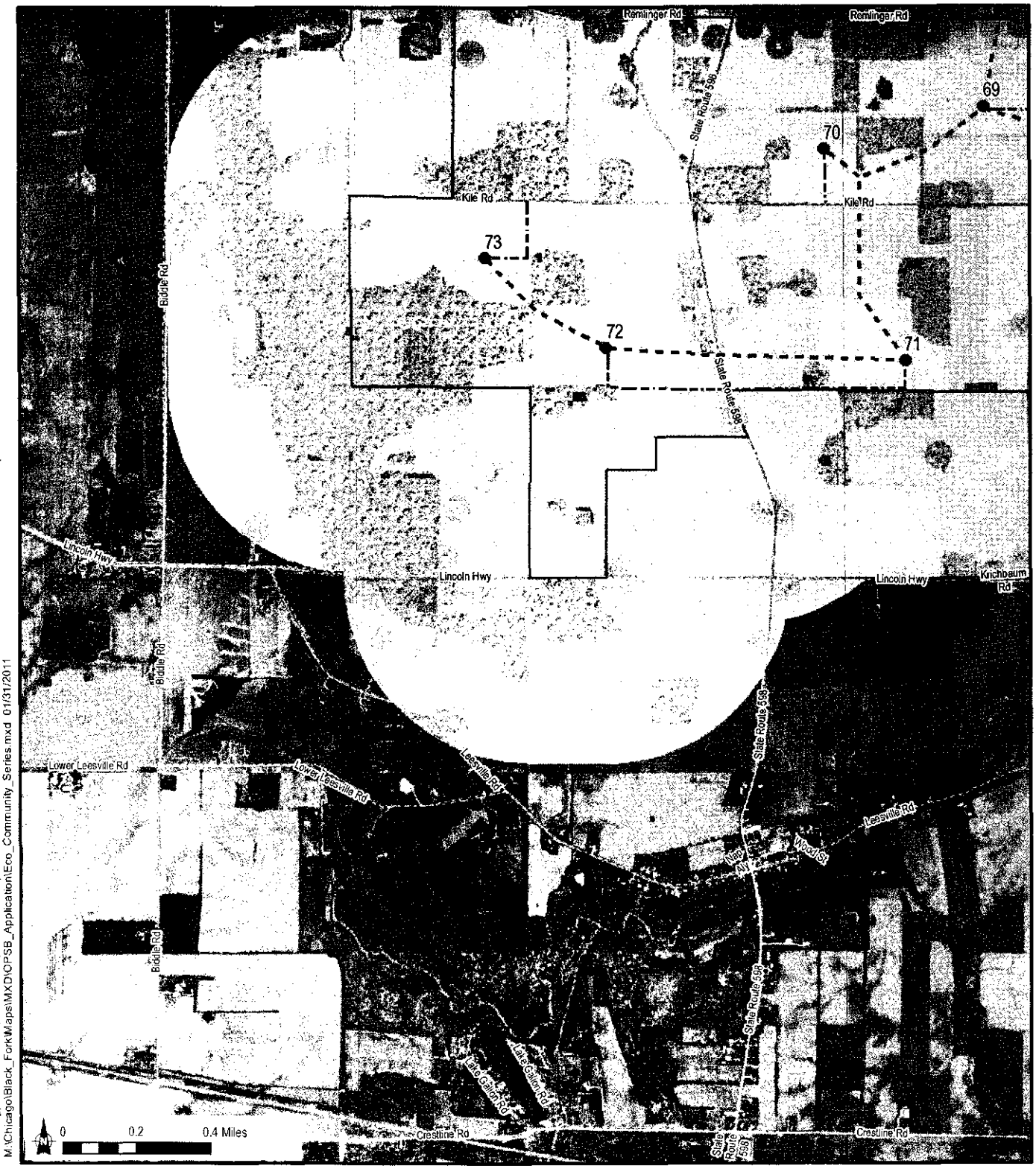
Laydown Yard & Batch Plant (01-13-11)
County Boundary
Major Road

Ecological Community
Agriculture
Airport
American Beech-Sugar Maple Glaciated Midwest Forest
Old Field
Residential
Transportation
Utility
Wetland

Figure 8-4
Black Fork Wind Energy, LLC
Ecological Communities
Crawford and Richland Counties, Ohio
Map 10 of 13

Source: ESRI 2010; E & E 2011; ODNR 2008; EP 2011.

Black Fork Wind Energy, LLC - Ecological Communities



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Turbines (01-14-11)
Vestas V100
V100 w/ 80 m Hub (130m tip height)
V100 w/ 95 m Hub (145m tip height)
Access Roads (01-14-11)
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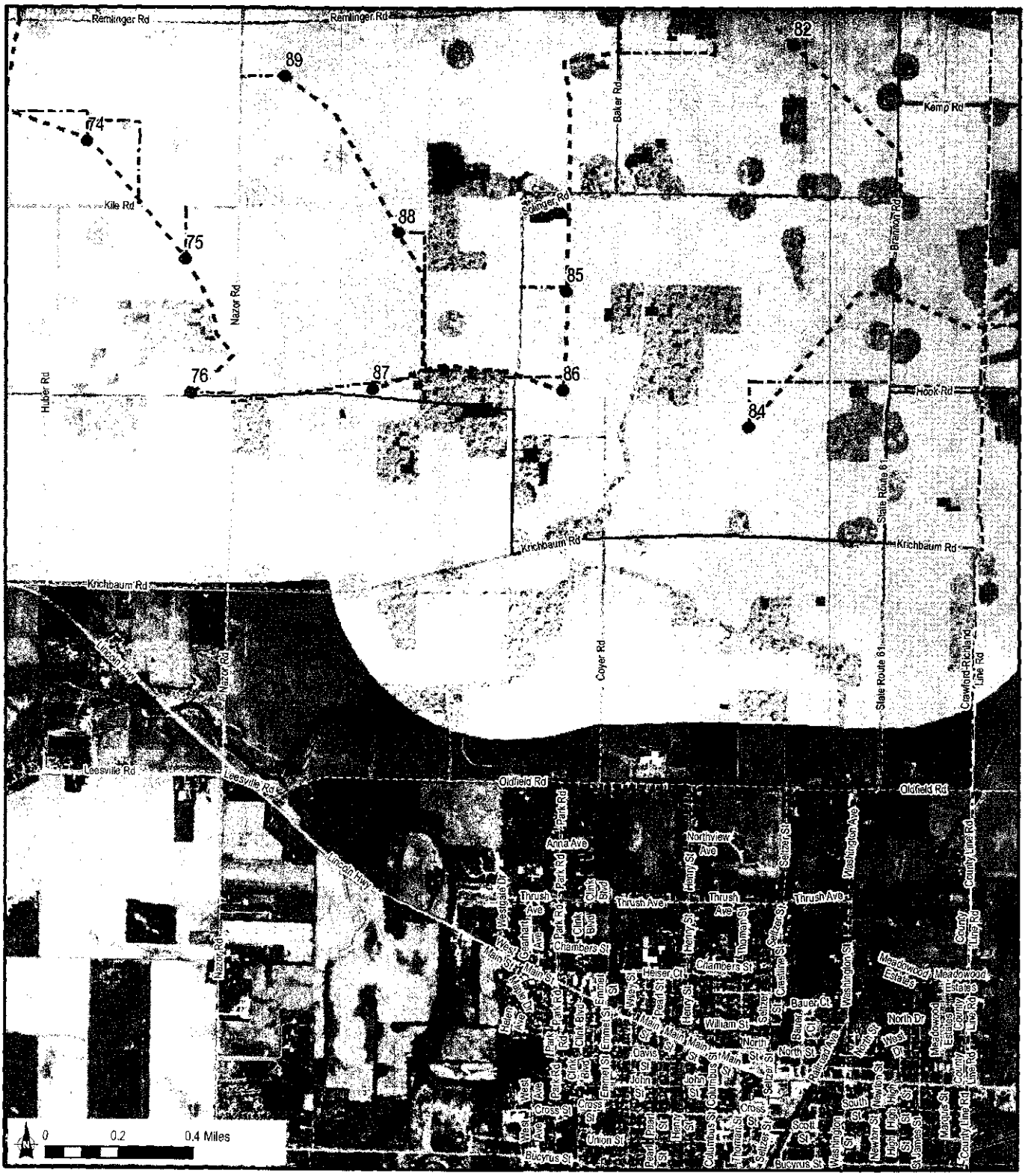
Laydown Yard & Batch Plant (01-13-11)
County Boundary
Major Road

Ecological Community
Agriculture
Airport
American Beech-Sugar Maple Glaciated Midwest Forest
Old Field
Residential
Transportation
Utility
Wetland

Figure 8-4
Black Fork Wind Energy, LLC
Ecological Communities
Crawford and Richland Counties, Ohio
Map 11 of 13

Source: ESRI 2010; E & E 2011; ODNR 2008; EP 2011.

Black Fork Wind Energy, LLC - Ecological Communities



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Turbines (01-14-11)
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- V100 w/ 95 m Hub (145m tip height)

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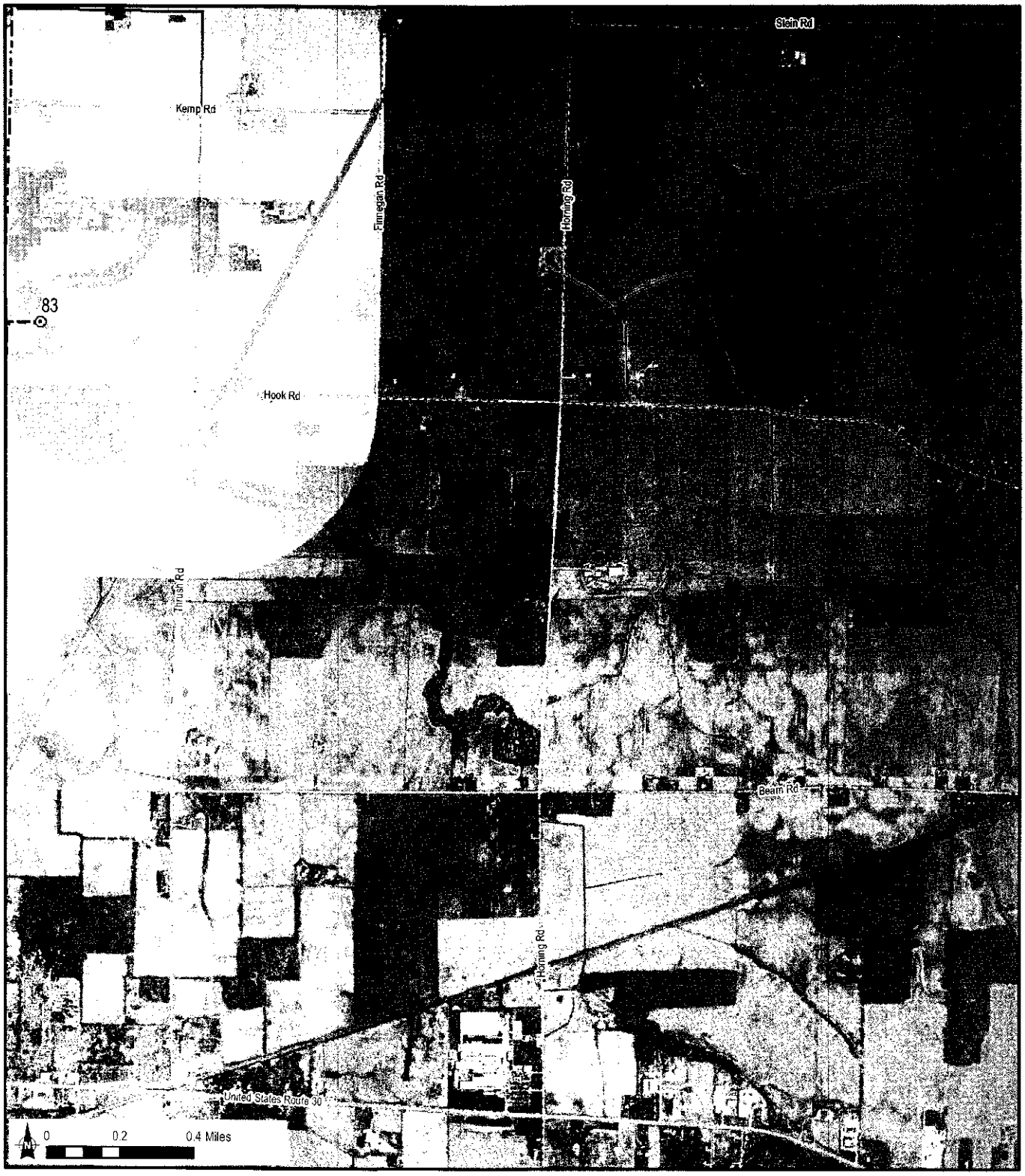
County Boundary
Major Road

Ecological Community
- Agriculture
- Airport
- American Beech-Sugar Maple Glaciated Midwest Forest
- Old Field
- Residential
- Transportation
- Utility
- Wetland

Figure 8-4
Black Fork Wind Energy, LLC
Ecological Communities
Crawford and Richland Counties, Ohio
Map 12 of 13

Source: ESRI 2010; E & E 2011; ODNR 2008; EP 2011.

Black Fork Wind Energy, LLC - Ecological Communities



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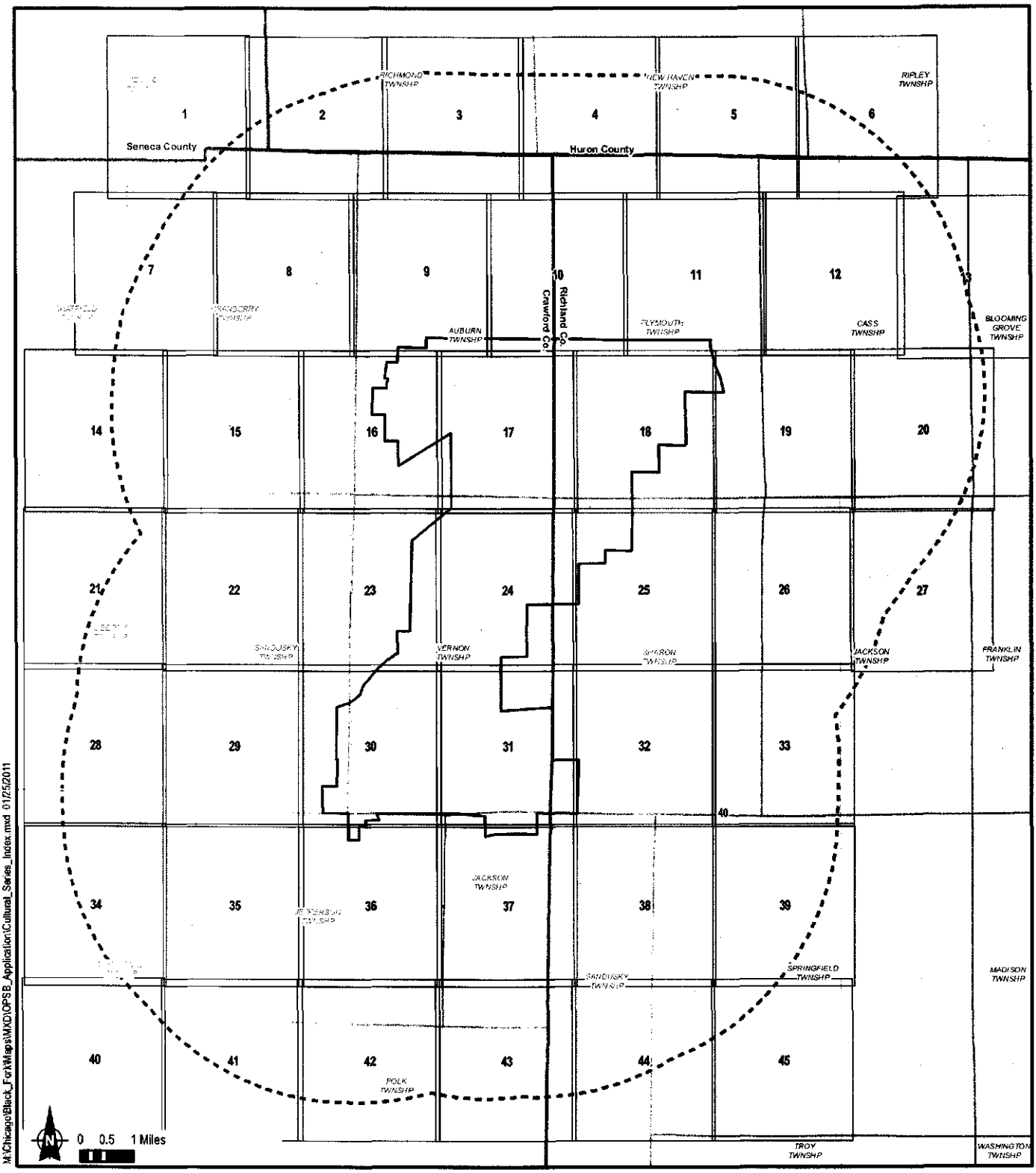
Turbines (01-14-11)
Vestas V100
V100 w/ 80 m Hub (130m tip height)
V100 w/ 95 m Hub (145m tip height)
Access Roads (01-14-11)
Collection Line (01-14-11)
Project Area (01-03-11)

Substation (01-13-11)
O&M Building (01-13-11)
Switchyard (01-13-11)
Laydown Yard & Batch Plant (01-13-11)
County Boundary
Major Road

Ecological Community
Agriculture
Airport
American Beech-Sugar Maple Glaciated Midwest Forest
Old Field
Residential
Transportation
Utility
Wetland

Figure 8-4
Black Fork Wind Energy, LLC
Ecological Communities
Crawford and Richland Counties, Ohio
Map 13 of 13

Source: ESRI 2010; E & E 2011; ODNR 2008; EP 2011.



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Project Area (01-03-11)
Five Mile Buffer
Township boundary
County boundary

Figure 8-5
Black Fork Wind Energy, LLC Index Map 1:24,000 Scale
Crawford, Richland, Huron & Seneca Counties, Ohio

Source: ESRI 2010; OH DNR 2009; EP 2011.

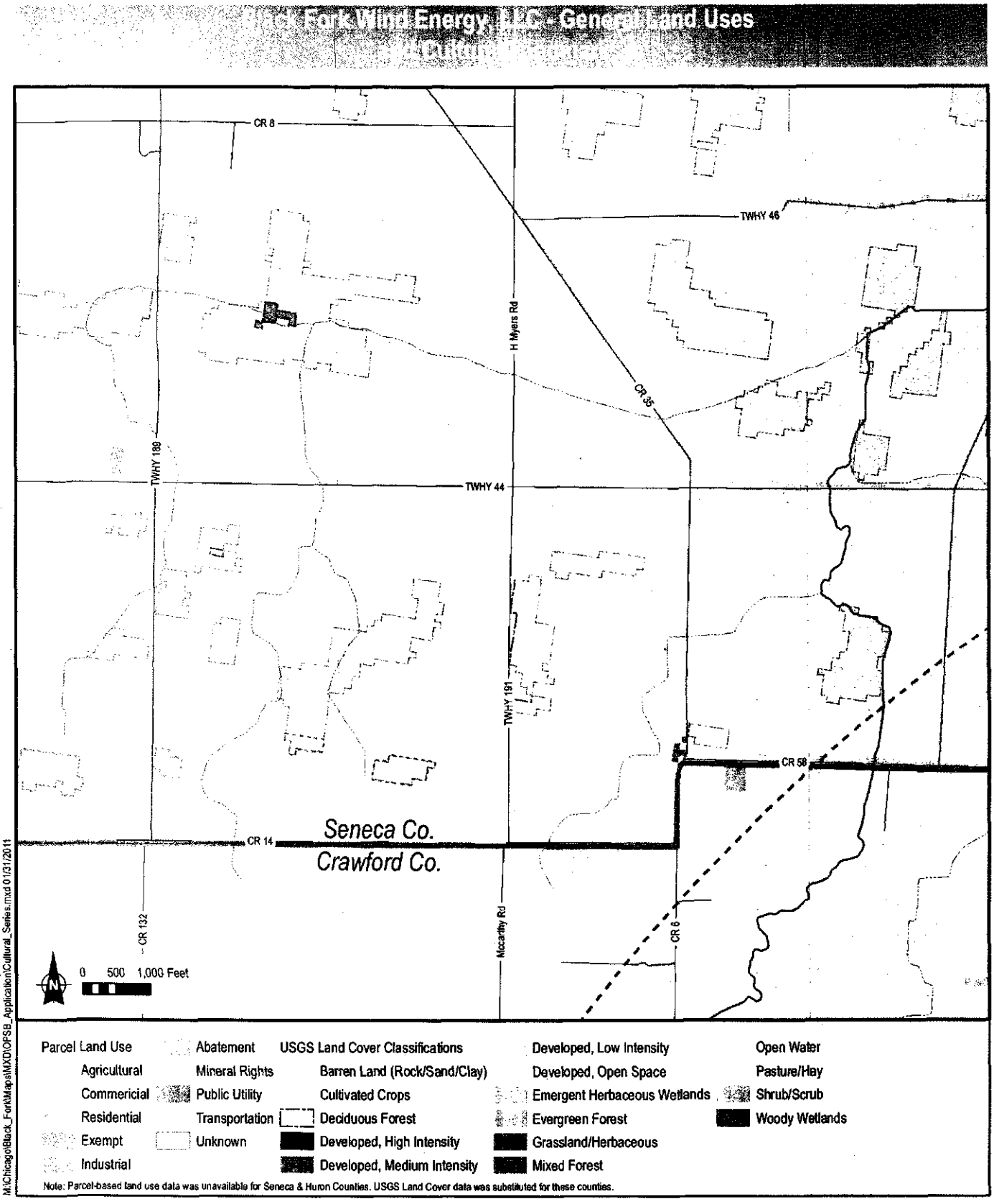

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Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 1 of 45

Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.

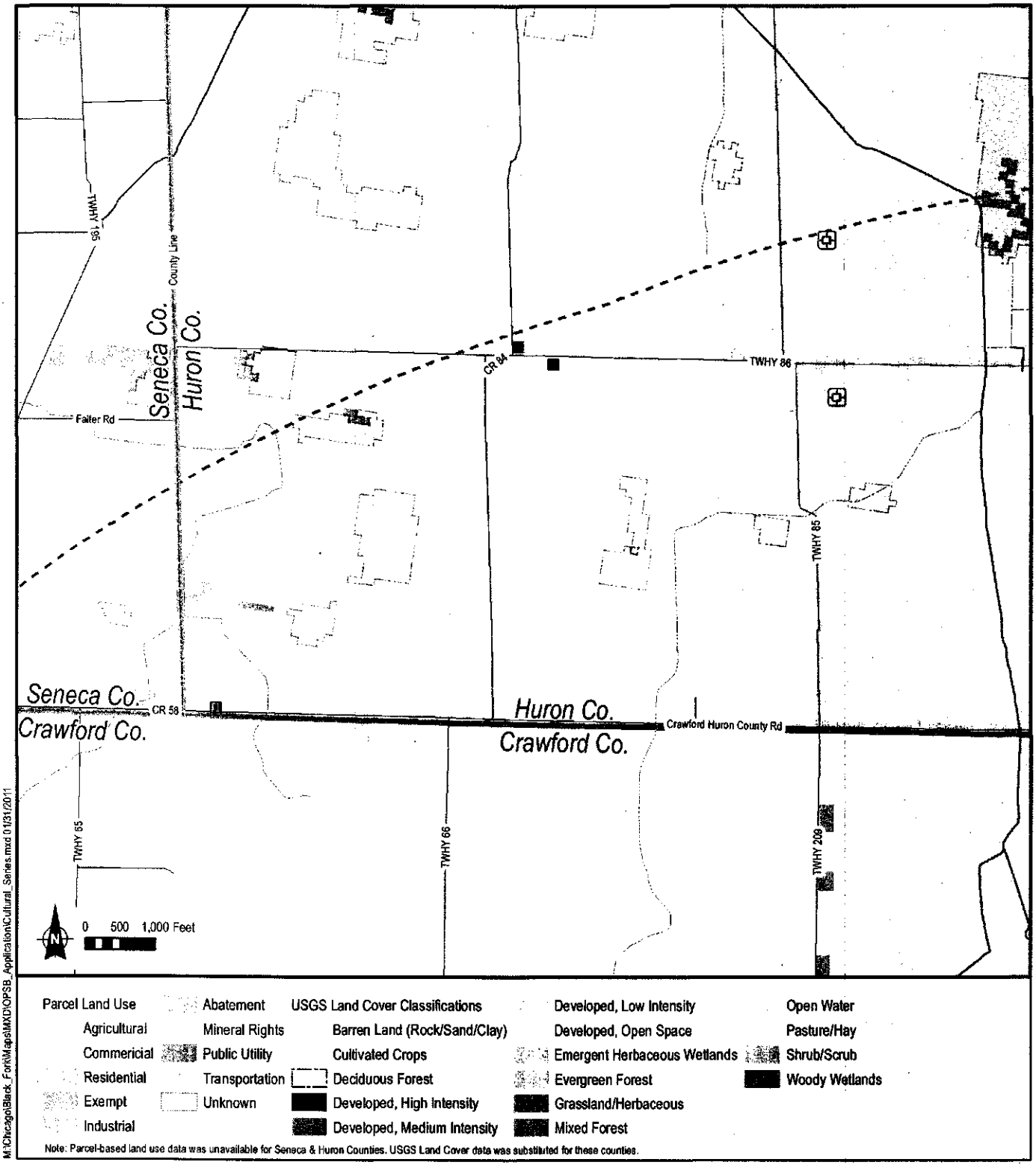

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Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 2 of 45

Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.

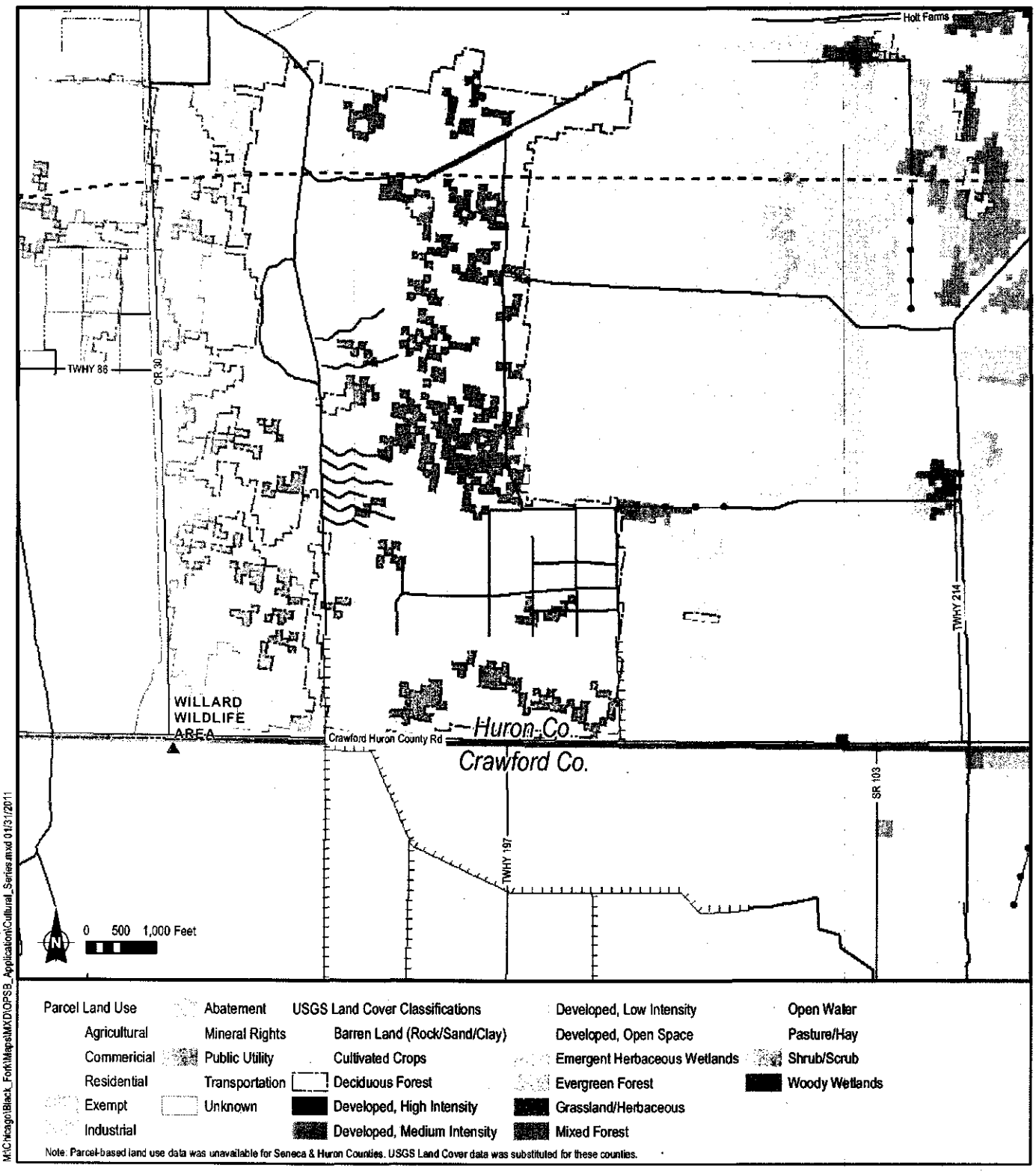

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Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 3 of 45

Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.

