

# **CHAPTER 3**

## **PROFILE OF THE REGION**



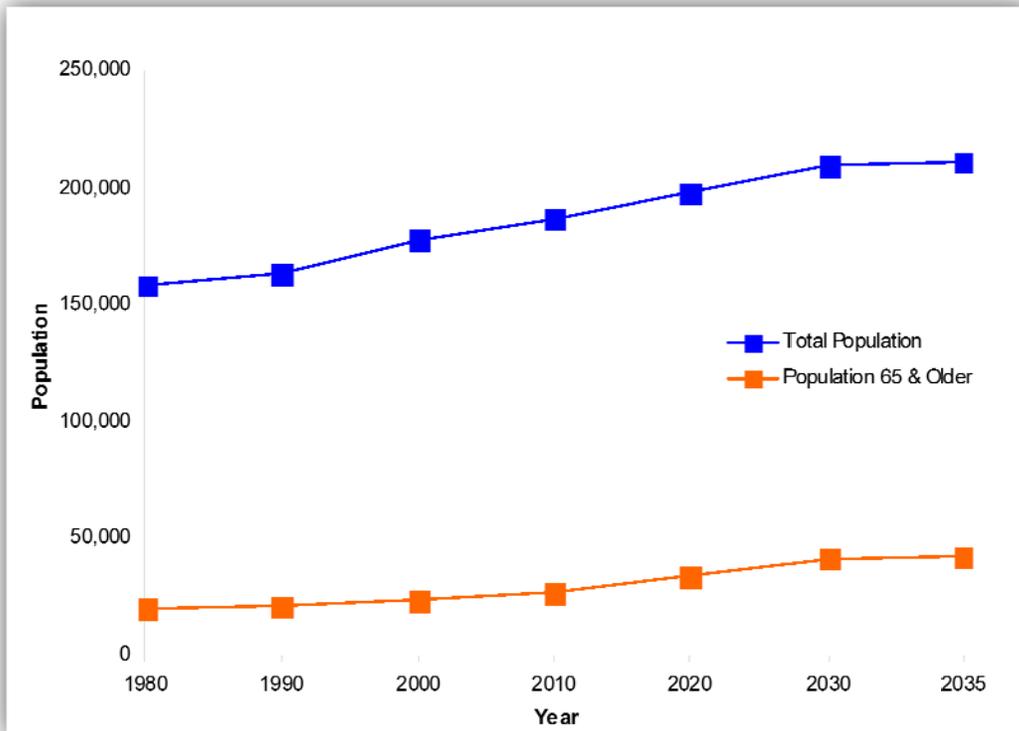
## PROFILE OF THE REGION

Social, demographic and economic trends directly influence transportation planning. Without a clear understanding of the region’s current characteristics and expected future trends, it is impossible to properly plan a transportation system that meets the region’s specific needs. This chapter presents current demographic, socioeconomic, and business trends in Ulster County, based on Year 2000 U.S. Census data. County travel behavior and the affects of gas prices are also examined.

### Population

Aging and slowing growth characterizes Ulster County’s population trends. From 1990 to 2000, the county grew by 7.5% from 165,704 to 177,749. An estimate from the U.S. Census for 2009 has the County’s population at 181,440, which is a 2.1% increase from 177,749. As of 2008, 45 to 49 year olds are the largest age group 14,994 people. Age groups just above and below this one – 50 to 54 and 40 to 44 year olds as of 2008 – were among the largest, too. These age groups are anticipated to increase the number people in their fifties and sixties over the next decade. Figure 3-1 identifies the historic and projected population of Ulster County.

**Figure 3-1: Total Population and Population Aged 65 and Older in Ulster County**



Source: U.S. Census 2000 and Ulster County Planning Department

Corresponding with the large number of middle-aged individuals are large numbers of young adults in their late teens and twenties. Age groups for many students in college –



15 to 19 and 20 to 24 year olds – have traditionally formed large segments of Ulster County’s population, estimated by the U.S. Census Bureau at 13,562 and 13,852, respectively. SUNY New Paltz helps attribute for this large presence of people in their teens and early twenties. Moreover, the number persons age 25 to 29 years is estimated to have increased by 2,751 people from 2000 to 2008 according to the U.S. Census, making this age group’s population closer to those in their teens and early twenties. Nevertheless, with an estimated median age of 40 years old for 2008, rising from 38.2 in 2000 and 34.3 years of age in 1990, Ulster County has seen its population age.

Ulster County’s two largest municipalities are located in its northeast corner. The City of Kingston is the largest municipality with a population of 23,456 in 2000 and an estimated population of 22,441 in 2008 according to the U.S. Census estimate. North of Kingston is the second largest municipality, the Town of Saugerties, with 18,821 people in 2000, and an estimate from the U.S. Census Bureau of 19,607 for 2008, an estimated 4.01% increase. While Kingston and Saugerties are the largest population centers in the County, their populations grew modestly or shrunk. Population growth seen in Ulster County has largely been seen elsewhere. Table 3-1 has U.S. Census 2000 population counts and current population estimates by Ulster County municipality. Figure 3-2 identifies population density by U.S. Census blocks.

**Table 3-1: Population Estimates by Ulster County Municipality**

Place	April 1, 2000 Population Estimates Base	July 1, 2008 Population	Numerical Population Change	Percent Population Change
<b>Ulster County</b>	177,749	181,670	3,921	2.2%
Denning town	516	518	2	0.4%
Esopus town	9,331	9,644	313	3.4%
Gardiner town	5,238	5,729	491	9.4%
Hardenburgh town	208	216	8	3.8%
Hurley town	6,564	6,512	-52	-0.8%
Kingston city	23,456	22,441	-1,015	-4.3%
Kingston town	912	920	8	0.9%
Lloyd town	9,941	10,719	778	7.8%
Marbletown town	5,854	6,009	155	2.6%
Marlborough town	8,263	8,297	34	0.4%
New Paltz town	12,830	13,749	919	7.2%
New Paltz village	6,034	6,553	519	8.6%
Olive town	4,579	4,641	62	1.4%
Plattekill town	9,892	10,795	903	9.1%
Rochester town	7,018	7,329	311	4.4%
Rosendale town	6,352	6,244	-108	-1.7%
Saugerties town	18,821	19,607	786	4.2%
Saugerties village	3,908	3,857	-51	-1.3%
Shandaken town	3,235	3,063	-172	-5.3%
Shawangunk town	12,022	12,712	690	5.7%
Ulster town	12,540	12,661	121	1.0%
Wawarsing town	13,936	13,715	-221	-1.6%
Ellenville village	4,130	3,901	-229	-5.5%
Woodstock town	6,241	6,149	-92	-1.5%

Source: U.S. Census Bureau, Population Estimates Datasets, Subcounty Population Dataset

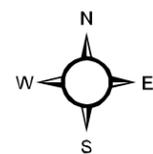
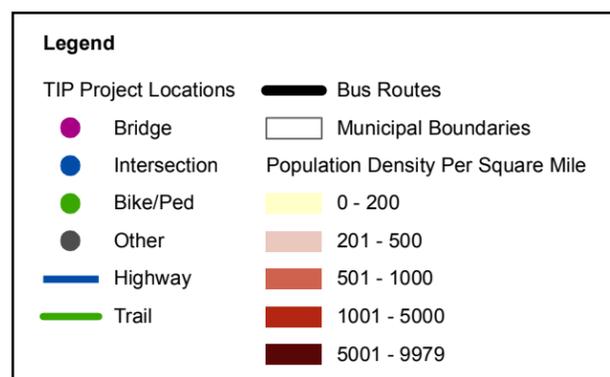




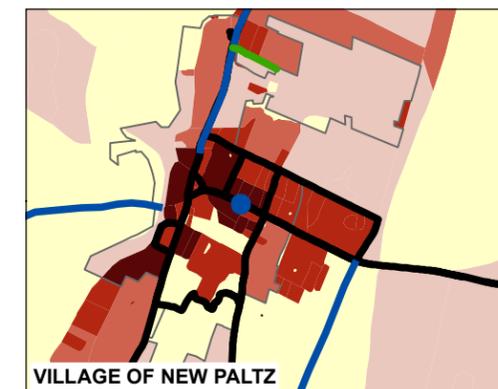
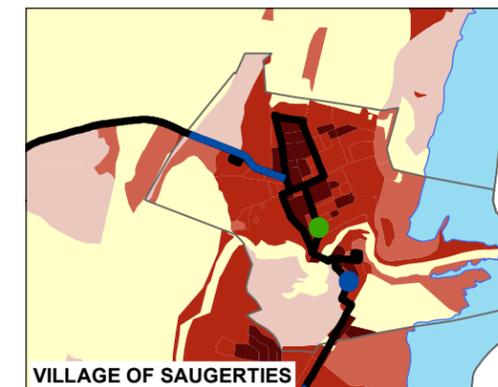
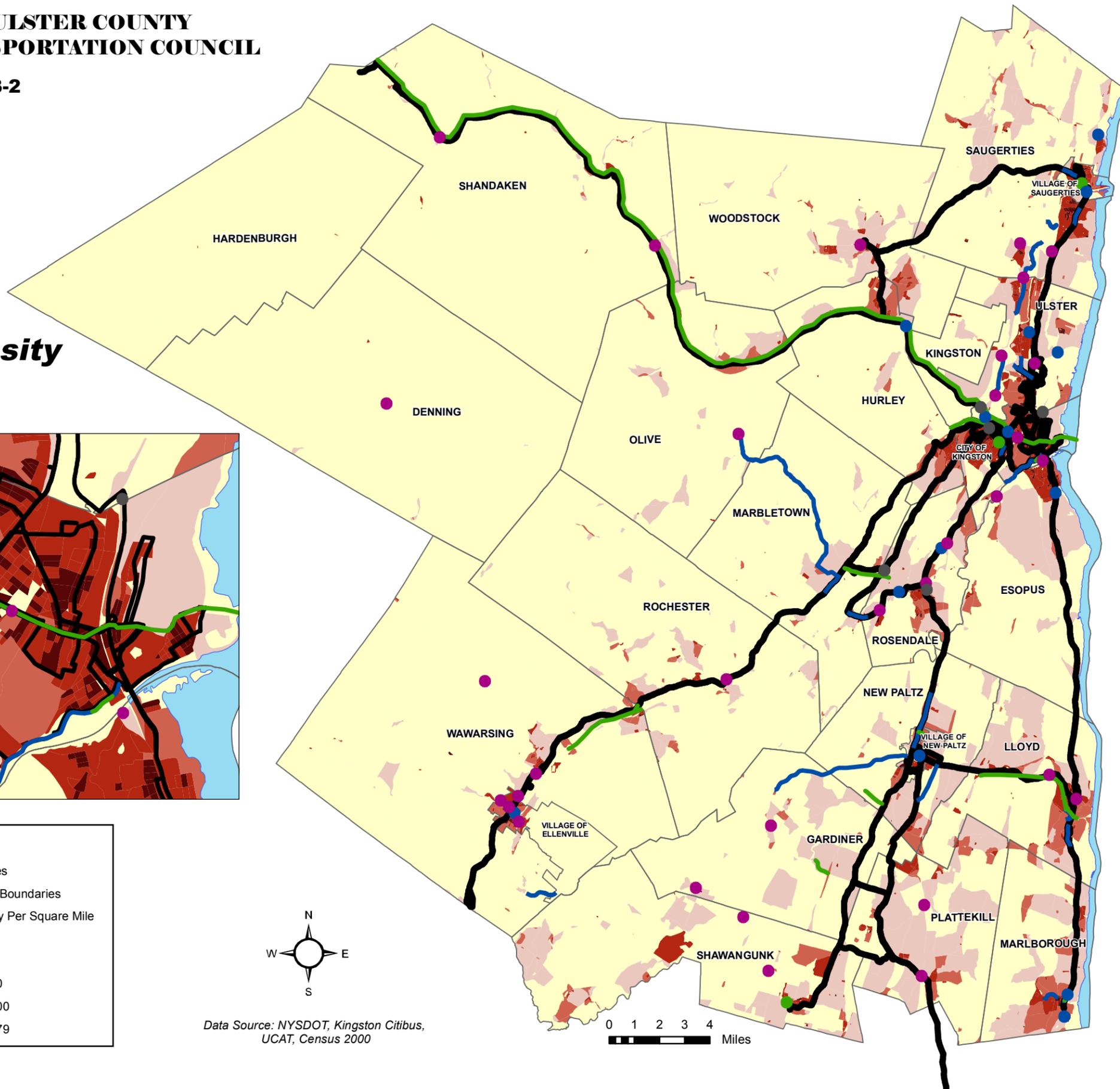
**ULSTER COUNTY  
TRANSPORTATION COUNCIL**

**Figure 3-2**

**Existing  
Population Density  
by Blocks**



Data Source: NYSDOT, Kingston Citibus, UCAT, Census 2000

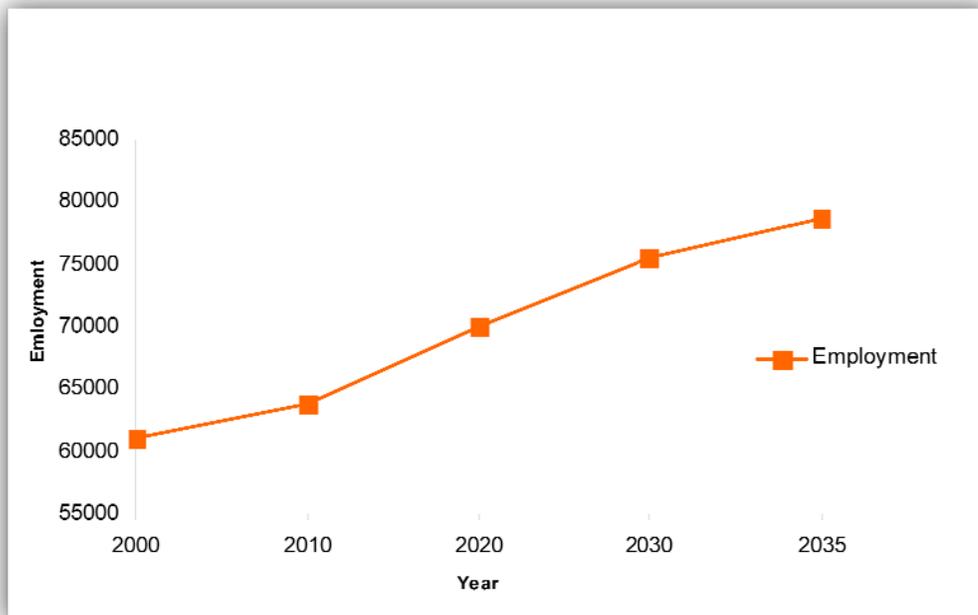


The municipalities of southern Ulster County have experienced the highest rates of population growth. The Town of Rochester had the highest growth rate from 1990 to 2000 when it added 1,339 people to reach a population of 7,018, a 23.6% increase, the largest such increase in Ulster County for that period. During this same period, the Town of Gardiner grew to 5,238 people or 22.4%, the second highest in Ulster County for that time period. Both Rochester and Gardiner are estimated to have grown another 4.4% and 9.4%, respectively, from 2000 to 2008 according to the U.S. Census Bureau. The Town of Shawangunk saw the greatest numerical gain in population from 1990 to 2000 with 1,941 new people, bringing its population to 12,022. The U.S. Census Bureau estimated that the Town of New Paltz saw the greatest numerical gain from 2000 to 2008 with 919 more people.

