



SECTION 4. COUNTY PROFILE

This section presents county profile information that was analyzed to develop an understanding of (1) the study area, including the economic, structural, and population assets at risk and (2) the particular concerns that may be related to hazards analyzed later in this plan (e.g., areas prone to flooding or a high percentage of vulnerable persons in a particular area).

This section presents a general profile of Livingston County, which includes general information, major past hazard events, physical setting, population and demographics, land use and population trends, and critical facilities located within the county.

4.1 GENERAL INFORMATION

Livingston County is in the far western end of the Finger Lakes Region of New York State. Rochester is nearby to the north, and Buffalo is approximately 1 hour to the west. Formerly a portion of Genesee and Ontario Counties, Livingston County officially became its own county on February 23, 1821. The boundaries were adjusted five times between 1821 and 1922 – with Steuben in 1822, Monroe in 1825, Allegany in 1846 and 1857, and Ontario in 1922. Livingston County was named for Robert P. Livingston, a former Chancellor of New York State, and an author of the Declaration of Independence. Prior to American settlement, Seneca Indians (the “Keepers of the Western Door”) settled the land of the county as the westernmost nation of the Iroquois Confederacy. Today, the county is sometimes referred to as the “Western Gateway to the Finger Lakes.”



During the Revolutionary War, the Iroquois Confederacy was split in its allegiance between the United States and the British Empire. The Seneca of Livingston County remained loyal to the British. In 1779, General Washington sent a military party of 6,200 men (one-fifth of his force) under generals John Sullivan and George Clinton to subdue Iroquois resistance. The Seneca capital, Little Beard’s Town, was burnt on September 14, 1779. Today the site surrounds Route 39, between Geneseo and Cuylerville.

After breaking the military strength of the Iroquois, New York State moved to take control of the land through treaties. New York and Connecticut settled their competing claims to the region in 1786 with the Treaty of Hartford, whereby New York obtained sovereignty over the land while Connecticut retained “pre-emptive” rights to acquire the title to the land from the Iroquois. In 1788, Connecticut sold its preemptive rights to land speculators Oliver Phelps and Nathaniel Gorham; when financial difficulties forced Phelps and Gorham to give up their rights, the Pulteney Association obtained title to all the land east of the Genesee River and sold it off to speculators and settlers. The treaty of Big Tree, signed in 1797 in present day Geneseo, secured state control of all the land west of the Genesee River. Local Native Americans were relocated out from the territory or onto five reservations (the most of any county in New York). All these reservations were relinquished through treaties by 1826.

Following the Revolutionary War, people from New England, Maryland, and Pennsylvania came to settle the Genesee River Valley, bringing their knowledge of agriculture and methods of raising cattle and sheep. The settlers built flour and grist mills on the numerous small streams and along the Genesee River. The most



prominent family of this period was the Wadsworth clan from Connecticut, a family of wealthy landowners headed by brothers John and William. They oversaw the county’s early development by surveying boundaries and guiding settlement. Some of the Wadsworth descendants became local representatives. James Jeremiah Wadsworth served as ambassador to the United Nations during President Eisenhower’s second term. They also founded the current county seat, the Town of Geneseo, in 1788. Most of the other towns were founded between 1789 and 1795, except Nunda, Ossian, and Springwater, which were settled between 1804 and 1807.

Livingston County was home to many prominent persons, including two presidents. Millard Fillmore worked at a mill in West Sparta, and Chester A. Arthur lived in York and attended Temple Hill Academy in Geneseo. Additional noteworthy residents include Clara Barton, who organized the First Chapter of the American Red Cross in 1881, and Francis Bellamy, who authored the Pledge of Allegiance in 1892. Revolutionary War hero Daniel Shays and pioneer Nathaniel Rochester also called Livingston County home. The earliest settlers were generally Protestants of English, Scots-Irish, and German ancestry, followed by Irish Catholics in the 1830s and 1840s. Some settlers brought enslaved persons with them when it was legal prior to 1827. Growth of population came with the completion of the Genesee Valley Canal (1840-1872) and with the expansion of railroads and the growing popularity of health spas, which reached its height in the 1850s. After the Civil War, a community of freed slaves from Virginia settled in Caledonia. Italians and people of Slavic ancestry settled in the township of Mount Morris in significant numbers around the turn of the century, in response to the growth of small industry and manufacturing jobs in that area. Today, the county is comprised of 26 municipalities: 17 towns and 9 villages. The towns and villages of Livingston County are shown in Table 4-1.

Table 4-1. Towns and Villages in Livingston County, New York

Towns			Villages	
Avon	Lima	Portage	Avon	Lima
Caledonia	Livonia	Sparta	Caledonia	Livonia
Conesus	Mount Morris	Springwater	Dansville	Mount Morris
Geneseo	North Dansville	West Sparta	Geneseo	Nunda
Groveland	Nunda	York	Leicester	
Leicester	Ossian			

4.2 MAJOR PAST HAZARD EVENTS

Presidential disaster declarations are typically issued for hazard events that cause more damage than state and local governments can handle without assistance from the federal government, although no specific dollar loss threshold has been established for these declarations. A presidential disaster declaration puts federal recovery programs into motion to help disaster victims, businesses, and public entities. Some of the programs are matched by state programs. Review of presidential disaster declarations helps establish the probability of reoccurrence for each hazard and identify targets for risk reduction. Table 4-2 shows Federal Emergency Management Agency (FEMA) disaster declarations that included Livingston County through September 2021 (records date back to 1954).

Table 4-2. History of Hazard Events in Livingston County, New York

Disaster Number	Event Date	Declaration Date	Incident Type	Title
DR338	June 23, 1972	1972	Flood	Tropical Storm Agnes
DR494	March 19, 1976	1976	Severe Ice Storm	Ice Storm, Severe Storms & Flooding
DR898	March 21, 1991	1991	Snow	Severe Winter Storm
EM3107	March 17, 1993	1993	Snow	Severe Blizzard
DR1095	January 24, 1996	1996	Flood	Severe Storms and Flooding



Disaster Number	Event Date	Declaration Date	Incident Type	Title
DR1233	July 7, 1998	1998	Severe Storm(s)	Severe Storms and Flooding
EM3138	March 10, 1999	1999	Snow	Snow
DR1335	July 21, 2000	2000	Severe Storm(s)	Severe Storms and Flooding
DR1391	September 11, 2001	2001	Fire	Fires and Explosions
EM3155	October 11, 2000	2001	Other	West Nile Virus
DR1467	May 12, 2003	2003	Severe Ice Storm	Ice Storm
EM3186	August 23, 2003	2003	Other	Power Outage
DR1486	August 29, 2003	2003	Severe Storm(s)	Severe Storms, Flooding, and Tornadoes
DR1534	August 3, 2004	2004	Severe Storm(s)	Severe Storms and Flooding
EM3262	September 30, 2005	2005	Hurricane	Hurricane Katrina Evacuation
DR1993	June 10, 2011	2011	Flood	Severe Storms, Flooding, Tornadoes, and Straight-line Winds
EM3351	October 28, 2012	2013	Hurricane	Hurricane Sandy
DR4180	July 8, 2014	2014	Severe Storm(s)	Severe Storms and Flooding
EM3434	March 13, 2020	2020	Biological	COVID-19
DR4480	March 20, 2020	2020	Biological	COVID-19 Pandemic