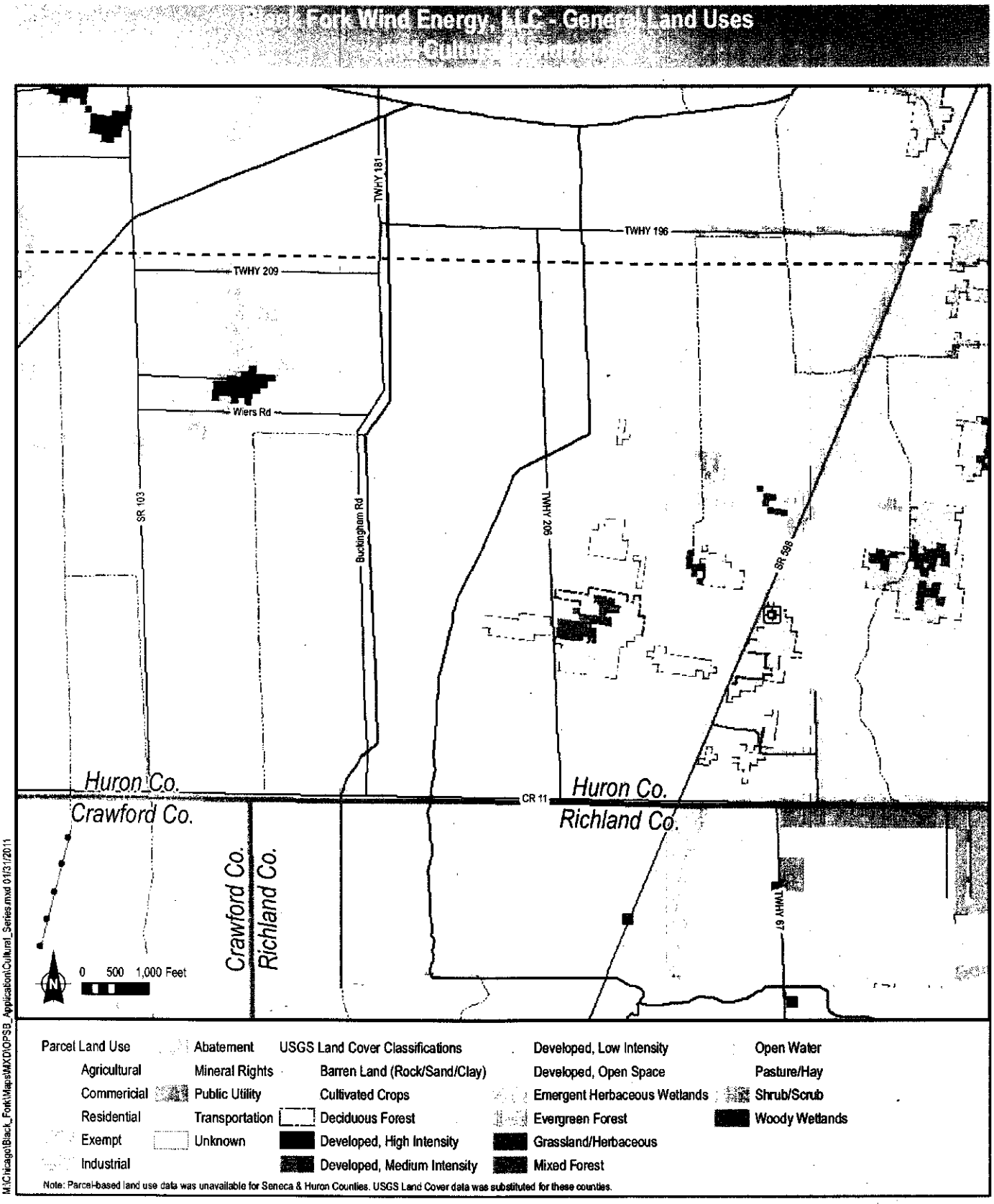

Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 4 of 45

Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.

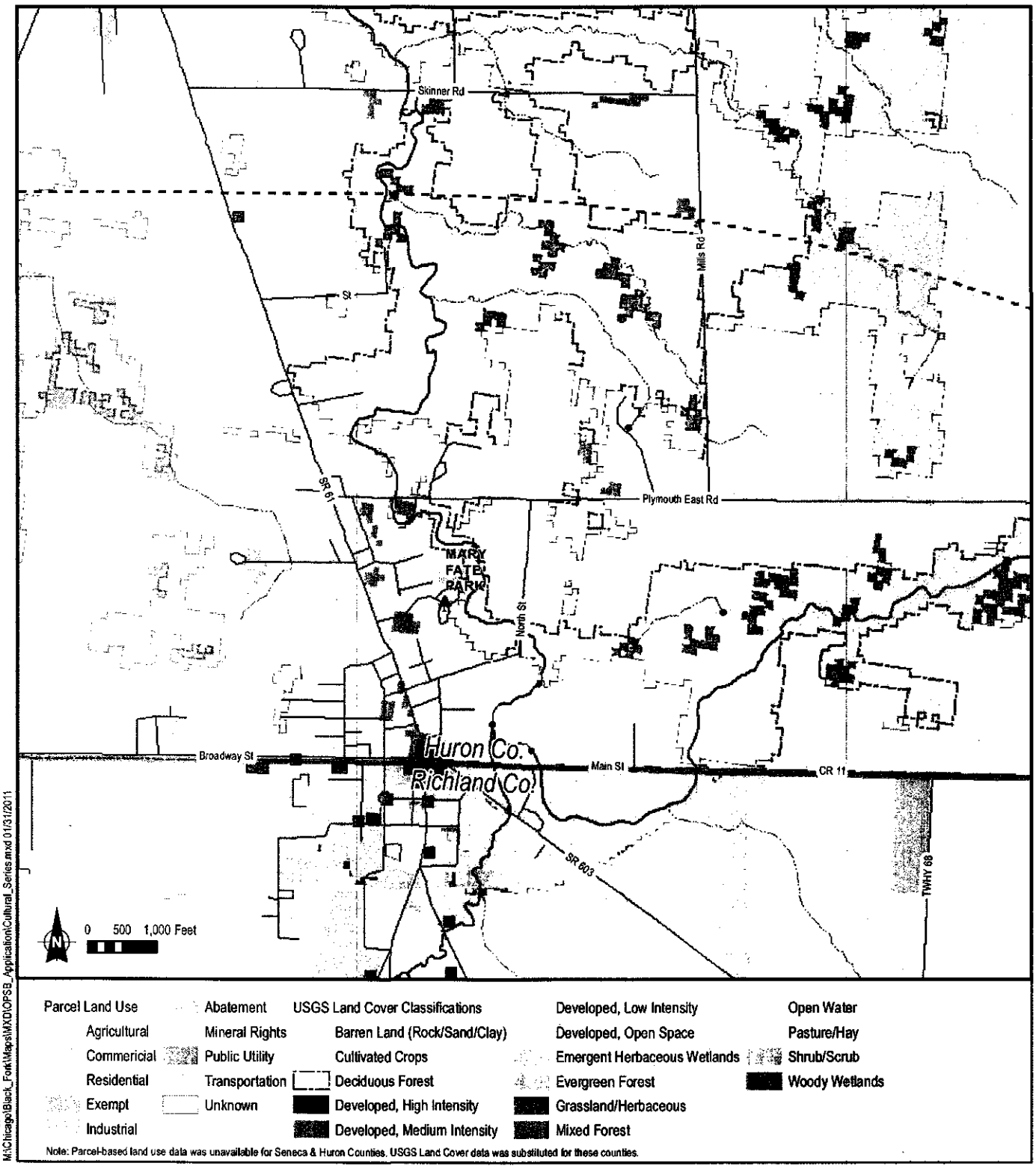

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Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 5 of 45

Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.

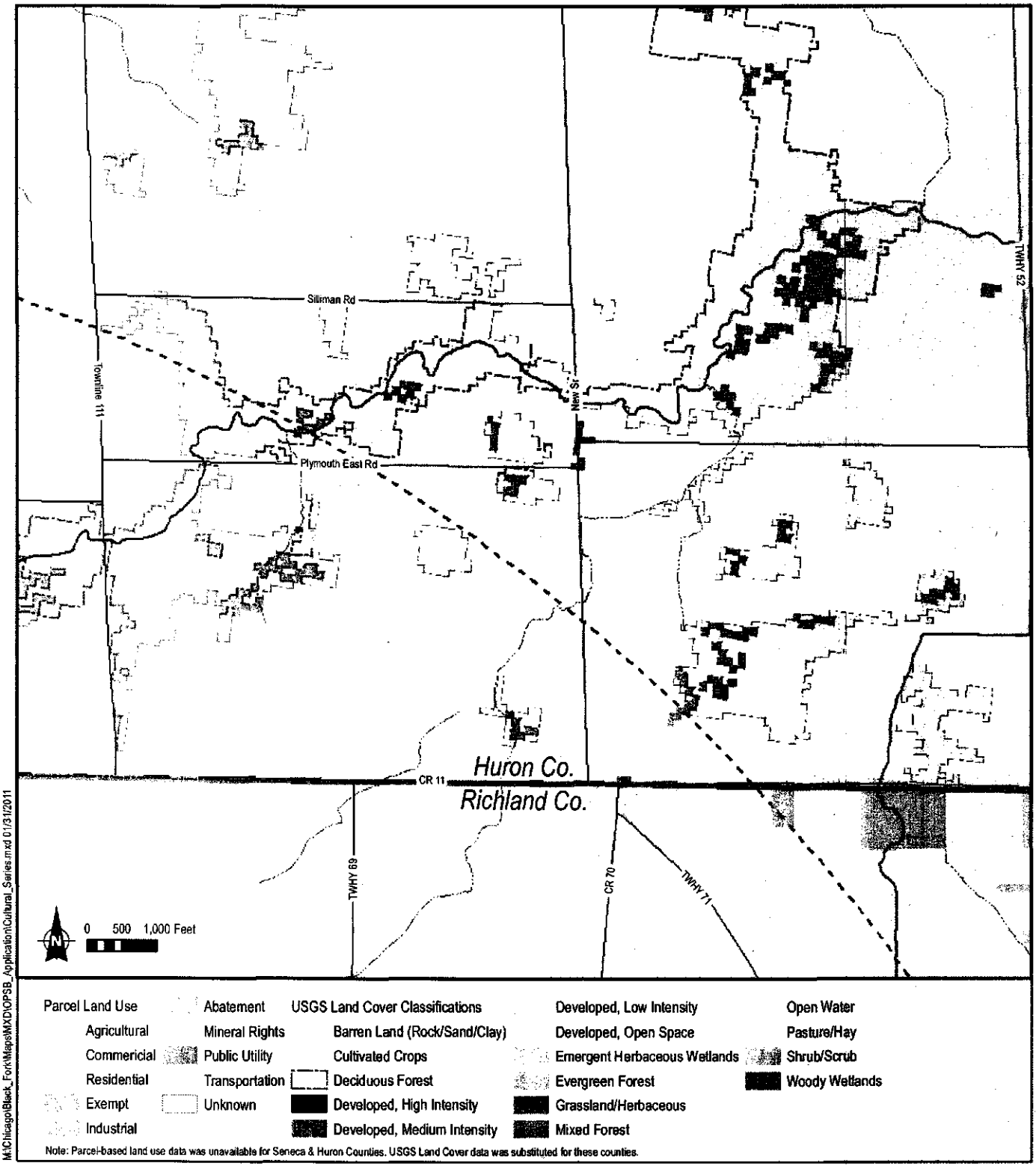

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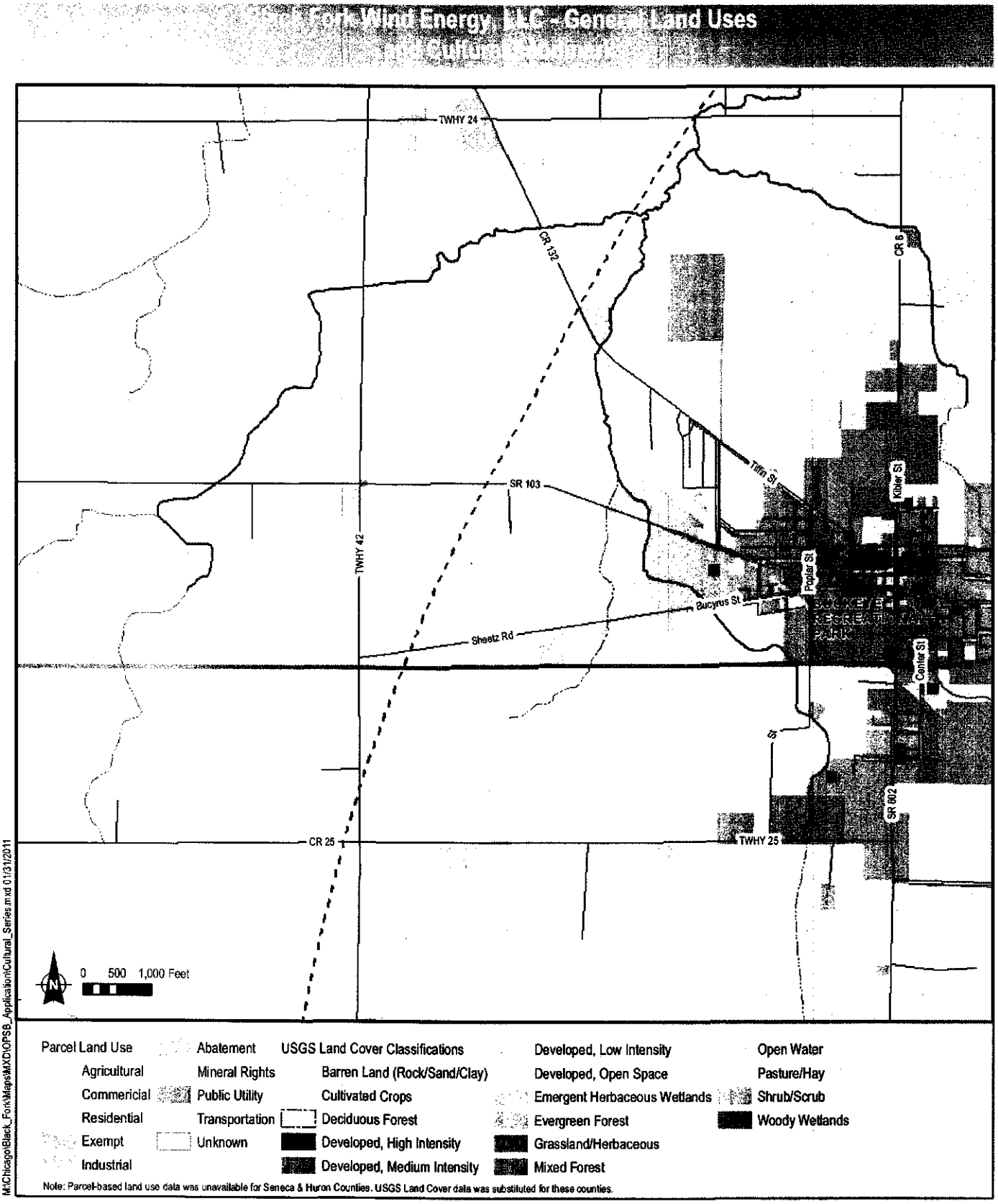
Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 6 of 45

Source: ESRI 2010; USGS NOLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.



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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)
- Collection Line (01-14-11)
- Access Roads (01-14-11)
- Substation (01-13-11)
- O&M Building (01-13-11)
- Switchyard (01-13-11)
- Archaeological Resources
- Determinations of Eligibility
- NRHP Listed Cultural Resources
- Ohio Historic Inventory of Structures (Potentially Eligible for NRHP)
- Project Area (01-03-11)
- Laydown Yard & Batch Plant (01-13-11)
- Five Mile Buffer
- Parks
- Gas/Oil Well
- Road
- Artificial Path
- Canal/Ditch
- Perennial Stream/River
- Intermittent

Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 7 of 45

Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.

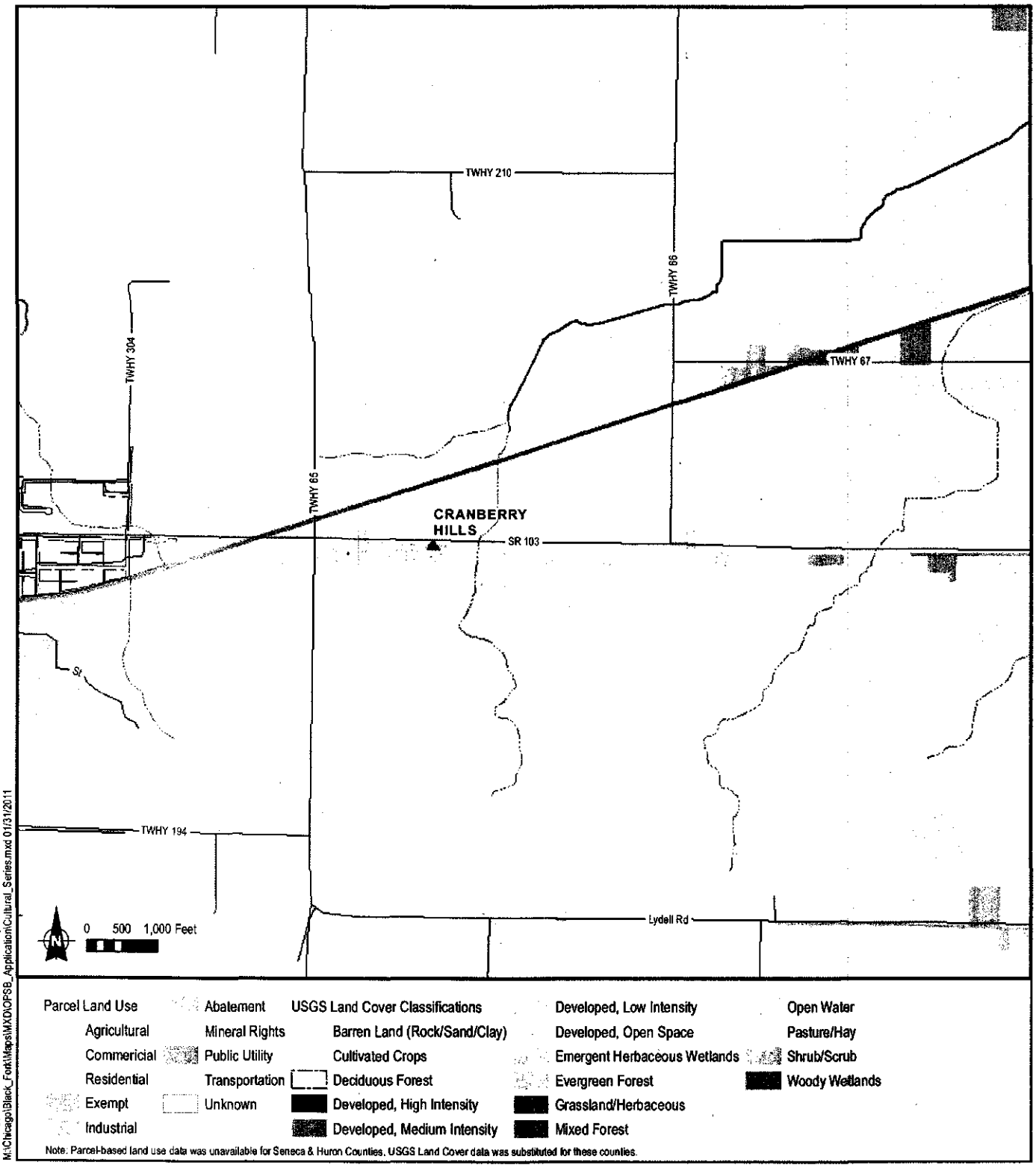

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Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 8 of 45

Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.

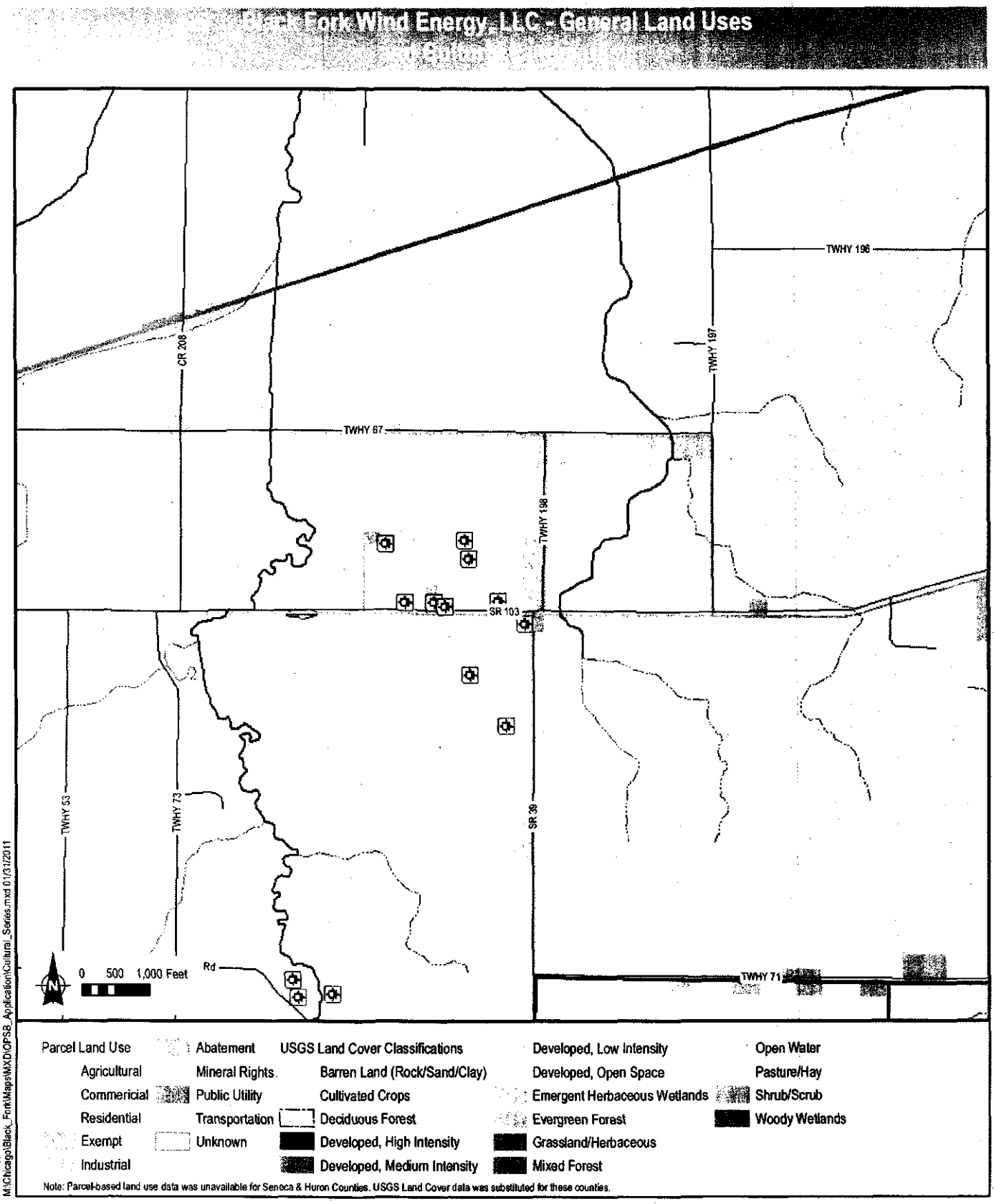

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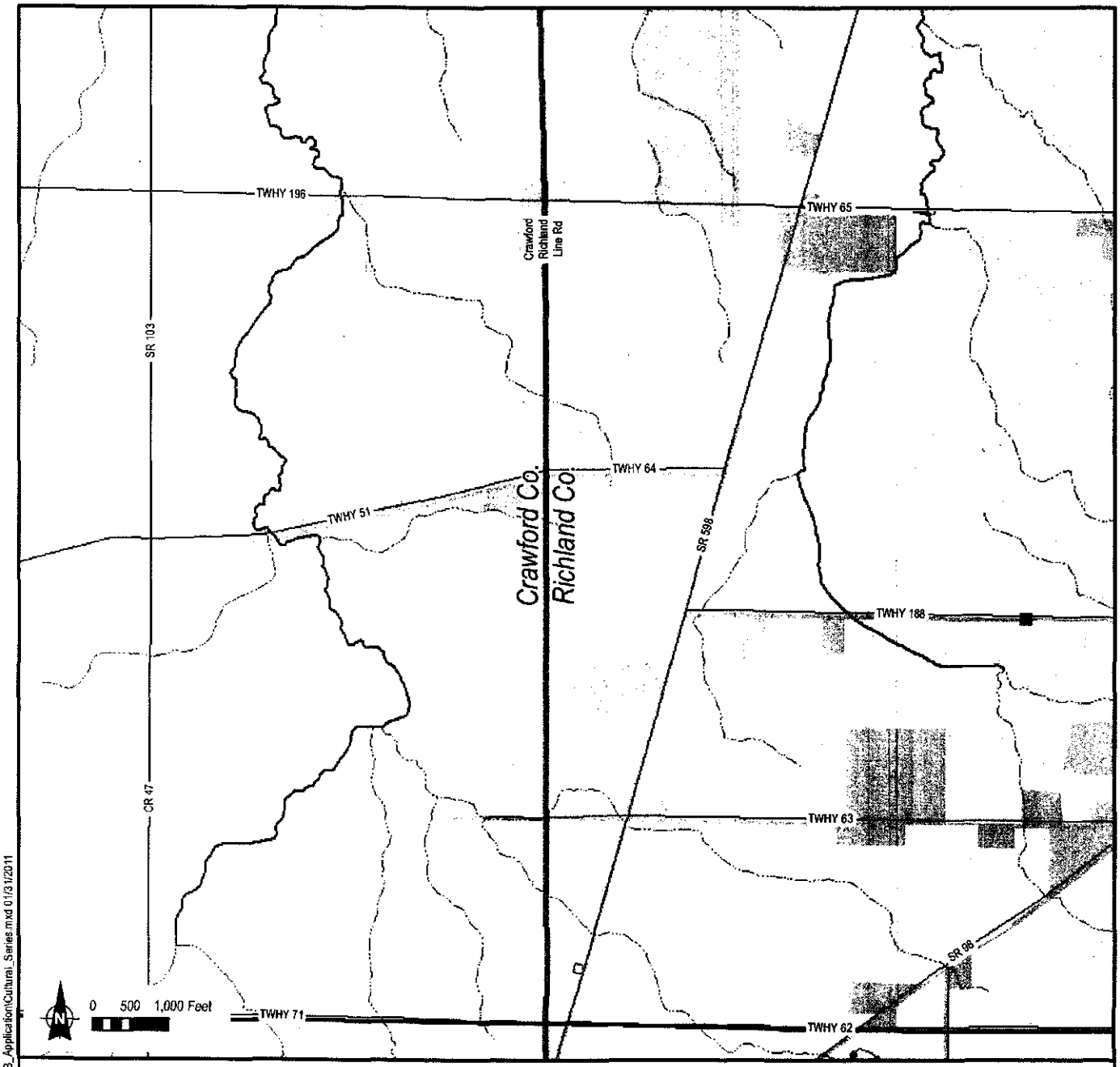
Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 9 of 45

Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.

Black Fork Wind Energy, LLC - General Land Uses



Parcel Land Use
- Agricultural
- Commericial
- Residential
- Exempt
- Industrial
- Abatement
- Mineral Rights
- Public Utility
- Transportation
- Unknown

USGS Land Cover Classifications
- Barren Land (Rock/Sand/Clay)
- Cultivated Crops
- Deciduous Forest
- Developed, High Intensity
- Developed, Medium Intensity
- Developed, Low Intensity
- Developed, Open Space
- Emergent Herbaceous Wetlands
- Evergreen Forest
- Grassland/Herbaceous
- Mixed Forest
- Open Water
- Pasture/Hay
- Shrub/Scrub
- Woody Wetlands

Note: Parcel-based land use data was unavailable for Seneca & Huron Counties. USGS Land Cover data was substituted for these counties.

Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)
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Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 10 of 45

Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.

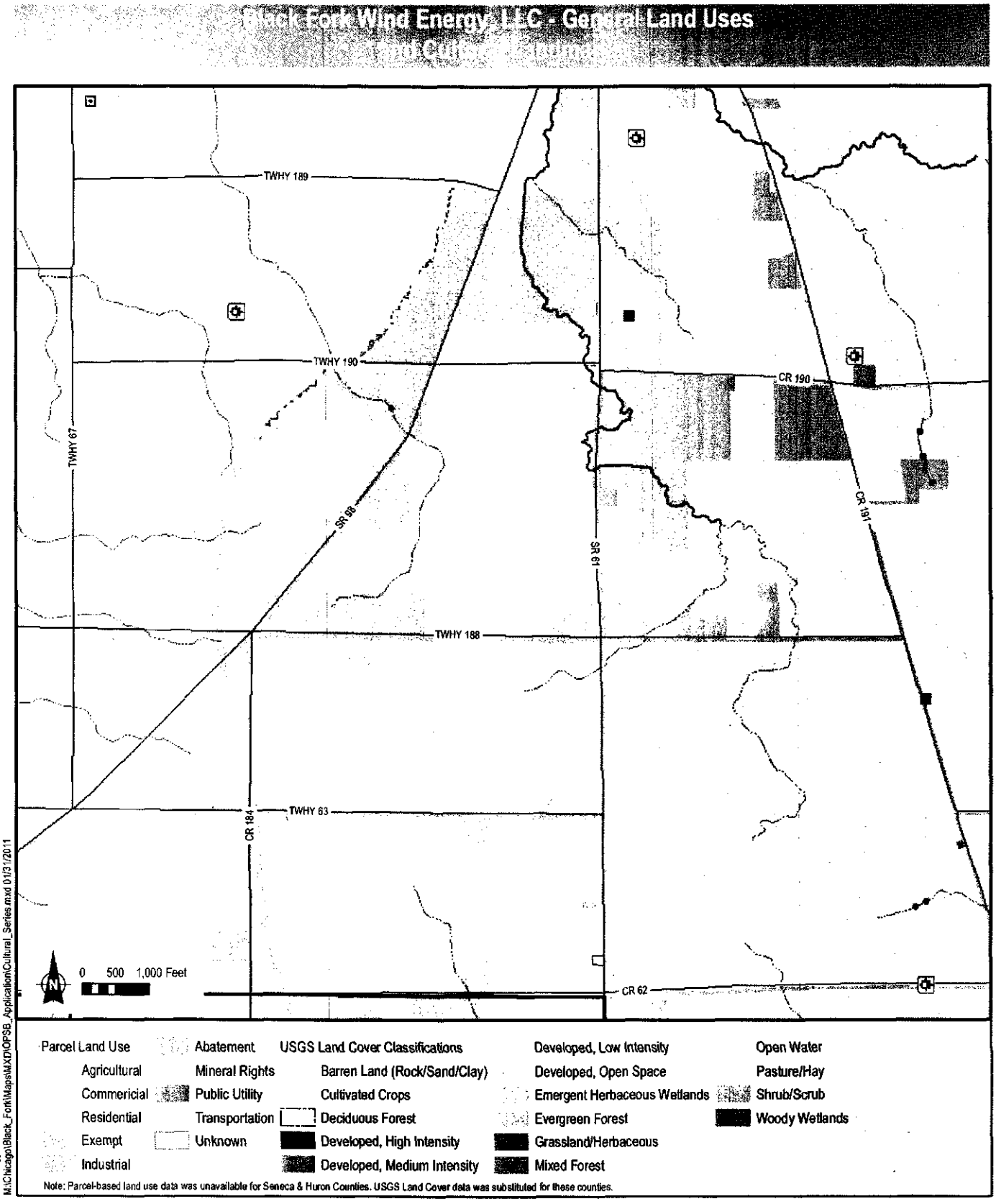

Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 11 of 45

Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.

