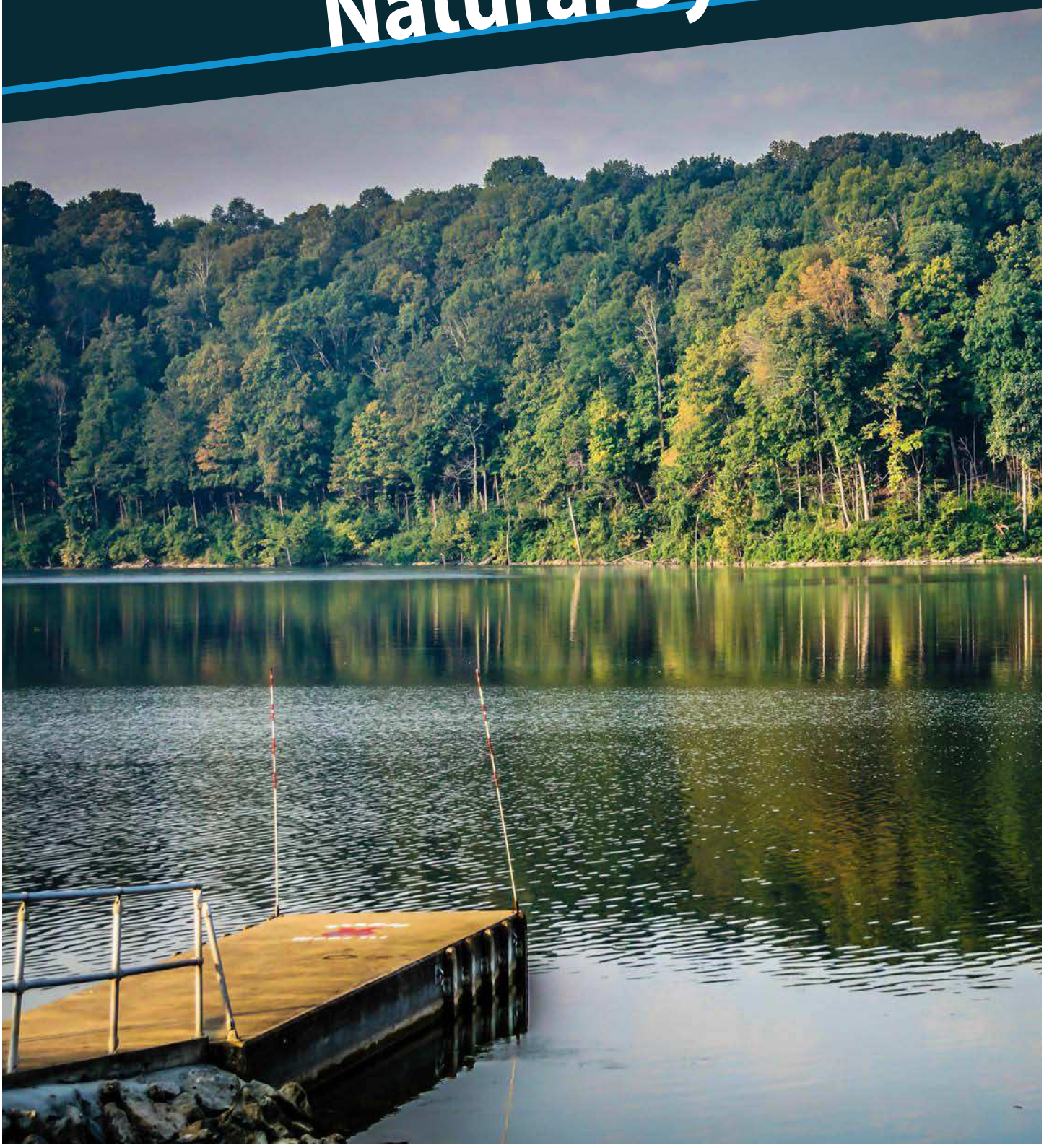
CLERMONT COUNTY OHIO

Natural Systems



Introduction & Purpose

Clermont County desires to protect, preserve and conserve its natural resources. The Clermont Soil and Water Conservation District (SWCD) is the main entity that works with landowners to help address soil and water conservation issues.

This chapter will focus on several important elements to maintain and preserve Clermont County's natural systems.

Chapter Elements:

- Soils
- Erosion Prone Areas / Landslides
- Water Sources
- Storm Water / Watersheds
- Floodplains
- Wetlands
- Conservation Projects
- Land Conservation
- Wildlife and Forestry Conservation

The Clermont SWCD, like many other SWCDs, has become a multi-faceted agency that works with rural, suburban and urban landowners alike. The SWCD is also focused on working with the Natural Resources Conservation Service and farmers to control erosion, promote water quality, and enhance wildlife habitat on agricultural working lands.

The district also provides technical assistance, grants and cost share funding, educational programming and other resources to landowners to help them address a diverse range of local conservation issues.

Other agencies/organizations that provide education, technical services and/or facilitate conservation projects:

• Clermont Office of Environmental Quality: Water quality monitoring program
• Clermont/Adams Solid Waste Management District
• Clermont County Park District: Facilitate/Manage land preservation, natural resources conservation projects
• Natural Resources Conservation Services (Federal, USDA program): Provide financial and technical assistance to farmers for natural resource protection
• OSU Extension: provides educational programs on a range of topics/issues, including agriculture, horticulture, etc.

Excerpts/picture taken from Clermont Soil and Water Conservation District.
More Information: http://www.clermontswcd.org/

Clermont County Soils

Soil maps provide critical resource information to Clermont County because soil is not just important to agriculture. Soils are also important to woodland management, development of recreational areas, building and construction materials, sanitation facilities, wildlife habitat, and water management.

Clermont soils are considered hydric, meaning they have similar characteristics to wetlands. Found on nearly level terrain, they generally are poorly drained, have very slow permeability and runoff rates, and experience surface ponding and seasonal wetness. The constant wetness of the soil can become a severe limitation for farming practices and land development. Clermont soils also limit the effective placement of on-site septic systems, as the constant soils moisture prevents the effluent from infiltrating. Hydaulic soils such as Avonburg and Rossmoyne soils create challenges for agriculture, development and drainage in general.

Avonburg soils consist mostly of clay material, and therefore have a very slow permeability and are poorly drained. These soils are found on nearly level terrain causing runoff to be somewhat slow. Seasonal wetness can also become a limitation for agriculture and the placement of on-site septic systems.

The Rossmoyne soils are generally found on sloped upland ridge tops. Because of the slope, these soils are moderately well drained, however the soil itself has a moderately slow permeability. Some soils types within this series can be found on relatively steep slopes, causing increased erosion rates. Similar to the Clermont and Avonburg soils, the Rossmoyne soils have a seasonal high water table, which often prevents water from infiltrating following seasonal rains."

Soil Classes/Series

Soils are classified into orders, suborders, great groups, subgroups, families, and series. Series are the lowest and most specific category of the classification system. Soil composition patterns in the county are related to the geology, landforms, relief, climate, and natural vegetation of the area.

The series is determined by the characteristics of the soil profile including physical, chemical, and biological properties of the soil profile. Each soil series is assigned a name, which is usually derived from a town, river, or other landmark near where the soil was first identified. There are over 400 different soil series in the state of Ohio.

Soil Survey / Soil Survey Manuscript

A printed copy of the original Clermont County Soil Survey originally published in September 1975, is still currently available for viewing at the SWCD office.

The Soil Survey online provides the most accurate and updated information regarding soils. The soil survey manuscript online contains information on Clermont County, the procedure for creating the Clermont County Soil Survey, descriptions of general and detailed soil map units, table descriptions, factors and processes of soil formation, soil morphology, etc.

Web Soil Survey available at:
http://www.clermontswcd.org/SoilSurvey.aspx

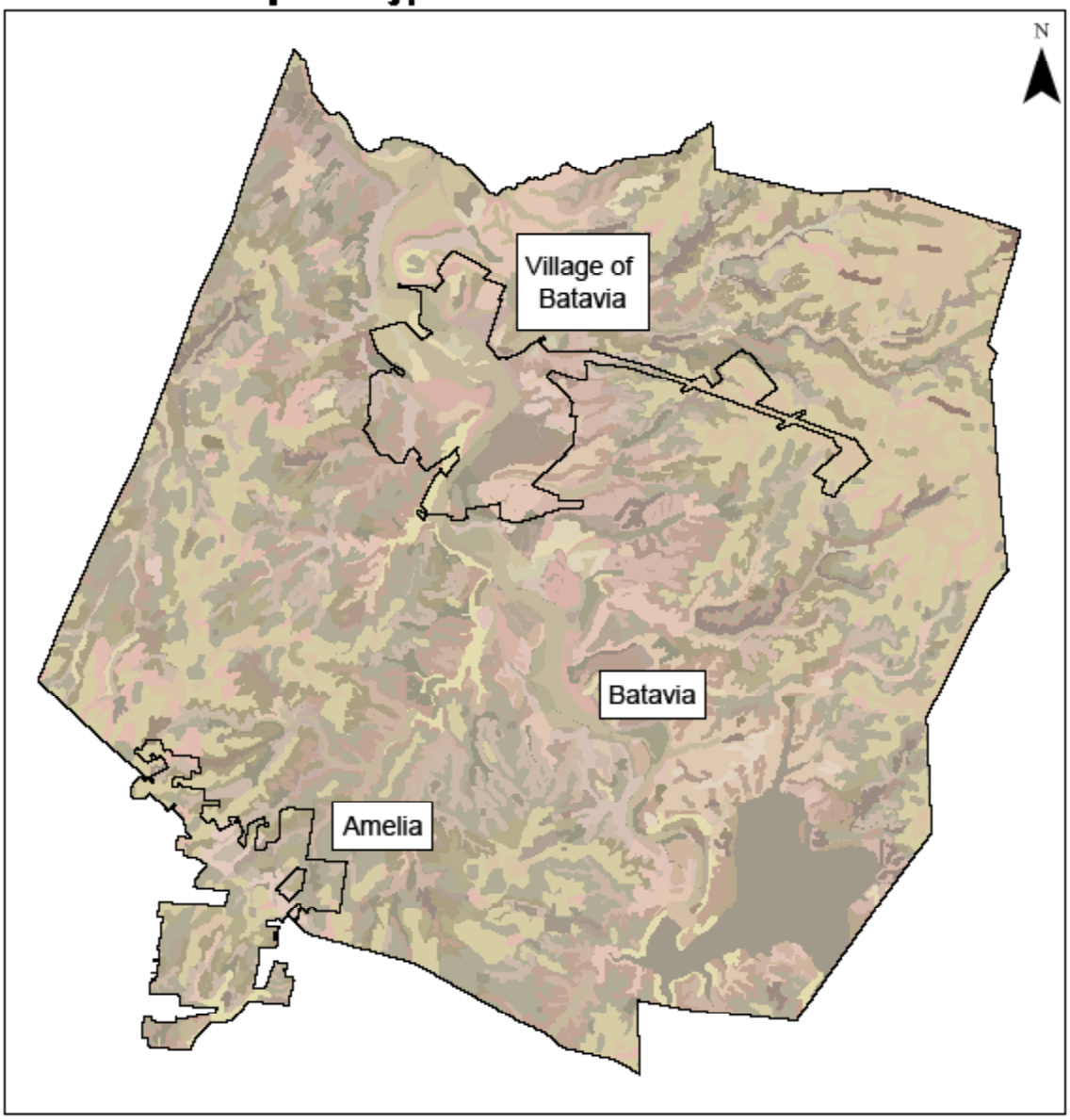
The following maps show what soil types are located within each township in Clermont County based on the county's soil survey.

- Excerpts/picture taken from Clermont Soil and Water Conservation District
- Butler, B. E. (1980). Soil classification for soil survey. Oxford

More Information: http://www.clermontswcd.org/

Batavia Township Soil Types

Data Provided By: Clermont County GIS



Legend

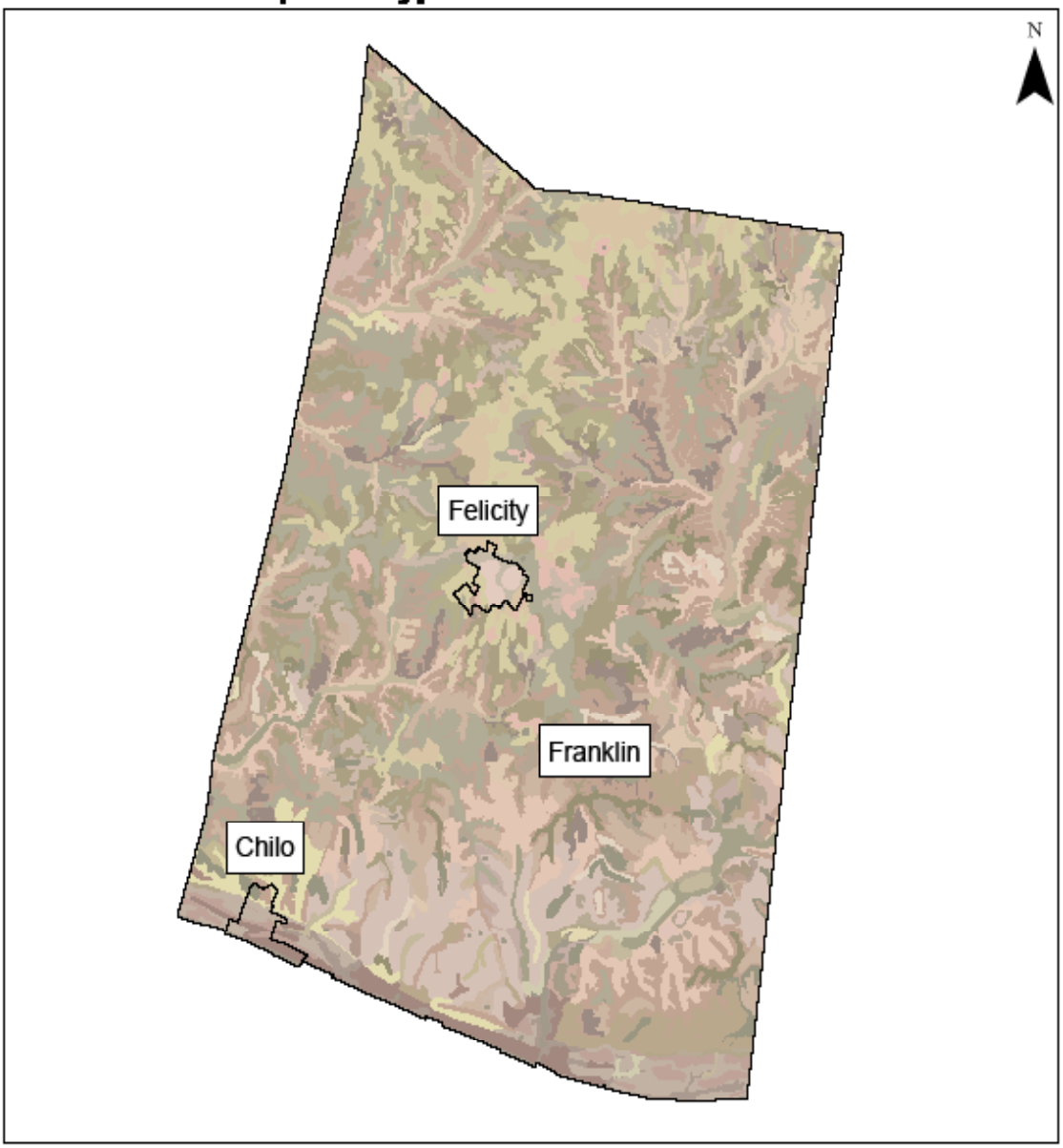
AdC	CcD2	EbE2	FuB	Hu	OcB	RpC2	St		
AwA	CtD3	EbG2	Gn	Lg	OdA	RsC3	Ud		
AxB	Ct	EcE3	GpB	Ln	Rh	RtB	W		
AxD2	Cu	EdG3	GpC2	Mb	RtD2	RtC	WwB		
AwA	EaD2	Ee	GpE2	MdB	RtE2	SaA	WwC2		
Bc	EaE2	FaE2	Gr	MgA	Rh	SaB	WwD2		
CcB	EaF2	FaG2	HdD2	Mh	RpA	SeC2			
CcB2	EbC2	FnB	HdF2	Ne	RpB	SeD2			
CcC2	EbD2	FnC2	HG3	OcA	RpB2	Sh			

1 inch = 5,755 feet

More Information:
http://www.clermontswcd.org/

Franklin Township Soil Types

Data Provided By: Clermont County GIS



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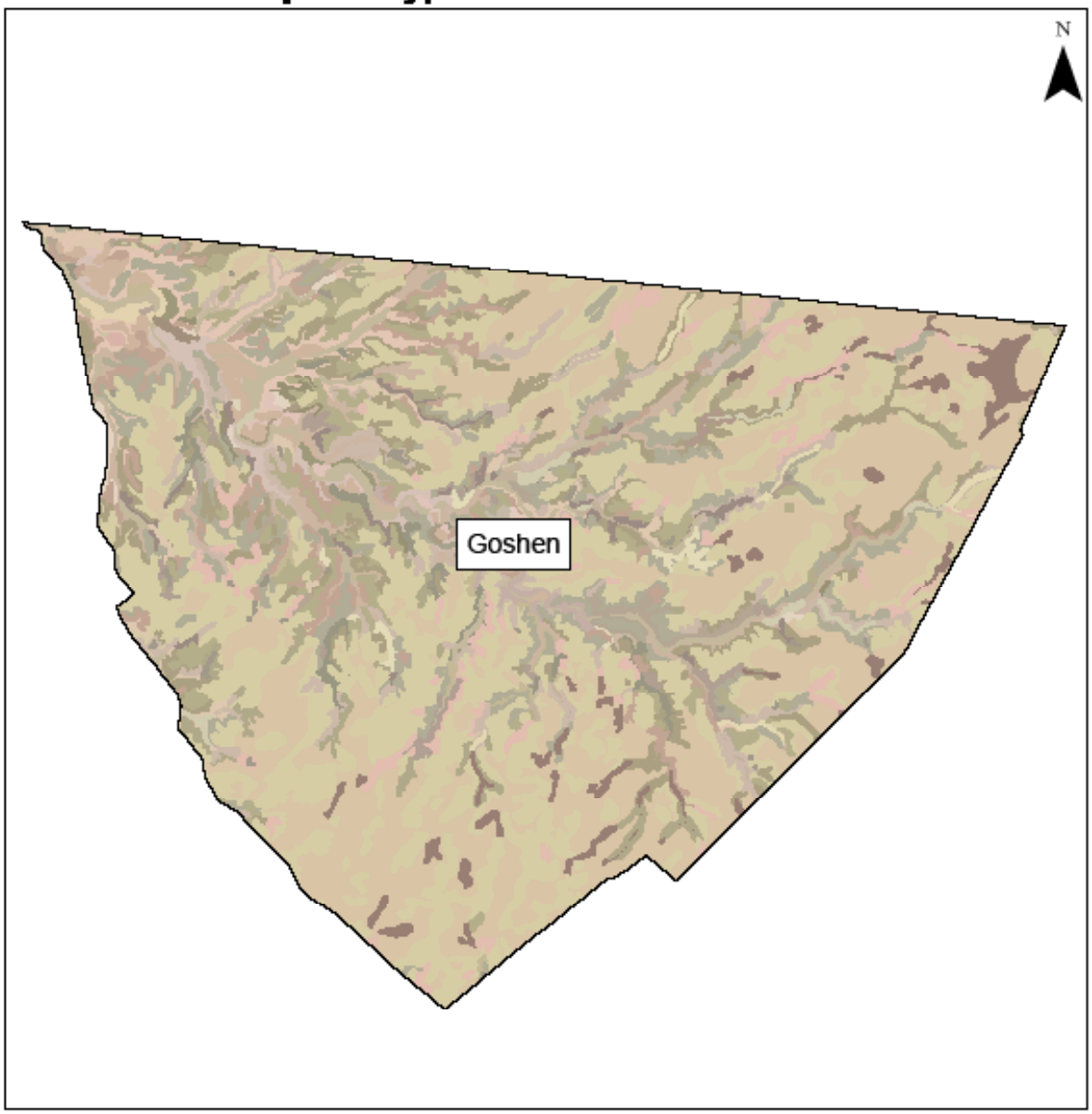
AdC	CcD2	EbE2	FuB	Hu	OcB	RpC2	St		
AsA	CkD3	EbG2	Gn	Lg	OdA	RsC3	Ud		
AsB	Ct	EdE3	GpB	Ln	Rh	RtB	W		
AsD2	Cu	EdG3	GpC2	Mb	RtD2	RtC	WaB		
AsA	EaD2	Ee	GpE2	MdB	RtE2	SaA	WaC2		
Bc	EaE2	FaE2	Gr	MgA	Rn	SaB	WaD2		
CcB	EaF2	FaG2	HdD2	Mh	RpA	SeC2			
CcB2	EbC2	FnB	HdF2	Ne	RpB	SeD2			
CcC2	EbD2	FnC2	HG3	OcA	RpB2	Sh			

1 inch = 0.744 feet

More Information:
http://www.clermontswcd.org/

Goshen Township Soil Types

Data Provided By: Clermont County GIS



Legend

AdC	CcD2	EbE2	FuB	Hu	OeB	RpC2	St		
AwA	CkD3	EbG2	Gn	Lg	OdA	RsC3	Ud		
AwB	Ct	EsE3	GpB	Ln	Rh	RtB	W		
AwB2	Cu	EsG3	GpC2	Mb	RtD2	RtC	WwB		
AwA	EaD2	Ee	GpE2	MdB	RtE2	SaA	WwC2		
Be	EaE2	FaE2	Gr	MgA	Rh	SaB	WwD2		
CcB	EaF2	FaG2	HtD2	Mh	RpA	SeC2			
CcB2	EbC2	FnB	HtF2	Ne	RpB	SeD2			
CcC2	EbD2	FnC2	HtG3	OcA	RpB2	Sh			

1 inch = 6,071 feet

Jackson Township Soil Types

Data Provided By: Clermont County GIS

Legend

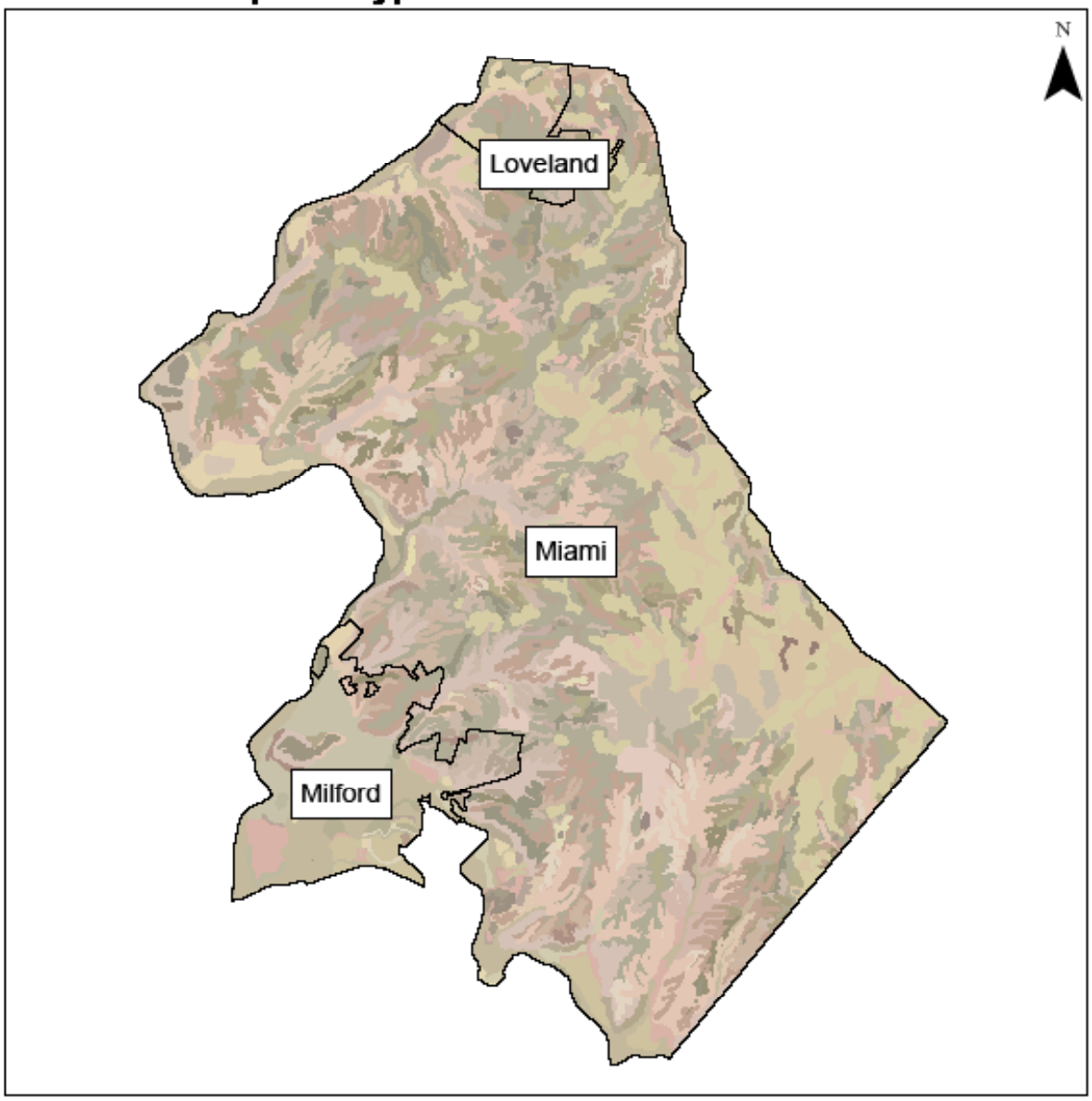
AdC	CcD2	EbE2	FuB	Hu	OcB	RpC2	St		
AwA	CkD3	EbG2	Gn	Lg	OdA	RsC3	Ud		
AwB	Ct	EcE3	GpB	Ln	Rh	RtB	W		
AwB2	Cu	EcG3	GpC2	Mb	RtD2	RtC	WwB		
AwA	EaD2	Ee	GpE2	MdB	RtE2	SaA	WwC2		
Bc	EaE2	FaE2	Gr	MgA	Rh	SaB	WwD2		
CcB	EaF2	FaG2	HtD2	Mh	RpA	SeC2			
CcB2	EbC2	FnB	HtF2	Ne	RpB	SeD2			
CcC2	EbD2	FnC2	HtG3	OcA	RpB2	Sh			

1 inch = 5,301 feet

More Information:
http://www.clermontswcd.org/

Miami Township Soil Types

Data Provided By: Clermont County GIS



Legend

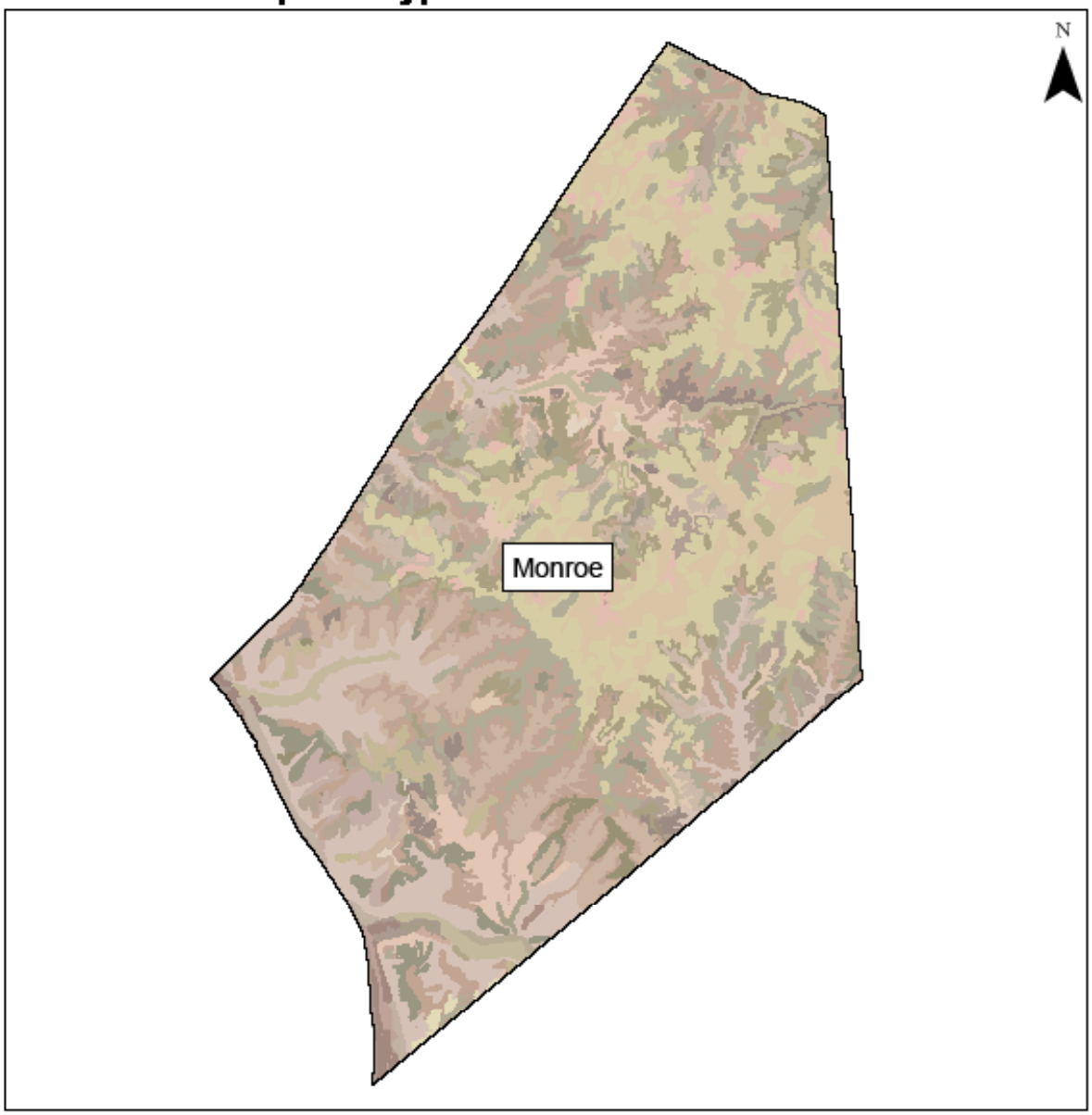
AdC	CeD2	EbE2	FuB	Hu	OcB	RpC2	St		
AwA	CkD3	EbG2	Gn	Lg	OdA	RsC3	Ud		
AwB	Ct	EcE3	GpB	Ln	Rh	RtB	W		
AwB2	Cu	EdG3	GpC2	Mb	RtD2	RtC	WvB		
AwA	EaD2	Ee	GpE2	MdB	RtE2	SaA	WvC2		
Bc	EaE2	FaE2	Gr	MgA	Rh	SaB	WvD2		
CcB	EaF2	FaG2	HtD2	Mh	RpA	SeC2			
CcB2	EbC2	FnB	HtF2	Ne	RpB	SeD2			
CcC2	EbD2	FnC2	HtG3	OcA	RpB2	Sh			

1 inch = 6,853 feet

More Information:
http://www.clermontswcd.org/

Monroe Township Soil Types

Data Provided By: Clermont County GIS



Legend

AdC	CcD2	EbE2	FuB	Hu	OcB	RpC2	St		
AsA	CkD3	EbG2	Gn	Lg	OdA	RsC3	Ud		
AsB	Ct	EcE3	GpB	Ln	Rh	RtB	W		
AsB2	Cu	EdG3	GpC2	Mb	RtD2	RtC	WnB		
AsA	EaD2	Ee	GpE2	MdB	RtE2	SaA	WnC2		
Bc	EaE2	FaE2	Gr	MgA	Rh	SaB	WnD2		
CcB	EaF2	FaG2	HaD2	Mh	RpA	SeC2			
CcB2	EbC2	FnB	HaF2	Ne	RpB	SeD2			
CcC2	EbD2	FnC2	HG3	OcA	RpB2	Sh			