Source: FEMA 2021

4.3 PHYSICAL SETTING

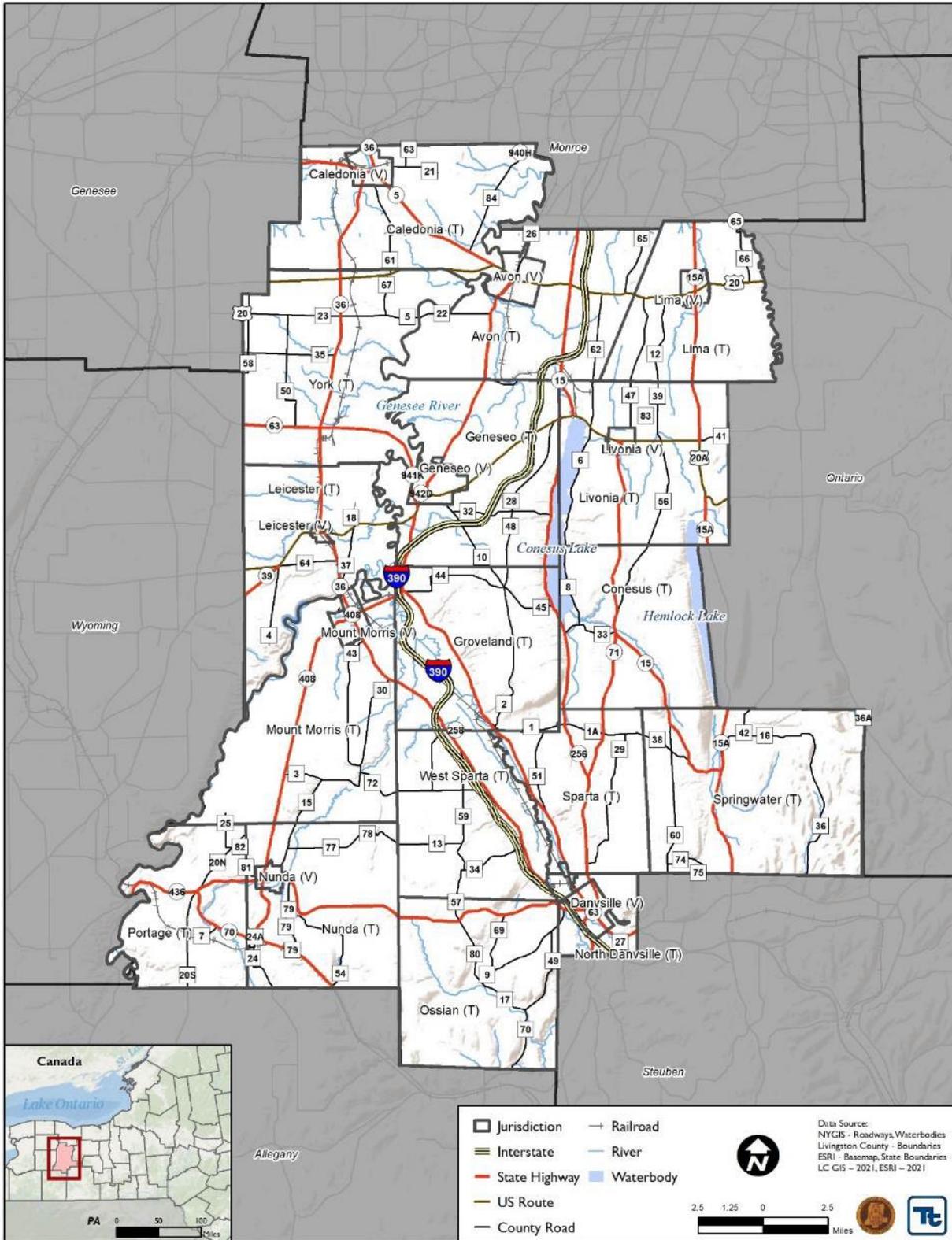
This section presents the physical setting of Livingston County, including its location, topography, hydrography and hydrology, climate, and land use and land cover.

4.3.1 Location

Livingston County is located within New York’s Finger Lakes Region. The county is bordered to the north by Monroe County, on the east by Ontario County, on the west by Genesee and Wyoming Counties, and on the south by Steuben and Allegany Counties. The county is 640 square miles in area and contains a diverse topography of hills, valleys, forests, and agriculture land. Figure 4-1 provides the location of Livingston County and its municipalities.



Figure 4-1. Location of Livingston County, New York





The Genesee River is a central feature of the county and the majestic valley includes the dramatic Letchworth gorge and the broad agricultural valley floor in the county's northern towns. The valley can be broken into two major watersheds: the Canaseraga Creek Valley from Dansville to Mount Morris, and the Genesee River Valley from Mount Morris to Avon. The Genesee River was historically the prime transportation route for the region, especially as a conduit to the completed Erie Canal a few miles north of the county line.

Livingston County has 1,243 miles of road. Interstate (I)-390 is the central route of travel through Livingston County. Interstate I-390, which opened in 1981, runs north-south from Avon to Dansville through the middle of the county. Additionally, Routes 5 and 20, and Route 63 connect the county to its eastern and western neighbors. Another main traffic way, Route 63, separates the southwest portion of the county from North Dansville to York.

4.3.2 Topography and Geology

Topography

The geography and topography of the land that encompasses Livingston County owes its formation to the thawing of glaciers during the last Ice Age, which brought rich agricultural lands. Livingston County is made up of many hills and valleys. At a height of 2,244 feet, Tabor Mark is the highest point in the county and is located in the Town of Springwater. The lowest point in the county is along the Genesee River at 550 feet above sea level in the far north of the county in the Town of Caledonia.

Consistent with the rest of western New York, the geography and topography of the land that encompasses Livingston County owes its formation to the thawing of glaciers during the last Ice Age. The westernmost Finger Lakes of Conesus and Hemlock, the Valleys of the Genesee River and Canaseraga Creek, the hills in the south of the county, and the flatlands in the north are all glacial formations. Most of Livingston County is located in the Appalachian Upland province. The area east of the Canaseraga Creek valley is part of the Finger Lakes Hills sub-region; the area to the west lies within the Cattaraugus Hills sub-region. The uplands consist of rolling hills, dissected by narrow, steep-sided valleys that trend north to south

Geology

Fields and flatlands make up the northernmost section of the county, while the south is dominated by rolling hills. Some of the gentle hills in the county are the result of glacial debris and sediment left behind after the Ice Age. The hills abut the northern flat lands and are part of the Allegheny Plateau, which is comprised of easily eroded shale and limestone. The Allegheny Plateau makes up most of southern Livingston County and is a source of the Genesee River. Livingston County also has a significant mineral resource in the form of rock salt. Beginning in the 1880s, rock salt has been mined in the county and the area became the largest producer of rock salt in North America. Mining continues to be an important economic activity in the county, despite the collapse of the Retsof Salt Mine in 1994.

Approximately 50 million years ago, Livingston County was covered by a shallow inland sea. Over time, layers of sediment (sand, mud, and lime) accumulated on the sea floor. With the passage of time, the weight of new sediment above and the heat from the earth below compressed these sediments into layers of shale, limestone, and dolomite. Distinct layer formations are easily visible along the Genesee River gorge.

4.3.3 Hydrography and Hydrology

The two main lakes of Livingston County are Conesus and Hemlock. The towns of Conesus, Genesee, Groveland, and Livonia border Conesus Lake. The Towns of Conesus, Livonia, and Springwater border Hemlock Lake. Created by melted glacial waters and dammed up by glacial debris, the lakes are an important



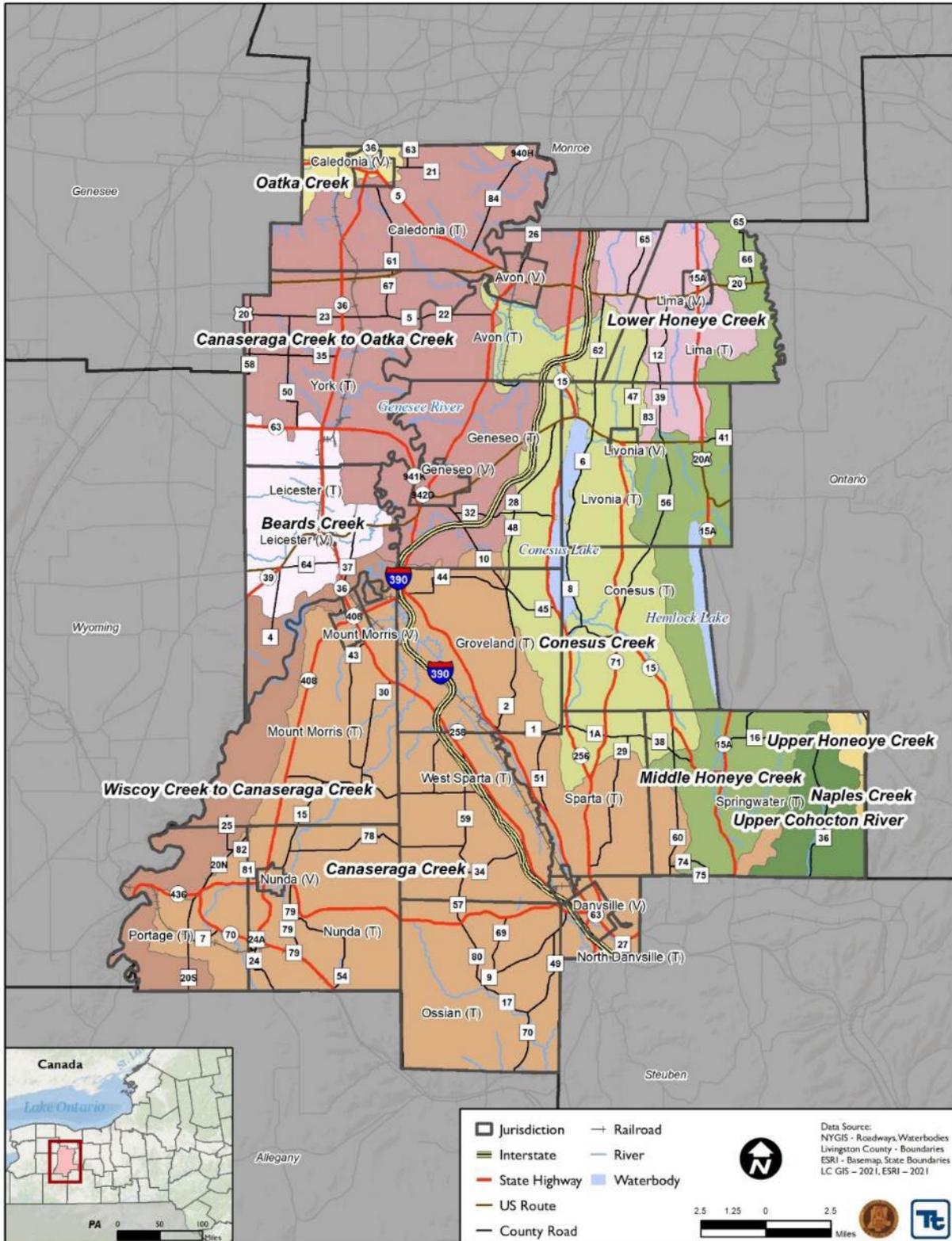
aesthetic, economic, environmental, and cultural resource for the county. Figure 4-1 presents a surface water map of Livingston County.