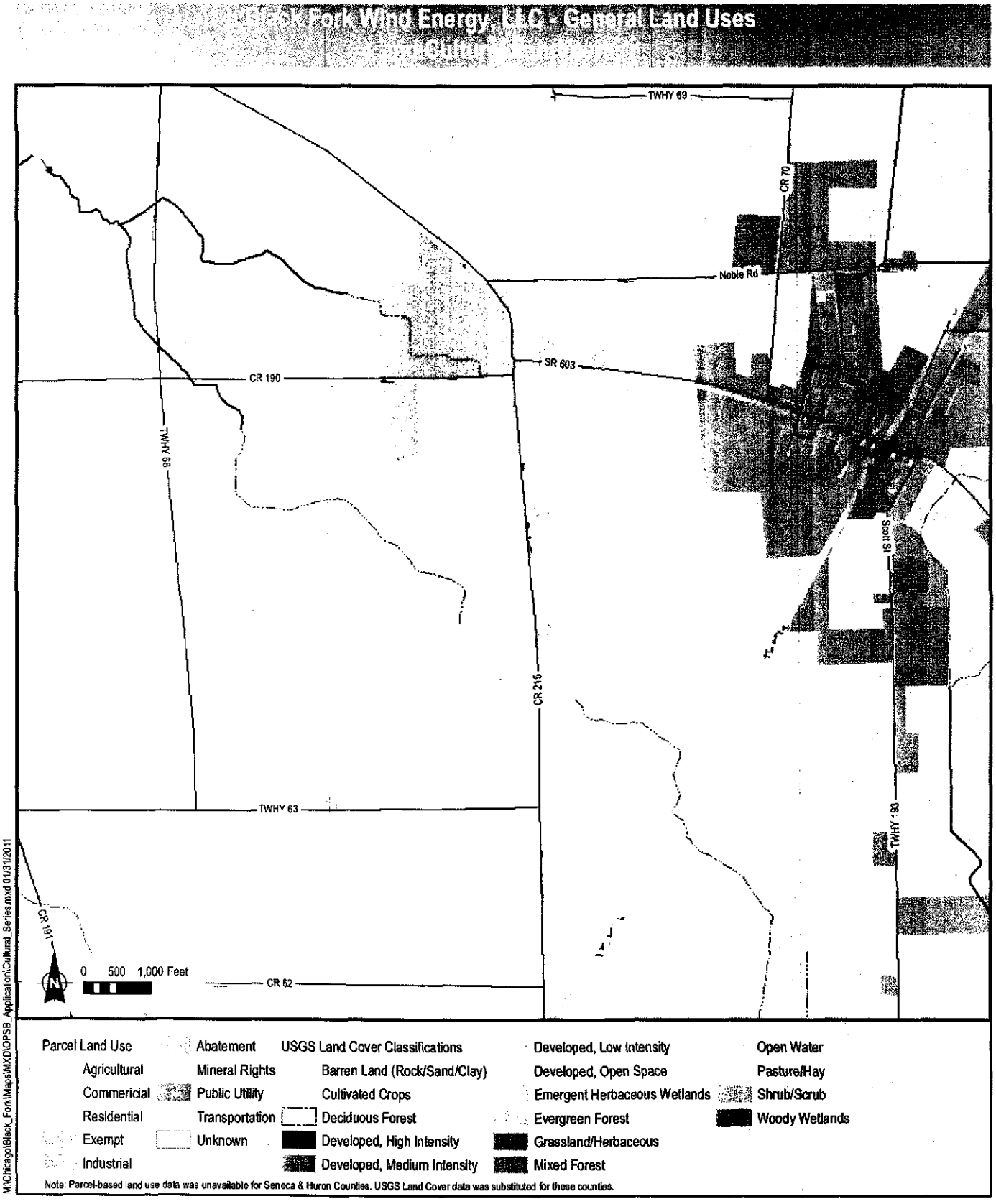

Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 12 of 45

Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.

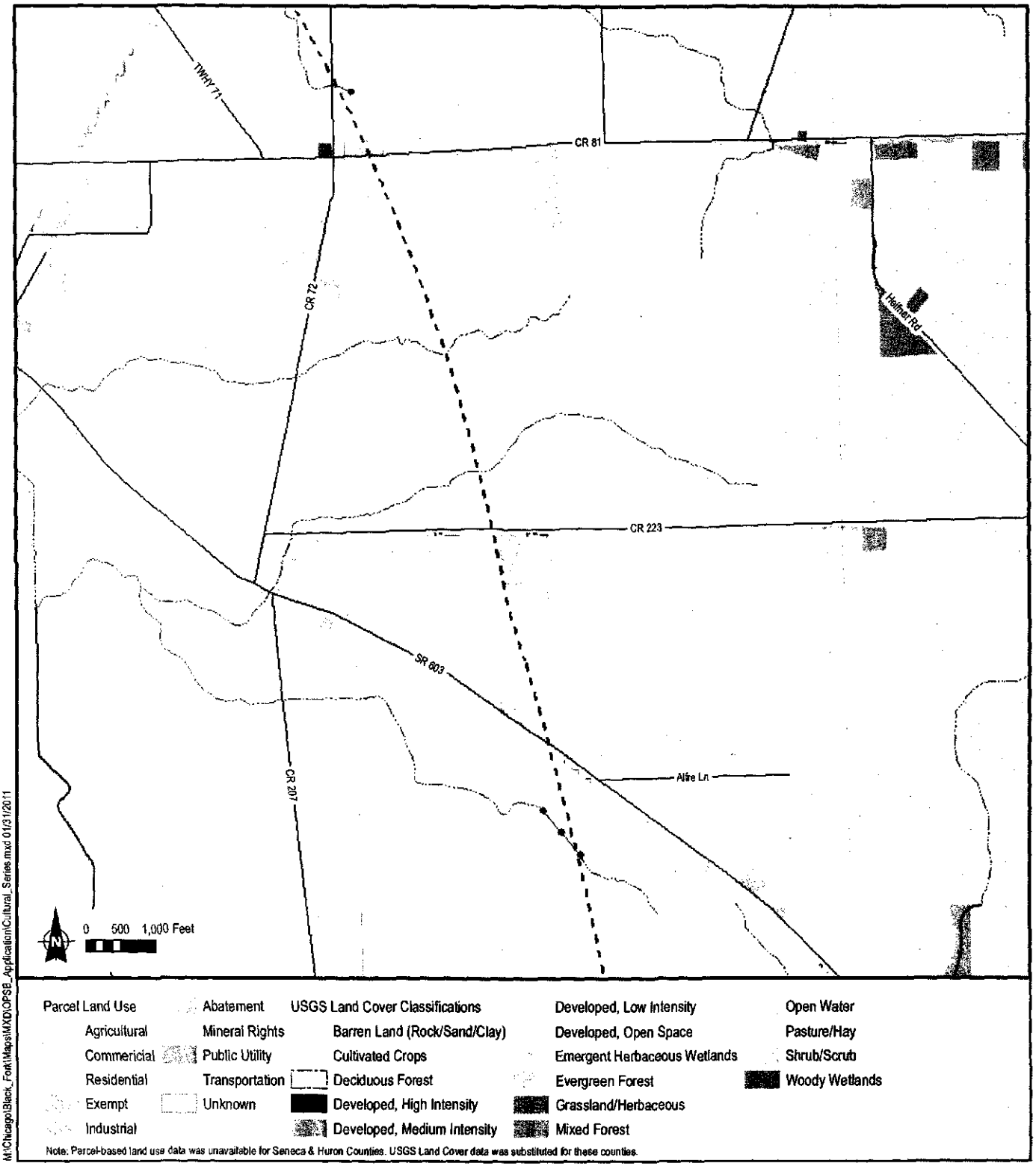

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Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 13 of 45

Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.

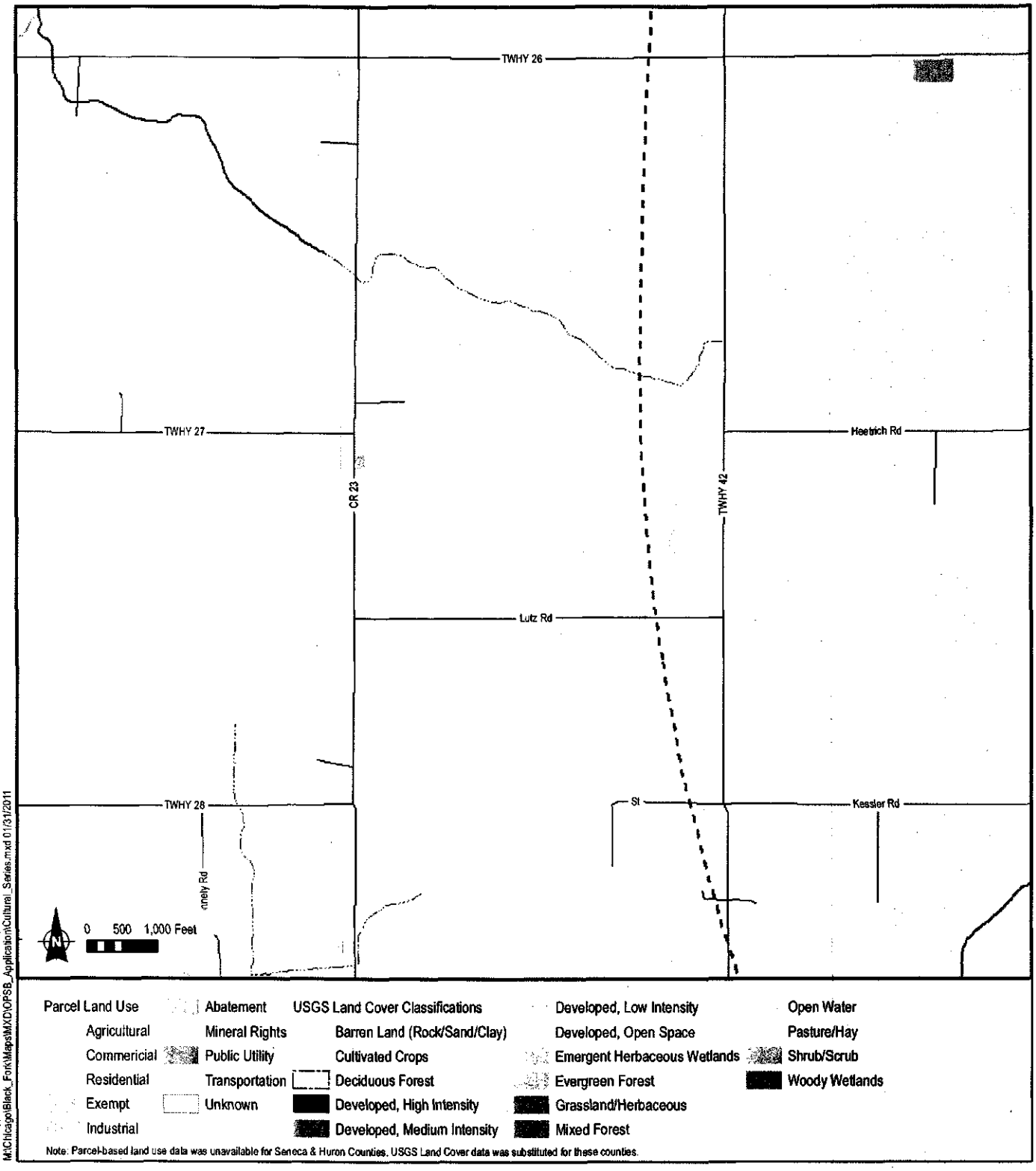

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Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 14 of 45

Source: ESRI 2010;USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.

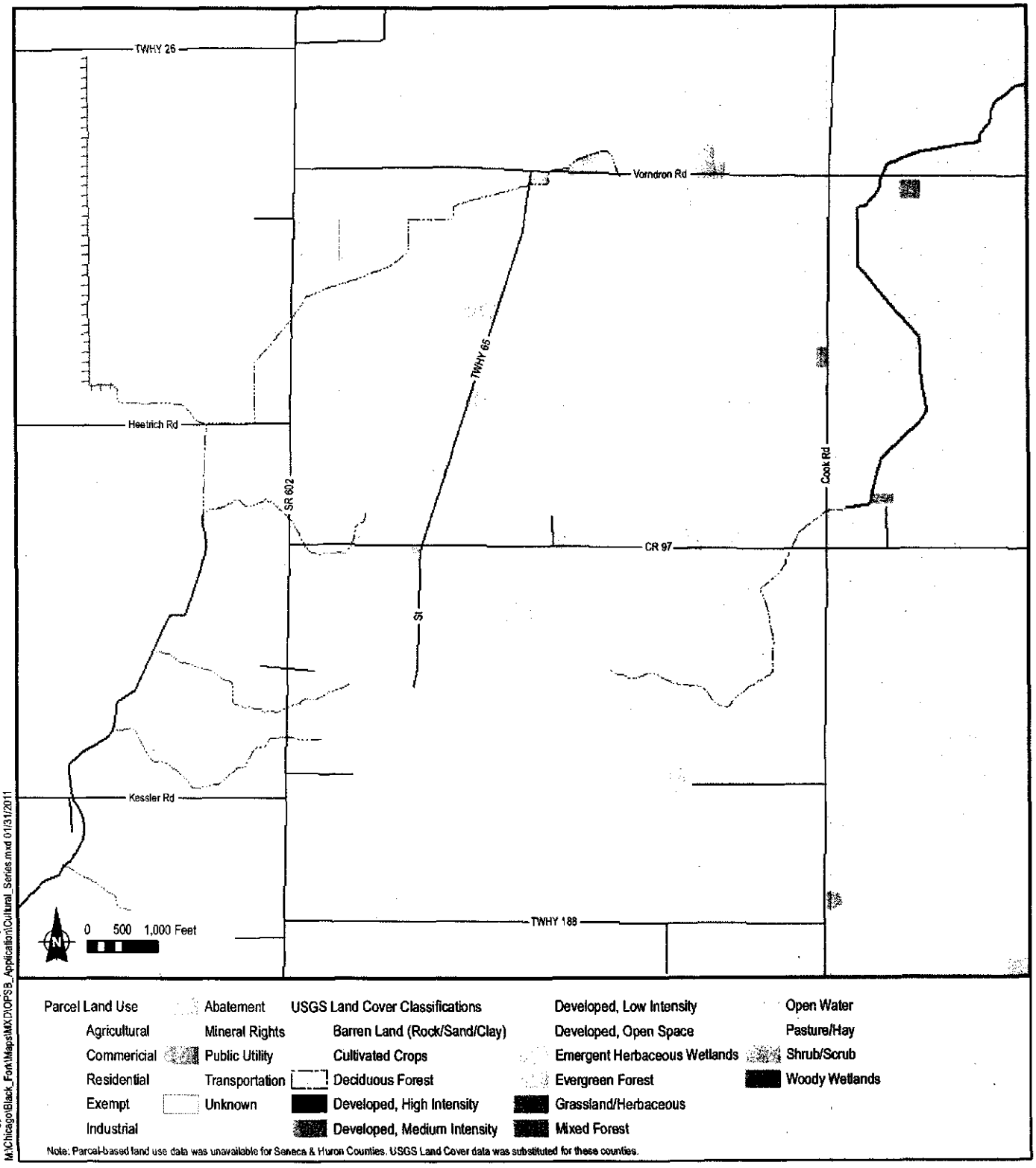

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Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 15 of 45

Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.

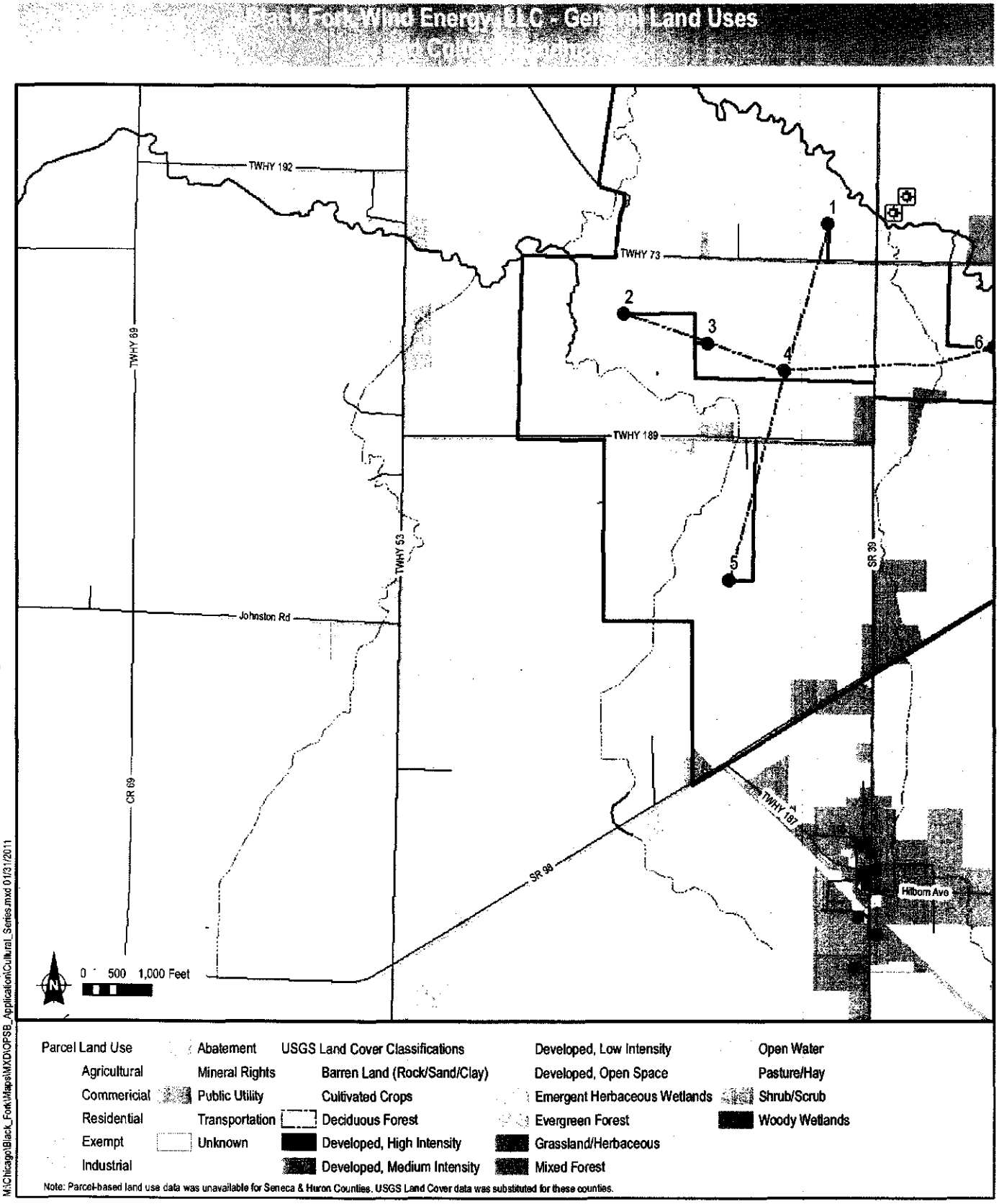

Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 16 of 45

Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.

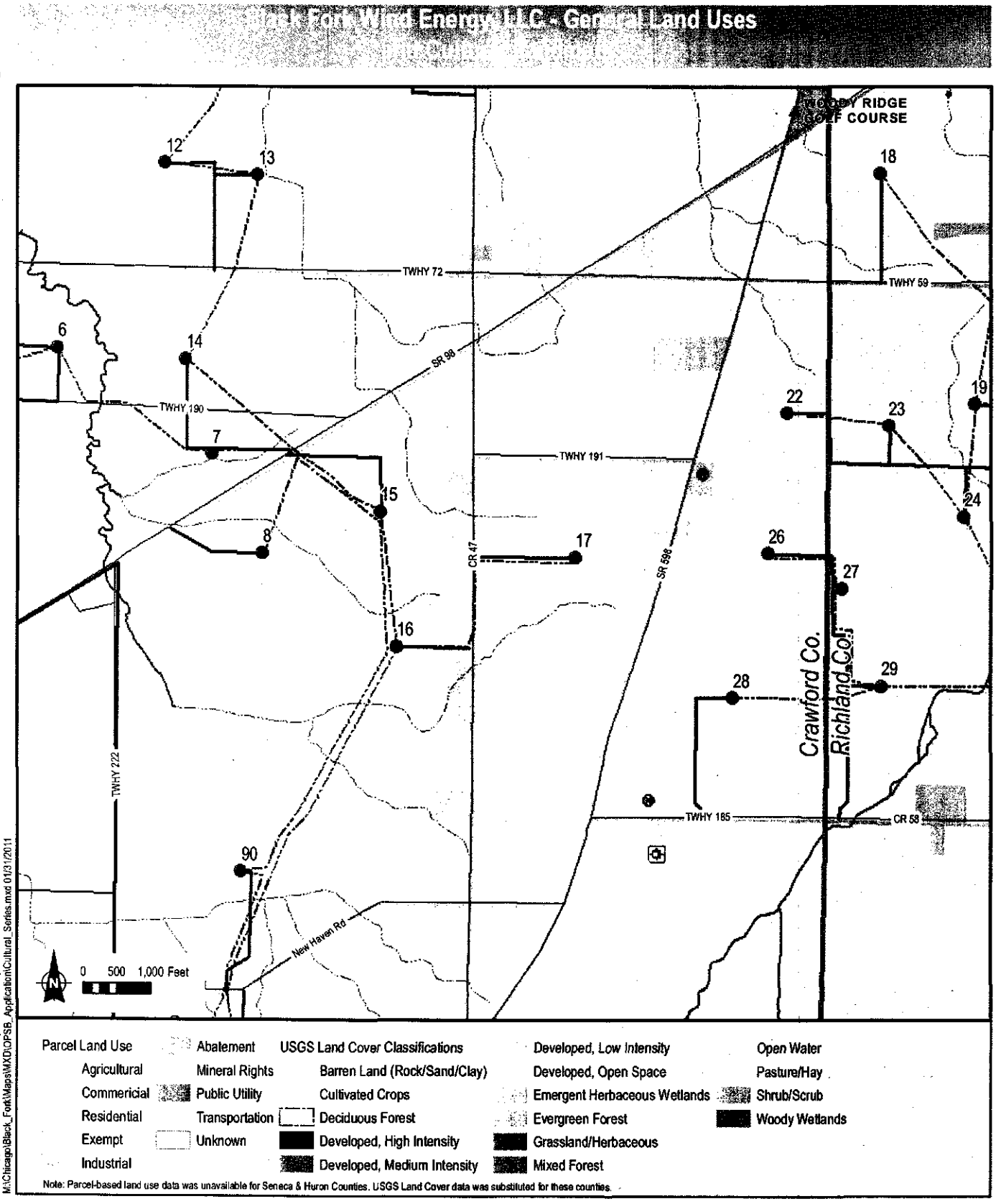

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Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 17 of 45

Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.

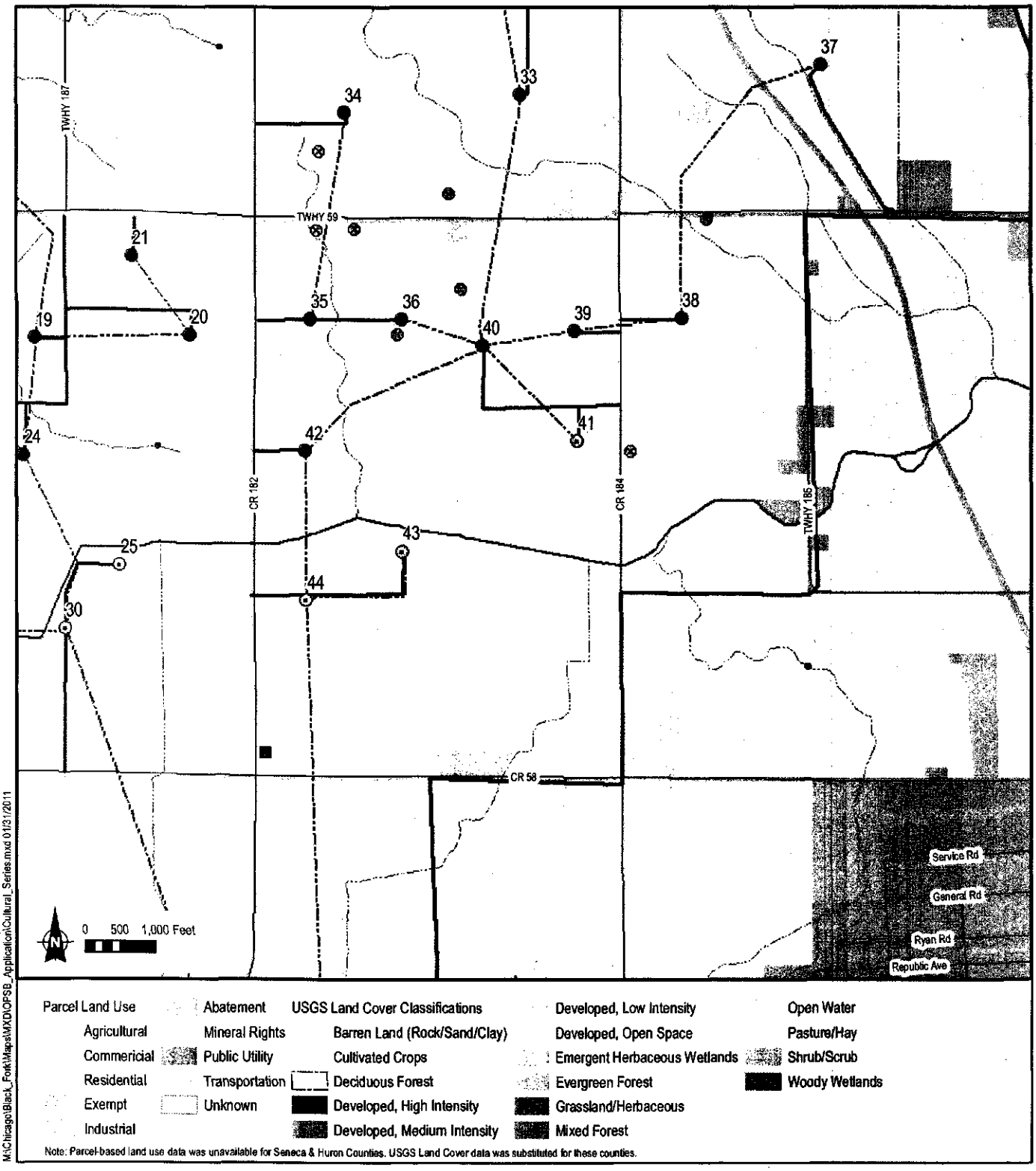

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Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 18 of 45

Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.

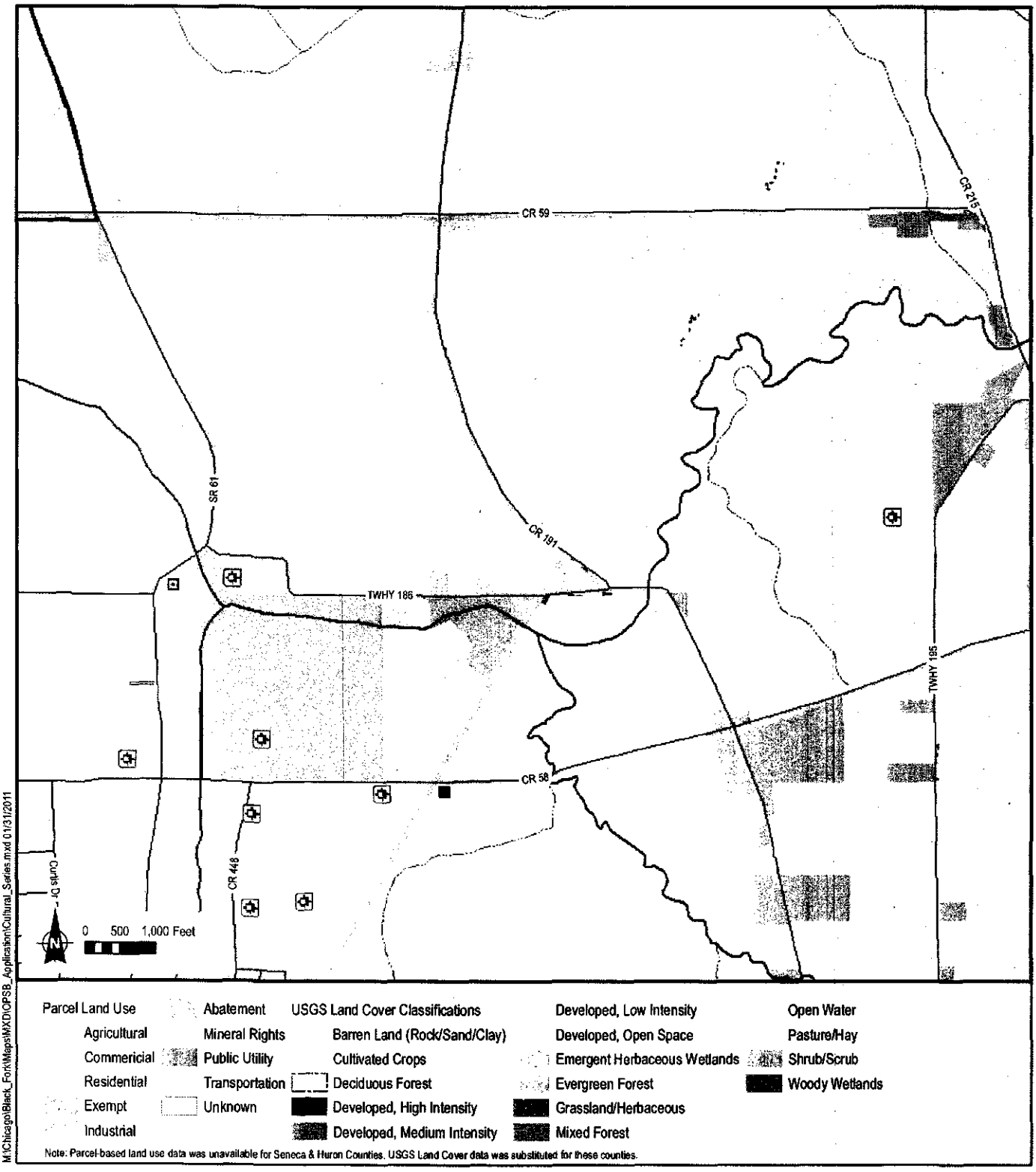

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Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 19 of 45

Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.

