WATERSHED DESCRIPTION

Location

French Creek and the West Branch of French Creek originate in Chautauqua County, in western New York and flow southwest to their confluence in Erie County, Pennsylvania. The South Branch of French Creek originates near Corry in Erie County and flows west to its confluence with French Creek west of Union City in Erie County. French Creek then flows south through Crawford County, the northeast corner of Mercer County, and finally into Venango County where it flows southeast to its confluence with the Allegheny River at Franklin, Pennsylvania (Figure 1). As part of the Allegheny River watershed, French Creek contributes to the Ohio River, the Mississippi River, and ultimately the Gulf of Mexico. The French Creek watershed drains portions of 72 townships, cities, and boroughs in northwest Pennsylvania (Figure 2). Approximately 93% of the watershed is within Pennsylvania, with the remaining 7% comprised of headwater areas in New York.

Size

The entire French Creek watershed covers an area of approximately 1235 square miles (790,400 acres). The main stem of French Creek flows 117 miles from its New York headwaters to its mouth at Franklin. A relatively large tributary watershed, French Creek constitutes 11 percent of the drainage basin for the Allegheny River, which covers approximately 11,000 square miles.

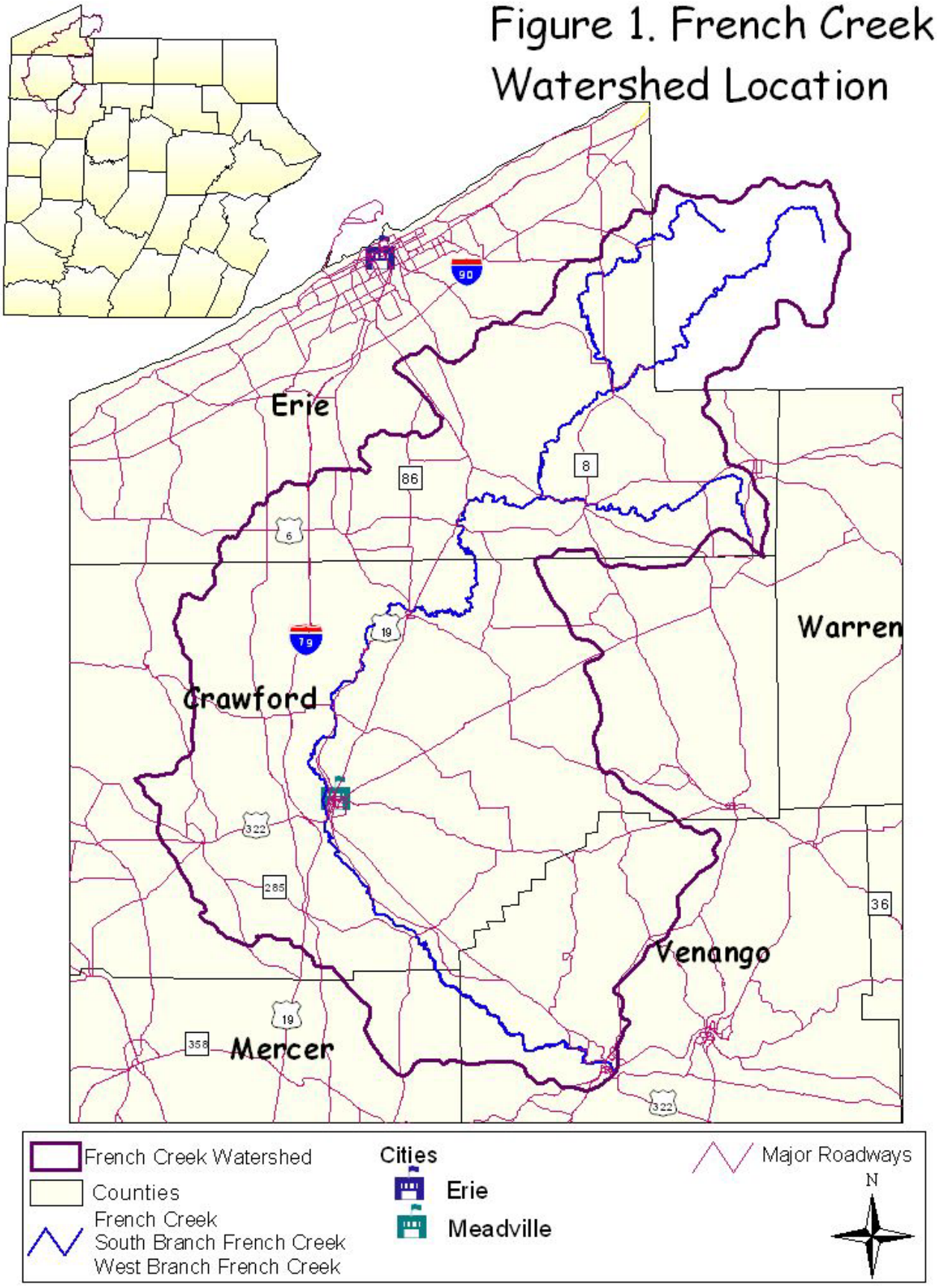
Topography and Glacial History

The French Creek watershed lies almost entirely (over 90 percent of the watershed) within the Northwestern Glaciated Plateau Section of the physiographic Appalachian Plateaus Province. This region is characterized by low, gently rolling hills, broad valleys, and glacial features (Hasse, 1992). Elevation in the watershed ranges from about 1000 feet at the mouth of French Creek and extreme western portions of the watershed to approximately 1900 feet in northeastern sections of the watershed. Vertical relief increases from the northwest to the east, the southwest, and the south.

The small portion of the watershed that lies outside the Northwestern Glaciated Plateau Section is comprised of the extreme south and southeastern sections in Venango and a small portion of eastern Crawford counties. This portion of the watershed lies in the High Plateau Section of the physiographic Appalachian Plateaus Province. This area was unaffected by glacial processes, resulting in steeper side slopes and a plateau top, that was uplifted and bisected by deep valleys and eroded by streams.

