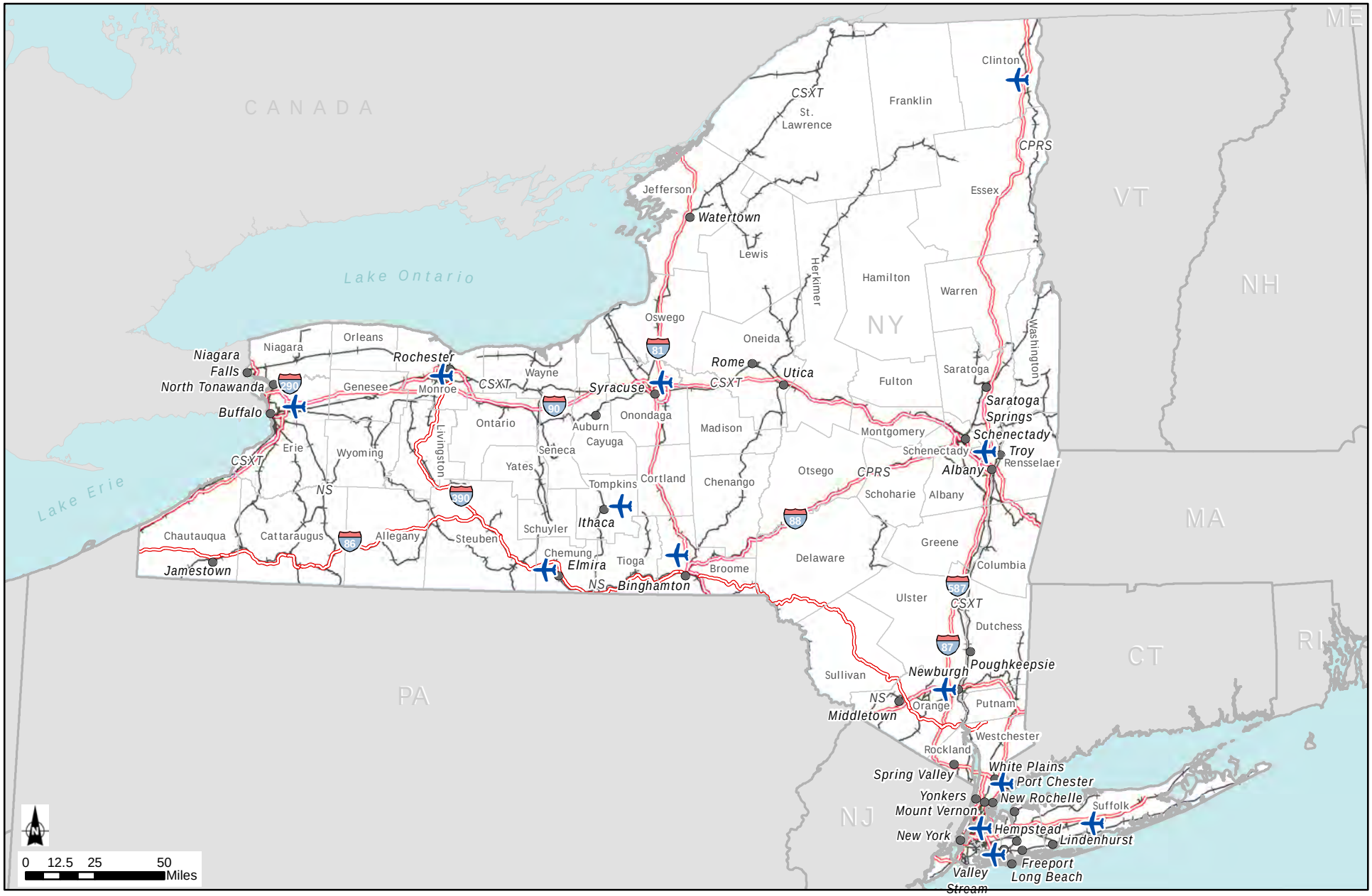

Figure 2.18: Transportation

Source: ESRI, 2010; USGS, 2002

Table 2.106 - Region A: Highway Mileage by County, 2009 (New August 2011)

	Town or Village	County	NYSDOT Owned	Other	Total
Chemung	766.7	243.7	118.4	3.6	**1,132.4**
Tioga	823.7	141.7	155.2	0.0	**1,120.6**
Broome	1,340.1	339.1	297.3	19.6	**1,996.1**
Total Region A	**2,930.5**	**724.5**	**570.9**	**23.2**	**4,249.1**

Source: NYSDOT 2009a.

The principal arterial in Region A is the Southern Tier Expressway (I-86/NY-17), which runs east-west through the three counties that constitute Region A. This highway connects Elmira and areas west of the region with Binghamton and areas east of the region. Another major highway, I-81, intersects I-86 in Binghamton and runs north to Syracuse and south to Scranton, Pennsylvania. In addition, I-88 originates in Binghamton and runs northeast to Albany (Figure 2.18)

Numerous other arterials, collectors, and local roadways cover this region and connect smaller towns and villages. Heavy vehicles (i.e., Vehicle Classifications 04 through 13) primarily use major roadways. NYSDOT conducted a study of the road use by heavy vehicle traffic, based on 2004 to 2009 data (NYSDOT 2010a). The data for rural areas in NYSDOT Regions 6 and 9 are presented in Table 2.107.

Table 2.107 - Heavy Vehicles as a Percentage of Total Vehicles in Rural Areas in NYSDOT Regions 6 and 9, 2004-2009 (New August 2011)

Functional Classification (FC) Code	NYSDOT Region 6	NYSDOT Region 9	Statewide
01	36.0%	25.1%	25.2%
02	15.5%	13.6%	12.5%
06	10.2%	10.2%	9.5%
07	10.9%	8.7%	8.9%
08	5.7%*	6.8%	6.8%
09	-*	6.4%	7.1%

Source: NYSDOT 2010a.
* No data or insufficient data (i.e., data from <10 highway segments).

Heavy-vehicle traffic is concentrated on major roadways, with FC road classifications 01 and 02 handling 51.5% and 38.7%, respectively, of heavy-vehicle traffic in NYSDOT Regions 6 and 9. Compared to the statewide percentage (37.7%), in both Regions 6 and 9, heavy-vehicle traffic is concentrated more on principal arterial roadways and less on other roads. Since FC01 and FC02 are arterials used primarily for long-distance, high-speed travel, the majority of this traffic is assumed to pass through the counties.

Region B

Region B comprises Otsego, Delaware, and Sullivan Counties, all of which are in NYSDOT Region 9. Table 2.108 presents a summary of the mileage of highways within each county. The Highway Mileage Report developed by NYSDOT provides current information on the public highway mileage in New York State by county (NYSDOT 2009a).

Table 2.108 - Region B: Highway Mileage by County, 2009 (New August 2011)

	Town or Village	**County**	**NYSDOT Owned**	**Other**	**Total**
Otsego	1,326.2	476.6	290.4	4.2	**2,097.4**
Delaware	1,608.4	262.0	341.1	37.5	**2,248.9**
Sullivan	1,462.1	385.3	201.9	10.6	**2,059.9**
Total Region B	**4,396.7**	**1,123.9**	**833.4**	**52.3**	**6,406.2**

Source: NYSDOT 2009a.

The road network in Region B has two main roadway corridors running through different sections of the three counties. One is I-88, which runs in a southwest-northeast direction along the border of Otsego and Delaware Counties. In addition, NY-17 runs from the western portion of Delaware County to the east and southeast, along the Catskill Forest Preserve, into Sullivan County and towards New York City (Figure 2.18).

Numerous other arterials, collectors, and local roadways cover this region and connect smaller towns and villages. Heavy vehicles primarily use major roadways. A NYSDOT study used vehicle classification data from 2004 to 2009 to estimate the percentage of heavy vehicles on various road classifications in rural and urban settings (NYSDOT 2010a). The data for rural areas in NYSDOT Region 9 are presented in Table 2.109.

Table 2.109 - Heavy Vehicles as a Percentage of Total Vehicles in Rural Areas in NYSDOT Region 9, 2004-2009 (New August 2011)

Functional Classification (FC) Code	NYSDOT Region 9	Statewide
01	25.1%	25.2%
02	13.6%	12.5%
06	10.2%	9.5%
07	8.7%	8.9%
08	6.8%	6.8%
09	6.4%	7.1%

Source: NYSDOT 2010a.

Heavy-vehicle traffic is concentrated on major roadways, with FC road classifications 01 and 02 handling 38.7% of heavy-vehicle traffic in NYSDOT Region 9. Compared to the statewide percentage (37.7%), in Region 9, heavy-truck traffic is concentrated more on principal arterials and a less on other roads.

Region C

Region C comprises Chautauqua and Cattaraugus Counties, both of which are in NYSDOT Region 5. Table 2.110 presents a summary of the mileage of highways in each county. The *Highway Mileage Report* developed by NYSDOT provides current information on the public highway mileage in New York State, by county (NYSDOT 2009a).