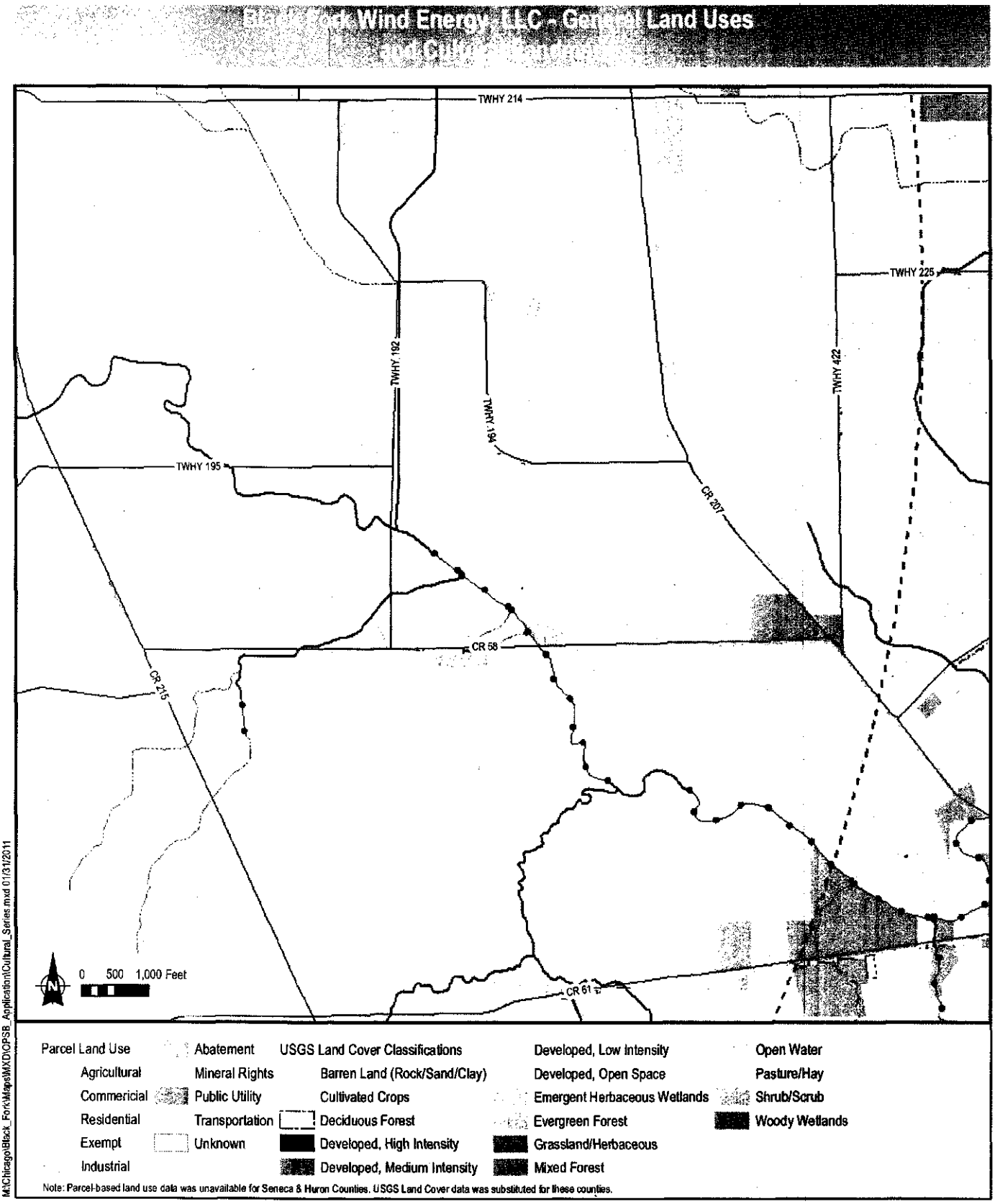

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Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 20 of 45

Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.

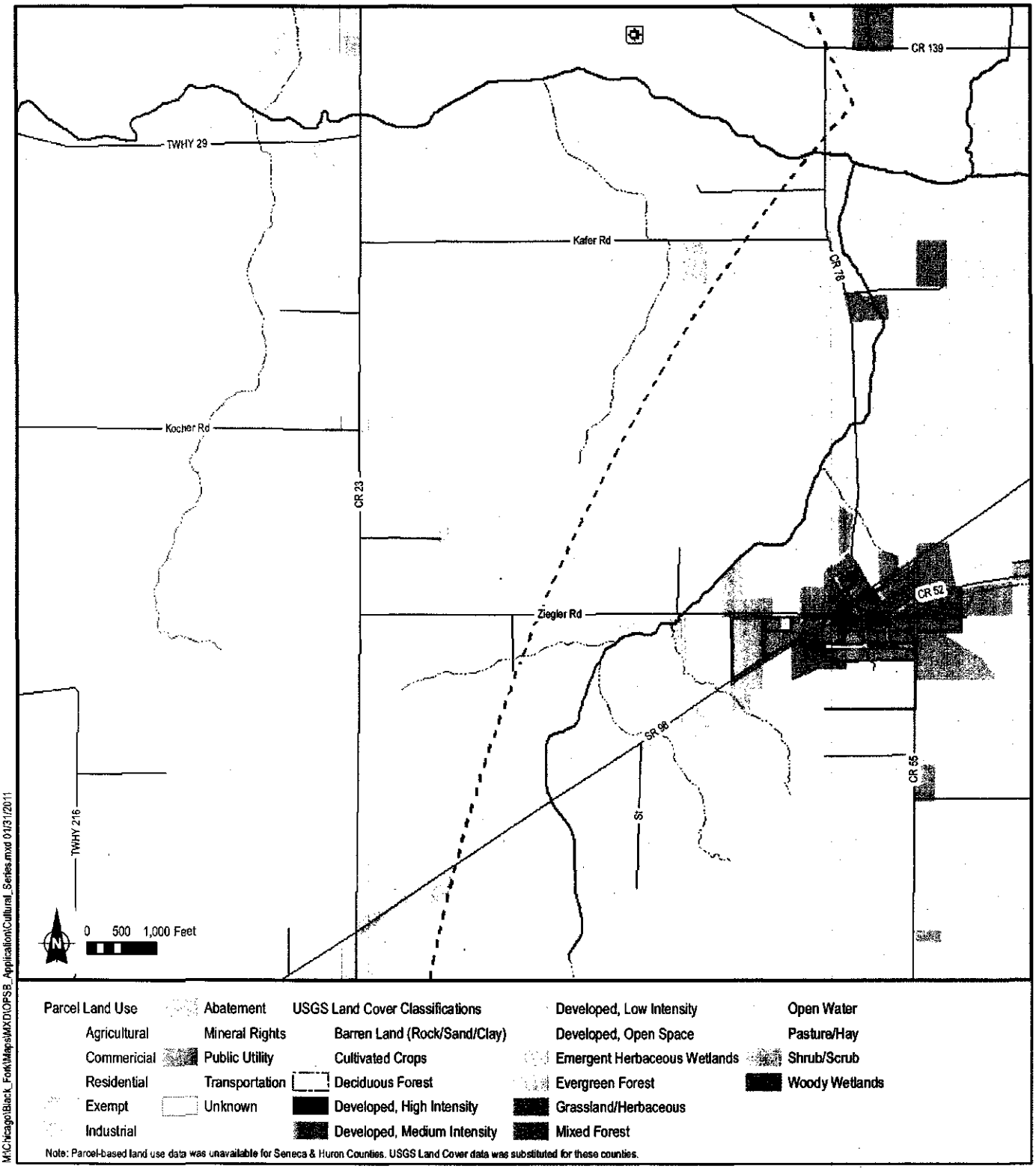

Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 21 of 45

Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.

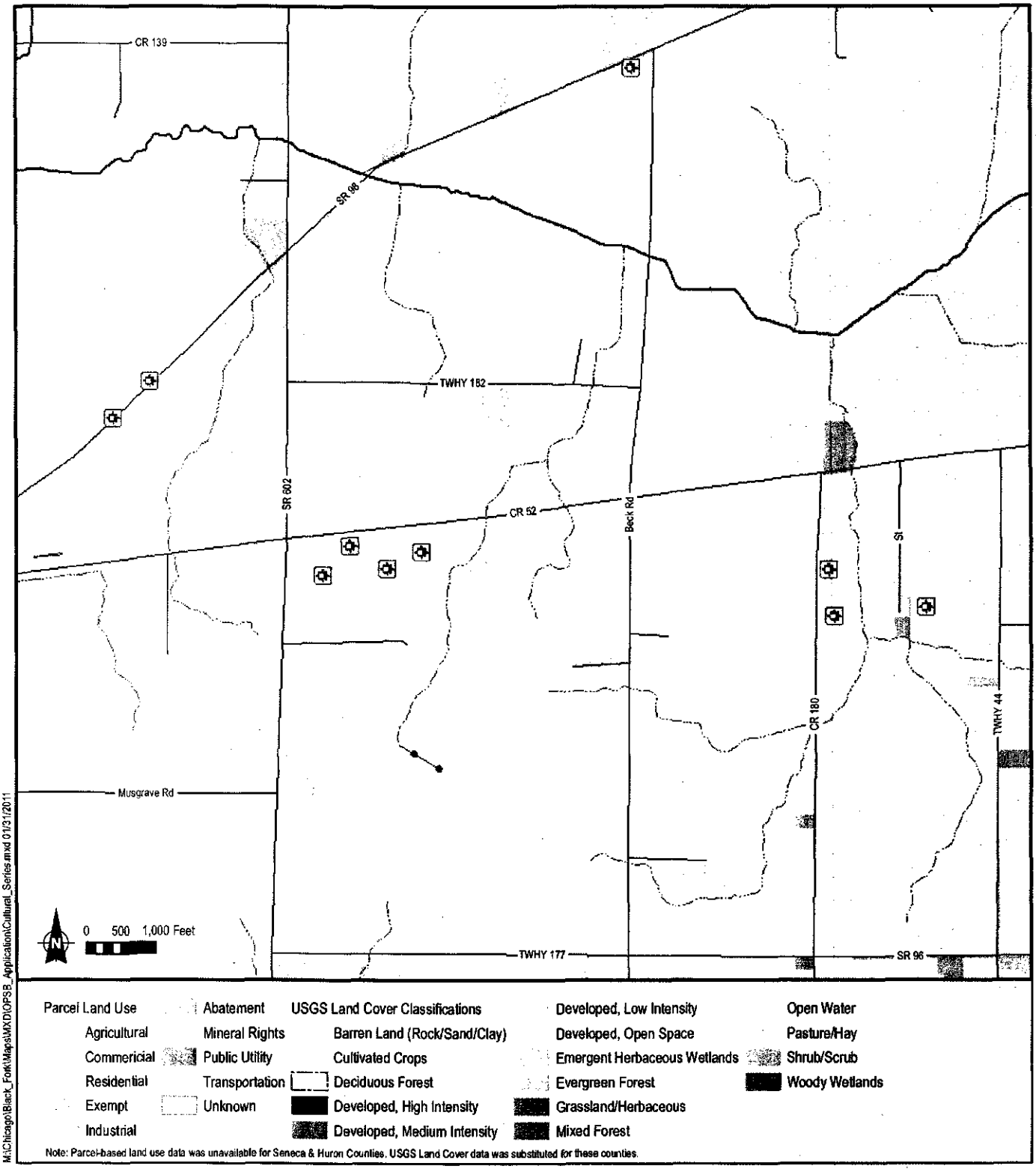

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Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 22 of 45

Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.

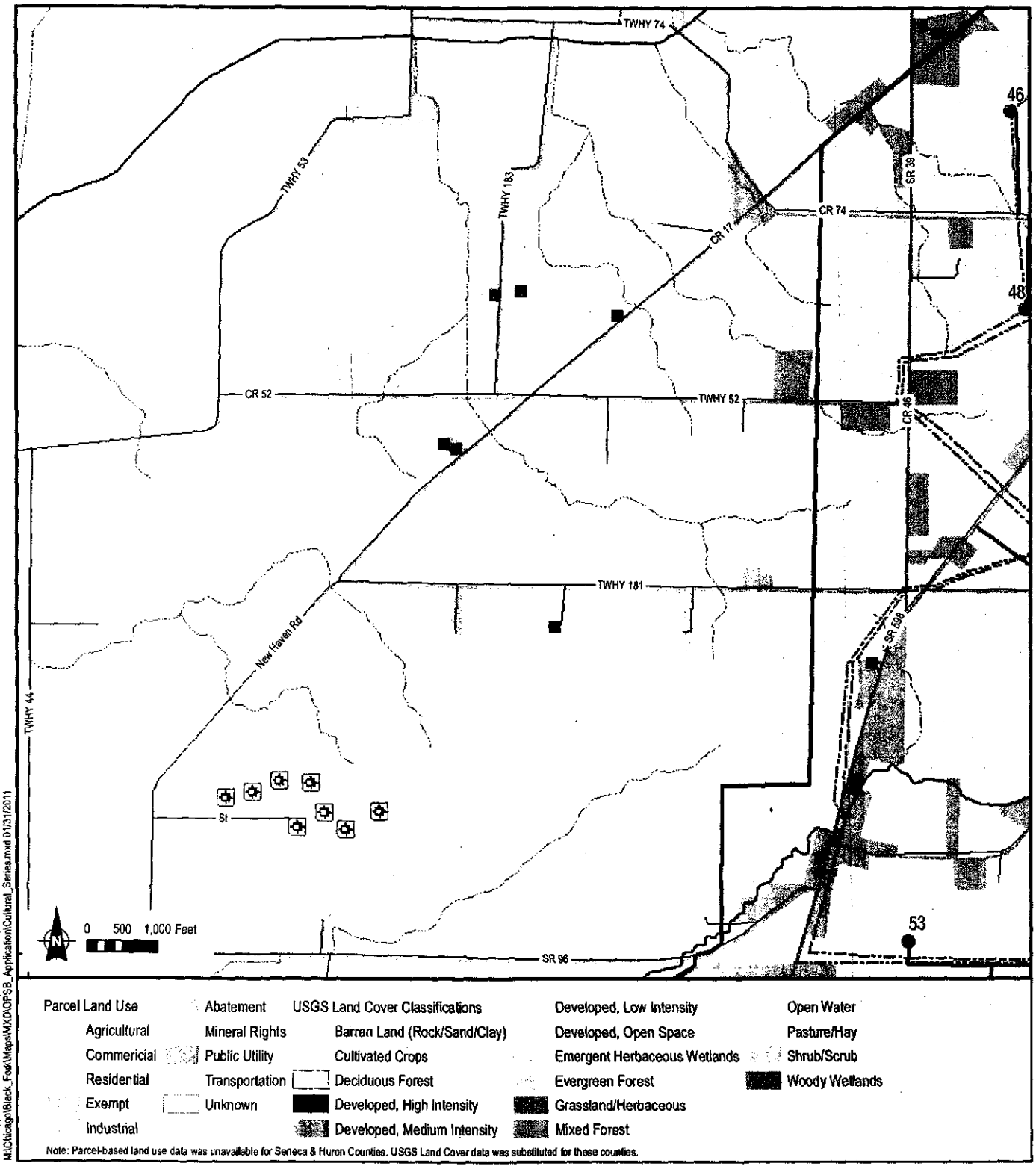

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Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 23 of 45

Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.

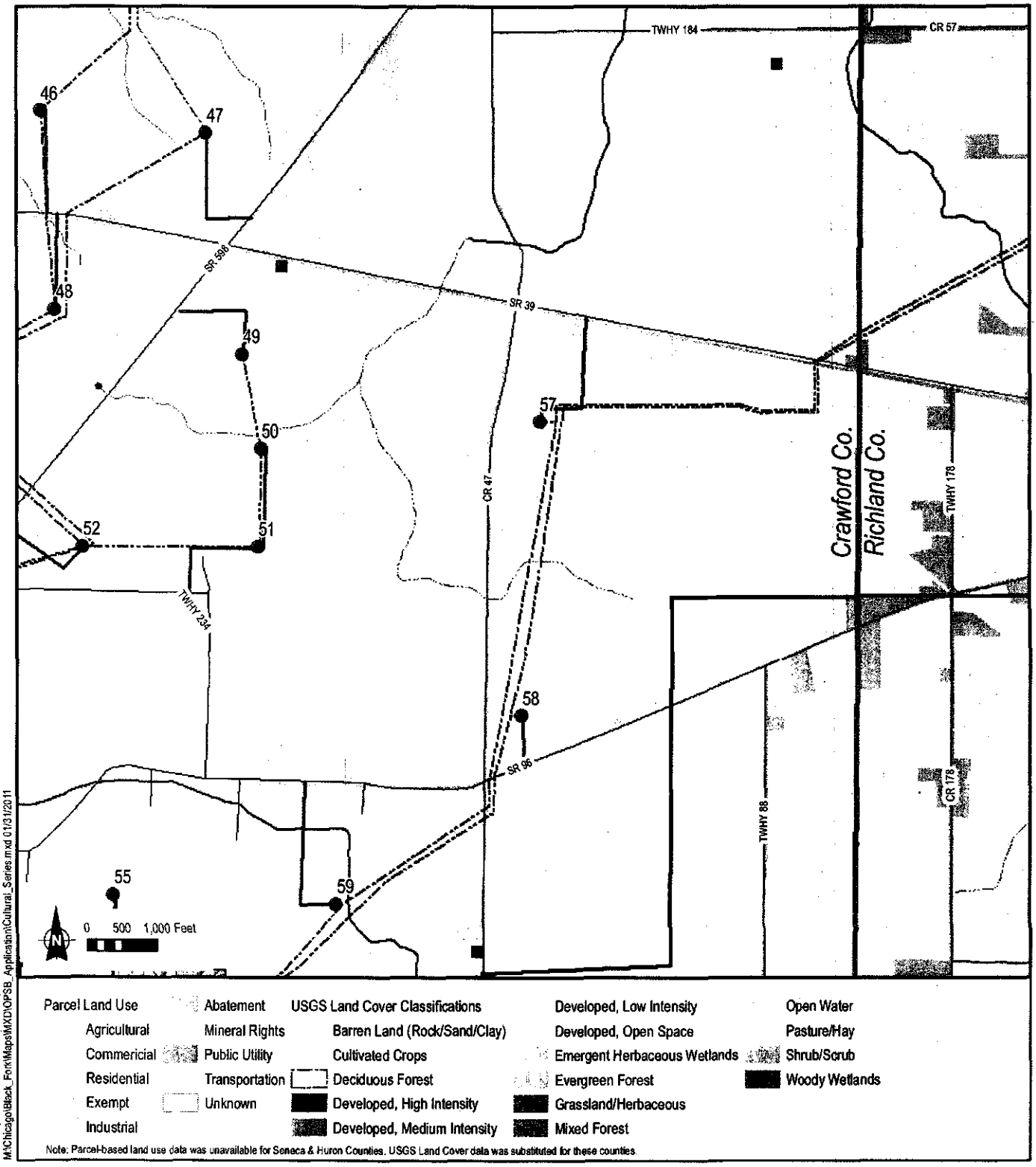

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Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
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Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.

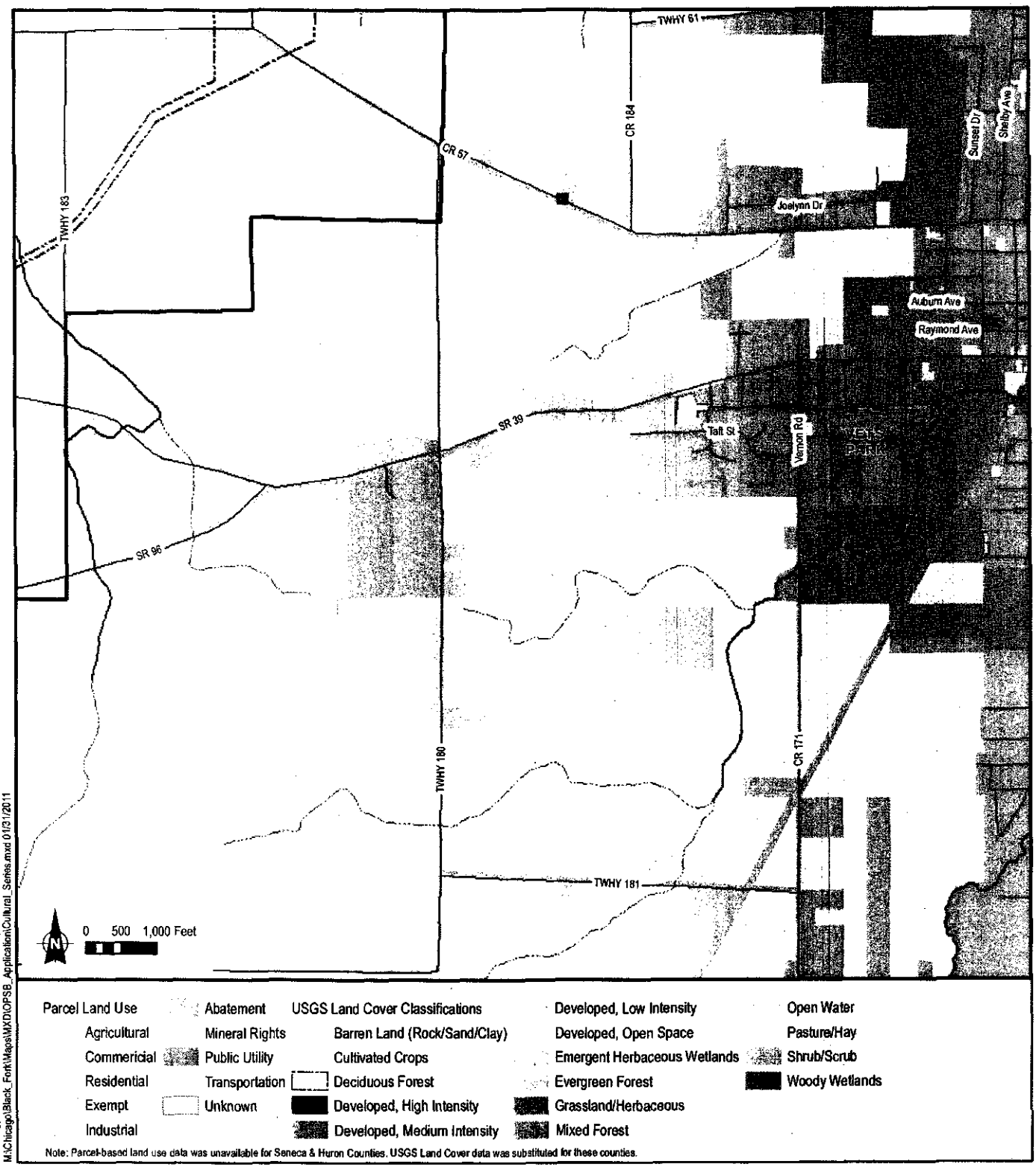

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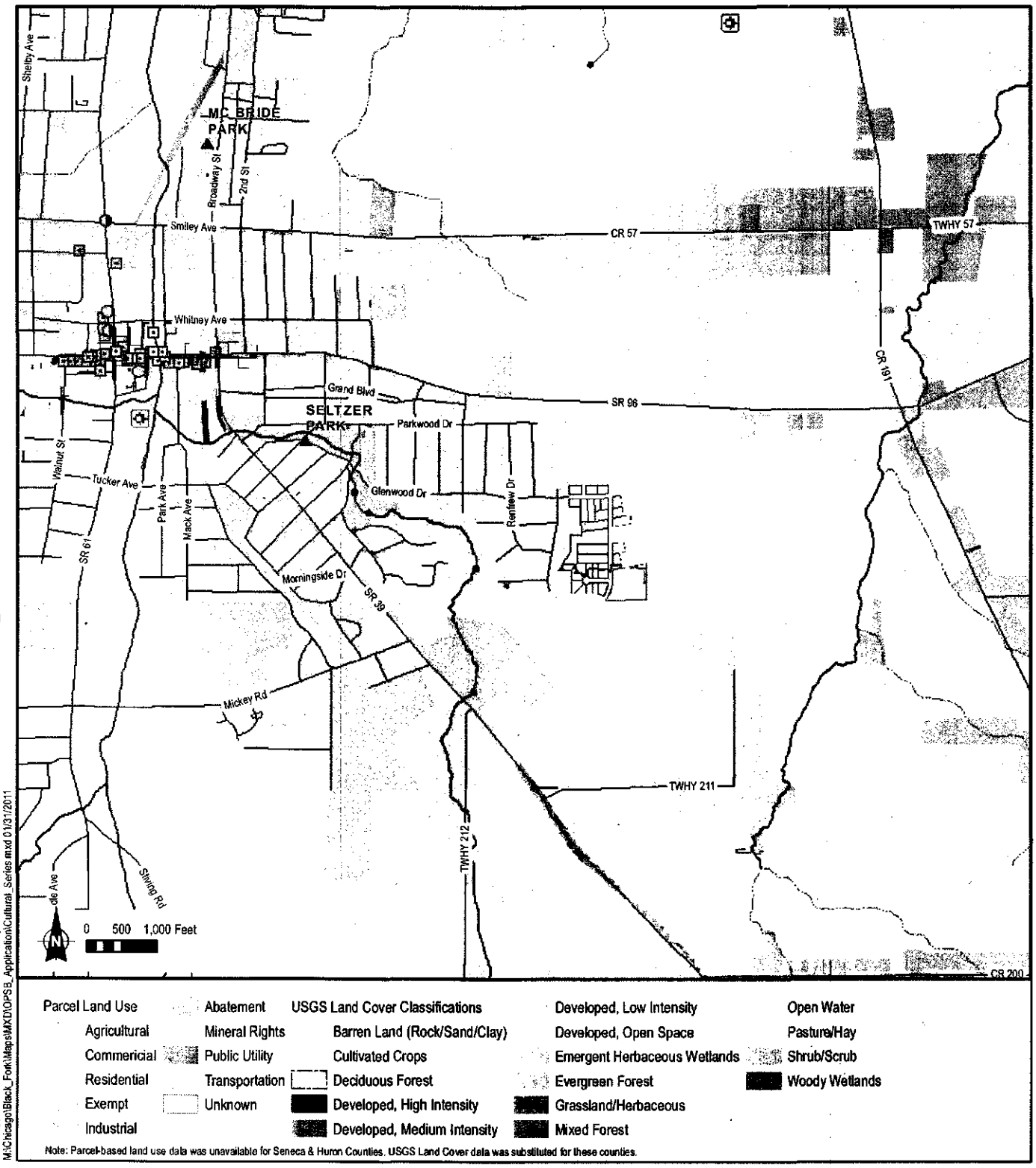
Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 25 of 45

Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.



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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)
- Collection Line (01-14-11)
- Access Roads (01-14-11)
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- Road
- Artificial Path
- Canal/Ditch
- Perennial Stream/River
- Intermittent

Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 26 of 45

Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.

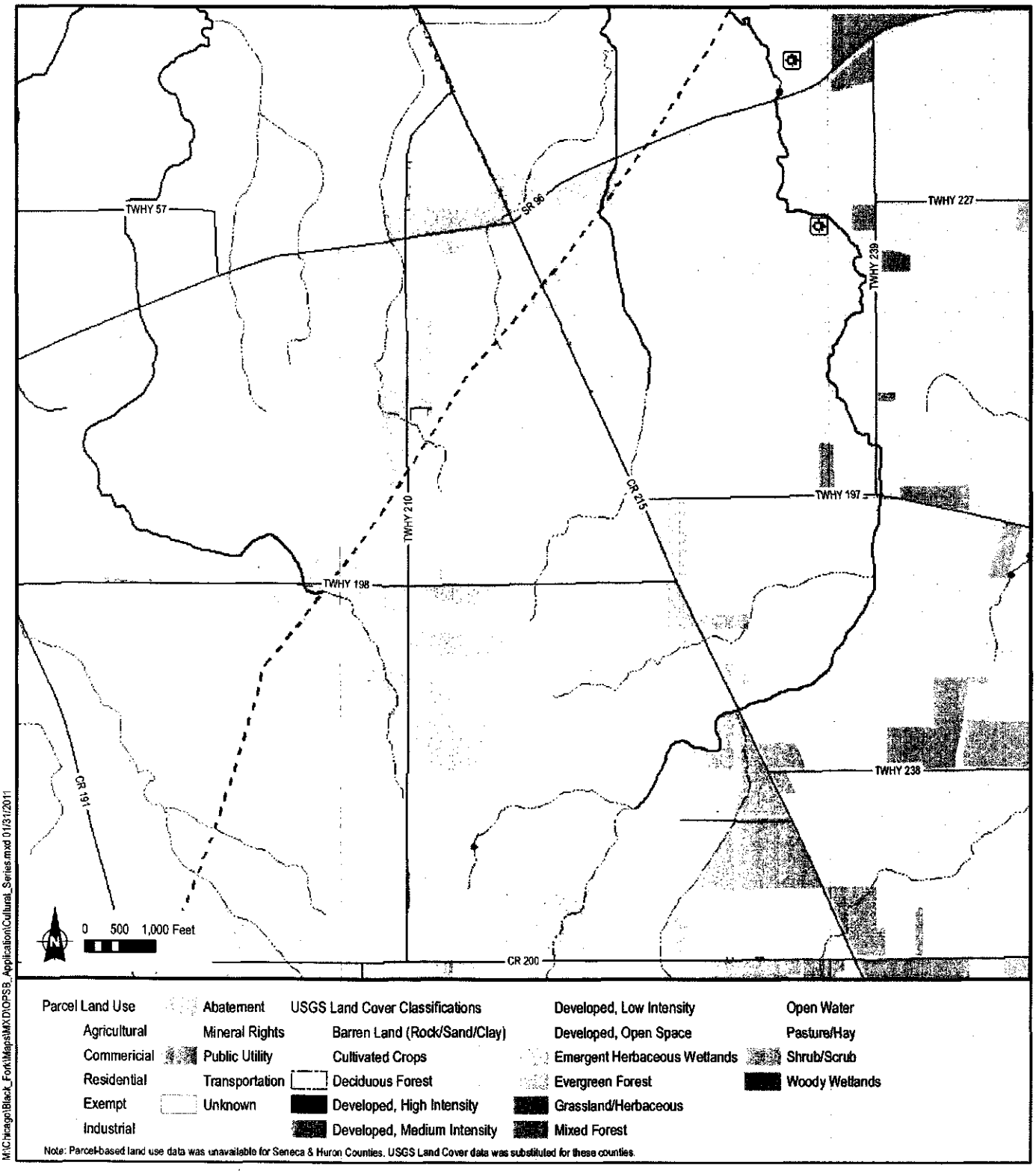

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Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 27 of 45

Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.