1 inch = 6,823 feet

More Information:
http://www.clermontswcd.org/

Ohio Township Soil Types

Data Provided By: Clermont County GIS

Legend

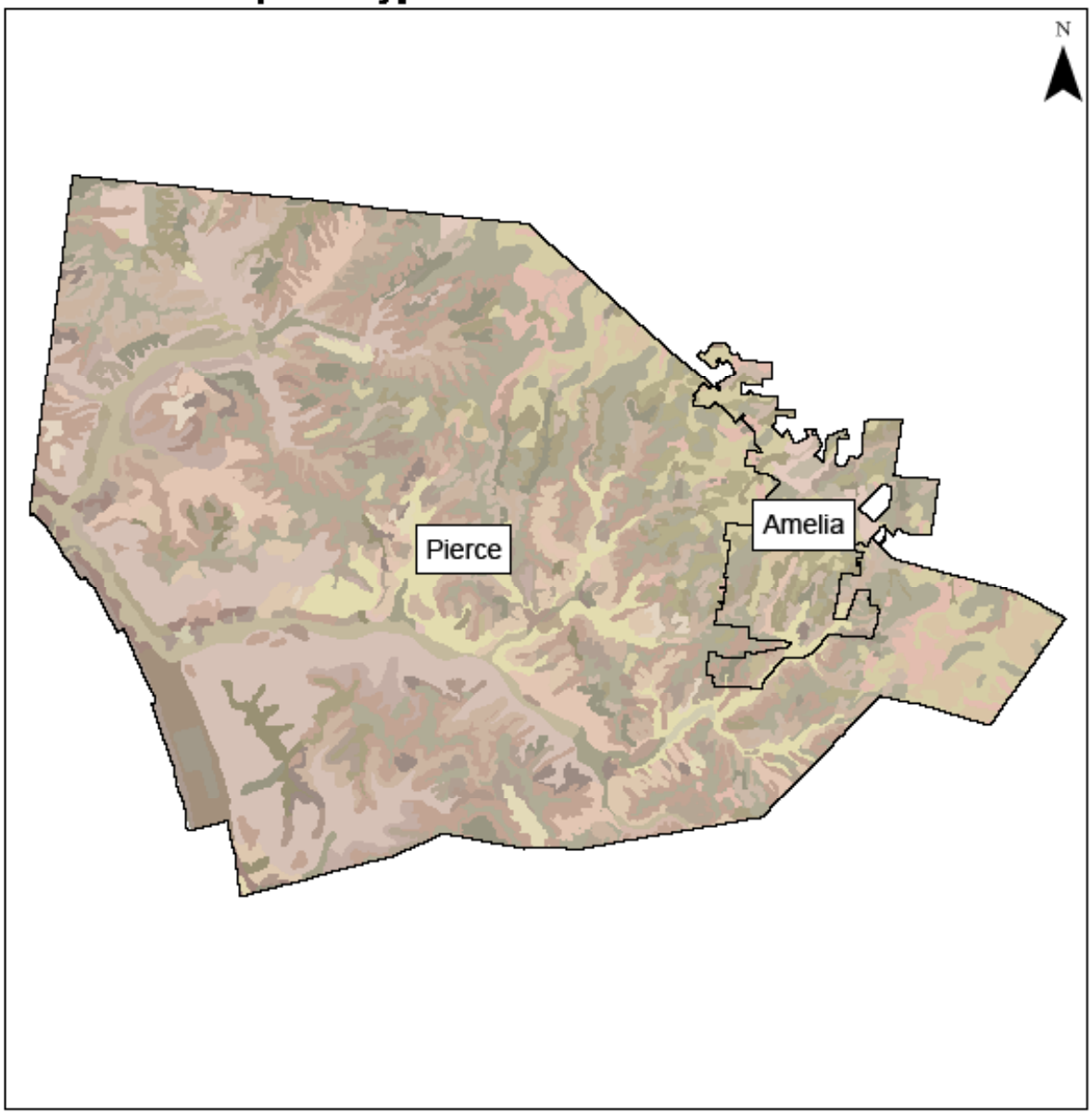
AdC	CcD2	EbE2	FuB	Hu	OeB	RpC2	St		
AwA	CkD3	EbG2	Gn	Lg	OdA	RsC3	Ud		
AwB	Ct	EsE3	GpB	Ln	Rh	RtB	W		
AwE2	Cu	EsG3	GpC2	Mb	RtD2	RtC	WwB		
AwA	EaD2	Ee	GpE2	MdB	RtE2	SaA	WwC2		
Bc	EaE2	FaE2	Gr	MgA	Rh	SaB	WwD2		
CcB	EaF2	FaG2	HaD2	Mh	RpA	SeC2			
CcB2	EbC2	FnB	HaF2	Ne	RpB	SeD2			
CcC2	EbD2	FnC2	HtG3	OcA	RpB2	Sh			

1 inch = 4,156 feet

More Information:
http://www.clermontswcd.org/

Pierce Township Soil Types

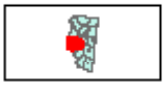
Data Provided By: Clermont County GIS



Legend

AdC	CcD2	EbE2	FuB	Hu	OcB	RpC2	St		
AsA	CkD3	EbG2	Gn	Lg	OdA	RsC3	Ud		
AsB	Ct	EcE3	GpB	Ln	Rh	RtB	W		
AsB2	Cu	EdG3	GpC2	Mb	RtD2	RtC	WsB		
AsA	EaD2	Ee	GpE2	MdB	RtE2	SaA	WvC2		
Bc	EaE2	FaE2	Gr	MgA	Rh	SaB	WvD2		
CcB	EaF2	FaG2	HdD2	Mh	RpA	SeC2			
CcB2	EbC2	FnB	HnF2	Ne	RpB	SeD2			
CcC2	EbD2	FnC2	HtG3	OcA	RpB2	Sh			

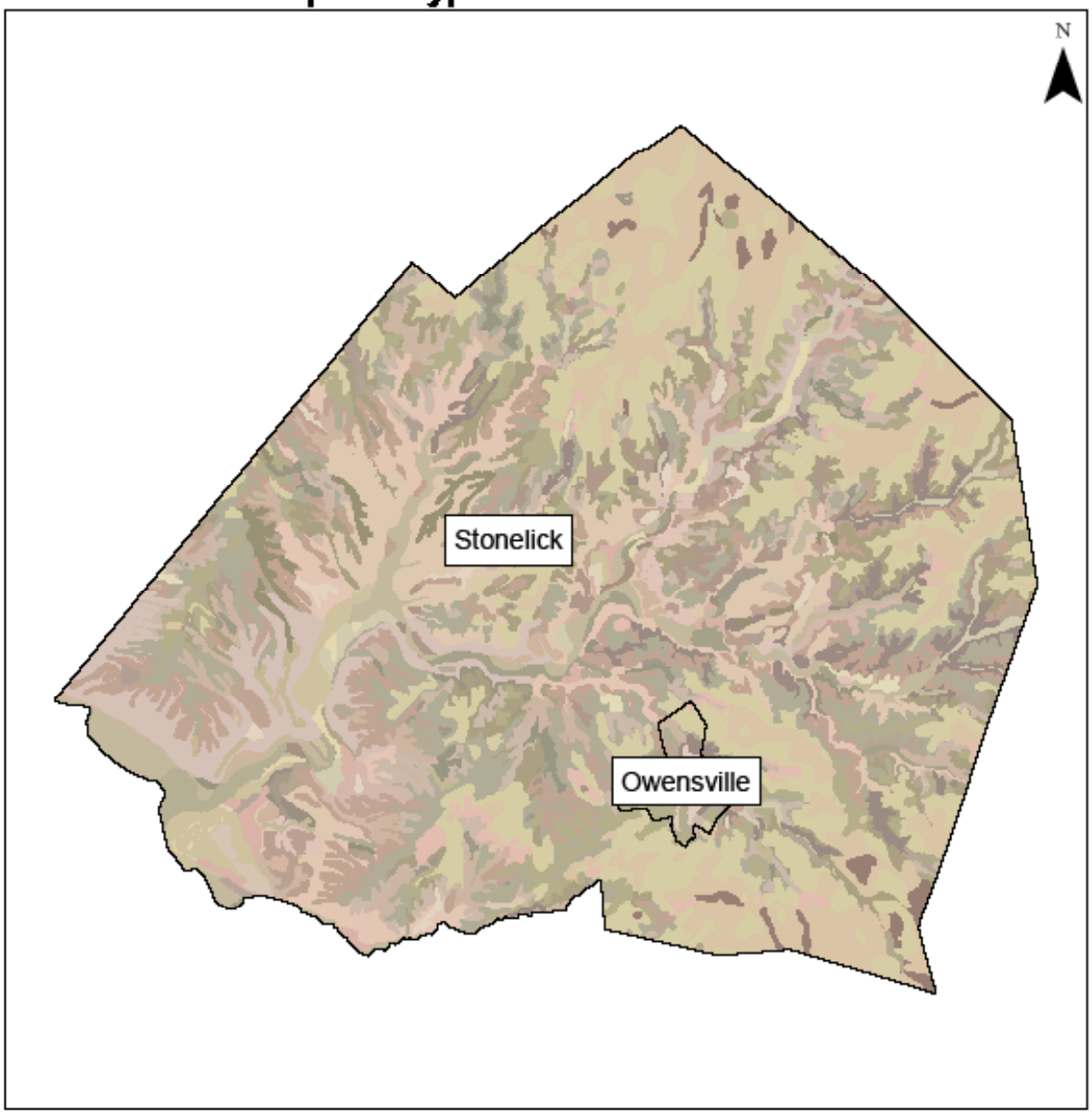
1 inch = 5,161 feet



More Information:
http://www.clermontswcd.org/

Stonelick Township Soil Types

Data Provided By: Clermont County GIS



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AdC	CcD2	EbE2	FuB	Hu	OeB	RpC2	St		
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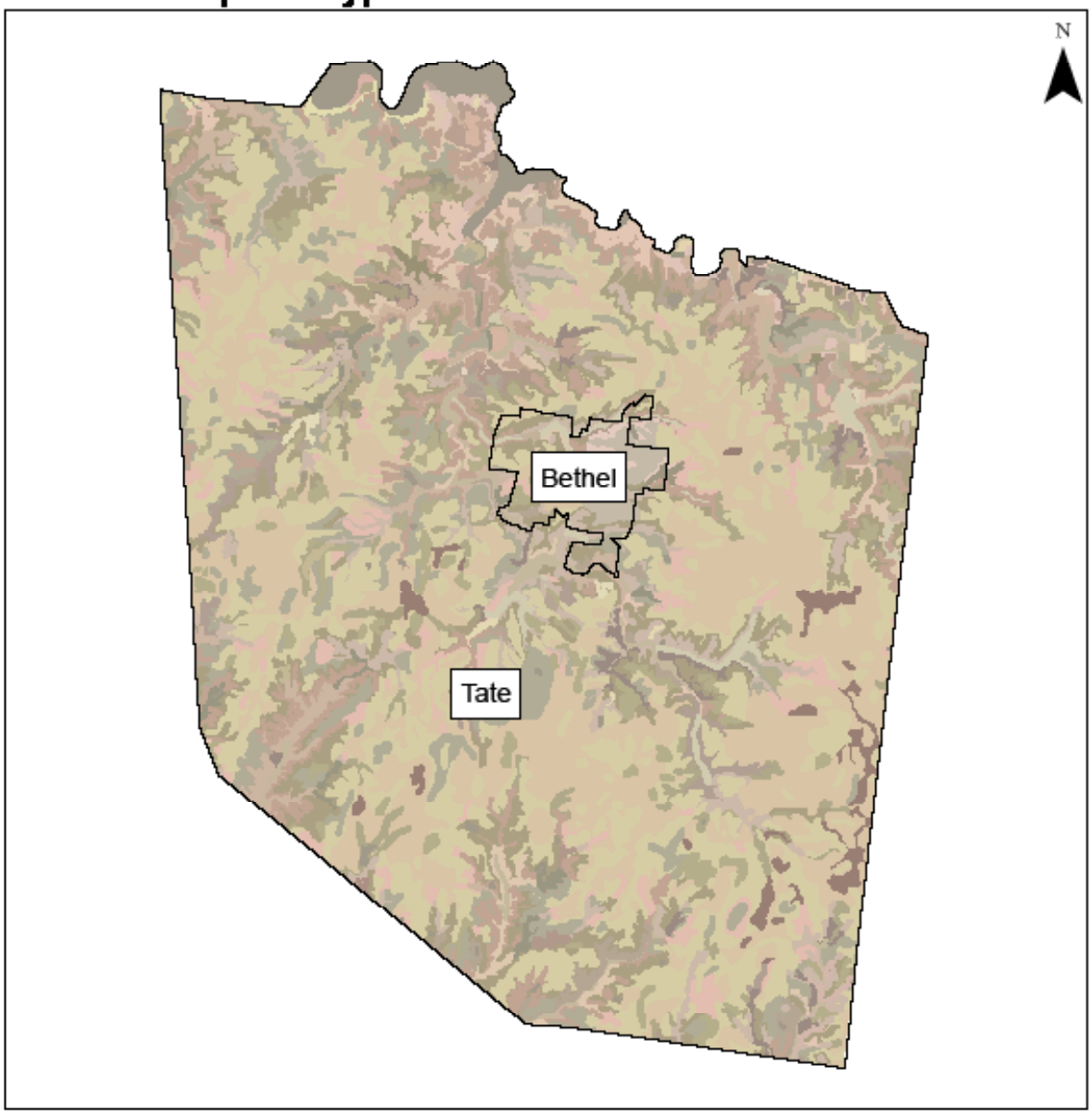
AsB	Ct	EsE3	GpB	Ln	Rh	RtB	W		
AsB2	Cu	EsG3	GpC2	Mb	RtD2	RtC	WaB		
AsA	EaD2	Ee	GpE2	MdB	RtE2	SaA	WvC2		
Bc	EaE2	FaE2	Gr	MgA	Rh	SaB	WvD2		
CcB	EaF2	FaG2	HaD2	Mh	RpA	SeC2			
CcB2	EbC2	FnB	HaF2	Ne	RpB	SeD2			
CcC2	EbD2	FnC2	HtG3	OcA	RpB2	Sh			

1 inch = 5,410 feet

More Information:
http://www.clermontswcd.org/

Tate Township Soil Types

Data Provided By: Clermont County GIS



Legend

AdC	CcD2	EbE2	FuB	Hu	OcB	RpC2	St		
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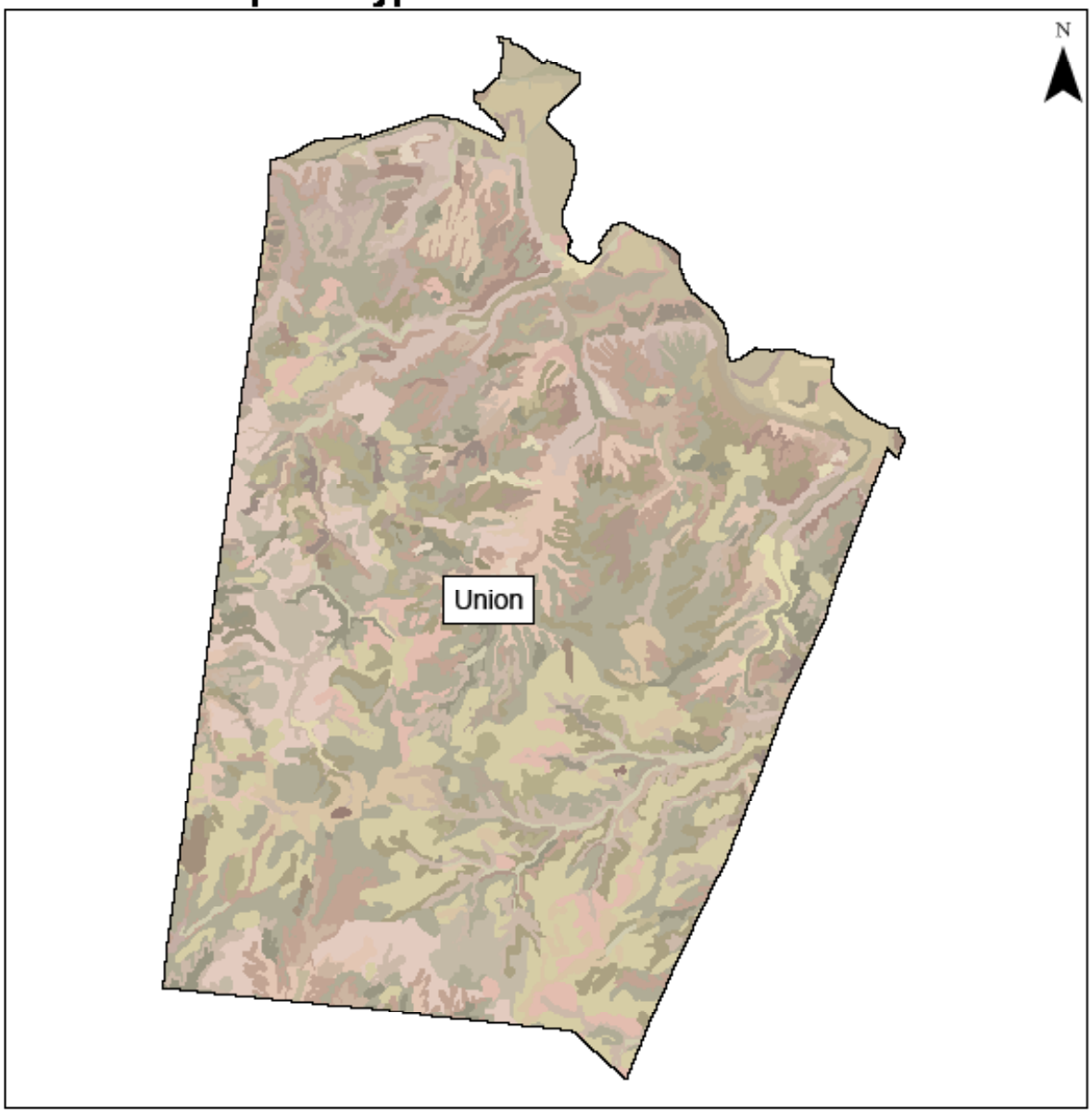
AsB	Ct	EsE3	GpB	Ln	Rh	RtB	W		
AsE2	Cu	EsG3	GpC2	Mb	RtD2	RtC	WsB		
AsA	EaD2	Ee	GpE2	MdB	RtE2	SaA	WvC2		
Bc	EaE2	FaE2	Gr	MgA	Rn	SaB	WvD2		
CcB	EaF2	FaG2	HaD2	Mh	RpA	SeC2			
CcB2	EbC2	FnB	HaF2	Ne	RpB	SeD2			
CcC2	EbD2	FnC2	HG3	OcA	RpB2	Sh			

1 inch = 6,888 feet

More Information:
http://www.clermontswcd.org/

Union Township Soil Types

Data Provided By: Clermont County GIS



Legend

AdC	CcD2	EbE2	FuB	Hu	OeB	RpC2	St		
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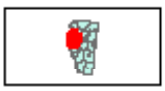
AsB	Ct	EsE3	GpB	Ln	Rh	RtB	W		
AsB2	Cu	EsG3	GpC2	Mb	RtD2	RtC	WaB		
AsA	EaD2	Ee	GpE2	MdB	RtE2	SaA	WvC2		
Bc	EaE2	FaE2	Gr	MgA	Rn	SaB	WvD2		
CcB	EaF2	FaG2	HaD2	Mh	RpA	SeC2			
CcB2	EbC2	FnB	HaF2	Ne	RpB	SeD2			
CcC2	EbD2	FnG2	HtG3	OcA	RpB2	Sh			

1 inch = 5,745 feet



More Information:
http://www.clermontswcd.org/

Washington Township Soil Types

Data Provided By: Clermont County GIS

Legend

AdC	CeD2	EbE2	FuB	Hu	OcB	RpC2	St		
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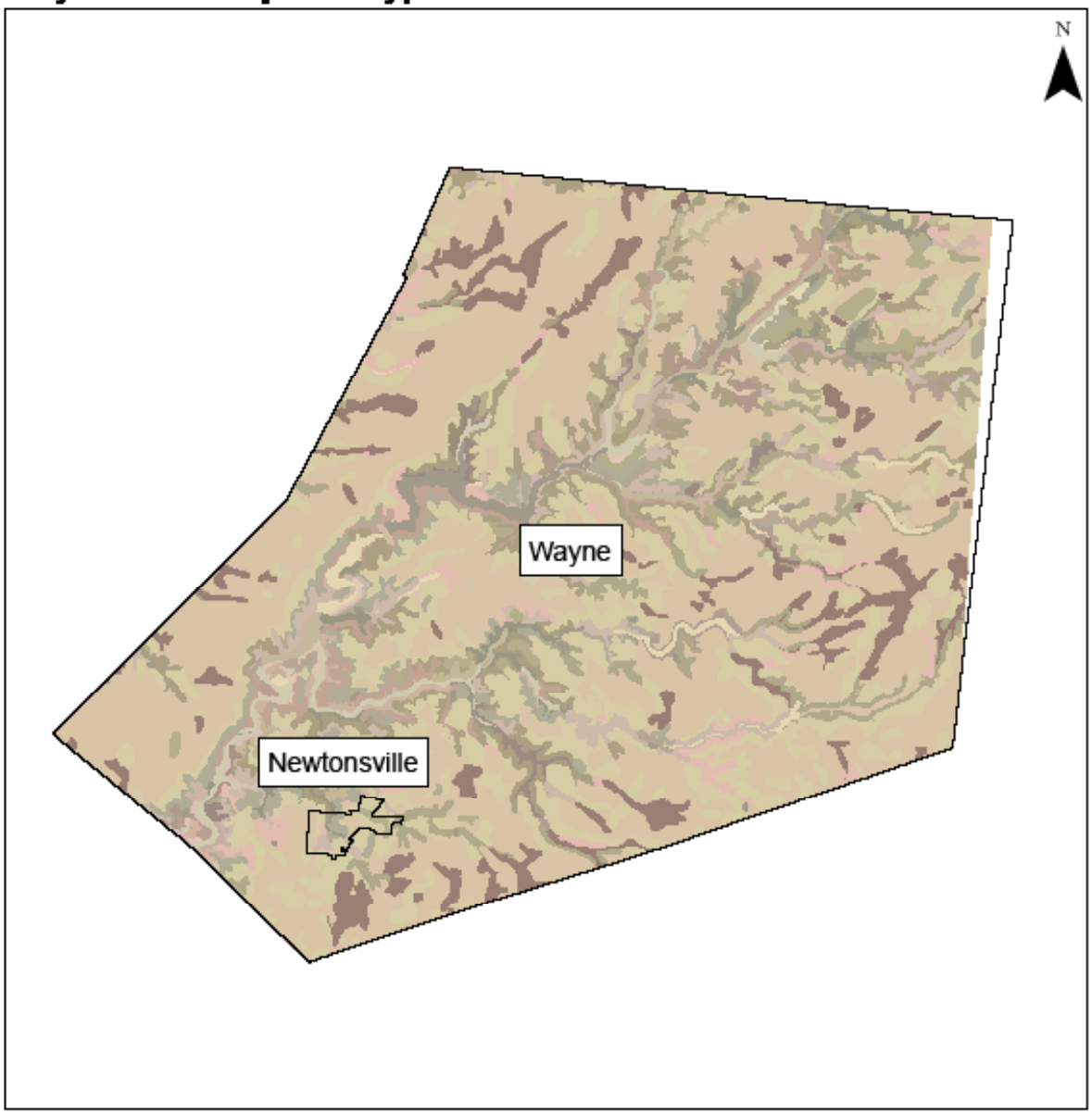
AsB	Ct	EcE3	GpB	Ln	Rh	RtB	W		
AsE2	Cu	EdG3	GpC2	Mb	RtD2	RtC	WnB		
AsA	EaD2	Ee	GpE2	MdB	RtE2	SaA	WnC2		
Bc	EaE2	FaE2	Gr	MgA	Rn	SaB	WnD2		
CcB	EaF2	FaG2	HaD2	Mh	RpA	SeC2			
CcB2	EbC2	FnB	HaF2	Ne	RpB	SeD2			
CcC2	EbD2	FnC2	HG3	OcA	RpB2	Sh			

1 inch = 6,667 feet

More Information:
http://www.clermontswcd.org/

Wayne Township Soil Types

Data Provided By: Clermont County GIS



Legend

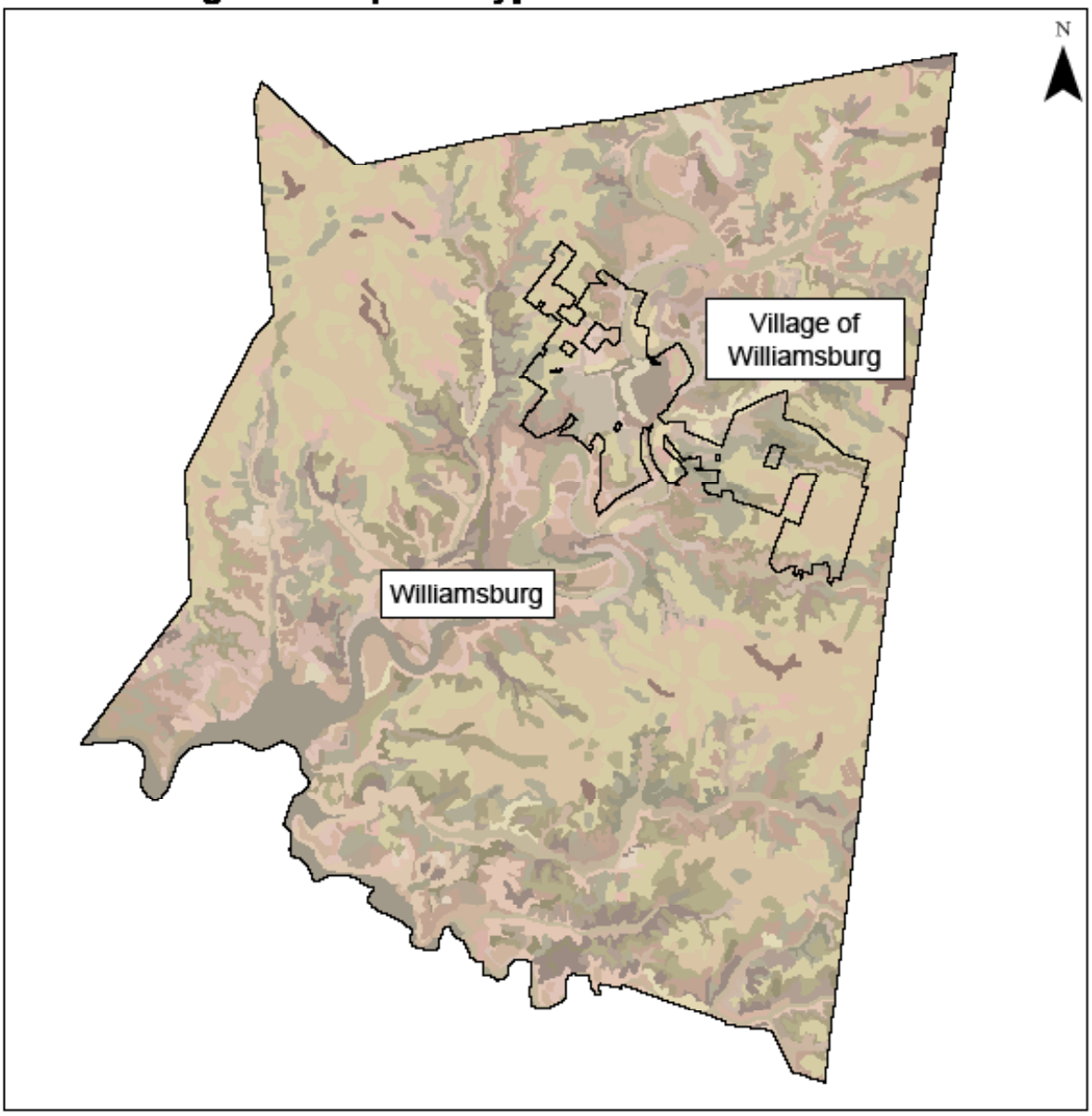
AdC	CcD2	EbE2	FuB	Hu	OeB	RpC2	St		
AwA	CkD3	EbG2	Gn	Lg	OdA	RsC3	Ud		
AwB	Ct	EsE3	GpB	Ln	Rh	RtB	W		
AwE2	Cu	EsG3	GpC2	Mb	RtD2	RtC	WwB		
AwA	EaD2	Ee	GpE2	MdB	RtE2	SaA	WwC2		
Be	EaE2	FaE2	Gr	MgA	Rh	SaB	WwD2		
CcB	EaF2	FaG2	HtD2	Mh	RpA	SeC2			
CcB2	EbC2	FnB	HtF2	Ne	RpB	SeD2			
CcC2	EbD2	FnC2	HtG3	OcA	RpB2	Sh			

1 inch = 5,848 feet

More Information:
http://www.clermontswcd.org/

Williamsburg Township Soil Types

Data Provided By: Clermont County GIS



Legend

AdC	CcD2	EbE2	FuB	Hu	OeB	RpC2	St		
AwA	ClD3	EbG2	Gn	Lg	OdA	RsC3	Ud		
AxB	Ct	EsE3	GpB	Ln	Rh	RtB	W		
AxB2	Cu	EsG3	GpC2	Mb	RtD2	RtC	WxB		
AwA	EaD2	Ee	GpE2	MdB	RtE2	SaA	WxC2		
Be	EaE2	FaE2	Gr	MgA	Rn	SaB	WxD2		
CcB	EaF2	FaG2	HdD2	Mh	RpA	SeC2			
CcB2	EbC2	FnB	HdF2	Ne	RpB	SeD2			
CcC2	EbD2	FnC2	HG3	OcA	RpB2	Sh			

1 inch = 5,384 feet

More Information:
http://www.clermontswcd.org/

Erosion Prone Areas / Landslides

Landslides and stream bank erosion both occur rather commonly in Clermont County, particularly following extended periods of wet weather. Saturated conditions, coupled with steep slopes and underlying soils and geology, are major factors in landslide development.

The Clermont Soil and Water Conservation District (SWCD) provides free site evaluations and technical assistance to help landowners and homeowners address drainage and erosion problems around the home and farm.

The district can help landowners minimize the risk of landslides or stream bank erosion. If there is an existing problem, the SWCD can help landowners evaluate the situation and recommend a course of corrective action.

Recent County Landslide Road Construction Costs

- Clermontville Laurel - $380,330
- Elklick - $196,494
- Laurel Moscow - $167,872
- Shinkles Ridge - $315,498
- Tealtown - $84,434
- Twelve Mile - $82,560
- Old State 28 - $340,418
- Locust Corner - $548,000
- Chilo Cemetery - $146,650
- Bartlow - $636,441
- Gobel Hill - $26,038
- Slaven - $1,784
- Ireton Trees - $288,571
- Big Indian - $120,881
- Bear Creek - $526,984

**These totals are based on landslides from the 2011 floods and the money that has been received from Ohio Emergency Management Agency (OEMA) and Ohio Public Works Commission (OPWC) dollars.*

Causes of Landslides

- Steep slopes
- Presence of Kope bedrock formation or till
- Source of water (natural or man-made)
- Poor soil drainage
- Poor vegetative cover
- Increased weight on slope (fill, structures, roads)
- Vibrations (machinery, traffic, blasting, thunder)
- Over steepened slopes (natural or man-made)

Warning Signs

- Slow-developing, widening cracks on the ground or paved areas
- Fences, retaining walls, utility poles or trees that tilt or move
- Bulging ground at the base of slopes
- Doors or windows that jam or stick for the first time
- New cracks that appear in plaster, tile, brick or foundations
- Outside walls, walks or stairs that pull away from the building
- The breakage of underground utility lines
- Water breaking through to the surface in a new location

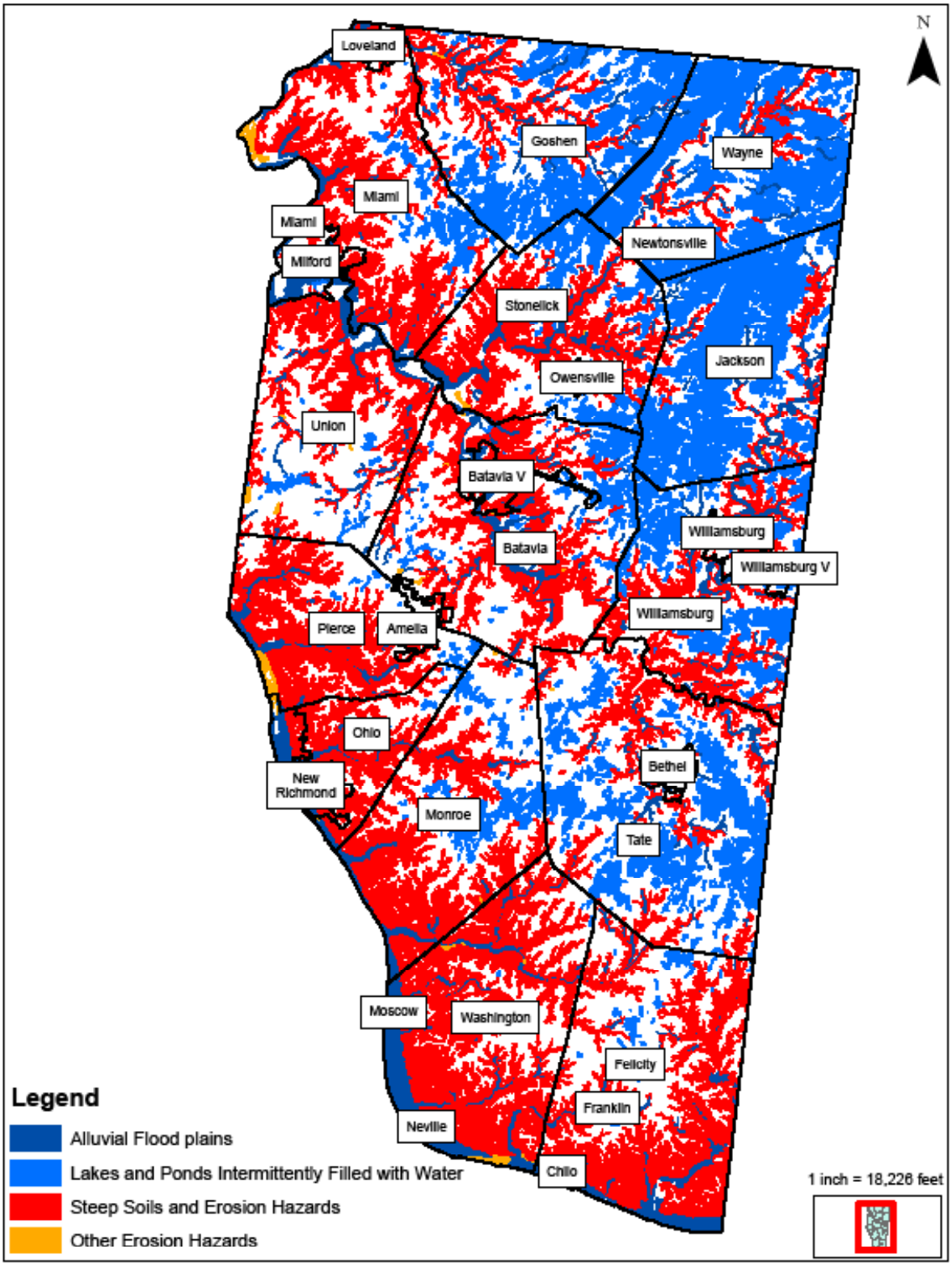
The following maps show the erosion areas throughout Clermont County and by township.

Excerpts taken from Clermont Soil and Water Conservation District.
Photo taken from Clermont County Engineer.