While the lakes of Livingston County provide a valuable resource, the most prominent feature of the county is the Genesee River extending from the southwest and then northward into Monroe County. The Genesee River and Letchworth State Park offer some of the most spectacular views of any landscape in the northeast. Letchworth's Genesee Gorge was carved some 12,000 years ago when glaciers moved through the region. The Genesee River cuts through cliffs that rise up to 600 feet. The park's 14,000 acres contain three canyons and three major waterfalls and attract 1 million people annually. The park is also home to the Mount Morris Dam, created in 1952 on the Genesee River to ease flooding in the Rochester area.

Livingston County has one major water drainage basin, the Genesee River Basin, as shown in Figure 4-2. Comprised of the Upper and Lower Genesee watersheds, the basin itself eventually drains north to Lake Ontario. Conesus and Hemlock lakes empty into the Genesee River Basin and drain northward as well. Some of the watersheds that make up the Genesee River Basin include Hemlock Lake, Hemlock Outlet, Oatka Creek, Conesus Creek, and the Genesee River.



Figure 4-2. Watersheds and Sub-Watersheds in Livingston County





4.3.4 Climate

The climate of the county is classified as continental-humid, with cold winters and mild summers with precipitation well distributed throughout the year. The result of this climate is an abundance of flora and fauna throughout the region and a wealth of water resources. Temperatures in January are an average of 28 degrees, while temperatures in July are an average of 77 degrees. Annual precipitation averages 39 inches of rain. Annual snowfall averages 96 inches. In addition to the major river systems, there are numerous natural and man-made lakes and ponds throughout the region as well as plentiful supplies of groundwater (high yields are principally limited to valley aquifers). Due to late spring and early fall frosts, there is a somewhat limited field crop growing season with an average of 120 days. (New York State Energy Research and Development Authority [NYSERDA] 2014)

4.3.5 Land Use and Land Cover

The original primeval forest in Livingston County was a mix of several different forest communities. Black ash, red maple, sycamore, and hemlock trees comprised a swamp forest community that covered the flatland bordering the lower Genesee River and Canaseraga Creek. Significant stands of Alleghenian hardwoods consisting of mixed stands of beech, sugar maple, hemlock, white pine, basswood, oak, and chestnut trees covered portions of the southern and western parts of the county. Central hardwood forests consisting of beech, sugar maple, basswood, and in places, oak and chestnut trees, dominated the southeast and northwest. Oak-chestnut forests occupied the margins of the lower Genesee and Canaseraga Valleys.

Most of the county's prime agricultural land is concentrated in the northern half and in the Canaseraga and Keshequa Creek valleys. Moderately fertile soil is found scattered throughout the area south and southeast of Conesus Lake. Historically, the Iroquois of the area cultivated orchards of apples, peaches, and plums as well as kept horses, oxen, and other livestock. They also farmed beets, potatoes, cabbage, squash, pumpkins, turnips, and beans. The main staple was corn, eaten off the cob, pounded into meal for bread, or mixed into succotash during the "great four-day Green Corn Festival." The wet and fertile lands of Livingston County have provided the region with a rich agricultural heritage that continues to this day.

The completion of the Erie Canal in 1825 just a few miles north of the county line created economic opportunity for Livingston County farmers. The importance of wheat farming grew as the Erie Canal facilitated the shipment of products to the Port of New York and then as far as Britain. The Genesee Valley Canal, which joined the Erie Canal at Rochester, reached the southern part of Livingston County in the early 1840s, allowing goods and commodities to be shipped by water almost anywhere in the world. The Genesee Valley Canal was never extended to the Allegheny River as originally planned, and the project was abandoned in 1878. Several ruined locks from this canal have been preserved as a historical site just south of Letchworth State Park along Route 438 in the Town of Portage.

In the mid-19th century, the railroads replaced the canal as the chief means of shipping goods to market. Between 1852 and 1882, four rail companies laid tracks to complete the county's four north-south trunk lines. The county has always had a road system, with some of the earliest roads following Native American footpaths. Route 5, which runs east to west in the northern part of the county, has been a main thoroughfare since the early 19th century. Today, most of the county's agricultural and manufactured goods are transported by truck. I-390 opened as a north-south route from Avon to Dansville in 1981.

Table 4-3 summarizes the land cover categories by the total area classified under each category (National Land Cover Database [NLCD] 2016).



Table 4-3. Land Use (2016) in Livingston County, New York

Land Use	Total Acreage	Total Area (sq. mi.)	Percent of County
Agricultural	209,953	328	51.2%
Barren Land	760	1	0.2%
Developed	147,662	231	36.0%
Forest	27,784	43	6.8%
Water	6,876	11	1.7%
Wetlands	16,677	26	4.1%
Livingston County (Total)	409,713	640	100.0%

Source: NLCD 2016
 Note: sq. mi. = square miles

4.4 POPULATION AND DEMOGRAPHICS

Various U.S. Census Bureau products were used as sources for the population trends section. The Decennial Census is the official population count taken every 10 years. American Community Survey 5-Year Estimates are used to show annual population changes, but it is not an official population count. 5-Year Estimates are used because they are the most accurate form of American Community Survey with the largest sample size, which allows for greater accuracy at smaller geographic areas. The American Community Survey 5-Year Estimate products were used to establish annual changes in population. The numbers provided are not official census counts but are official estimates provided to communities so that they may have a greater understanding in population changes within their jurisdictions.

An understanding of the planning area population characteristics provides a foundation for deciphering the impacts of natural hazards in the county. As noted in Section 5.1, Methodology, modeling of the impacts of natural hazards on the population was performed using FEMA’s Hazards U.S. Multi-Hazard (HAZUS-MH). The available population information includes the 2010 U.S. Decennial Census data, which indicates a county population of 42,367. However, more current data, according to U.S. Census Bureau, 2019 American Community Survey 5-Year Estimate, estimates a county population of approximately 63,591, which is a decrease in population since 2010. A detailed population table for the 2010 Census and 2019 American Community Survey 5-Year Estimate is shown in Table 4-4. The 2019 American Community Survey data were used, as it is the best-available data at the time of the plan update. General population distribution is illustrated on Figure 4-3.