Table 2.110 - Region C: Highway Mileage by County, 2009 (New August 2011)

	Town or Village	County	NYSDOT Owned	Other	Total
Cattaraugus	1,379.8	397.7	315.2	54.1	**2,146.8**
Chautauqua	1,531.5	551.5	353.1	47.1	**2,483.2**
Total Region C	**2,911.3**	**949.2**	**668.3**	**101.2**	**4,630.0**

Source: NYSDOT 2009a.

The two main roadway corridors in Region C run through different sections of the two counties. One is I-90, which runs northeast from the Pennsylvania border in Chautauqua County and along Lake Erie towards Buffalo, New York. The other corridor, I-86/NY-17, runs east-west through both Chautauqua and Cattaraugus Counties, crossing into Pennsylvania in western Chautauqua County. I-86/NY-17 crosses over Chautauqua Lake and runs north of the major population center

of Jamestown. It also connects other cities such as Randolph, Salamanca, and Olean (Figure 2.18).

Numerous other arterials, collectors, and local roadways cover this region and connect smaller towns and villages; these include Route 16, Route 19, Route 60, and Route 219. Heavy vehicles primarily use major roadways. A NYSDOT study used vehicle classification data from 2004 to 2009 to estimate the percentage of heavy vehicles on various road classifications in rural and urban settings (NYSDOT 2010a). The data for rural areas in NYSDOT Region 5 are presented in Table 2.111.

Table 2.111 - Heavy Vehicles as a Percentage of Total Vehicles in Rural Areas in NYSDOT Region 5, 2009 (New August 2011)

Functional Classification (FC) Code	NYSDOT Region 5	Statewide
01	23.5%	25.2%
02	10.9%	12.5%
06	11.3%	9.5%
07	8.8%	8.9%
08	6.3%	6.8%
09	7.1%	7.1%

Source: NYSDOT 2010a.

Heavy-vehicle traffic is concentrated on major roadways, with FC classifications 01 and 02 handling 34.4% of heavy-vehicle traffic in NYSDOT Region 5. However, the percentages are less than the corresponding statewide percentage. This may be a result of the city of Buffalo being located in NYSDOT Region 5, where heavy-vehicle traffic may use smaller roads in industrial/manufacturing areas for pickups and deliveries.

2.3.14.3 Condition of New York State Roads

New York State reports annually on the condition of bridges and pavements. Based on data submitted to the FHWA in April 2010, about 12% of the highway bridges in New York State are classified, under the broad federal standards, as structurally deficient, and about 25% are classified as functionally obsolete. Those classifications do not mean the bridges are unsafe, rather that they would require repairs or modifications to restore their condition or improve their functionality (NYSDOT 2011b).

The condition of pavements is scored on a 10-point scale, as shown in Table 2.112. New York State road conditions are ranked 42nd in the nation (NYSDOT 2009b). This makes any impacts on road conditions an important consideration.

Table 2.112 - Ranking System of Pavement Condition in New York State (New August 2011)

9-10	Excellent	No significant surface distress
7-8	Good Surface	Distress beginning to show
6	Fair	Surface distress is clearly visible
1-5	Poor	Distress is frequent and severe
U	Under Construction	Not rated due to ongoing work

Source: NYSDOT 2010b.

2.3.14.4 NYSDOT Funding Mechanisms

The construction, reconstruction, or maintenance (including repair, rehabilitation, and replacement) of transportation infrastructure under the State's jurisdiction are performed by the NYSDOT. The state has statutorily established a number of funds that collect dedicated taxes and fees to fund NYSDOT's capital and operating activities. Most of the tax and fee sources for these funds are related to transportation and collected from transportation users. They include:

- Petroleum business tax;
- Highway use tax;
- Motor fuel tax;
- Motor vehicle fees;
- Auto rental tax; and
- Miscellaneous special revenues.

The Petroleum Business Tax (PBT) is a tax imposed on petroleum businesses operating in New York State. The tax is paid by registered distributors and is imposed at a cents-per-gallon rate on petroleum products sold or used in the State. The tax imposition occurs at different points in the distribution chain, depending on the type of petroleum product: For motor fuel, the PBT is imposed upon importation into the State; for diesel motor fuel, the PBT is imposed on the first sale or use in the State; for non-automotive diesel fuel and residual oil, the PBT is imposed on

final sale or use; for kero-jet fuel, the PBT is imposed on fuel consumed on take-off from points in the State. The tax is jointly administered and collected with the State's motor fuel tax (NYSDTF 2011a).

The Highway Use Tax (HUT) is a tax on motor carriers operating certain motor vehicles on New York State public highways (excluding toll-paid portions of the New York State Thruway). The tax is based on mileage traveled on NYS public highways and is computed at a rate determined by the weight of the motor vehicle and the reporting method. A HUT certificate of registration is required for any truck, tractor, or other self-propelled vehicle with a gross weight over 18,000 pounds or for any truck with an unloaded weight over 8,000 pounds and any tractor with an unloaded weight over 4,000 pounds. An automotive fuel carrier (AFC) certificate of registration is required for any truck, trailer, or semi-trailer transporting automotive fuel (NYSDTF 2011b).

New York State has a motor fuel tax on motor fuel and diesel motor fuel sold in the State. The tax is imposed when motor fuel is produced in or imported into New York State and when diesel motor fuel is first sold or used in the State. It is jointly administered and collected with the petroleum business tax. The tax is paid by registered motor fuel and diesel motor fuel distributors (NYSDTF Finance 2011c).

Motor vehicle fees, which are collected by the New York State Department of Motor Vehicles, are another large source of income for the NYSDOT. Other taxes collected for the NYSDOT include the auto rental tax, corporation and utility tax, and other miscellaneous receipts, although the PBT, HUT, motor fuel tax, and motor vehicle fees are the main sources of revenue.

Table 2.113 shows the actual total receipts for years 2009-2010 and 2010-2011 for the NYSDOT, as well as the estimated receipts for year 2011-2012. Total receipts allotted to the NYSDOT increased from 2009 to 2011 and are expected to continue to increase through 2012.

Table 2.113 - NYSDOT Total Receipts, 2009-2012 ($ thousands) (New August 2011)

	2009-2010 Actual	**2010-2011 Actual**	**2011-2012 Estimated**
Petroleum Business Tax	612,502	605,945	614,000
Highway Use Tax	137,247	129,162	144,000
Motor Fuel Tax	401,099	407,725	404,000
Motor Vehicle Fees	626,589	813,264	827,000
Auto Rental Tax	51,726	60,032	65,000
Corporation and Utility Tax	19,641	16,400	15,000
Other Miscellaneous Receipts	635,045	467,876	578,902
Total Tax Receipts	**1,848,804**	**2,032,528**	**2,069,000**
Total Receipts	**2,483,849**	**2,500,404**	**2,647,902**

Source: Zerrillo 2011.

The actual amount of total receipts in the year 2010-2011 was $2.5 billion. Approximately $1.4 billion, or 45.7%, came from business taxes, including the motor fuel, petroleum, and highway use taxes. Approximately $813 million, or 32.5%, came from motor vehicle fees, and $544 million, or 21.8% came from auto rental and corporation and utility uses taxes and other miscellaneous receipts. In the estimated receipts for next year (2011-2012), all income related to taxes is estimated to remain relatively constant, whereas there is expected to be a $200 million increase in motor vehicle fees due to increases in fees (Table 2.113).

Collectively, revenues from these taxes flow into the state's Dedicated Highway and Bridge Trust Fund (DHBTF), which is the primary funding source for the NYSDOT highway and bridge capital program, engineering and program administration, DMV administration, as well as capital programs for transit, rail and aviation. In addition to these tax revenues, state general fund support is required to sustain the DHBTF and provide for new project commitments.

NYSDOT is implementing the final year of a two-year capital program for which approximately $1.8 billion is annually dedicated to capital rehabilitation and replacement of the state and local road and bridge system. Despite past investment, the condition of the state's highway pavements and bridges is declining. Given the age of the state's highway system, the capital program, by necessity, invests largely in safety and asset preservation projects to meet the urgent needs of the transportation system.

In addition to state investment in roads and bridges, local governments invest in local roads and bridge infrastructure maintenance and improvement, largely through local property and other local taxes.

2.3.14.5 Rail and Air Services

New York State is served by an extensive system of rail lines for passengers and freight. Amtrak, operating primarily over rail lines owned by freight railroads, is the solitary provider of intercity rail passenger service in New York State. Over approximately 782 route miles, Amtrak links downstate with upstate cities that include Albany, Utica, Syracuse, Rochester, Buffalo, and many other intermediate points. CSX Transportation, Canadian Pacific Railway, and Norfolk Southern Railway are the primary owners and operators of freight corridors in New York State. CSX Transportation is the largest among these railroads, operating 1,292 of the total 4,208 miles of freight rail in the state. Fifty-nine of New York State's 62 counties are served by one of New York's freight railroads, which connect to all adjacent states and Canadian provinces (NYSDOT 2009). The principal rail lines in New York State are shown on Figure 2.18.