### Employment

Many individuals employed in Ulster County work in the service sector. As of March 2010, there were an estimated 45,400 private and 15,700 public sector jobs in the County, according to the New York State Department of Labor. Service sector industries such as retail trade, education and health services, and leisure and hospitality offer the bulk of private sector jobs. As of March 2010, these industries comprised 56.8% of private sector jobs, and have long been major employers in the County. Many service sector jobs concentrate in certain areas - downtown Village of New Paltz, Route 9W in the Town of Ulster - but increasingly small businesses locate throughout the County, be they in the service sector or another. Changes to private firms, small and large, tell the story of how employment opportunities have become more diffuse. Figure 3-3 shows historical and projected employment in Ulster County from 2000 to 2035.

**Figure 3-3: Total Employment for Ulster County 2000-2035**



Source: U.S. Census 2000 and the Ulster County Planning Department



Ulster County is seeing more small firm formation. Small private firms, those employing 9 people or fewer, grew in number during the period from 1998 to 2009, according to the New York State Department of Labor. On average, 54 new small firms with 50 new jobs were created each year during this period. Only during recessionary periods did it decrease. In 2000 and 2001, the number of small firms decreased leading to fewer employees from 2000 to 2003. The most recent recession has led to losses of 8 jobs in 2008 and 260 in 2009. Nevertheless, small firms have created more jobs than they have lost. From 1998 to 2009, entrepreneurs established 599 new firms with 9 employees or fewer, employing 547 more people in 1998 than in 2009. Moreover, the average number of employees for firms this size fell from 2.86 employees in 1999 to 2.55 in 2009, which supports the notion of small businesses getting smaller.

The number of medium sized businesses stayed roughly the same. The number of firms with 10 to 19, 20 to 49, 50 to 99, or 100 to 249 employees did not increase very much during the period from 1998 through 2009. The number of firms with 10 to 19 employees increased by seventeen, and firms with 50 to 99 and 100 to 249 only saw a handful more join their ranks; firms employing 20 to 49 people had their total shrink by fourteen. The number of medium sized firms may not have changed too much, but the amount of people employed by them shows their impact on Ulster County.

While the number of medium size firms stayed roughly the same, they still added jobs to the local economy from 1998 to 2009. Altogether, at the end of 2009, there was an increase of 871 medium sized firms since 1998, according to the New York State Department of Labor. In 2009, however, ten firms with 100 to 249 employees ceased operations, shedding 1,199 jobs in the County. Yet from 1998 to 2009, firms this size still added 656 jobs to the local economy. Overall, medium sized firms added 967 new jobs from 1998 to 2009. The only category of medium sized firms that lost more employees than it gained were firms with 20 to 49 employees.

Despite job growth seen in small and medium sized firms, the overall number of jobs fell from 1998 to 2009. How Ulster County's largest firms fared during this same period holds the explanation.

The loss of large firms had the greatest impact on private sector employment in Ulster County. There were seven firms employing 250 to 499 people in 1998. This number rose to twelve in 2002, before falling to five in 2009. During this period, firms this size lost 682 employees. The loss of employees was even more dramatic for firms employing 500 people or more. From 1998 to 2009, private firms employing 500 or more people accounted for 2,313 lost jobs in Ulster County. Five firms in Ulster County are currently this size. Large firms in Ulster County shed many jobs in non-recessionary periods as well as during recessions. At the end of 2009, there were 1,481 fewer private sector jobs in 2009 than in 1998 with the total number of private sector jobs falling from 45,272 to 43,791 jobs, a 3.27% decrease.



Large firms' decline and small firms' growth creates more dispersed employment patterns. Smaller firms do not have the office space requirements of larger ones. The ability to be a home-based business for smaller firms means they can conduct business in areas zoned for residential use. These types of businesses are often seen by the Ulster County Planning Department in the land development review process. Traditional downtown locations that saw vacancies now attract small firms, such as hair salons, cafes, professional services, etc. Ulster County can expect this trend to continue as long as larger firms leave the County, and smaller firms take their place.

Private firms, along with government agencies, generate traffic in many parts of Ulster County. Afternoon, peak hour traffic is seen throughout its road network, but the heaviest traffic can be found in certain areas. Government and hospital jobs in the City of Kingston and the regional shopping district in the Town of Ulster generate significant peak hour traffic in the afternoon. This traffic concentrates on arterials leading into and out of Kingston and Ulster. Albany Ave and Broadway near Route 587 in Kingston often experience much lower levels of service because of heavy afternoon traffic. The Town and Village of New Paltz – home to SUNY New Paltz – sees significant afternoon traffic along Main St, creating a number of congested intersections. Heavy traffic is seen along Route 9W, which runs parallel to the Hudson River. Many businesses and other institutions are located along Route 9W, and it has a role as a major collector road carrying inter-county traffic. Route 209, which connects the northeast and southwest areas of the County, carries much traffic from Ulster Community College and agricultural businesses, among other institutions.

The summer tourism season creates the heaviest traffic in Ulster County. A ski resort generates traffic on Route 28 from Shandaken to Kingston during the winter months. Route 212 in Woodstock, Route 299 in New Paltz, and Route 55/209 crossing the border between Ellenville and Wawarsing see significant traffic during the summer months, especially on weekends, when traffic is often bumper to bumper. The New York State Thruway in Ulster County is congested on Sunday evenings heading south to New York City. Traffic from points north of Ulster County, much of it also tourism related, joins traffic generated in the County to create conditions along the Thruway that can come to a standstill. Tourists come to Ulster County in the summer for camping, theater, extreme sports, etc. Many come for short trips, but many also have second homes in the County. Seasonal tourist traffic creates congestion not otherwise seen during other parts of the year.

## Housing

Single family homes are the primary form of housing in Ulster County, with much of its multi-family housing found in certain areas. In 2000, the U.S. Census Bureau counted 62,319 single family homes out of 87,813 total housing units or 70.98% of the housing stock. By 2008, the U.S. Census Bureau estimated 58,370 single family homes out of 81,501 housing units or 71.62%. Multi-family housing can be found all over the County, even in rural areas. However, the greatest concentrations are in the Village of New Paltz, the City of Kingston, and the Town of Ulster. In New Paltz, apartment complexes and



smaller multi-family housing cater to a large college population. Kingston and Ulster have the traditional population and commercial centers of Ulster County, so multi-family housing was built as a result.

These households often have at least vehicle at their disposal. According to the 2000 U.S. Census, out of 67,499 housing units, 61,793 had a vehicle at their disposal or 91.55%. Out of that number, occupied housing units with three or more cars was 11,484 or 17.01%. Occupied housing units with no access to a vehicle totaled 5,706 and 3,881 these were rental units. Householders age 75 and older made up the largest demographic group not to have access to a vehicle with 1,673 people.

Home prices in Ulster County have seen a steady increase since the mid-1990s, when it saw decreases in 2008 and 2009 (see Table 3-2). From 1996 to 2009, the median sales price of a home more than doubled. Median sales prices for this period increased 134.53% even after price decreases in 2008 and 2009.

**Table 3-2: Median Sales Prices for Homes in Ulster County 1996-2009**

<b>Year</b>	<b>Median Price</b>	<b>Percent Change</b>
1996	\$95,000	---
1997	\$95,000	0.0%
1998	\$98,500	3.7%
1999	\$105,000	6.6%
2000	\$118,000	12.4%
2001	\$127,000	7.6%
2002	\$142,500	12.2%
2003	\$170,000	19.3%
2004	\$200,000	17.6%
2005	\$240,000	20.0%
2006	\$244,665	1.9%
2007	\$246,000	0.5%
2008	\$240,000	-2.4%
2009	\$222,800	-7.2%
<b>Change in Median Price from 1996 to 2009</b>		134.5%
<b>Average Annual Change</b>		9.6%

Source: Report entitled *A Three County Regional Housing Needs Assessment: Ulster, Orange, and Dutchess Counties from 2006 to 2020*, and the New York State Office of Real Property Services.

The increase and then decrease of median sales prices in Ulster County reflects what has been observed nationally: A period of rapidly increasing home prices followed by decreases over the last two or three years. In the case of Ulster County, the decreases have not been as dramatic as those seen in many parts of the United States. Moreover, the price increases



were considerably smaller in 2006 and 2007 after a six-year period that saw double-digit percentage increases.

**Income**

Many of communities with large minority populations in Ulster County have median household incomes around the County’s median or well below it. While the U.S. Census Bureau does not release income data at the block level, data at the block group level shows how areas with certain income levels and areas with high minority populations overlap. The block groups that form Ellenville have some of the lowest median household income levels in Ulster County. These are median household incomes as low as \$22,500 a year as of 2000, but still above the lowest figure for Ulster County, which is \$11,382 in an area of the Village of New Paltz populated heavily by college students. The census block group with the third lowest median household income of \$20,016 is also in the Village of New Paltz. The second lowest median household income, found in an area not heavily populated by college students, is in the City of Kingston. A number of block groups with the County’s lowest median household figures are in Kingston. These block groups contain areas identified as having large minority populations and others that do not. Block groups in Plattekill with large minority populations have median household incomes just below the County’s median of \$42,551 for 2000.

Southern Ulster County has the largest concentration of households with large median incomes. The five wealthiest block groups are scattered through the eastern half of the County. The Towns of Lloyd, Shawangunk, New Paltz and Ulster, along with the City of Kingston, each had one of these block groups as of 2000. A block group in the eastern half of Shawangunk had the highest median household income with \$90,200. Ulster County’s wealthier block groups are scattered with one exception. Four block groups around the border with New Paltz and Gardiner form a concentration of some of the County’s wealthier households. Median household incomes for them range from \$56,938 to \$72,115.

Incomes for Ulster County residents on a per capita basis are below what is found in New York State as a whole. As of 2008, the per capita income of Ulster County residents was \$36,836, compared to \$48,809 for all of New York State (see Table 3-3).

**Table 3-3: Per Capita Income, New York State and Ulster County, 2005 - 2008**

	2005	2006	2007	2008
New York State	\$40,690	\$43,997	\$47,628	\$48,809
Ulster County	\$30,677	\$33,023	\$35,738	\$36,836

Source: U.S. Bureau of Economic Analysis, Regional Economic Information System 1969-2008. Data compiled by Empire State Development.

Ulster County’s per capita income is 21<sup>st</sup> out of New York State’s sixty-two counties. This is comparable with many of its neighbors. Sullivan County is 25<sup>th</sup>, Orange County if 20<sup>th</sup>, and Greene County if 31<sup>st</sup>. Dutchess County is ranked 9<sup>th</sup>, but this is comparable with other suburban counties with the shortest travel times to New York City.