Table 4-4. Livingston County Population Statistics

Jurisdiction	2010 Census Bureau Total	2019 American Community Survey Total	Pop. 65+	Pop. Under 5	Pop. Below Poverty Level	Pop. Non-English Speaking	Pop. With Disability
Avon (T)	3,770	3,637	765	113	103	103	581
Avon (V)	3,394	3,260	649	248	436	64	361
Caledonia (T)	2,054	2,060	351	110	108	114	281
Caledonia (V)	2,201	2,078	337	143	115	47	230
Conesus (T)	2,473	2,325	471	76	253	83	247
Geneseo (T)	2,452	2,540	692	152	333	113	337
Geneseo (V)	8,031	8,095	617	126	2,172	1,517	633
Groveland (T)	3,249	3,241	208	86	28	575	116
Leicester (T)	1,732	1,798	313	49	124	27	211
Leicester (V)	468	518	83	31	65	9	45
Lima (T)	2,166	1,833	343	80	95	67	245
Lima (V)	2,139	2,278	319	137	182	155	262



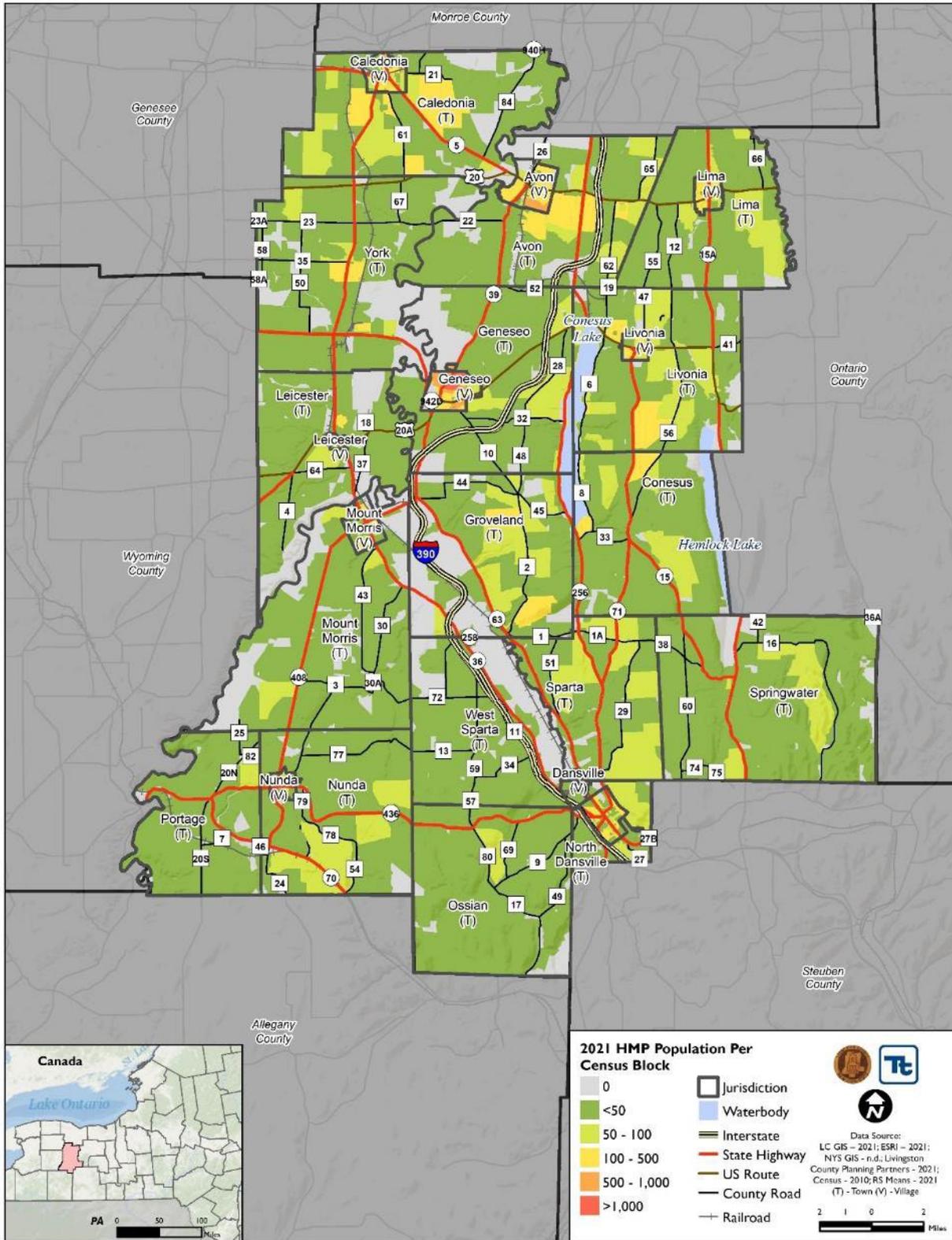
Jurisdiction	2010 Census Bureau Total	2019 American Community Survey Total	Pop. 65+	Pop. Under 5	Pop. Below Poverty Level	Pop. Non-English Speaking	Pop. With Disability
Livonia (T)	6,400	6,231	1,177	272	243	200	629
Livonia (V)	1,409	1,353	212	56	86	72	161
Mount Morris (T)	1,479	1,340	571	47	12	131	215
Mount Morris (V)	2,986	2,931	557	175	725	411	553
North Dansville (T)	819	696	196	0	96	21	117
Dansville (V)	4,719	4,586	693	265	917	96	760
Nunda (T)	1,687	1,716	231	83	209	10	121
Nunda (V)	1,377	1,211	251	55	331	0	282
Ossian (T)	789	701	181	31	46	6	123
Portage (T)	884	837	178	31	121	34	134
Sparta (T)	1,624	1,591	345	75	139	70	243
Springwater (T)	2,439	2,233	432	123	280	89	322
West Sparta (T)	1,255	1,229	222	36	113	28	201
York (T)	3,397	3,273	535	139	240	172	351
Livingston County (Total)	65,393	63,591	10,929	2,739	7,572	4,214	7,761

Source: U.S. Census Bureau 2010, 2015-2019 American Community Survey 5-Year Estimates

Notes: Pop. = Population; V = Village, T = Town



Figure 4-3. Distribution of General Population by Census Block for Livingston County





4.4.1 Vulnerable Populations

Disaster Mitigation Act of 2000 (DMA 2000) requires that HMPs consider socially vulnerable populations. These populations can be more susceptible to hazard events based on a number of factors, including their physical and financial ability to react or respond during a hazard and the location and construction quality of their housing. Vulnerable populations include (1) the elderly (persons aged 65 and over) and (2) those living in low-income households. Identifying concentrations of vulnerable populations can assist communities in targeting preparedness, response, and mitigation actions.

Populations with a higher level of vulnerability can be more seriously affected during the course of an emergency or disaster. Vulnerable populations have unique needs that need to be considered by public officials to help ensure the safety of demographics with a higher level of risk.

Age

Children are considered vulnerable to hazard events because they are dependent on others to safely access resources during emergencies and may experience increased health risks from hazard exposure. The elderly are more apt to lack the physical and economic resources necessary for response to hazard events and are more likely to suffer health-related consequences. Those living on their own may have more difficulty evacuating their homes. Elderly people are also more likely to live in senior care and living facilities where emergency preparedness occurs at the discretion of facility operators. According to the 2014-2018 American Community Survey 5-Year Estimates, the median age in Livingston County was 41.9 years.

According to the 5-Year American Community Survey Population Estimates for 2019, 4.9 percent of Livingston County's population is under the age 5 and 13.7 percent over the age of 65. Figure 4-4 shows the distribution of persons over age 65 and the distribution of persons under the age of 5 in Livingston County.