Freight carried by railroad is off-loaded at rail yards and transported to specific locations from the railroads by truck. The rail network in New York State is capable of carrying much of the drill equipment that might be required, although it would still have to be moved by truck from the rail yards to the well heads.

Many of the communities in and near the gas development areas are serviced by commercial airliners, including those associated with airports in smaller cities such as Jamestown, Binghamton, and Elmira, and in larger cities such as Buffalo, Rochester, and Syracuse. Figure 2.18 shows the location of Commercial - Primary airports, which are publicly-owned airports that receive scheduled passenger service and have more than 10,000 enplaned passengers per year. A list of Commercial - Primary airports in New York State is provided below. Some airports that are not categorized as Primary airports, because they fall below the 10,000 passenger per year passenger count, also are serviced by scheduled air carriers. The Jamestown airport is one such facility that lies within the area of potential shale gas development.

- Albany International Airport;
- Greater Binghamton Airport;
- Buffalo Niagara International Airport;
- Elmira/Corning Regional Airport;
- Long Island MacArthur Airport;
- Ithaca Tompkins Regional Airport;
- John F. Kennedy International Airport;
- LaGuardia Airport;
- Stewart International Airport;
- Plattsburgh International Airport;
- Greater Rochester International Airport;
- Syracuse Hancock International Airport; and
- Westchester County Airport.

In addition to Commercial - Primary airports, there are many other public use airports that can be utilized by charter operations. None of these airports are at or near capacity and can be available to service an influx of temporary workers.

2.3.15 Community Character[49]

A community's character is defined by a combination of natural physical features, history, demographics and socioeconomics, and culture (Robinson 2005). Key attributes or features used to define community character generally include local natural features and land uses; local history and oral traditions; social practices and festivals; unique local restaurants and cuisine; and local arts. In addition, New York State's Environmental Quality Review Act acknowledges community character as a component of the environment, including existing patterns of

[49] Subsection 2.4.15, in its entirety, was provided by Ecology and Environment Engineering, P.C., August 2011 and was adapted by the Department.

population concentration, distribution or growth, and existing community or neighborhood character.

Local and regional planning are important in defining a community's character and long-term goals. In New York State, planning, zoning, and local law are implemented and enforced at the local level, through county and municipal boards or councils. The local entities set forth the community's goals and objectives through planning or zoning documents, which provide the most tangible and formal expression of a community's character. Notably, a 2007 New York State Court of Appeals decision (Village of Chestnut Ridge vs. Town of Ramapo) observed that "[t]he power to define the community character is a unique prerogative of a municipality acting in its governmental capacity" and, that, generally, through the exercise of their zoning and planning powers, municipalities are given the job of defining their own character (NYSDEC 2007).

A sense of place also is central to community character or identity. "Sense of place" can be described as those tangible and intangible characteristics which, over a period of time, have given a place its distinctiveness, identity, and authenticity (Robinson 2005). Distinctiveness can be globally, nationally, or regionally important, as well as locally or personally important. The various elements that comprise sense of place include, but are not limited to, regional and local planning, population density, transportation and access, and services and amenities.

To be a defined "place" a bounded area must be recognized by those within and without it as being a distinctive community and having a distinctive character. A sense of place and community character cannot be described for New York State as a whole due to the vast area it covers and the range of differences in communities across the state. Residents of a single place share their history, resources, and common concerns and have a similar way of life. Regions A, B, and C (Figure 2.3) were developed for the purposes of the SGEIS to generally describe representative areas of impact within the area underlain by the Marcellus Shale in New York State. Because they encompass numerous counties and municipalities with diverse land uses, planning goals, and identities, it is difficult to fully describe community character at the regional level. Each community within these regions has its own set of distinctiveness, authenticity, and identity. For the purposes of this analysis, the sense of place for a county or region was described utilizing regional, county, and local comprehensive plans, economic development plans, and Web

sites. These resources were used to piece together the sense of place for the representative regions.

Region A

Region A comprises Broome, Tioga, and Chemung Counties (Figure 2.4a). It is located in the eastern portion of the Southern Tier of New York, along the New York/Pennsylvania border. The Southern Tier Expressway (Interstate 86) crosses the southern portion of Region A, providing east/west access, and connecting the cities of Elmira in Chemung County, Waverly and Oswego in Tioga County, and Binghamton, Endicott and Johnson City in Broome County. Most of the urban development occurs along this corridor. The remainder of the region is rural; the rural landscape is dominated by the hills and valleys along the Susquehanna and Chemung Rivers. Collectively, the counties within Region A comprise 38 towns/cities, 18 villages, and many unincorporated areas. There are 21 combined school districts in the Region.

Generally, Region A can be described as having relatively small urban centers and quaint villages surrounded by small, scattered, and picturesque rural communities, largely set within the hills and valleys along the Susquehanna and Chemung Rivers. The Susquehanna and Chemung River valleys are a large part of the natural landscape and create vistas important to local communities. The natural landscape is home to a variety of wildlife, which is enjoyed by residents and visitors both passively (e.g., hiking and bird watching) and actively (e.g., fishing and hunting). Rural elements include scenic drives/routes, farmland, woodlands, forests, waterways, and natural areas. Villages and towns in Region A are quaint and historic and are also home to many musicians and artisans. In Region A, officials and residents describe their communities as being friendly and having a small-town feel and their residents as hard-working and ethical. Many note their country fairs, unique shops, and overall rural characteristics as contributing to their community's character.

Within the counties that comprise Region A, agriculture is an important part of community character. There are over 1,500 farms within Region A, and approximately 279,000 acres of land within the Region are located within 11 state-designated agricultural districts (NYSDAM 2011). Figure 2.19 provides an overview of the agricultural districts within Region A.

Region A is rich in history and historic preservation opportunities. Chemung County and the city of Elmira are considered to be "Mark Twain Country," because it is the area where Mark Twain lived a large portion of his life and where he died. The character of Region A is influenced by numerous sites and events associated with Native American history, the Revolutionary War and Civil War, and the Underground Railroad, as well as historic villages, towns, and farms (Chemung County Chamber of Commerce 2011). The town of Owego, in Tioga County, has 151 homes that are located in historic districts (Visit Tioga 2011), and numerous Victorian homes throughout the region contribute to the historical aspect of its region's character.

The region aims to maintain a "Main Street" and small local business attitude by promoting economic growth and maintaining a rural character.

Agri-tourism in the form of petting zoos, U-pick farms, and farmers markets is a large part of the community character of the region. An abundance of outdoor recreational activities, including hiking, biking, fishing, boating, hunting, cross-country skiing, and bird-watching, contributes to the high quality of life these communities all strive for. These activities are counterbalanced by many opportunities to enjoy art, music, and other cultural amenities provided by the region's cities and towns.

Drilling for natural gas has been performed to a limited extent in Region A; in 2009 there were only 46 gas wells in the region (NYSDEC 2009). Of these, 45 active gas wells are located in Chemung County and one is in Tioga County. In addition, there are 13 underground gas storage wells in operation in Tioga County (NYSDEC 2011).