More Information:
http://www.clermontswcd.org/

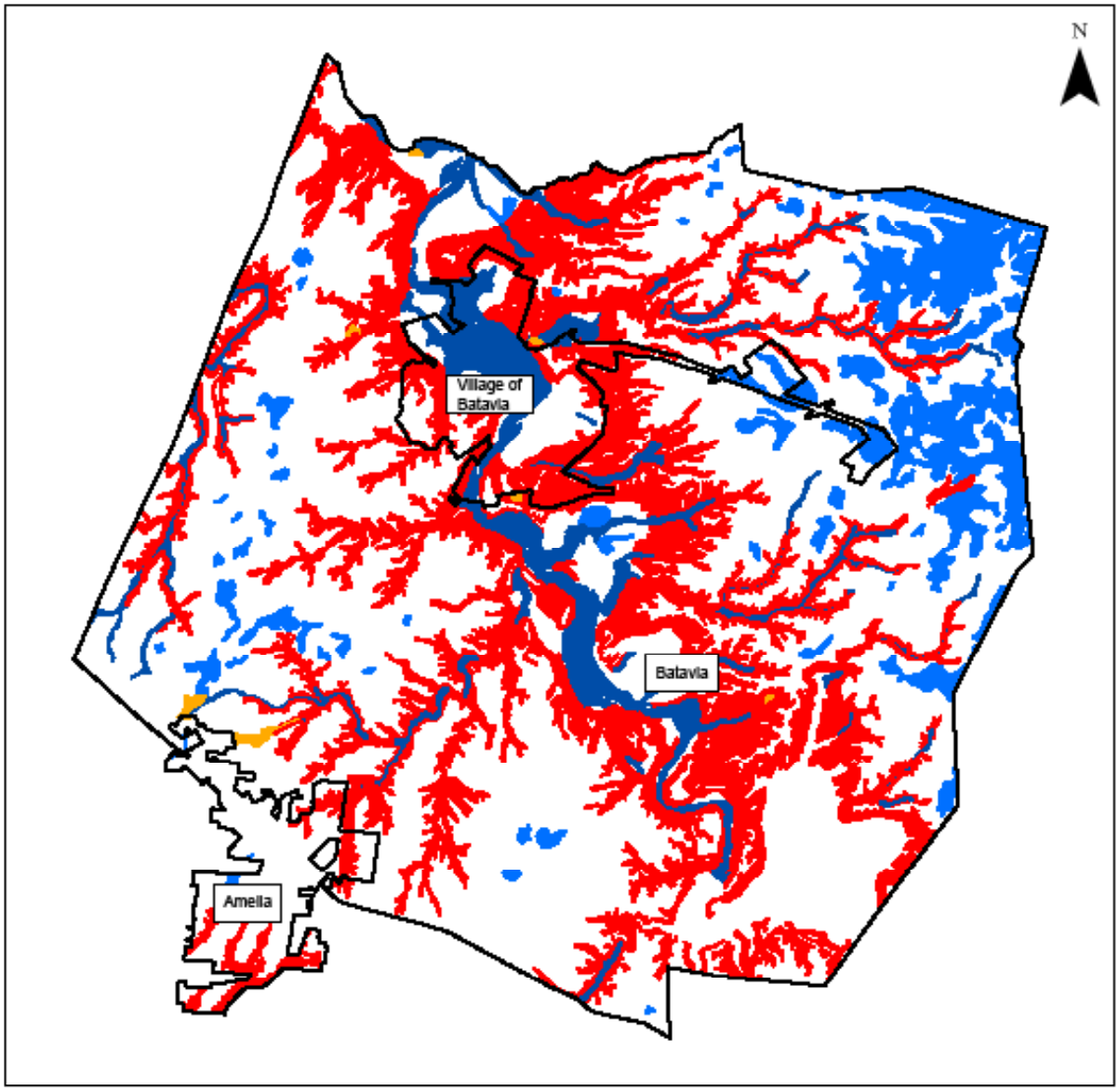
Soil Based Conservation: Erosion Areas

Data Provided By: Clermont County GIS



Batavia Township
Soil Based Conservation: Erosion Areas

Data Provided By: Clermont County GIS



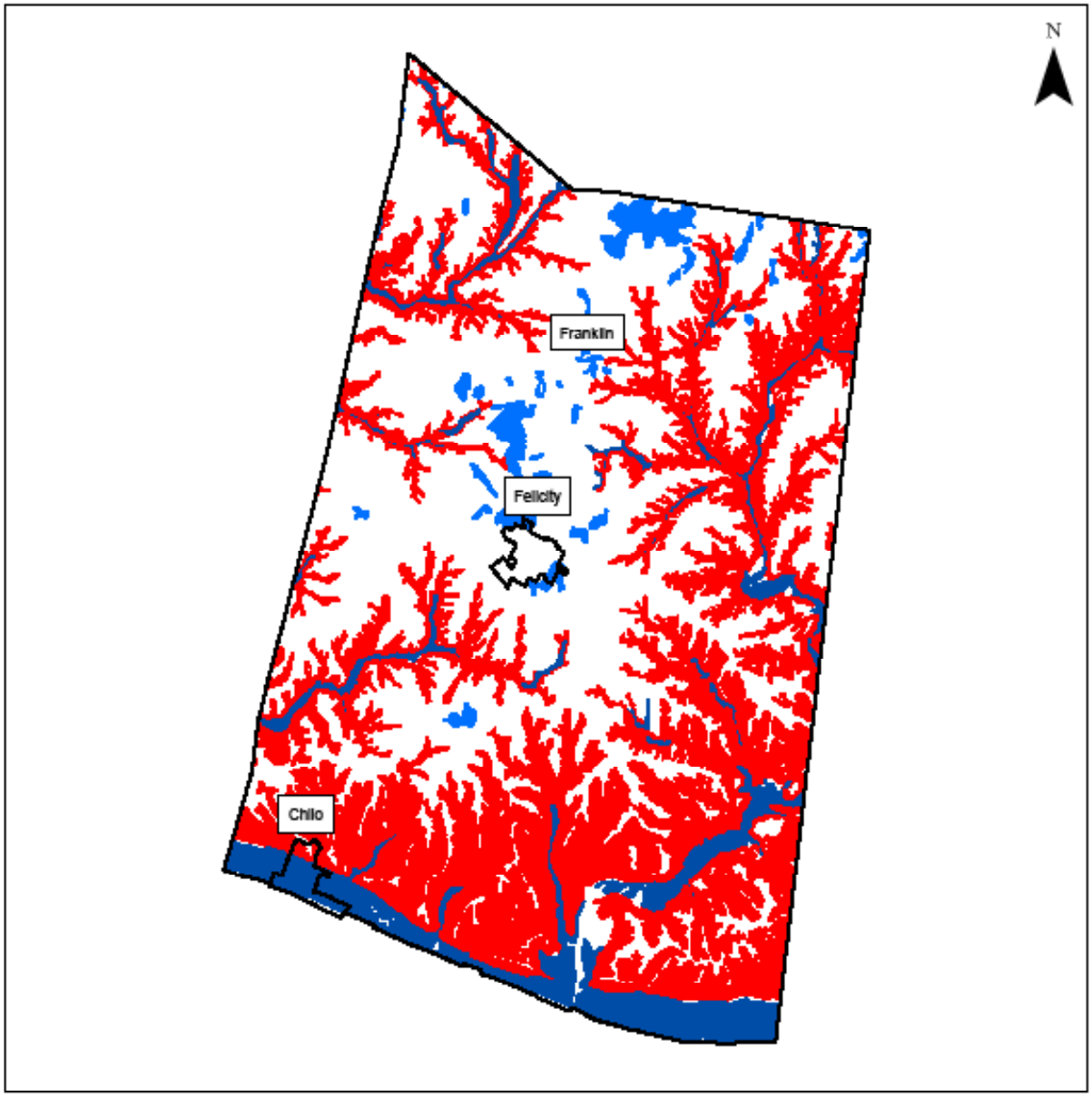
Legend

- Alluvial Flood plains
- Lakes and Ponds Intermittently Filled with Water
- Steep Soils and Erosion Hazards
- Other Erosion Hazards

1 inch = 8,082 feet

Franklin Township
Soil Based Conservation: Erosion Areas

Data Provided By: Clermont County GIS



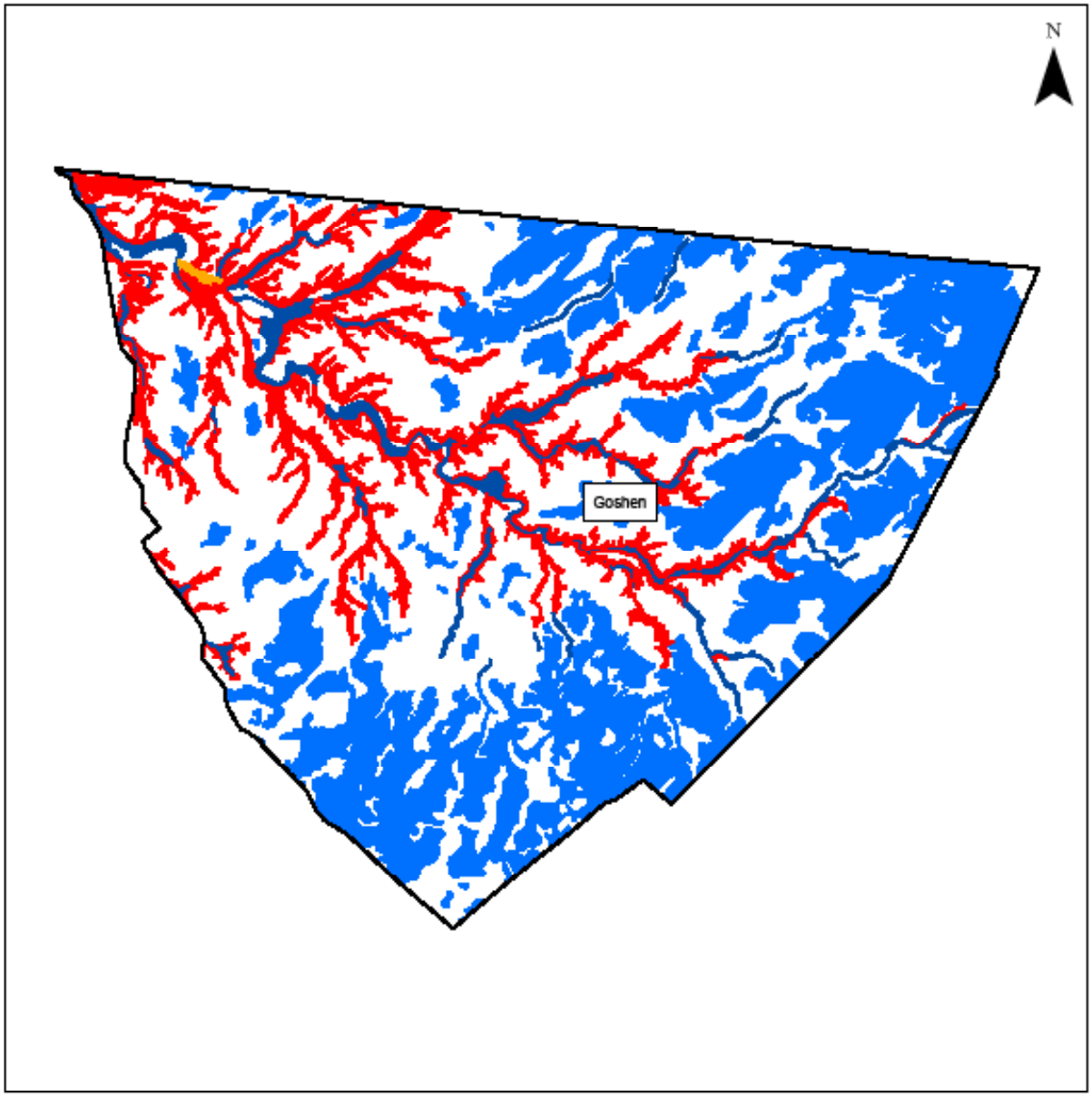
Legend

- Alluvial Flood plains
- Lakes and Ponds Intermittently Filled with Water
- Steep Soils and Erosion Hazards
- Other Erosion Hazards

1 inch = 7,133 feet

Goshen Township
Soil Based Conservation: Erosion Areas

Data Provided By: Clermont County GIS



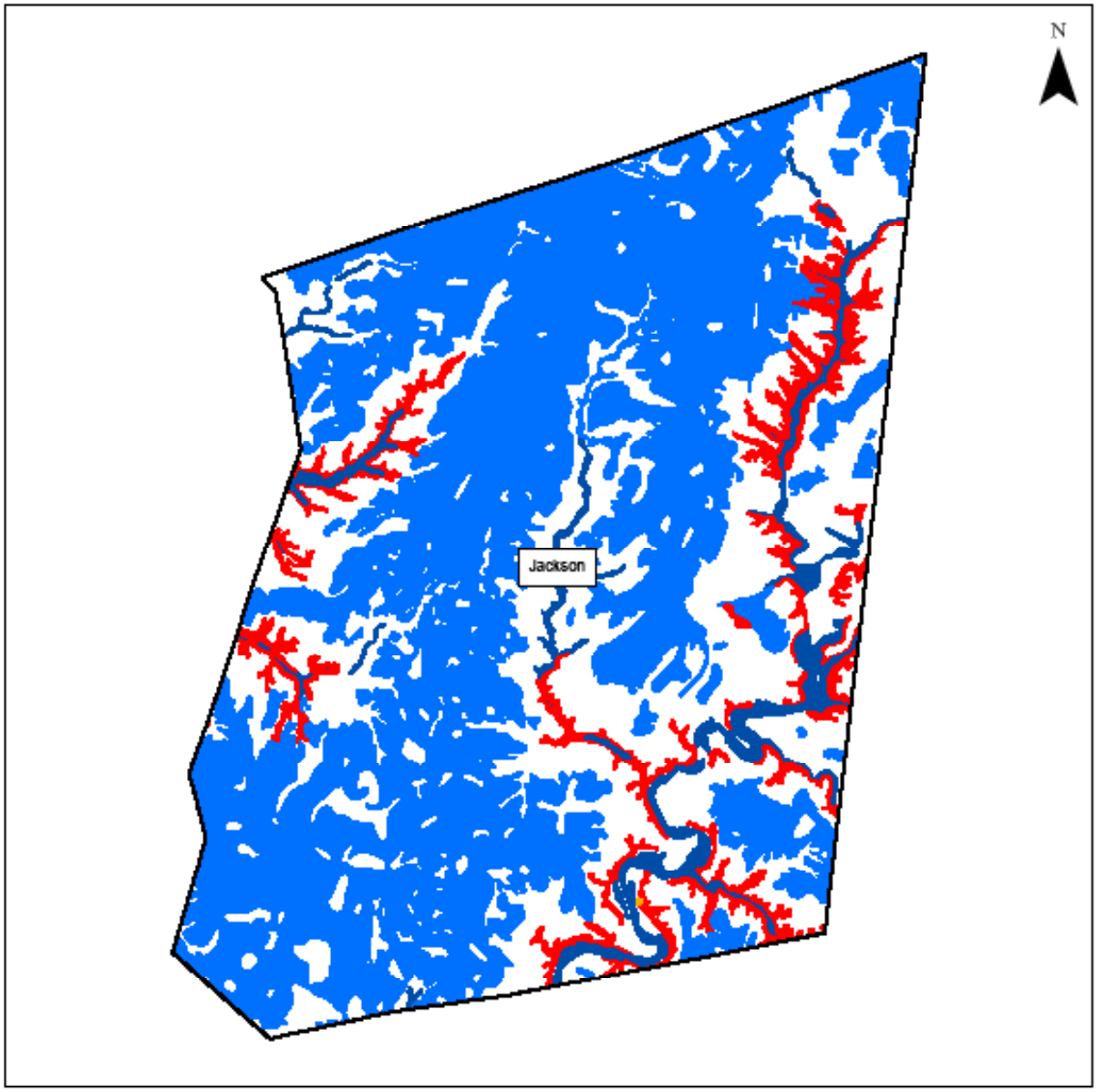
Legend

- Alluvial Flood plains
- Lakes and Ponds Intermittently Filled with Water
- Steep Soils and Erosion Hazards
- Other Erosion Hazards

1 inch = 8,434 feet

Jackson Township
Soil Based Conservation: Erosion Areas

Data Provided By: Clermont County GIS



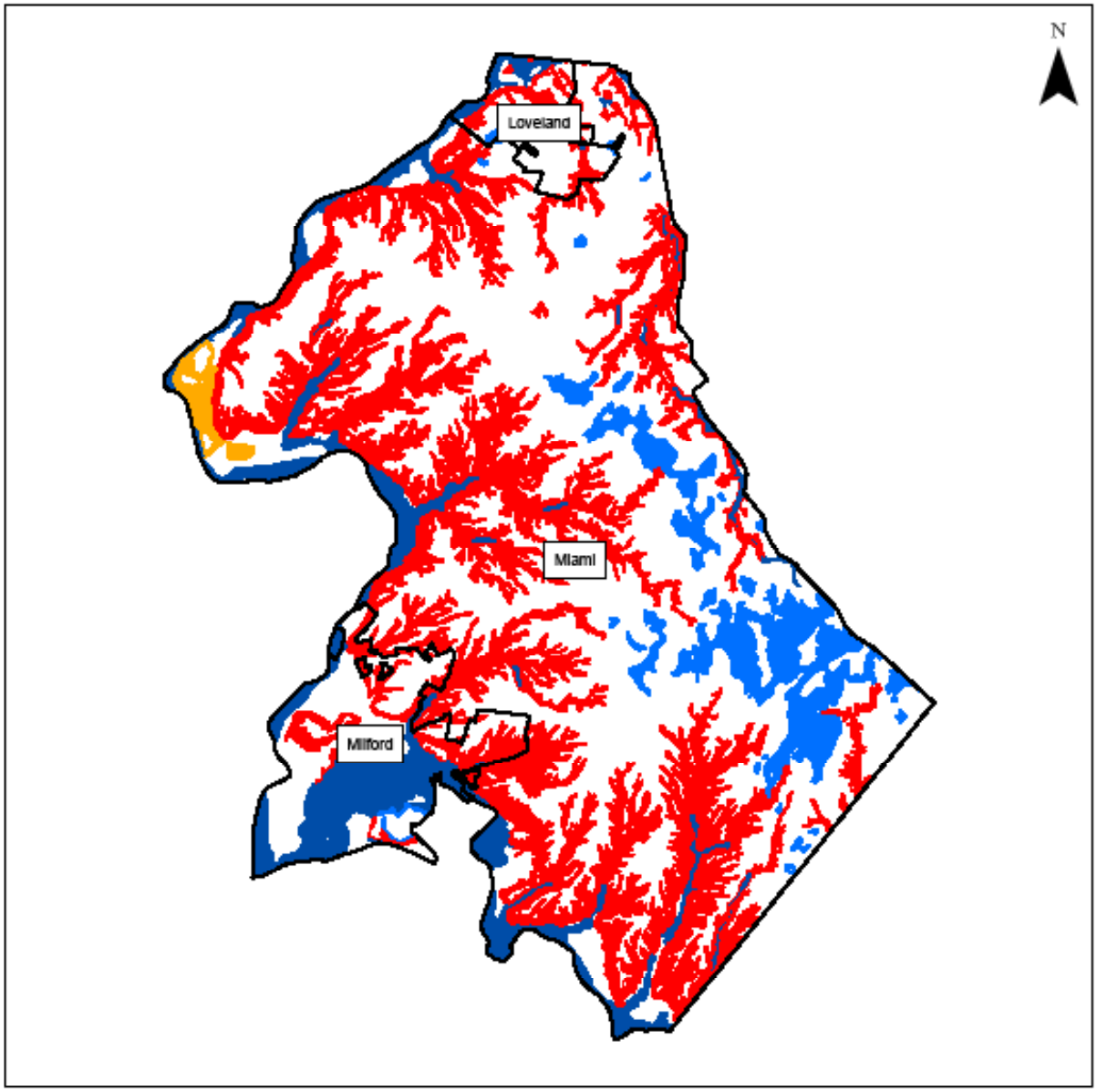
Legend

- Alluvial Flood plains
- Lakes and Ponds Intermittently Filled with Water
- Steep Soils and Erosion Hazards
- Other Erosion Hazards

1 inch = 5,833 feet

Miami Township
Soil Based Conservation: Erosion Areas

Data Provided By: Clermont County GIS



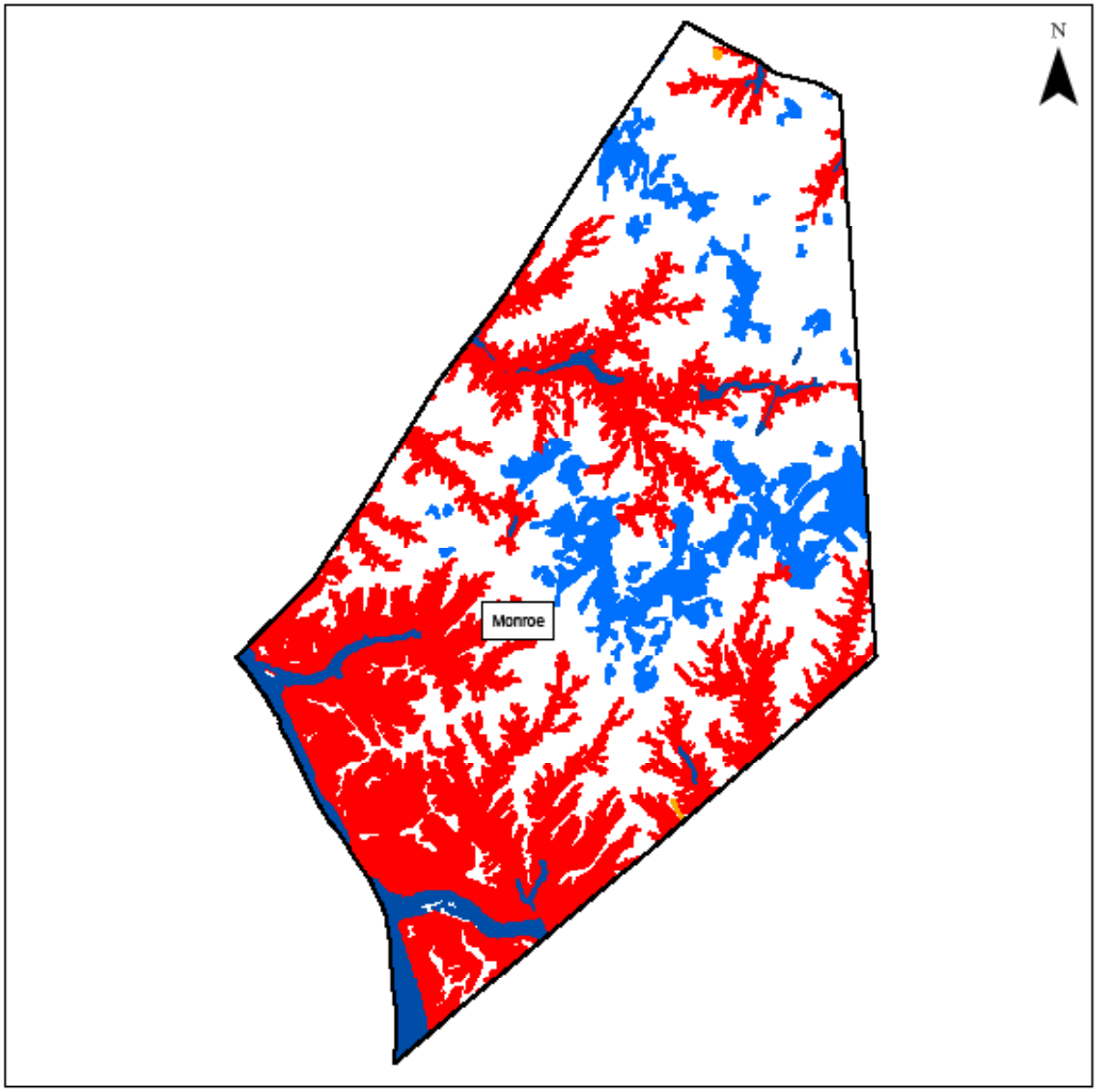
Legend

- Alluvial Flood plains
- Lakes and Ponds Intermittently Filled with Water
- Steep Soils and Erosion Hazards
- Other Erosion Hazards

1 inch = 7,332 feet

Monroe Township
Soil Based Conservation: Erosion Areas

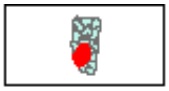
Data Provided By: Clermont County GIS



Legend

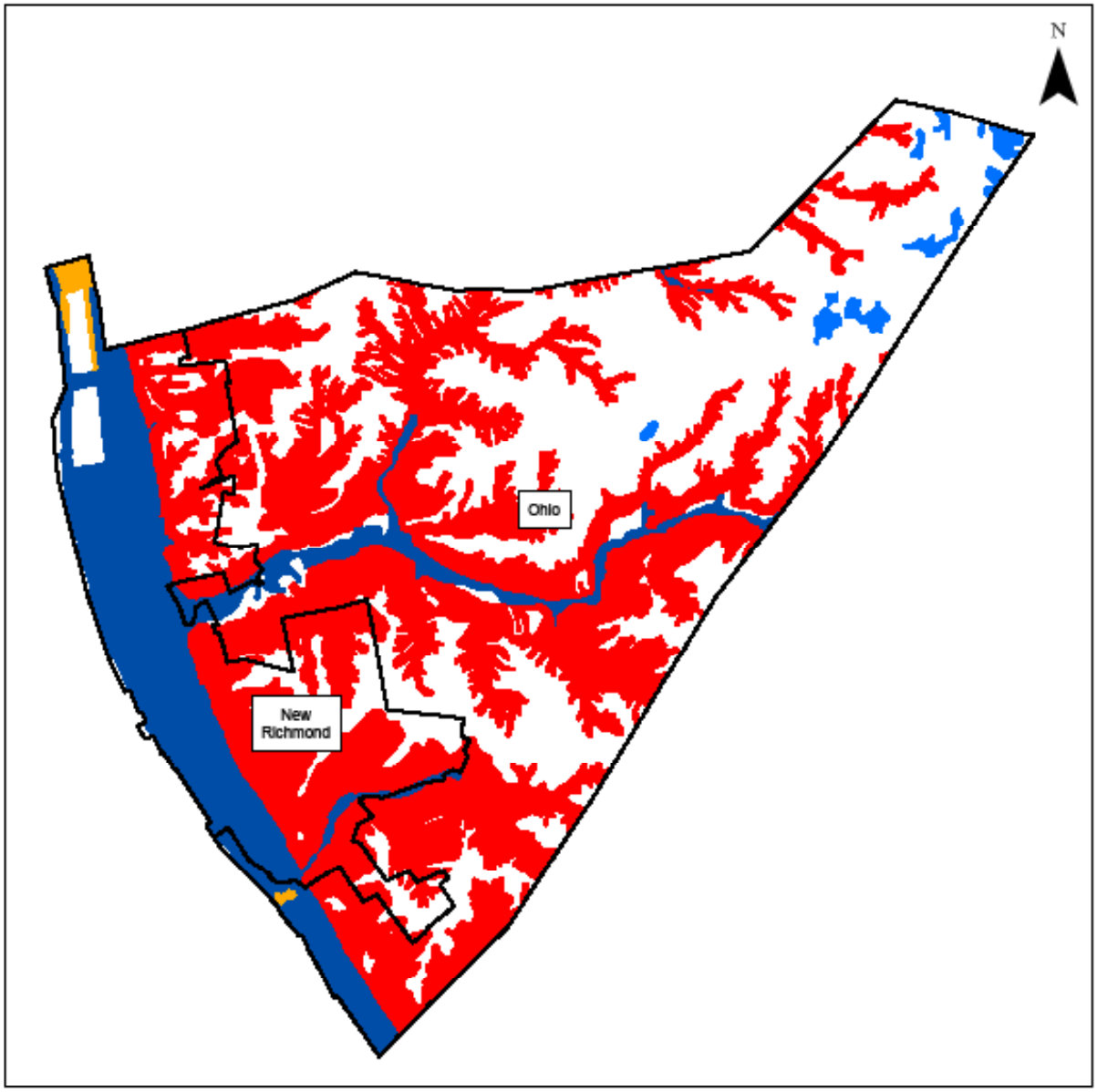
- Alluvial Flood plains
- Lakes and Ponds Intermittently Filled with Water
- Steep Soils and Erosion Hazards
- Other Erosion Hazards

1 inch = 8,958 feet



Ohio Township
Soil Based Conservation: Erosion Areas

Data Provided By: Clermont County GIS



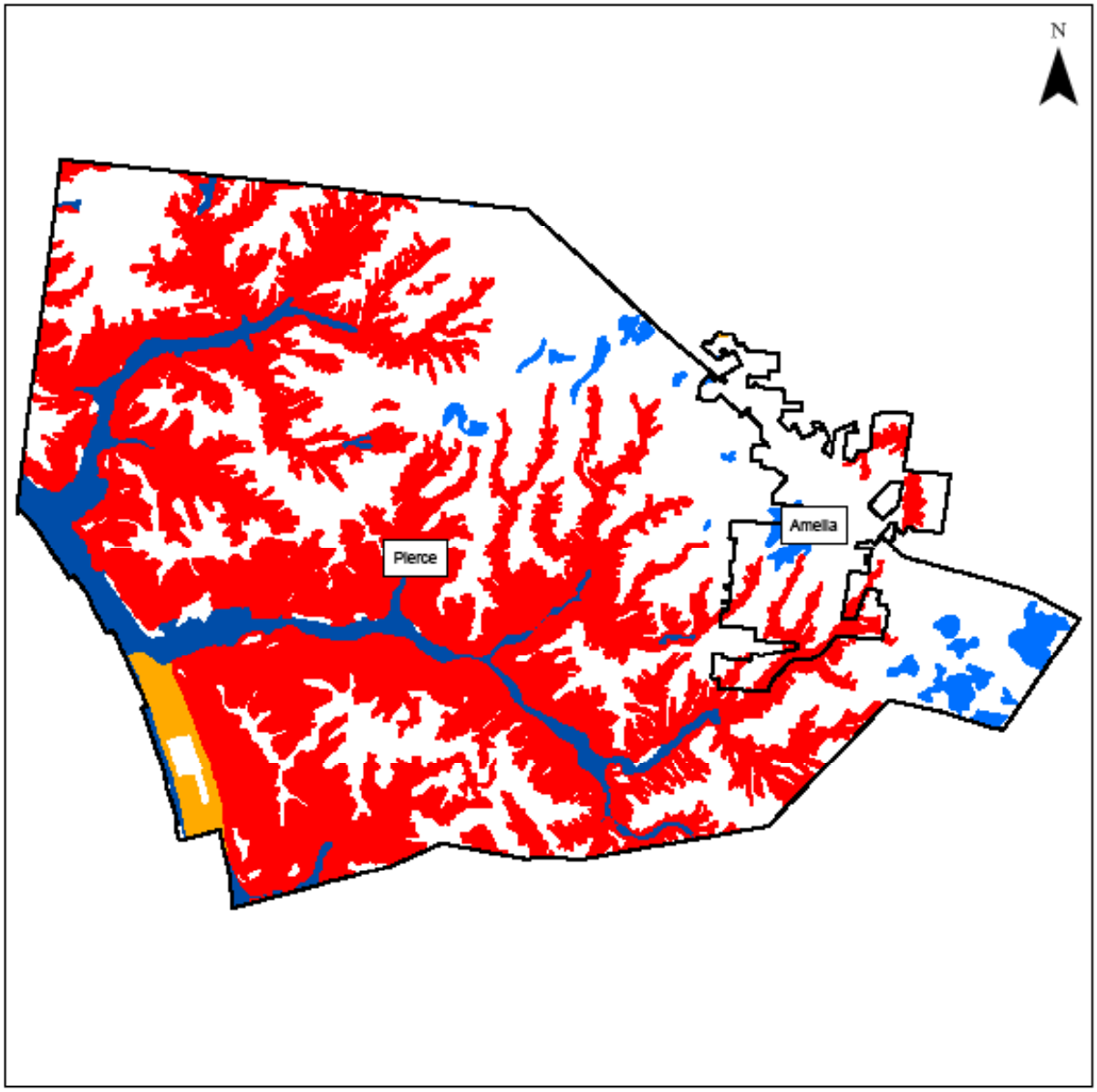
Legend

- Alluvial Flood plains
- Lakes and Ponds Intermittently Filled with Water
- Steep Soils and Erosion Hazards
- Other Erosion Hazards

1 inch = 4,193 feet

Pierce Township
Soil Based Conservation: Erosion Areas

Data Provided By: Clermont County GIS



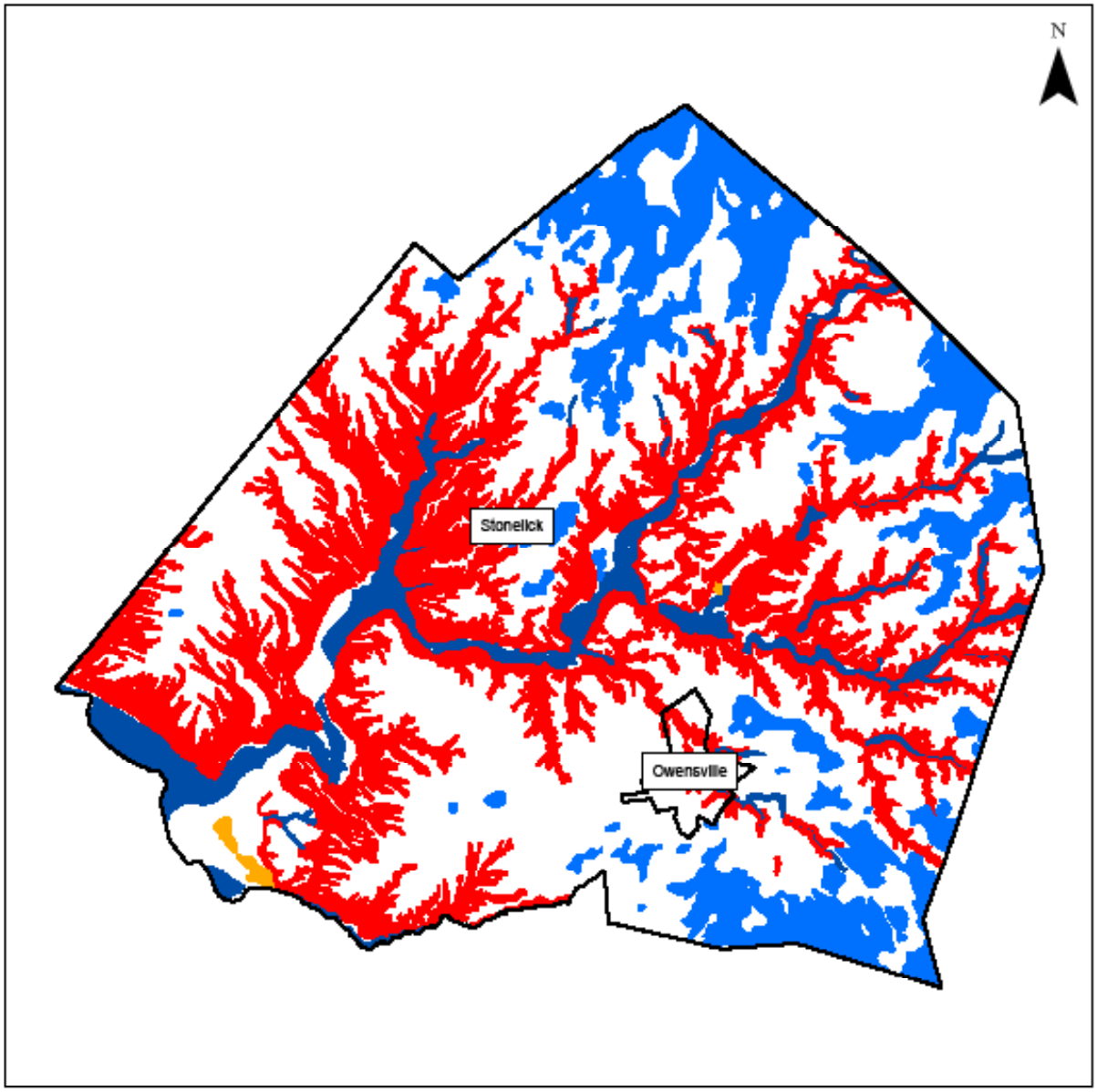
Legend

- Alluvial Flood plains
- Lakes and Ponds Intermittently Filled with Water
- Steep Soils and Erosion Hazards
- Other Erosion Hazards