## Commutation Patterns

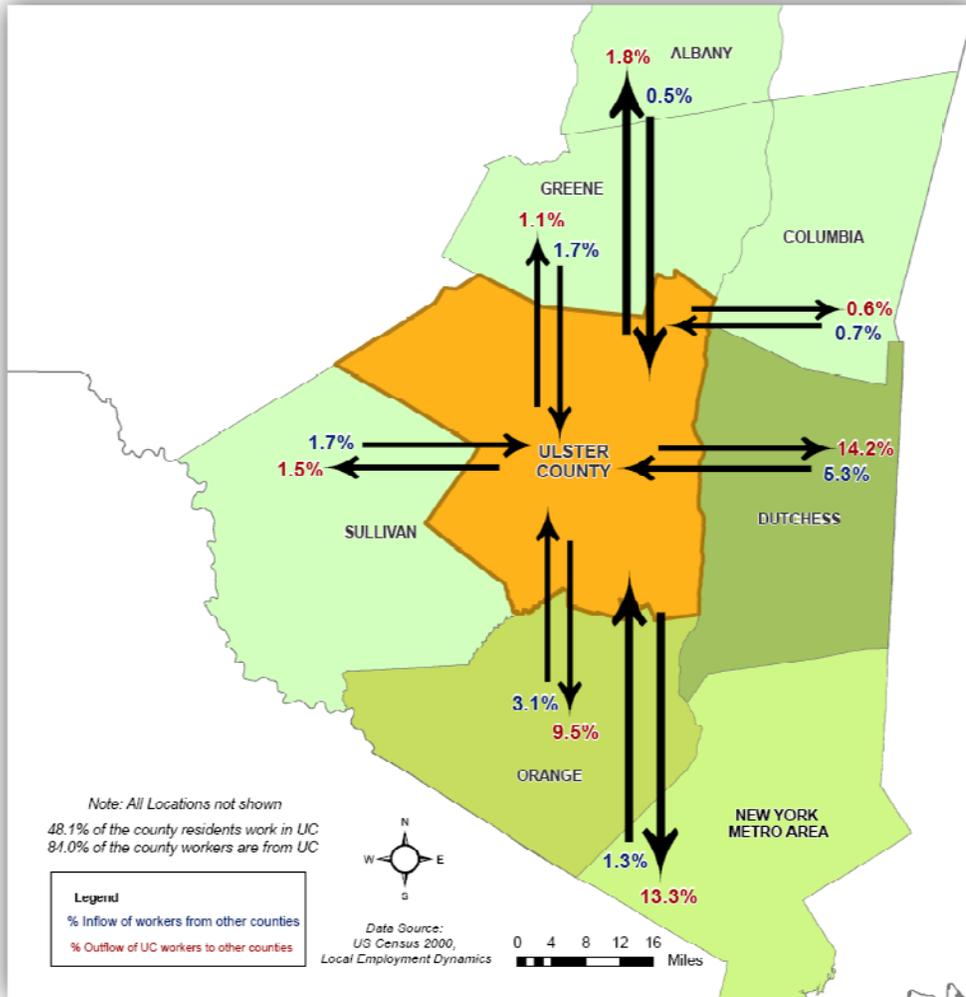
The proportion of Ulster County residents working in the County decreased as those working outside it grew. Census transportation planning package data from 2000 had 66.5% of Ulster County residents staying inside the County for work. By 2008, the U.S. Census Bureau's Program on Local Employment Dynamics (LED) had 48.1% of Ulster County commuters staying within the County. The LED figure is from a count of total primary jobs -- 70,664 Ulster County residents for 2008 -- which are the highest paying jobs held by individuals during a calendar year. The LED figure, in effect, counts the number of workers from an area. For workers commuting within the County, the Town of Ulster, the Town and Village of New Paltz, and the City of Kingston are major destinations because of employment opportunities in retail (Ulster), government (Kingston), health (Kingston), and education (New Paltz). However, the decrease from 2000 to 2008 suggests Ulster County is becoming more of a bedroom community. Major roadways could see increased peak hour traffic under such a trend, particularly those connecting Ulster County to neighboring counties and beyond. Figure 3-4 identifies Ulster County workforce commutation patterns.

As mentioned earlier, 48.1% of Ulster County residents work in Ulster County. More Ulster County residents work outside the County than within it. Many of those commuters travel to Dutchess and Orange Counties. At 14.2% or 10,026 workers, Dutchess County is the second most popular destination. Orange County is third with 9.5% or 6,724 workers. This sequence also appears for commutes in the other direction with workers travelling from these two counties into Ulster County. According to the U.S. Census Bureau, Dutchess County residents were 5.3% or 3,430 of the workers commuting into Ulster County, and Orange County were 3.1% or 1,995.

While Ulster County neighbors Dutchess and Orange Counties, it also neighbors Greene, Delaware and Sullivan Counties to the north and west. However, Ulster County does not have nearly the volume of commuter traffic with these three counties that it has with Dutchess and Orange. Something more than sharing county boundaries shapes Ulster County commuting patterns. In addition to sharing boundaries, Dutchess, Orange and Ulster Counties all have major population and employment centers along the Hudson River. All these centers are connected together by state and federal highways, and are in close proximity to one another. Job opportunities found in Ulster County's population centers join with technology and education jobs in Poughkeepsie, Dutchess County's major city, and jobs associated with the Stewart Air National Guard Base and Stewart International Airport in Orange County, just outside Newburgh, to create a set of regional job opportunities. These populated areas along the Hudson River can be described as the heart of the Mid-Hudson Valley.



**Figure 3-4: Regional Workforce Commutation**



Populated areas with employment opportunities also attract Ulster County residents beyond the Mid-Hudson Valley for work. New York City, Manhattan in particular, is at least a two hour drive from many points in Ulster County, and a destination for some workers who call the County home. According to the Census 2000 transportation planning package, 1.94% of Ulster County residents worked in Manhattan or 1,565 workers. The number had risen to 3,604 or 4.9% of workers by 2008 according to LED, placing Manhattan fourth behind Ulster, Dutchess, and Orange Counties. Job opportunities located in Manhattan attract Ulster County residents as it attracts individuals from far away as eastern Pennsylvania. The New York Metropolitan counties of Westchester, Rockland, Putnam, and New York City, received 13.3% of Ulster County commuters.

The way Ulster County residents report to work in Manhattan or other areas in and around New York City seems to vary. They can take the New York State Thruway, but that is a long drive susceptible to heavy traffic. Anecdotal evidence indicates there are individuals who make this drive, nonetheless. Mass transit is also available. Ulster County Area Transit

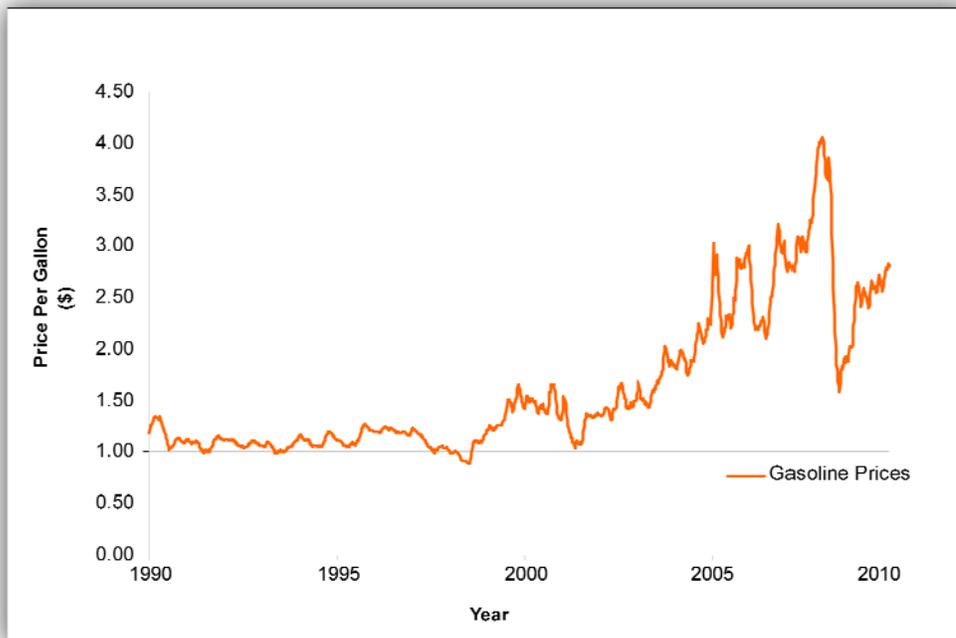


(UCAT) offers a bus service from the County to the Metro-North Station in Poughkeepsie. The service picks up passengers at park and rides in Rosendale, New Paltz, and Lloyd before making its way across the Mid-Hudson Bridge. Many of these individuals appear to be “weekenders”. They have homes in Ulster County and New York City, and split their time between the two. Weekenders, as the name implies, really only make their home in Ulster County during weekends or holidays, but have mail delivered to their Ulster County homes and treat it like a primary residence. Related to this segment of the population are individuals with flexible work schedules. Ulster County has a concentration of artists, for example. These individuals may only travel into New York City a few days a week, and at times that avoid peak hour traffic. Ulster County residents who work in and around New York City have commuting patterns that set themselves apart from the rest, but form a large enough segment of the population to warrant consideration in regional transportation efforts.

### Energy Prices

The recent volatility of oil and energy prices and the economic recession of 2008-2010 add a great deal of uncertainty to the transportation planning process. The record-high gasoline prices witnessed in 2008 introduced a sudden and perhaps profound change in travel habits and behaviors, albeit, prices have fallen since that time (see Figure 3-5). Combined with data indicating that the volume of gasoline sold in New York actually declined in each of the last two years, higher oil prices could help boost a nascent trend toward less driving - a trend bolstered by recent upticks in transit usage. This could result in reductions in the number of vehicle miles traveled in the region, with beneficial impacts on congestion, highway fatalities, and greenhouse gas emissions and other air pollutants.

**Figure 3-5: Historic Gasoline Prices Nationwide**



Source: U.S. Department of Energy



On the downside, the lion’s share of transportation funding is derived from the federal and state excise taxes on gasoline, and if less fuel is purchased, fewer dollars are available for future improvements. Current levels of funding already fall short of our needs, and this will only get worse if people cut back on driving and buy less gas. New funding mechanisms will need to be developed to counter this trend. In the meantime, fuel and other taxes may need to be raised to recover lost purchasing power resulting from fewer gallons of gasoline being sold.

**Land Use**

Residential land uses, along with public parks and other protected wilderness, dominate the Ulster County landscape. Single family homes are most of the residential housing in the County. Single family homes are found all over Ulster County, from urbanized areas served by municipal water and sewer lines, to those in rural, isolated areas reliant on septic systems and well water. The bulk of vacant land in the County is classified as residential. Public parks and other protected wilderness also dominate land use in Ulster County. The Catskill Forest Preserve accounts for a significant portion of protected wilderness in Ulster County. However, other governmentally owned parks, private lands with conservation easements, and private hunting and fishing clubs add to the high percentage of land that are parks or wilderness. The dominance of residential land uses and of parks and wilderness gives much of Ulster County a rural, residential character. Table 3-4 identifies approximate sizes of land uses in Ulster County.

**Table 3-4: Approximate Sizes of Land Uses in Ulster County**

<b><u>Property Classification i.e. Land Use</u></b>	<b><u>Area (Square Miles)</u></b>	<b><u>Percentage</u></b>
Parks and Wilderness	357.6	31.9%
Utilities	34.0	3.0%
Industrial	4.8	0.4%
Civic	22.5	2.0%
Recreation & Entertainment	18.4	1.6%
Commercial	27.7	2.5%
Vacant	196.7	17.5%
Residential	341.9	30.5%
Agricultural	56.9	5.1%
No Data	60.8	5.4%

Note: This data comes from tax assessor records from the Ulster County and New York State Offices of Real Property Services. Tax assessor data was the only data available that tied land area to land use. However, these records have 1,121.4 square miles as the total land area of Ulster County, which is lower than other published figures. The Ulster County Conservation District has a total land area of 1,142.8 square miles, and the U.S. Census Bureau has the land area at 1,161.0 square miles.

Other land uses also help form the rural, residential character in Ulster County, too. Commercial and industrial uses are found mostly along major roads, away from many residential areas. Moreover, commercial and industrial properties comprise only a small



fraction of the properties in the County. Agricultural land uses are concentrated in certain areas. They form a cluster in the southern Ulster County towns of Shawangunk, Gardiner, Plattekill, and Marlborough. This cluster does extend partially into New Paltz and Lloyd. Agricultural uses are found along the Rondout Creek and Route 209 Corridor from Wawarsing to the Town of Ulster. This same swath of agricultural businesses continues alongside the Esopus Creek and New York State Thruway from the Town of Ulster into Saugerties. Another, smaller concentration of agricultural uses is found in Hardenburgh along the boundary with Delaware County. Finally, nearly half of the parcels classified for public service or utilities are for water storage. Ulster County's many reservoirs occupy more land area than any other land use with a utility classification, and this includes right of ways for railroads or telephone lines, sites for landfills, etc.

Land development review conducted by the Ulster County Highway Department and Planning Department attempts to minimize the impacts land uses have on the road network. Ulster County engineers and planners promote access management in their review of site plans and subdivisions. Engineers and planners often recommend ingress and egress for properties occur off major arterials and on local roads with less vehicular traffic. Where appropriate, they also recommend cross-access easements between properties that can reduce the number of short trips along a major arterial. In the 1990s during the development of the County's major shopping area in the Town of Ulster, the Town of Ulster, NYSDOT and Ulster County planned and helped develop a reverse frontage road - Frank Sottile Blvd. It is located behind what would become the Hudson Valley Mall and other retail developments, and connects these businesses with one another and with Routes 9W and 32. The Ulster County Planning Department also published a primer on access management geared toward local officials, as many local projects do not require county review, but still have access management issues. Ulster County has an established policy of promoting access management, and in effect, integrating land use and transportation planning when it can.

On a broader scale, Ulster County has begun a number of regional planning efforts to encourage more coordinated land use planning within its boundaries. The Ulster County Planning Department completed an open space plan in December 2007. It called for coordinated open space conservation efforts by all levels of government and by the public and non-profit sectors. The Ulster County Department of Environment has the primary responsibility of implementing elements of this plan. The Ulster County Open Space Plan recommends the delineation on "priority conservation areas" and "priority growth areas." The delineation of these areas in towns along the Hudson River is the primary aim of the Ulster County Greenway Compact project that is currently underway. Finally, the Ulster County Planning Department has begun working with towns to build their capacity in acquiring grant money from the New York State Main Street Program. The Planning Department looks to promote downtown revitalization efforts that are sustainable and not detrimental to one another.