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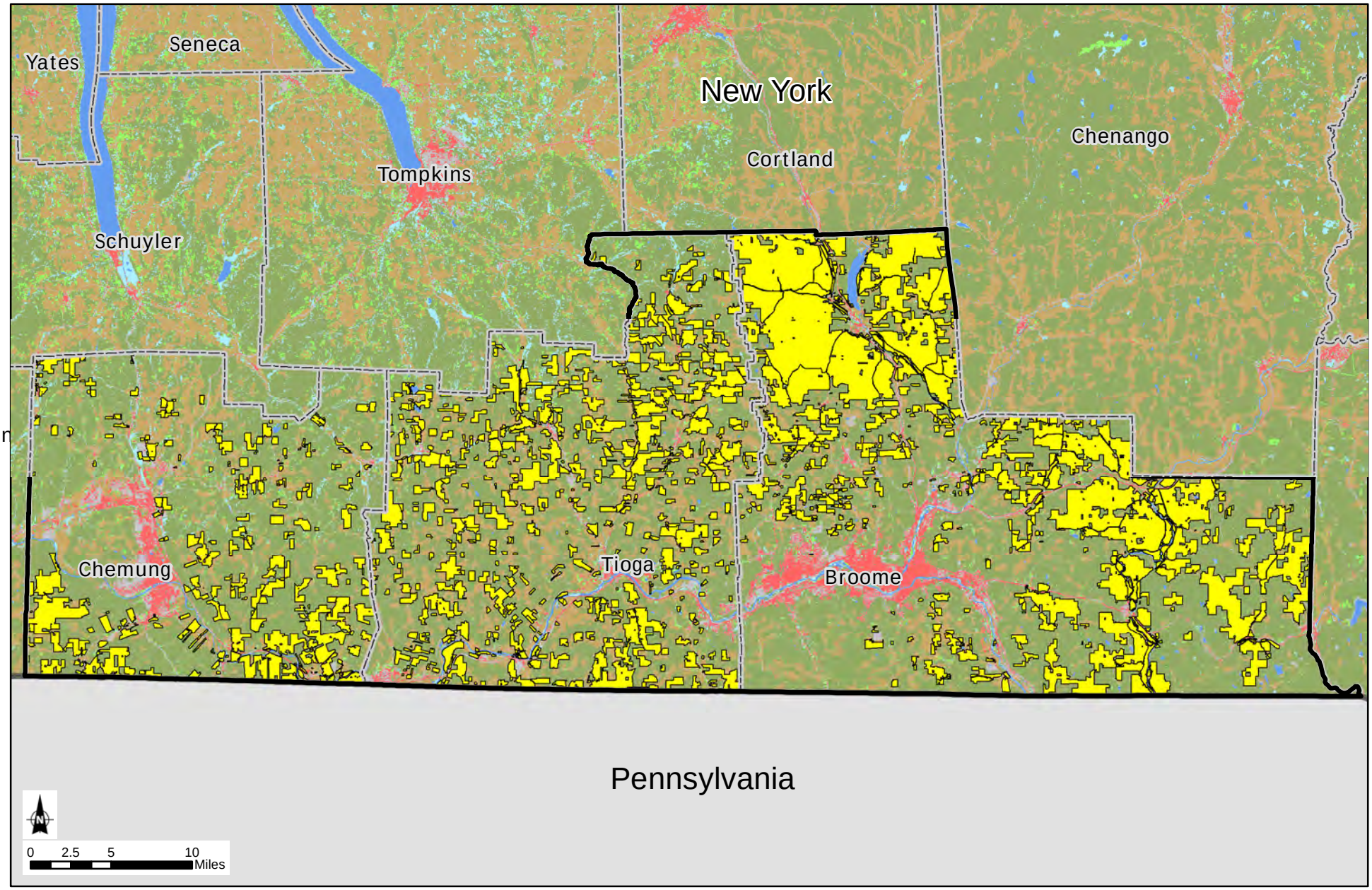


Representative Region A
County Boundary
Agricultural Districts

USGS NLCD
Developed
Open Space
Agriculture
Forest
Herbaceuous/Shrub/Scrub
Open Water
Wetlands

NOTE: Agricultural district boundaries are overlaid on the land cover data. The land cover within agricultural district boundaries includes land cover other than agriculture; however, land cover within the agricultural district boundaries is predominately agriculture.

Figure 2.1**9**:
Land Cover and Agricultural Districts
Representative Region A

Source: ESRI, 2010; NYSDAM, 2011

Broome County. Broome County is the furthest east in the region. The county has a total area of 715 square miles, including 707 square miles of land and 8 square miles of surface water (lakes, ponds, rivers, and streams). Broome County is more densely populated than the other counties in Region A, with a population density of 284 persons per square mile.

Within Broome County are 17 towns/cities and seven villages, and 12 school districts (Broome County 2011; New York Schools 2011a). The Binghamton-Johnson City-Endicott Tri-City Area is the predominant urban area of the county, which is surrounded by suburban development (Greater Binghamton Chamber of Commerce 2011). Major manufacturers located in Binghamton include Lockheed Martin (systems integration), BAE Systems (mission systems) and IBM Corporation (technology). Large healthcare facilities are also located in Binghamton, including United Health Services and Lourdes Hospital. The State University of New York at Binghamton is also a large employer within the region.

The Southern Tier Expressway (Interstate 86/NYS Route 17) crosses the southern portion of Broome County in an east-west direction, and Interstate 81 provides northern access to the cities of Cortland and Syracuse and the New York State Thruway.

The remaining land area in Broome County is largely rural. As reported by the Census of Agriculture, in 2007 there were 580 farms in Broome County, covering approximately 98,000 acres of land (22% of the total land area of the county). The average size of a farm in Broome County in 2007 was 150 acres. Principal sources of farm income include milk, cattle/calves, other crops/hay and nursery, greenhouse, floriculture, and sod. Dairy products account for approximately 70% of agricultural sales in the county (USDA 2007). As of 2011, there were approximately 153,000 acres of land within three state-designated agricultural districts in Broome County (NYSDAM 2011). Agri-tourism in Broome County focuses on farmers markets, U-pick farms, alpaca farms, apples, botanical gardens, and maple syrup (Visit Binghamton 2011).

Broome County and Tioga County are a part of the Susquehanna Heritage Area, which seeks to use the historic, cultural, and natural resources of the counties to strengthen the region's identity, enhance the local quality of life, support the local economy, and promote stewardship (Susquehanna Heritage Area 2009).

Broome County's Department of Planning and Economic Development "serves to promote the sound and orderly economic and physical growth of Broome County and its constituent municipalities…it implements projects and programs designed to improve the economy, environment and physical infrastructure of the county" (Broome County 2009). Development of comprehensive plans is generally left to the discretion of city and town zoning and planning boards, which originally adopted traditional forms of regulation in an effort to protect land use and natural resources. Local and regional development is guided by a number of open space plans, local comprehensive plans, and strategic plans. These documents broadly reflect a community's history, values, future goals, and character.

Broome County does not have a comprehensive or master plan, but many of its larger municipalities have a comprehensive/master plan, land use regulations/laws, and zoning maps. A brief review of representative local planning documents indicated that several communities in the county are concerned with protecting and maintain agricultural activities in order to preserve open space, promote historic preservation, and preserve and enhance the sense of community identities. As an example, the Town of Union's Unified Comprehensive Plan outlines the following goals and objectives: "protect and maintain agricultural activities as a land use option in order to preserve open space . . . promote a balance between the need to use and the need to preserve resources . . . [and] . . . promote historic preservation" (Town of Union 2009).

Tioga County. Tioga County is located in the Southern Tier of New York State, west of Broome County. This county has a total area of 523 square miles, including 519 square miles of land and 4 square miles of surface waters (lakes, ponds, rivers, and streams). Tioga County has the lowest population density in Region A, with 98.6 persons per square mile.

Within Tioga County are nine towns and six villages, as well as six school districts (Tioga County 2011a; New York Schools 2011b). The largest urban developments are Owego (19,883 persons in the town and 3,896 persons in the village) and Waverly (4,444 persons). The Binghamton-Johnson City-Endicott Tri-City Area also extends from Broome County into the eastern edge of Tioga County. The existing land use pattern in Tioga County has been influenced by the historic pattern of highway-oriented transportation and employment provided by IBM Corporation and later Lockheed Martin (Tioga County 2005). The presence of technologically advanced industries

in the southern portion of the county, along the Southern Tier Expressway and near Owego, led to that portion of the county being more densely populated than the northern portion. There are no major roadways running east-west in the northern portion of the county.

The remaining land area in Tioga County is largely rural. As reported by the Census of Agriculture, in 2007 there were 565 farms in this county, covering approximately 106,800 acres of land (32% of the land area of the county). The average size of a farm in Tioga County in 2007 was 189 acres (USDA 2007). The principal source of farm income is dairy products, which accounted for approximately 75% of agricultural products sold in 2007. Other farming in the county includes beef cows, horses, sheep, and poultry. Hay is the largest crop grown in Tioga County, followed by oats and vegetables. Farming operations in Tioga County also produce over 800 gallons of maple syrup (Tioga County 2011a). In recent years, Tioga County has seen decreases in the number of farms, the productivity of farms, and farmed acreage (Tioga County 2005). As of 2011, there were approximately 84,000 acres of land within three state-designated agricultural districts in the county (NYSDAM 2011). Tioga County continues to encourage farm owners to enroll in and work with the NYSDAM to establish agricultural districts to preserve the agricultural character of the county (Tioga County 2005).

Tioga County's physical environment ranges from farming communities to historic town centers with charming "Main Streets" (Visit Tioga County 2011; Tioga County 2005). The county is defined as rural and suburban, but not urban (Tioga County 2011b). The portion of the Susquehanna River basin in Tioga County provides recreational and visual benefits to the county. Tioga County prides itself in its unspoiled beauty, human resources, and central geographic location (Tioga County 2011c).

Tioga County encourages local municipalities to develop their own planning documents (Tioga County 2005). Development of comprehensive plans is generally left to the discretion of village and town zoning and planning boards, which originally adopted traditional forms of regulation in an effort to protect land use and natural resources. Local and regional development is guided by a number of open space plans, local comprehensive plans, and strategic plans. These documents broadly reflect a community's history, values, future goals, and character.