The topography of the French Creek watershed is characteristic of glaciated regions. Advancing glaciers gouged out valleys and rounded hills. When they receded, they left huge deposits of clay, silt, sand, and gravel, known as glacial drift, in the valleys and across the landscape. The bedrock of the area was formed during the Devonian,

Figure 1. French Creek Watershed Location



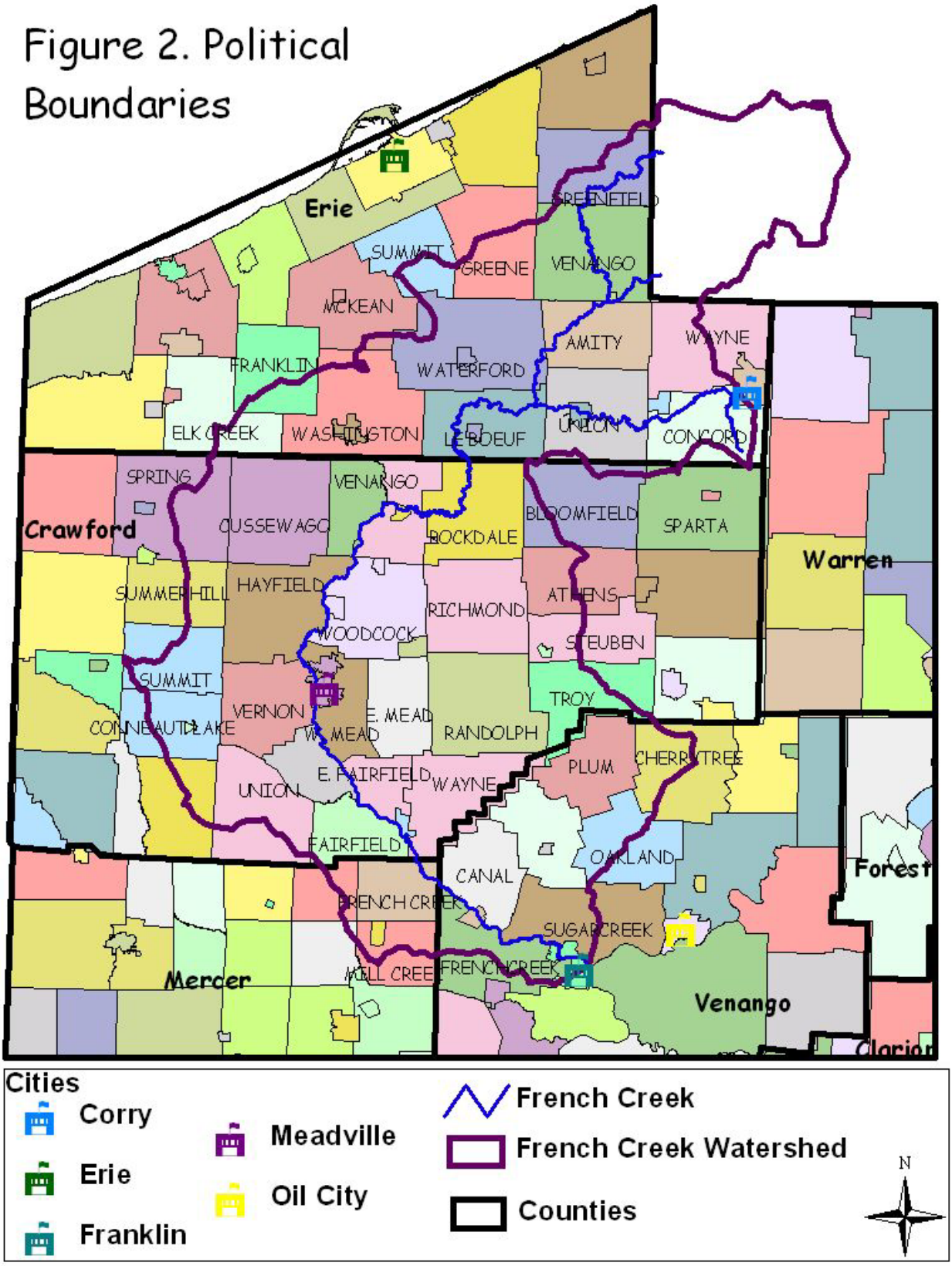


Figure 2. Political Boundaries
Erie
Crawford
Warren
Forest
Mercer
Venango
Clarion
SUMMIT
GREENE
VENANGO
MCKEAN
AMITY
WAYNE
FRANKLIN
WATERFORD
ELK CREEK
WASHINGTON
LEBOEUF
UNION
CONCORD
SPRING
VENANGO
BLOOMFIELD
SPARTA
CUSSEWAGO
ROCKDALE
SUMMERHILL
HAYFIELD
ATHENS
RICHMOND
WOODCOCK
STEUBEN
SUMMIT
TROY
VERNON
E. MEAD
CONNEAUTLAKE
W. MEAD
RANDOLPH
PLUM
CHERRYTREE
E. FAIRFIELD
WAYNE
UNION
FAIRFIELD
OILAND
CANAL
FRENCH CREEK
SUGARCREEK
MILL CREEK
FRENCHCREEK
Cities
Corry
Erie
Franklin
Meadville
Oil City
French Creek
French Creek Watershed
Counties
N

Mississippian, and Pennsylvanian Periods of the Paleozoic Era, or about 300-400 million years ago and is characterized by sandstones, siltstones, and shales. These areas were not as affected by the mountain-building processes as were the adjacent areas to the east (Barnes and Sevon, 1996).

The French Creek landscape was shaped by four separate glaciations during the Pleistocene Epoch, which occurred between about 2,000,000 and 20,000 years ago. The oldest glaciation, the older pre-Illinoian, occurred between about 2,000,000 and 770,000 years ago. Not much is known about this period except that it is responsible for the Slippery Rock Till. The younger pre-Illinoian glaciation was the most extensive Pennsylvania glaciation and occurred prior to 770,000 years ago. It is responsible for the highly eroded Mapledale Till. The late Illinoian glaciation occurred between 196,000 and 128,000 years ago. It is responsible for the Titusville Till and contributes greatly to the topography of northwest Pennsylvania. The most recent glacial advance, the late Wisconsinan, is divided into four separate advances, which occurred between 22,000 and 17,000 years ago. These advances are recognized by the glacial till they deposited on the landscape, overlaying that of the late Illinoian glacial period, although not reaching as far south as the late Illinoian. The earliest and most southward advance is known as the Kent Till. Subsequent advances, which traveled increasingly shorter distances into Pennsylvania are the Lavery Till, Hiram Till, and the most recent Ashtabula Till. The Wisconsinan glaciation had early and middle periods prior to the late period, however it is speculative as to whether they reached Pennsylvania. The advances of the late Wisconsinan would have overlaid these earlier Wisconsinan advances, reaching further into Pennsylvania.