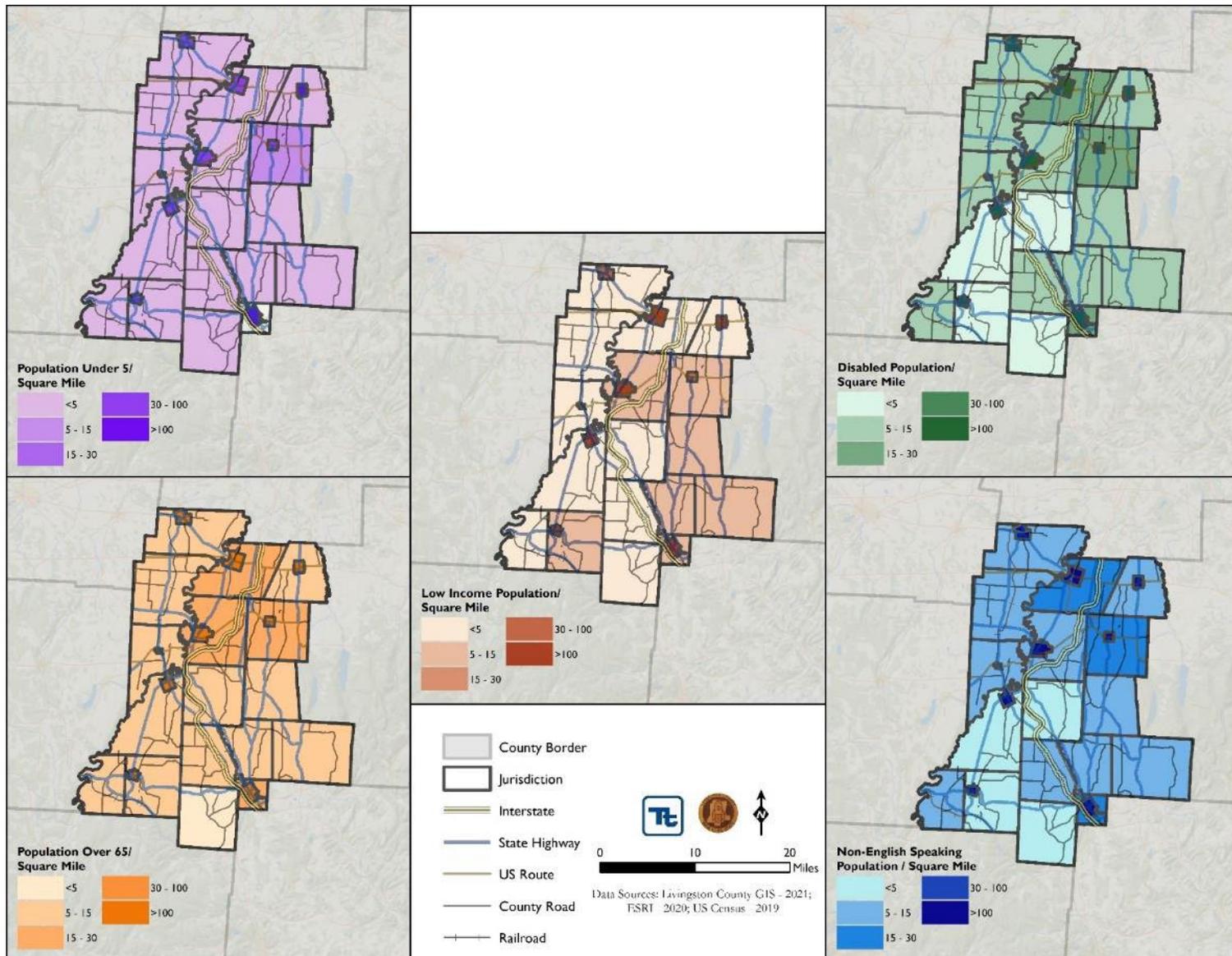
Income

The 2015-2019 American Community Survey 5-Year Estimates provides that the median household income in Livingston County was \$62,843, and the per capita income was \$28,701. The U.S. Census Bureau identifies households with two adults and two children with an annual household income below \$26,246 per year as *low income* (U.S. Census 2020). The 2015-2019 American Community Survey 5-Year Estimates indicates 11.9 percent of the population in Livingston County live below the poverty level.

The 2019 5-Year American Community Service identifies the estimated number of persons living below the poverty level at the tract and jurisdictional level. Figure 4-4 below illustrates the population density of persons below the poverty level per square mile in Livingston County.



Figure 4-4. Distribution of Socially Vulnerable Populations in Livingston County, New York





4.4.2 General Building Stock

According to 2019 Census data, 24,176 households are located in Livingston County. A household includes all the people who occupy a housing unit as their usual residence. A housing unit is a house, apartment, mobile home or trailer, a group of rooms, or a single room occupied as separate living quarters (or if vacant, intended for occupancy as separate living quarters). According to the 2015-2019 American Community Survey, the majority of housing units (69.3 percent) in Livingston County are classified as one-unit detached homes. The median price of a single-family home in Livingston County was estimated at \$129,400 based on the U.S. Census (U.S. Census 2016; U.S. Census 2019).

For this update, the default general building stock in HAZUS 5.0 was used to estimate the number of structures and replacement cost value (structure and contents) for Livingston County. The replacement cost values in HAZUS are based on RSMMeans 2021 valuations.

For the purposes of this plan, approximately 34,652 structures were identified by the tax data and spatial data available. These structures account for a replacement cost value of approximately \$21.5 billion. Approximately 82.5 percent of the total buildings in the county are residential. Table 4-5 presents building stock statistics by occupancy class for Livingston County.

Figure 4-5 through Figure 4-7 show the distribution and exposure density of residential, commercial, and industrial buildings in Livingston County based on the New York State Department of Taxation and Finance Property Class Code. Exposure density is considered the dollar value of structures per unit area, including building content value. The densities are shown in units of \$1,000 (\$K) per square mile. Viewing exposure distribution maps, such as those used for Figure 4-5 through Figure 4-7, can assist communities in visualizing areas of high exposure and in evaluating aspects of the study area in relation to specific hazard risks.



Table 4-5. Building Stock Count and Replacement Cost Value (RCV) by Occupancy Class

Jurisdiction	All Occupancies				Residential		Commercial	
	Count	Replacement Cost Value (Structure Only)	Replacement Cost Value (Contents Only)	Total Replacement Cost Value (Structure + Contents)	Count	Total Replacement Cost Value (Structure + Contents)	Count	Total Replacement Cost Value (Structure + Contents)
Avon (T)	2,149	\$748,473,139	\$576,373,627	\$1,324,846,766	1,711	\$580,171,002	121	\$197,423,760
Avon (V)	1,245	\$724,493,098	\$641,277,909	\$1,365,771,007	1,100	\$464,550,593	95	\$315,401,682
Caledonia (T)	1,362	\$452,962,784	\$339,792,868	\$792,755,652	1,003	\$370,029,800	76	\$89,442,988
Caledonia (V)	979	\$400,525,316	\$335,083,804	\$735,609,120	837	\$291,469,553	101	\$193,327,875
Conesus (T)	1,774	\$394,022,170	\$230,983,554	\$625,005,723	1,633	\$497,559,027	72	\$56,969,408
Dansville (V)	1,950	\$758,168,781	\$583,638,394	\$1,341,807,175	1,755	\$598,127,250	155	\$479,958,919
Geneseo (T)	1,753	\$667,107,045	\$494,612,996	\$1,161,720,041	1,258	\$518,662,408	215	\$323,900,328
Geneseo (V)	1,329	\$828,871,469	\$741,833,494	\$1,570,704,963	1,144	\$575,886,598	106	\$339,572,170
Groveland (T)	1,330	\$641,935,746	\$561,726,837	\$1,203,662,583	780	\$270,684,654	143	\$145,143,905
Leicester (T)	1,214	\$399,457,929	\$316,529,216	\$715,987,145	923	\$314,840,553	138	\$130,120,381
Leicester (V)	240	\$83,861,873	\$59,018,080	\$142,879,953	217	\$76,213,929	17	\$46,827,162
Lima (T)	1,436	\$490,050,579	\$369,586,351	\$859,636,929	1,138	\$434,113,797	61	\$83,408,704
Lima (V)	777	\$267,580,467	\$185,187,645	\$452,768,112	690	\$255,256,047	51	\$73,903,736
Livonia (T)	3,888	\$1,114,042,696	\$752,854,485	\$1,866,897,181	3,397	\$1,141,180,651	209	\$282,903,958
Livonia (V)	569	\$218,793,862	\$152,525,567	\$371,319,429	510	\$198,599,286	41	\$68,521,680
Mount Morris (T)	1,115	\$361,251,785	\$285,322,543	\$646,574,328	857	\$281,296,902	88	\$173,230,699
Mount Morris (V)	1,337	\$453,656,523	\$331,849,131	\$785,505,655	1,213	\$375,248,646	96	\$239,796,113
North Dansville (T)	607	\$256,760,576	\$240,398,607	\$497,159,183	508	\$152,158,085	69	\$156,862,608
Nunda (T)	1,354	\$335,017,604	\$209,916,838	\$544,934,442	1,227	\$377,469,108	55	\$52,882,720
Nunda (V)	641	\$222,025,900	\$170,462,696	\$392,488,596	562	\$195,897,265	66	\$94,604,861
Ossian (T)	817	\$278,135,728	\$210,568,203	\$488,703,931	554	\$202,702,576	105	\$48,190,432
Portage (T)	620	\$198,113,200	\$140,352,563	\$338,465,763	501	\$173,281,912	29	\$28,511,882
Sparta (T)	1,151	\$284,455,557	\$165,219,284	\$449,674,840	1,037	\$361,502,514	8	\$6,473,616
Springwater (T)	1,822	\$424,654,170	\$277,602,133	\$702,256,303	1,574	\$450,068,865	60	\$40,574,348
West Sparta (T)	1,010	\$254,194,110	\$169,018,906	\$423,213,015	808	\$240,951,856	10	\$32,389,675