Tioga County does not have a comprehensive or master plan, but many of its municipalities have a comprehensive/master plan, land use regulations/laws, and/or zoning maps. A brief review of representative local planning documents indicated that several communities in the county are concerned with promoting economic development while preserving and maintaining their small town/hometown atmosphere and rural character. The towns also emphasize the importance of conservation and preservation of natural areas and open space, including both agriculture land use and future expansion of recreational community areas. For example, the first goal of the Town of Candor Comprehensive Plan is to "attract and recruit desirable small business and light industry in order to help create a stable tax base and maintain the small town/hometown atmosphere" (Town of Candor 1999).

Chemung County. Chemung County is located west of Tioga County. The county has a total area of 411 square miles, including 408 square miles of land and 3 square miles of surface water. Chemung County has a population density of 218 persons per square mile.

Within Chemung County are 12 towns/cities and five villages, as well as three school districts (Chemung County 2011a; New York Schools 2011c). The existing land use pattern in Chemung County has been significantly influenced by the topography of the region, including the Chemung River Valley. The region's climate, topography, and soils support productive agricultural, forestry, and wood product industries (Susquehanna – Chemung 2011). The region is rural, with rolling hills, scenic farmlands, rural vistas, and outdoor recreation opportunities, which are all major contributors to the region's appeal.

The city of Elmira is the largest population center in Chemung County. Located along the Southern Tier Expressway (Interstate 86/17), the city is the historical and cultural center of the county and has numerous historical markers, museums, and tours. The city has the "largest concentration of Victorian-era homes in the State of New York" (Chemung County Chamber of Commerce 2011). Chemung County has many manufacturing industries, which make products such as subway cars, electronic equipment, structural steel products, helicopters, automotive-related products, and paper products (Chemung County 2008).

As reported by the Census of Agriculture, in 2007 there were 373 farms in the county, covering approximately 65,000 acres of land (approximately 25% of the land area of the county). The average size of a farm in Chemung County in 2007 was 175 acres (USDA 2007). Agricultural activities include the production of corn, wheat, hay silage, vegetables, poultry, eggs, beef, milk, milk products, and pork (Chemung County 2008). Approximately 42,000 acres of farmland in Chemung County are located in five agricultural districts (NYSDAM 2011). Farming operations in Chemung County have also decreased over the years, but agriculture is still a major industry in this county.

Chemung County's topography consists of hills and valleys, with the principal valley being the Chemung River valley (Chemung County 2008). The majority of the county is naturally forested and classified as woodland, but up to 18% of the land area is active agricultural land (Chemung County 2008). Described as the "Gateway to the Finger Lakes," Chemung County itself has sufficient waterways, rolling hills, scenic farmlands, and outdoor recreational resources to provide a high quality of life for residents and tourists (Susquehanna-Chemung 2011).

Chemung County's Planning Department assists local communities with comprehensive planning, land use and zoning, floodplains and watersheds, and grant proposals (Chemung County 2011b). Chemung County empowers the local municipalities to develop their own planning documents and periodically presents specialized training workshops for local planning and zoning officials (Chemung County 2011b, 2011c). Development of comprehensive plans is generally left to the discretion of village and town zoning and planning boards, which originally adopted traditional forms of regulation in an effort to protect land use and natural resources. Local and regional development is guided by a number of open-space plans, comprehensive plans, and strategic plans. These documents broadly reflect a community's history, values, future goals, and character. The Chemung County Planning Department participates actively in the Rural Leadership program of the Southern Tier Regional Planning and Development Board (Chemung County 2011b).

Chemung County does not have a comprehensive or master plan, but many of its municipalities have a comprehensive/master plan, land use regulations/laws, and/or zoning maps. A brief review of representative local planning documents indicated that several communities in the

county are concerned with protecting their small town feel, maintaining a similar population size, enhancing recreational amenities, and protecting environmentally significant and/or sensitive areas while minimizing anthropogenic adverse impacts on the land and, consequently, the quality of life of the residents. For example, the Village of Horseheads Comprehensive Plan states their village "... is an inviting place where diverse residents choose to live, work, and play; it is a blend of residential neighborhoods, commercial and manufacturing businesses, parks, and open spaces. Residents and Village officials take pride in the surroundings by assuring the maintenance and beauty of homes, land, and property" (Village of Horseheads 2010).

Region B

Region B comprises Delaware, Sullivan, and Otsego Counties (Figure 2.4b). Region B is located in the Catskill Mountains and the Leatherstocking region of New York and has a rich natural and human history. The National Baseball Hall of Fame is located in Cooperstown, in Otsego County, and is a destination for thousands of people annually. Glass museums, history museums, and other tourist attractions exist throughout the region. The Catskills are an attraction for outdoor enthusiasts. Various manufacturing companies are located across the region, mainly occurring in the larger towns. The region is known for manufacturing communications equipment, integrated circuits, pharmaceuticals, transportation equipment, plastic and rubber products, and food and beverages. Other large employers include insurance companies, colleges, health care facilities, and retailers. NYSEG, Verizon, and other electronics companies are located in the city of Oneonta (City of Oneonta 2011). Having manufacturing and cultural hubs surrounded by natural areas contributes to the community character of the region.

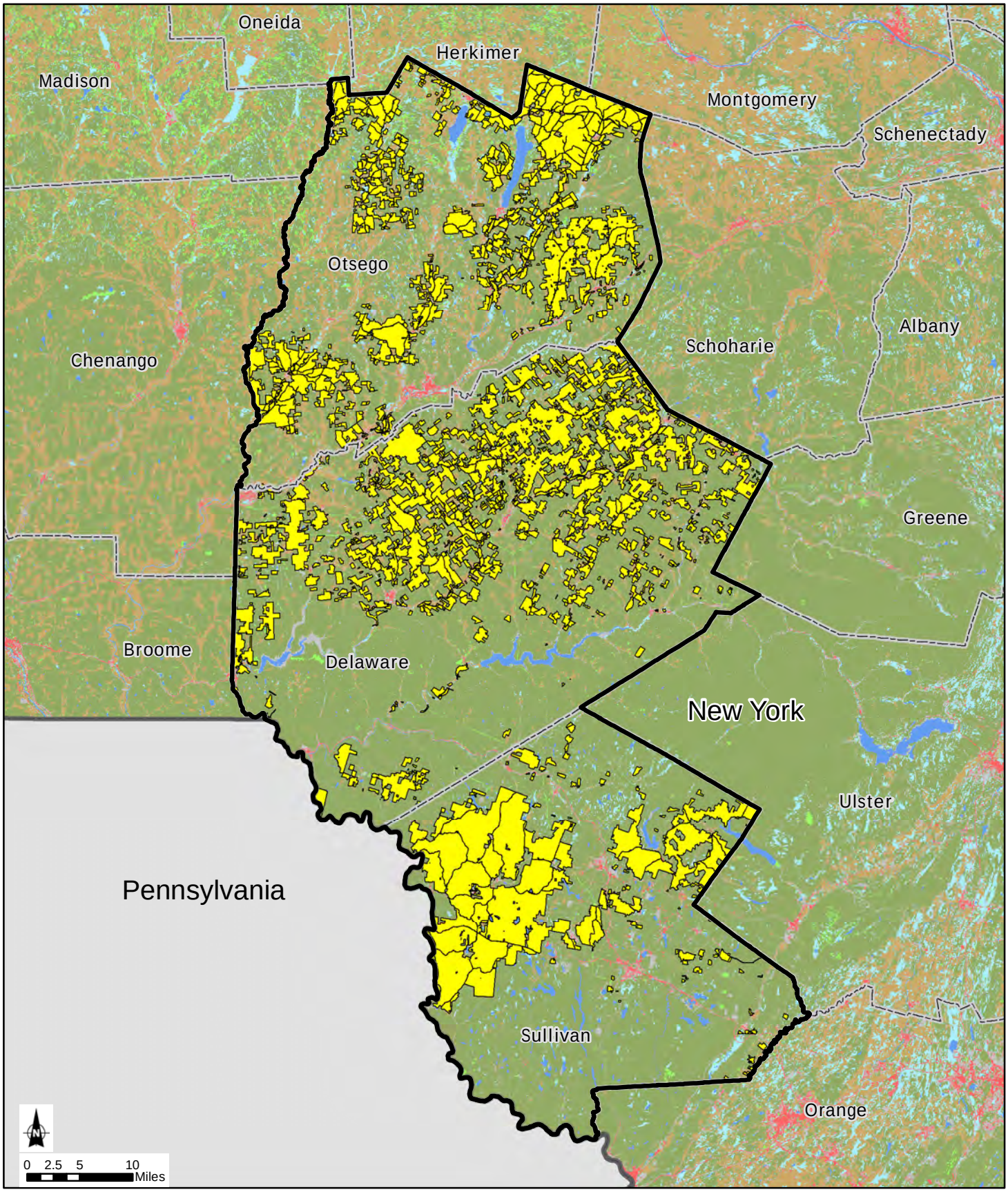
Within the region there are 60 towns, 26 villages, and over 75 hamlets; 42 combined school districts. Gas drilling is relatively new to these counties and is not an integral part of the industrial or rural landscape of the region. In 2009 there were no natural gas wells in production in Region B (NYSDEC 2009). Several exploratory wells were developed in 2007 and 2009, but no production has been reported.