1 inch = 5,054 feet

Stonelick Township
Soil Based Conservation: Erosion Areas

Data Provided By: Clermont County GIS



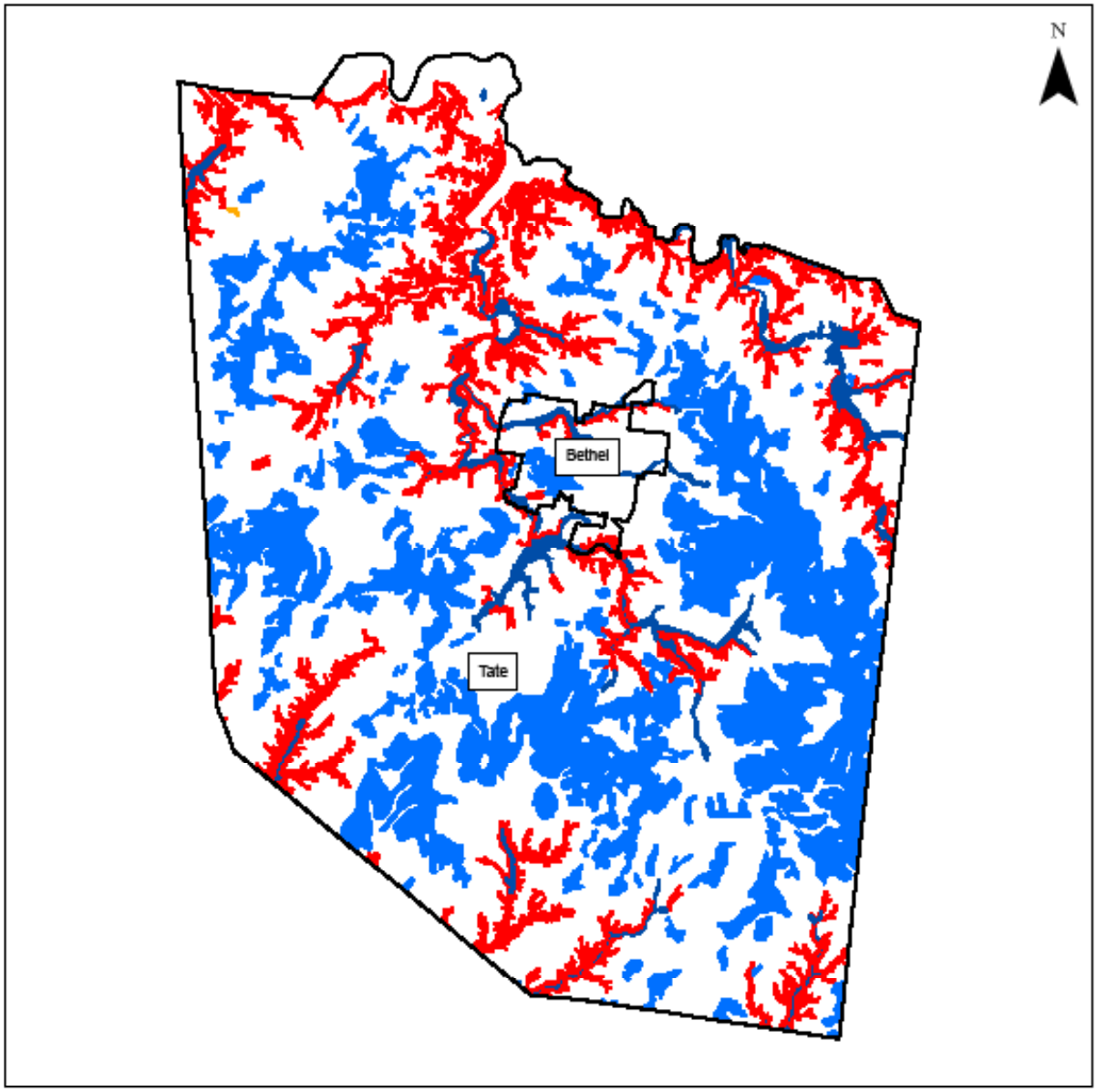
Legend

- Alluvial Flood plains
- Lakes and Ponds Intermittently Filled with Water
- Steep Soils and Erosion Hazards
- Other Erosion Hazards

1 inch = 5,410 feet

Tate Township
Soil Based Conservation: Erosion Areas

Data Provided By: Clermont County GIS



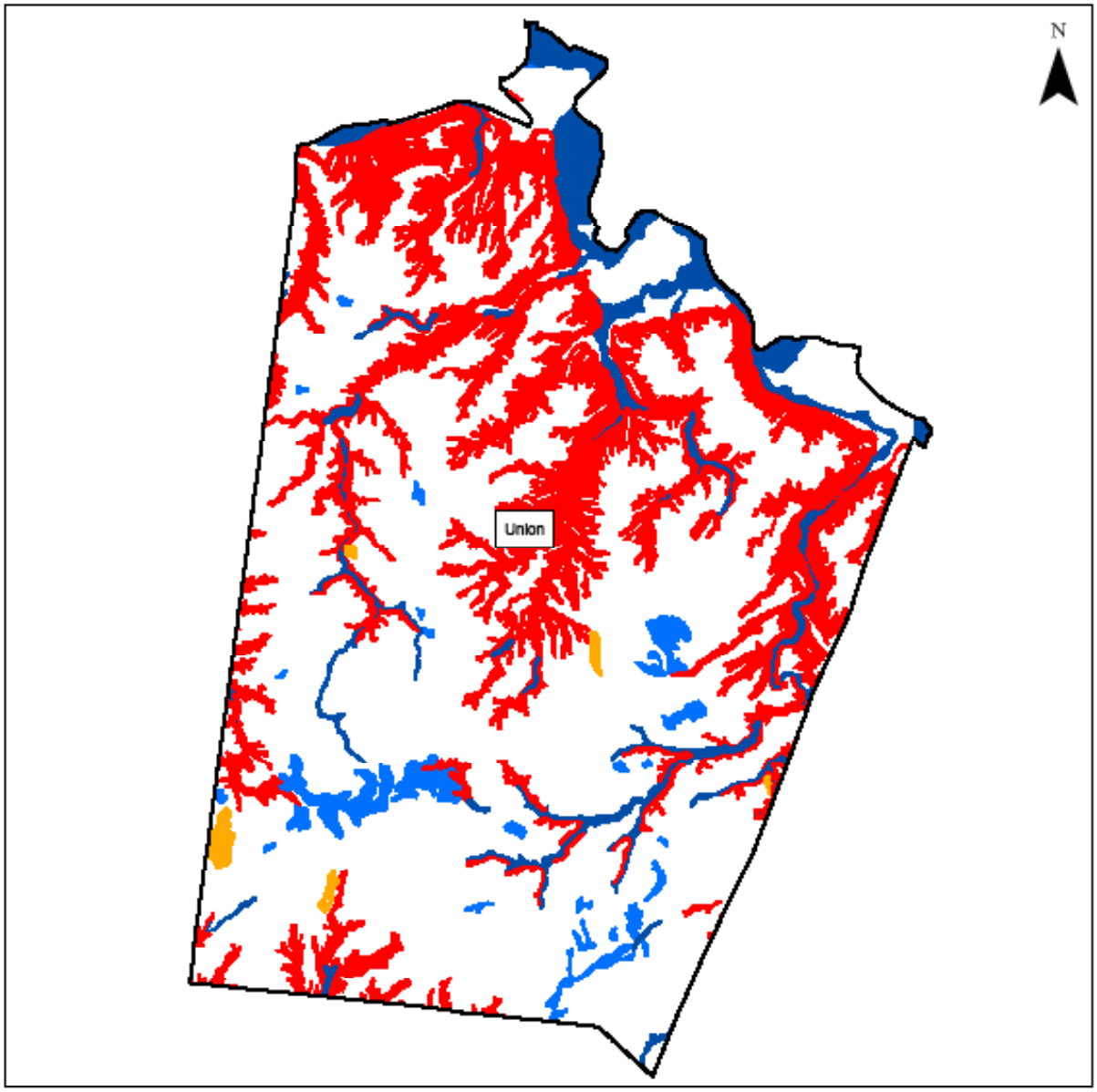
Legend

- Alluvial Flood plains
- Lakes and Ponds Intermittently Filled with Water
- Steep Soils and Erosion Hazards
- Other Erosion Hazards

1 inch = 8,851 feet

Union Township
Soil Based Conservation: Erosion Areas

Data Provided By: Clermont County GIS



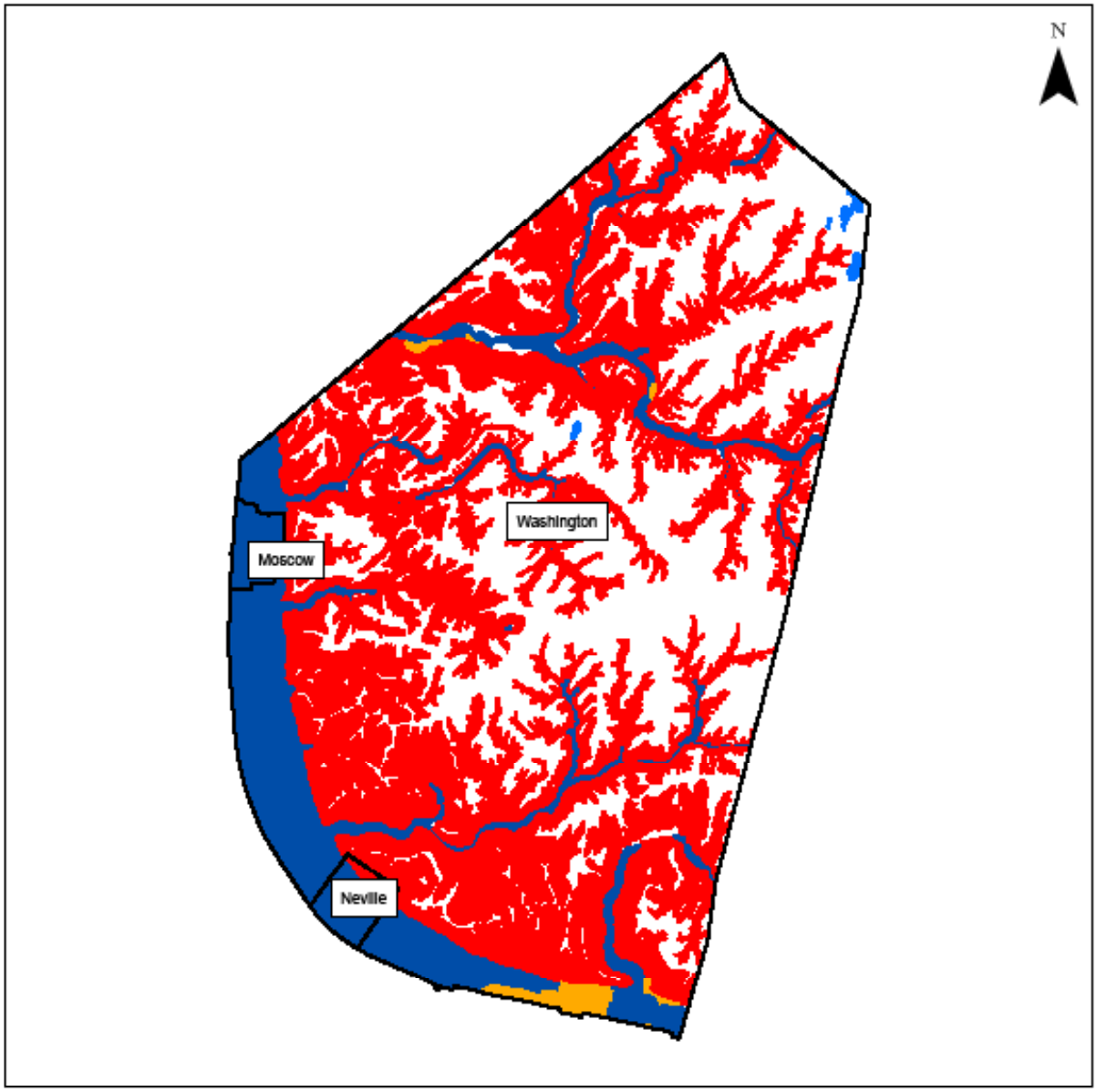
Legend

- Alluvial Flood plains
- Lakes and Ponds Intermittently Filled with Water
- Steep Soils and Erosion Hazards
- Other Erosion Hazards

1 inch = 5,780 feet

Washington Township
Soil Based Conservation: Erosion Areas

Data Provided By: Clermont County GIS



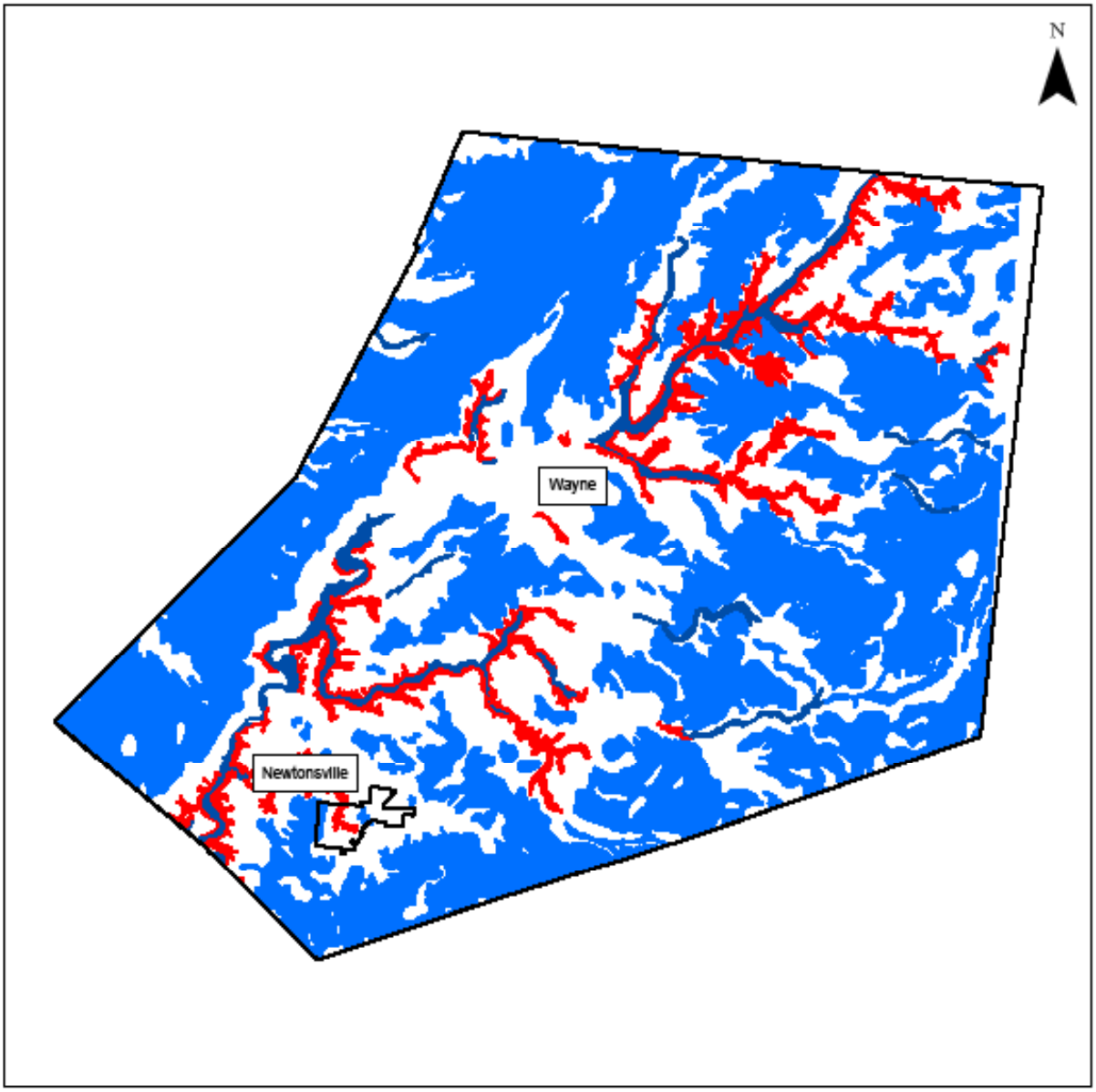
Legend

- Alluvial Flood plains
- Lakes and Ponds Intermittently Filled with Water
- Steep Soils and Erosion Hazards
- Other Erosion Hazards

1 inch = 8,055 feet

Wayne Township
Soil Based Conservation: Erosion Areas

Data Provided By: Clermont County GIS



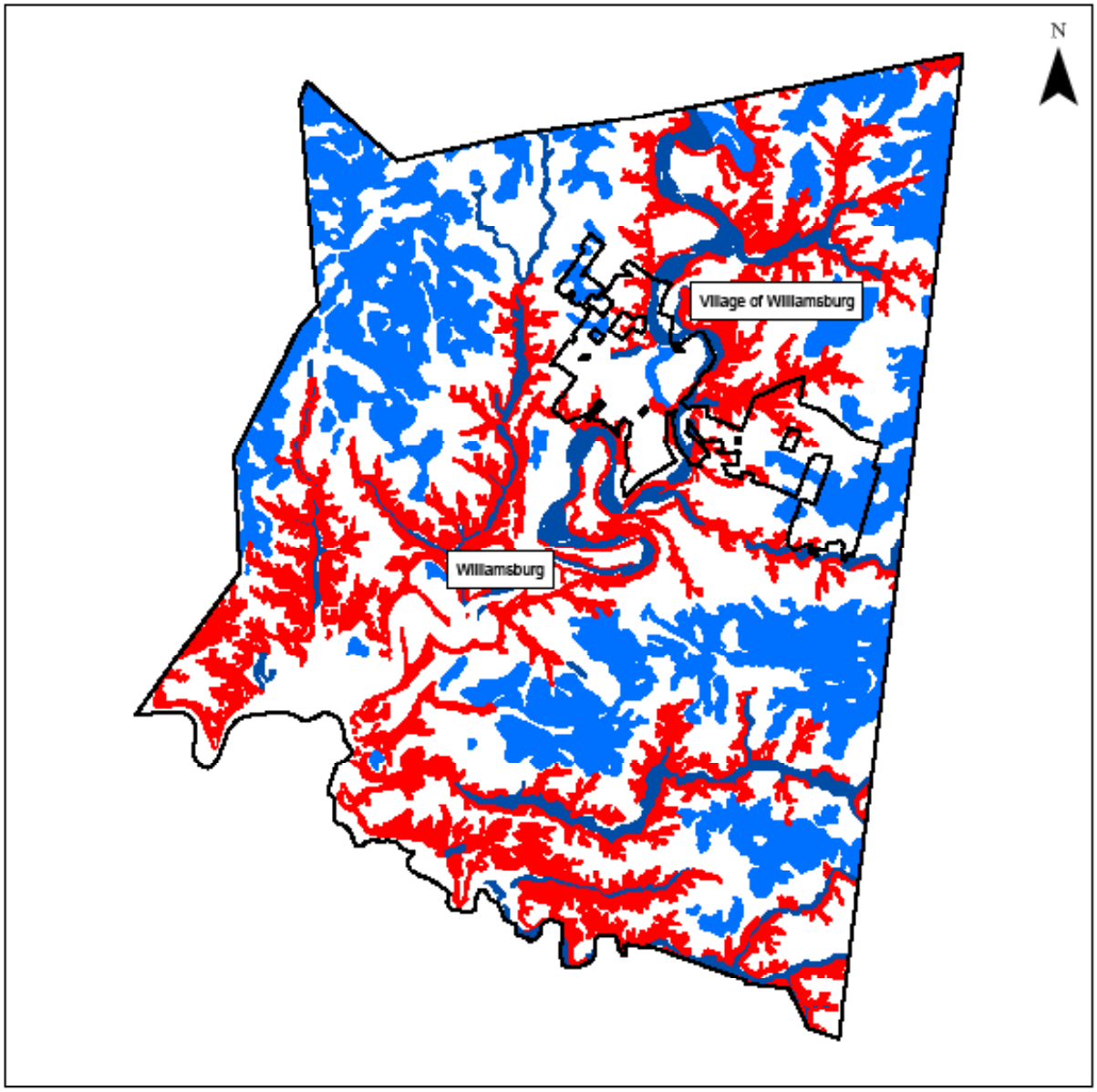
Legend

- Alluvial Flood plains
- Lakes and Ponds Intermittently Filled with Water
- Steep Soils and Erosion Hazards
- Other Erosion Hazards

1 inch = 5,810 feet

Williamsburg Township
Soil Based Conservation: Erosion Areas

Data Provided By: Clermont County GIS



Legend

- Alluvial Flood plains
- Lakes and Ponds Intermittently Filled with Water
- Steep Soils and Erosion Hazards
- Other Erosion Hazards

1 inch = 5,693 feet

Clermont County Water Sources & Watersheds

Water availability and quality are an important concern in Clermont County. The county's population is a mixture of urban and rural, and 40 percent of the residents rely on ground water for their water supply.

Clermont County's largest watershed, East Fork of the Little Miami River, drains the northeastern to central section of the county. This watershed covers 320,000 acres encompassing five counties. East Fork flows into Harsha Lake (an Army Corps of Engineers formed lake) before flowing into the Little Miami River. The East Fork LMR is designated as "Exceptional Warmwater Habitat." This designation is given by Ohio EPA to selected rivers that have the capability to support diverse assemblages of aquatic species.

The northeast corner of the county contains Stonelick Creek which flows into Stonelick Lake before flowing into the Little Miami River. Numerous streams and their corresponding watersheds blanket the southern edge of Clermont County and include Nine Mile Creek, Ten Mile Creek, Twelve Mile Creek, Big Indian Creek, Bullskin Creek, and several smaller creeks, all of which drain into the Ohio River. The final major watershed, Cloverlick Creek, is centrally located on the eastern border of the county and flows into Harsha Lake.

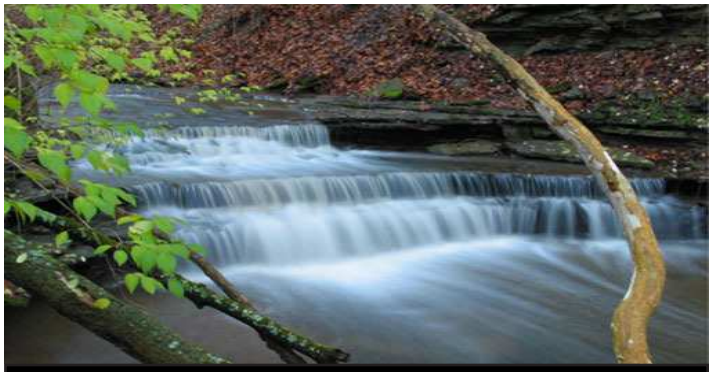
The county water acreage consists of Harsha Lake, a 2,160-acre public lake, Stonelick Lake, a 160-acre public lake, and approximately 2,220 acres of small privately owned lakes and ponds. The county contains approximately 375 linear miles of major streams and rivers [estimated from river basin maps, Ohio Department of Natural Resources (ODNR) Division of Water].

Approximately 27 miles of the Ohio River forms the county's southern border and approximately 14 miles of the Little Miami River forms the most northeastern border. In addition, county-maintained ditches and numerous miles of privately-maintained ditches are used for land drainage.

Human activities and natural processes affect the quality of our water supplies. Throughout Ohio, human activities contribute to both point and non-point source pollution. Point source pollution is the introduction of impurities into water (ground water or surface water) from an identifiable, known location. Examples of point sources can include industrial plants, power plants, commercial businesses, and wastewater treatment facilities.

A majority of the local jurisdictions endorsed the East Fork Balanced Growth Plan and in March 2012, the Ohio Water Resources Council and other state partnering agencies unanimously approved State endorsement of the plan. The areas selected as Priority Development Areas and Priority Conservation Areas will now serve as direction to the agencies of the State of Ohio. The plan offers the opportunity for state and local collaboration to encourage well planned development while conserving critical areas across the watershed.

The maps on the following pages shows the major water bodies and watersheds in Clermont County and by township.



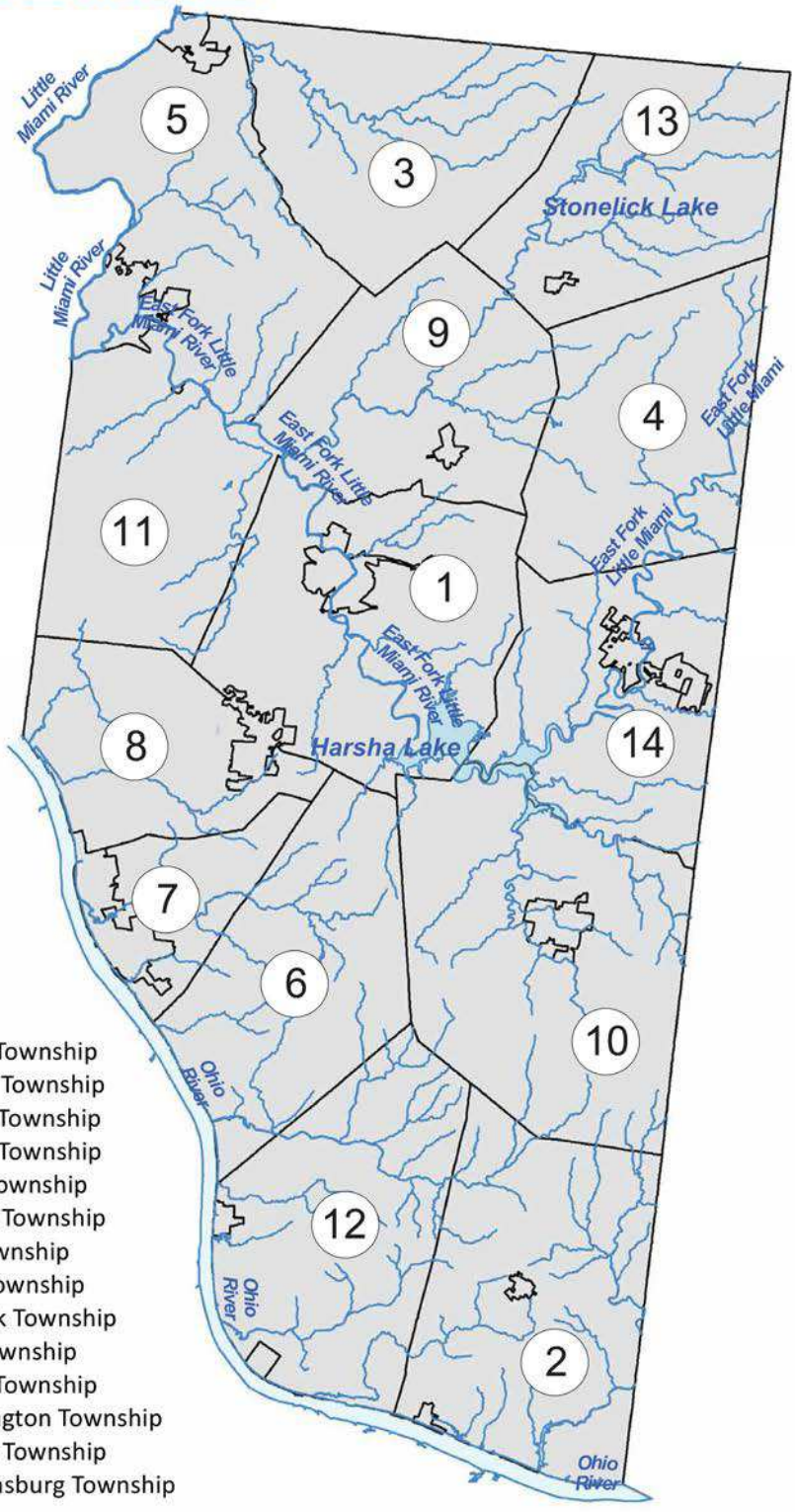
Stonelick Creek

Excerpts/picture taken from Clermont Soil and Water Conservation District.

More Information: http://www.clermontswcd.org/

Clermont County Water Bodies

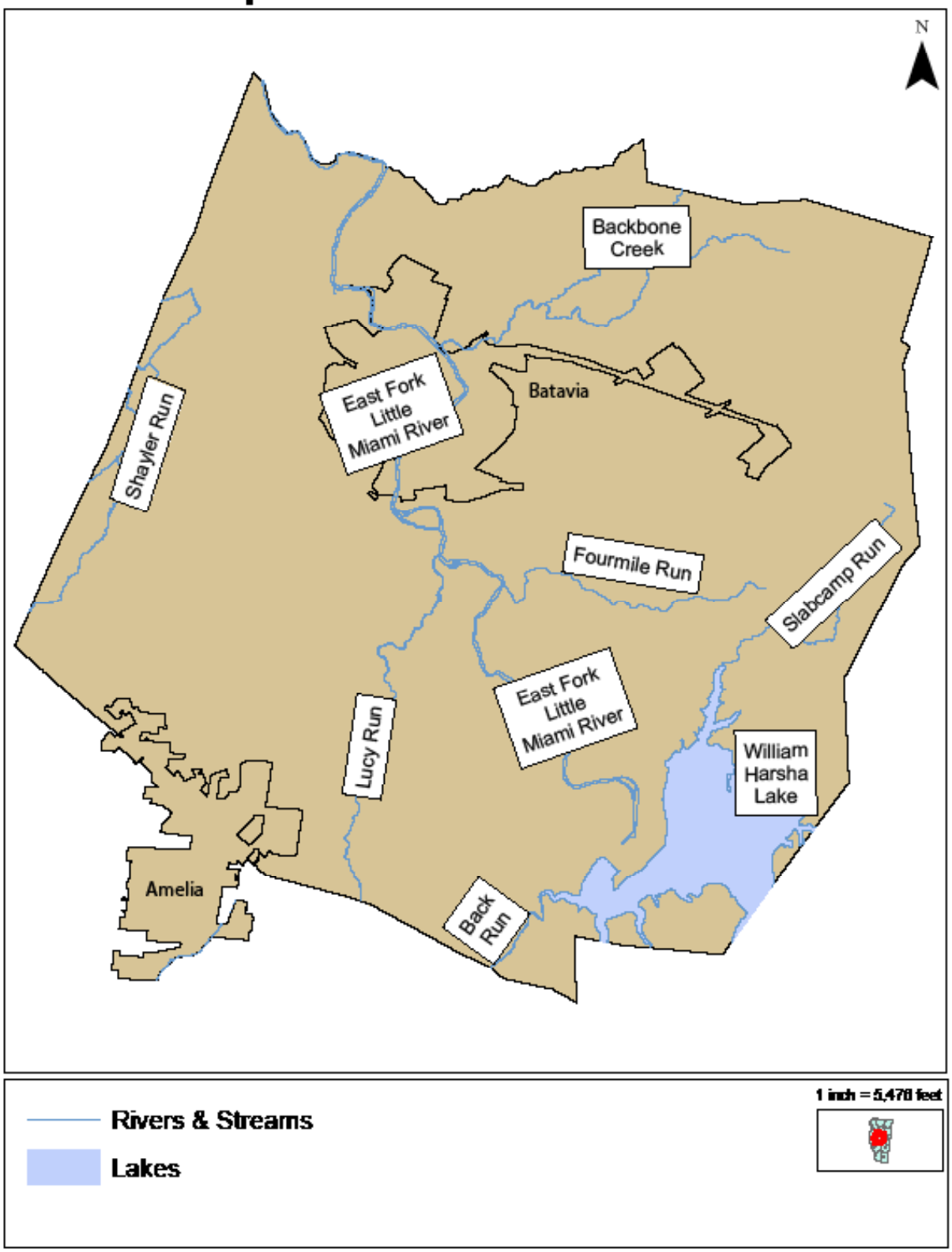
Lakes, Rivers and Streams



1. Batavia Township
2. Franklin Township
3. Goshen Township
4. Jackson Township
5. Miami Township
6. Monroe Township
7. Ohio Township
8. Pierce Township
9. Stonelick Township
10. Tate Township
11. Union Township
12. Washington Township
13. Wayne Township
14. Williamsburg Township