## Title VI and Environmental Justice

The intent of environmental justice (EJ) is to ensure that communities of concern, defined as minority populations, low income populations, aged populations, and mobility disabled populations, are included in the transportation planning process, and to ensure that they may benefit equally from the transportation system without shouldering a disproportionate share of its burdens. Environmental justice is a planning consideration based on Title VI of the 1964 Civil Rights Act, and Executive Order 12898 of 1994, entitled *Federal Actions to Address Environmental Justice in Minority and Low Income Populations*.

The UCTC recognizes the significance of transportation to all residents of Ulster County and the importance of Title VI/Environmental considerations in the transportation planning process. As a result, an environmental justice analysis of the LRTP has been performed.

Environmental justice principles that relate to the MPO planning process include:

- Ensuring the full and fair participation by all potentially affected communities in the transportation decision-making process, including those of low income or minority populations.
- Preventing the denial of, reduction in, or significant delay in the receipt of benefits by low income and minority populations.
- Avoiding, minimizing or mitigating disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority and low income populations.

### Communities of Concern

Title VI of the 1964 Civil Rights Act and related statutes require that individuals not be excluded from participating in, denied the benefit of, or subject to discrimination under any program or activity receiving federal funding on the basis of race, color, national origin, age, sex, or disability. Executive Order 12898 further directs that federal programs, policies and activities not have a disproportionately high and adverse human health and environmental effect on low income populations.

The 2000 U.S. Census is the source of data used for determining the environmental justice communities of concern. The unit of analysis is the census tract. Census tracts are intended to remain relatively stable, and when they do change, the exact nature of the changes is published. Census tracts are drawn up by local committees, and accordingly are more likely to reflect the community's view of where one neighborhood ends and another begins. Tracts also are comparable in population size.



Communities of concern are identified as those tracts where the identified group represents a percentage of the population equal to or greater than that of the County mean. Federal guidelines state that minority populations should be identified where either (a) the minority population of the affected area exceeds 50 percent, or (b) the minority population percentage of the affected area is measurably greater than the minority population percentage in the general population or other appropriate unit of geographic analysis. (Council on Environmental Quality, 1997).

The populations identified as communities of concern included the specific groups identified by the Federal Highway Administration's "Actions to Address Environmental Justice in Minority Populations and Low Income Populations" memorandum dated December 2, 1998, and by Presidential Executive Order 12898.

### Minority Populations

The Federal Highway Administration (FHWA) defines minority populations as American Indian or Alaskan Native; Asian or Pacific Islander; Black; not of Hispanic Origin; or Hispanic (FHWA, 1998). For the UCTC LRTP analysis this definition was expanded to include the following ethnic groups, as defined in the U.S. Census (2000): Black or African American alone - not Hispanic or Latino; American Indian and Alaska Native alone - not Hispanic or Latino; Asian alone - not Hispanic or Latino; Native Hawaiian and Other Pacific Islander alone - not Hispanic or Latino; some other race alone - not Hispanic or Latino; persons of two or more races - not Hispanic or Latino; and Hispanic or Latino (2000 U.S. Census SF4).

Ulster County's racial minority populations live in both rural and urban areas (see Figure 3-6). The City of Kingston has census blocks with minority populations above twenty-five percent or more throughout its jurisdiction. In southern Ulster County, the Towns of Plattekill and Wawarsing and the village of Ellenville have some of the largest minority populations in the County, particularly Plattekill and Ellenville. The Village of New Paltz has a large minority population attributed in part to SUNY New Paltz students.

The City of Kingston has a large African-American population, but a sizable Hispanic population, too. In the 2000 Census, 9,646 individuals in Ulster County identified themselves as Black or African-American alone for the 2000 U.S. Census. Out of this group, 2,995 were also Kingston residents, close to a third of Ulster County's African-American population. The Town of Wawarsing had the second highest number of African-American residents in 2000 with 1,605. Hispanics in Kingston had a population of 1,516 or 15.7% in 2000. The neighborhoods of Uptown, Midtown, and the Rondout have high percentages of African-American and Hispanic residents. These neighborhoods are connected by Broadway, which can be considered the spine of Kingston.

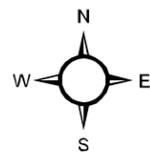
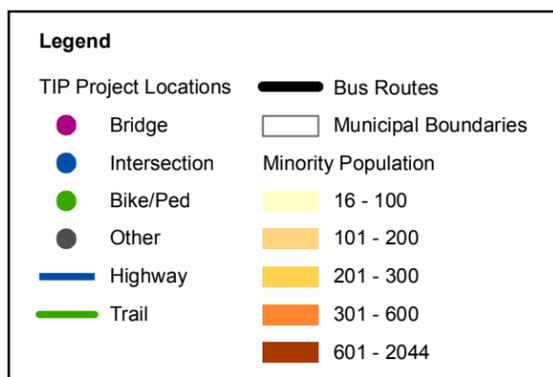
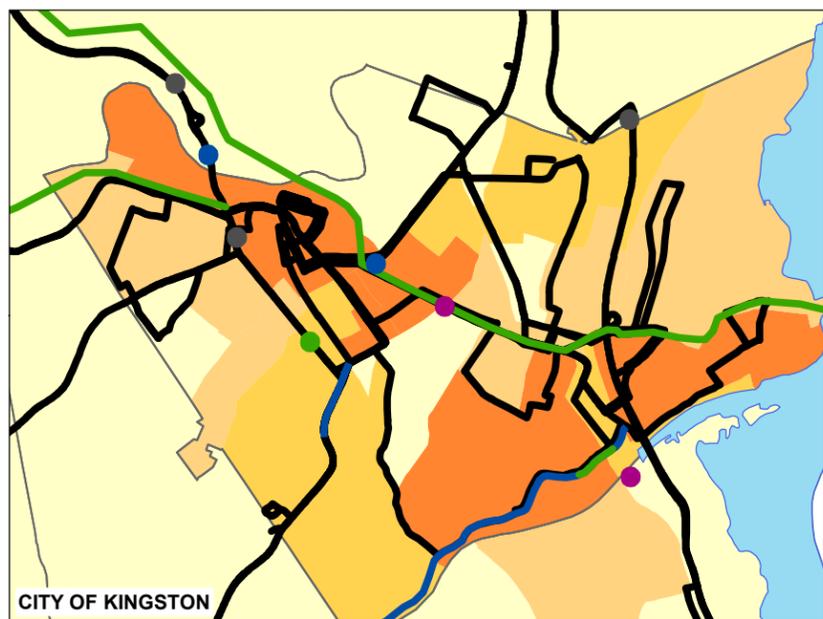




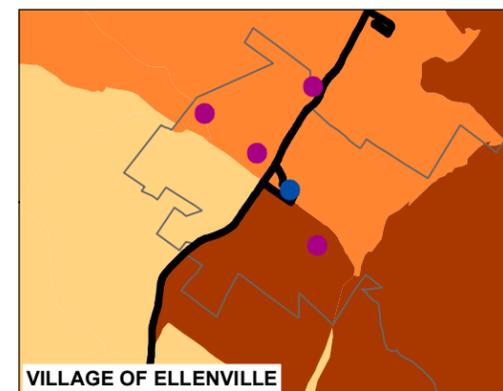
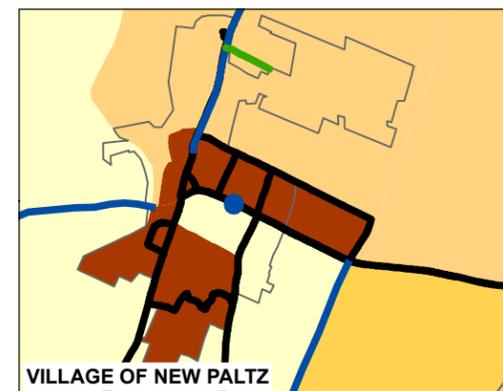
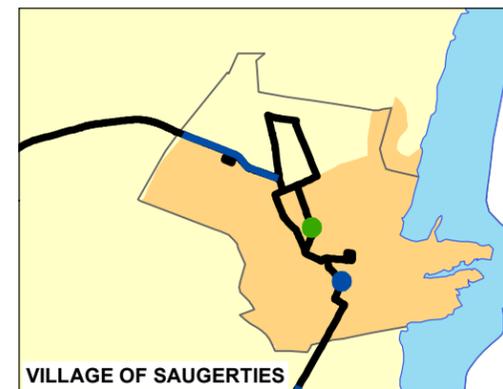
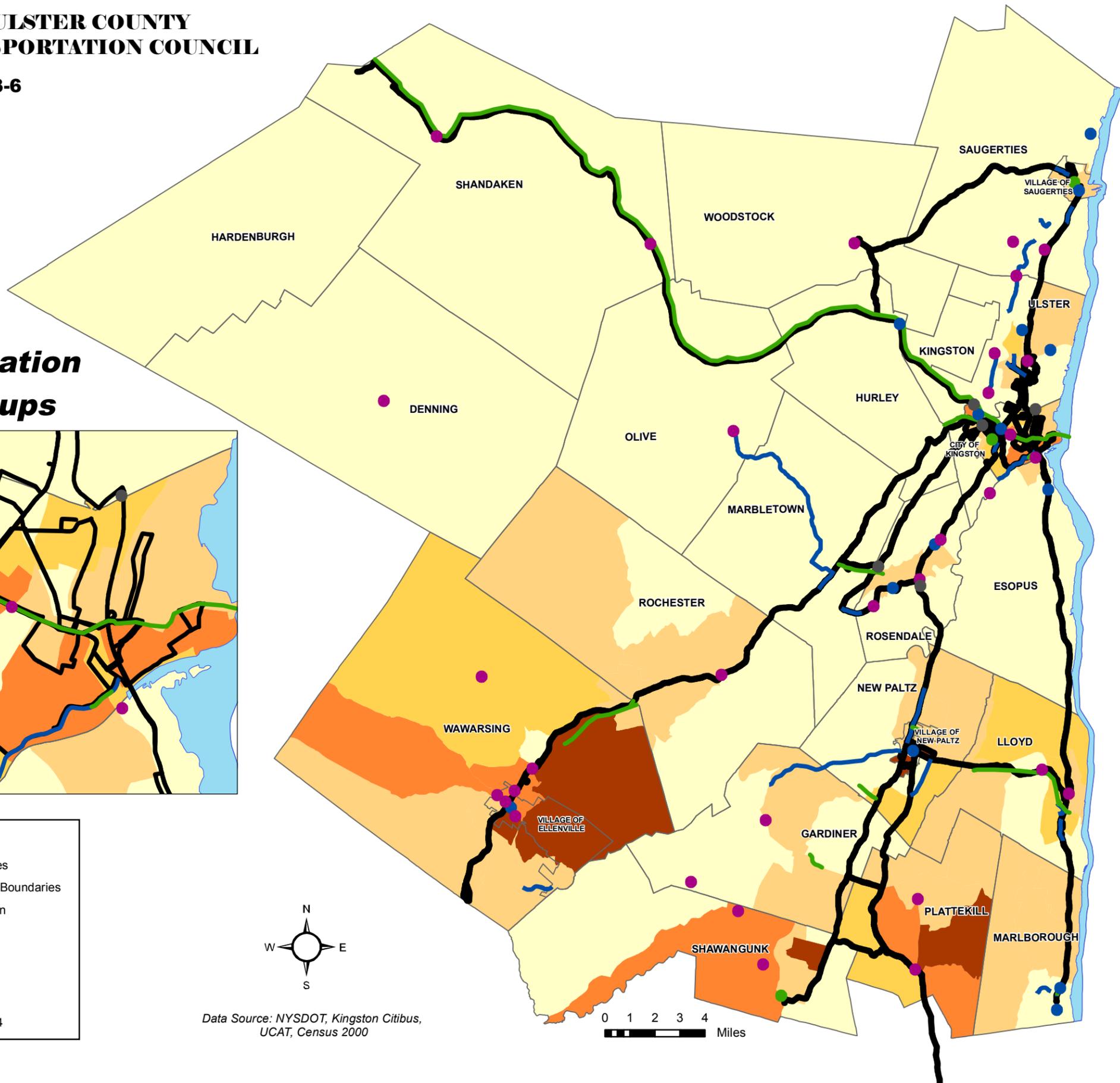
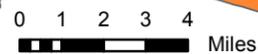
**ULSTER COUNTY  
TRANSPORTATION COUNCIL**

**Figure 3-6**

**Minority Population  
by Block Groups**



Data Source: NYSDOT, Kingston Citibus, UCAT, Census 2000



Rural municipalities in southern Ulster County are home to many Hispanics. In 2000, out of a total population of 9,892, the Town of Plattekill had 1,583 residents who were Hispanic, or 16% of its population. Hispanics in Plattekill are concentrated in census blocks east of the New York State Thruway. The Village of Ellenville has the highest percentage of Hispanics with 1,173 out of 4,130 as of 2000; this is 28.4% of the Village's population. The Town of Wawarsing, which surrounds Ellenville, had a larger Hispanic population in 2000 than Ellenville with 2,326 people. However, with a total population 12,889, the percentage of Hispanic residents is smaller than that of Ellenville and Plattekill. Ellenville, being so compact, has substantial minority populations found throughout its jurisdiction. Wawarsing's minority population is located in census blocks bordered by major state and county roads.

### Low Income Populations

Low income populations are those whose median household income is at or below the Department of Health and Human Services poverty guidelines (2000 U.S. Census SF3). Poverty is based on the poverty thresholds developed and utilized by the U.S. Census, and are based on the size of family and number of related children less than 18 years of age. The poverty thresholds are revised annually to allow for changes in the cost of living. It is important to note that the poverty thresholds are the same for all parts of the country - they are not adjusted for regional, state or local variations in the cost of living.