Generally, Region B can be described as having relatively small urban centers and villages surrounded by numerous small, scattered, and picturesque rural hamlets within a setting of sparsely populated hills, mountains, and valleys. Some communities boast about their clean

water, land, and air and panoramic views of natural beauty, while others are particularly proud of their proximity to larger metropolitan areas. Local Web sites and planning documents describe the less densely populated segments of each community as having a rural character, with few buildings, structures, or development (Catskills Region 2011). Rural elements include meandering, tree-lined streets, farmland, woodlands and forests, and natural areas. With the exception of communities immediately along state or county transportation corridors, the hamlets, villages, and towns in Region B generally are pedestrian-friendly or are in the process of revitalizing their neighborhoods to be more walkable (Sullivan County Chamber of Commerce 2011a). Within Region B, views and vistas are dominated by undeveloped open space (Town of Otsego 2005). In Delaware County, this was reinforced by the 1997 Watershed Memorandum of Agreement with NYC.

There are over 1,900 farms within the three counties that comprise Region B; consequently, agriculture is an important part of community character within the Region. Approximately 588,000 acres of land within Region B are located within 15 state-designated agricultural districts (NYSDAM 2011). Figure 2.20 provides an overview of the agricultural districts within Region B.

In Region B, many of the inhabited places are small and the pace of life is slow. Some local officials and residents describe their communities as being friendly and having a small-town feel. Many note their country fairs, specialty shops, and team sports as contributing to their community's character. Delaware and Sullivan Counties are described as rural retreats for urban tourists from NYC. The City of Oneonta, in Otsego County, describes itself as a religious community, known for its many places and worship. All of the counties in Region B describe active and passive recreational activities as being essential to their community character. Available outdoor recreational activities include hiking, fishing, boating, biking, bird-watching, hunting, skiing, and snowmobiling.



Representative Region B
County Boundary
Agricultural Districts
USGS NLCD
Developed
Open Space
Agriculture
Forest
Herbaceuous/Shrub/Scrub
Open Water
Wetlands

NOTE: Agricultural district boundaries are overlaid on the land cover data. The land cover within agricultural district boundaries includes land cover other than agriculture; however, land cover within the agricultural district boundaries is predominately agriculture.

Figure 2.**20**:
Land Cover and Agricultural Districts
Representative Region B

Source: ESRI, 2010; NYSDAM, 2010, 2011

Region B, while rural and slow-paced in some areas, also has several centers of commerce, high-quality health care facilities, institutions of higher education, and noteworthy cultural activities, including art galleries, theatre groups, and music events. These assets significantly contribute to their "sense of place." For centuries the Catskills Mountains in Delaware County have been a place where art colonies flourished. In Cooperstown, in Otsego County, the Baseball Hall of Fame, Glimmerglass Opera, art galleries, and specialty shops draw throngs of visitors each year. Sullivan County describes itself as offering value and convenience for visitors seeking an escape closer to home, with museums, antiques, boutiques and theater, as well as outdoor recreational activities. It is best known as the home of the Woodstock music festival and the Monticello Raceway. Agri-tourism also is important to Sullivan County.

Delaware County. Geographically, Delaware County is the largest county in Region B and is one of the larger counties in New York State (Delaware County Chamber of Commerce 2011a). Delaware County is located in the southeastern part of the state and is bordered to the south by the Delaware River. The Catskill Mountains are partially located in Delaware County. The county has a total area of 1,468 square miles, including 1,446 square miles of land and 22 square miles of surface water (lakes, ponds, rivers, and streams). Delaware County is one of the least populated counties in New York State, with 33 persons per square mile. The county has 19 cities/towns, 10 villages, two hamlets, and 13 school districts (Delaware County 2011; Delaware County Chamber of Commerce 2011b; New York Schools 2011d). The largest population centers are the villages of Sidney (3,900 persons), Walton (3,088 persons), and Delhi (3,087 persons). Interstate 86/Route 17 crosses the southern boundary of Delaware County.

The remaining areas in Delaware County are rural. As reported by the Census of Agriculture, in 2007, there were 747 farms in the county, covering approximately 200,000 acres (22% of the land area in the county). The average size of a farm in Delaware County in 2007 was 222 acres. The principal sources of farm income include milk, vegetables, other crops/hay and nursery, greenhouse, floriculture, and sod (USDA 2007). According to more recent data from the Delaware County Chamber of Commerce, dairy products account for approximately 80% of agricultural sales in the county, and Delaware County represents 80% of the dairy farms in the NYC watershed area (Delaware County Chamber of Commerce 2011b). As of 2011, there were

approximately 237,000 acres of land within eight state-designated agricultural districts in Delaware County (NYSDAM 2011).

The existing land use pattern in Delaware County has been influenced by the historic pattern of hamlet development, highway-oriented transportation, and state land ownership. In addition, a major land-acquisition program is underway in Delaware County and other Catskills/Delaware Watershed communities that help to provide an unfiltered drinking water supply to NYC. The acquisition of this land will preclude future development in designated areas (NYC Watershed 2009).

Delaware County does not have a comprehensive plan, but it empowers its municipalities to develop their own planning documents. Development is generally left to the discretion of village and town zoning and planning boards, which originally adopted traditional forms of regulation in an effort to protect land use and natural resources. Local and regional development is guided by a number of open-space plans, comprehensive plans, and strategic plans. These documents broadly reflect a community's history, values, future goals, and character.

Delaware County does not have a comprehensive or master plan, but many of its municipalities have a comprehensive/master plan, land use regulations/laws, and zoning maps. A brief review of representative local planning documents indicated that several communities in the county are concerned with protecting and preserving agricultural land, including niche farming, forestry, and other sensitive areas; maintaining a rural character and the historical context of the communities; preserving existing development patterns and the appearance of residential development; maintaining the natural environment; and minimizing impacts on scenic transportation routes and vistas. For example, the Town of Stamford states in its Final Draft Comprehensive Plan that the town "will be a place that continues to maintain and celebrate its small town, rural character and natural beauty . . . maintain our open spaces and the pristine nature of the environment . . . [and] . . . our quality of life will be enhanced because of the Towns' strong sense of community through its caring, friendly people and the dedicated organizations and volunteers that serve us well" (Town of Stamford 2011).

Sullivan County. Sullivan County is located south of Delaware County. The county has a total area of 1,038 square miles, including 1,011 square miles of land and 27 square miles of surface water (lakes, ponds, rivers, and streams). The county's physical environment ranges from historic urban centers to farming communities nestled within an open-space network that includes the Upper Delaware Scenic and Recreation River (to the west), Catskill Park (to the north) Basherkill Watershed, and Shawangunk Ridge (Sullivan County Catskills 2011a).

Sullivan County has a population density of 76 persons per square mile. Within the county are 15 cities/towns, six villages, and over 30 hamlets; and eight school districts (Sullivan County Catskills 2011b; Sullivan County Chamber of Commerce 2011b). The largest population centers are the Village of Monticello (6,726 persons), and the Village of Liberty (4,392 persons). Interstate 86/Route 17 crosses through the middle of Sullivan County, providing access to New York City, which is approximately 60 miles southeast of Sullivan County.

The remaining portions of Sullivan County are rural and open space. According to the Census of Agriculture, in 2007 there were 323 farms in Sullivan County, covering approximately 63,600 acres (approximately 10% of the land area of the county). The average size of a farm in 2007 was 156 acres (USDA 2007). In 2007, the principal sources of farm income included poultry and eggs, milk and other dairy products from cows (USDA 2007). Poultry and eggs accounted for approximately 65% of agricultural sales in the county in 2007. In recent years, however, Sullivan County has seen a decrease in traditional dairy and livestock farms (it now has only two major egg producers and 28 dairy farms) and an increase in smaller niche and diversified vegetable and livestock farms. As of 2011, there were approximately 162,000 acres of land within two state-designated agricultural districts in Sullivan County (NYSDAM 2011).

In its Comprehensive Plan, the county describes itself as being on the verge of becoming urban, with rapid growth and development that will change its character and have an impact on its resources (Sullivan County Catskills 2005). The county's vision and community land use goals include avoiding heavy traffic, strip malls, and loss of open space and ensuring the availability of affordable housing. While development decisions are made at the local level, the county encourages collective support of a unified vision in its Comprehensive Plan (Sullivan County Catskills 2005). As stated in the Comprehensive Plan, current development patterns often

mandate a separation of land uses; however, revitalization efforts are focused on mixed-used in-fill development (i.e., development within vacant or under-utilized spaces within the built environment), walkable communities, and streetscape improvements (Sullivan County Catskills 2005). The county also is committed to preserving viewsheds, natural resources, and environmentally sensitive areas through zoning. Lastly, the county encourages coordinated zoning among its municipalities and intends to provide resources to municipalities to upgrade local zoning and land use regulations every 10 years.