The glacial history of northwest Pennsylvania is extremely important to the French Creek watershed. Many of the characteristics of the watershed can be attributed to its glacial history. The late Illinoian glaciation is responsible for most of the landscape characteristics. The southernmost terminal moraine of the Titusville Till stretches from Beaver County in the southwest, through Crawford County, to Warren County in the northeast. The area behind the moraine, which encompasses most of the French Creek watershed, has broad uplands separated by linear valleys and long, linear, rounded ridges. Landscape features run northwest to southeast, which was the flow direction of the glaciers as well as pre-glacial drainage (Sevon and Fleeger, 1999). Additionally, the glacial history is responsible for the many wetland areas and glacial lakes in the French Creek watershed.

Perhaps the most interesting result of the glaciers in northwest Pennsylvania is the reversal of the direction of drainage for river systems. Prior to glaciation, the Allegheny River consisted of three separate stream systems that flowed north into the ancestral St. Lawrence drainage. The massive continental ice sheet and deposited glacial till blocked the northerly flow of these systems causing them to flow southward and eventually join to form the present day Allegheny River system and contribute to the Ohio River drainage. One of the three ancient Allegheny systems, the “middle” Allegheny system, formed the French Creek drainage.

It has been reported that this reversal of flows allowed aquatic species from the northern ancestral St. Lawrence drainage to be mixed with species from the Ohio River drainage. This species “capturing” has been used to explain the high biodiversity found in French Creek, and historically, other parts of the Allegheny and Ohio River drainages. This report disputes that

theory. In fact, the Ohio River drainage historically contained all native species presently found in the French Creek watershed. The large number of Atlantic slope species not found in the French Creek drainage is evidence of this. The reversal of flow direction actually contributed interior species to certain Atlantic slope drainages.

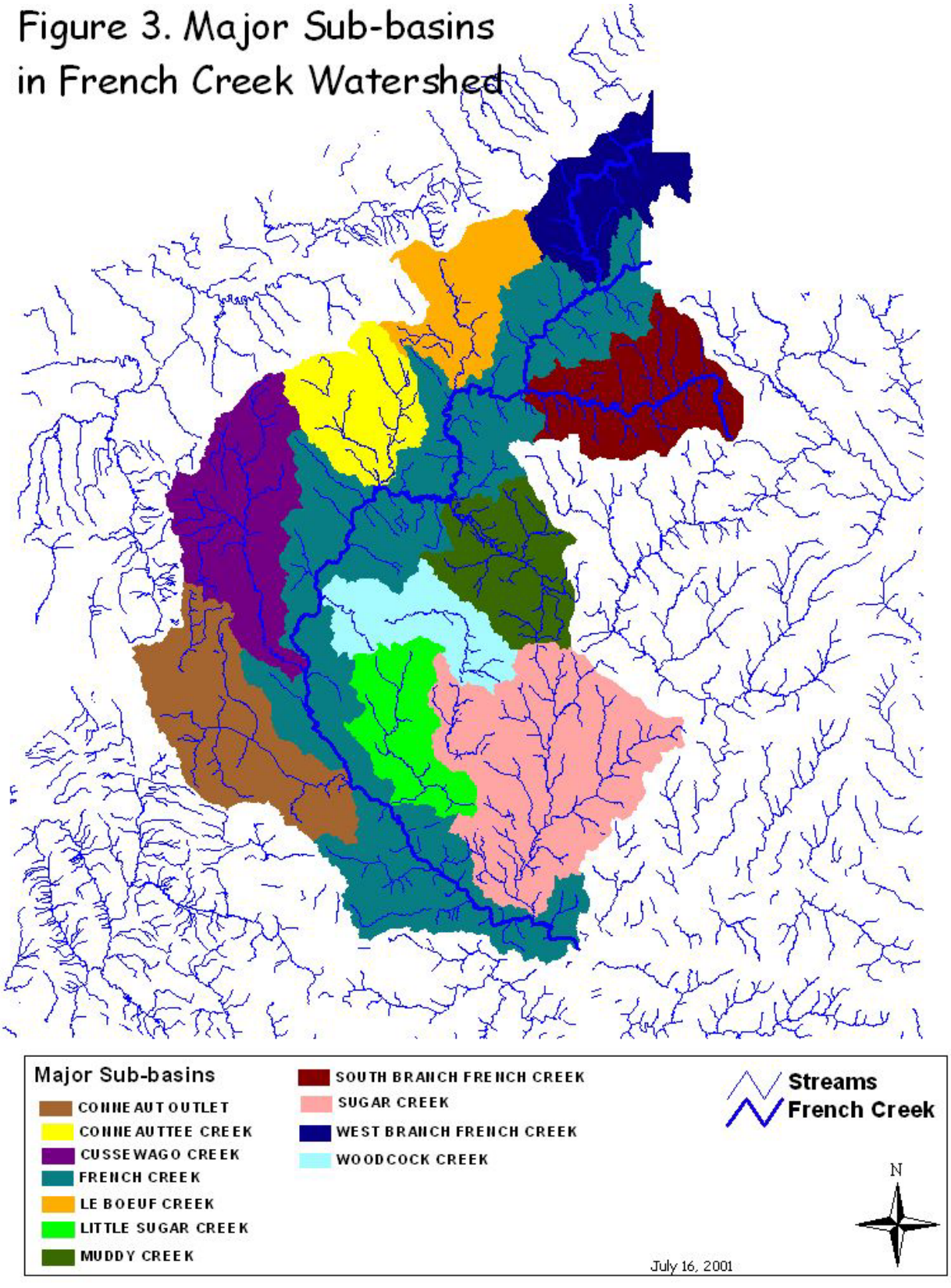
Major Tributaries

There are 10 major tributary sub-basins to French Creek with drainage areas greater than 50 square miles (Figure 3). These tributary sub-basins are listed below in order from the upstream most to the downstream most confluence with the main stem of French Creek.