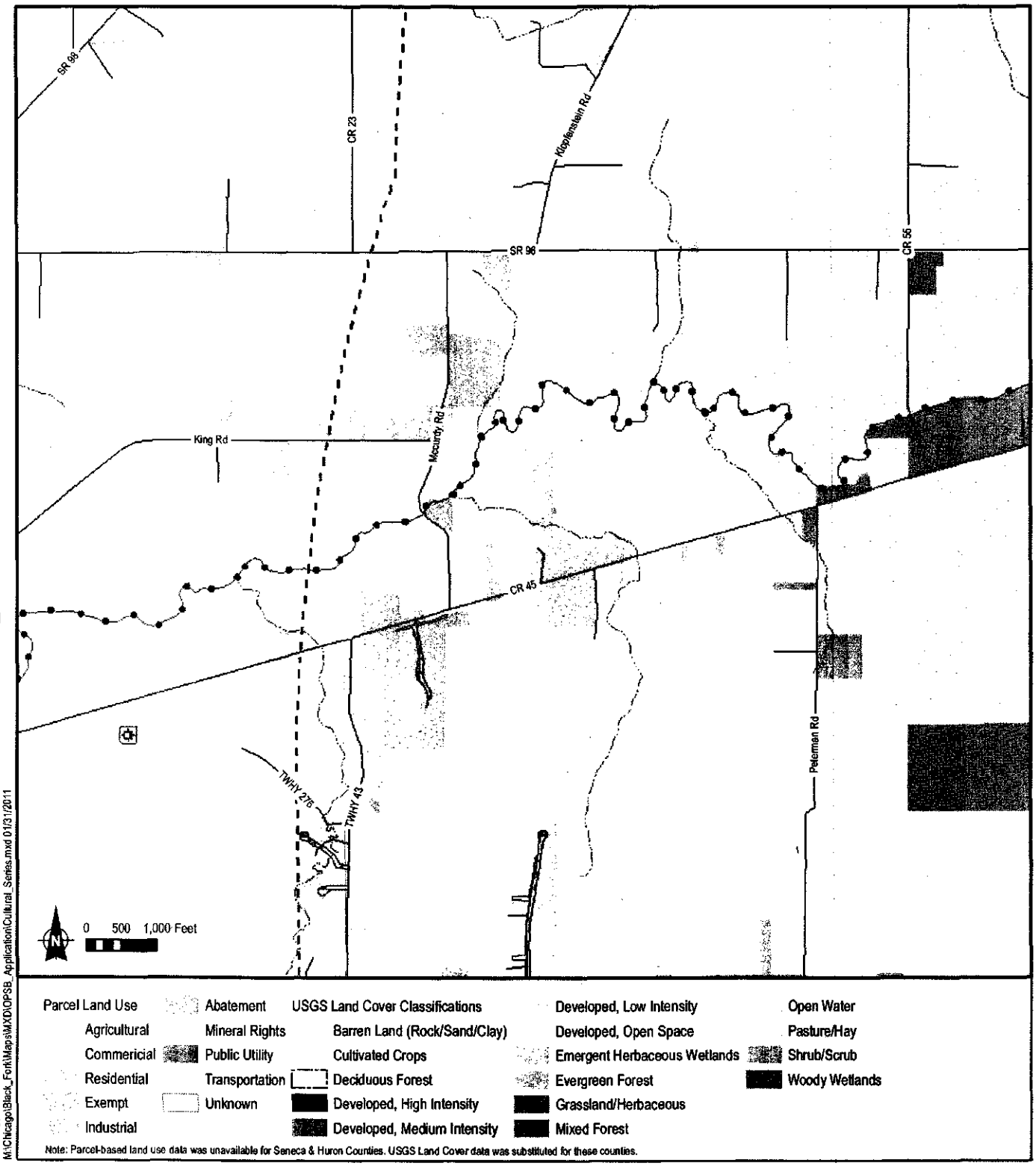

Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 28 of 45

Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.

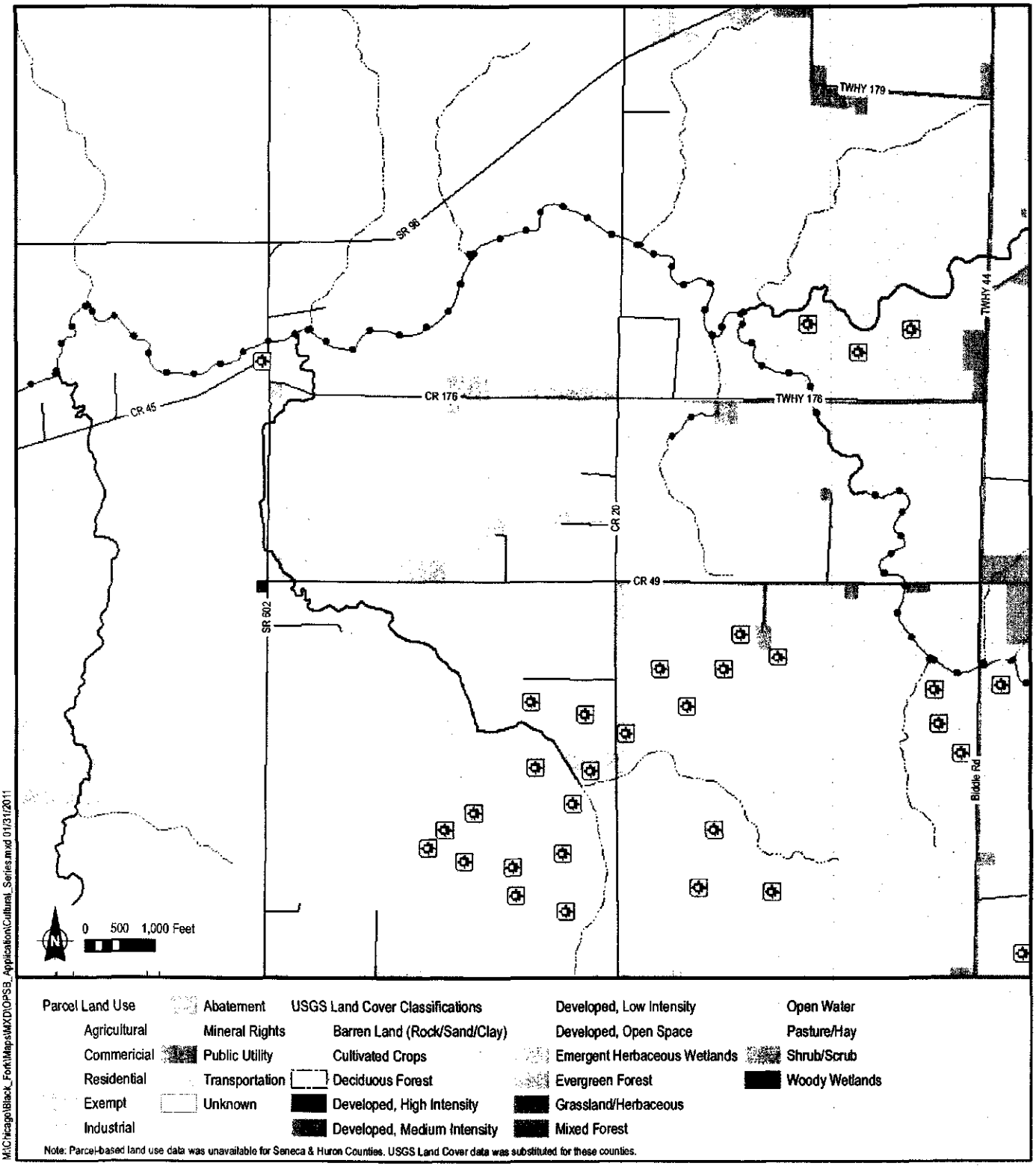

Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 29 of 45

Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.

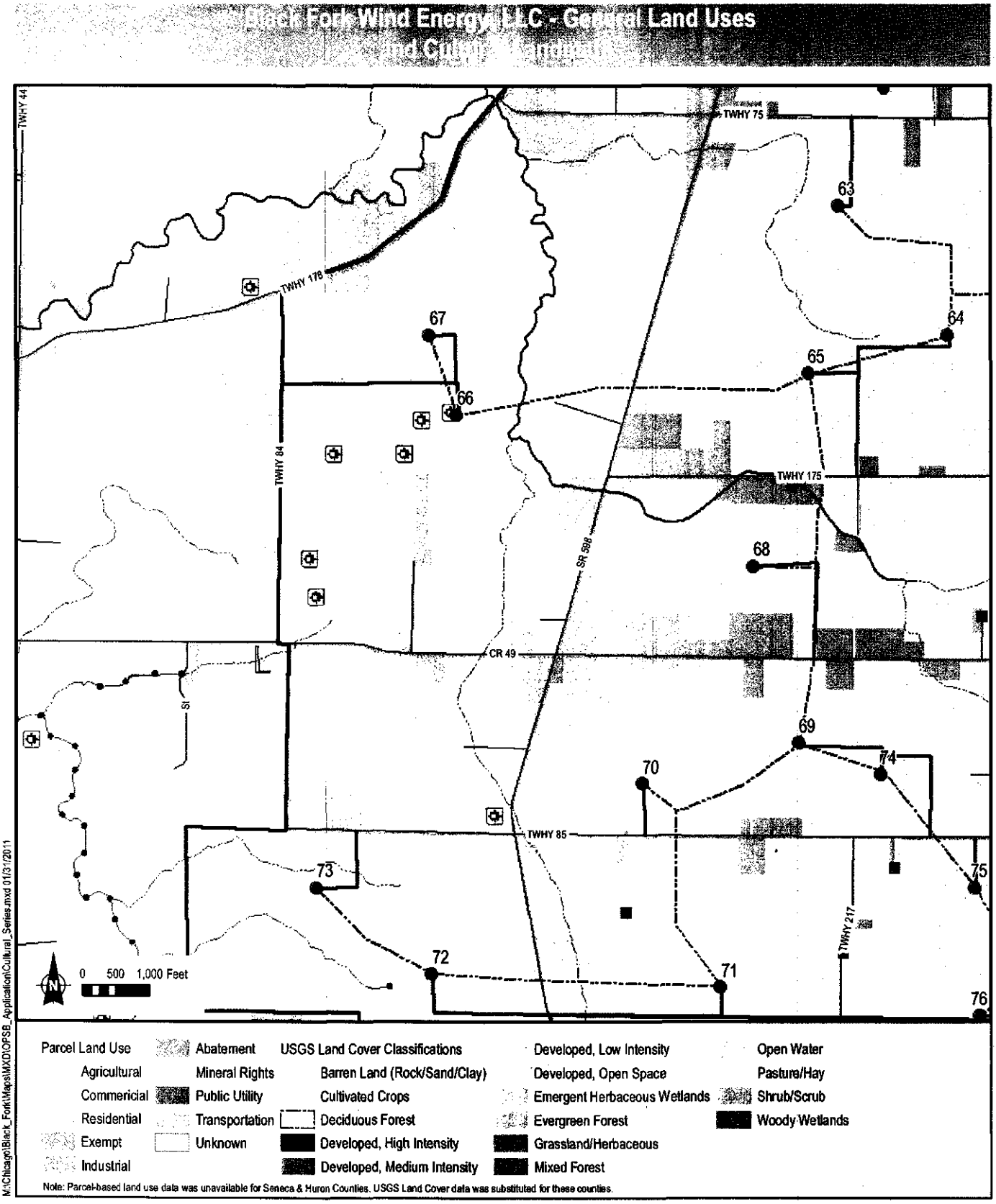

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Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
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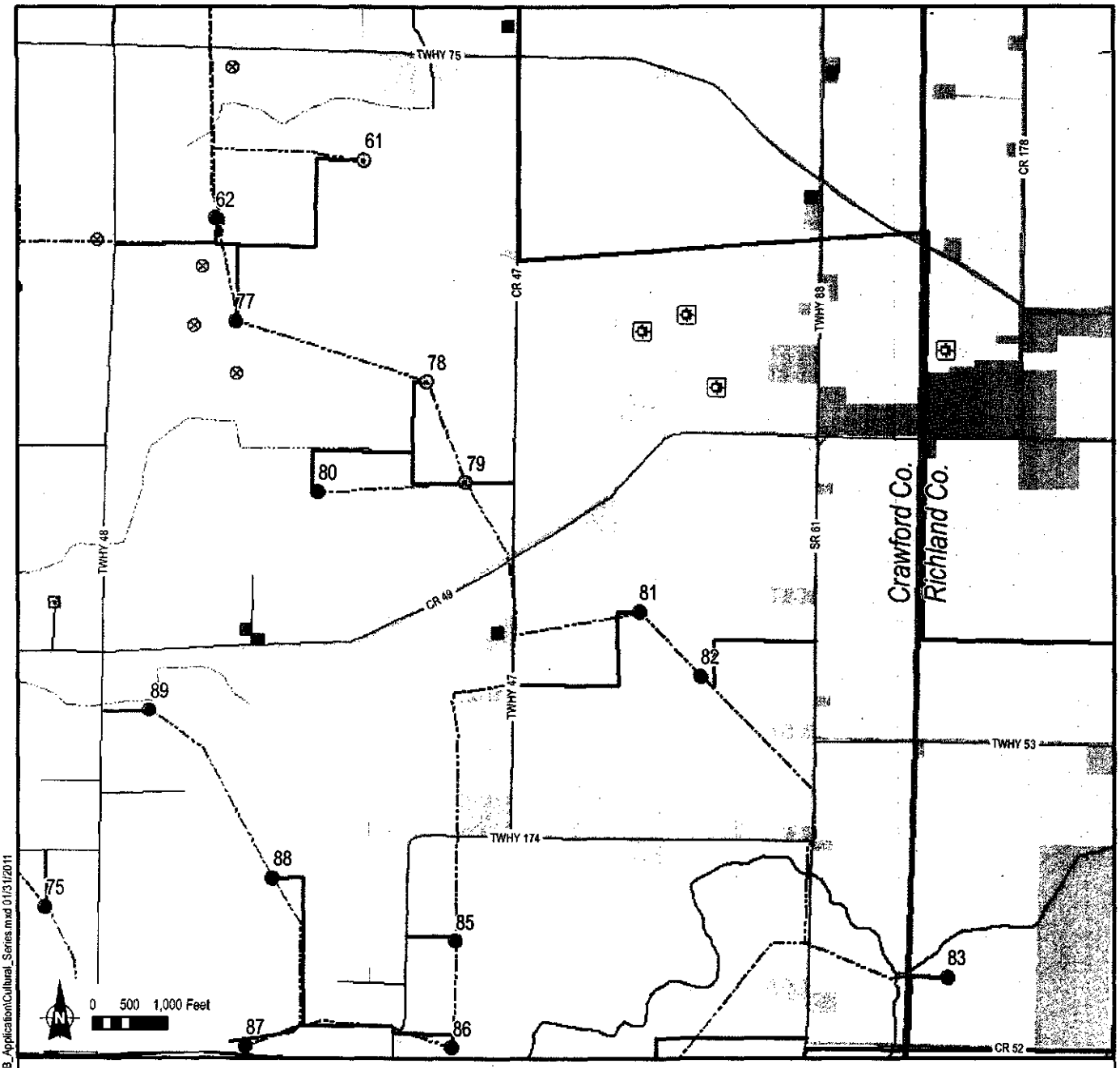
Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.

Black Fork Wind Energy, LLC - General Land Uses and Cultural Landmarks



Parcel Land Use: Agricultural; Commericial; Residential; Exempt; Industrial; Abatement; Mineral Rights; Public Utility; Transportation; Unknown

USGS Land Cover Classifications: Barren Land (Rock/Sand/Clay); Cultivated Crops; Deciduous Forest; Developed, High Intensity; Developed, Medium Intensity; Developed, Low Intensity; Developed, Open Space; Emergent Herbaceous Wetlands; Evergreen Forest; Grassland/Herbaceous; Mixed Forest; Open Water; Pasture/Hay; Shrub/Scrub; Woody Wetlands

Note: Parcel-based land use data was unavailable for Seneca & Huron Counties. USGS Land Cover data was substituted for these counties.

Turbines (01-14-11)
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Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 31 of 45

Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.

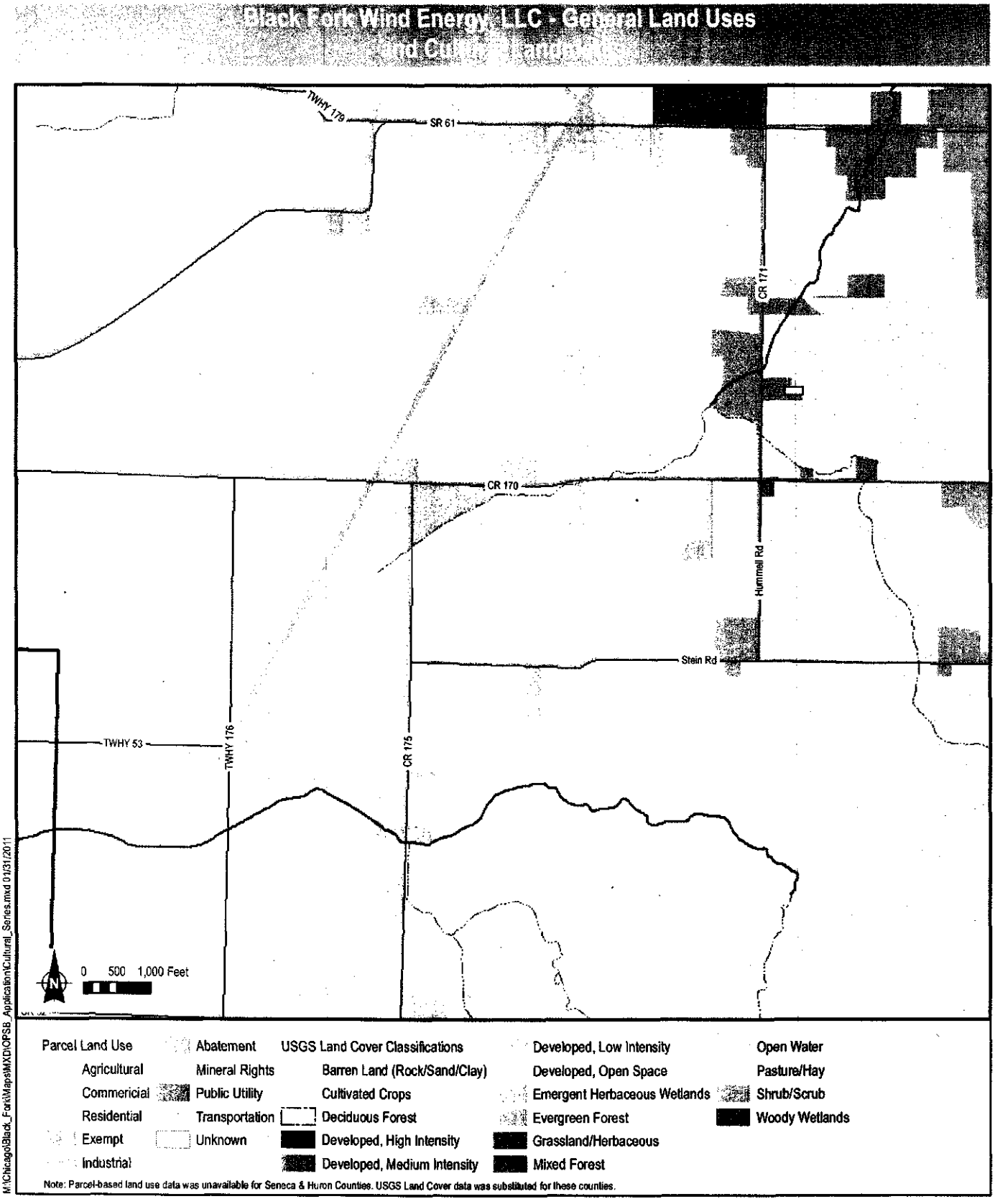

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Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 32 of 45

Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.

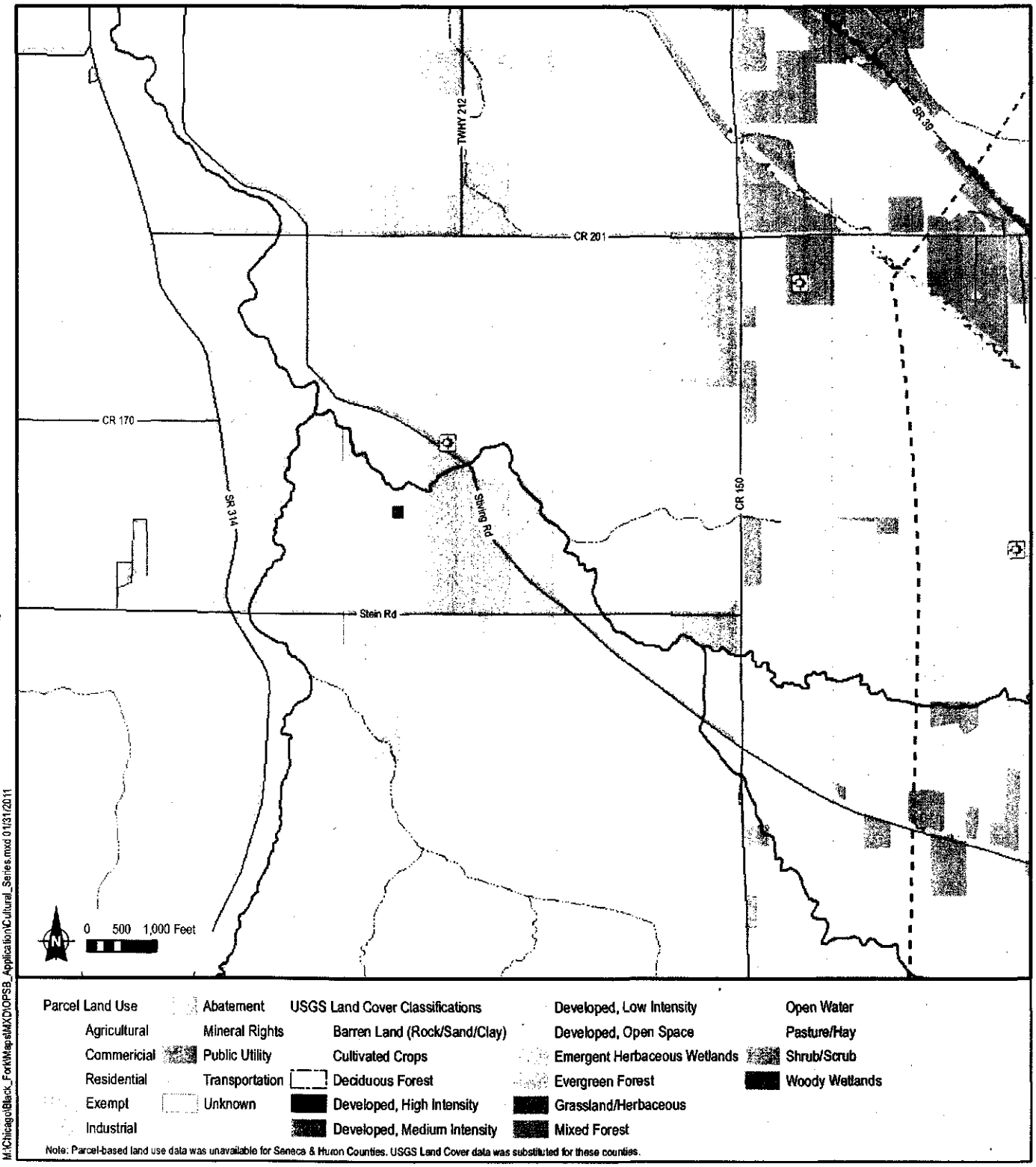

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Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 33 of 45

Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.

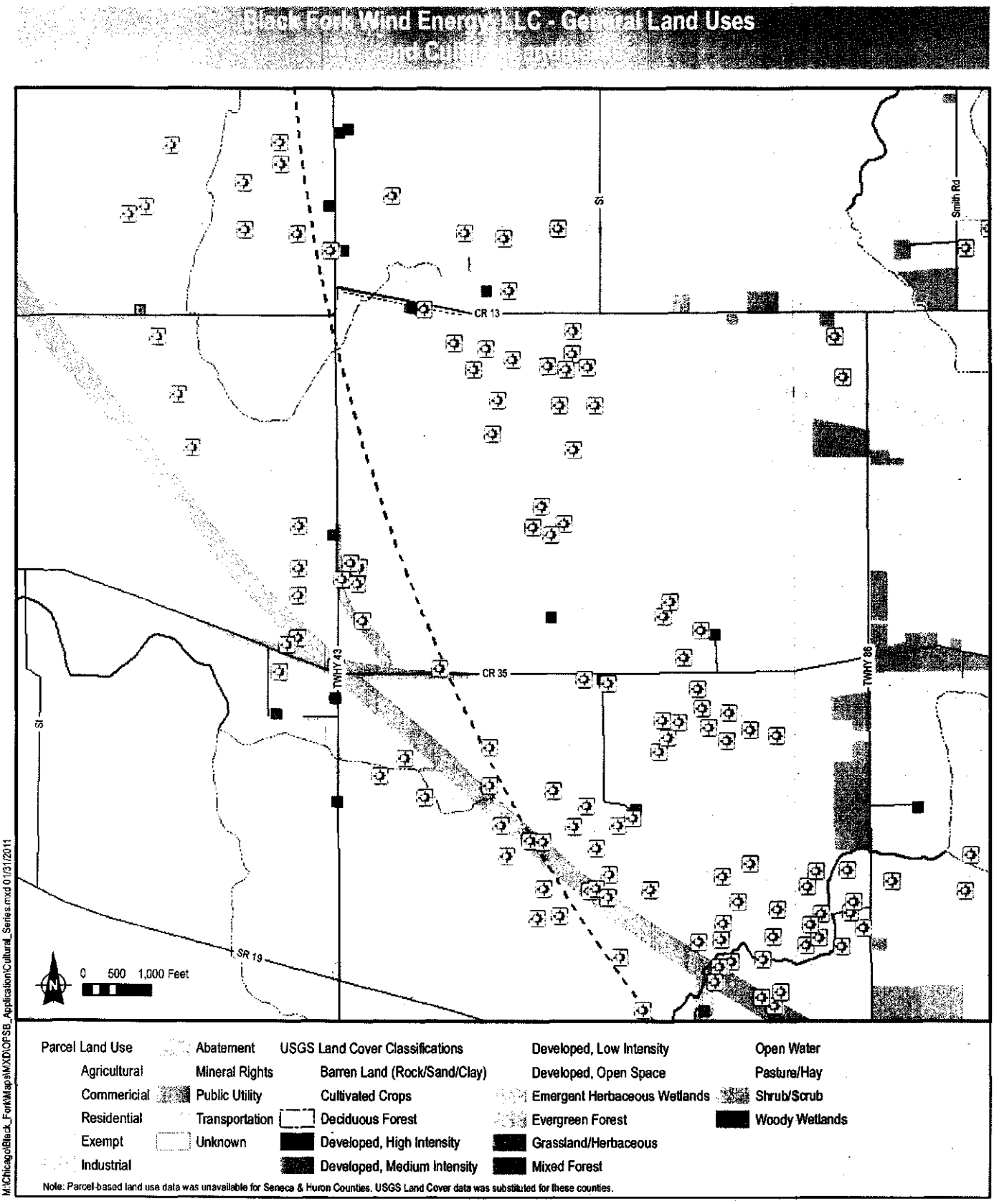


Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 34 of 45

Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.

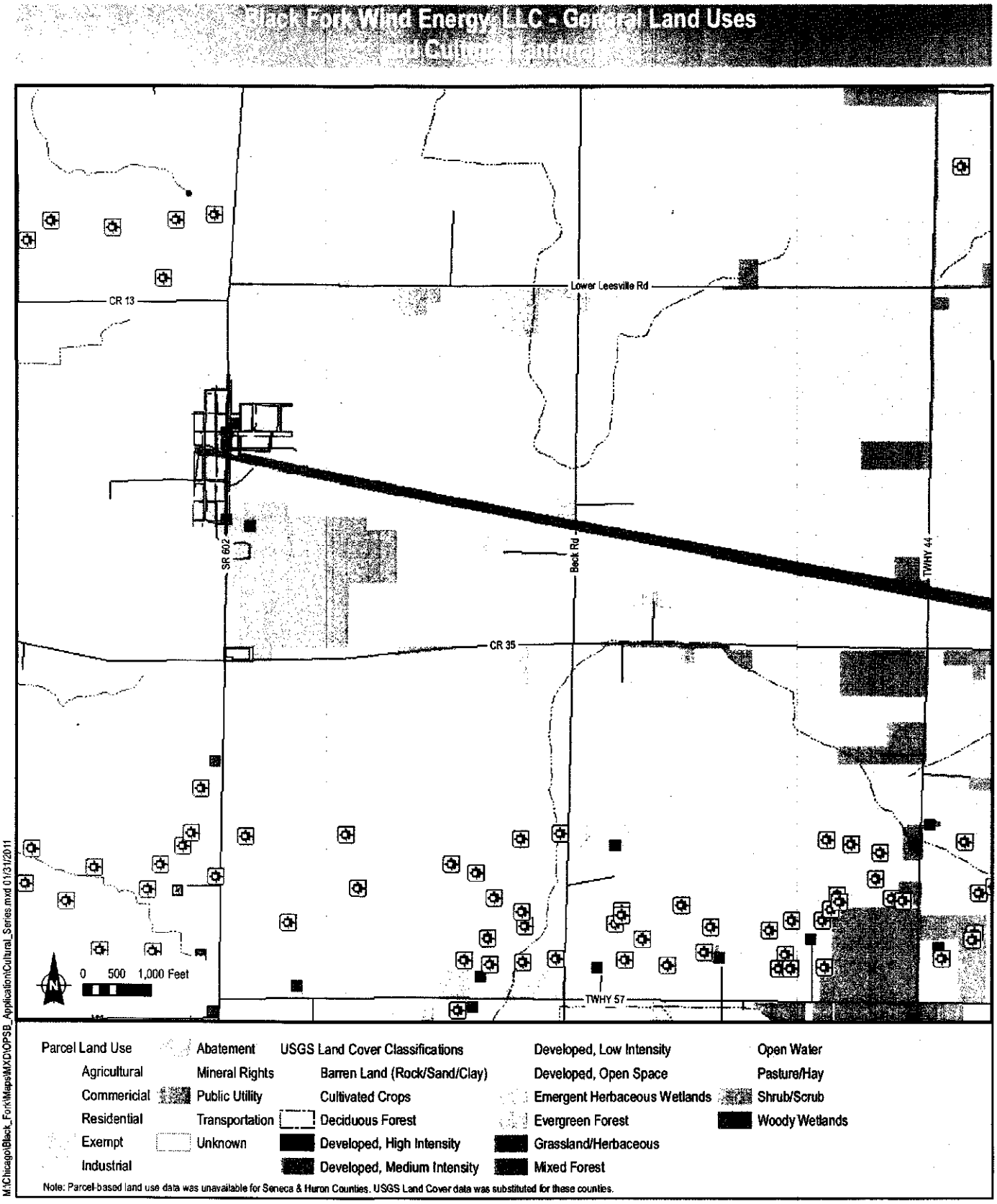


Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 35 of 45

Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.