Section 4: County Profile

Jurisdiction	All Occupancies				Residential		Commercial	
	Count	Replacement Cost Value (Structure Only)	Replacement Cost Value (Contents Only)	Total Replacement Cost Value	Count	Total Replacement Cost Value	Count	Total Replacement Cost Value
				(Structure + Contents)		(Structure + Contents)		(Structure + Contents)
York (T)	2,183	\$921,690,684	\$756,258,322	\$1,677,949,006	1,640	\$594,999,129	136	\$164,617,562
Livingston County (Total)	34,652	\$12,180,302,792	\$9,297,994,050	\$21,478,296,842	28,577	\$9,992,922,004	2,323	\$3,864,961,174

Source: Livingston County 2021; RSMMeans 2021

Notes: T = Town; V = Village



Figure 4-5. Distribution of Residential Building Stock and Value Density in Livingston County

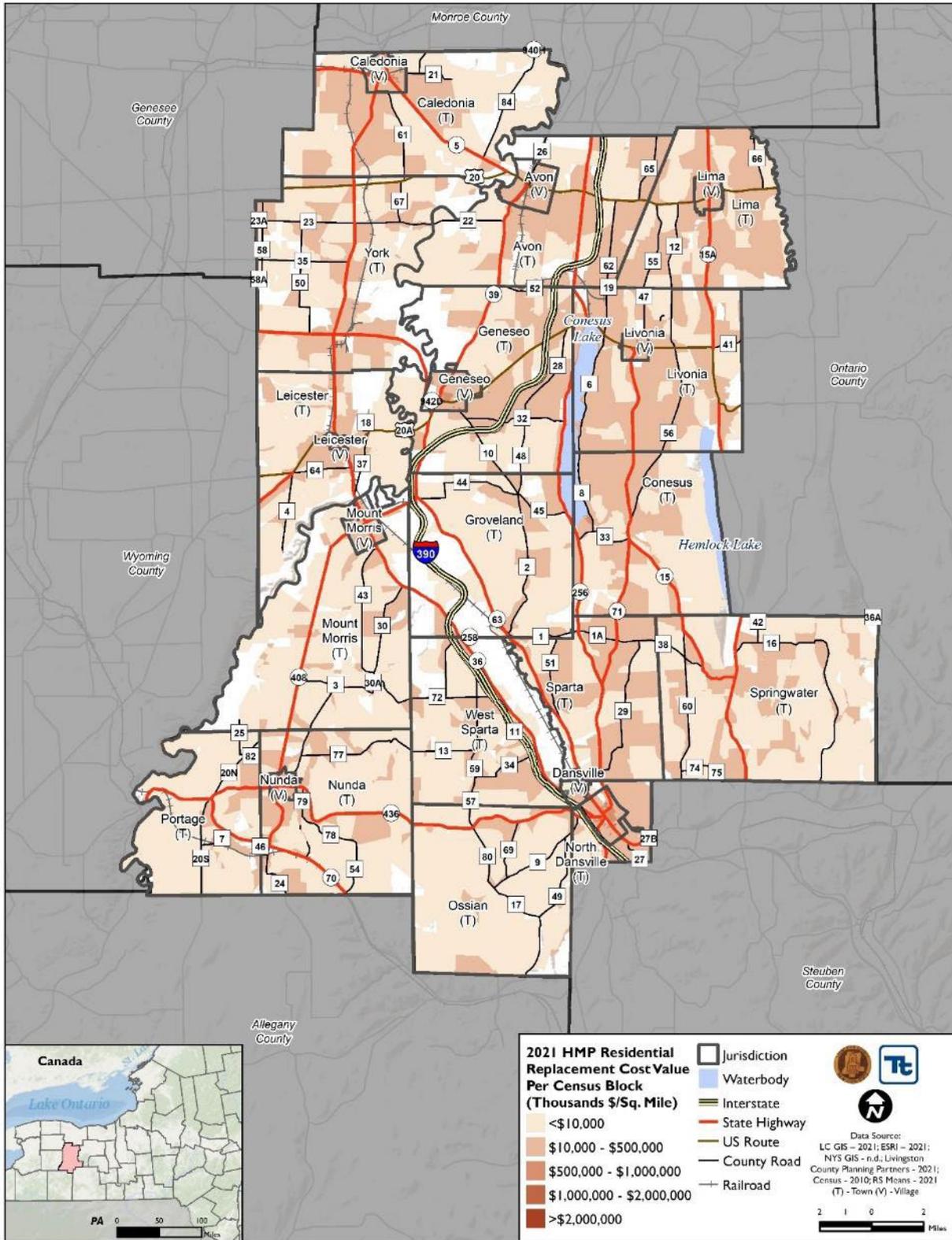




Figure 4-6. Distribution of Commercial Building Stock and Value Density in Livingston County