- West Branch of French Creek (77.7 mi^2) originates in Chautauqua County, New York and joins the main branch of French Creek at Wattsburg, Erie County, Pennsylvania.
- South Branch of French Creek (80.3 mi^2) originates near Corry, Erie County, and joins French Creek west of Union City.
- LeBoeuf Creek (63.3 mi^2) flows through Waterford, drains Lake LeBoeuf, and joins French Creek near the village of Indian Head.
- Muddy Creek (83.6 mi^2) flows through the Seneca Division of the Erie National Wildlife Refuge and joins French Creek near the village of Miller's Station, Crawford County.
- Conneauttee Creek (60.8 mi^2) enters and drains Edinboro Lake, flows through Edinboro, Erie County, and joins French Creek near Cambridge Springs, Crawford County.
- Woodcock Creek (50.5 mi^2), which has been dammed by the United States Army Corps of Engineers (USACE) to form Woodcock Creek Lake, joins French Creek near Saegertown.
- Cussewago Creek (96.9 mi^2) joins French Creek at Meadville.
- Conneaut Outlet (101 mi^2) drains Conneaut Lake and joins French Creek south of Shaws Landing.
- Little Sugar Creek (53 mi^2) joins French Creek at Cochranton.
- Sugar Creek (167 mi^2) joins French Creek at the village of Sugarcreek, Venango County, four miles upstream from the mouth of French Creek at Franklin.

These sub-basins provide a convenient way to conceptualize the French Creek watershed and offer a way to break the entire watershed into smaller, more manageable units. A sub-basin

Figure 3. Major Sub-basins in French Creek Watershed



approach would allow for more accurate land use descriptions to be made resulting in more thorough planning for watershed management.

While some of these sub-basins may be very similar in physical characteristics, others may be very different. Threats to natural resources may differ significantly between sub-basins depending on land use patterns. Research has shown that species distribution varies significantly between sub-basins in the French Creek watershed. It will most likely be necessary to approach natural resource restoration, maintenance, and enhancement differently in each sub-basin.

The 10 major sub-basins listed above account for 834.1 square miles or approximately 68% of the entire French Creek watershed. The remaining 32% of the watershed is comprised of sub-basins smaller than 50 square miles or is draining directly into the main stem of French Creek. These areas must also be considered if a sub-basin approach to watershed conservation is adopted.

Land Use

The French Creek watershed is highly rural with a few urban centers. The landscape is a mix of land use classifications, primarily divided between forested and agricultural (Figure 4). The breakdown of estimated percentages for land use types in 1998 was reported by Kline (n.d.) as follows:

Mixed forest and evergreen forest	53% of the watershed
Hay/pasture	23%
Row crops	17%
Open water and wetlands	5%
Urban and lawns	<2%
Surface mine/quarry	<1%

The northern portion of the French Creek watershed is a changing landscape. The watershed is seeing increasing suburban development from the city of Erie. This trend brings about an increase of impervious material as parking lots and roadways increase thus increasing the amount of polluted run-off that reaches the stream. There is current pressure to subdivide farms for development of home sites as well as other commercial operations. In addition, many small farming operations are merging into larger enterprises (French Creek Project, 1997). Suburban development and large-scale farming operations generally have a greater negative impact to the health of a stream than smaller farms and open areas. In 1997, there were 1,123 farms in Erie County, with an average size of 149 acres, for a total farmed area of 167,634 acres. Comparatively, in 1978 there were 1,529 farms with an average size of 133 acres for a total farmed area of 202,917 acres in Erie County. This represents a loss of small farming operations in favor of larger operations and a net loss of agricultural land.

The middle portion of the French Creek watershed, largely in Crawford County, faces pressures from the urbanized areas surrounding Meadville, the largest city on French Creek. Point discharges from industries and municipal sewage treatment plants in and around Meadville have negatively affected the water quality of sections of French Creek. Increases in impervious

surfaces due to urban development have increased the incident of flash flooding and disturbances to the streambed. The rural portions of the watershed in Crawford County also face suburban sprawl and home site development. Additionally, much of the riparian buffers to streams in the watershed have been fragmented by improper farming practices. In 1997, there were 1,069 farms in Crawford County, with an average size of 194 acres, for a total farmed area of 207,215 acres. In 1978, there were 1,540 farms with an average size of 164 acres for a total farmed area of 252,918 acres. The trends are the same as described in Erie County.

The lower portion of the watershed, largely in southeastern Crawford and northern Venango counties, has limited agriculture and a steeper, more forested terrain. Land use in this part of the watershed reflects the unglaciated nature of the landscape. Failing septic systems associated with streamside cottages and older homes are suspected of impacting these and other sections of French Creek. Venango County, where most of the southern, unglaciated portion of the watershed is found, had 351 farms in 1997, with an average size of 132 acres, for a total farmed area of 46,166 acres. In 1978, there were 506 farms with an average size of 138 acres for a total farmed area of 69,924 acres.

Planning and Development Controls

The highly rural French Creek watershed is largely comprised of private landowners, many who can be quick to oppose land use regulations. Often this opposition is a double-edged sword, which leaves those same landowners unprotected against rampant residential, commercial, or industrial development on neighboring properties. Examples of this were clearly evident during this planning process as residents throughout the watershed opposed power plant proposals, racetrack development, and cell phone tower placement to name a few. Many municipalities in the watershed have little or no zoning and subdivision regulations, and many of the regulations in place are quite dated and provide little protection for environmental or social concerns. Municipalities without these land use controls are generally governed by countywide controls. The complete list of municipal planning and development controls currently in place for municipalities in the French Creek watershed is shown in Table 1.