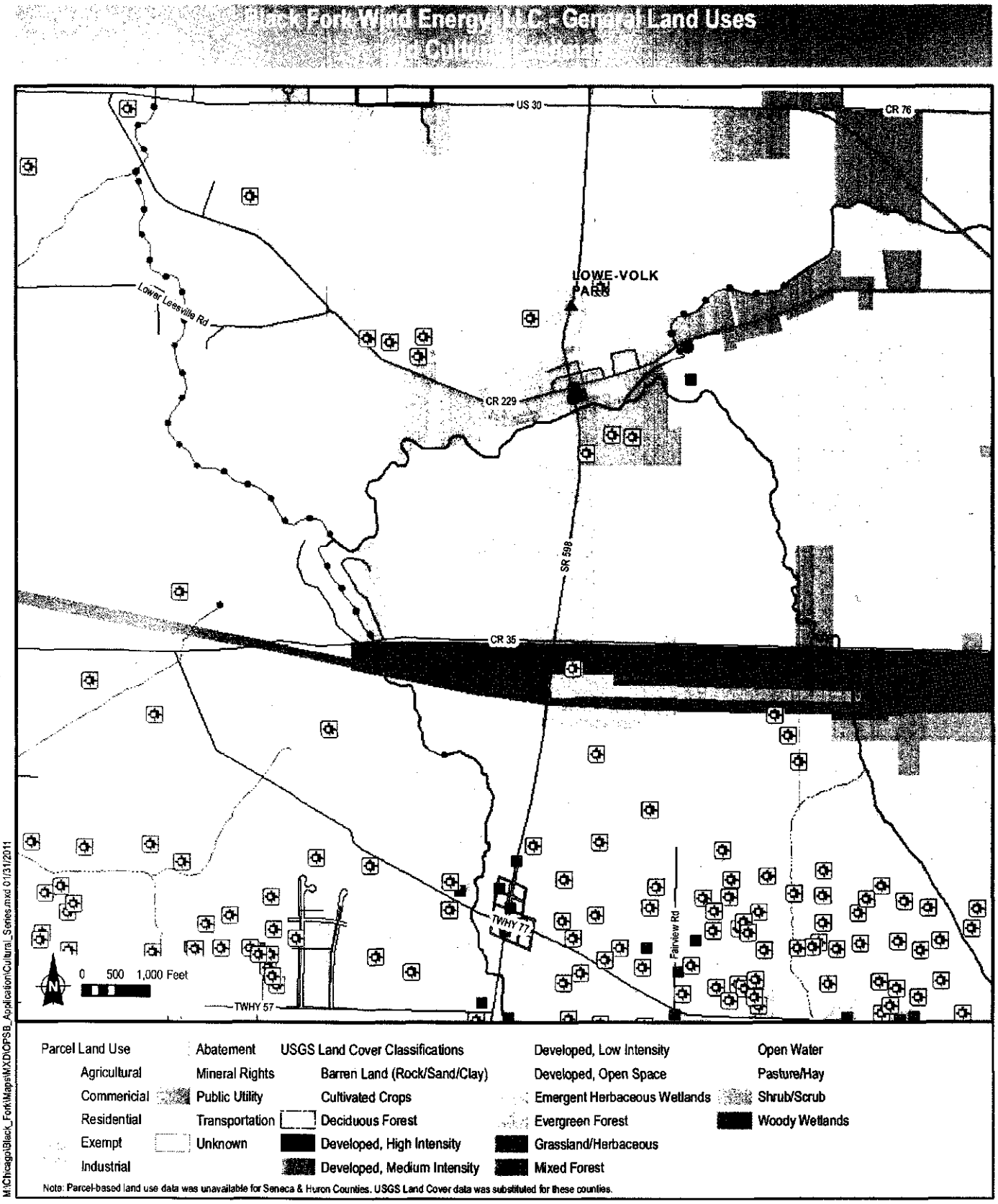


Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 36 of 45

Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.

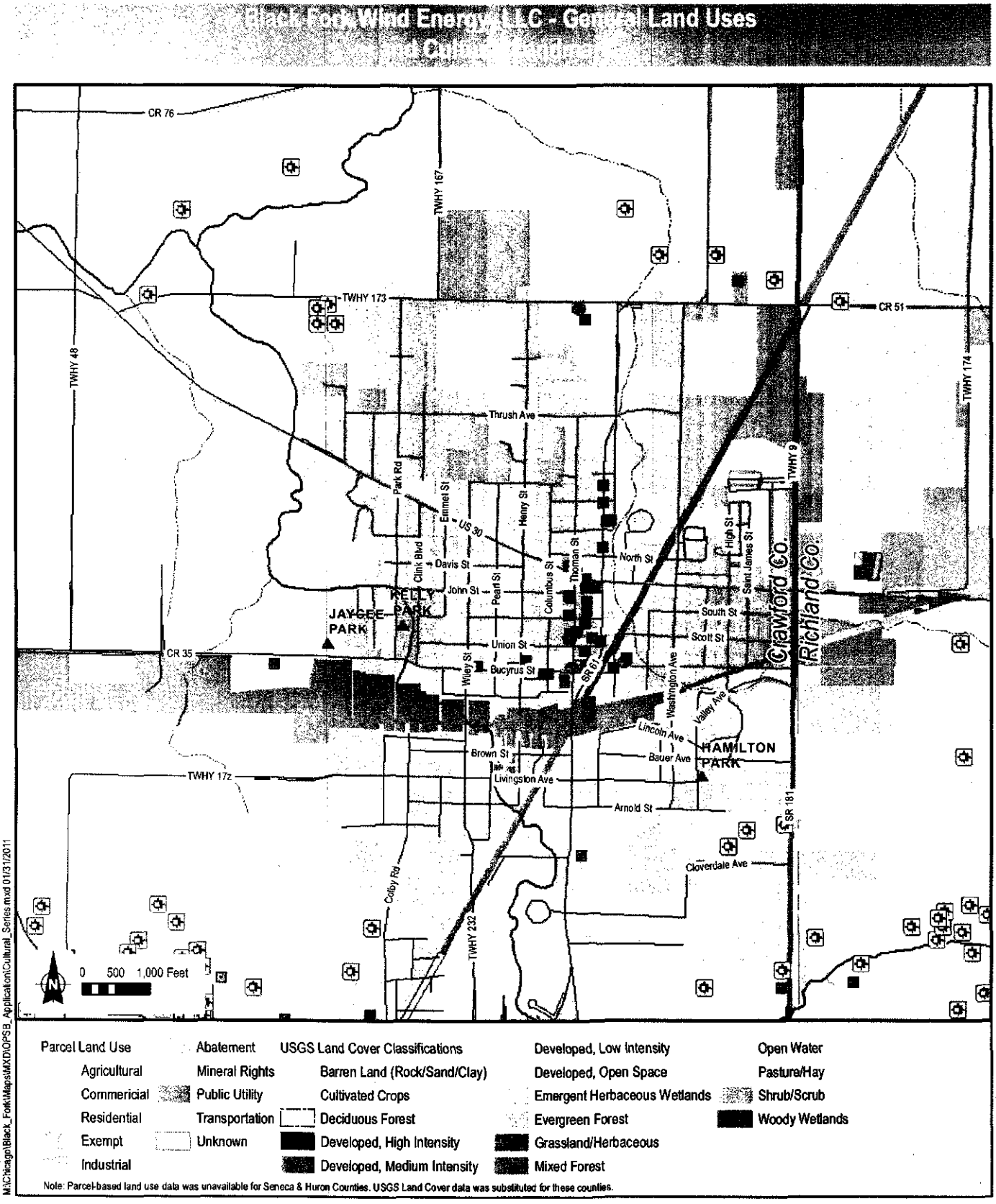
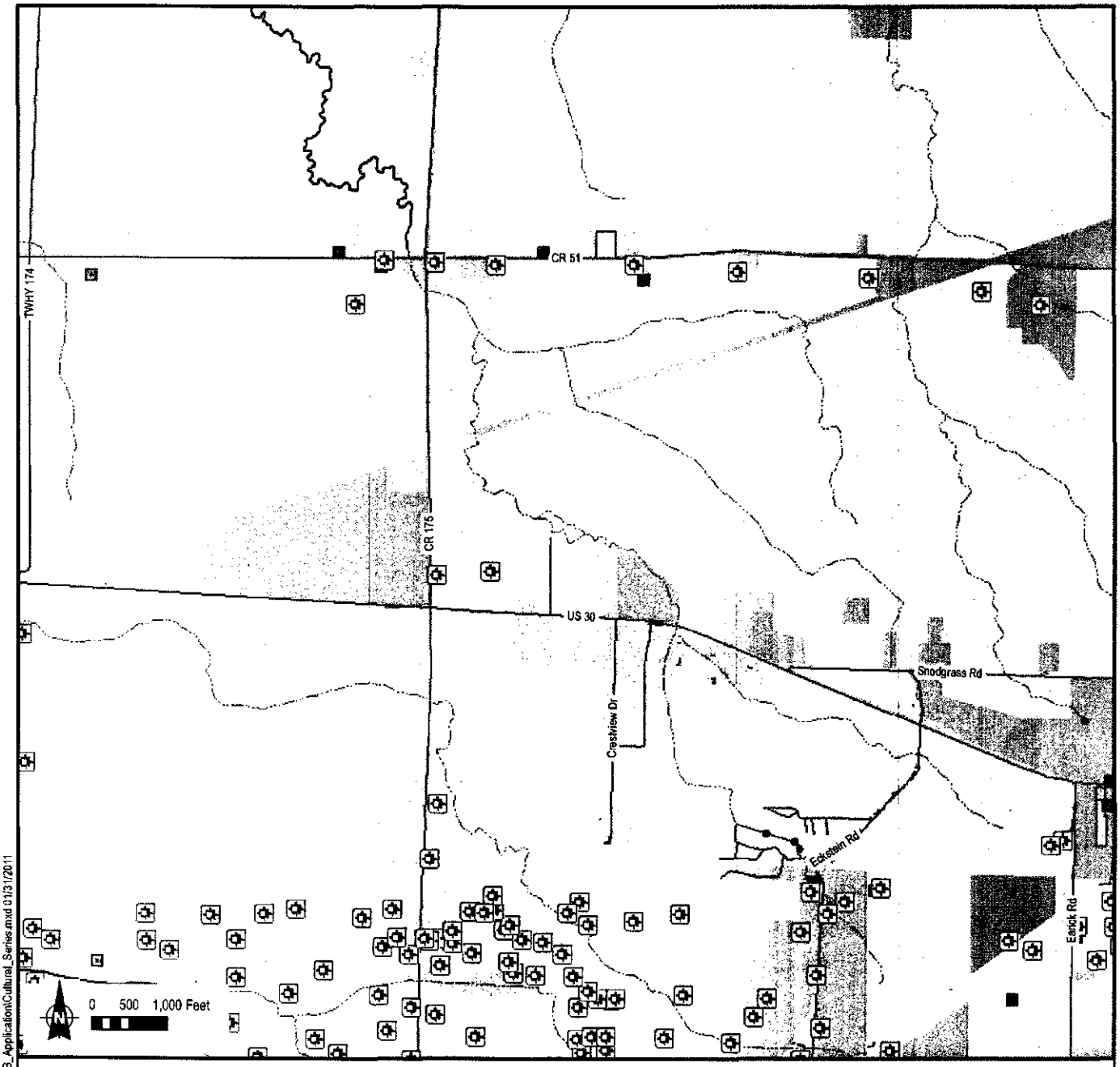


Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 37 of 45

Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.

Black Fork Wind Energy, LLC - General Land Uses



Parcel Land Use
- Agricultural
- Commericial
- Residential
- Exempt
- Industrial
- Abatement
- Mineral Rights
- Public Utility
- Transportation
- Unknown

USGS Land Cover Classifications
- Barren Land (Rock/Sand/Clay)
- Cultivated Crops
- Deciduous Forest
- Developed, High Intensity
- Developed, Medium Intensity
- Developed, Low Intensity
- Developed, Open Space
- Emergent Herbaceous Wetlands
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Note: Parcel-based land use data was unavailable for Seneca & Huron Counties. USGS Land Cover data was substituted for these counties.

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- Five Mile Buffer

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Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 38 of 45

Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.

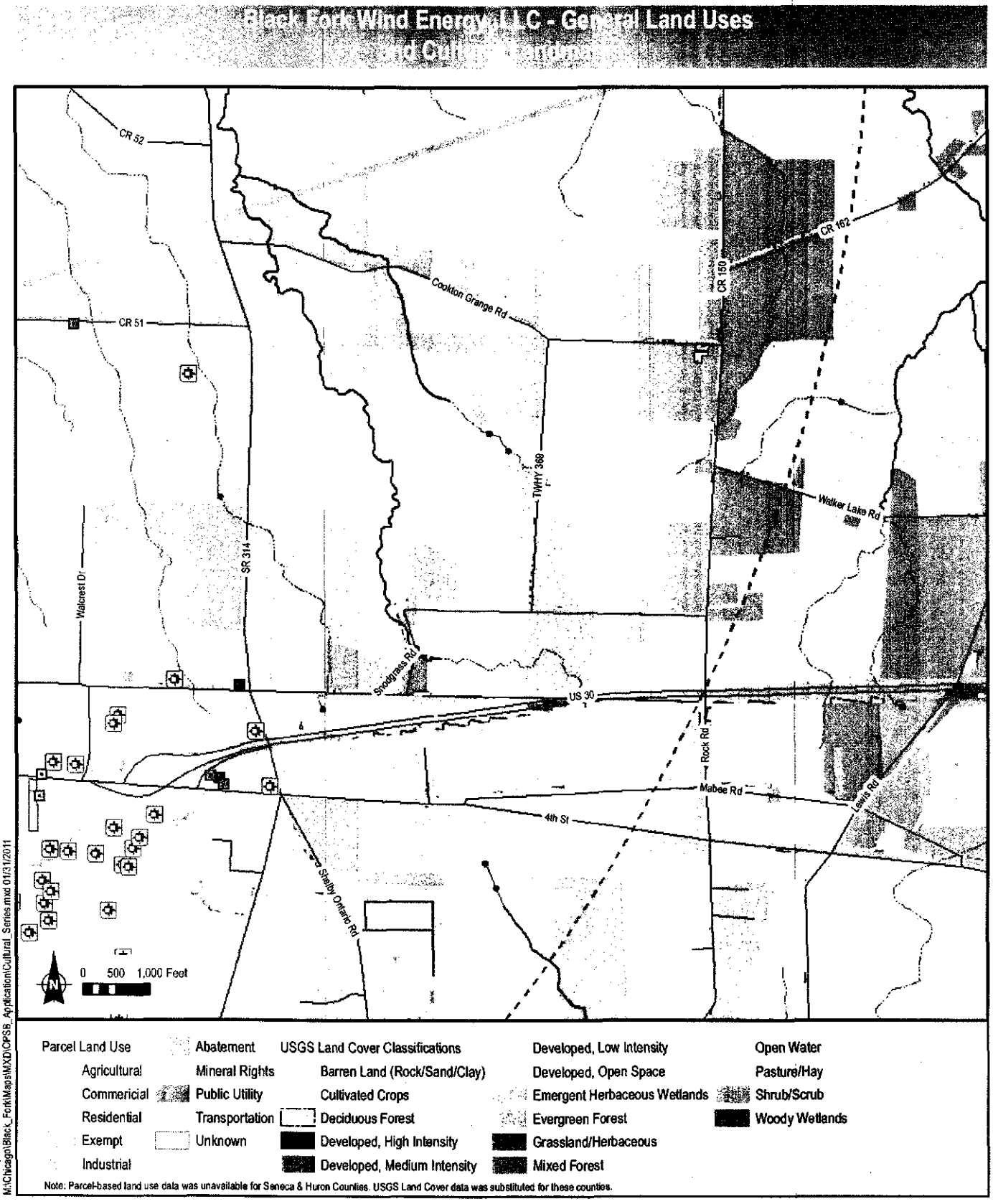

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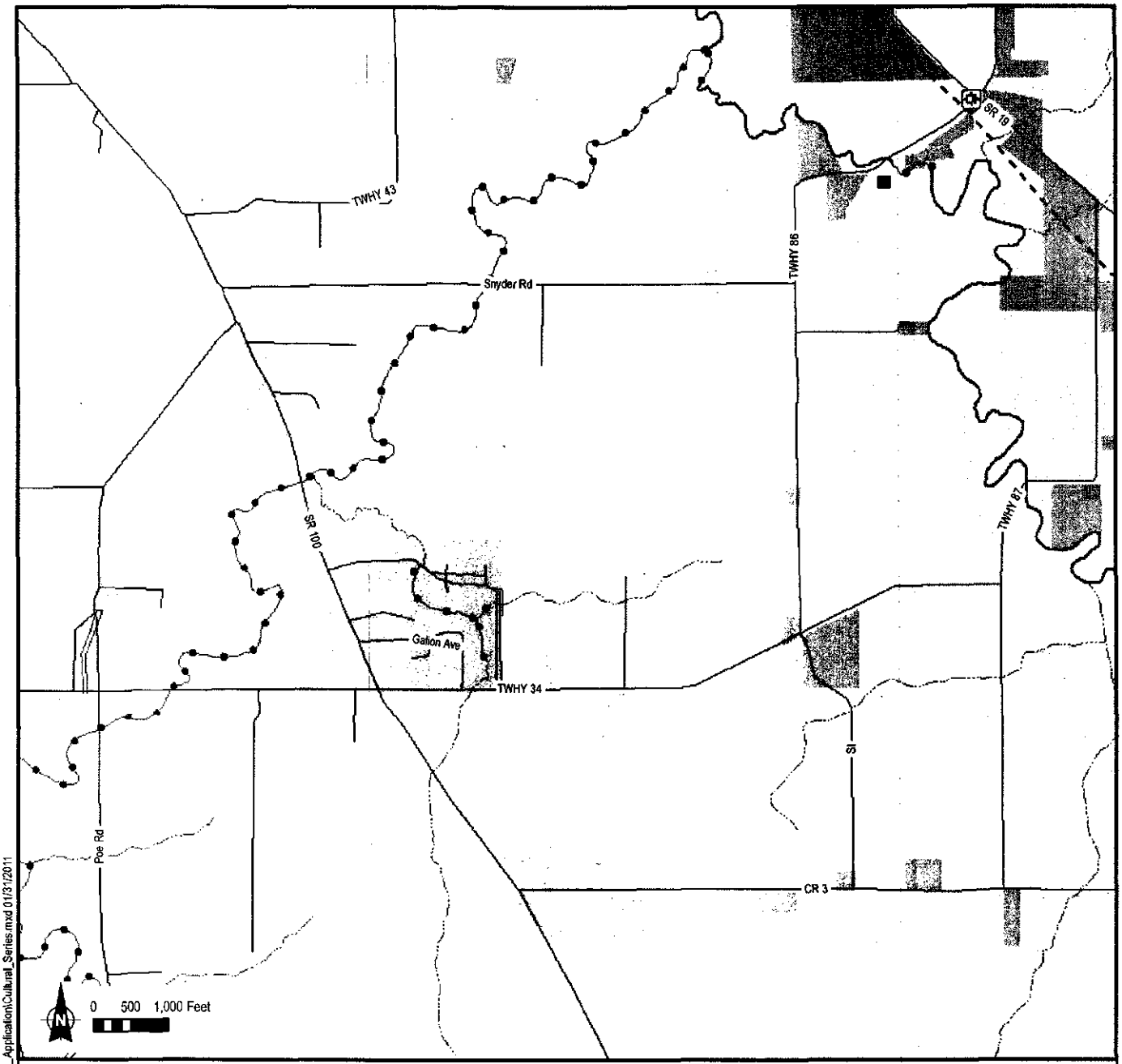
Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 39 of 45

Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.



Parcel Land Use: Agricultural; Commericial; Residential; Exempt; Industrial; Abatement; Mineral Rights; Public Utility; Transportation; Unknown

USGS Land Cover Classifications: Barren Land (Rock/Sand/Clay); Cultivated Crops; Deciduous Forest; Developed, High Intensity; Developed, Medium Intensity; Developed, Low Intensity; Developed, Open Space; Emergent Herbaceous Wetlands; Evergreen Forest; Grassland/Herbaceous; Mixed Forest; Open Water; Pasture/Hay; Shrub/Scrub; Woody Wetlands

Note: Parcel-based land use data was unavailable for Seneca & Huron Counties. USGS Land Cover data was substituted for these counties.

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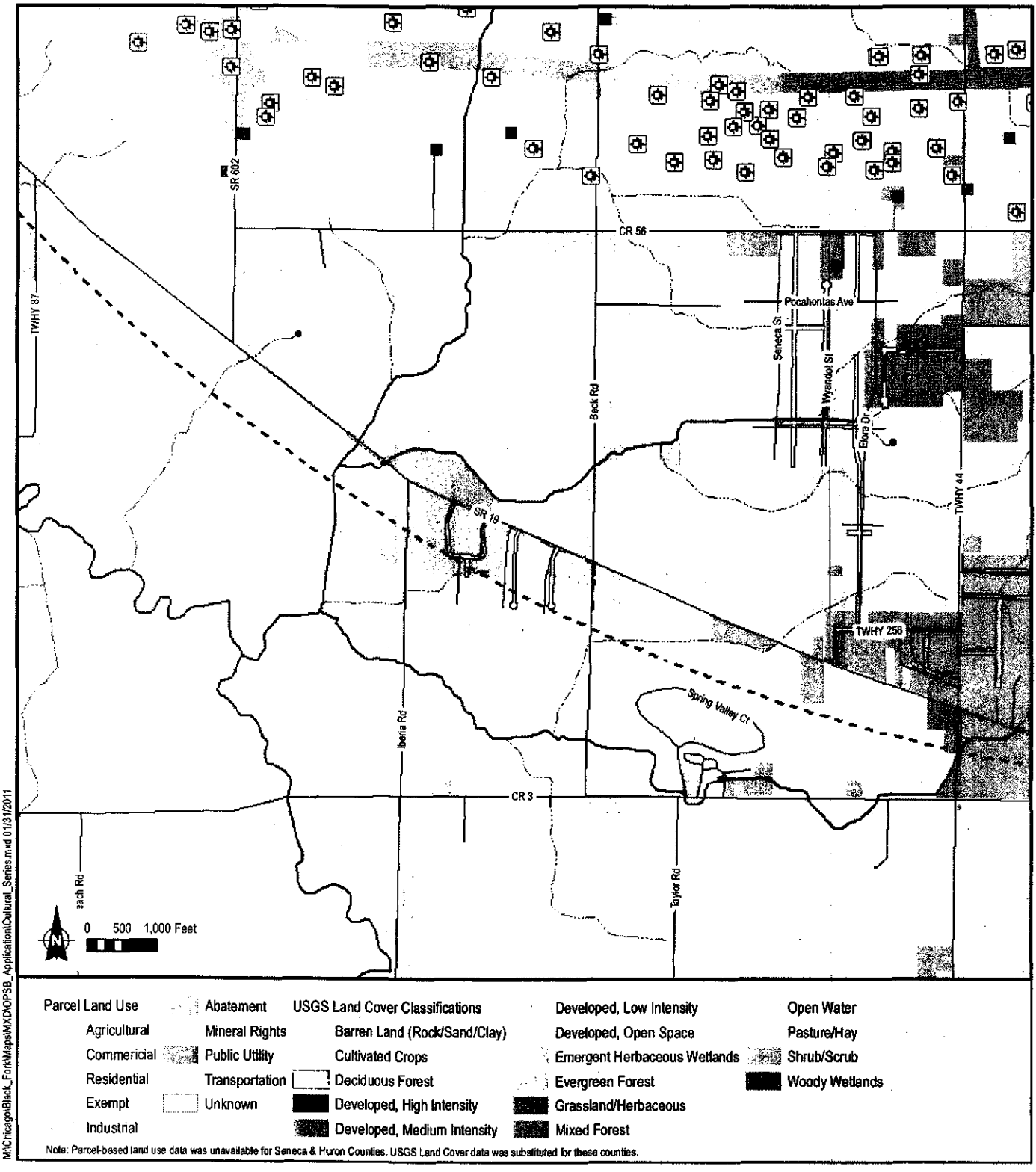
Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 40 of 45

Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.



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Turbines (01-14-11)
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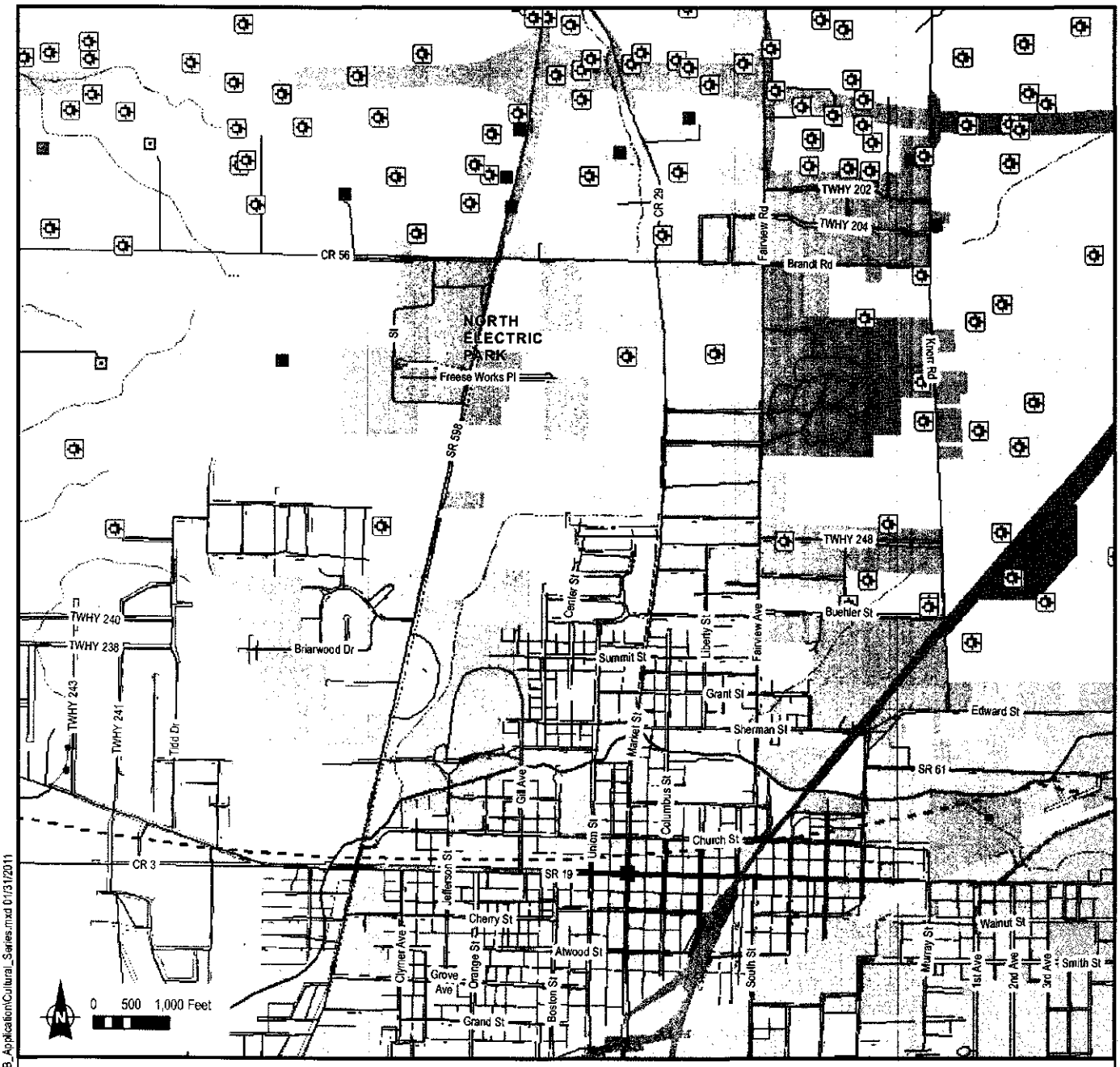
Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 41 of 45

Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.

Black Fork Wind Energy, LLC - General Land Uses



Parcel Land Use	Abatement	USGS Land Cover Classifications	Developed, Low Intensity	Open Water
Agricultural	Mineral Rights	Barren Land (Rock/Sand/Clay)	Developed, Open Space	Pasture/Hay
Commericial	Public Utility	Cultivated Crops	Emergent Herbaceous Wetlands	Shrub/Scrub
Residential	Transportation	Deciduous Forest	Evergreen Forest	Woody Wetlands
Exempt	Unknown	Developed, High Intensity	Grassland/Herbaceous	
Industrial		Developed, Medium Intensity	Mixed Forest	

Note: Parcel-based land use data was unavailable for Seneca & Huron Counties. USGS Land Cover data was substituted for these counties.

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Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 42 of 45

Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.