To some extent, the census block groups of higher concentration of minority populations coincide with the block groups that contain a higher concentration of people living in poverty. The block groups with the highest concentrations of persons living in poverty include areas within the Towns of Wawarsing, Shawangunk, Esopus, the Village of New Paltz, Village of Ellenville, and the City of Kingston.

The transportation needs of low income communities would be met by adding more transit service or implementing a program to make the purchase and operation of private automobiles more affordable. Figure 3-7 presents a comparison of census block group concentrations of low income communities in Ulster County. Figure 3-7 also includes an overlay of existing public transit services along with UCTC Transportation Improvement Program (TIP) projects programmed.

### Elderly Populations

Elderly populations are defined as people 65 years of age and older (2000 U.S. Census). Areas with above average populations of age 65 and older are located throughout the County with concentrations in the City of Kingston, Village of Saugerties, Hamlet of Highland and the Town of Plattekill. The transportation needs of elderly populations are similar to those of the general population with the need for transit increasing with age.

Figure 3-8 presents a comparison of census block group concentrations of age 65 and older communities in Ulster County. Figure 3-8 also includes an overlay of existing

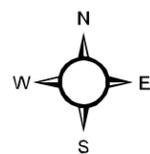
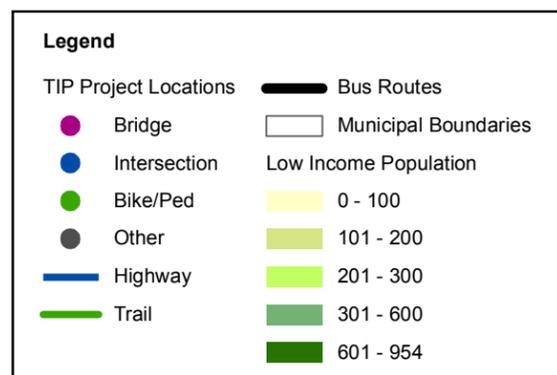
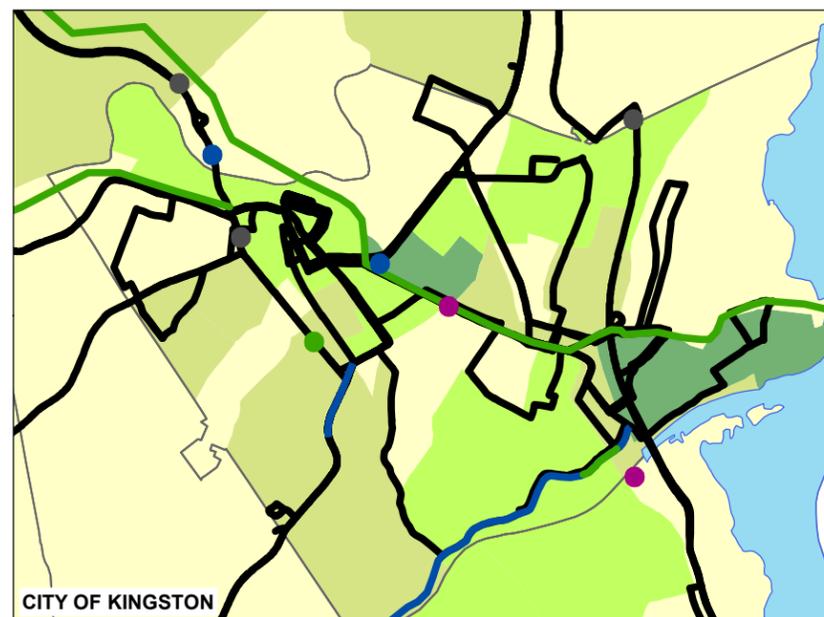




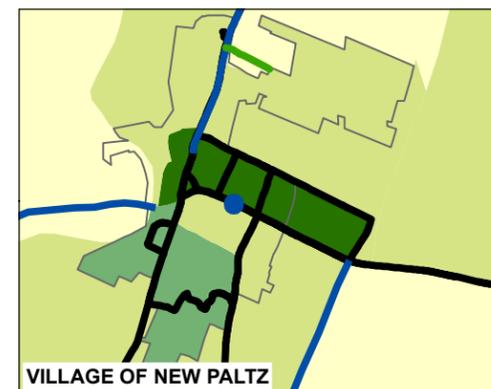
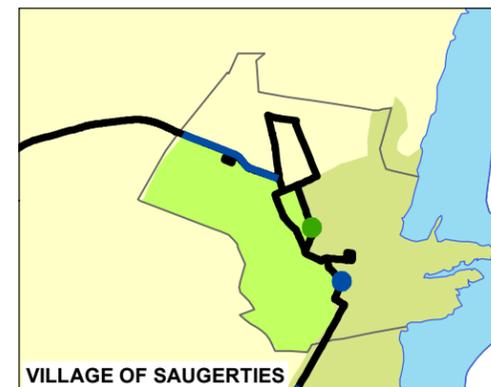
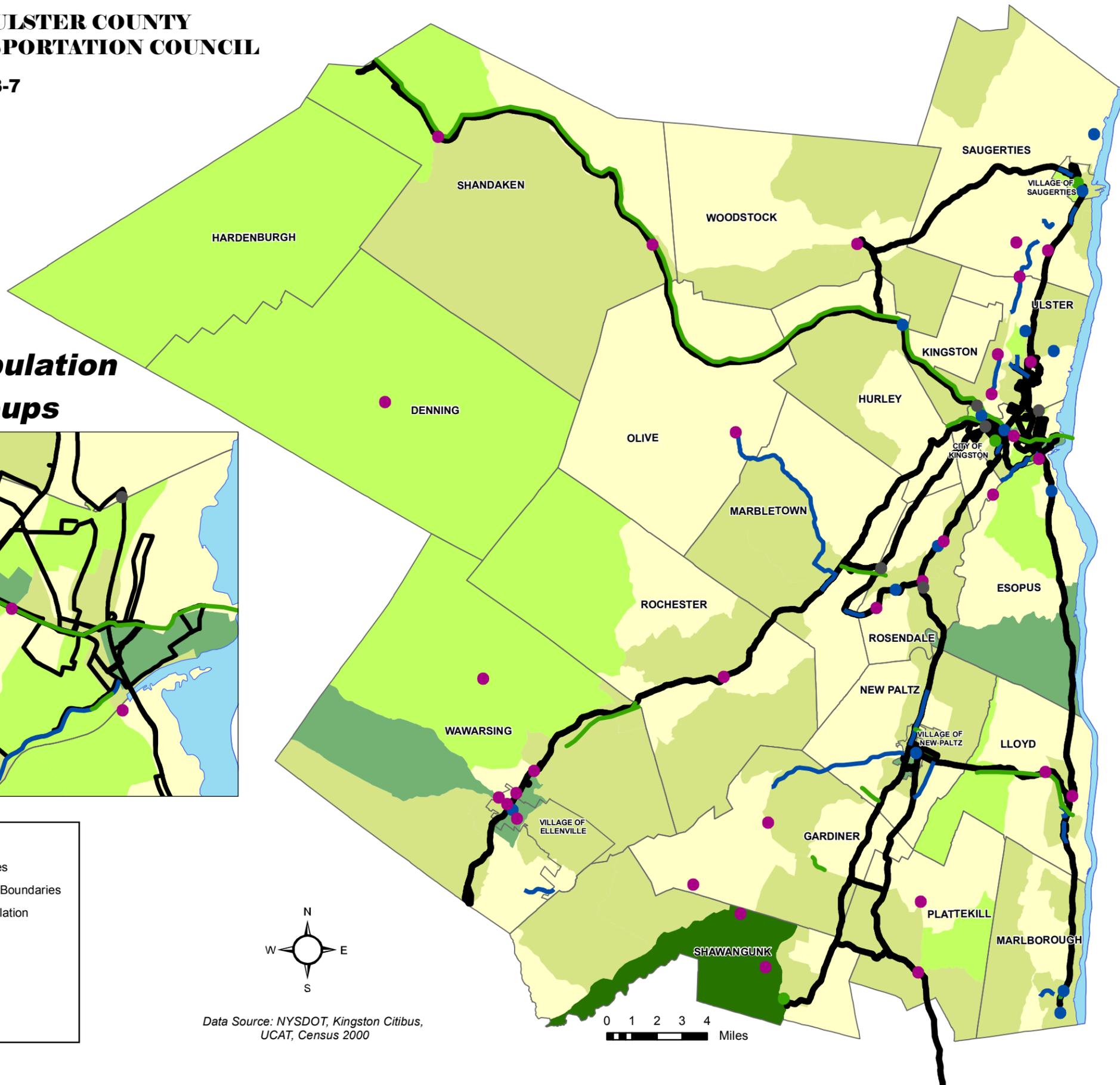
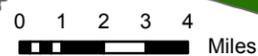
**ULSTER COUNTY  
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**Figure 3-7**

**Low Income Population  
by Block Groups**



Data Source: NYSDOT, Kingston Citibus, UCAT, Census 2000





**ULSTER COUNTY  
TRANSPORTATION COUNCIL**

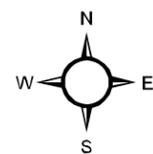
**Figure 3-8**

**Population of Age  
65 and Older  
by Block Groups**

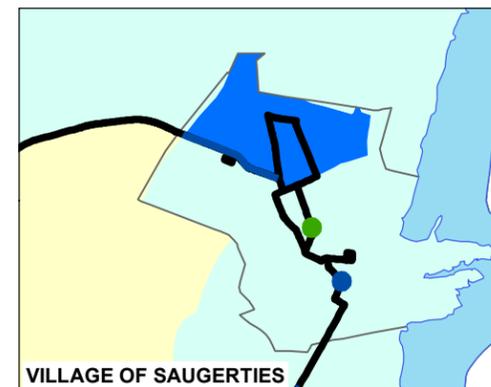
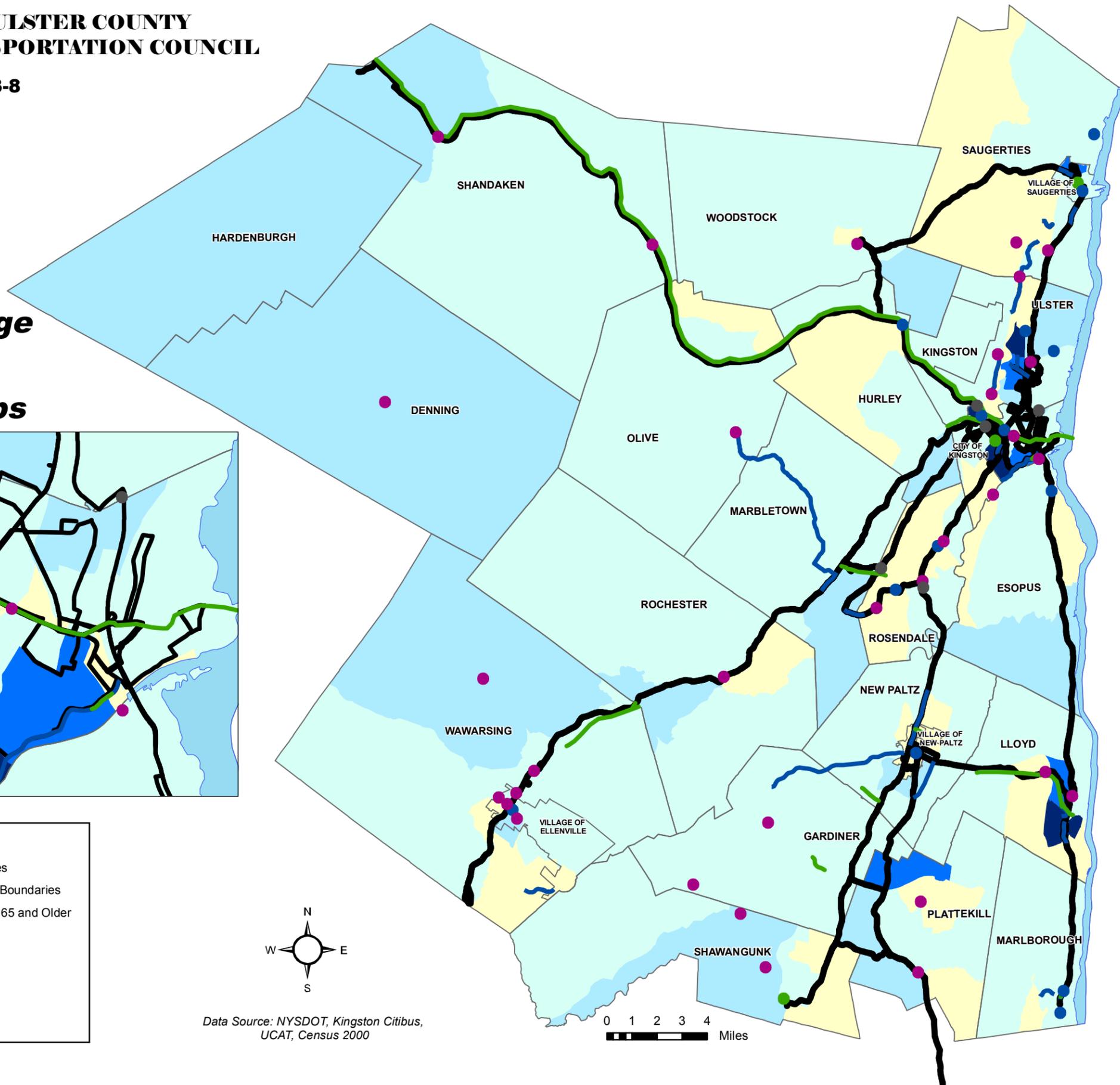
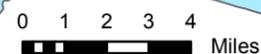


**Legend**

TIP Project Locations	— Bus Routes
● Bridge	▭ Municipal Boundaries
● Intersection	Population of Age 65 and Older
● Bike/Ped	■ 12 - 100
● Other	■ 101 - 200
— Highway	■ 201 - 300
— Trail	■ 301 - 400
	■ 401 - 489



Data Source: NYSDOT, Kingston Citibus, UCAT, Census 2000



public transit services along with UCTC Transportation Improvement Program (TIP) projects programmed. While most areas having high concentrations of 65 and older populations have access to public transit, areas in westernmost parts of Ulster County are not as well served by fixed route bus service.