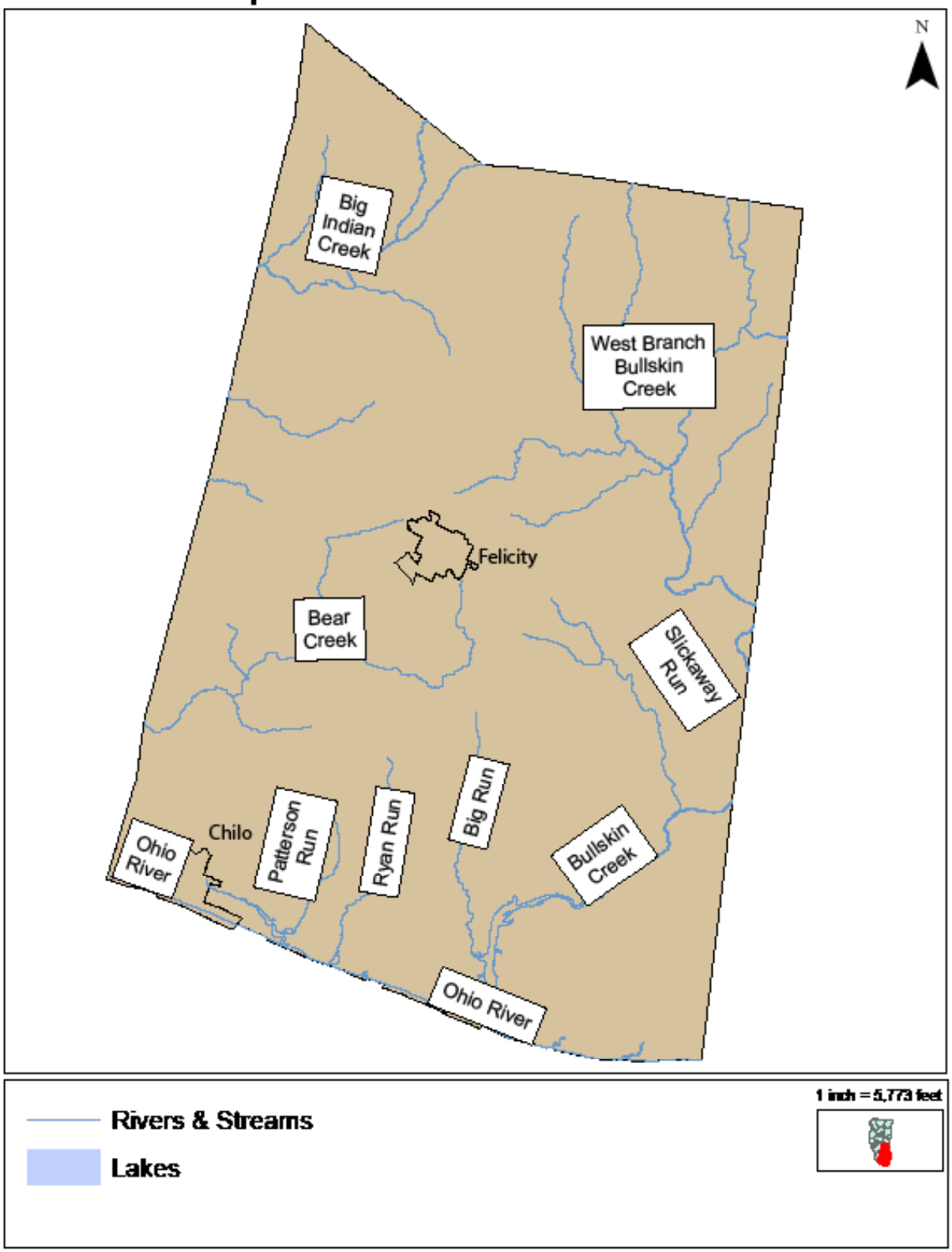
More Information: http://www.clermontswcd.org/

Batavia Township Water Bodies



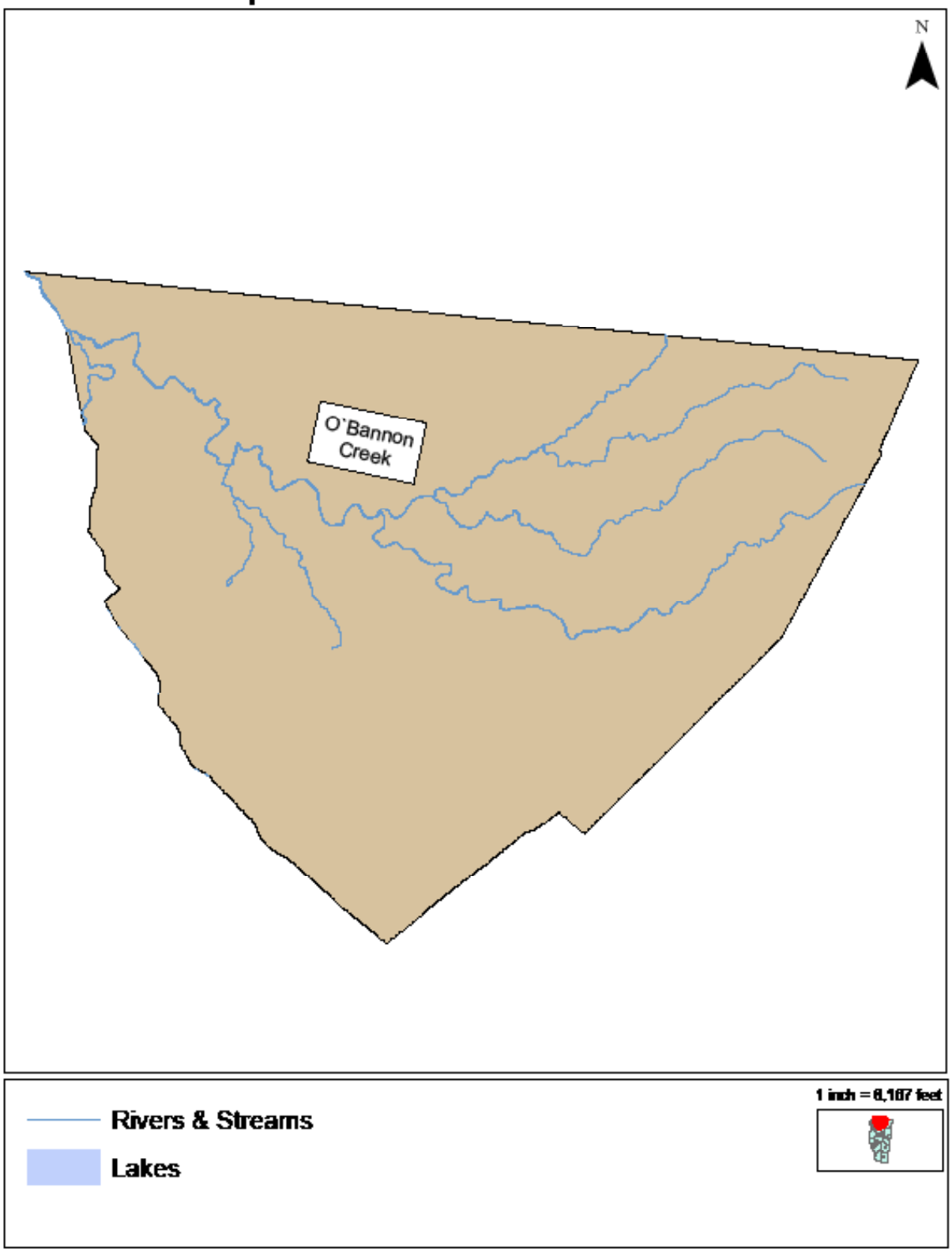
Map: Clermont Soil and Water Conservation District.
More Information: http://www.clermontswcd.org/

Franklin Township Water Bodies



Map: Clermont Soil and Water Conservation District.
More Information: http://www.clermontswcd.org/

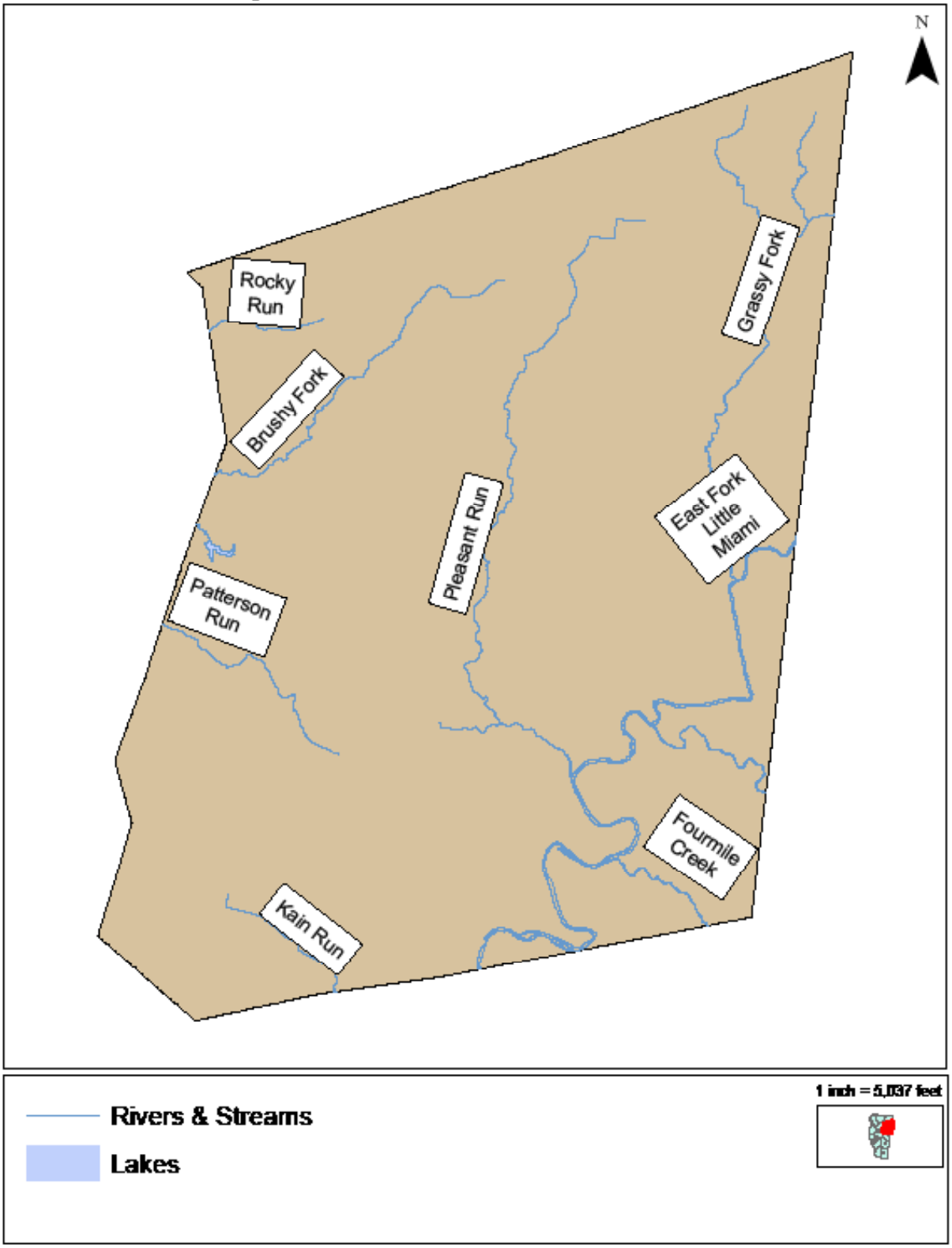
Goshen Township Water Bodies



Map: Clermont Soil and Water Conservation District.
More Information: http://www.clermontswcd.org/

Jackson Township Water Bodies

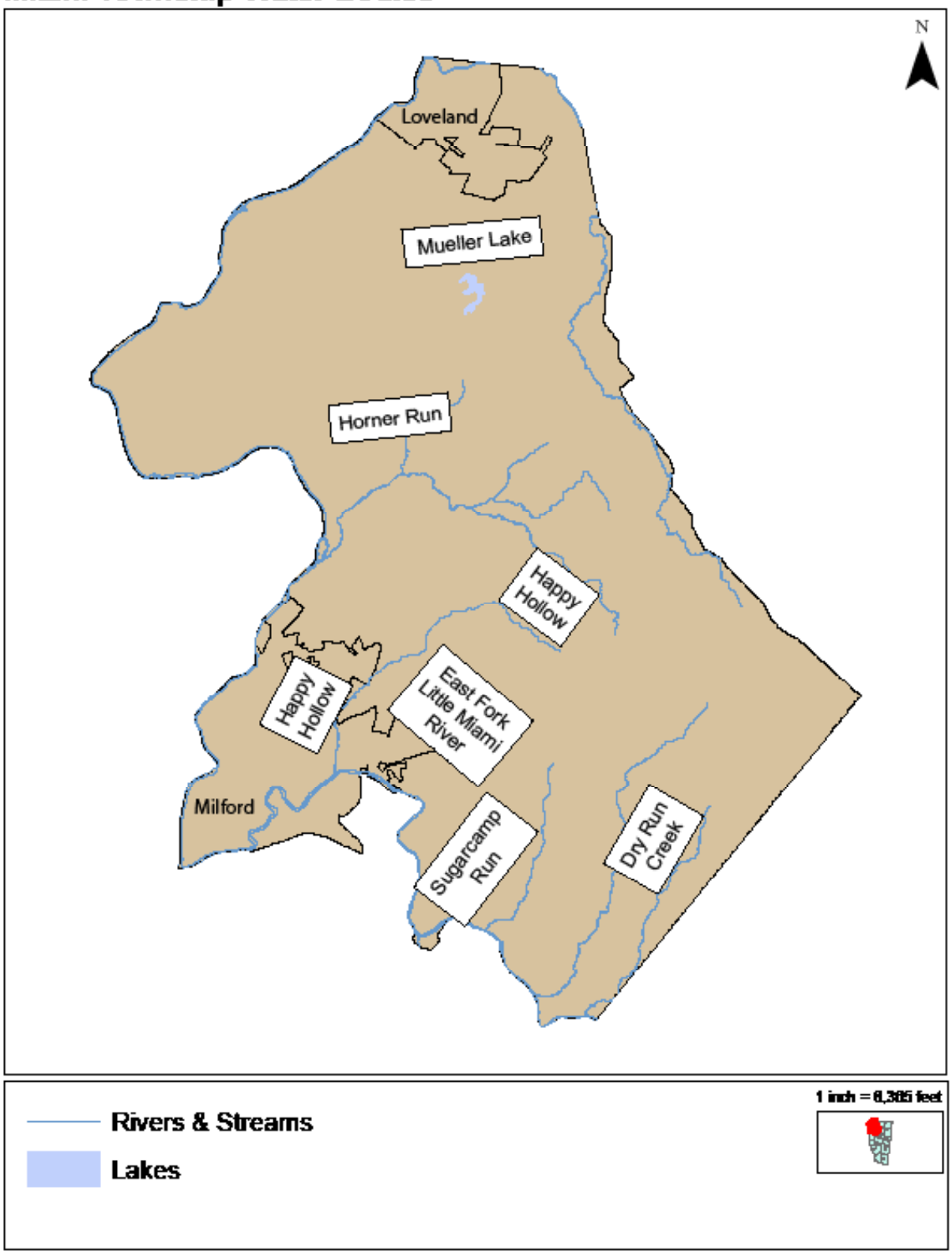
Data Provided By: Clermont County GIS



Map: Clermont Soil and Water Conservation District.

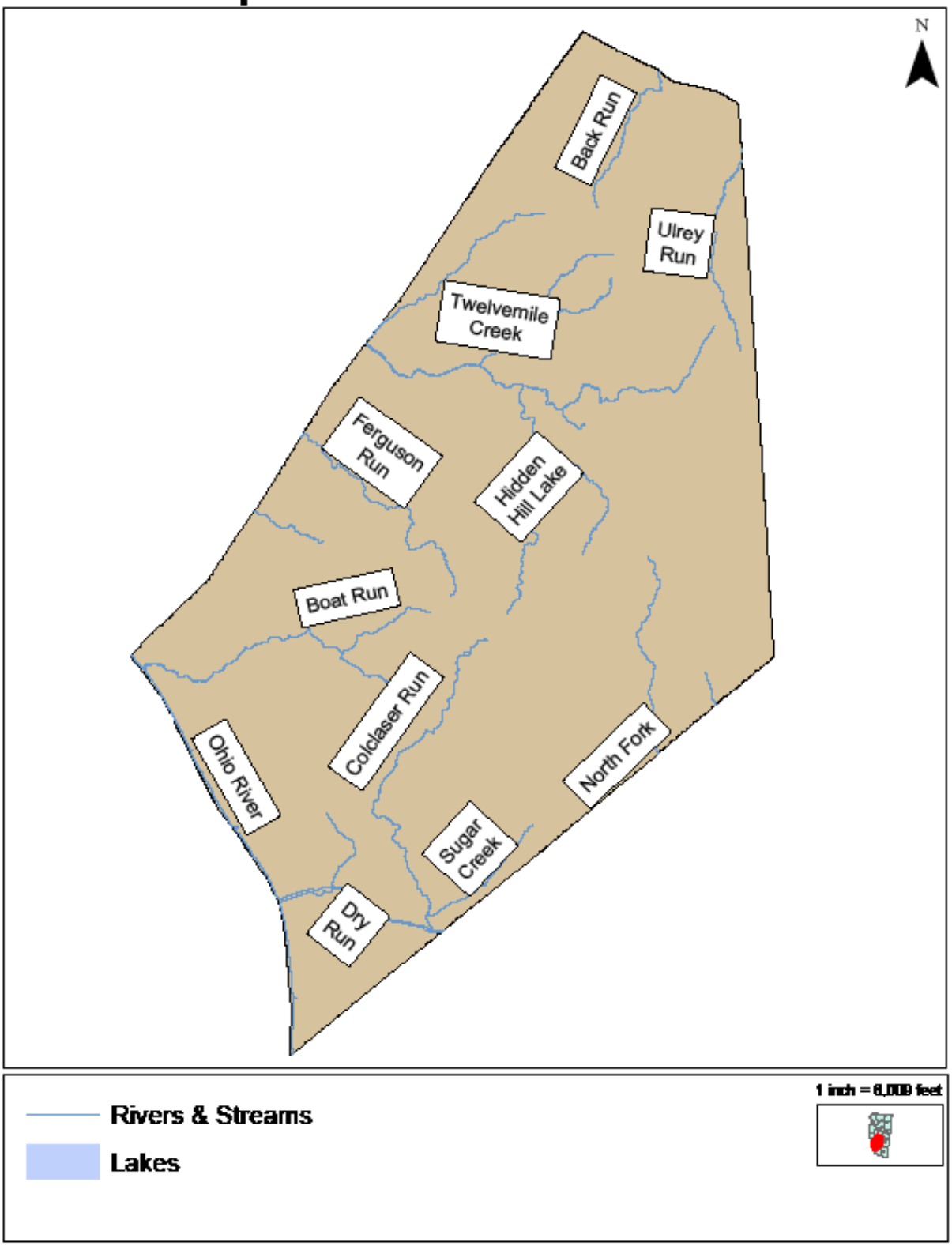
More Information: http://www.clermontswcd.org/

Miami Township Water Bodies



Map: Clermont Soil and Water Conservation District.
More Information: http://www.clermontswcd.org/

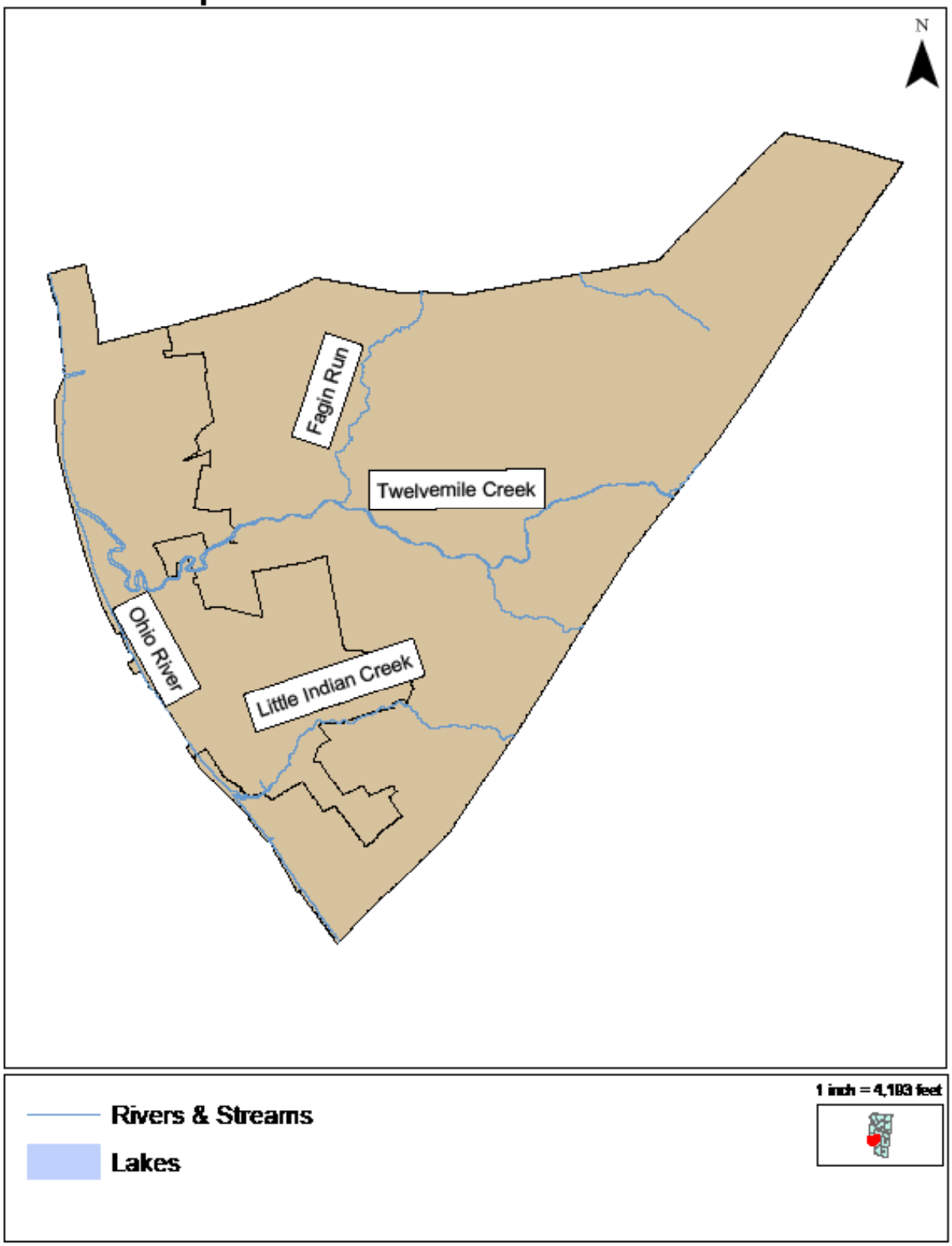
Monroe Township Water Bodies



Map: Clermont Soil and Water Conservation District.
More Information: http://www.clermontswcd.org/

Ohio Township Water Bodies

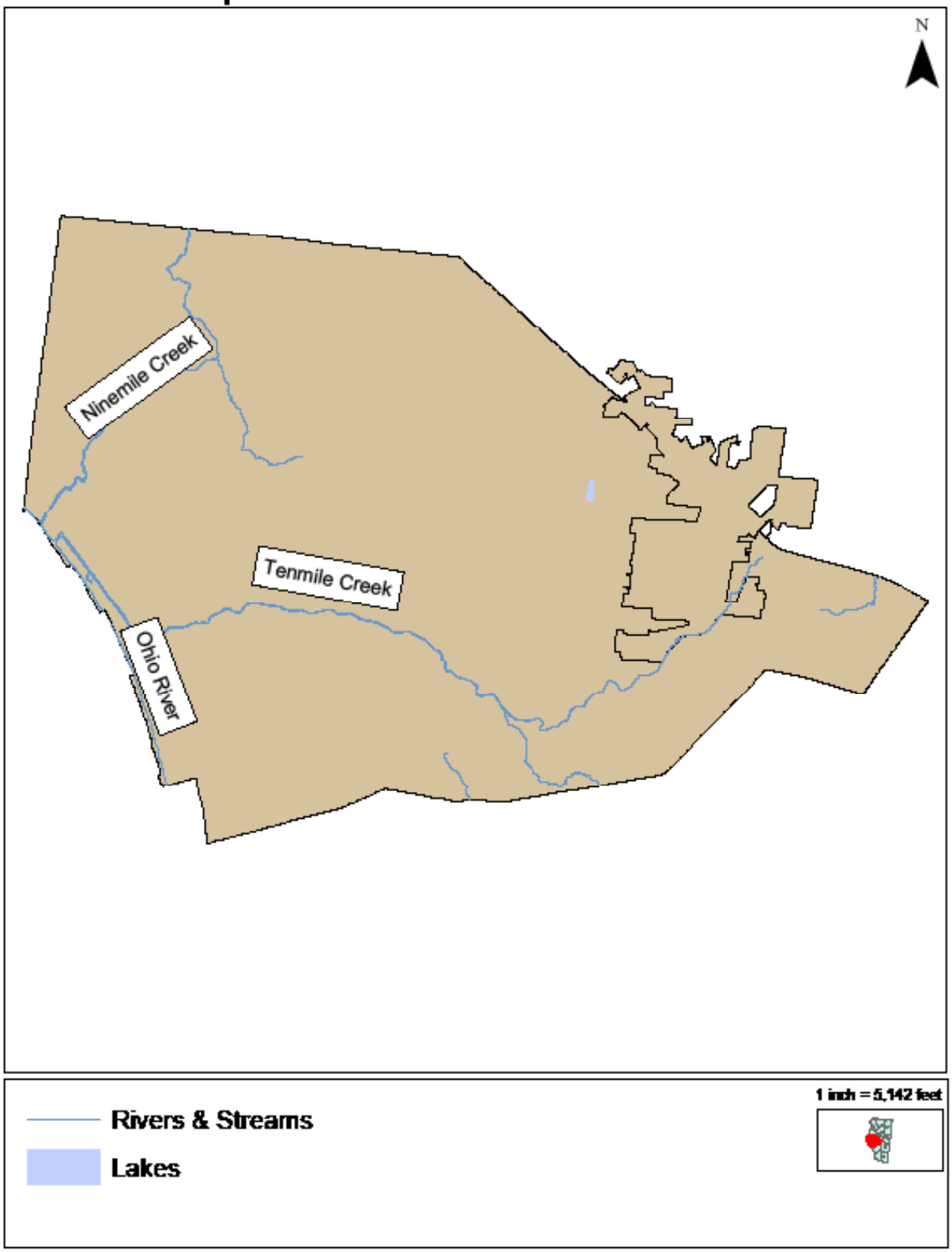
Data Provided By: Clermont County GIS



Map: Clermont Soil and Water Conservation District.
More Information: http://www.clermontswcd.org/

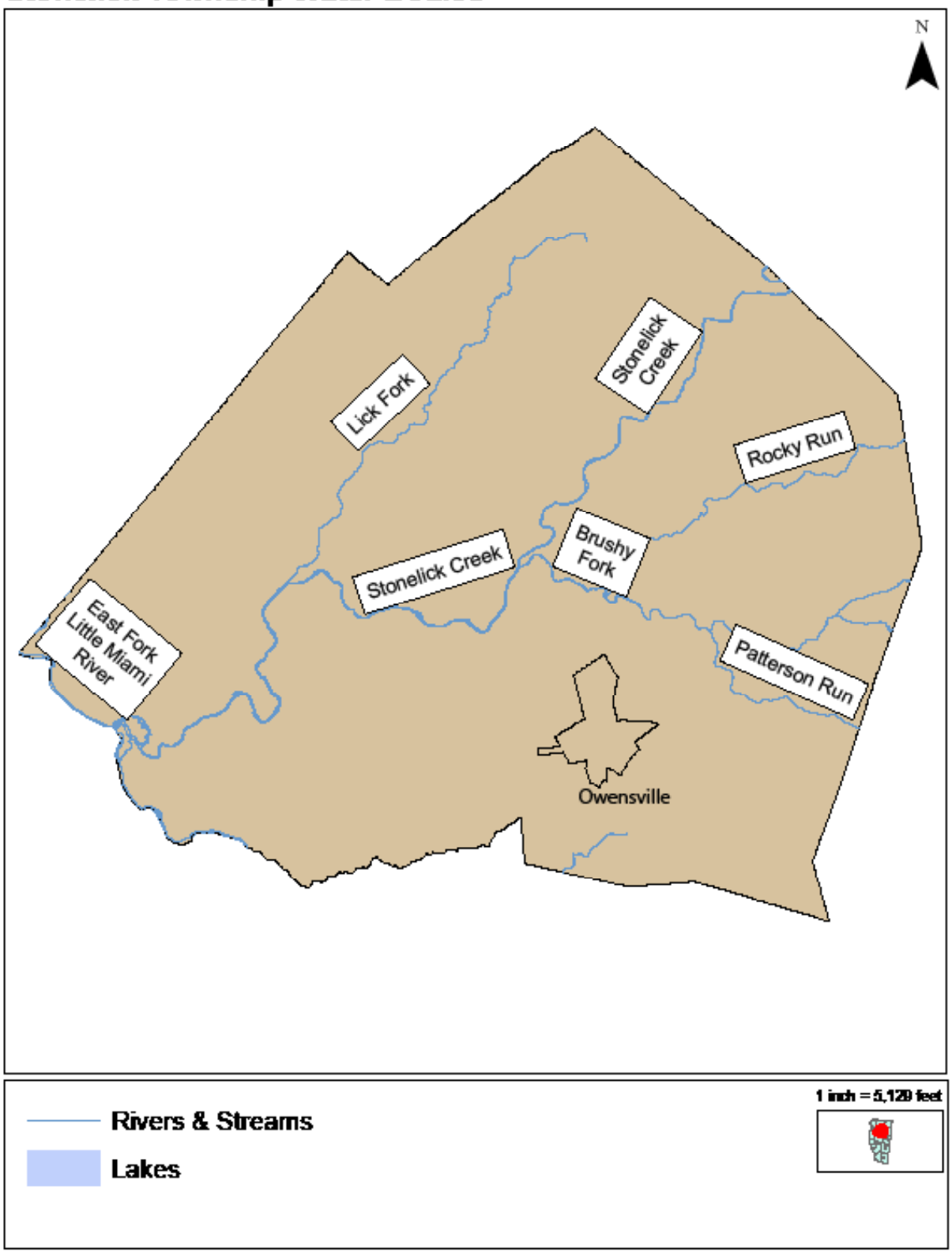
Pierce Township Water Bodies

Data Provided By: Clermont County GIS



Map: Clermont Soil and Water Conservation District.
More Information: http://www.clermontswcd.org/

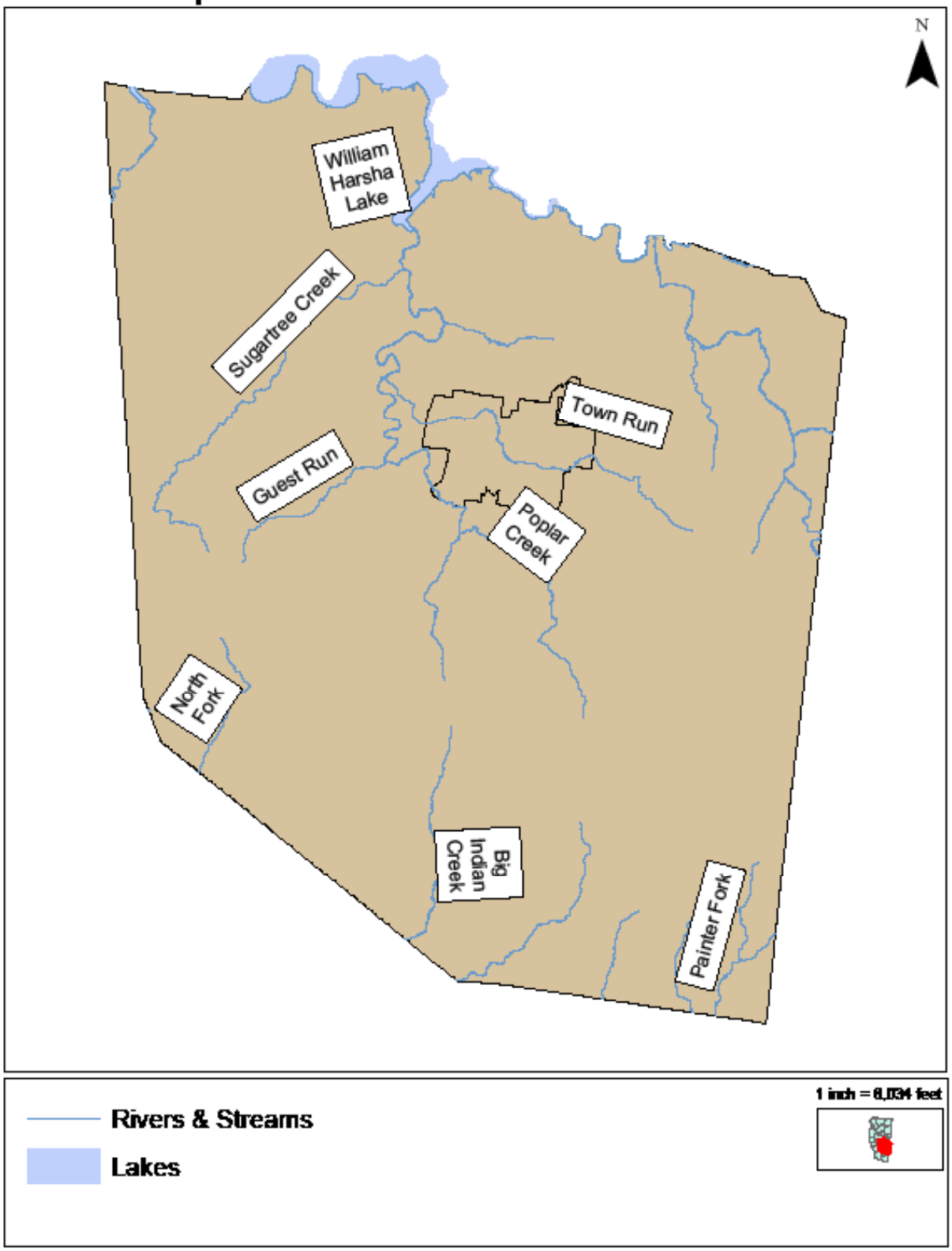
Stonelick Township Water Bodies



Map: Clermont Soil and Water Conservation District.
More Information: http://www.clermontswcd.org/