Otsego County. Otsego County is located in central New York State, north of Delaware County. It is situated in the foothills of the Catskill Mountains, at the headwaters of the Susquehanna River (Otsego County 2011). The County has a total area of 1,015 square miles, including 1,003 square miles of land and 12 square miles of surface water (lakes, ponds, rivers, and streams). The county has a population density of 62 persons per square mile.

Within the county are 25 cities/towns, nine villages, and 47 hamlets; and 21 school districts The city of Oneonta, the county seat, has a population of 13,901 persons, and is surrounded by suburbs, and villages, hamlets, and farm communities that stretch across the remainder of the county. Interstate 88 crosses the southern portion of Otsego County, connecting the City of Oneonta to Binghamton to the south, and the Albany area to the north.

Farming operations in Otsego County have decreased over the years, but agriculture is still a major industry in the county. Active farmland is concentrated in the mid- to northern portions of the county (Otsego County 1999). According to the Census of Agriculture, in 2007 there were 908 farms in Otsego County, covering approximately 206,000 acres (approximately 30% of the land area of the county). The average size of a farm in Otsego County in 2007 was 201 acres (USDA 2007). The principal sources of farm income include milk, cattle/calves, other crops and hay and nursery, greenhouse, floriculture, and sod. Dairy products account for approximately 70% of agricultural sales in the county (USDA 2007). As of 2011, there were approximately 189,000 acres of land within five state-designated agricultural districts in Otsego County (NYSDAM 2011).

Otsego County does not have a comprehensive or master plan, but most of its 34 municipalities have a comprehensive/master plan, land use regulations/laws, and zoning maps. A brief review of representative comprehensive plans indicated that several communities in the county are concerned with protecting sensitive areas, maintaining a low residential density, preserving existing patterns of land use in hamlets and rural areas, maintaining the natural environment, and minimizing visual blight. For example, the Town of Otsego Comprehensive Plan's vision statement states the following: "We foresee the future Town of Otsego as continuing to have a clean environment, beautiful landscape, and rural character. We foresee carefully managed growth and development, maintaining access to our natural areas. We foresee a place of safety for us and our families." (Town of Otsego 2008). According to the Otsego County Department of Planning, affordable housing and real estate is also important to the county (Otsego County 2009).

Region C

Region C comprises Chautauqua and Cattaraugus Counties (Figure 2.4c). Generally, Region C can be described as largely rural in character, with commercial/industrial hubs located along the Southern Tier Expressway and agri-tourism spread across the region. Some communities boast about their access to water bodies and the recreational opportunities they provide, while others are particularly proud of their proximity to lively cities. Local Web sites and planning documents describe the less densely populated portions of each community as having a rural character and charm. Rural elements include scenic drives/routes, farmlands, woodlands and forests, waterways, and natural areas. Hamlets, villages, and towns in the region are quaint and historic and many are home to museums and historical sites. The unique geological history of the region has endowed it with numerous natural attractions, including the deeply incised valleys of Allegany State Park, the deep gorges of Zoar Valley, and numerous lakes and rivers, all of which contribute to the region's character.

Distinct features in each county contribute to the type of agriculture they support, which in turn influences the character of each county. The floodplains of large streams such as Cattaraugus Creek support dairy farms in Cattaraugus County, whereas the climatic influences of nearby Lake Erie support grape production in Chautauqua County.

The city of Salamanca in Cattaraugus County is the only U.S. city east of the Mississippi River that is located within a Native American tribal land (Seneca Nation of Indians). The proximity to Native American tribal lands and the Native American history of the area are important to this community's character. The residents of Region C are proud of their history and work diligently to preserve and promote it. The promotion of this history is evidenced by historical sites and museums found throughout the region, including the Chautauqua Institution in Chautauqua, New York. This renowned institution opened in the late 1800s and serves as a community center and resource "where the human spirit is renewed, minds are stimulated, faith is restored, and art is valued" (Chautauqua County Chamber of Commerce 2011a). This is another example of heritage forming an important part of community character in Region C.

Region C has a vibrant and diverse agricultural industry, which can be found throughout the rolling hills, rural countryside, and woodlands. The agricultural heritage of the region includes Amish communities in both Cattaraugus and Chautauqua Counties. There are over 2,700 farms in Region C. Approximately 632,000 acres of land within Region C are located within 17 state-designated agricultural districts (NYSDAM 2011). Figure 2.21 provides an overview of the agricultural districts within Region C.

Although agriculture is an important aspect of Region C, there is a balance between rural preservation and urban development. There are numerous small villages and communities within Region C, many of which are rich in historic sites and museums. For example, Jamestown in Chautauqua County is home to the Roger Tory Peterson Institute of Natural History, the Fenton History Center, the Lucy-Desi Museum, and the Desilu Playhouse and Theater. Jamestown's unique character and Victorian heritage are echoed throughout the region.

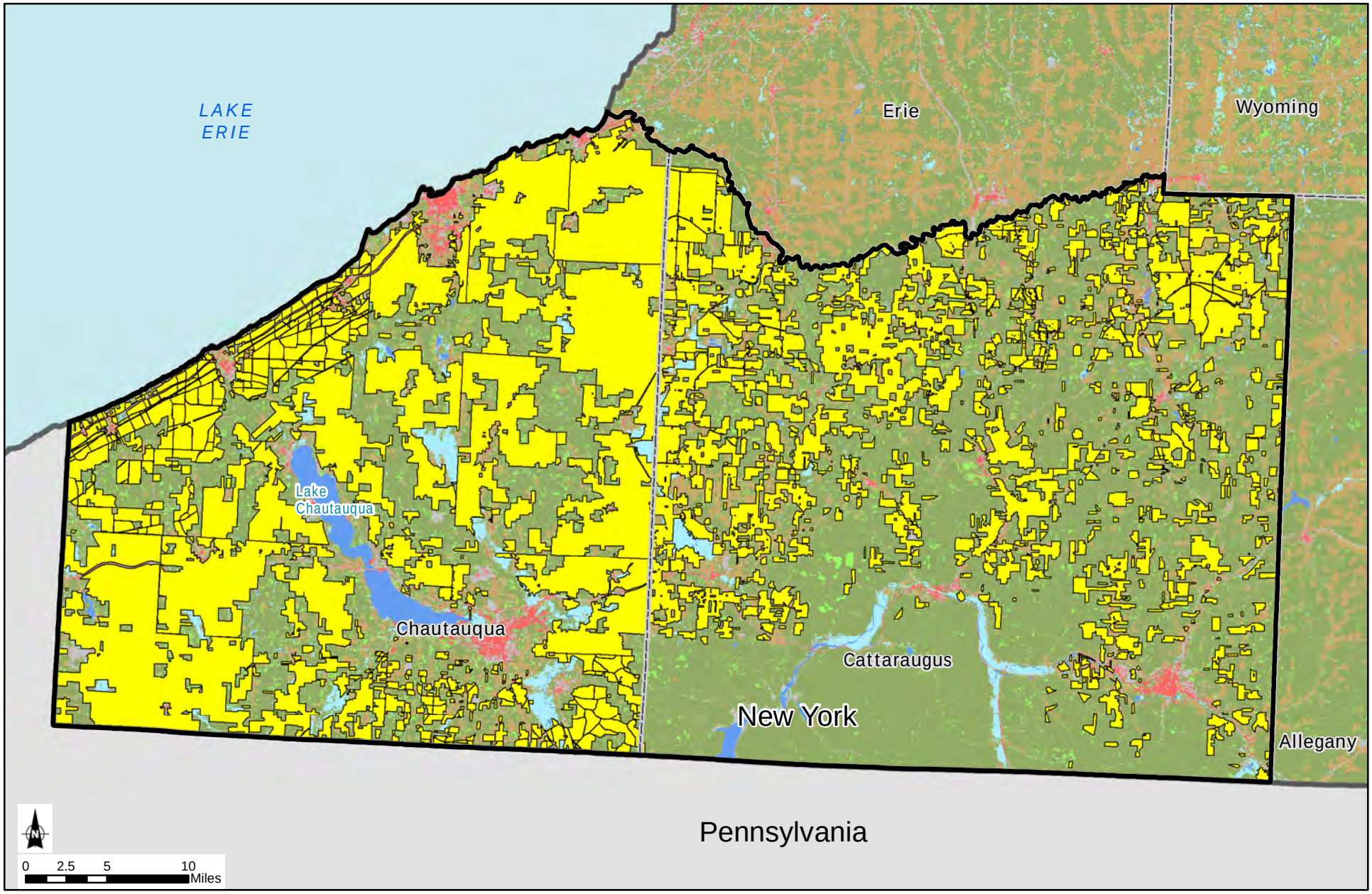
Tourism is also a large part of the community character of the region. Recreational activities that draw tourists to the region include bicycling, boating, fishing, gaming (on Native American tribal land), geo-caching (a treasure-hunting game using GPS technology), golfing, hiking, horseback riding, motor sports, scenic driving, hunting, mountain biking, downhill skiing, cross-country skiing, snowmobiling, snowshoeing, and white water rafting. This abundance of the recreational activities is a significant aspect of the community character in Region C. Within the region are 63 cities/towns, 28 villages, and other unincorporated areas, as well as 30 combined school districts.