Figure 4. Land Use

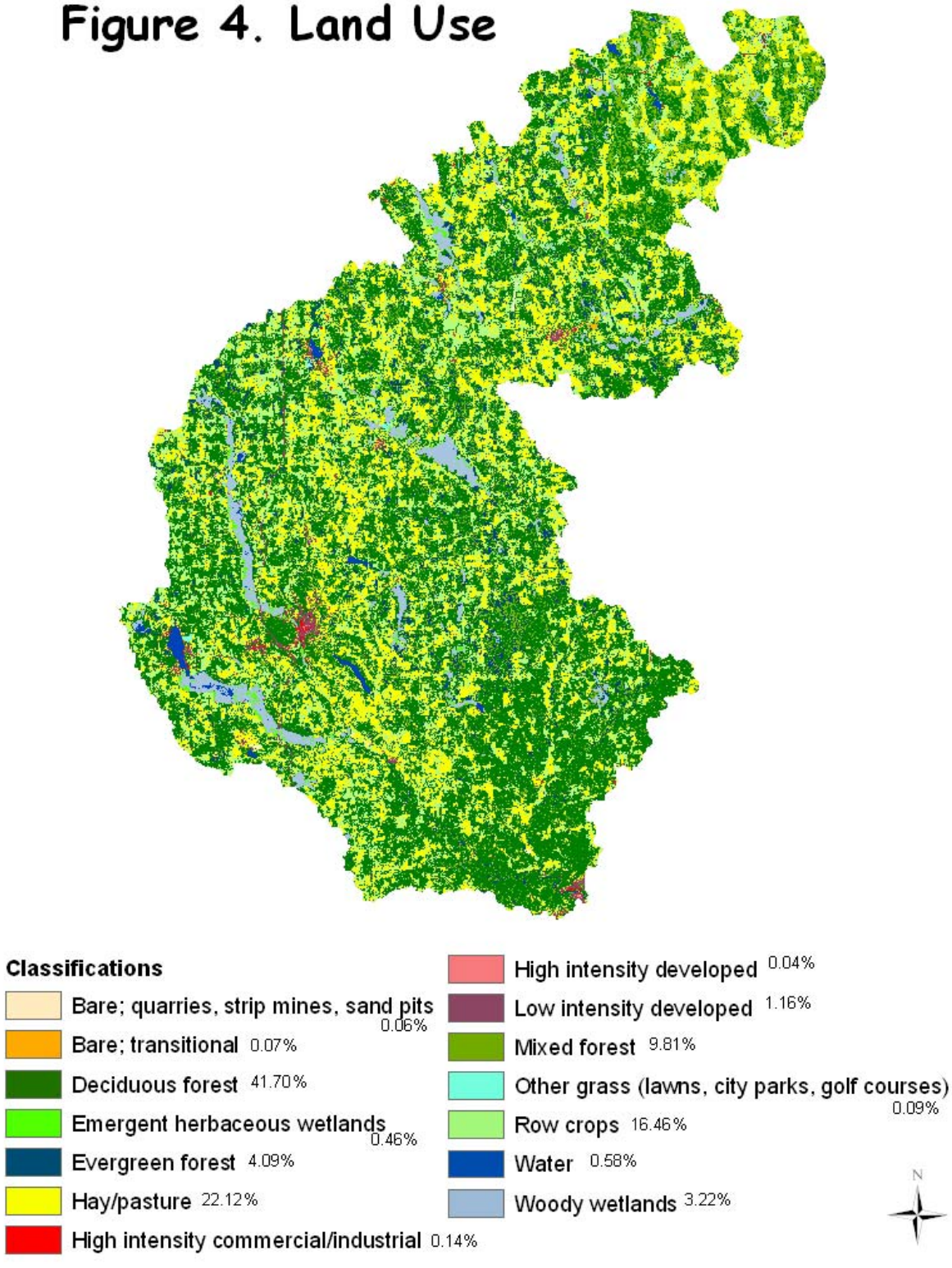


Table 1. List of Municipal Planning and Development Controls for Municipalities in the French Creek Watershed

Erie County					
Municipality	**Comprehensive Plan**	**Zoning Ordinance**	**Subdivision Regulations**	**Stormwater Management**	**Official Map**
Amity Township	Yes	Yes	No	No	No
Concord Township	Yes	Yes	No	No	No
Corry City	Yes	Yes	Yes	No	No
Edinboro Borough	Yes	Yes	Yes	No	No
Elgin Borough	No	Yes	No	No	No
Elk Creek Township	Yes	No	Pending	Yes	No
Franklin Township	Yes	Yes	Yes	Yes	No
Greene Township	Yes	Yes	Yes	Yes	Yes
Greenfield Township	Yes	Yes	Yes	Yes	No
LeBoeuf Township	Yes	Yes	No	No	No
McKean Township	Yes	Yes	Yes	Yes	Pending
Mill Village Borough	Yes	Yes	No	No	No
North East Township	Yes	Yes	Yes	Yes	No
Summit Township	Yes	Yes	Yes	Yes	Yes
Union Township	Yes	Yes	No	No	No
Union City Borough	Yes	Yes	Yes	No	No
Venango Township	Yes	Yes	Yes	Yes	No
Washington Twnshp.	Yes	Yes	Yes	Yes	Yes
Waterford Borough	Yes	Yes	Yes	No	No
Waterford Township	Yes	Yes	Yes	Yes	No
Wattsburg Borough	Yes	Yes	No	No	No
Wayne Township	Yes	Yes	No	No	No
Source: Erie County Department of Planning					

Crawford County					
Municipality	**Comprehensive Plan**	**Zoning Ordinance**	**Subdivision Regulations**	**Stormwater Management**	**Official Map**
Athens Township	No	No	No	No	No
Bloomfield Twnshp.	Yes	Yes	Pending	No	No
Blooming Valley Borough	Yes	Yes	No	No	No
Cambridge Twnshp.	Yes	Yes	Yes	No	No
Cambridge Springs Borough	Yes	Yes	Yes	No	No
Cochranton Borough	Yes	No	No	No	No
Conneaut Lake Borough	Yes	Yes	Yes	Yes	No
Cussewago Twnshp.	Yes	Yes	Yes	No	No
East Fairfield Township	No	Yes	No	No	No
East Fallowfield Township	No	No	No	Yes	No
East Mead Township	Yes	No	Yes	No	No
Fairfield Township	No	No	No	Yes	No
Greenwood Twnshp.	Yes	No	Yes	Yes	No
Hayfield Township	Yes	No	Yes	Yes	No
Meadville City	Yes	Yes	Yes	No	No
Oil Creek Township	Yes	Yes	Yes	No	No
Randolph Township	No	No	No	No	No
Richmond Township	Yes	No	No	No	No
Rockdale Township	No	No	Pending	No	No
Sadsbury Township	Yes	Yes	Yes	Yes	No
Saegertown Borough	Yes	Yes	Yes	No	No
Spring Township	Yes	No	No	No	No
Steuben Township	No	No	No	No	No
Summerhill Twnshp.	Yes	Yes	No	No	No
Summit Township	Yes	Yes	Yes	Yes	No
Townville Borough	No	No	No	No	No
Troy Township	No	No	No	No	No
Union Township	No	No	Yes	Yes	No
Venango Borough	Yes	Yes	No	No	No
Venango Township	No	No	Permit	No	No
Vernon Township	Yes	Yes	Yes	Yes	No
Wayne Township	Yes	No	No	No	No
West Mead Twnshp.	Yes	Yes	Yes	No	No
Woodcock Borough	No	No	No	No	No
Woodcock Twnshp.	Yes	Yes	Yes	No	No
Source: Crawford County Planning Commission					