### Mobility Disability Populations

Mobility Disability, as defined in 42 U.S.C. § 12102, is a disability that necessitates the use of a wheelchair or scooter for mobility. For this analysis, mobility limitations are derived from the “physical” and “going-outside-of-home” categories for individuals that are age five and over (2000 U.S. Census SF3).

Census block groups with higher concentrations of mobility-disadvantaged people are widely scattered throughout the County with notable concentrations in the city of Kingston, villages of Ellenville and New Paltz, and towns of Wawarsing, Shawangunk and Esopus. Transportation needs of residents with mobility disabilities are not the same as those of the general population. People with mobility disabilities may require special apparatus for vehicular transportation. For this and other reasons, people with mobility disabilities may be more reliant on public transit options to meet their transportation needs. Figure 3-9 presents a comparison of census block group concentrations of mobility disability communities in Ulster County.

In summary, the UCTC’s effort to incorporate environmental justice into regional transportation planning is continuous and ongoing. A closer look at the location of minority, low income, age 65 and older, and mobility disability communities shows that, for the most part, no one community is being disproportionately affected either by existing public transit services provided or by future projects programmed. Efforts should be made to provide additional public transit services to existing communities and fixed route bus service to the westernmost areas of Ulster County. And finally, as discussed in Chapter 8 Plan Implementation, the process for selecting projects to be programmed on Ulster County’s Transportation Improvement Program (TIP) includes environmental justice considerations in the project scoring and ranking processes.

### Consultation with Resource Agencies

The UCTC consulted with federal, state, and local agencies, and Native American Tribes, responsible for land use management, natural resources, environmental protection, conservation, and historic preservation concerning the development of a long-range transportation plan. This effort was made, in part, to comply with requirements in the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) Section 6001. The contact list included the agencies and Tribes shown below. The UCTC identified goals and objectives for the consultation process and involved representatives from the agencies and organizations in the New York State Environmental Quality Review Act (SEQR) scoping process, alternatives development, and technical evaluation of the alternatives.

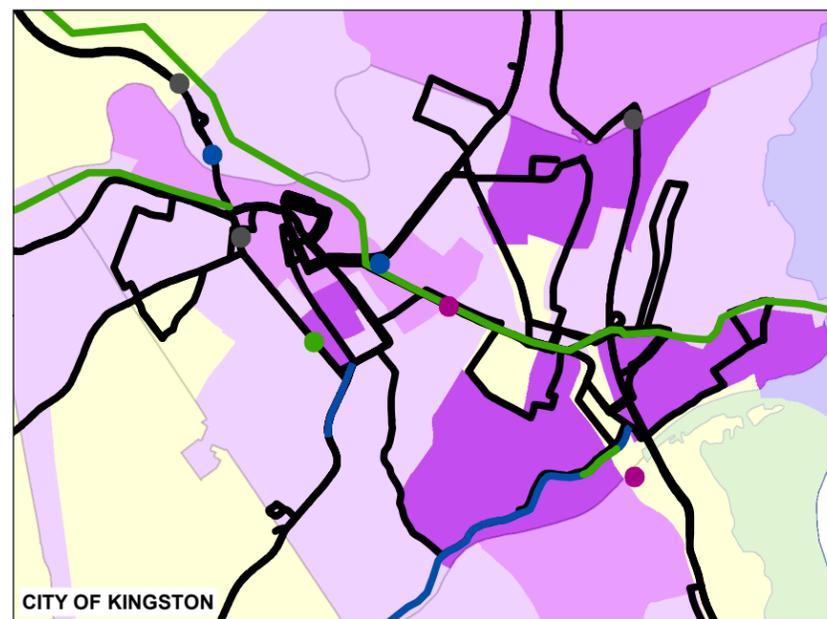




**ULSTER COUNTY  
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**Figure 3-9**

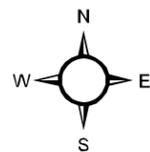
**Mobility Disability  
Population  
by Block Groups**



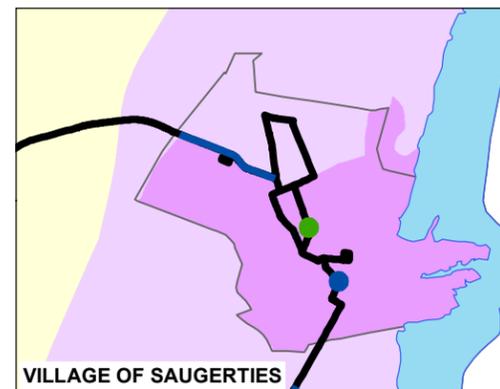
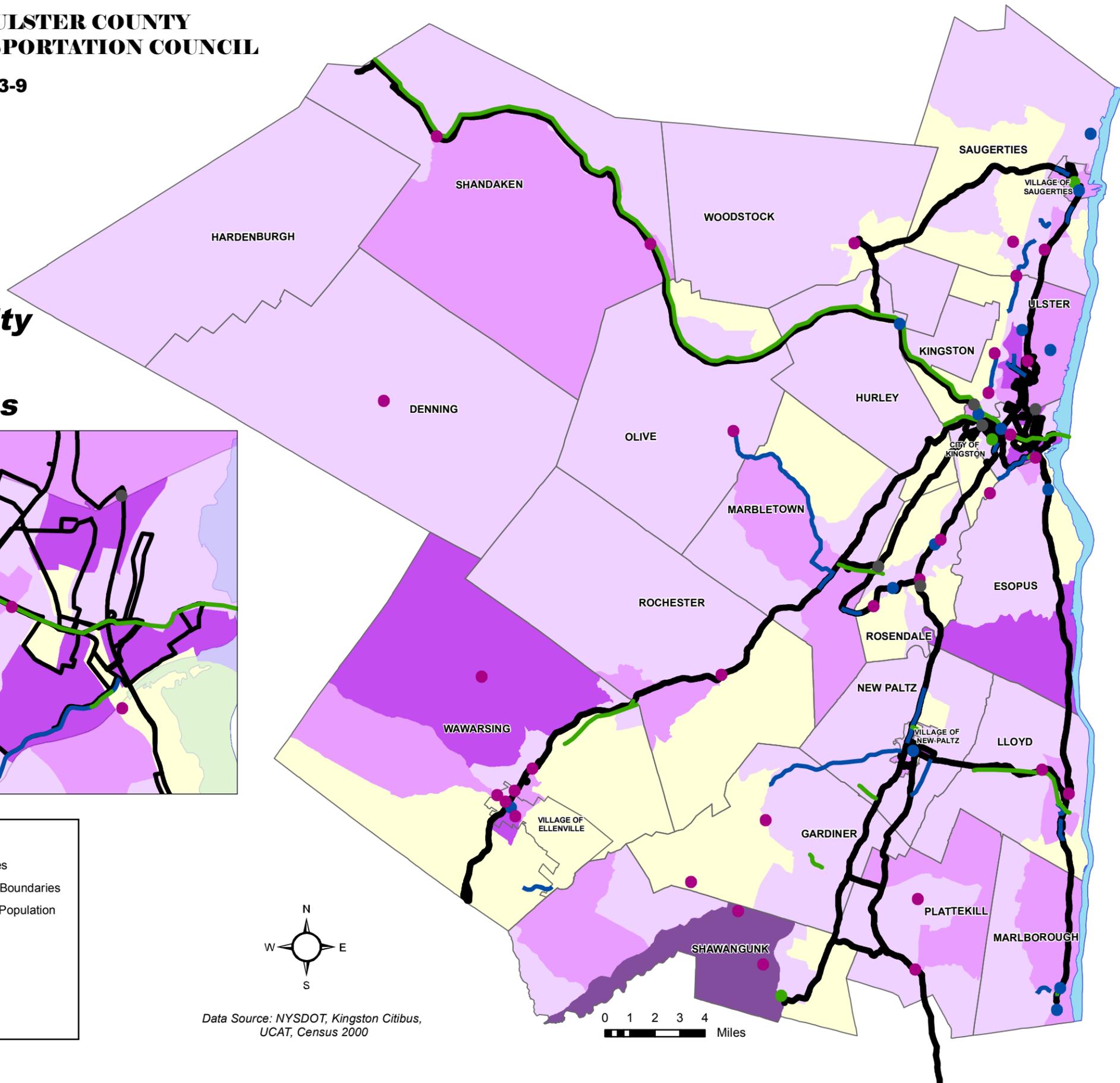
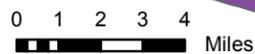
CITY OF KINGSTON

**Legend**

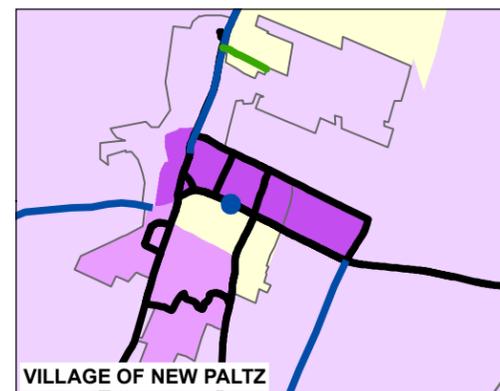
TIP Project Locations	Bus Routes
● Bridge	▭ Municipal Boundaries
● Intersection	Mobility Disability Population
● Bike/Ped	0 - 100
● Other	101 - 200
— Highway	201 - 300
— Trail	301 - 500
	501 - 545



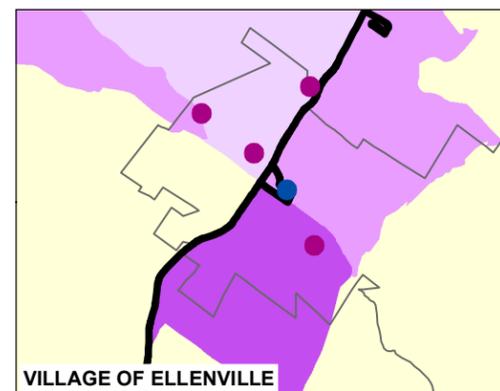
Data Source: NYSDOT, Kingston Citibus, UCAT, Census 2000



VILLAGE OF SAUGERTIES



VILLAGE OF NEW PALTZ



VILLAGE OF ELLENVILLE

The UCTC specifically contacted resource agencies and Tribes identified below for all UCTC-related meetings since the draft LRTP scope of work was initially circulated in January 2009. Since January 2009, resource agencies and Tribes have been contacted and informed of the UCTC's LRTP Update efforts on at least nine different occasions.

In addition to the U.S. Department of Transportation agencies, the following is a list of resource agencies, Tribes and special interest groups consulted during the LRTP Update process:

- United States Environmental Protection Agency, Region 2
- United States Army Corps of Engineers
- United States Fish and Wildlife Service
- National Park Service
- United States Department of Agriculture
- National Marine Fisheries Service
- NYS Department of Environmental Conservation
- New York State Office of Parks, Recreation and Historic Preservation
- New York State Department of Agriculture
- New York State Department of Health
- New York State Department of State
- Empire State Development Corporation
- Adirondack Park/Catskill Park
- New York City Department of Environmental Protection
- Cayuga Nation
- Oneida Indian Nation
- Onondaga Nation
- Seneca Nation of Indians



- Saint Regis Mohawk
- Tonawanda Seneca Nation
- Tuscarora Nation
- Delaware Nation
- Non-motorized Transportation and Disabled Persons

### **Environmental Mitigation**

This section discusses the potential environmental mitigation activities related to the projects/actions and programs recommended in the Plan. These mitigation activities will need to be evaluated and addressed for each project as they move towards implementation. As the scope of the LRTP update is regional in nature, and specific design-level details are not known for most projects at this early stage of project development, location-specific environmental impacts and mitigation efforts cannot be included within this document. It is possible to include a summary of the sensitive environmental features that exist within the MPO's LRTP study area, and discuss potential mitigation measures for each.

At the regional level of evaluation, it is apparent that there are many different locations and types of environmentally sensitive areas throughout the Ulster County area. Environmentally sensitive elements in the MPO planning area include:

- Threatened and Endangered Species
- Wetlands
- Floodplains
- Historical/Cultural Resources
- Traffic/Train Horn Noise
- Right-of-way/Property Impacts

Some of the identified sensitive areas, including wetlands and floodplains are summarized in Figure 3-10. It should be noted that while these features can be mapped at the regional level, these areas are best identified and verified through a project-level analysis. Thus, some environmentally sensitive areas likely have not yet been identified at the current regional plan level. These non-identified areas might include resources such as historical properties, cultural resources and wetlands. As a project or program included in the LRTP transitions to corridor-level environmental, design and engineering phases, detailed evaluations will be required to identify how the program/project might impact these resources. Part of the LRTP's alternatives analysis process was to incorporate a cursory environmental review of each project concept, including evaluating how each alternative might impact natural and manmade resources.