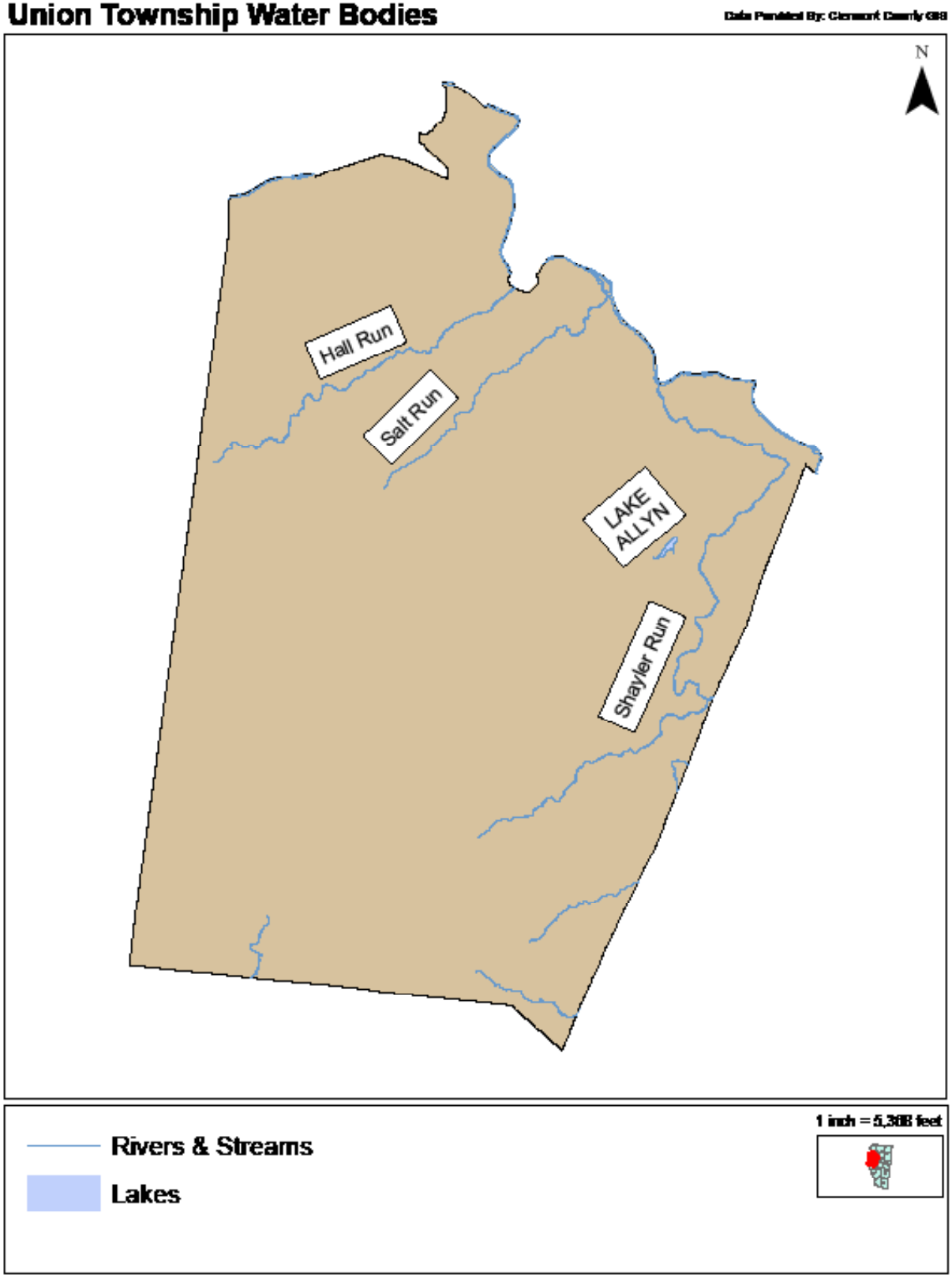
Tate Township Water Bodies

Data Provided By: Clermont County GIS



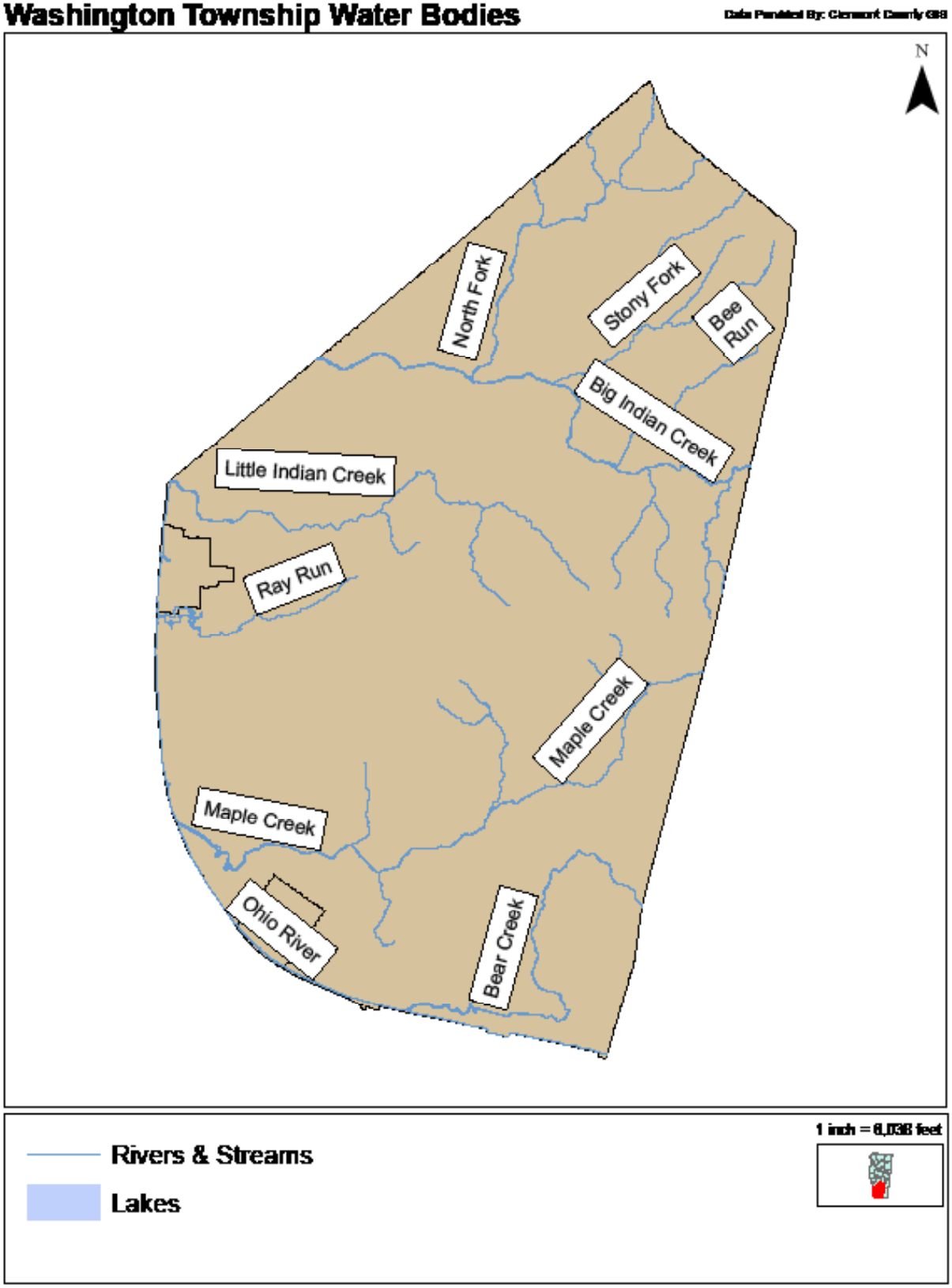
Map: Clermont Soil and Water Conservation District.
More Information: http://www.clermontswcd.org/

Union Township Water Bodies



Map: Clermont Soil and Water Conservation District.
More Information: http://www.clermontswcd.org/

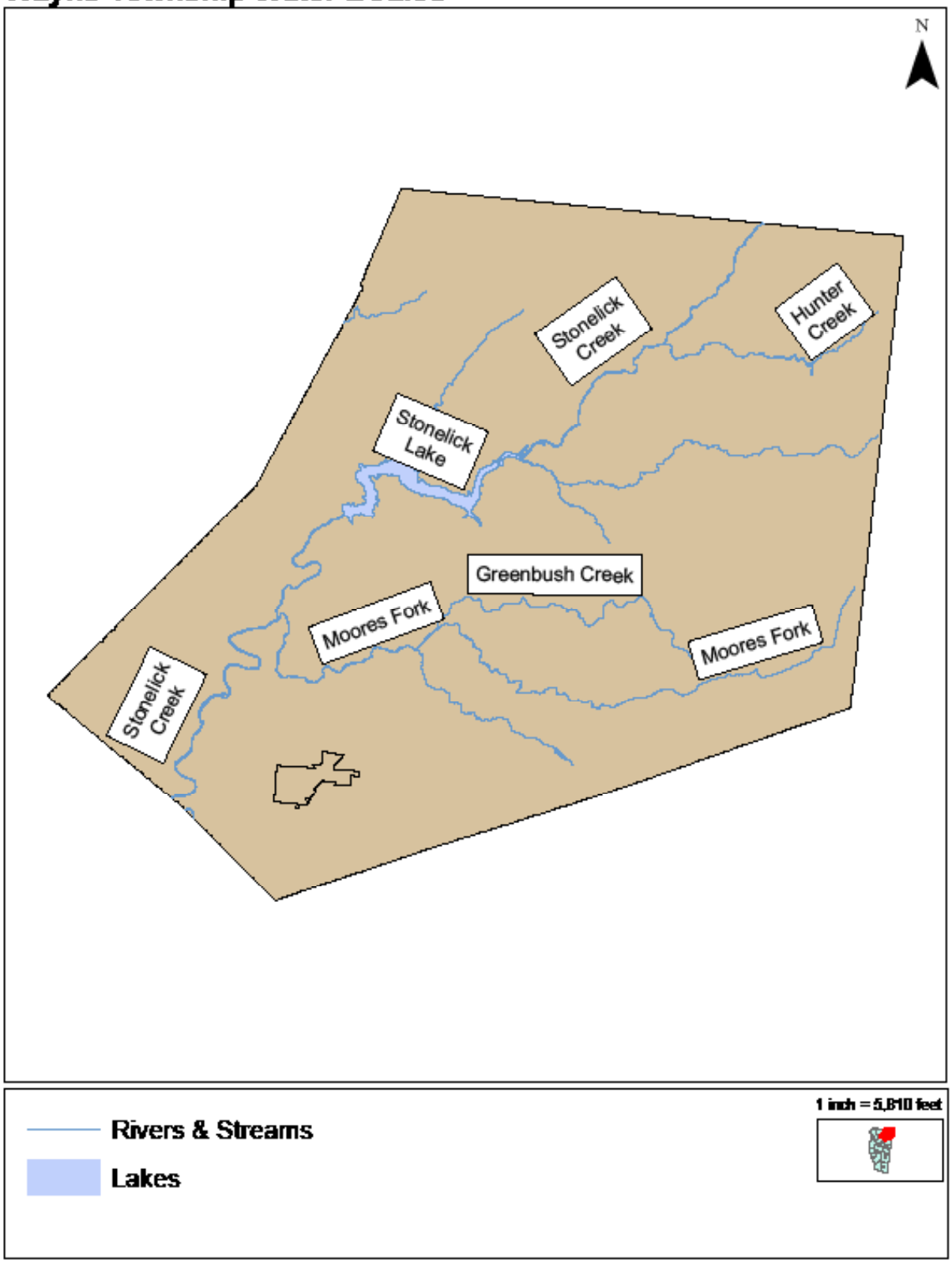
Washington Township Water Bodies



Map: Clermont Soil and Water Conservation District.
More Information: http://www.clermontswcd.org/

Wayne Township Water Bodies

Data Provided By: Clermont County GIS



Map: Clermont Soil and Water Conservation District.

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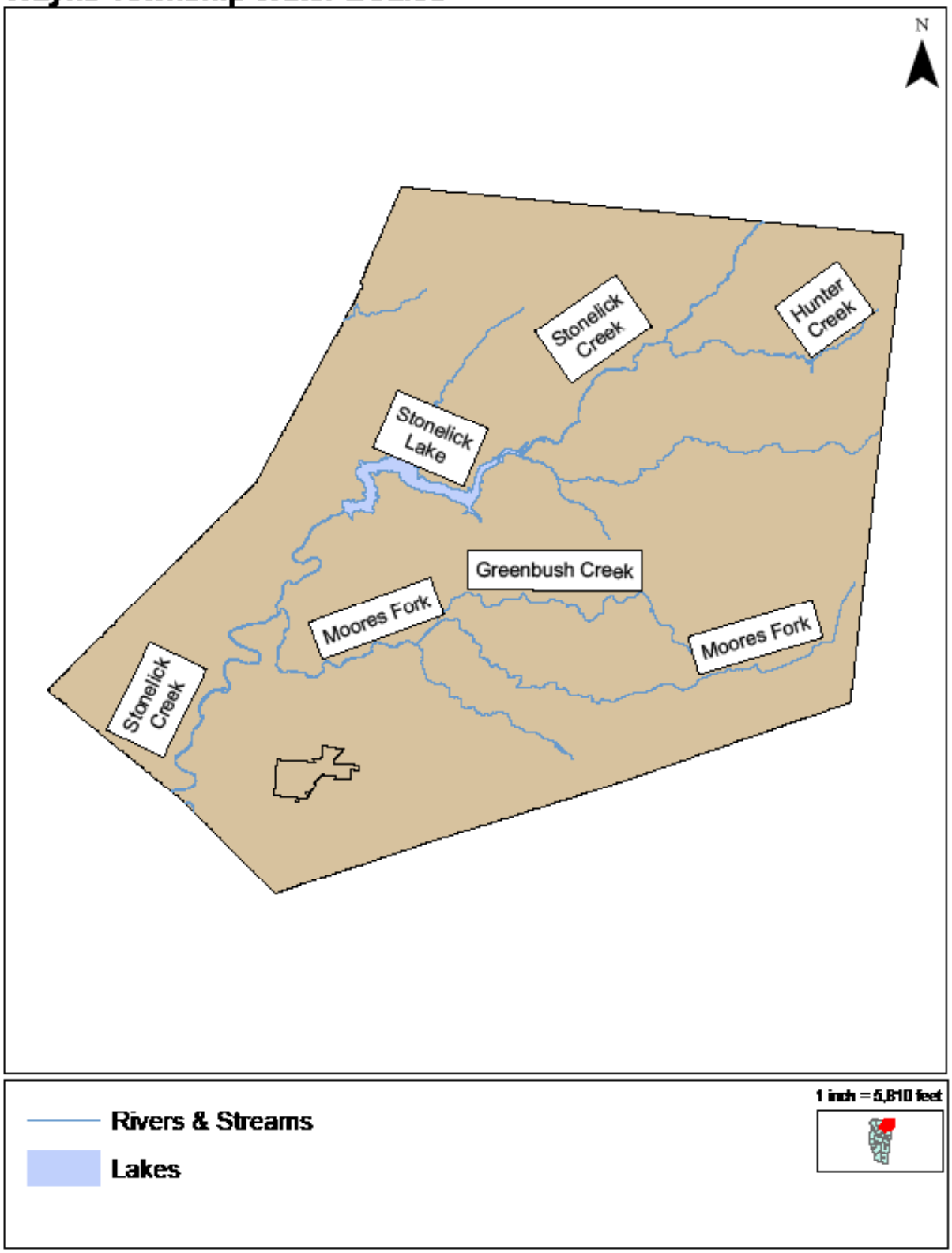
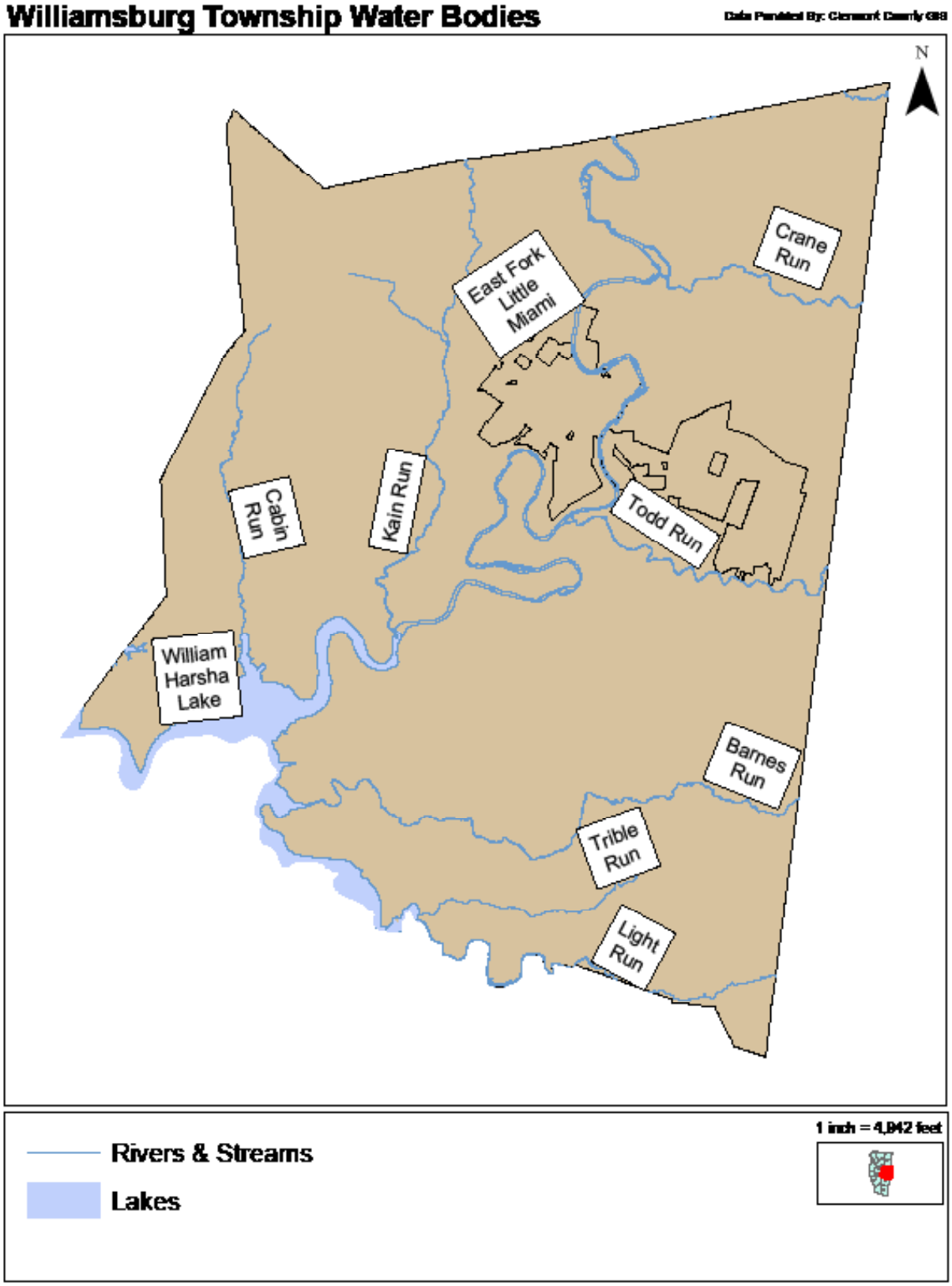
Wayne Township Water Bodies

Data Provided By: Clermont County GIS



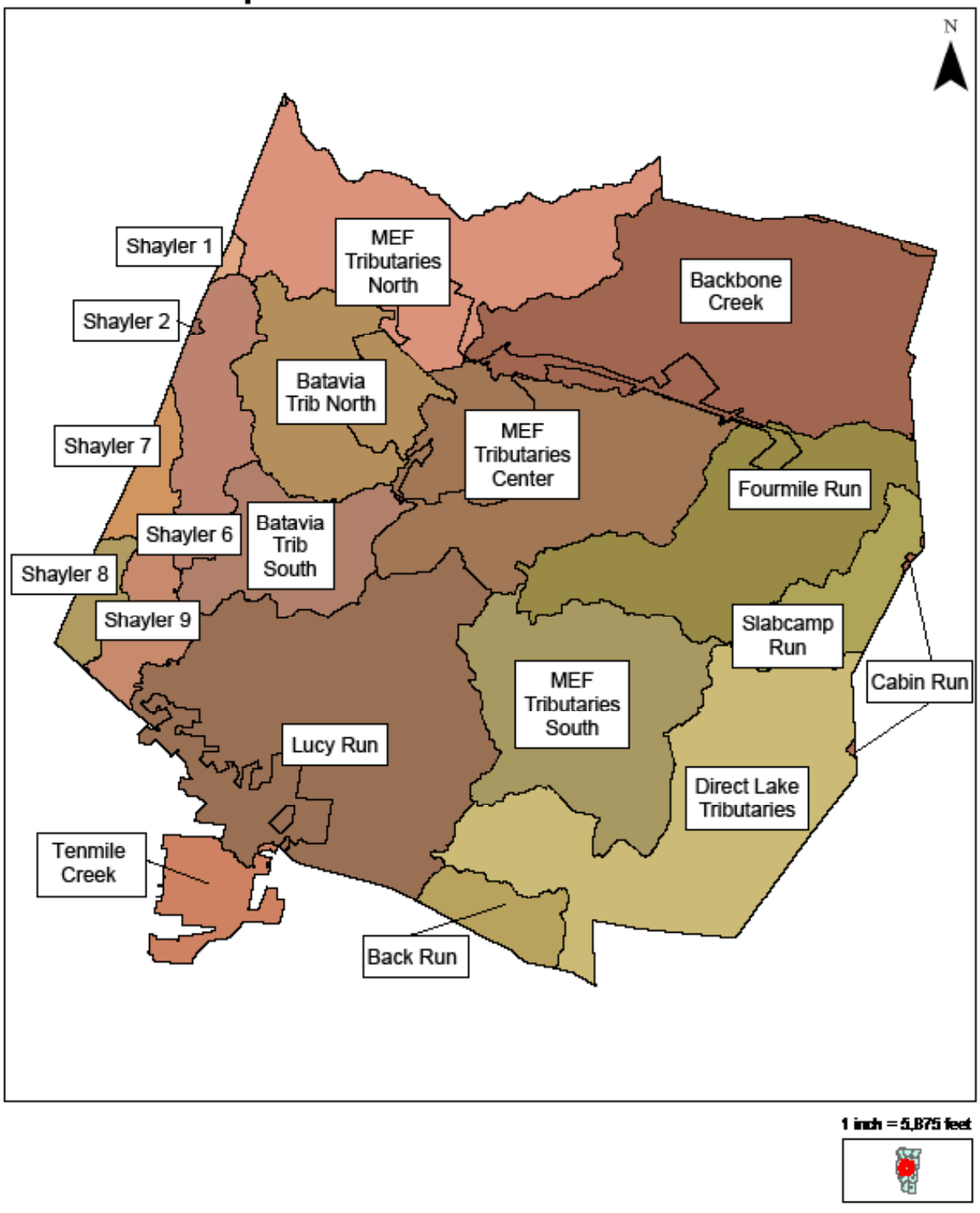
Map: Clermont Soil and Water Conservation District.
More Information: http://www.clermontswcd.org/



Map: Clermont Soil and Water Conservation District.

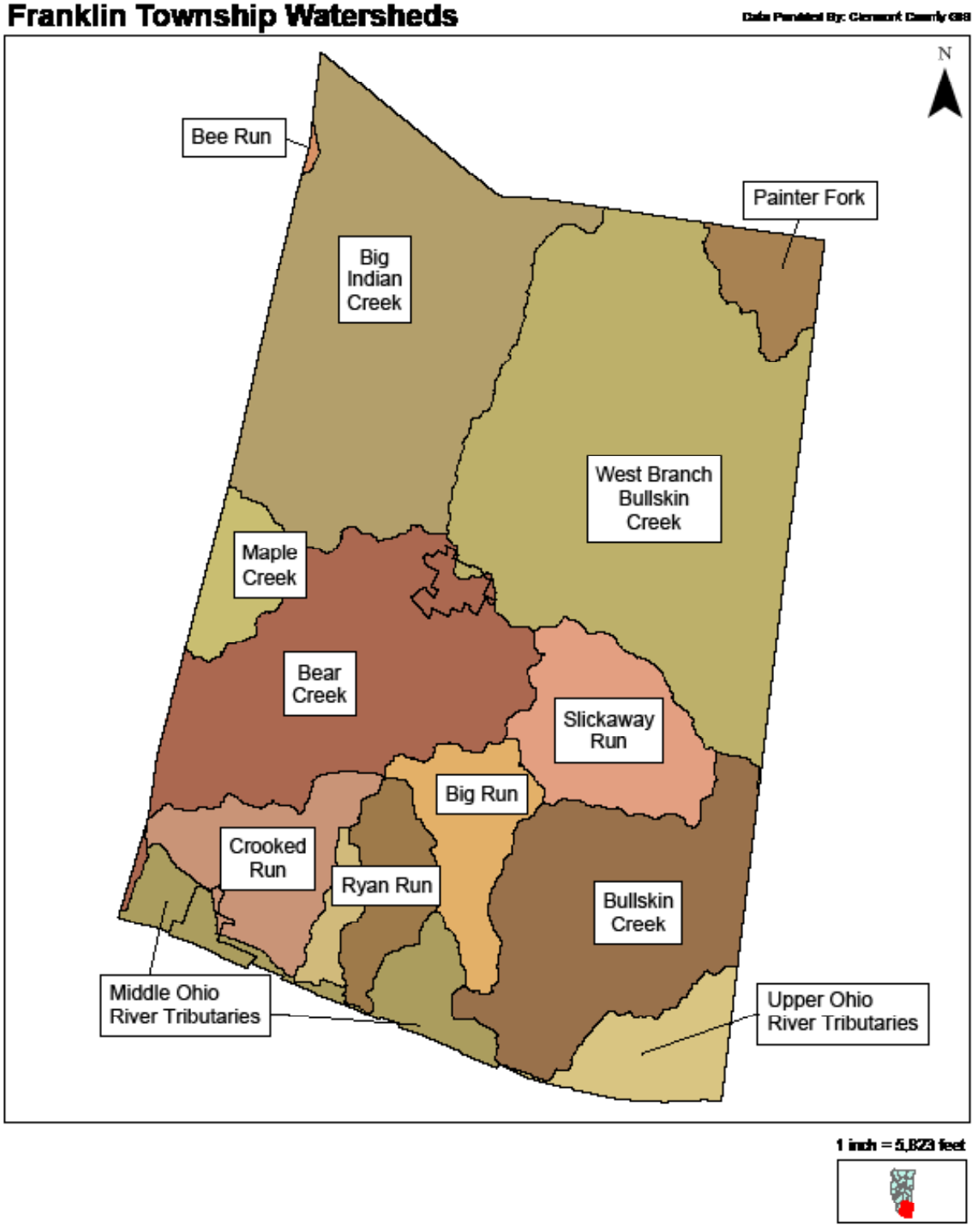
More Information: http://www.clermontswcd.org/

Batavia Township Watersheds



Map: Clermont Soil and Water Conservation District.
More information: http://www.clermontswcd.org/

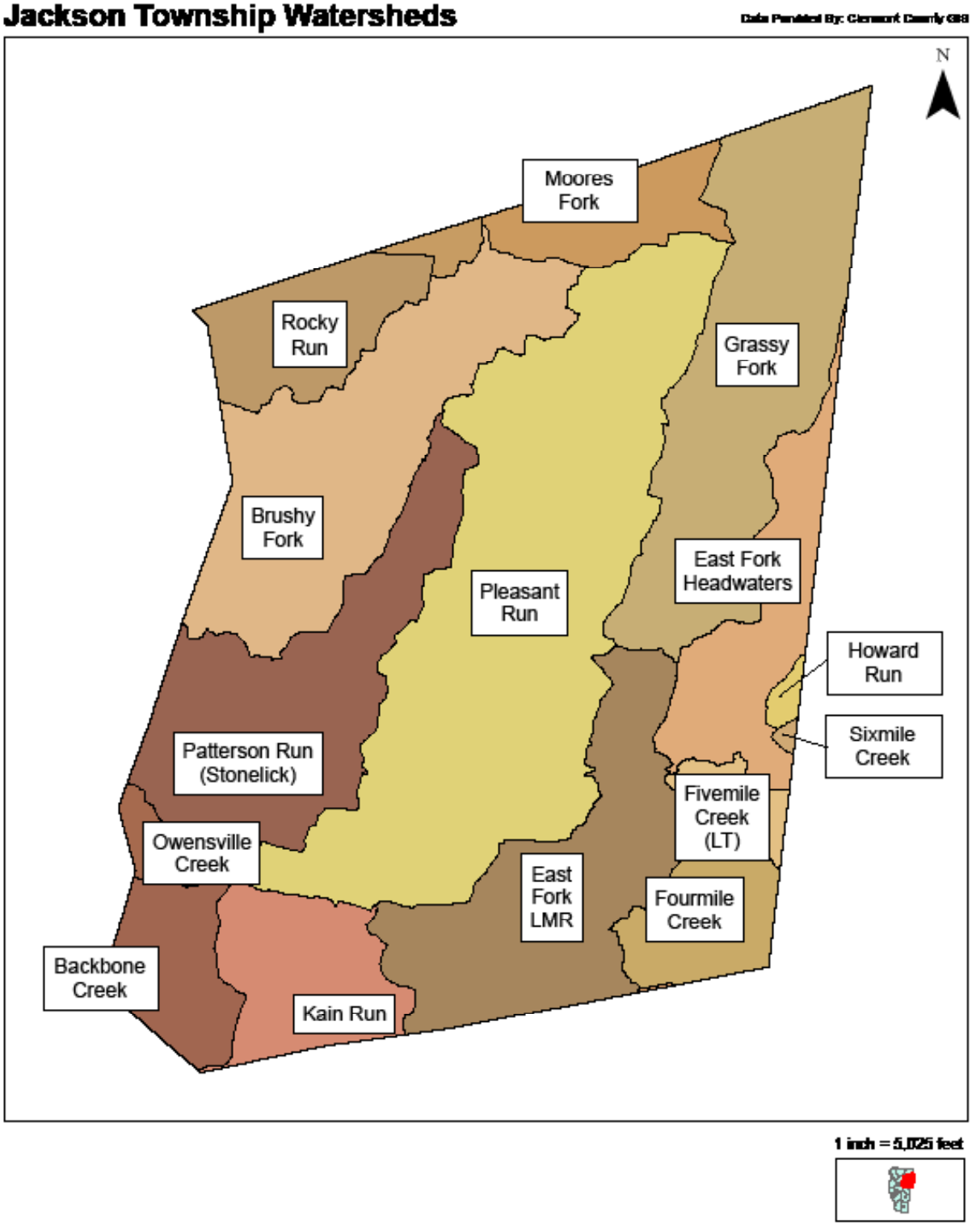
Franklin Township Watersheds



Map: Clermont Soil and Water Conservation District.