Gas drilling is not new to Region C; in 2009 approximately 3,917 gas wells were in production in this region (NYSDEC 2009).

Chautauqua County. Located in the southwestern corner of the state, Chautauqua County is considered the western gateway to New York State (Chautauqua County 2011a). The county is bordered by Lake Erie to the northwest, Pennsylvania to the south and west, the Seneca Nation of Indians and Erie County to the northeast, and Cattaraugus County to the east (Chautauqua County 2011b). The center of the county is Chautauqua Lake; five smaller lakes are located throughout the county. The Southern Tier Expressway crosses the mid-section of the county, and the New York State Thruway crosses the county along its northern border near Lake Erie. Chautauqua County has a total area of 1,500 square miles, including 1,062 square miles of land and 438 square miles of surface water (lakes, ponds, rivers, and streams).

There are two cities within the county, Jamestown to the south and Dunkirk along Lake Erie, which are surrounded by rural areas and lakes. Due to the presence of the two cities, Chautauqua County has an average population density of 127 persons per square mile. Within the county are 29 cities/towns and15 villages, as well as 18 school districts (Chautauqua County 2011a; New York Schools 2011e).

According to the Census of Agriculture, in 2007 there were 1,658 farms in Chautauqua County, which cover approximately 235,858 acres (35% of the land area of the county) (USDA 2007). In 2007 the average size of a farm in this county was 142 acres (USDA 2007). In Chautauqua County, the principal sources of farm income are grape and dairy products (USDA 2007). Grapes and grape products account for approximately 30% of agricultural sales in the county, and dairy products account for approximately 50.5% of agricultural sales (USDA 2007). Grape growers in Chautauqua County produce approximately 65% of New York State's total annual grape harvest (Tour Chautauqua 2011a). As of 2011, there were approximately 392,000 acres of land within 11 state-designated agricultural districts in Chautauqua County (NYSDAM 2011).



Representative Region C
County Boundary
Agricultural Districts

USGS NLCD
Developed
Open Space
Agriculture
Forest
Herbaceous/Shrub/Scrub
Open Water
Wetlands

NOTE: Agricultural district boundaries are overlaid on the land cover data. The land cover within agricultural district boundaries includes land cover other than agriculture; however, land cover within the agricultural district boundaries is predominately agriculture.

Figure 2.**21**:
Land Cover and Agricultural Districts
Representative Region C

Source: ESRI, 2010; NYSDAM, 2010, 2011

Agri-tourism in Chautauqua County focuses on wineries in the northern portion of the county and scenic drives and farmers markets in the southern and eastern portions of the county. Another large part of agri-tourism here centers on the county's Amish Country (Tour Chautauqua 2011b).

Other industries also play important roles in the community character of Region C. In Chautauqua County, tourism based on recreational opportunities and historical and cultural sites and events is important throughout the county. Dunkirk, which is strategically located along Lake Erie, is described by the Chautauqua County Chamber of Commerce as having financial and technological support networks that provide businesses with competitive opportunities for growth (Chautauqua County Chamber of Commerce 2011b). The village of Fredonia is home to the State University of New York (SUNY) Fredonia campus, and the educational industry forms a large part of the community's character (Chautauqua County Chamber of Commerce 2011c). Jamestown serves as an industrial, commercial, financial, and recreational hub for southwestern New York, and the city is home to several museums and historical resources (Chautauqua County Chamber of Commerce 2011d). The city of Salamanca is located along the Allegheny River and describes itself as filled with country charm. It is the only city in the U.S. that lies almost completely within the borders of an Indian Reservation (Seneca Nation) (City of Salamanca 2011). The city is located on the northern border of Allegany State Park and serves as a year-round access point to the park. Salamanca is a center for the forestry and wood products industry and has plentiful supplies of maple, oak, and cherry (City of Salamanca 2011).

Chautauqua County has a comprehensive plan called *Chautauqua County 20/20 Comprehensive Plan* (Chautauqua County 2011b), which is designed to assist the county government in making decisions that affect the county's future (Chautauqua County 2011b). The plan identifies strategic issues and goals and is intended to ensure that there is cooperation between municipalities to achieve these goals (Chautauqua County 2011b). The plan states that Chautauqua County has an unusually high number of natural resource assets and unique attractions, including but not limited to farms (dairy and grape), lakes, historic towns, and the Chautauqua Institution (Chautauqua County 2011b). The county considers its traditional agricultural base to have preserved its open space and rural charm, which is a significant aspect of the county's community character (Chautauqua County 2011b).

Cattaraugus County. Cattaraugus County is located directly east of Chautauqua County and is also located within the Southern Tier of New York. The county has a total area of 1,322 square miles, including 1,310 square miles of land and 12 square miles of surface water (lakes, ponds, rivers, and streams). Cattaraugus County has a much lower population density than Chautauqua County, at 61 persons per square mile. Within the county are 34 cities/towns and 13 villages, as well as 12 school districts (Cattaraugus County 2011; New York Schools 2011f).

Cattaraugus County is much more rural than Chautauqua County, with small towns and rural characteristics. There are three Native American reservations wholly or partially within Cattaraugus County. The county's geology was sculpted by glaciers during the last glacial period, and the county is drained by two significant waterways, the Allegheny River in the south and Cattaraugus Creek in the north (Enchanted Mountains 2011a).

The existing land use pattern in Cattaraugus County has been significantly influenced by the topography of the region. Glaciers and rivers have sculpted the county into a mountainous region ideal for a wide variety of outdoor recreational activities, including skiing, hiking, hunting, and camping, and the fertile valleys support productive agricultural communities.

According to the Census of Agriculture, in 2007 there were 1,122 farms in Cattaraugus County, which cover approximately 183,000 acres (USDA 2007). In 2007 the average size of a farm in the county was 163 acres (USDA 2007). The principal sources of farm income are dairy products; nursery, greenhouse, floriculture, and sod; and cattle/calves (USDA 2007). Dairy products account for approximately 68% of agricultural sales in the county (USDA 2007). However, in recent years, dairy farming has declined in Cattaraugus County, especially in areas around towns/cities where the majority of commerce is not based on agriculture, such as around Ellicottville, where tourism is the main source livelihood (Cattaraugus County 2007). As of 2011, there were approximately 240,000 acres of land within six state-designated agricultural districts in Chautauqua County (NYSDAM 2011).

Agri-tourism is an important industry in Cattaraugus County. Agri-tourism in this county centers on maple syrup production and the Amish Trail, which is located in the western portion of Cattaraugus County (Enchanted Mountains 2011b; GOACC 2011).

The city of Olean is the commercial and industrial hub of Cattaraugus County (GOACC 2011). The city has a rich commercial and industrial history and is currently home to several large corporations, including manufacturers such as Dresser-Rand and Cutco-Alcas. This regional industrial and commercial center is necessary to maintain the rural character of the rest of Cattaraugus County**.**

The role of the Cattaraugus County Planning Department is to assist local communities with comprehensive planning, land use and zoning, floodplains and watersheds, census data and demographics, planning for agriculture, and any downtown revitalization projects (Cattaraugus County 2011). Cattaraugus County empowers the local municipalities to develop their own planning documents (Cattaraugus County 2011). Development of comprehensive plans is generally left to the discretion of county and town zoning and planning boards, which originally adopted traditional forms of regulation in an effort to protect land use and natural resources. Local and regional development is guided by a number of open-space plans, comprehensive plans, and strategic plans. These documents broadly reflect a community's history, values, future goals, and character.

Cattaraugus County does not have a comprehensive or master plan, but many of its municipalities have a comprehensive/master plan, land use regulations/laws, and zoning maps. A brief review of representative local planning documents indicated that several communities in the county are concerned with protecting sensitive areas, promoting tourism through recreation activities, maintaining a small town/rural feel, maintaining the natural environment, and creating a balance of the rural character and protection of the environment with appropriate economic development. Affordable housing and real estate also is important to the communities. For example, the Town of Portville Comprehensive Plan outlines the following goals: "… maintain the rural character of the Town, and at the same time provide for anticipated growth and development … [and] … maintain the predominantly rural character by preserving natural woodlands and floodplains, conserving the productive farms as much as possible, encouraging open space areas as a integral part to any new residential development, and concentrating intensive residential and commercial uses into selected centers of activity" (Town of Portville 2003).

In Cattaraugus County, Allegany State Park and the Enchanted Mountains provide recreational opportunities and associated jobs. The village of Ellicottville flourishes on the tourism industry, which centers on two major ski resorts. In the city of Olean, commerce is centered on industry (GOACC 2011).