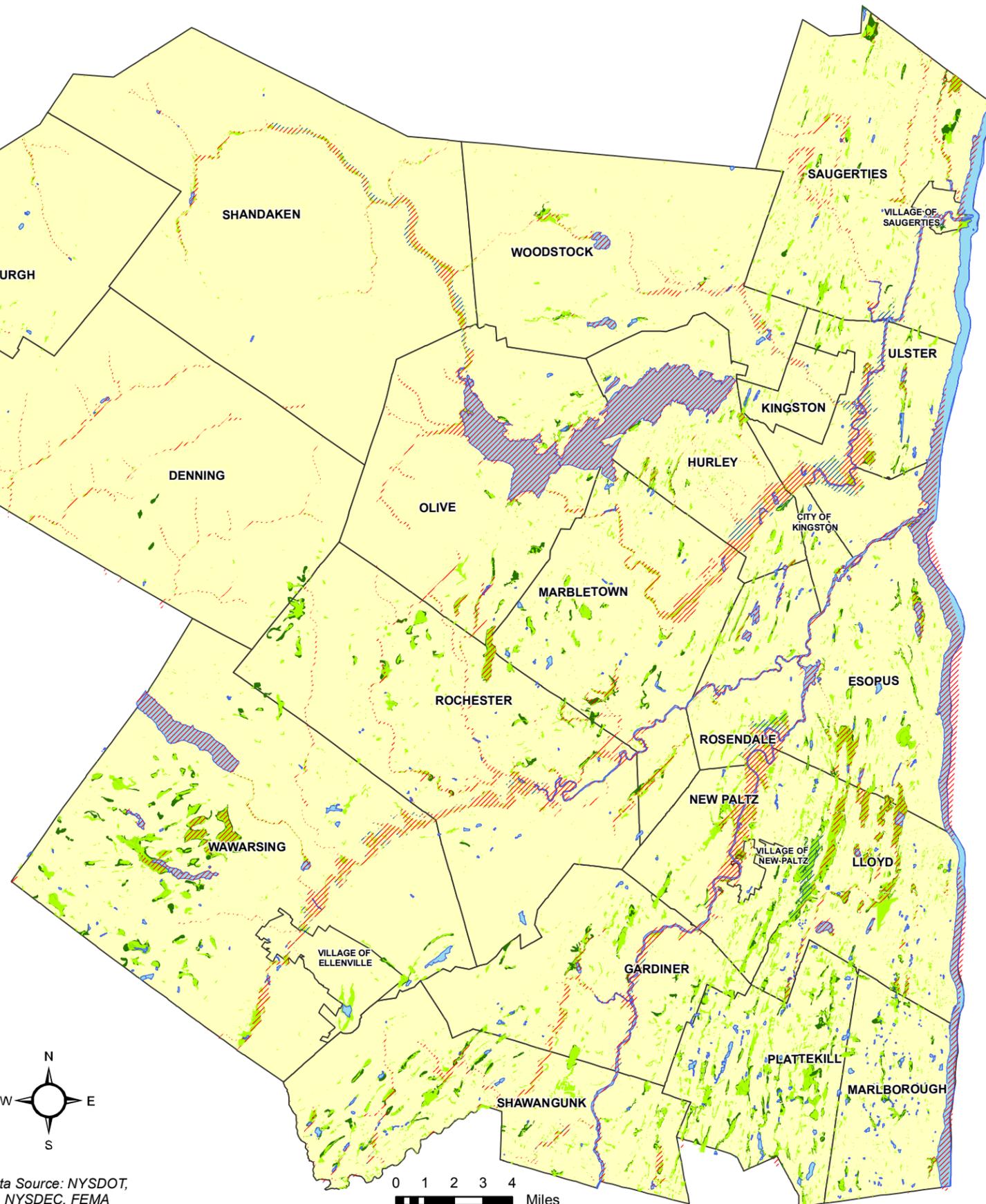
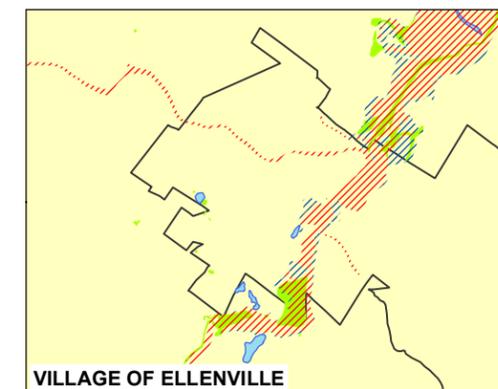
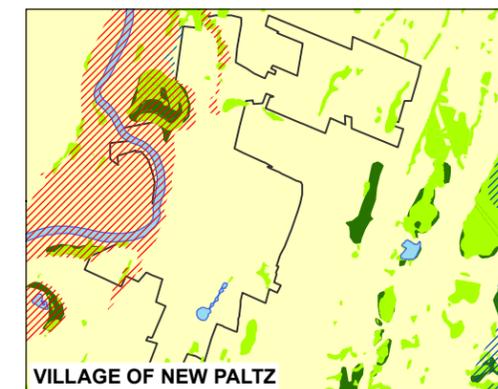
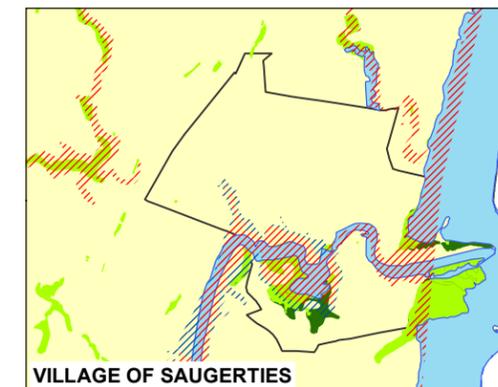
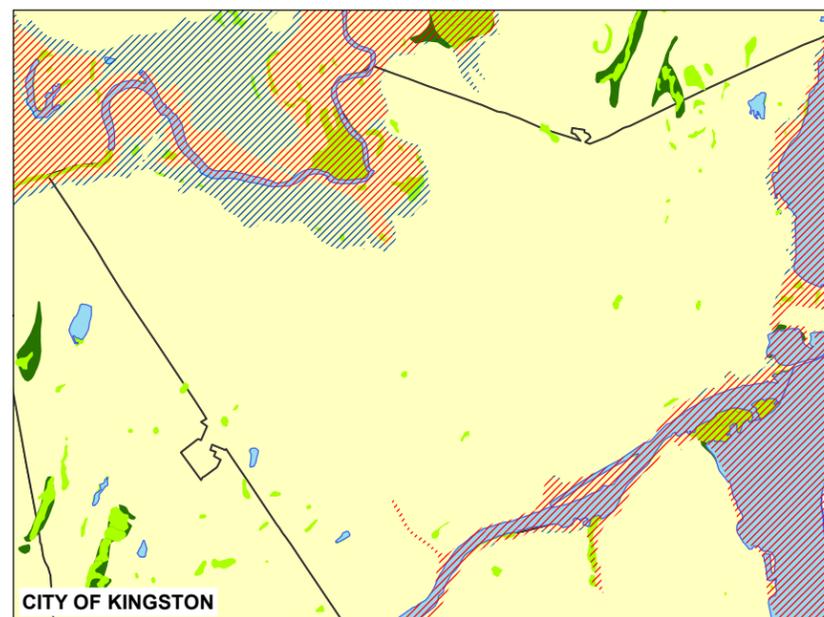




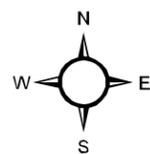
**ULSTER COUNTY  
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**Figure 3-10**

**Environmentally  
Sensitive Areas**



Legend	
	100-Year Floodplain
	500-Year Floodplain
	Waterbodies
	Federal Wetlands
	NYSDEC Wetlands
	Municipal Boundaries



Data Source: NYSDOT,  
NYSDEC, FEMA



Several different resources and impacts need to be considered, and are briefly described in the following subsections. Each subsection includes potential mitigation activities associated with each.

### Threatened and Endangered Species in Ulster County

The U.S. Fish and Wildlife Service (USFWS) lists the following species as threatened or endangered in Ulster County. These species and their status include:

- Bald Eagle (*Haliaeetus leucocephalus*): Delisted, but protected.
- Bog turtle (*Clemmys [=Glyptemys] muhlenbergii*): Threatened
- Indiana bat (*Myotis sodalist*): Endangered
- Northern wild monkshood (*Aconitum noveboracense*): Threatened
- Shortnose sturgeon (*Acipenser brevirostrum*): Endangered
- Small whorled pogonia (*Isotria medeoloides*): Threatened

Threatened and endangered species mitigation activities might include avoidance and minimization of impacts; time of year restrictions on activities; construction sequencing; design exceptions and variances; species research and fact sheets; Memoranda of Agreements for species management; and environmental compliance monitoring.

### Wetlands

Executive Order (EO) 11990, Protection of Wetlands, requires federal agencies to take action to minimize the loss of wetlands due to activities. Activities disturbing jurisdictional wetlands require a permit from the U.S. Army Corps of Engineers (USACE). Authorization / Permits are available from the USACE for activities regulated under Section 404 of the Clean Water Act (Section 404). The USACE would determine what, if any, mitigation would be required with these permits. The identified study area wetlands are shown in Figure 3-10.

Wetlands mitigation activities might include requirements involving avoidance, minimization and offset of impacts, which could include preservation, creation, restoration, in lieu fees, riparian buffers, design exceptions and variances and environmental compliance monitoring.

### Floodplains

Executive Order (EO) No. 11988, Floodplain Management, seeks to avoid the long- and short-term adverse impacts associated with the occupancy and modification of floodplains, and to avoid direct or indirect support of development within the floodplain where a feasible alternative exists. EO 11988 applies to federally funded projects and directs agencies to consider alternatives to projects in a floodplain. Actions within a 100 year floodplain must consider alternatives to avoid adverse effects in the floodplain. If no feasible alternatives exist to constructing a facility in the floodplain, the action must



be designed to minimize potential harm to or within the floodplain. The FEMA-identified 100 year and 500 year floodplains are documented in Figure 3-10.

### Historical/Cultural Resources

Section 106 of the National Historic Preservation Act (NHPA) requires any federally funded or licensed activity be evaluated for potential impacts to historic and archaeological properties. Cultural resource impacts are specifically considered for properties that would be eligible for the listing on the National Register of Historic Places (NRHP). Some level of mitigation needs to be considered if such properties exist and are potentially impacted either directly (such as construction) or indirectly (such as visual impacts). Cultural resource mitigation activities might include avoidance and minimization of impacts; landscaping for historic properties; preservation in place or excavation for archeological sites; Memoranda of Agreement with the New York State Historical Society; design exceptions and variances; environmental compliance monitoring.

### Traffic/Train Horn Noise

Traffic and train horn noise is defined as unwanted sound from roadway vehicles and trains. For any street and roadway expansion or reconstruction projects that involve Federal funding, a traffic noise evaluation should be completed, based on guidance provided by NYSDOT's Noise Analysis Procedures. The NYSDOT noise analysis policy is consistent with 23 Code of Federal Regulations (CFR) Part 772, which provides procedures for traffic noise studies and noise abatement criteria. If noise impacts are found with a street improvement, mitigation measures could potentially include sound barriers/ walls, alteration of the street alignment, lowering traffic speeds or restricting heavy trucks from the roadway. The Federal Railroad Administration governs the rules and requirements (49 CFR Parts 222 and 229) for the establishment of railroad corridor quiet zones.

### Right-of-Way/Property Impacts

Transportation projects sometimes require the acquisition of private property. Through the alternatives analysis process, potential private property impacts were considered when evaluating the various potential multimodal transportation improvements. Impacts can include loss of agricultural land, impacts to neighborhoods, homes and businesses or parks and recreation area impacts. In many of these cases, the mitigation measures considered would include avoidance and minimization of impacts; context sensitive solutions to provide a better project "fit" within the adjacent environment; environmental compliance monitoring.

## Air Quality

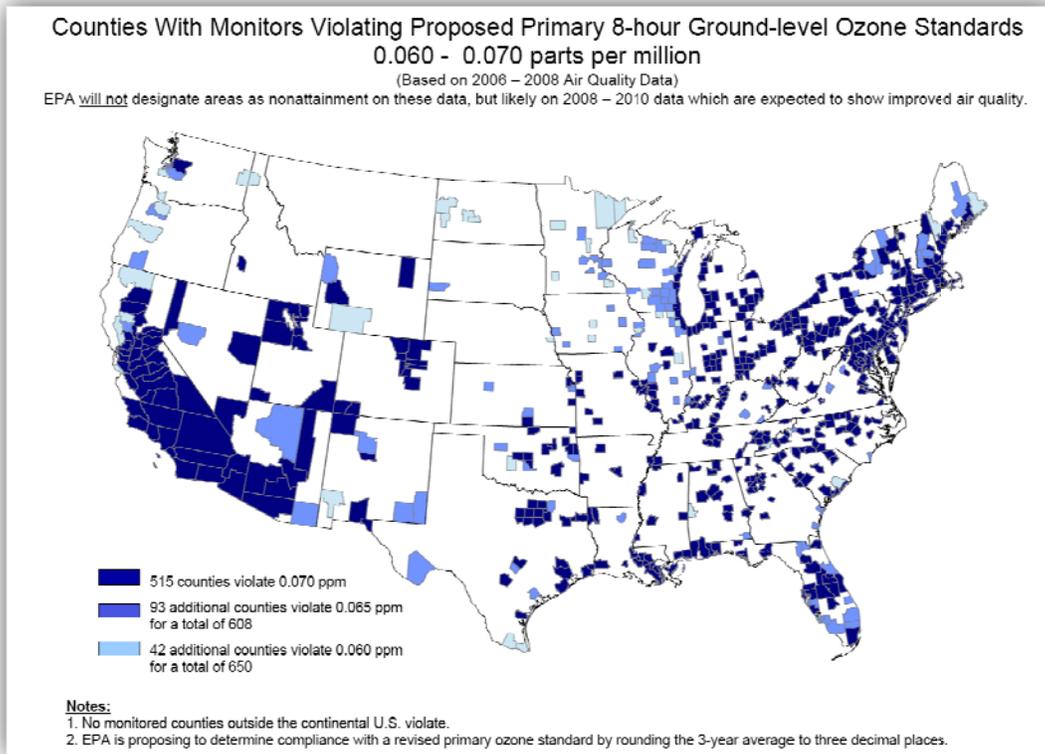
Currently, Ulster County is designated as an air quality "attainment area" whereby the County is considered to have air quality that meets or exceeds the U.S. Environmental



Protection Agency (EPA) health standards used in the Clean Air Act. The EPA is proposing to modify air quality conformity guidelines nationwide that may affect the UCTC planning and programming processes. Figure 3-11 illustrates U.S. counties violating the EPA’s proposed 8-hour ground-level ozone standards of 0.060 to 0.070 part per million.