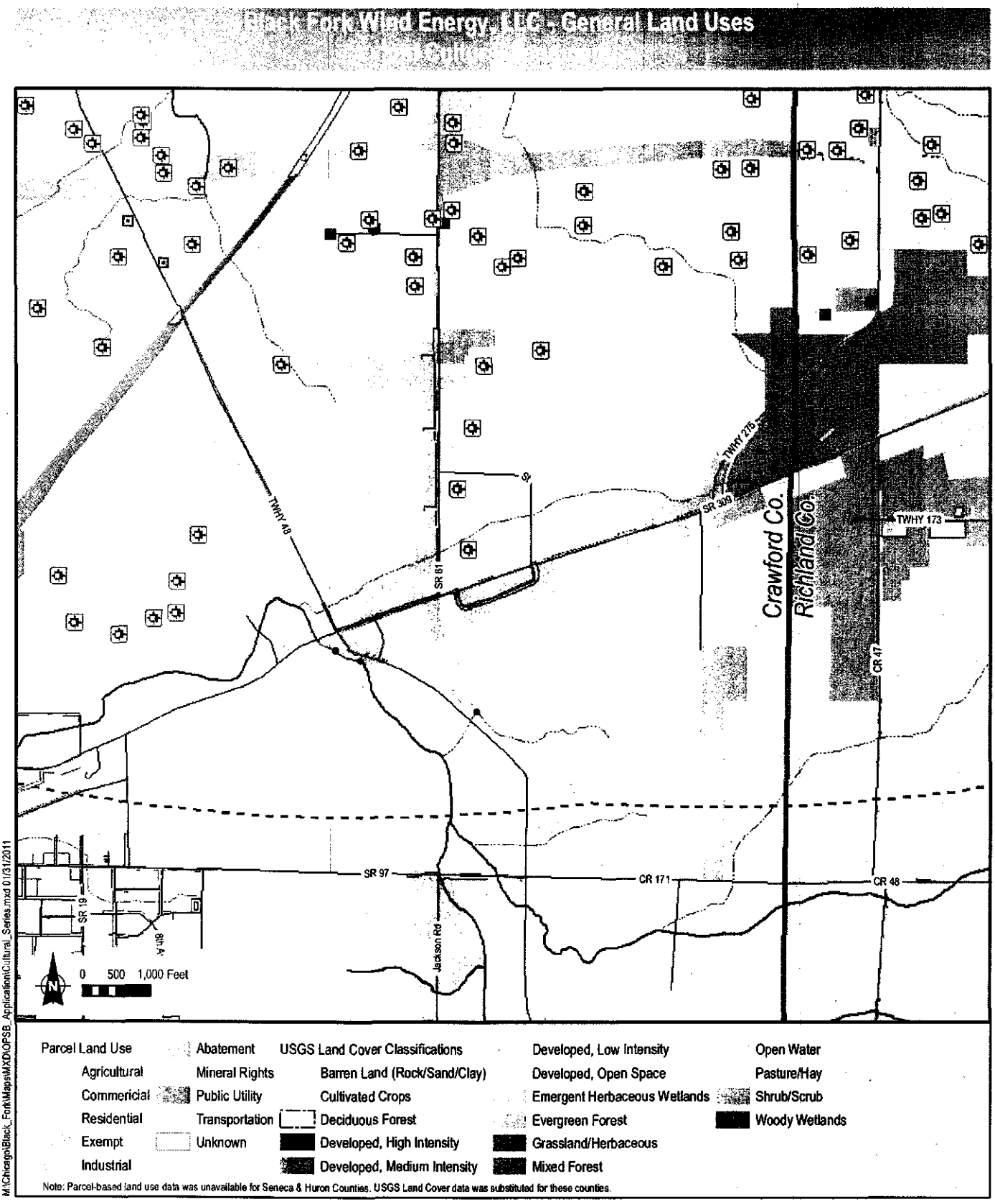

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Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 43 of 45

Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.

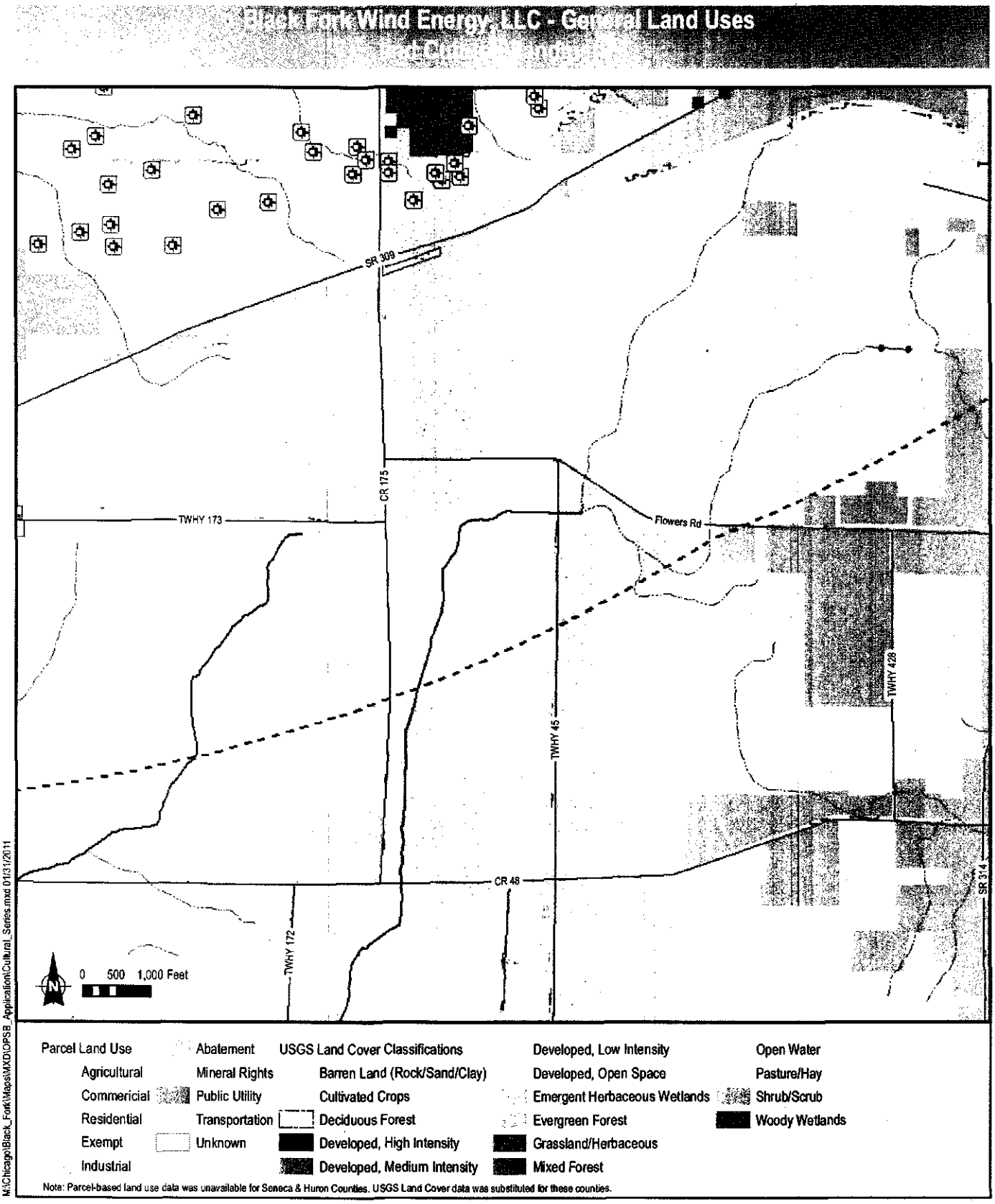

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Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 44 of 45

Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.

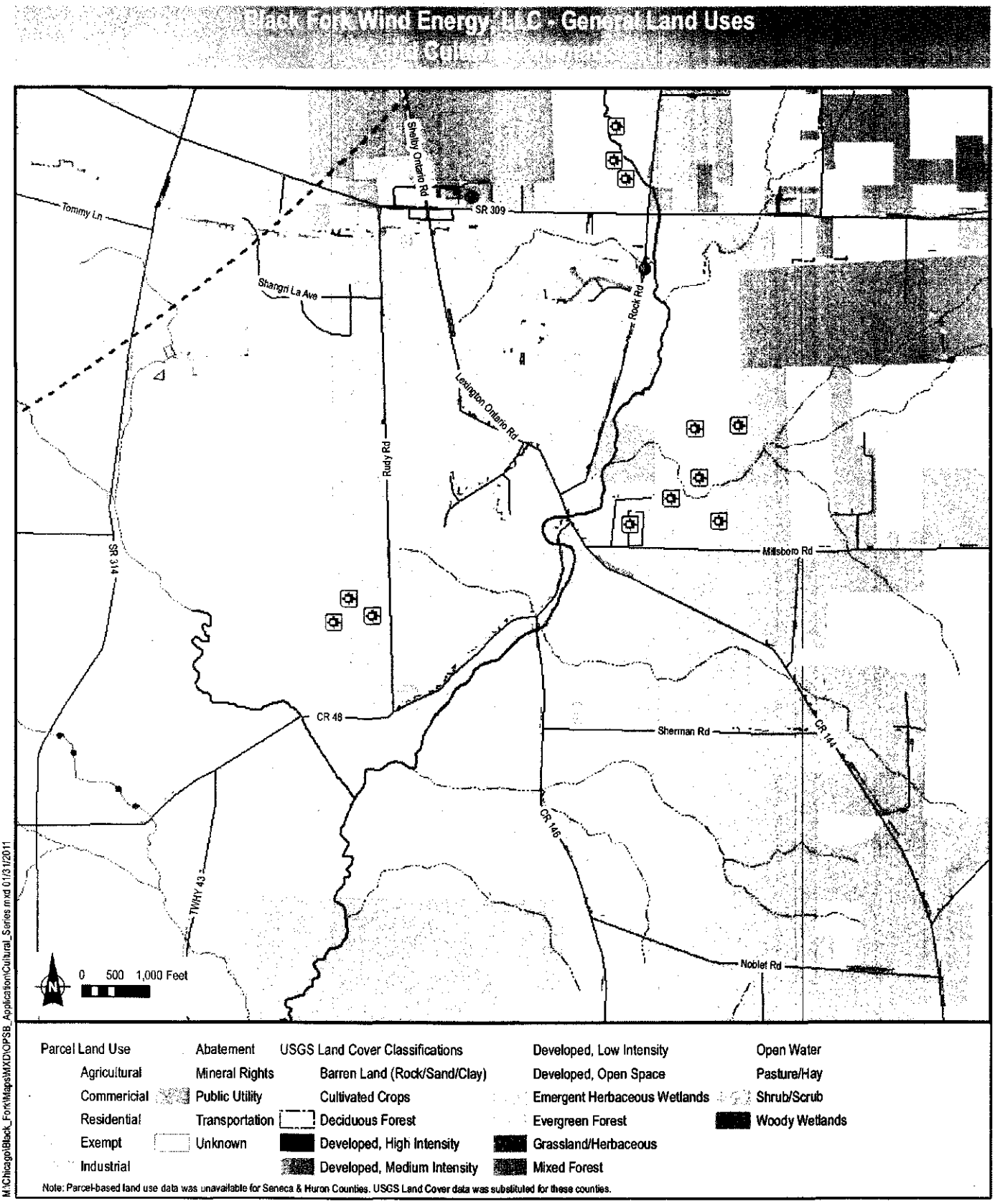

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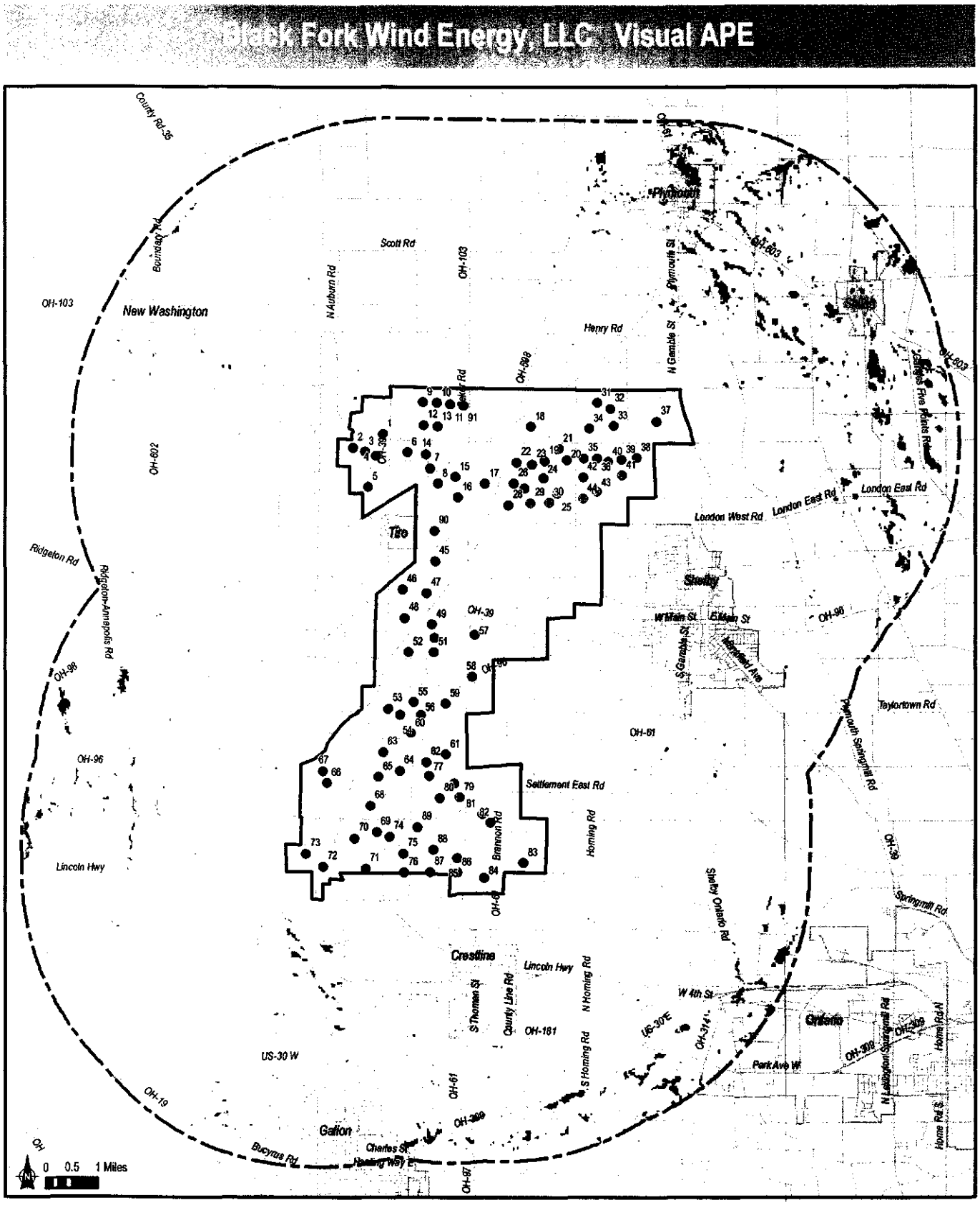
Figure 8-5
Black Fork Wind Energy, LLC
General Land Uses and Cultural Landmarks
Crawford, Richland, Huron & Seneca Counties, Ohio
Map 45 of 45

Source: ESRI 2010; USGS NCLD 2001; OHPO 2010; NRHP 2009; NHD 2008; OH DNR 2009 CRAWFORD, RICHLAND COUNTY AUDITOR 2009; EP 2011.



Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)

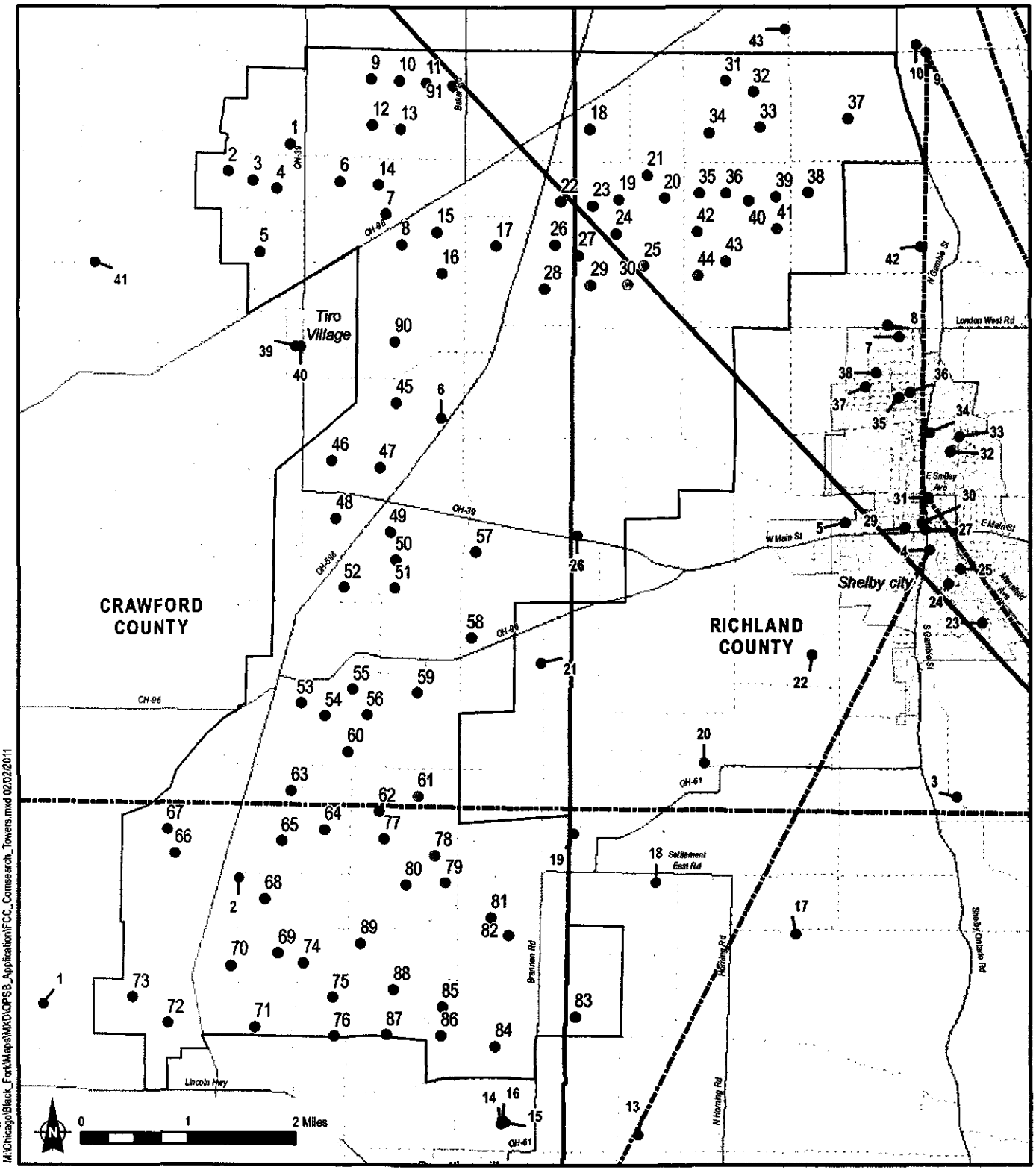
Project Area (01-03-11)
Road

viewshed
- Not Visible
- Visible
- Five Mile Buffer

Figure 8-6
Black Fork Wind Energy, LLC
Visual APE
Crawford and Richland Counties, Ohio

Source: ESRI 2010; CRA 2011; EP 2011.

Black Fork Wind Energy, LLC - Tower Structures



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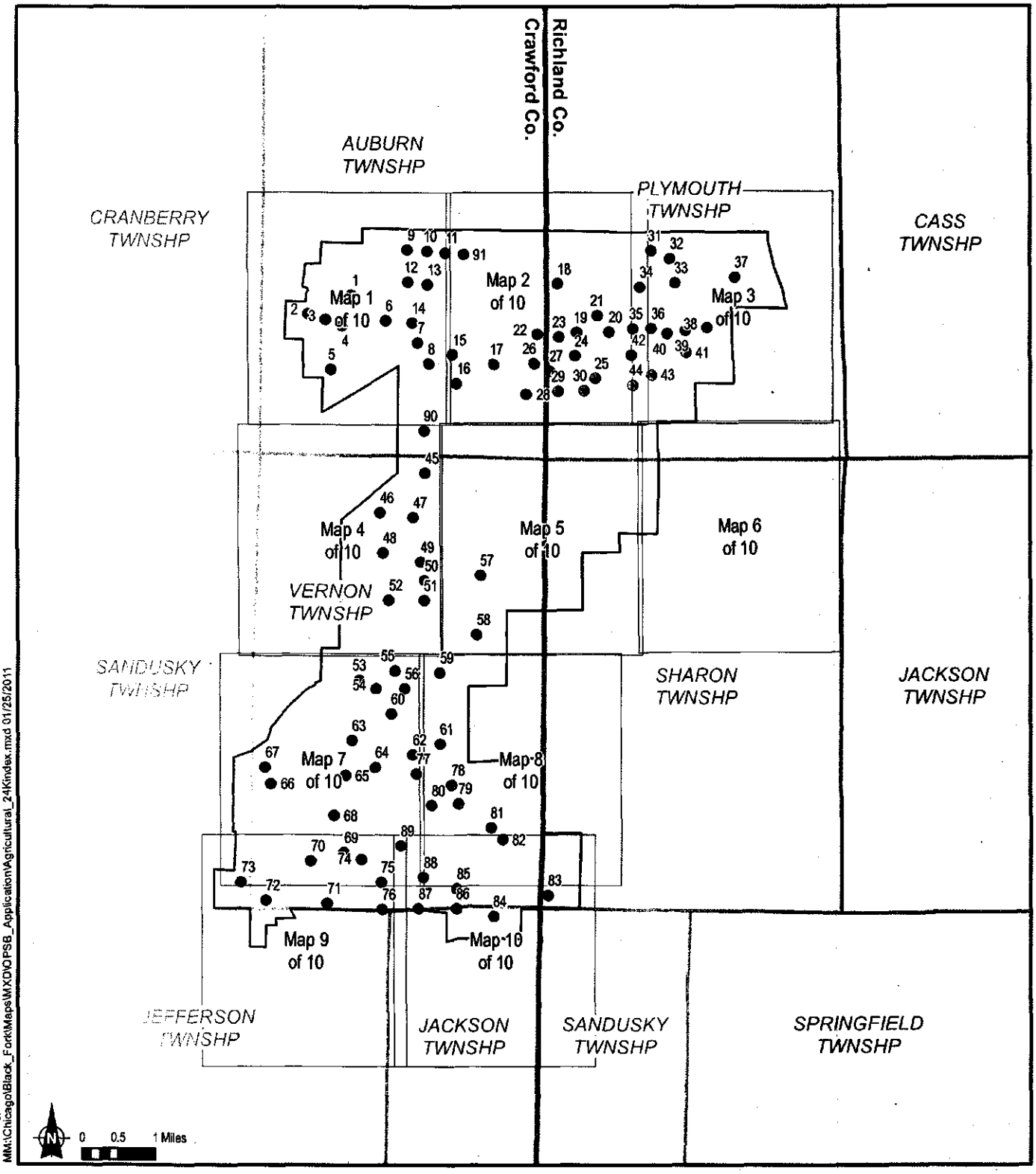
Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)
- Project Area (01-03-11)
- Tower Structure Location
- Microwave Beam
- County Boundary

Figure 8-7
Black Fork Wind Energy, LLC
Tower Structures
Crawford and Richland Counties, Ohio

Source: ESRI 2010; USGS 1981-83; ComSearch 2011; EP 2011.

Wind Energy, LLC - Agricultural Lands Index Map



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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)

Project Area (01-03-11)

Township boundary
County boundary

Figure 8-8
Black Fork Wind Energy, LLC Agricultural Lands
Index Map 1:24,000 Scale
Crawford and Richland Counties, Ohio

Source: ESRI 2010; USGS NCLD 2001; EP 2011.

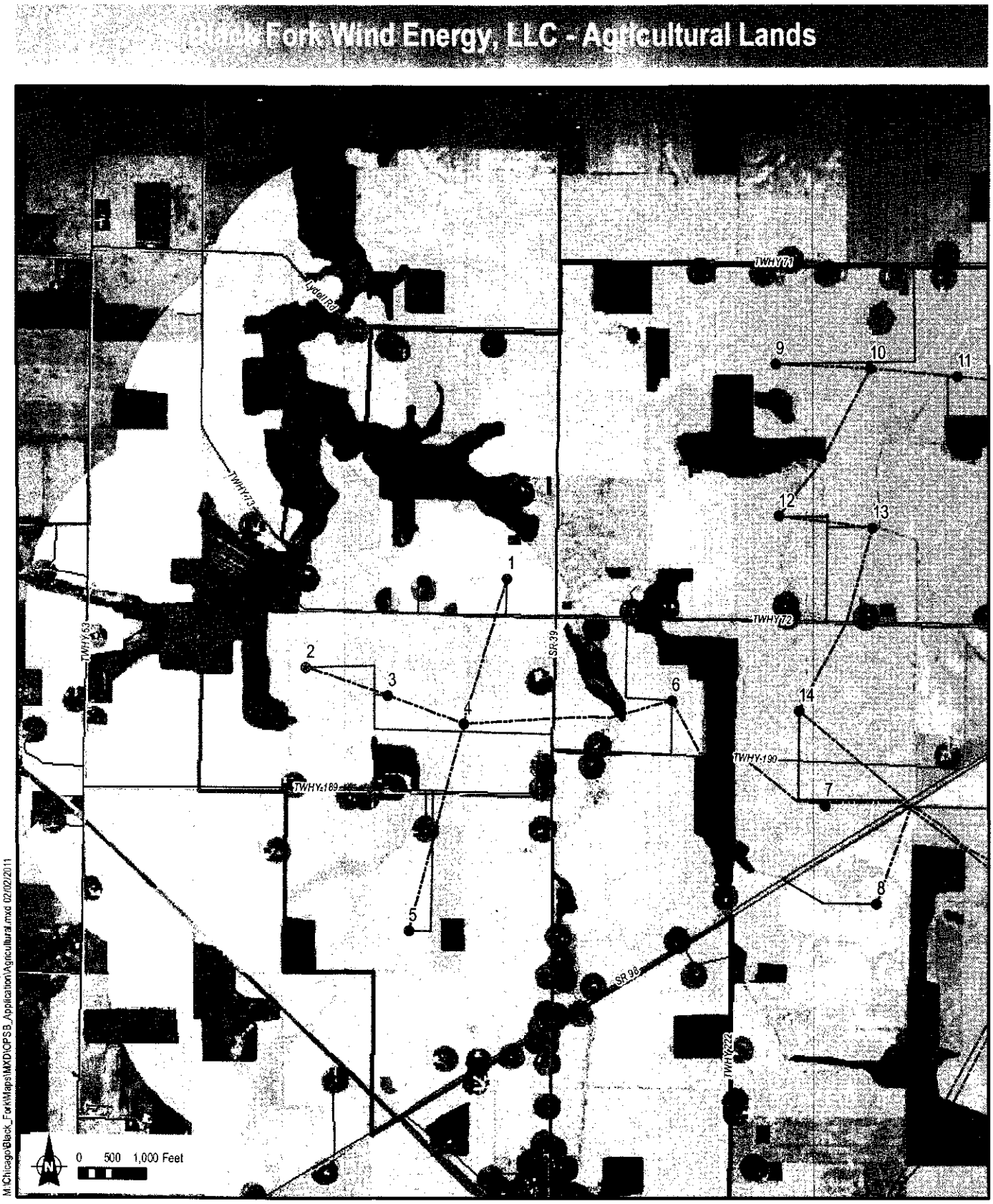


Figure 8-8
Black Fork Wind Energy, LLC
Agricultural Lands
Crawford and Richland Counties, Ohio
Map 1 of 10

Source: ESRI 2010; OH DNR 2009; OSIP 2009; E & E 2011; EP 2011.

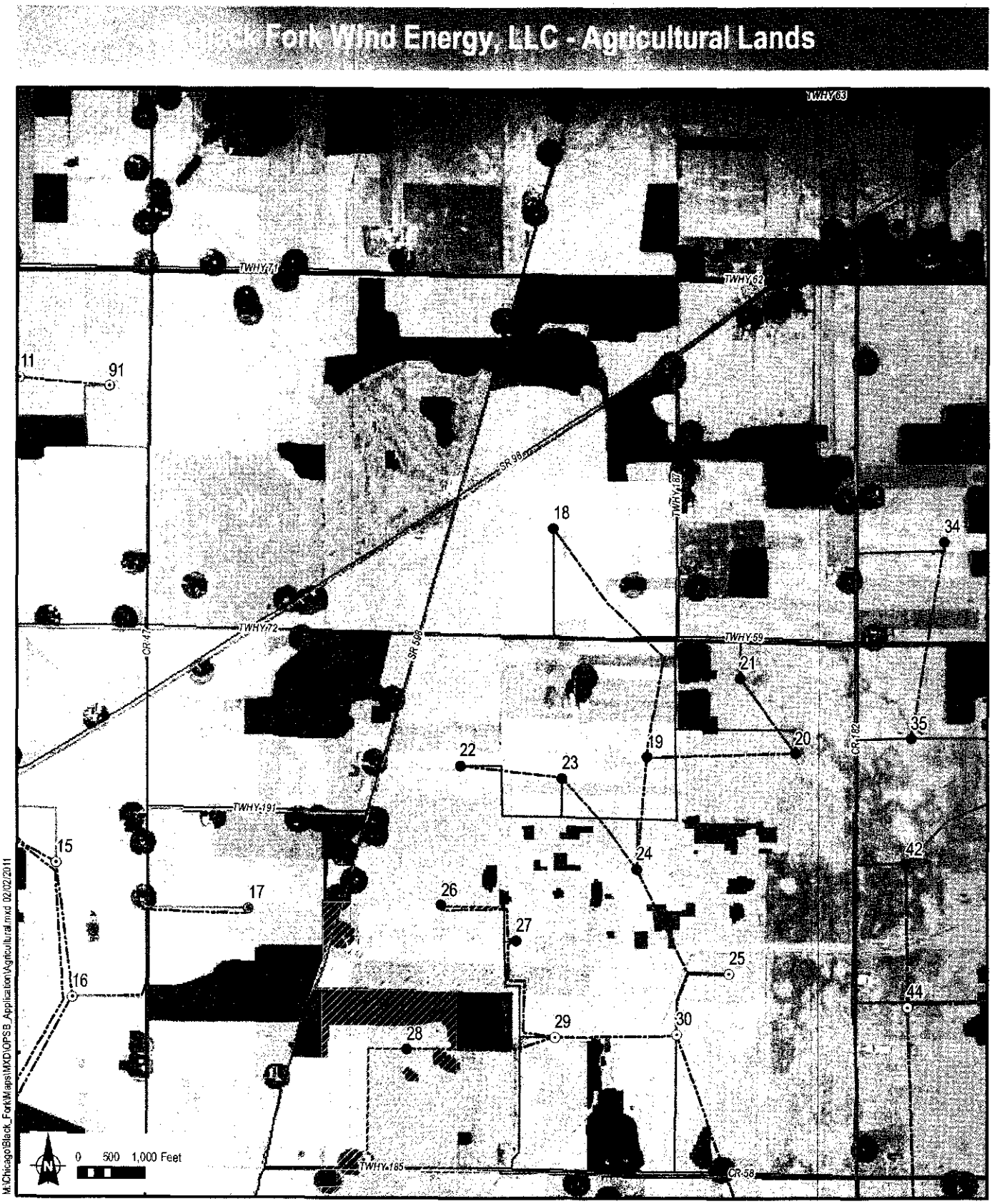
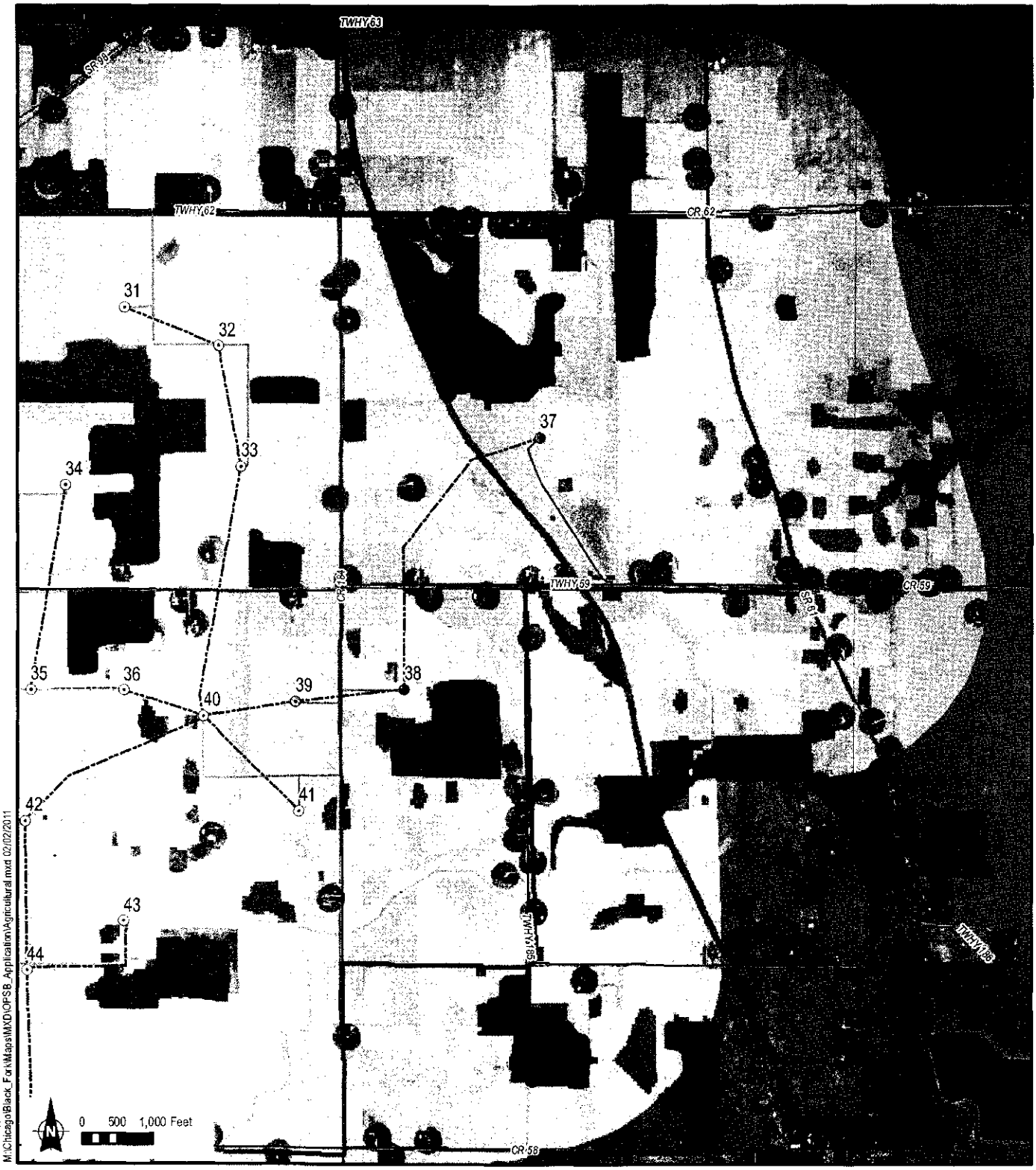


Figure 8-8
Black Fork Wind Energy, LLC
Agricultural Lands
Crawford and Richland Counties, Ohio
Map 2 of 10

Source: ESRI 2010; OH DNR 2009; OSIP 2009; E & E 2011; EP 2011.