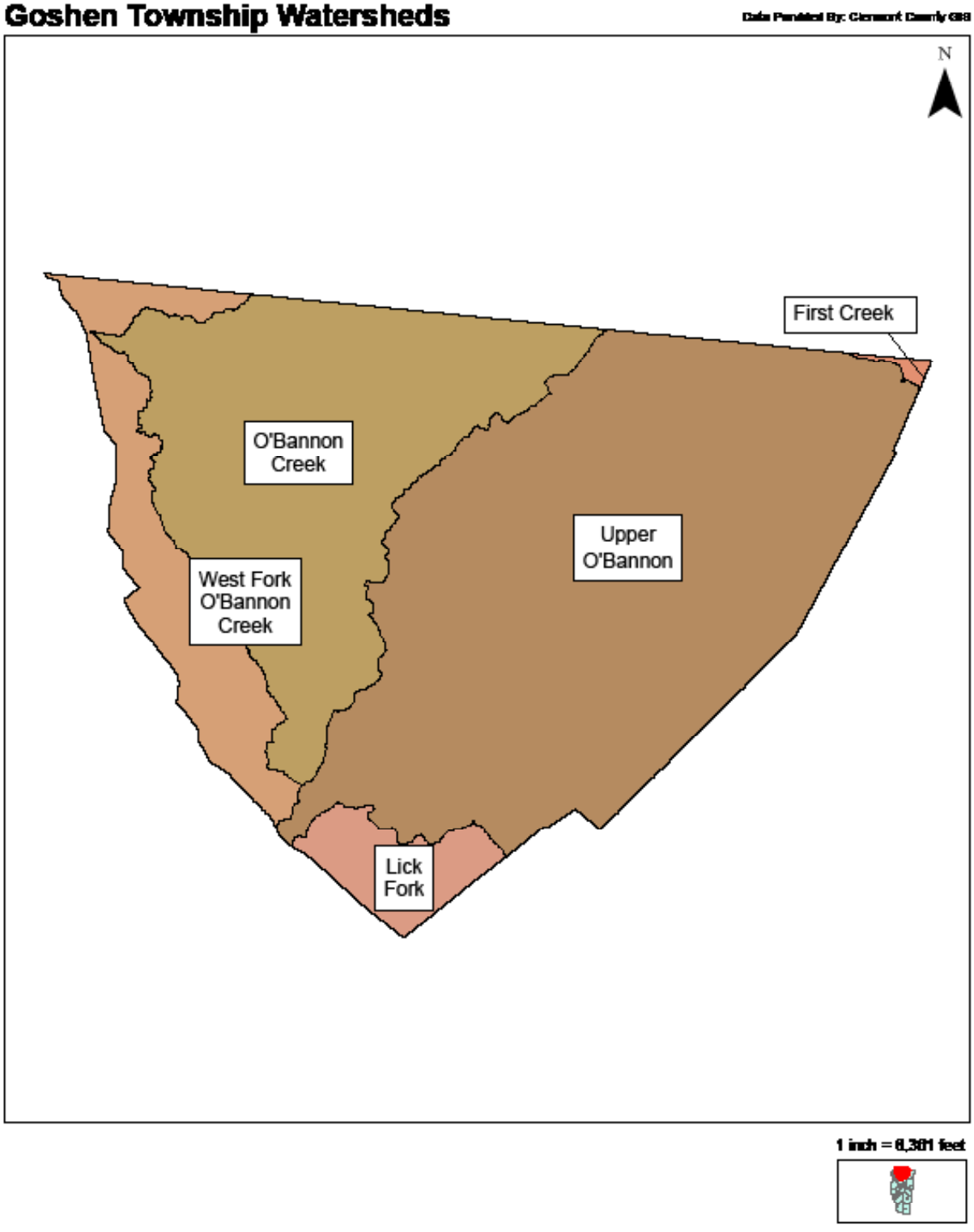
More information: http://www.clermontswcd.org/

Jackson Township Watersheds



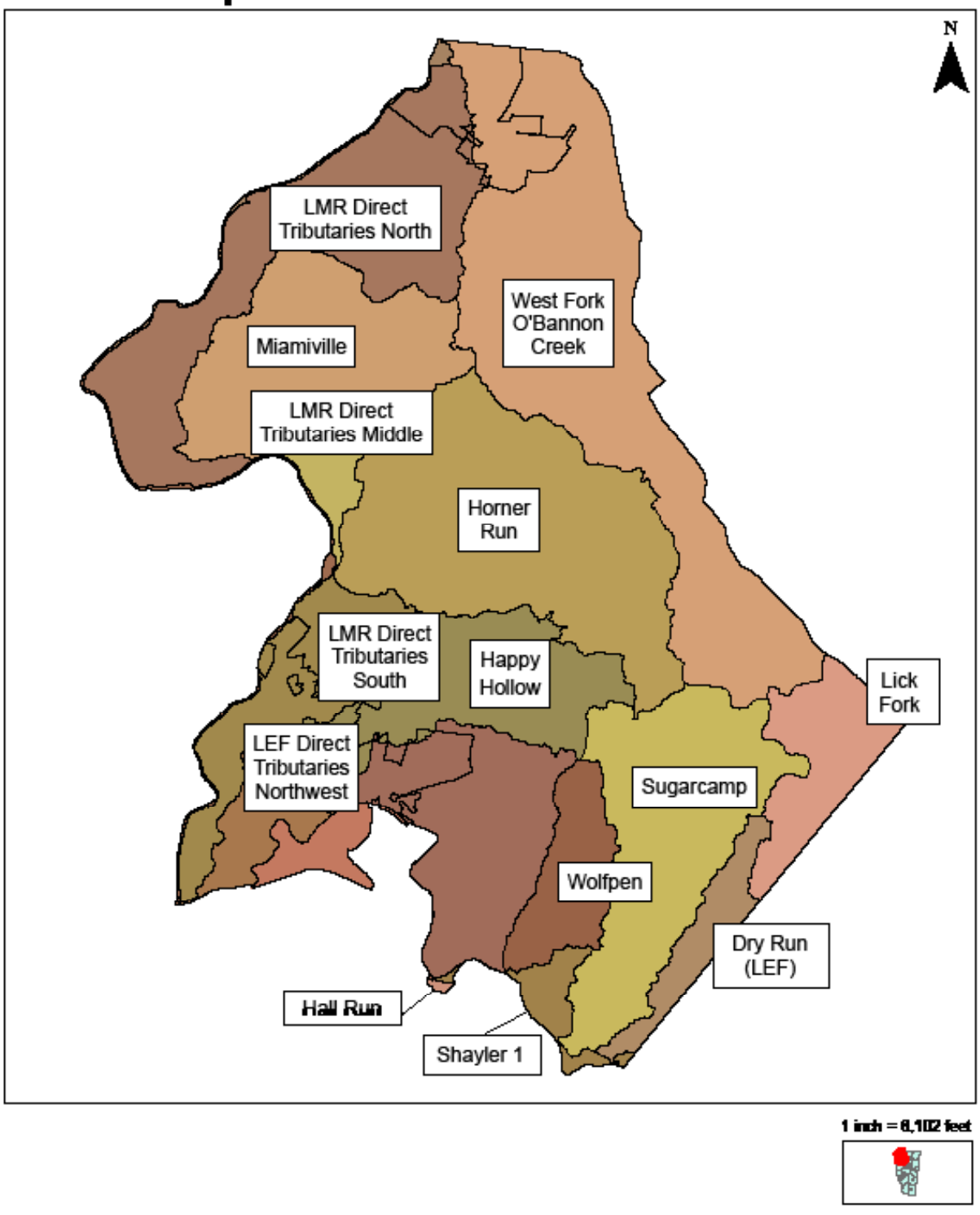
Map: Clermont Soil and Water Conservation District.
More Information: http://www.clermontswcd.org/

Goshen Township Watersheds



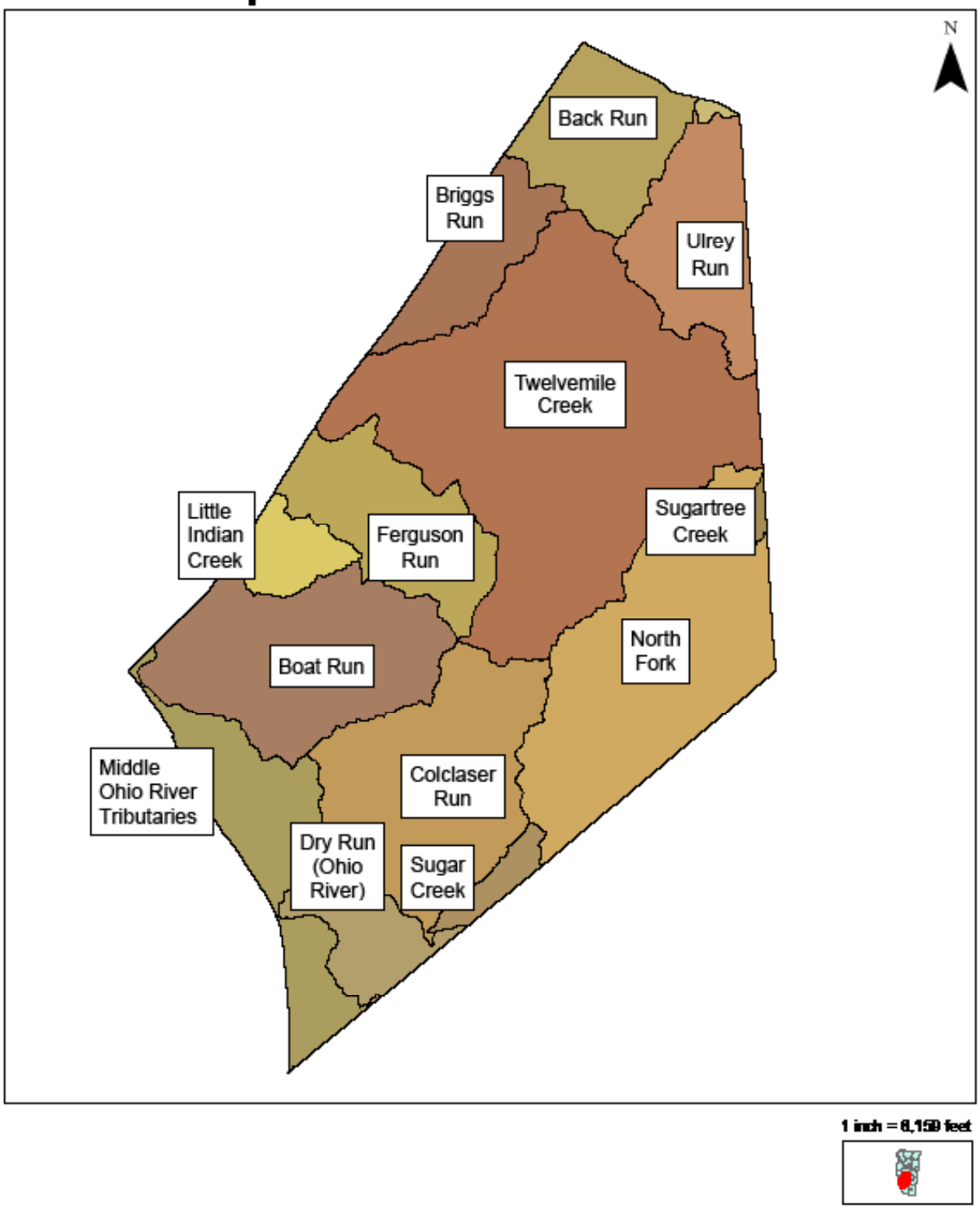
Map: Clermont Soil and Water Conservation District.
More information: http://www.clermontswcd.org/

Miami Township Watersheds



Map: Clermont Soil and Water Conservation District.
More Information: http://www.clermontswcd.org/

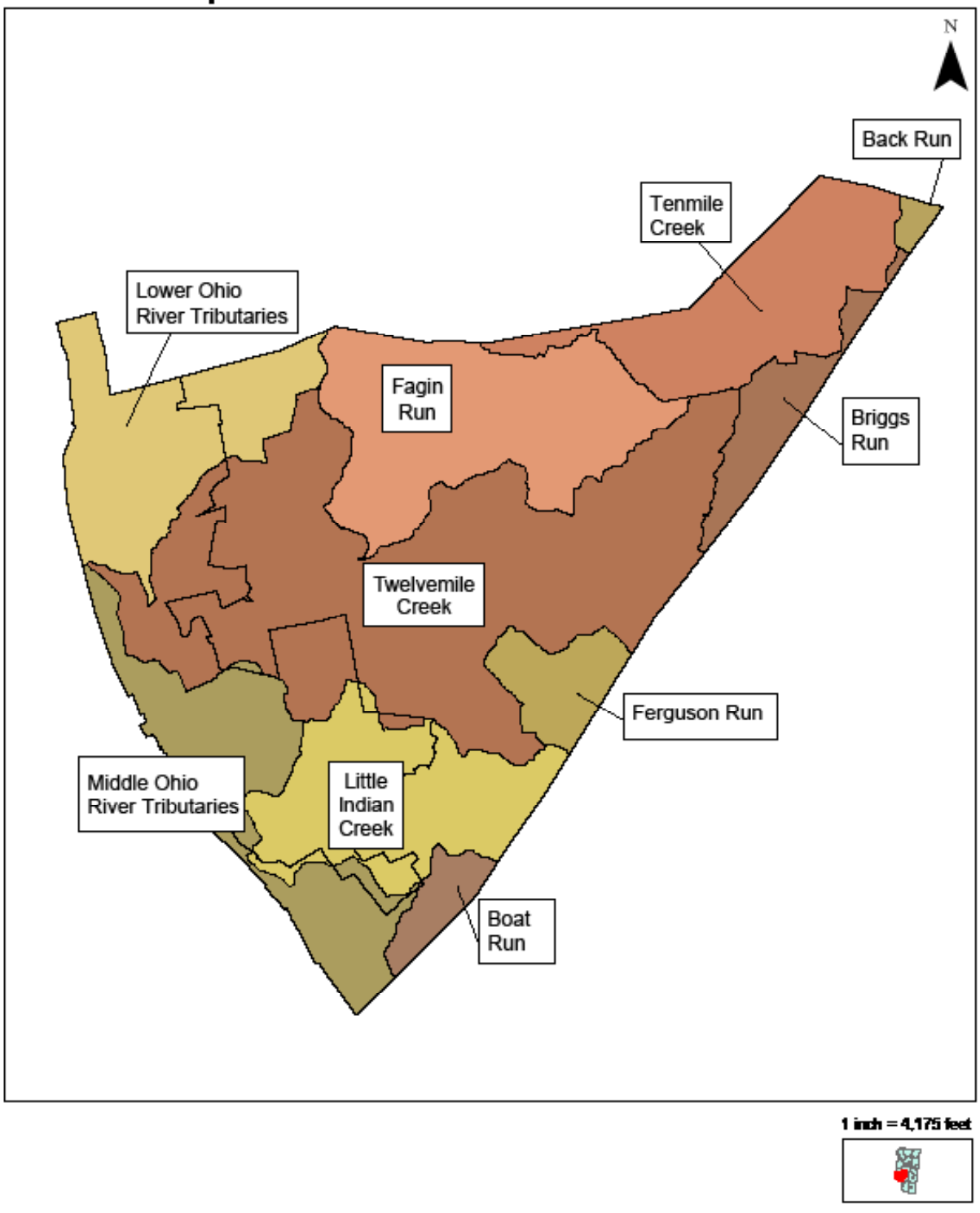
Monroe Township Watersheds



Map: Clermont Soil and Water Conservation District.

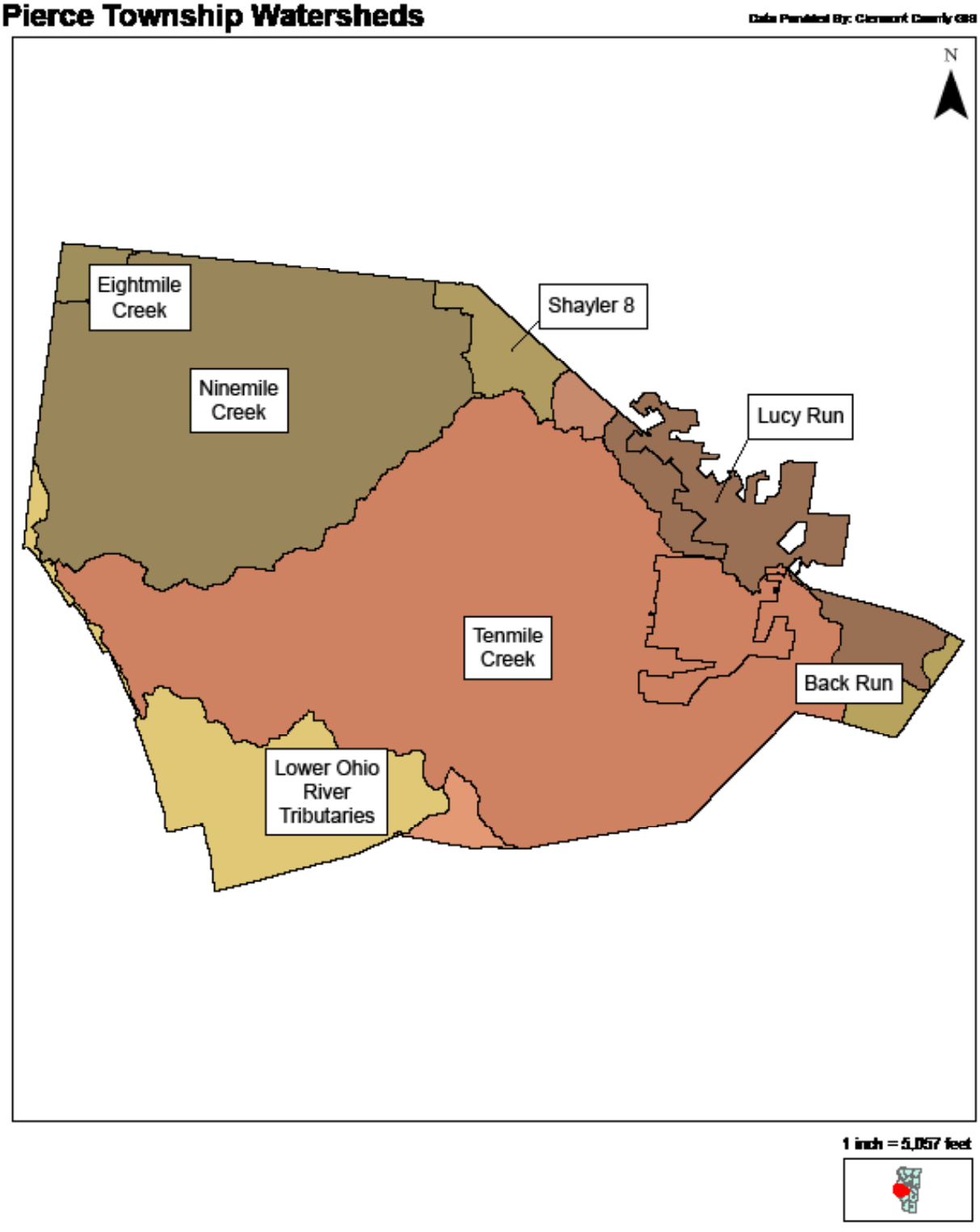
More information: http://www.clermontswcd.org/

Ohio Township Watersheds



Map: Clermont Soil and Water Conservation District.
More Information: http://www.clermontswcd.org/

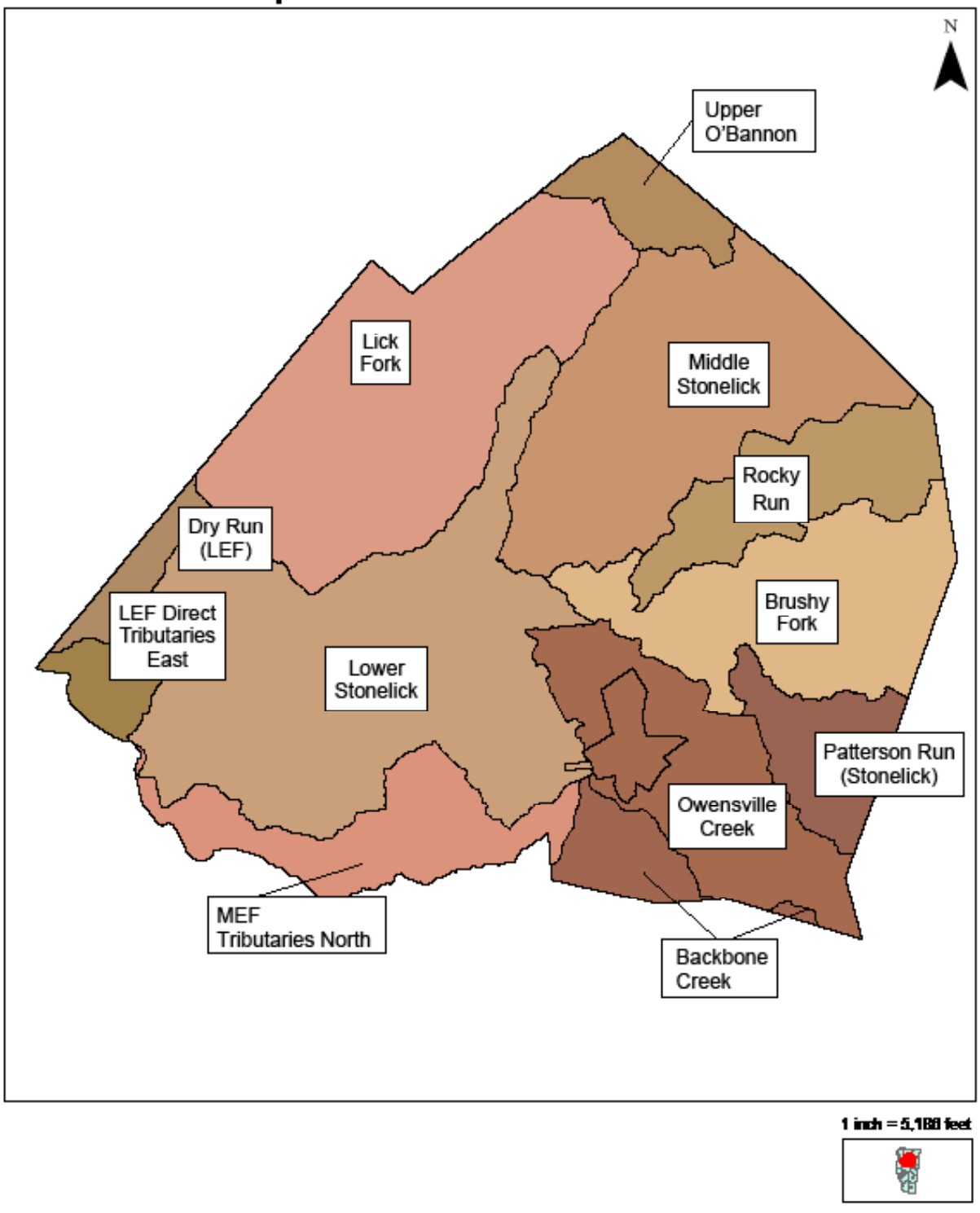
Pierce Township Watersheds



Map: Clermont Soil and Water Conservation District.

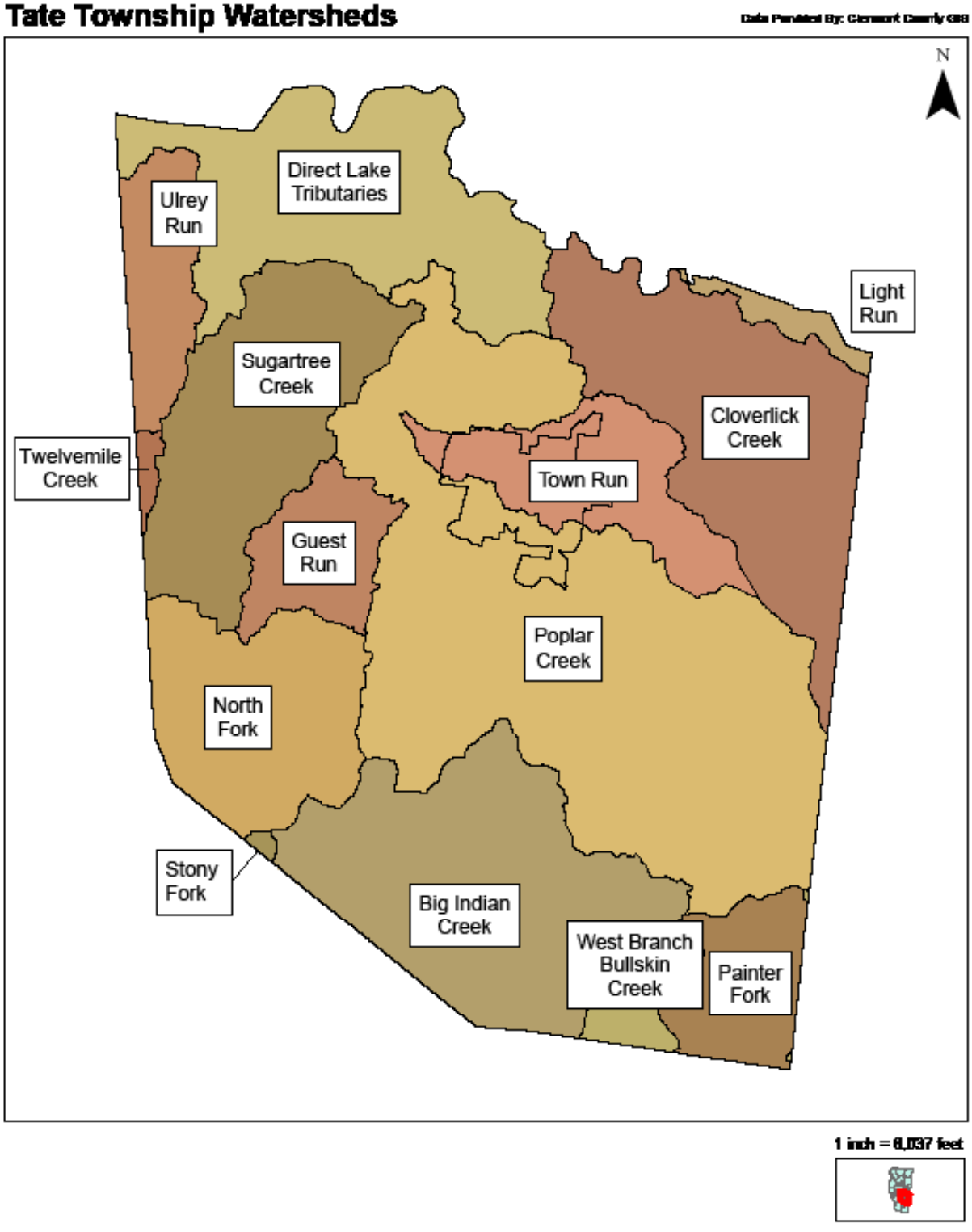
More information: http://www.clermontswcd.org/

Stonelick Township Watersheds



Map: Clermont Soil and Water Conservation District.
More Information: http://www.clermontswcd.org/

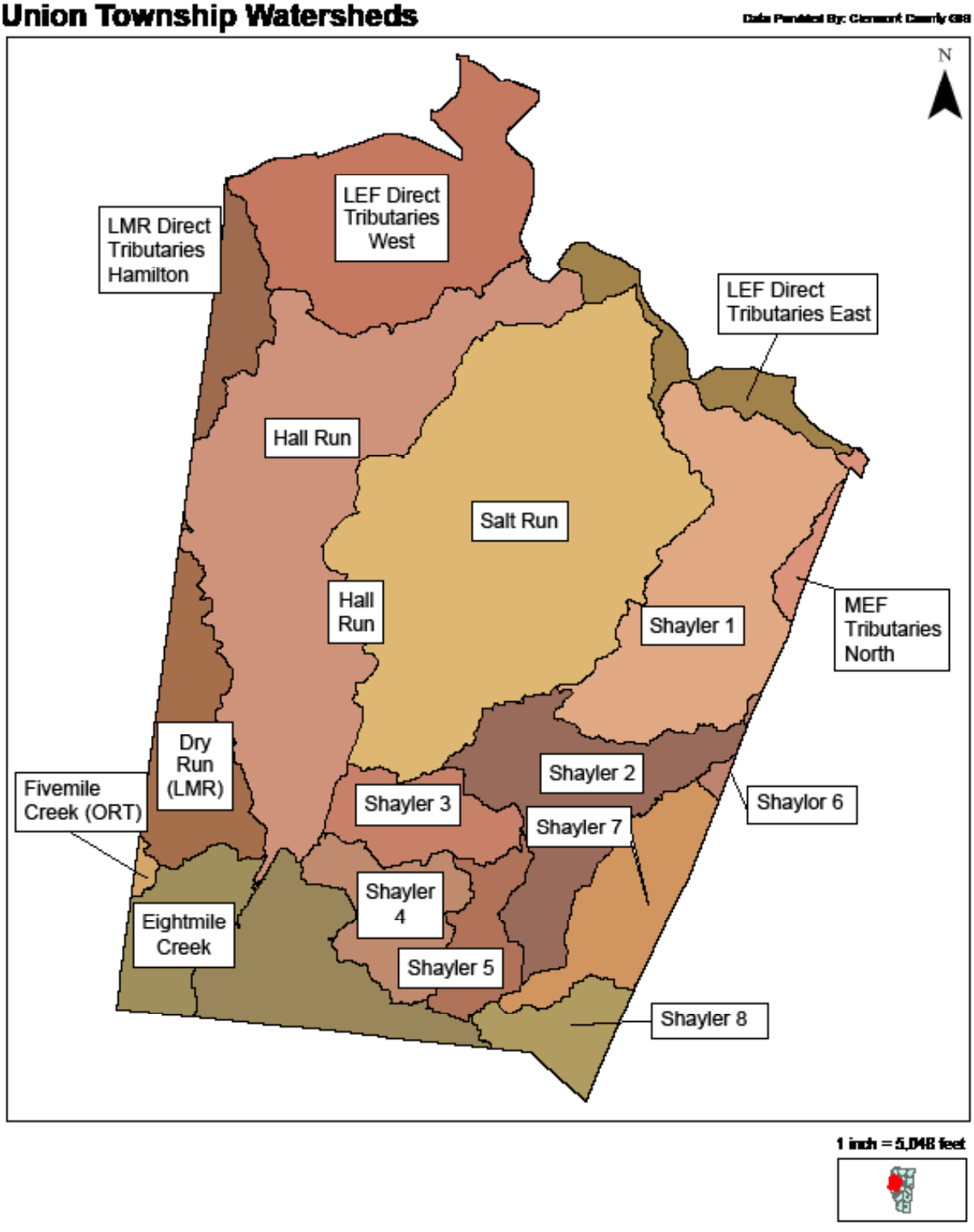
Tate Township Watersheds



Map: Clermont Soil and Water Conservation District.

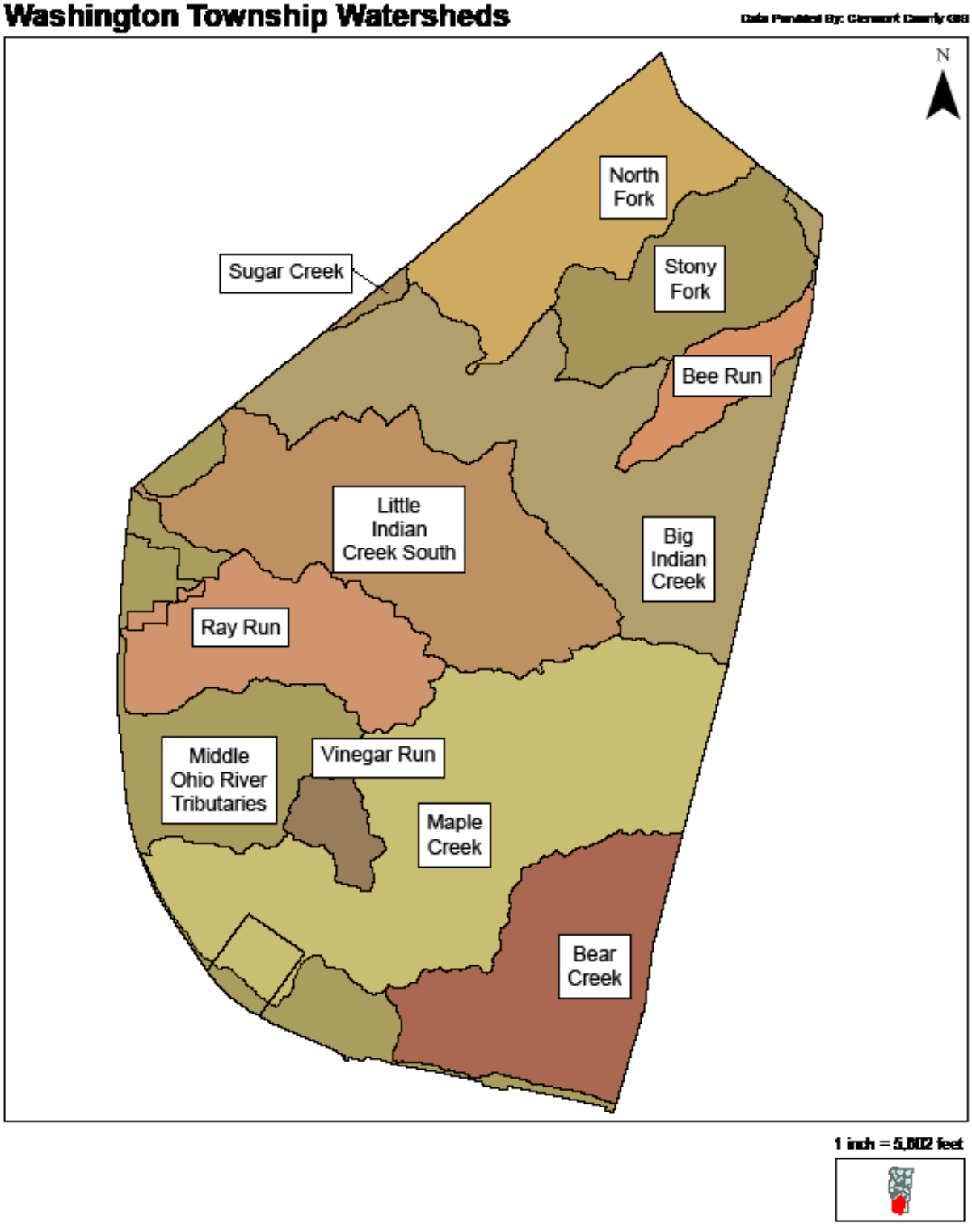
More Information: http://www.clermontswcd.org/

Union Township Watersheds



Map: Clermont Soil and Water Conservation District.
More Information: http://www.clermontswcd.org/

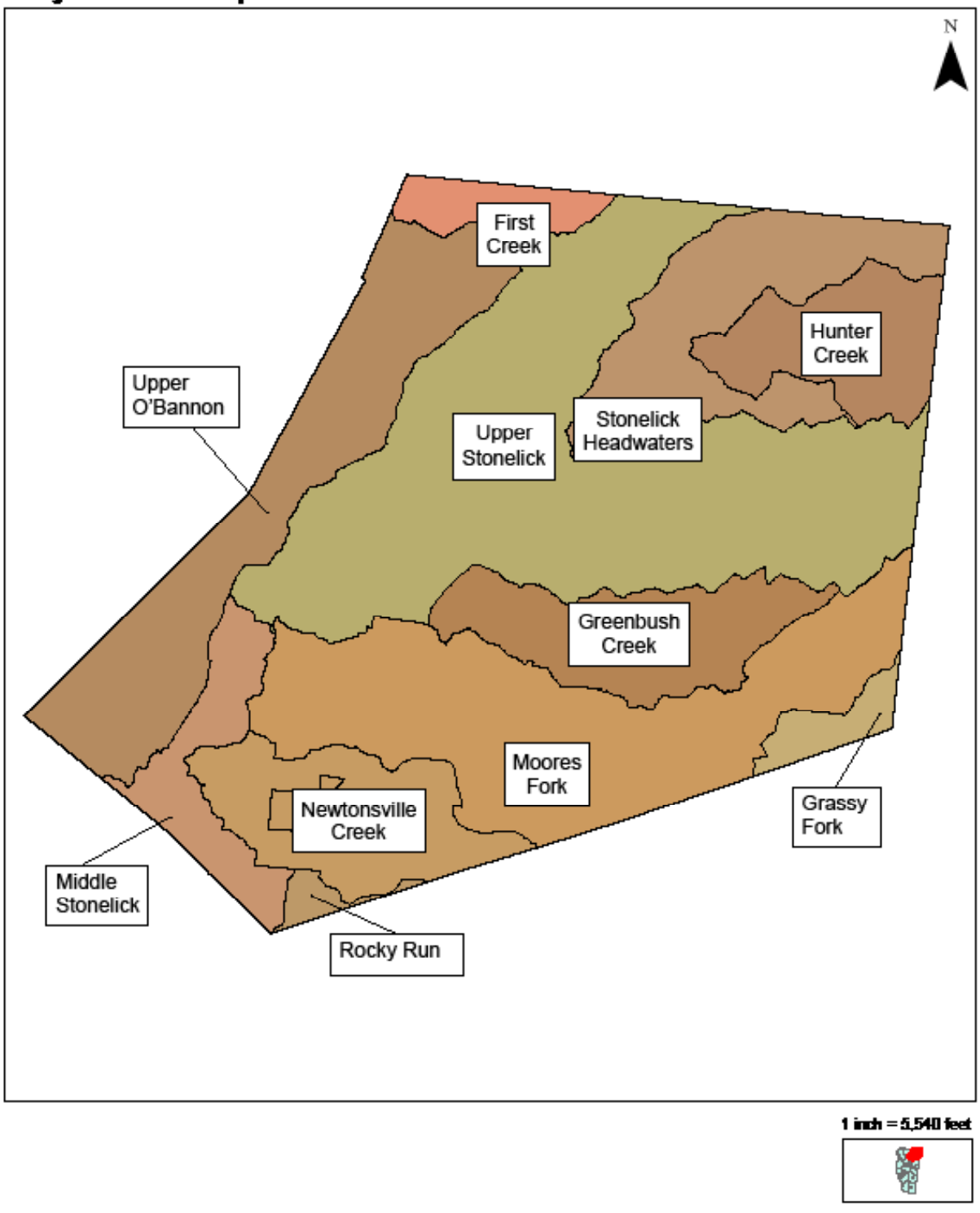
Washington Township Watersheds



Map: Clermont Soil and Water Conservation District.
More Information: http://www.clermontswcd.org/

Wayne Township Watersheds

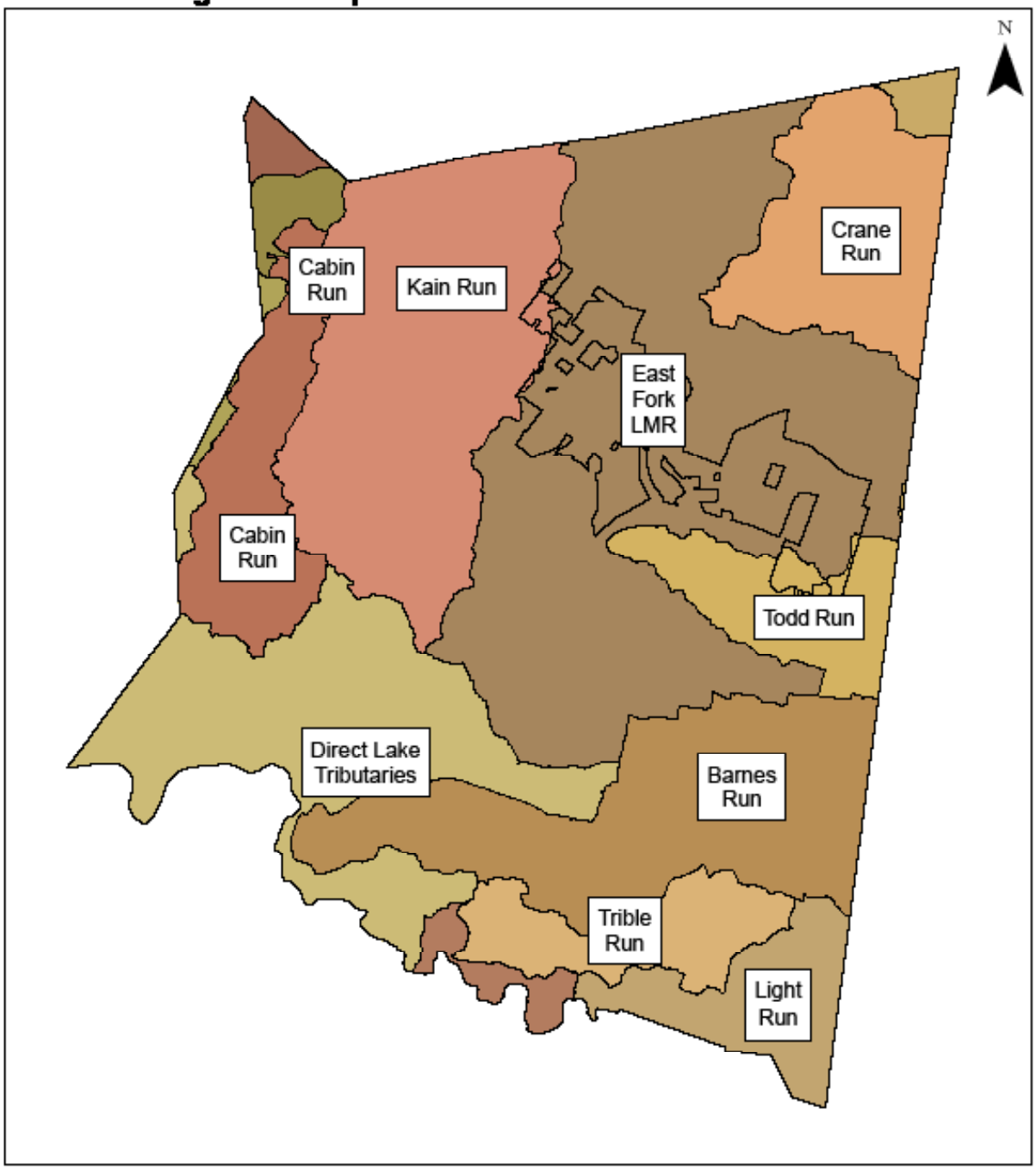
Data Provided By: Clermont County GIS



Map: Clermont Soil and Water Conservation District.
More Information: http://www.clermontswcd.org/

Williamsburg Township Watersheds

Data Provided By: Clermont County GIS



Map: Clermont Soil and Water Conservation District.
More Information: http://www.clermontswcd.org/

Storm Water Management

Storm water is water that falls as rain. When rain falls on forested or open areas, much of this water soaks into, or infiltrates, the ground. When development occurs, much of the rain water that used to infiltrate now runs off hard (impervious) surfaces such as rooftops, driveways, sidewalks, streets and parking lots. The excess runoff can result in localized drainage problems or flooding if not properly managed.