Ground-level or "bad" ozone is not emitted directly into the air, but is created by chemical reactions between oxides of nitrogen (NOx) and volatile organic compounds (VOC) in the presence of sunlight. Emissions from industrial facilities and electric utilities, motor vehicle exhaust, gasoline vapors, and chemical solvents are some of the major sources of NOx and VOC. Ground-level ozone is mainly a summertime pollutant, because sunlight and hot weather accelerate its formation.

**Figure 3-11: Counties Violating Proposed 8-Hour Ground-level Ozone Standards**



Source: U.S. Environmental Protection Agency

Breathing ozone, a primary component of smog, can trigger a variety of health problems including chest pain, coughing, throat irritation, and congestion. It can worsen bronchitis, emphysema, and asthma. Ground-level ozone also can reduce lung function and inflame the linings of the lungs. Repeated exposure may permanently scar lung tissue. Ground-level ozone also damages vegetation and ecosystems. In the United States alone, ozone is responsible for an estimated \$500 million in reduced crop production each year. Under the Clean Air Act, EPA has set protective health-based standards for ozone in the air we breathe. EPA and others have instituted a variety of multifaceted programs to meet these health-based standards.



Throughout the country, additional programs are being put into place to cut NO<sub>x</sub> and VOC emissions from vehicles, industrial facilities, and electric utilities. Programs are also aimed at reducing pollution by reformulating fuels and consumer/commercial products, such as paints and chemical solvents that contain VOC. Voluntary and innovative programs also encourage communities to adopt practices, such as carpooling, to reduce harmful emissions. Sunlight and hot weather help form ground-level ozone. Both also contribute to global warming and heat island effect.

### Air Quality Conformity

While the UCTC's LRTP is not currently required to demonstrate air quality conformity, Ulster County may be designated by the EPA as an air quality "non attainment" area for 8-hour ground-level ozone in the future. If or when Ulster County receives this designation, an air quality conformity analysis for the Transportation Improvement Program (TIP) and the Long Range Transportation Plan (LRTP) will be required. For a finding of conformity, the analysis must demonstrate that the TIP and LRTP are in conformance with regional air quality plans and will not contribute to air quality violations. The conformity analysis must also demonstrate that the criteria specified in the federal transportation conformity rule for a conformity determination are satisfied by the TIP and LRTP.

The federal transportation conformity rule (40 Code of Federal Regulations Parts 51 and 93) specifies criteria and procedures for conformity determinations for transportation plans, programs, and projects and their respective amendments. Under the federal transportation conformity rule, the principal criteria for a determination of conformity for transportation plans and programs are:

- The TIP and LRTP must pass an emissions budget test with a budget that has been found to be adequate or approved by EPA for transportation conformity purposes, or interim emissions tests.
- The latest planning assumptions and emission models in force at the time the conformity analysis begins must be employed.
- The TIP and LRTP must provide for the timely implementation of transportation control measures (TCMs) specified in the applicable air quality implementation plans.
- Consultation generally occurs at the beginning of the conformity analysis process; on the proposed models, associated methods, and assumptions for the upcoming analysis and the projects to be assessed; and at the end of the process, on the draft conformity analysis report.

The final determination of conformity for the TIP and LRTP is the responsibility of the Federal Highway Administration and the Federal Transit Administration.



## Transportation Management Area

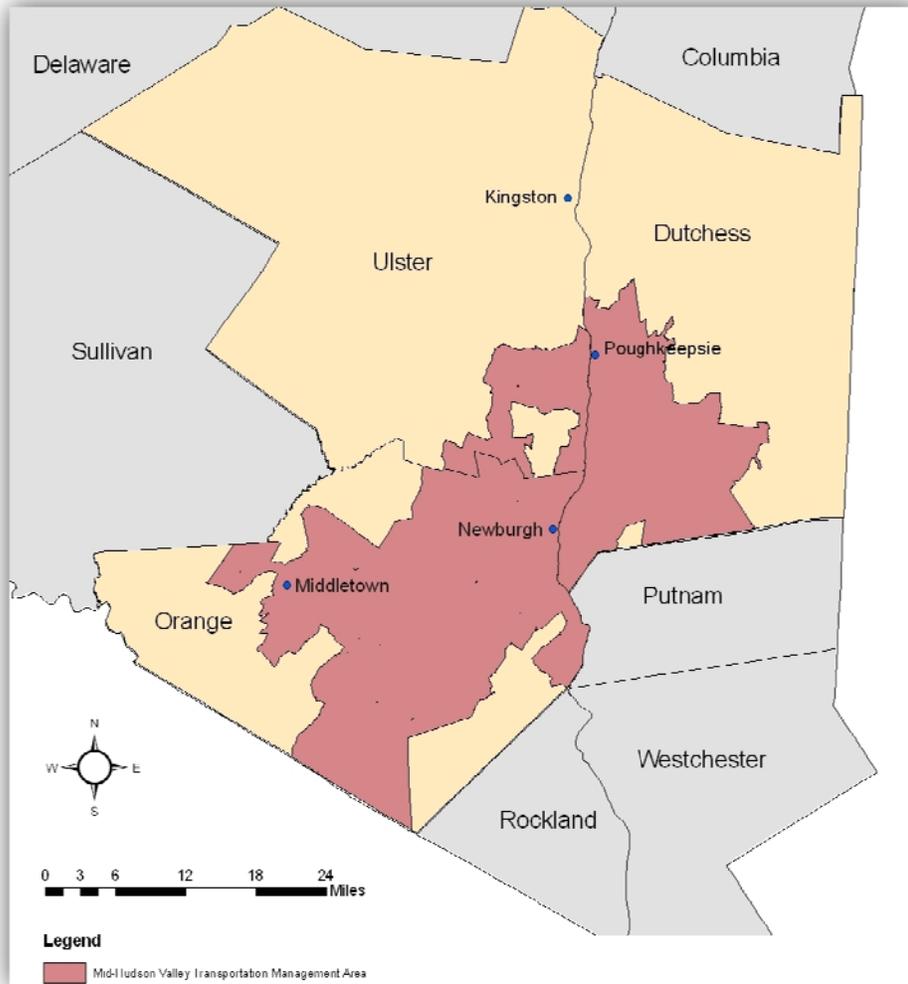
A Transportation Management Area (TMA) is an area designated by the Secretary of Transportation, having an urbanized area population of over 200,000, or upon special request from the Governor and the MPO designated for the area. An area designated as a TMA enjoys certain benefits and incurs additional requirements beyond those of smaller urbanized areas (23 USC 134(i)). Transportation plans and programs within a TMA must be based on a continuing and comprehensive transportation planning process carried out by the MPO in cooperation with the State and transit operators. The transportation planning process within a TMA must include a Congestion Management Process (CMP). The FHWA and the FTA must certify the transportation planning process no less often than once every four years. The Poughkeepsie-Newburgh Transportation Management Area (TMA), population of approximately 352,000, is shown in Figure 3-12 and includes Dutchess, Orange and Ulster Counties.

The need to address traffic congestion throughout the Mid-Hudson Valley Transportation Management Area (TMA) is a significant transportation issue. Increases in traffic volumes and the resulting travel delays have caused concerns among residents, the business sector, elected officials, and community leaders, regarding current and future congestion levels. Two primary factors contributing to traffic congestion within the TMA have been an increasing population and a growing economy. These factors have resulted in high levels of internal metropolitan growth, and have also brought significant levels of urban development to previously undeveloped lands on the urban fringe. Such internal and peripheral growth has created greater travel demand throughout the region, bringing about higher traffic volumes and congestion on the existing freeway and arterial roadway network. In addition to lower levels of overall economic productivity from increased travel times, congestion also affects air quality and other quality of life effects. As part of the regional transportation planning process, Dutchess, Orange and Ulster Counties maintain a congestion management process (CMP) to improve traffic flow and mitigate congestion throughout the metropolitan area.

Throughout the nation, regions utilize a variety of roadway and transit improvement programs in an effort to reduce traffic congestion. These programs generally cover four major strategies: (1) constructing additional roadway capacity, (2) expanding public transit service, (3) managing the existing system, and (4) reducing peak-period travel demand. Specific methods may include intersection and other road capacity additions; coordination of traffic signals and use of other intelligent transportation system approaches; promoting the use of buses, light rail and carpooling; and implementation of programs that reduce peak-hour travel demand, such as telecommuting and flex-schedules.



**Figure 3-12: Poughkeepsie-Newburgh Transportation Management Area**



Source: U.S. Census 2000

### Congestion Management Process

In 2005, the Dutchess, Orange and Ulster County MPOs (TMA) completed a Congestion Management System (CMS) Final Report. The TMA’s CMS Final Report developed included the following key steps:

1. Measure and define congestion;
2. Locate congestion;
3. Identify strategies to manage congestion; and
4. Integrate strategies and evaluate their effectiveness.



In 2006, the TMA completed a follow up CMS report identifying performance measures and the locations of congestion within the TMA. Congested roadways in Ulster County are identified in Chapter 4, Figure 4-5.

### SAFETEA-LU and the Congestion Management Process

On August 10, 2005, the President signed the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). This legislation authorized the nation's surface transportation programs for highways, highway safety, and transit over a five year period between 2005 and 2009. As part of this Act, guidance was provided on the desired features of the congestion management process (CMP) in transportation management areas. Key features of the process include:

- Methods to monitor and evaluate the performance of the multimodal transportation system.
- Definition of congestion management objectives and appropriate performance measures.
- Establishment of a coordinated program for data collection and system performance monitoring.
- Identification and evaluation of anticipated performance and expected benefits of appropriate congestion management strategies.
- Identification of an implementation schedule, implementation responsibilities, and possible funding sources.
- Implementation of a process for periodic assessment of the effectiveness of implemented strategies.

### Travel Demand Reduction and Operational Strategies

The TMA currently benefits from a broad range of strategies for travel demand management, promotion of alternative modes, and optimization of operational procedures. The identification and selection of travel demand reduction strategies were developed over time by the TMA and formally integrated into the CMS process. Through this process, a variety of alternative transportation options were considered in an effort to reduce congestion throughout the greater metropolitan region. These programs included carpooling, vanpooling, walking, bicycling, alternative and compressed work schedules, park ride lot expansion, and telework programs.

In Ulster County, a number of strategies have been implemented over the past five years. The UCTC assembled a Traffic Operations and Public Safety (TOPS) Committee to work on local and regional highway and railroad corridor congestion issues related to how emergency vehicles navigate congested corridors, discussed issues related to a transit



signal priority demonstration concept in Kingston, performed a railroad corridor quiet zone and grade crossing safety assessment for the West Shore Railroad Corridor, and studied the costs and feasibility of a West Shore Railroad Corridor train detection/arrival prediction implementation plan.

Performance Measures

The Mid Hudson Valley Transportation Management Area (TMA) utilizes vehicle-to-capacity (V/C) ratios (same as volume-to-capacity) to measure congestion on the Region’s roadway system. Table 3-5 identifies V/C ratio thresholds which define the extent of congestion in the TMA.

**Table 3-5: Levels of Congestion Defined by the Mid Hudson Valley TMA**

Level of Congestion	Vehicle-to-Capacity Ratio <sup>1</sup>
Moderate	V/C ratio = 0.80 – 0.89
Heavy	V/C ratio = 0.90 – 0.99
Severe	V/C ratio >= 1.00

<sup>1</sup> As calculated for weekday peak hour volume.

Source: MHVTMA Final Report, 2005, p. 8

Data Collection and System Monitoring

The UCTC has an ongoing program for data collection and system monitoring which includes periodic surveys of travel characteristics such as traffic volumes, park and ride lot occupancy, and public transit ridership. This information is used to assess current conditions and provide data to enhance the UCTC’s travel demand forecasting capabilities. The Performance Monitoring Plan identified in Chapter 9 provides more details concerning data collection and system monitoring.

Future Congestion Management Process Efforts

In 2009, the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) conducted a review of the Mid-Hudson Valley Transportation Management Area’s (TMA) Congestion Management Process (CMP). A number of conclusions and recommendations were identified to bring the TMA’s CMP into compliance. The TMA will update its CMP within the next two years to comply with federal requirements. Future amendments to the TMA’s CMP and UCTC’s LRTP may be needed before the next LRTP Update is performed.