Mercer County					
Municipality	**Comprehensive Plan**	**Zoning Ordinance**	**Subdivision Regulations**	**Stormwater Management**	**Official Map**
Deer Creek Twnshp.	No	No	No	No	No
French Creek Township	No	No	No	No	No
Mill Creek Twnshp.	No	No	No	No	No
New Lebanon Borough	No	Yes	No	No	No
New Vernon Township	No	Yes	No	No	No
Source: Mercer County Regional Planning Commission					

Venango County					
Municipality	**Comprehensive Plan**	**Zoning Ordinance**	**Subdivision Regulations**	**Stormwater Management**	**Official Map**
Canal Township	No	No	No	No	No
Cherrytree Township	No	No	No	No	No
Cooperstown Borough	No	No	No	No	No
Franklin City	Yes	Yes	Yes	No	No
French Creek Township	No	No	No	No	No
Jackson Township	No	No	No	No	No
Oakland Township	No	No	No	No	No
Plum Township	No	No	No	No	No
Sugarcreek Borough	Yes	Yes	No	No	No
Utica Borough	No	No	No	No	No
Source: Venango County Planning Commission					

Social/Economic Profile

Transportation

Roads

Interstate Highways, U. S. State Highways, and major secondary roads provide easy access to almost all parts of the French Creek watershed (Figure 5). Interstate 79 links the watershed with the Pittsburgh metropolitan area to the south and Erie to the north, and I-90, which runs north of the watershed across Erie County, links the area with Cleveland and Buffalo. Interstate 80 intersects I-79 approximately 20 miles south of the watershed, allowing convenient access for east-west traffic.

The main stem of French Creek is within three miles of a U. S. Highway for its entire length after its confluence with the South Branch. U. S. Highway 6 runs from the city of Corry along the South Branch to the confluence with the main stem of French Creek. It continues, following the main stem, along with U. S. Highway 19, to Meadville and crosses French Creek seven times. From Meadville, U. S. Highway 322 continues along French Creek to its mouth at Franklin, crossing the creek only once in Franklin.

Railroads

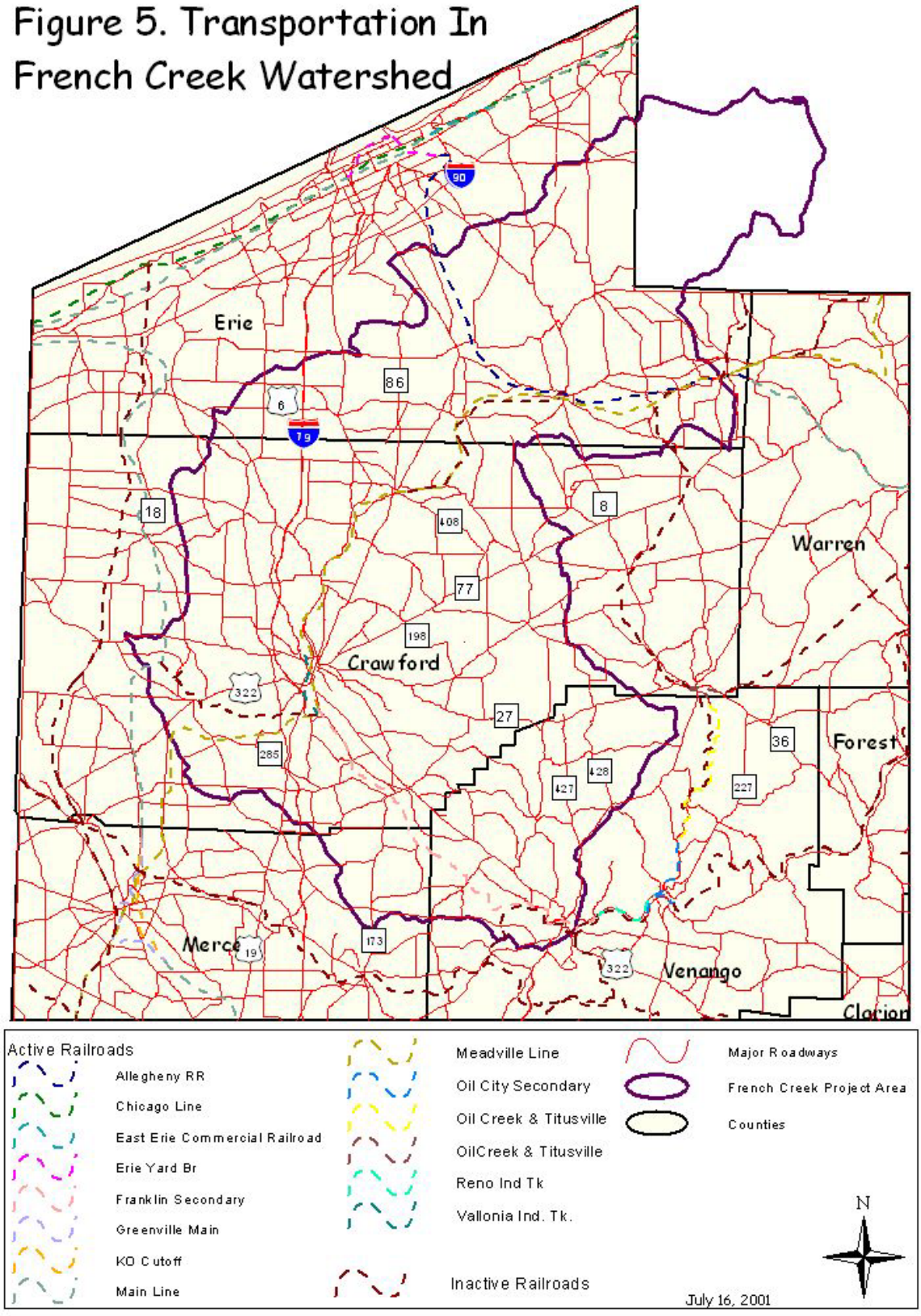
The French Creek corridor, with its wide, flat floodplains, provides an ideal route for railroads (Figure 5). Allegheny and Eastern Railroad operates lines from the city of Erie to the city of Corry, through Union City. From Union City, Oil Creek and Titusville Railroad lines follow French Creek to Meadville. Norfolk Southern Railroad operates lines from Meadville to Franklin and beyond to Oil City, Venango County. Train traffic on this line averages two trains per day at least five days per week. These tracks follow the main stem of French Creek. Also from Meadville, a Norfolk Southern line runs southwest to Shenango, Mercer County and points west. This line has approximately four trains running daily.