Fork Wind Energy, LLC - Agricultural Lands



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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)

Access Roads (01-14-11)
Collection Line (01-14-11)
Substation (01-13-11)
Switchyard (01-13-11)
O&M Building (01-13-11)
Laydown Yard & Batch Plant (01-13-11)
Project Area (01-03-11)
Agriculture District Parcel
Active Agricultural Land
Road

Figure 8-8
Black Fork Wind Energy, LLC
Agricultural Lands
Crawford and Richland Counties, Ohio
Map 3 of 10

Source: ESRI 2010; OH DNR 2009; OSIP 2009; E & E 2011; EP 2011.

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Figure 8-8
Black Fork Wind Energy, LLC
Agricultural Lands
Crawford and Richland Counties, Ohio
Map 4 of 10

Source: ESRI 2010; OH DNR 2009; OSIP 2009; E & E 2011; EP 2011.

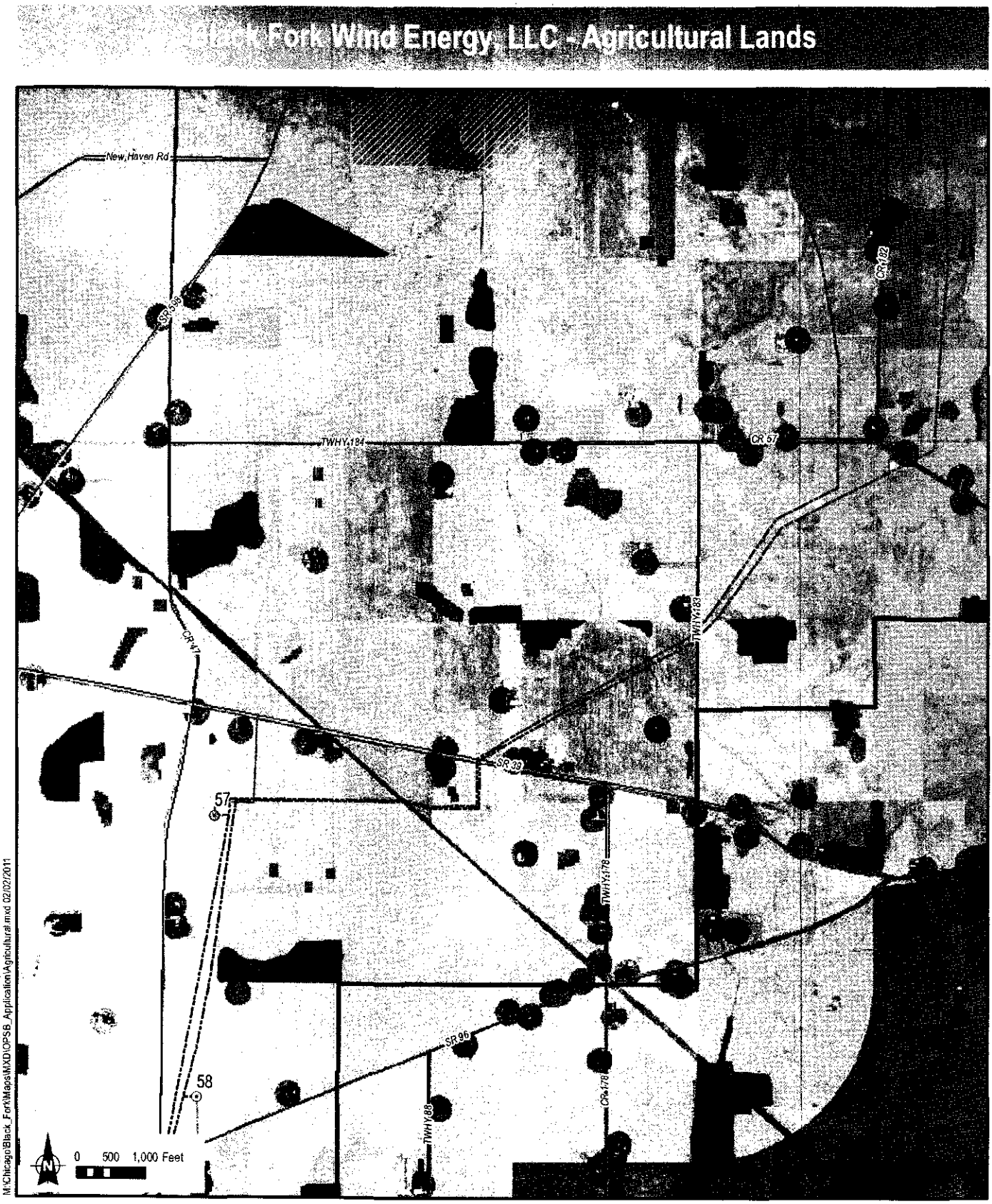
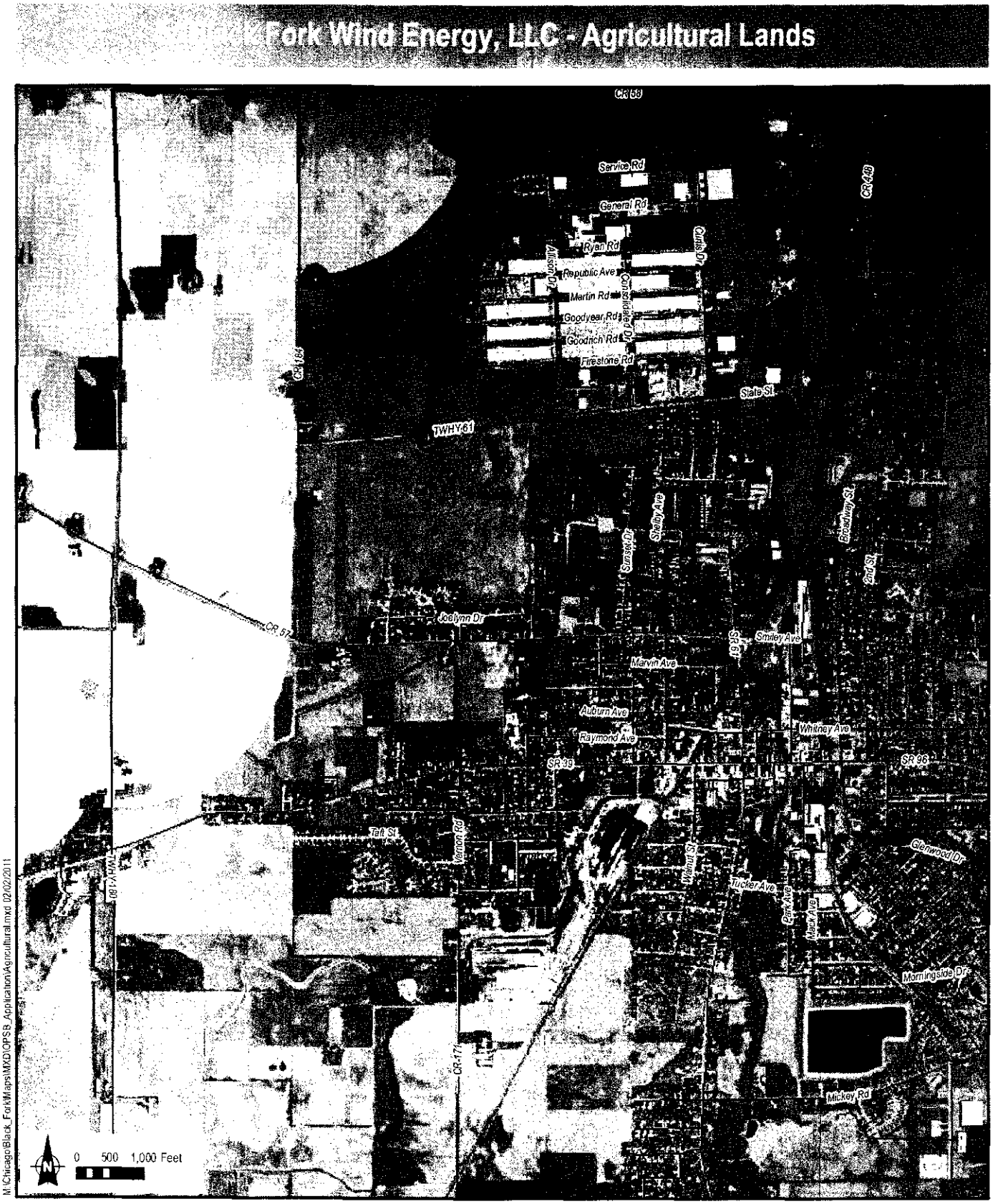


Figure 8-8
Black Fork Wind Energy, LLC
Agricultural Lands
Crawford and Richland Counties, Ohio
Map 5 of 10

Source: ESRI 2010; OH DNR 2009; OSIP 2009; E & E 2011; EP 2011.

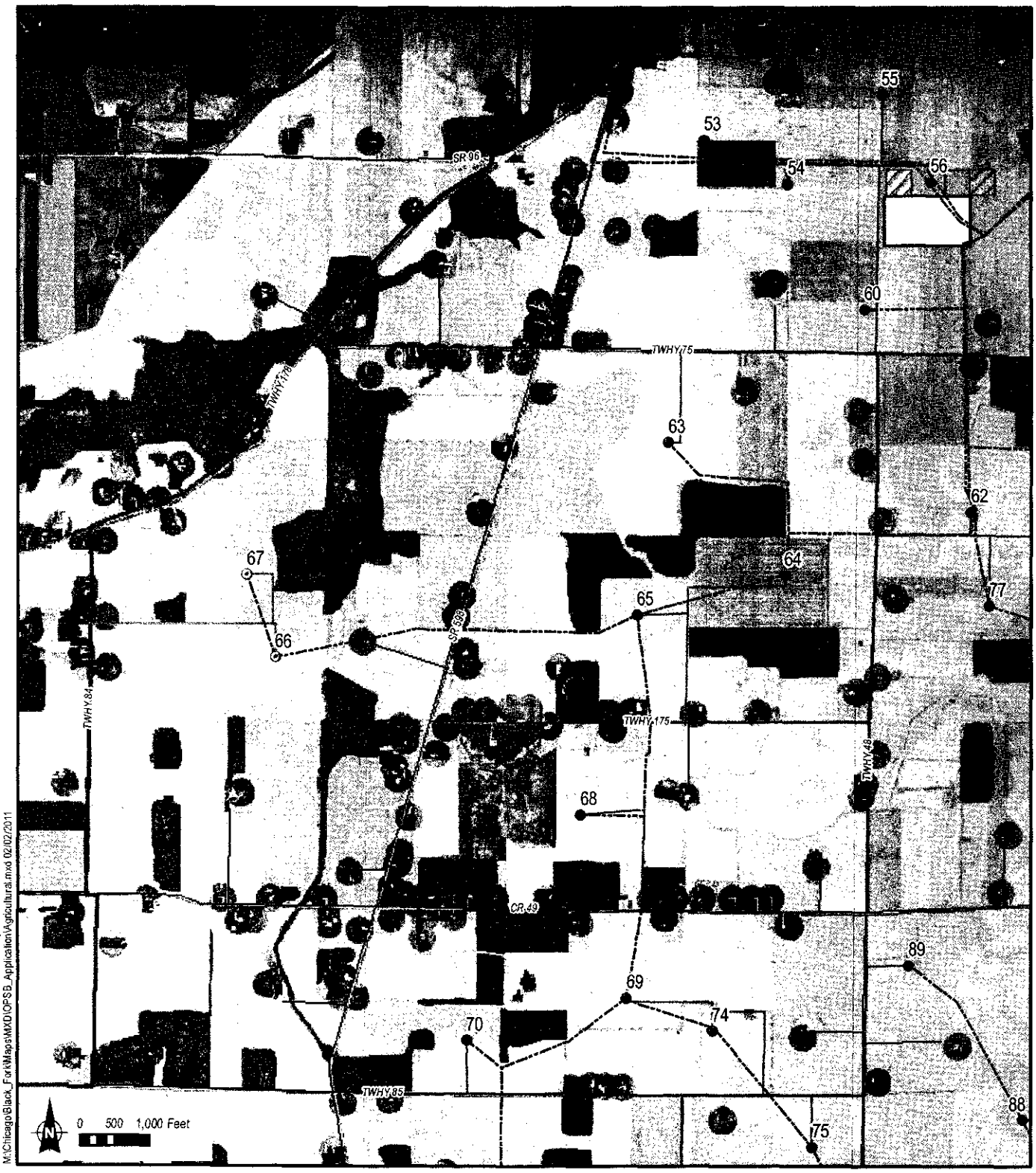


Turbines (01-14-11)
Vestas V100
V100 w/ 80 m Hub (130m tip height)
V100 w/ 95 m Hub (145m tip height)
Access Roads (01-14-11)
Collection Line (01-14-11)
Substation (01-13-11)
Switchyard (01-13-11)
O&M Building (01-13-11)
Laydown Yard & Batch Plant (01-13-11)
Project Area (01-03-11)
Agriculture District Parcel
Active Agricultural Land
Road

Figure 8-8
Black Fork Wind Energy, LLC
Agricultural Lands
Crawford and Richland Counties, Ohio
Map 6 of 10

Source: ESRI 2010; OH DNR 2009; OSIP 2009; E & E 2011; EP 2011.

Fork Wind Energy, LLC - Agricultural Lands



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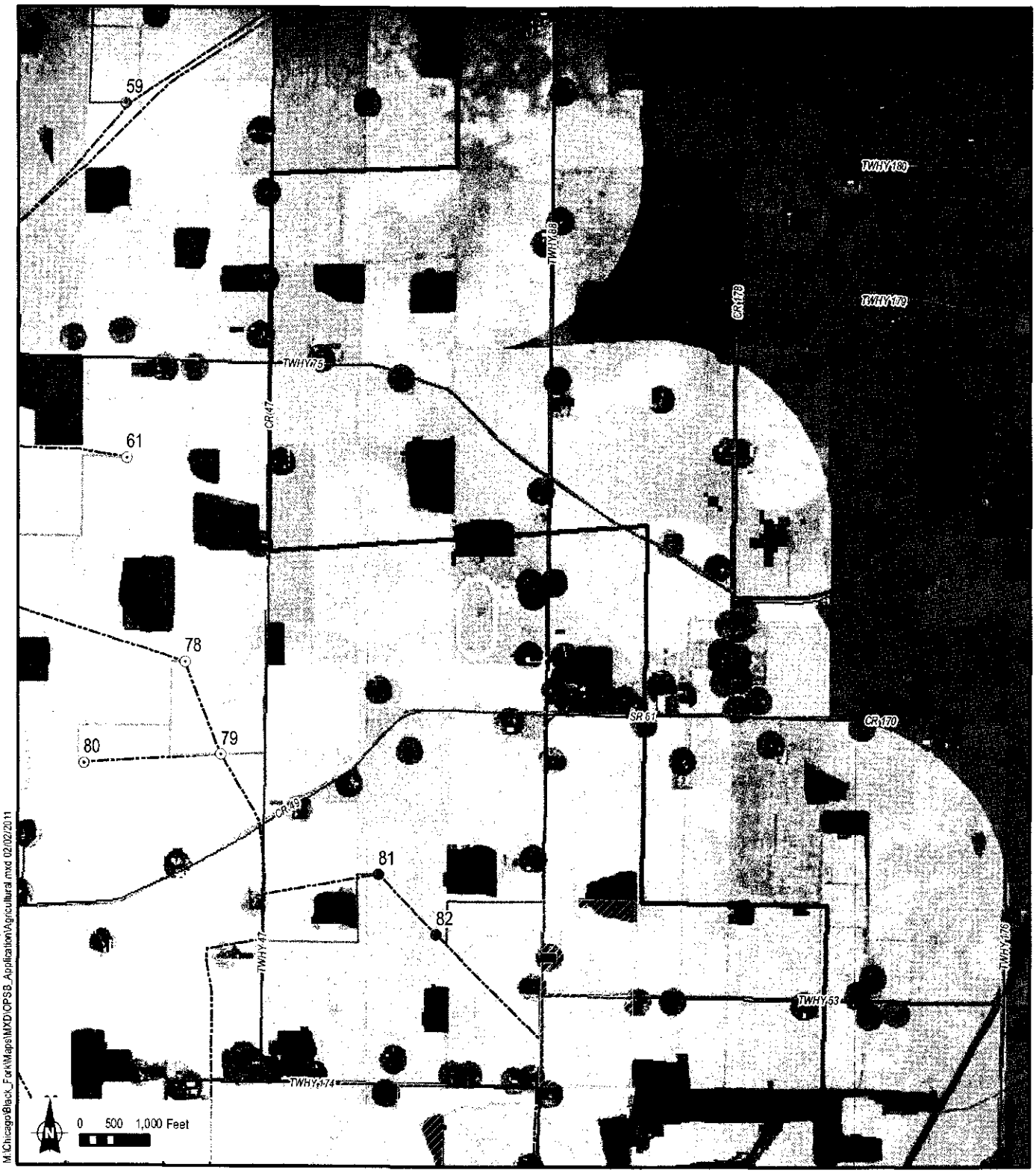
Turbines (01-14-11)
Vestas V100
V100 w/ 80 m Hub (130m tip height)
V100 w/ 95 m Hub (145m tip height)
Access Roads (01-14-11)
Collection Line (01-14-11)
Substation (01-13-11)
Switchyard (01-13-11)
O&M Building (01-13-11)
Laydown Yard & Batch Plant (01-13-11)
Project Area (01-03-11)
Agriculture District Parcel
Active Agricultural Land
Road

Figure 8-8
Black Fork Wind Energy, LLC
Agricultural Lands
Crawford and Richland Counties, Ohio
Map 7 of 10

Source: ESRI 2010; OH DNR 2009; OSIP 2009; E & E 2011; EP 2011.

Black Fork Wind Energy, LLC - Agricultural Lands



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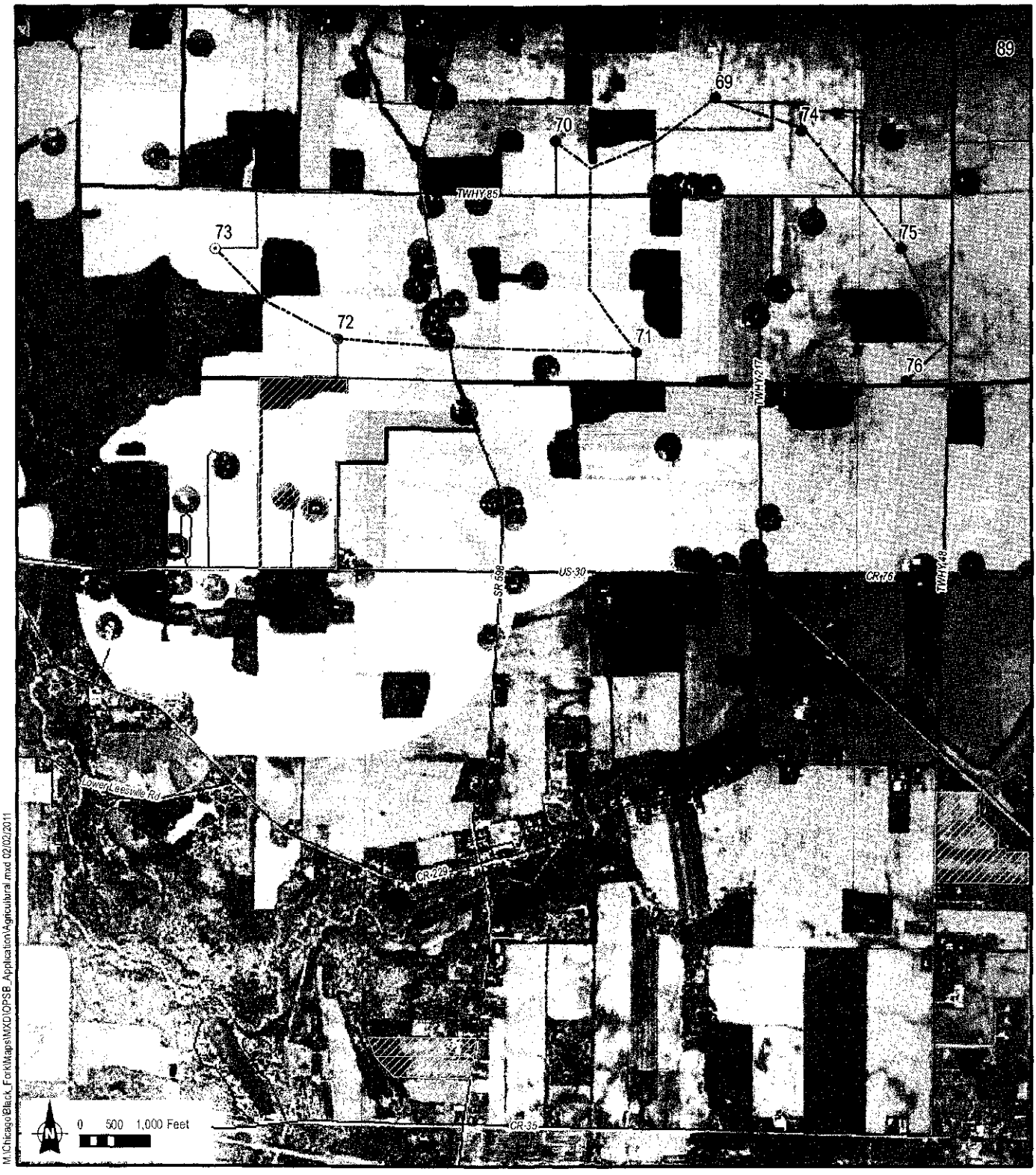
Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)

Access Roads (01-14-11)
Collection Line (01-14-11)
Substation (01-13-11)
Switchyard (01-13-11)
O&M Building (01-13-11)
Laydown Yard & Batch Plant (01-13-11)
Project Area (01-03-11)
Agriculture District Parcel
Active Agricultural Land
Road

Figure 8-8
Black Fork Wind Energy, LLC
Agricultural Lands
Crawford and Richland Counties, Ohio
Map 8 of 10

Source: ESRI 2010; OH DNR 2009; OSIP 2009; E & E 2011; EP 2011.

Black Fork Wind Energy, LLC - Agricultural Lands



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Turbines (01-14-11)
Vestas V100
- V100 w/ 80 m Hub (130m tip height)
- V100 w/ 95 m Hub (145m tip height)

Access Roads (01-14-11)
Collection Line (01-14-11)
Substation (01-13-11)
Switchyard (01-13-11)
O&M Building (01-13-11)
Laydown Yard & Batch Plant (01-13-11)
Project Area (01-03-11)
Agriculture District Parcel
Active Agricultural Land
Road

Figure 8-8
Black Fork Wind Energy, LLC
Agricultural Lands
Crawford and Richland Counties, Ohio
Map 9 of 10

Source: ESRI 2010; OH DNR 2009; OSIP 2009; E & E 2011; EP 2011.

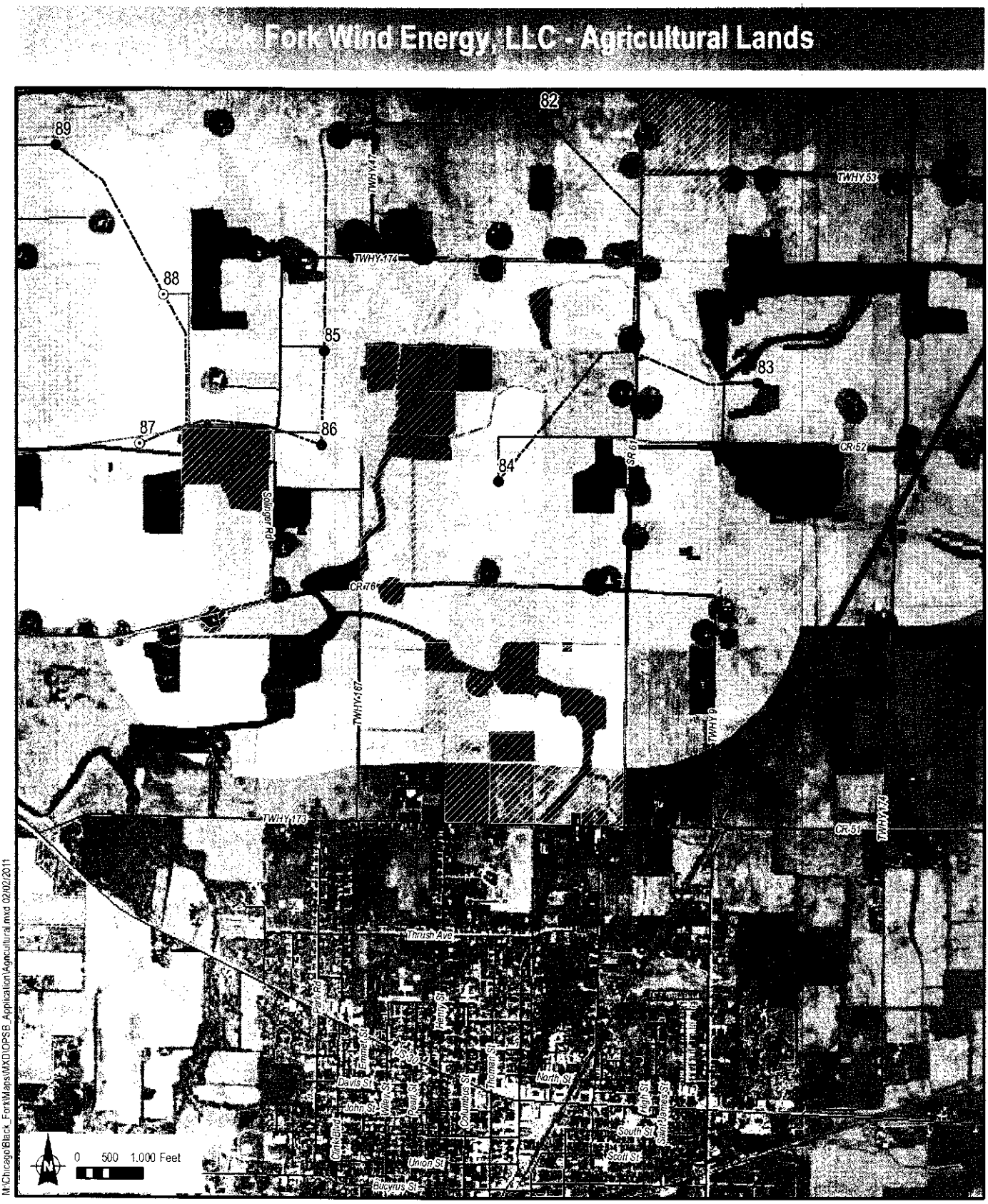

Figure 8-8
Black Fork Wind Energy, LLC
Agricultural Lands
Crawford and Richland Counties, Ohio
Map 10 of 10

Source: ESRI 2010; OH DNR 2009; OSIP 2009; E & E 2011; EP 2011.