Storm water runoff also carries many different kinds of pollutants with it into local waterways. When rain falls and flows over construction sites, farm land, roads and parking lots, residential lawns and other areas, it picks up many different types of pollutants. This mix of rain water and pollutants does not flow to a treatment plant, but rather directly to local creeks and rivers, where it can harm wildlife and spoil recreation areas.

In 2013, the Storm Water Management Department merged with the Clermont Soil & Water Conservation District (SWCD). The Clermont Board of County Commissioners now contracts with the Clermont Soil and Water Conservation District to address storm water issues in the county. Additionally, the Clermont County Engineer and Water Resources Department have staff involved on a regular basis with regards to storm water and water management sediment control. Through this collaboration, SWCD strives to enhance the quality of life in Clermont County by reducing drainage and flooding problems and by improving water quality through proper planning and promotion of effective storm water management practices.

Clermont County Storm Water Management Plan

In 1987, amendments to the Clean Water Act required the U.S. Environmental Protection Agency (U.S. EPA) to develop a comprehensive phased program for regulating municipal and industrial storm water discharges under the National Pollutant Discharge Elimination System (NPDES) permit program.

The Storm Water Management Plan addresses:

1. Public Education and Outreach and Impacts
2. Public Involvement / Participation
3. Illicit Discharge Detection and Elimination
4. Construction Site Storm water Runoff Control
5. Post-Construction Storm water Management in New Development and Redevelopment
6. Pollution Prevention / Good Housekeeping for Municipal Operations

To meet these goals, the SWCD provides many important services to residents, such as implementing required EPA programs to improve water quality, developing a comprehensive inventory of the storm sewer system, master planning, and helping residents about their drainage problems.

Storm Water Management in Clermont County

The Ohio EPA designated 14 communities in Clermont County as Phase II communities that must comply with the new Phase II Storm water regulations. “Due to the expansion of the Greater Cincinnati urbanized area into small parts of Williamsburg Township and Village based on the 2010 census, it is likely that Ohio EPA will require these two communities to comply with the storm water regulations in 2014.”

These communities are:

- City of Loveland
- Village of Amelia
- Village of Owensville
- Goshen Township
- Monroe Township
- Pierce Township
- Tate Township
- City of Milford
- Village of Batavia
- Batavia Township
- Miami Township
- Ohio Township
- Stonelick Township
- Union Township

Ohio EPA’s Phase II storm water discharge permit for “Municipal Separate Storm Sewer Systems” requires Clermont County to submit an Annual Report. The report must contains all activities that were conducted to meet the permit’s six minimum measures (Storm

Excerpts taken from Clermont Soil and Water Conservation District.

More Information: http://www.clermontswcd.org/

Flood Plains

Floodplains are flat land next to river: an area of low-lying land across which a river flows that is covered with sediment as a result of frequent flooding.

Many different entities in Clermont County have storm water management responsibilities. Maintenance of the drainage systems within the road right-of-way are the responsibility of the government entity in charge of maintaining the road, with the Ohio Department of Transportation maintaining drainage systems along state highways, the County Engineer's Office caring for the systems that serve county roads, and the individual municipalities and townships responsible for the systems along their respective roads.

Storm water management issues associated with active developments are handled by the Clermont County Building Inspection Department, which is responsible for administering and enforcing the County's Water Management & Sediment Control Regulations.

Drainage concerns on private property are the property owner's responsibility to address; however, the Clermont Soil & Water Conservation District will inspect private property problems at the owner's request.

In addition to Clermont County's poorly draining soils, the conversion to urban land also leads to increased amounts of impervious surfaces such as roads, driveways, roofs, and manicured lawns, leading to even more drainage problems. This means more water leaving the area and less water infiltrating into the groundwater. The more water we want to drain from the landscape, the more our creeks and rivers have to accommodate, thus attributing to increased risk of severe flooding and erosion.

The County adopted and maintains Flood Plain Regulations in order to comply with the National Flood Plain Insurance Program per FEMA requirements. The current Regulations were updated and adopted in 2012. Approval is required for all work or development to property in special flood hazard areas within the jurisdiction of Clermont County as identified in Section 1.6 of the Flood Damage Reduction Regulations Resolution.
Flood Damage Reduction Regulations Resolution available at:
http://permit.clermontcountyohio.gov/ClermontCoFPResolution.pdf

The following maps show the 10-Year and 100-Year flood-way maps for Clermont County.

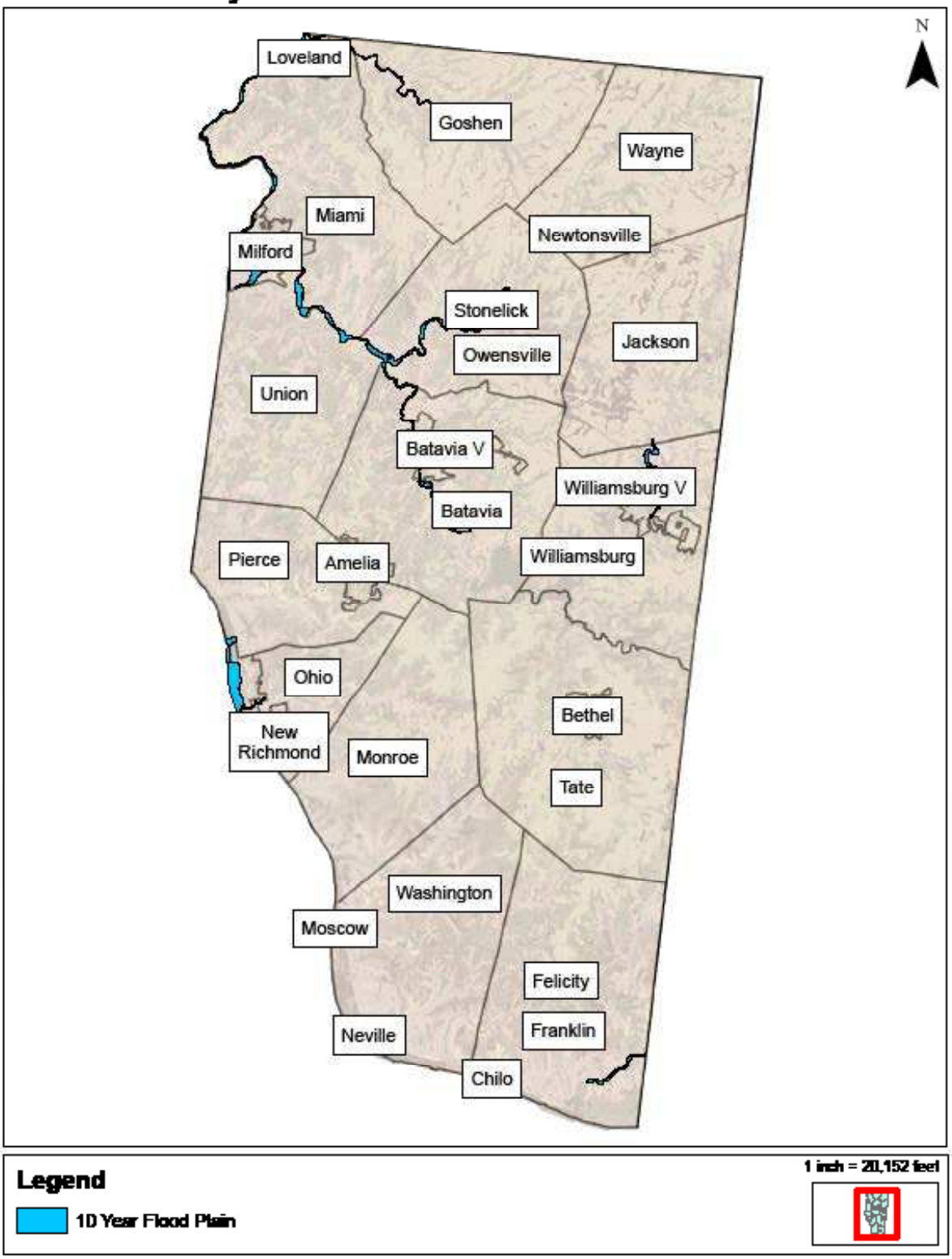
10-Year Flood Plain - Ten-year flood plains are the areas of land likely to be affected by waters from a 10-year flood. These areas of land are dry until the flood waters rise to cover them.

Excerpts/picture taken from Clermont Soil and Water Conservation District.

More Information: http://www.clermontswcd.org/

Clermont County 10-Year Flood Plain

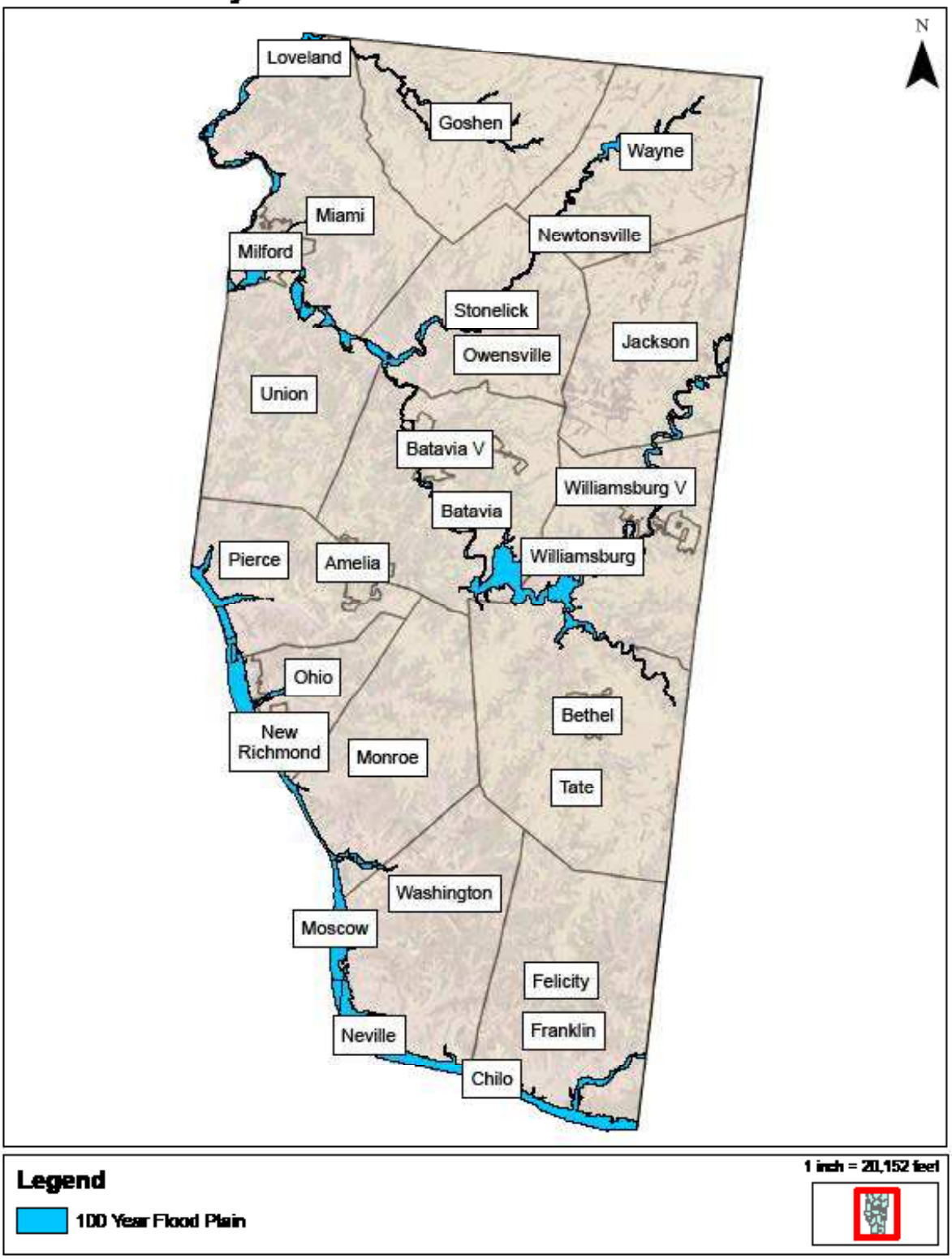
Data Provided By: Clermont County GIS



More Information: http://www.clermontswcd.org/

Clermont County 100-Year Flood Plain

Data Provided By: Clermont County GIS



More Information: http://www.clermontswcd.org/

Wetlands

Whether it's for farming or building new homes, today's landowners should be extremely cautious of clearing any ground without first checking for the presence of wetlands. Shallow ponds, swamps, and stream-side/seaside marshes are classic examples of wetlands that most people recognize on sight. But some wetlands, particularly the wooded wetlands prominent throughout Clermont County, are not readily apparent to the untrained eye. Wetlands reduce flooding, erosion and help improve water quality (e.g. wetlands acts like sponges, absorbing excess storm water and pollutants.).

Wetlands (except for lands in agricultural production) fall under the jurisdiction of the Army Corp of Engineers (wetlands connected to a navigable waterway) or Ohio EPA (upland or isolated wetlands). Wooded wetlands can be very high quality wetlands because they take so long to grow and develop, and they contain unique habitats (vernal pools) that are critical to many threatened and endangered amphibians.

Wetlands also provide enormous benefits to surrounding communities in reducing storm water runoff and downstream flooding and erosion. They provide a haven for rare and endangered plants, and one-third of the all endangered species depend on wetlands for survival. Many wetlands are important fish spawning and nursery areas, as well as nesting, resting and feeding areas for waterfowl. Wetlands also provide recreational opportunities such as canoeing, fishing, and bird watching.

Destruction of a regulated wetland by a landowner can result in severe penalties. Foremost, they may be faced with expensive mitigation (restoring or constructing wetlands to offset those destroyed) that can range from $2,000-$20,000 per acre. But they could also face substantial fines as well.

From an agricultural standpoint, wetlands that were cleared or drained for farming prior to the 1985 Swampbuster Act, known as "prior converted wetlands," can continue to be farmed and are not regulated by the Corps or Ohio EPA. However, if these previously drained lands are left fallow for any length of time after 1985, they may revert back to a wetland. Farmers who drain or destroy these reverted wetlands are usually required to restore or re-vegetate the area, or they could be banned from participation in future Farm Bill commodity programs.

Farmers who clear land that has no history of agricultural production could be in violation of the CORP's, USDA's or Ohio EPA's wetland regulations if wetlands are found to be present. Farmers who are planning to clear or drain any new lands for production should contact NRCS or FSA at 732-2181 beforehand.

Examples of activities that may require a permit and a water quality certification include:

- Boat ramp construction
- Placement of riprap for erosion control
- Filling, grading, dredging, ditching or mechanically clearing a wetland
- Building in a wetland
- Constructing dams or dikes
- Stream channelization
- Stream diversion

Excerpts/picture taken from Clermont Soil and Water Conservation District.

More Information: http://www.clermontswcd.org/

Land Conservation

There are several options for preserving land in Clermont County so that it will be protected in perpetuity. Conservation easements can be used to protect land that have unique conservation value, whereas agricultural easements are used to preserve farmlands for the sole purpose of perpetuating agricultural production.

Besides agricultural easements, Ohio farmland preservation tools include such programs as Current Agricultural Use Valuation (CAUV), Ohio Farmland Preservation Act and Agricultural District program, and Agricultural Security Areas.

Communities that are undergoing a rural to urban/suburban transition express a desire to maintain the natural, rural character of their communities. Preserving natural areas with conservation easements helps to maintain the natural, rural character of the landscape and also adds aesthetic and recreational value to local communities. These contributions to the public good enhance community living and quality of life.

If you're a Clermont County landowner interested in learning more about conservation easements, you can contact local land trusts including the Appalachia Ohio Alliance or the Southern Ohio Farmland Preservation Association, or government agencies including the Clermont Soil and Water Conservation District, the Clermont County Office of Environmental Quality, or the Clermont County Park District.

Tools for Open Space Protection

Tools for Open Space Protection has been created to provide local governments with:

- An objective process that can be used to identify land areas with current and potential open space attributes;
- Guiding principles to compare the relative value of multiple open space parcels; and
- A compilation of available tools which can be used to protect open space.

The information contained in this document focuses on the importance of considering open space values in land use planning in addition to focusing on providing tools for local governments to use to achieve this end, if they so choose. Activities such as zoning, subdivision regulations, and identification of parkland for purchase should all be conducted in a manner that includes a context-specific consideration of open space. As with all land use management activities, final land use decisions are based upon an evaluation of many community and development policy issues. It should be recognized that open space is only one of many considerations.

This document is appropriate for use by local governments wishing to consider open space in land use management planning. These may include Clermont County government operations, local governing bodies such as townships or municipalities with an interest in preserving open space.

Excerpts / Picture taken from Clermont Soil and Water Conservation District.
More Information: http://www.clermontswcd.org/

Land Conservation Easement

A conservation easement is an effective land preservation tool used to conserve natural areas and open space on private lands. The protection of natural areas is becoming increasingly important, especially in areas such as Clermont County, where there has been a steady expansion of urban growth and development. As growth and development continue in the region, conservation easements will be essential tools to help protect natural areas and minimize adverse impacts to the environment.

A conservation easement is a voluntary agreement made by a landowner to place deed restrictions over property (or a section of property), to preserve land in its current state. The land typically has some conservation value, such as farmland, forested area, open space, wildlife habitat, streams or wetlands. Easements are drafted in various ways; however, the restrictions generally prohibit future development of the land.

Landowners may choose to place an easement on their property for various reasons; many recognize the long-term environmental benefits. Conservation easements protect natural areas and open spaces, which in turn, provide indirect environmental "services," such as storm water management. For example, a conservation easement that protects forested land next to a stream or lake would provide a natural, protective barrier (or "buffer") to absorb rain water/snow melt and filter out harmful pollutants.

When properly designed, forested stream buffers are highly effective methods for reducing storm water runoff and improving water quality, and are more efficient and cost effective than the more conventional, engineered methods used to reduce storm water impacts.

In addition to the environmental benefits, conservation easements also provide financial incentives for the individual landowner. Easements can be sold or donated, temporary or permanent; however, most easements are donated to local land trusts or government agencies in perpetuity.

Landowners retain ownership of the property and are provided financial compensation for the loss of development rights. Financial compensation is based on the easement value, which is determined by the difference between property appraisals done before and after the deed restrictions.

Landowners who donate easements may be eligible for income tax deductions and estate tax deductions. Because the deed restrictions lower the property's market value, conservation easements are ideal for landowners looking to reduce the estate tax burden for those who may inherit the property in the future.

Excerpts/picture taken from Clermont Soil and Water Conservation District.

More Information: http://www.clermontswcd.org/

Conservation and Water & Air Quality Improvement Projects

Solomon Run Low-head Dam Removal
The Ursulines of Brown County are partnering with Ohio EPA, the Ohio Valley RC&D, Clermont & Brown Soil and Water Conservation Districts and the East Fork Watershed Collaborative to remove a low-head dam located on Solomon Run – a tributary to the East Fork Little Miami River. The dam was built in the 1930s to provide a source of drinking water; however, the dam is no longer used for that purpose and the Ursulines are committed to returning the stream to its natural state.

Grassy Fork Demonstration Project
The Grassy Fork watershed (a 6.9 mi^2 sub-watershed of the East Fork) is the focus for East Fork Watershed Collaborative (EFWC) partnering agencies to research ways to reduce nutrient pollution and improve soil structure in the East Fork watershed. In 2011, Clermont SWCD was awarded a Conservation Innovation Grant (CIG) from USDA to demonstrate how watershed modeling and best management practices (i.e. cover crops) can be used to improve water quality in local streams. CIG grants are made available to local governments and watershed groups to develop new, innovative ways to protect natural resources.

East Fork Total Maximum Daily Load Study
The East Fork TMDL is being conducted because significant segments of the EFLMR are not meeting the water quality standards associated with the Exceptional Warmwater Habitat designation; it is deemed impaired by Ohio EPA. Because the river is deemed impaired, Ohio EPA is conducting a Total Maximum Daily Load (TMDL) study for the East Fork. A TMDL is basically a pollution budget for a river. The East Fork TMDL is currently underway and once completed, it will include recommendations for best management/land use practices for urban and rural communities.

The East Fork Watershed Collaborative (EFWC)
In 2001, the Soil & Water Conservation Districts in Clermont, Brown, Clinton and Highland Counties partnered with Clermont County to participate in the Ohio Department of Natural Resources Watershed Coordinator Grant Program. These stakeholders recognized the need to merge the diverse interests within the East Fork and develop a unified approach to restoring and protecting the watershed.

Excerpts taken from Clermont Soil and Water Conservation District.
More Information: http://www.clermontswcd.org/

Middle East Fork Balanced Growth Project

The Clermont Soil and Water Conservation District worked with local jurisdictions and area partners to develop a Watershed Balanced Growth Plan for the Middle East Fork, a sub-watershed of the East Fork Little Miami River Watershed. This planning project was funded through a grant from the Ohio Water Resources Council and the Ohio Balanced Growth Program, a statewide initiative designed to help growing communities balance development and natural resource protection through regional land use planning.

A local Watershed Planning Partnership (WPP) was formed to oversee the initial planning process from January 2010-December 2011. The WPP included representatives from each Township/Village in the planning area, along with representatives from public agencies and private organizations. The WPP worked together to complete the Middle East Fork Watershed Balanced Growth Plan, which includes maps of Priority Development Areas (PDAs) and Priority Conservation Areas (PCAs), along with recommendations for the implementation of Best Local Land Use Practices.

The East Fork of the Little Miami River is a sub-watershed within the Little Miami River Basin. The East Fork watershed encompasses nearly 320,000 acres (540 mi^2) in southwestern Ohio and includes portions of Brown, Clermont, Clinton, Highland, and Warren Counties. With 155,384 (390 mi^2) acres of the watershed, Clermont County contains 49% of the watershed. The East Fork River flows 86 miles southwest from its origin in Clinton and Highland counties to its confluence with the Little Miami in Clermont County.

Watershed Action Plans

- Lake Tributaries Water Action Plan
- Headwaters Water Action Plan
- Lower East Fork Water Action Plan
- Middle East Fork Water Action Plan
- Stonelick Creek Water Action Plan

One of Ohio's largest state parks, East Fork offers a great diversity of recreational opportunities and natural history only 25 miles from Cincinnati. The park's terrain includes both rugged hills and open meadows, setting the stage for a wonderful getaway.

Nature of the Area

Clermont County's rolling hills and meandering river valleys provide a colorful backdrop for spacious East Fork State Park. Shaped by the forces of the Illinois and Wisconsin glaciers, the East Fork region is characterized by beautiful hill country scenery and is noted for the occurrence of remnant prairie habitats.
Illinois glacial deposits are not common in Ohio but can be observed at East Fork and the surrounding area.

All the communities who have endorsed the plan are now eligible for state incentives to facilitate development and conservation. The State of Ohio continues to enhance these incentives, so if communities have a particular project in mind, they should check to see if the project qualifies for any incentives/programs offered through Balanced Growth.

Excerpts/picture taken from Clermont Soil and Water Conservation District.
More Information: http://www.clermontswcd.org/

Middle East Fork Balanced Growth Project

Figure 1. Location of the East Fork and Middle East Fork Watersheds

Graphic: Taken from the Middle East Fork Growth Plan.
More Information: http://www.clermontswcd.org/

Shor Restoration Project

The Clermont County Park District (CCPD) is working with local partners to implement a unique watershed restoration project at Shor Park in Union Township. The goals of the project are to restore the property's natural wetland habitats (seasonally wet meadows, forested wetlands), demonstrate the effectiveness of rain gardens and bio-swales as effective storm water best management practices, and provide valuable recreational and educational opportunities for visitors.

Shor Park is the newest park within CCPD, dedicated in October 2010 by Slyvia Shor (the park is named in honor of S. David Shor). The park is 53 acres in total area and is located in an urbanized area within the headwaters of Salt Run, a tributary of the East Fork Little Miami River. Prior to the donation to CCPD, the fields were fallow for two years after being planted with corn and soybeans for several years. The land had since become infested with non-native, invasive species, such as Callery Pear (Pyrus calleryana), Autumn Olive (Elaeagnus umbellate), Bush Honeysuckle (Lonicera spp.) and others. Based on the soils and lay of the land, the fields are best suited for wetland habitat and prairie.

With funding provided by Ohio EPA's Surface Water Improvement Fund, CCPD will restore areas of forested wetland, emergent wetland, and wet prairie or meadow habitats. The wetlands at Shor Park are seasonally wet, having surface water typically in the winter and spring, and drying out during the summer and fall. All of these wetland types provide enormous benefits to the surrounding community because they help improve water quality in local streams by trapping and filtering storm water runoff. Wetlands are often referred to as natural sponges of the land because they trap and slowly release surface water over time, which helps to manage local flooding and erosion. Wet prairies and wooded wetlands also provide critical habitat (including vernal pools) for wildlife including, birds, butterflies, frogs, toads, and salamanders, among others. The restoration of these sites will involve some subtle modifications to the land to improve hydrology and drainage, the removal of the invasive species, as well as the planting of native plants and shrubs. The Shor Park project will also feature watershed friendly landscaping, including the creation of a rain garden and two bio-swales designed to manage stormwater runoff from surrounding impervious areas.

Shor Park is a work in progress. The park currently features three walking trails that wind through the many open fields on the property. Much of the restoration work will take place along the trails and visitors will be able to see the different wetland habitats develop. The Park's close proximity to the Cincinnati Nature Center's (CNC) properties enhances the connectivity of quality open space/protected areas, which will benefit local plants and wildlife, while also providing greater water quality protection for the Salt Run watershed.

The CCPD was able to open the park thanks to a partnership with the Union Township Trustees. The Trustees provided funding for the development of the parking area and walking trails. CCPD's Shor Park Restoration Project partners include the Clermont Soil and Water Conservation District, East Fork Watershed Collaborative, Carndo JFNew and Ohio EPA.

Excerpts/picture taken from Clermont Soil and Water Conservation District.

More Information: http://www.clermontswcd.org/

Wildlife & Forestry Conservation

Since the year 2000, the Clermont County Park District has more than doubled in size, with a total of over 550 acres presently. The largest addition in that time is the expansion of Sycamore Park, which has increased from 23 acres to nearly 200 acres, and includes the adjacent Wilson Nature Preserve.

As today's landscape continues to change, there is an increased need to manage wildlife and forests. Landowners are encouraged to utilize our services, no matter what the size or situation. Many grants, cost share programs, and tax breaks may be available to landowners for managing their property.

The Clermont County Park District staff can supply technical support for most types of landowner management objectives. Managing forest and wildlife can bring satisfaction, beauty, environmental quality, improved hunting, increased timber value, increased property value and many other benefits to the landowner.

Clermont County has a significant amount of "old-growth" forests (a piece of Clermont history and ecology). Protection of these areas will help to maintain diversity of trees/plants. The threat of invasive species (i.e. Asian Long-horned Beetle, Emerald Ash Borer, others).

Types of Assistance Provided

- Wetland habitat and design
- Aide in nuisance wildlife issues
- Fish pond stocking assistance
- Forest assessment
- Stream riparian corridor management
- Wildlife habitat creation
- Field border planting designs for wildlife
- Wildlife issues involving ponds
- Tree planting design and implementation
- Forest management plans
- Best Management Practices for logging operations
- Invasive species control

Excerpts/picture taken from Clermont County Park District.
More Information: http://www.clermontswcd.org/

Nature Preserves

Cincinnati Nature Preserve
Cincinnati Nature Center is a nonprofit nature education organization founded in 1965. They are the largest member-supported nature center in the country, with over 100,000 visitors a year.

Featuring trails that wind through Eastern deciduous forest, fields, streams and ponds. Rowe Woods in Milford, Ohio is just east of Cincinnati, spanning 1,025 acres (including 65 acres of old growth forest) and offering more than 16 miles of hiking trails. Long Branch Farm & Trails, located in Goshen, Ohio, is just nine miles northeast of Milford, containing 632 acres of forest and farmland with five miles of hiking trails accessible to members only.

Kelley Nature Preserve
Given to the Park District by Virginia Kelley as a memorial to her husband, Walter A. Kelley, the 42 acre nature preserve is located along the scenic Little Miami River. Over one mile of hiking trails are present.

Features
- Canoe access to the Little Miami River
- Over one mile of hiking trails
- Scenic river view
- Meadows of summer wildflower

Wilson Nature Preserve
The James L. and Frances Wilson Nature Preserve is the newest preserve within the Clermont County Park District. The nature preserve encompasses 105 acres along the East Fork of the Little Miami River. The preserve is adjacent to the 53 acre Sycamore Park. The large trees and abundant wildflowers provide food and cover for white-tailed deer, wild turkeys, and many other types of wildlife.

Features
- 3 miles of hiking trails of scenic view
- 25 acre island
- Access to the East Fork of the Little Miami River

Crooked Run
Located adjacent to Chilo Lock 34 Park, Crooked Run is owned by the Ohio Department of Natural Resources, Divsion of Natural Areas and Preserves. The preserve is managed by the Clermont County Park District through a lease agreement. Its location along the Ohio River provides several scenic views and is an excellent location for birdwatching and nature enthusiasts. Over 180 species of birds have been observed in the preserve.

Features
- Over one mile of hiking trails
- Scenic river overlook
- Three wildlife viewing along Crooked Run Creek
- Excellent bird watching location

Excerpts/picture taken from Clermont Soil and Water Conservation District.
More Information: http://www.clermontswcd.org/

Goals & Objectives

1. Continue to regulate floodplain development in accordance with state requirements and to protect life and property.

2. Minimize impervious surface coverage where practical.

3. Support county, state and federal efforts to preserve plants and animal species and unique natural communities.

4. Consider the impacts on air quality and recognize its connection to land use and transportation planning.

5. Encourage the management of the county's natural resources so that environmental quality is maintained and enhanced for future generations.

6. Encourage for development and redevelopment in a manner that protects the county's natural resources and the environment.

BB Riverboat's Mark Twain cruising at Chilo Lock 34 Park.

Picture taken from Clermont County Park District.