The north-south running Bessemer and Lake Erie Railway, which connects western Erie County with Mercer County and points south, runs through an extreme western portion of the French Creek watershed in western Crawford County. An inactive rail bed runs from the city of Corry to Titusville, in Crawford County. A small portion of this rail bed is in the French Creek watershed near Corry. Additional inactive rail beds exist within the French Creek watershed from Union City to Cambridge Springs, from Meadville west to the borough of Conneaut Lake, and a section of the Penn Central Railway near Franklin.

Airports

No major airports exist within the French Creek watershed. Erie International Airport lies to the north in Erie. Other major international airports within an hour drive of the watershed include Pittsburgh, Cleveland, and Buffalo. Several small airports within the French Creek watershed include: Corry-Lawrence Airport in Corry, Erie County Airport in Wattsburg, Port Meadville Airport in Meadville, and Venango Regional Airport in Franklin.

Figure 5. Transportation In French Creek Watershed



Demographics (2000 Census data used where available)

Based on estimations from 2000 census data, the approximate population for the French Creek watershed is 112,959 people in Pennsylvania and approximately 3,000 residents in the New York headwaters (Figure 6). The estimated populations for the portions of each county within the watershed and that county's total 2000 population are as follows: Erie County, 36,557 of 280,843; Crawford County, 59,828 of 90,366; Mercer County, 1,587 of 120,293; and Venango County, 14,987 of 57,565.

Population centers with greater than 1000 people per square mile include: the city of Corry, Edinboro Borough, Union City Borough, Waterford Borough, and Wattsburg Borough in Erie County; Cambridge Springs Borough, Conneaut Lake Borough, the city of Meadville, and Venango Borough in Crawford County; and the city of Franklin in Venango County. These population centers account for nearly one-third of the entire watershed population and all are either located on the main stem or a major branch of French Creek or center around one of the glacial lakes within the watershed. The remainder of the population exists in more sparsely populated centers or scattered throughout the highly rural watershed.

Changes in population for the four counties of the French Creek watershed show Crawford County with the largest percentage of growth at 4.9 percent between 1990 and 2000. Erie County followed with a 1.9 percent increase in population during the same time period. Mercer County saw a 0.6 percent decrease in population and Venango County recorded a 3.1 percent decrease in population during 1990-2000. The largest changes within the watershed were a 28.6 percent increase in population for Cambridge Springs Borough, Crawford County and a 22.2 percent decrease in population for Wattsburg Borough, Erie County. The dramatic increase in the population of Cambridge Springs Borough can be attributed to the construction of a state correctional facility currently housing nearly 700 inmates. All of the other previously mentioned population centers with densities greater than 1000 persons per square mile showed a decrease in population between 1990 and 2000, with the exception of Conneaut Lake Borough, which showed a 1.3 percent increase. This represents an exodus from established towns and cities into rural areas.

All of the municipalities within the French Creek watershed are considered 100 percent rural by the U.S. Department of Commerce with the exception of McKean and Summit Townships, both suburbs of the city of Erie, Sugarcreek Borough, the city of Corry, Edinboro Borough, Union City Borough, the city of Meadville, and the city of Franklin. Only the last five municipalities are considered 100 percent urban.

The French Creek watershed population is approximately 98.2 percent white, 0.7 percent black, and 1.1 percent other minorities. For Pennsylvania as a whole, 85.4 percent of the population is white, 10.0 percent black, and 4.6 percent other minorities.

In 1990, approximately 10.5 percent of the population of the French Creek watershed had at least earned a college Bachelor's degree. In the statewide population, that number was 17.9 percent. Approximately 25 percent of the watershed population had less than a high school education,

which was very close to the statewide average of 25.3 percent. The significantly lower number of individuals in the watershed without at least a Bachelor's degree may have helped account for the approximately $26,315 median household income in the watershed as compared to $29,069 statewide. Unemployment rates for the four counties within the watershed in 1998 were: Erie – 5.2%, Crawford – 5.0%, Mercer – 4.2%, Venango – 5.4% compared to 4.6% statewide.

Approximately 5.5 percent of the watershed population age 16 and older was employed in an agriculturally related field in 1990. This is significantly higher than the statewide average of 1.7 percent. Additionally, Erie and Crawford Counties, where most of the French Creek watershed lies, are ranked 8th and 10th respectively for number of farms in the state.

Outstanding or Unique Features

The unique features of the French Creek watershed are a product of its glacial history. Northwest Pennsylvania is home to seven inland glacial lakes. Five of the seven glacial lakes are found within the French Creek watershed. Conneaut Lake, the largest natural lake in the Commonwealth, is located in western Crawford County. Just east of Conneaut Lake is Conneaut Lake Kame, one of the largest kames in the state. The kame is a glacial deposit of sand and gravel in a depression formed near the terminal end of a glacier. Also associated with Conneaut Lake is Conneaut Marsh within State Game Lands #213, the largest marsh complex in the state. Following Conneaut Outlet for several miles, Conneaut Marsh is the result of an ancient stream channel filled in with glacial material. It is home to nesting bald eagles, *Haliaeetus leucocephalus*, and state endangered black terns, *Chlidonias niger*. Other glacial lakes within the watershed include Sugar Lake, Edinboro Lake, Lake LeBoeuf, and Lake Pleasant. These lakes have associated with them, wetlands, including rare calcareous fens, unique biological communities, and many species of special concern.

Other outstanding glacial features occur throughout the watershed. Moraines, mounds of till representing the furthest advancement of a glacier, occur throughout the watershed for each advance of the Wisconsinan glaciation. A terminal moraine, marking the southern most advance of the glaciations, runs through southeast Crawford County. Drumlins, smooth and rounded low-lying hills of glacial material, are found in Venango Township, Erie County. Additionally, there are numerous wetlands throughout the watershed, including rare wetland communities like bogs and fens. Wattsburg Fen Natural Area is an excellent example of these rare fens found in Erie County. This fen is a registered National Natural Landmark (*previously named Titus and Wattsburg Bogs*). Fens occur when wetland areas are fed by calcareous, highly alkaline groundwater giving rise to unique plant communities adapted to these alkaline conditions. The calcareous, alkaline groundwater is a result of glaciation.

French Creek is itself a unique feature. As a small to medium size, medium gradient river, French Creek is a relatively intact example of a free flowing riverine system; an ecosystem type that is rapidly disappearing. Twenty-seven species of freshwater mussels and over 80 species of fish, including fifteen darter species, are still found in the watershed along with numerous other wildlife and plant species.

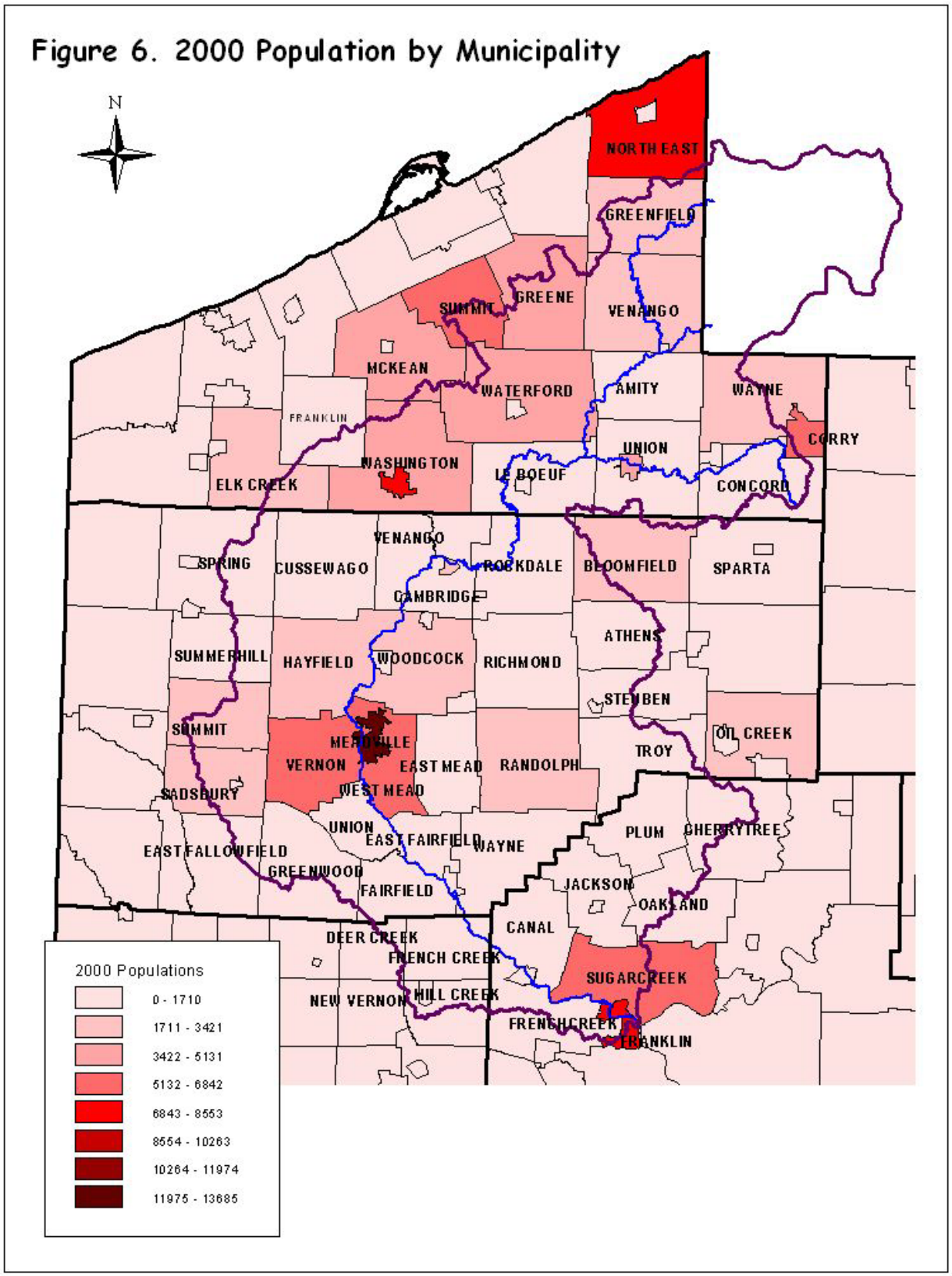


Figure 6. 2000 Population by Municipality
N
NORTH EAST
GREENFIELD
SUMMIT
GREENE
VENANGO
MCKEAN
WATERFORD
AMITY
WAYNE
FRANKLIN
CORRY
UNION
WASHINGTON
LE BOEUF
ELK CREEK
CONCORD
VENANGO
SPRING
CUSSEWAGO
ROCKDALE
BLOOMFIELD
SPARTA
CAMBRIDGE
ATHENS
SUMMERHILL
HAYFIELD
WOODCOCK
RICHMOND
STEUBEN
SUMMIT
OIL CREEK
MEADVILLE
TROY
VERNON
EAST MEAD
RANDOLPH
SADSBURY
WEST MEAD
UNION
PLUM
CHERRYTREE
EAST FALLOWFIELD
EAST FAIRFIELD
WAYNE
GREENWOOD
JACKSON
FAIRFIELD
OAKLAND
CANAL
DEER CREEK
FRENCH CREEK
SUGARCREEK
NEW VERNON
HILL CREEK
FRENCHCREEK
FRANKLIN
2000 Populations
0 - 1710
1711 - 3421
3422 - 5131
5132 - 6842
6843 - 8553
8554 - 10263
10264 - 11974
11975 - 13685