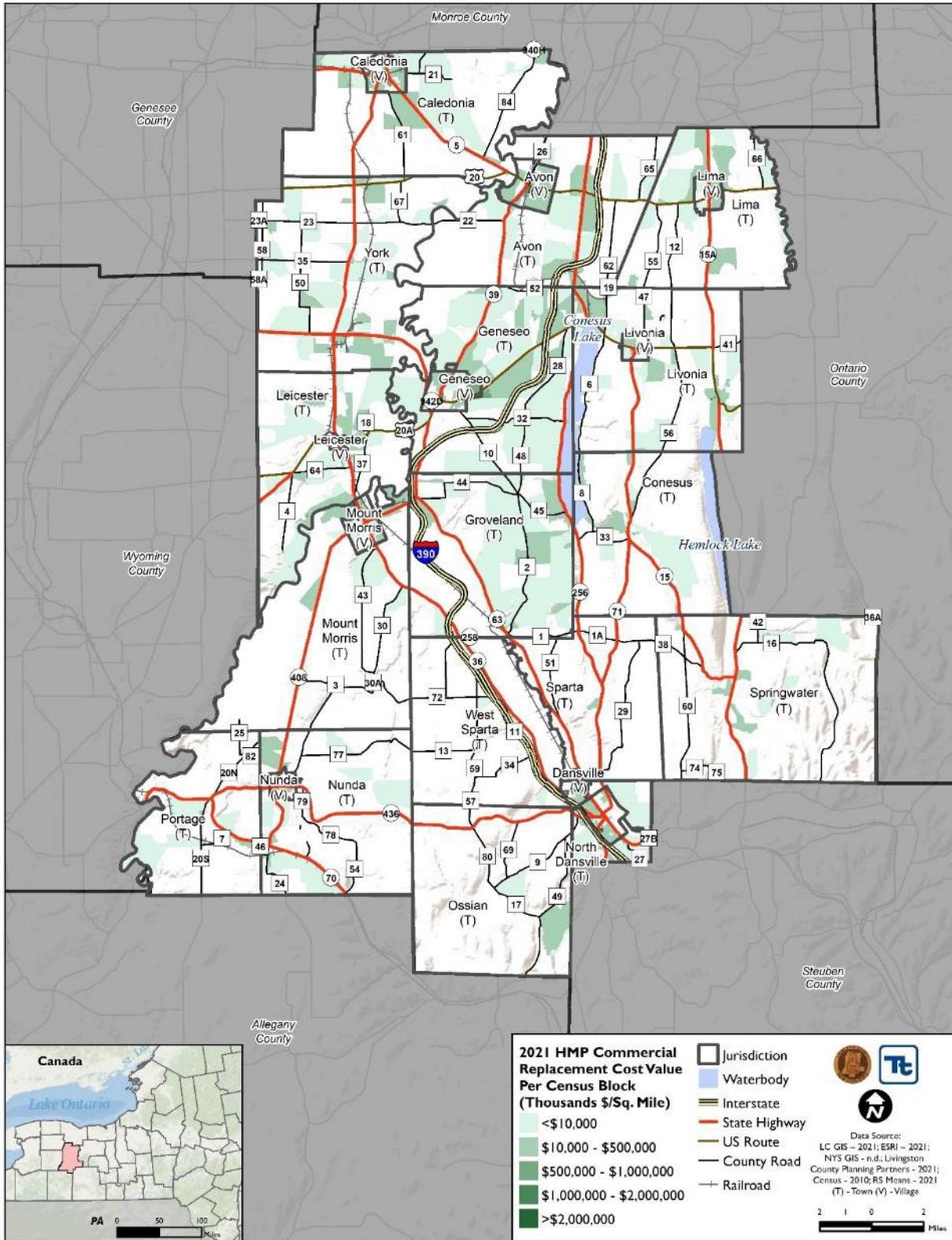
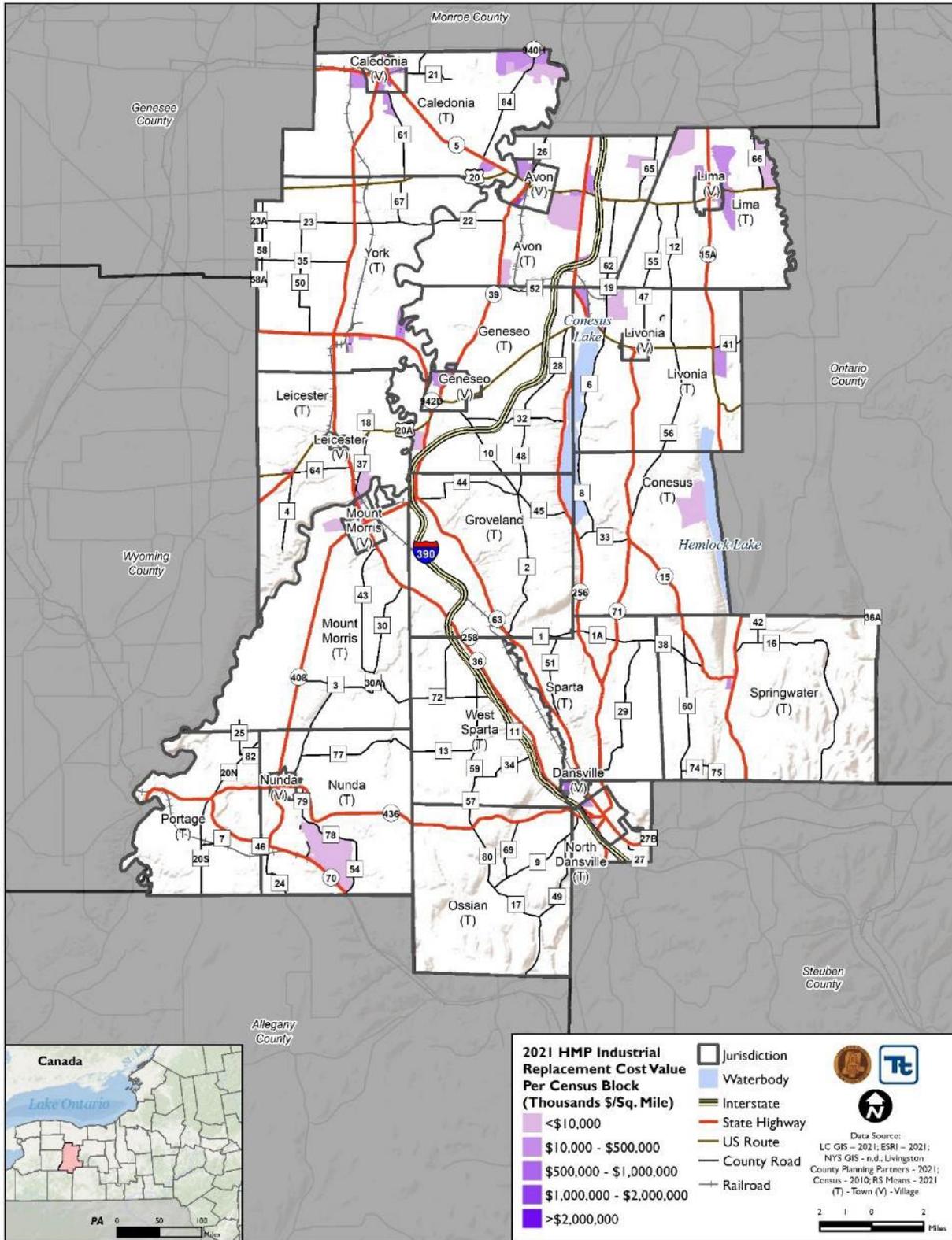




Figure 4-7. Distribution of Industrial Building Stock and Value Density in Livingston County





4.5 LAND USE AND POPULATION TRENDS

Land use regulatory authority is vested in New York State’s towns, villages, and cities. However, many development and preservation issues transcend location political boundaries. DMA 2000 requires that communities consider land use trends, which can impact the need for and prioritization of mitigation options over time. Land use trends significantly impact exposure and vulnerability to various hazards. For example, significant development in a hazard area increases the building stock and population exposed to that hazard.

This plan provides a general overview of population, land use, and types of development occurring within the study area. An understanding of these development trends can assist in planning for further development and ensuring that appropriate mitigation, planning, and preparedness measures are in place to protect human health and community infrastructure.

4.5.1 Land Use Trends

Agriculture

The Livingston County Agricultural Development and Farmland Protection Plan 2006 notes that agriculture has historically been, and will continue to be, one of Livingston County’s most important industries. Agriculture bolsters the county’s economy, helps maintain the county’s rural landscape, attracts visitors, maintains community character, and contributes to the health of the county’s residents.

Since 1971, Article 25AA of the Agriculture and Markets Law (AML) outlining agricultural districts has been the centerpiece of state- and county-level efforts to preserve, protect, and encourage the development and improvement of agricultural land to produce food and other agricultural products. The Livingston County Soil and Water Conservation District along with the Agricultural Farmland Protection Board manages agriculture district reviews, map management, and 30-day enrollment.

Agriculture in Livingston County is undergoing significant structural change as its traditional base transforms from mid-sized family farms, to a bifurcated base of large, consolidated agribusinesses and small, often equestrian-focused farms. Historically, dairy farms and feed production in support of the dairy industry have comprised the backbone of the county’s agricultural industry. Over the years this position has been solidified, with the county playing an integral part in a western New York dairy industry that is growing and consolidating to meet the needs of today’s dairy industry. Grain production, in support of the dairy industry, has kept pace with the growth of concentrated dairy operations to serve their need for mixed feed rations.

The county has a well-developed vegetable and dry bean sectors. The vegetable sector is primarily dedicated to the processing market, specifically for canned and frozen vegetable specialties. The county’s dry bean sector produces nearly half of the State’s bean output.

Livingston County is divided in three agricultural districts that are made up of over 225,000 acres of farmland. Approximately 52 percent of the county is included in the Agricultural Districts Program. The purpose of the Program is to keep farmland in agricultural production by providing agricultural landowners with benefits and protections.

The Districts include:

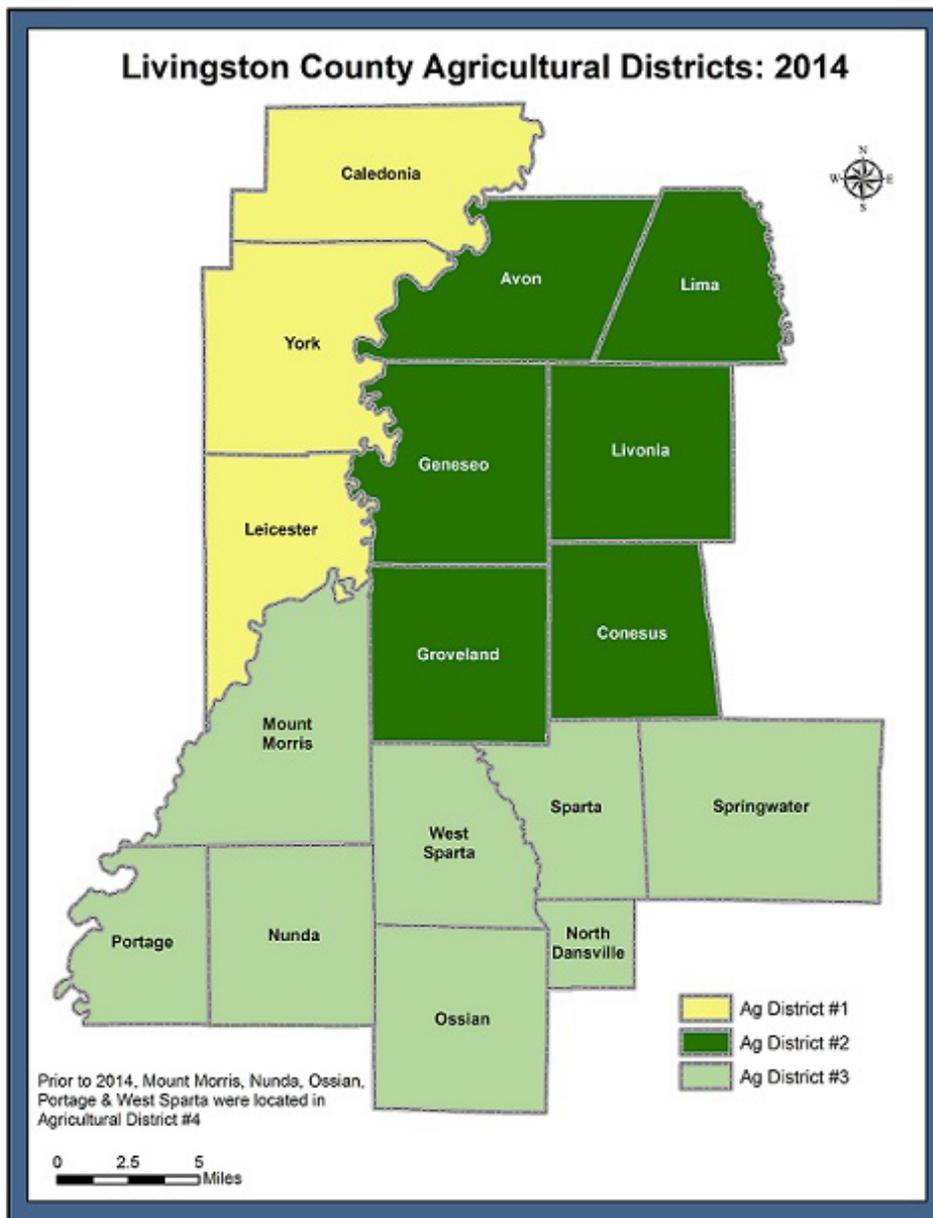
- Agricultural District #1 – includes property in the Towns of Caledonia, Leicester, and York
- Agricultural District #2 – includes property in the Towns of Avon, Conesus, Geneseo, Groveland, Lima, and Livonia



- Agricultural District #3 – includes property in the Towns of Mount Morris, North Dansville, Nunda, Ossian, Portage, Sparta, West Sparta, and Springwater.

Livingston County is divided into three agricultural districts. Figure 4-8 illustrates the districts across the county. The 2017 Census of Agriculture states the number of farms and total acreage in Livingston County has remained the same and decreased by 2.7 percent respectively since 2012. Between 2012 and 2017, the market value of land and buildings per farm increased by 20 percent. The average market value of products sold per farm decreased by 1.7 percent.

Figure 4-8. Livingston County Agricultural Districts



Source: Livingston County 2014



Economy

While Livingston County’s population has decreased since 2010, its labor force has actually increased. The county’s unemployment rate dropped from 5.8 percent in the 2014 Census estimates to 3.4 percent, according to the 2019 American Community Survey. The county is home to 1,231 “employer establishments”, according to the 2019 Survey of Business Owners.

Livingston County is located in a prime location being in the Finger Lakes Region and bordering the Western New York Region. The location provides easy access to transportation corridors, metropolitan areas, and recreational and tourism destinations. Major tourist attractions include Letchworth State Park and (www.GoLivingstonCountyNY.com, n.d.).

The U.S. Census Bureau’s County Business Patterns data identified 2019 patterns for Livingston County. The Census estimates that there are 1,231 business establishments employing approximately 13,657 people in Livingston County. The retail trade industry has the highest number of establishments in the county, with 204. This is followed by other services (except public administration) with 157 establishments and construction with 145 establishments (U.S. Census 2021). The wide variety of products manufactured in the county includes automotive and electronics, wind energy, welding equipment, plastic and rubber products, and food and beverage.

Retail trade, healthcare and social assistance, manufacturing, and construction, employ the most people in the county. The county has also maintained its agribusiness, farming, and forestry base. Livingston County was ranked number one of the top ten counties for farming in New York State by sales in 2017 with \$307.5 million in total sales and 729 number of farms. Counties in the Finger Lakes Region rank in the top ten statewide for commodity sales. Livingston County is the top producer of milk in the state with over \$201 million in sales as well as sales of cattle and maple syrup. (Office of The New York State Comptroller 2019).

4.5.2 Population Trends

This section discusses population trend information used to estimate future shifts that could significantly change the character of the area. Population trends can provide a basis for making decisions on the type of mitigation approaches to be considered and the locations in which these approaches should be applied. This information can also be used to support planning decisions regarding future development in vulnerable areas.

Livingston County’s population has increased every decade since 1960 to 2000. However, according to the 2010 Census and the 2019 Census estimates, Livingston County experienced a 2.7 percent decrease in population, from 65,393 in 2010 to 63,591 in 2019. This decrease runs counter to the overall steady population growth forecasted in 2013 (Genesee/Finger Lakes Regional Planning Council 2013). Population trends will need to be monitored over time to determine updated forecasts. Population growth projections are summarized in Table 4-6.

Table 4-6. Population Growth Projections

Jurisdiction	Historical						5-year Estimates 2019	Projected		
	1960	1970	1980	1990	2000	2010		2030	2040	2050
Avon (T)	1,632	2,857	3,179	3,288	3,466	3,770	3,637	3,755	3,824	3,885
Avon (V)	2,772	3,260	3,006	2,995	2,977	3,394	3,260	3,294	3,370	3,438
Caledonia (T)	1,150	1,505	1,846	2,179	2,240	2,054	2,060	2,035	1,986	1,942
Caledonia (V)	1,917	2,327	2,188	2,262	2,327	2,201	2,078	2,395	2,410	2,425
Conesus (T)	1,221	1,533	1,970	2,196	2,353	2,473	2,325	2,564	2,615	2,660
Genesee (T)	1,053	1,564	1,927	1,991	2,075	2,452	2,540	2,271	2,318	2,360
Genesee (V)	3,284	5,714	6,746	7,187	7,579	8,031	8,095	8,382	8,574	8,744



Jurisdiction	Historical						5-year	Projected		
	1960	1970	1980	1990	2000	2010	Estimates 2019	2030	2040	2050
Groveland (T)	3,373	3,004	2,140	3,190	3,853	3,249	3,241	3,252	3,107	2,978
Leicester (T)	1,027	1,431	1,426	1,818	1,818	1,732	1,798	1,963	1,998	2,028
Leicester (V)	365	368	462	405	469	468	518	487	491	495
Lima (T)	1,350	1,759	1,834	2,022	2,082	2,166	1,833	2,215	2,247	2,276
Lima (V)	1,366	1,686	2,205	2,165	2,459	2,139	2,278	2,263	2,216	2,175
Livonia (T)	2,580	4,026	4,504	5,370	5,913	6,400	6,231	6,496	6,635	6,759
Livonia (V)	946	1,278	1,238	1,434	1,373	1,409	1,353	1,456	1,477	1,494
Mount Morris (T)	1,317	1,162	1,439	1,531	1,301	1,479	1,340	1,332	1,339	1,346
Mount Morris (V)	3,250	3,417	3,039	3,102	3,266	2,986	2,931	3,244	3,238	3,233
North Dansville (T)	635	922	1,015	781	906	819	696	950	961	970
Dansville (V)	5,460	5,436	4,979	5,002	4,832	4,719	4,586	4,723	4,697	4,673
Nunda (T)	1,085	1,320	1,523	1,584	1,687	1,687	1,716	1,797	1,823	1,847
Nunda (V)	1,224	1,254	1,169	1,347	1,330	1,377	1,211	1,349	1,354	1,358
Ossian (T)	489	551	667	797	751	789	701	808	823	835
Portage (T)	733	731	771	893	859	884	837	887	895	901
Sparta (T)	1,019	1,157	1,458	1,578	1,627	1,624	1,591	1,747	1,775	1,801
Springwater (T)	1,293	1,678	2,143	2,407	2,322	2,439	2,233	2,538	2,590	2,636
West Sparta (T)	817	935	1,100	1,335	1,244	1,255	1,229	1,337	1,360	1,379
York (T)	2,695	3,166	3,212	3,513	3,219	3,397	3,273	3,347	3,378	3,405
Livingston County (Total)	44,053	54,041	57,006	62,372	64,328	65,393	63,591	66,887	67,501	68,043

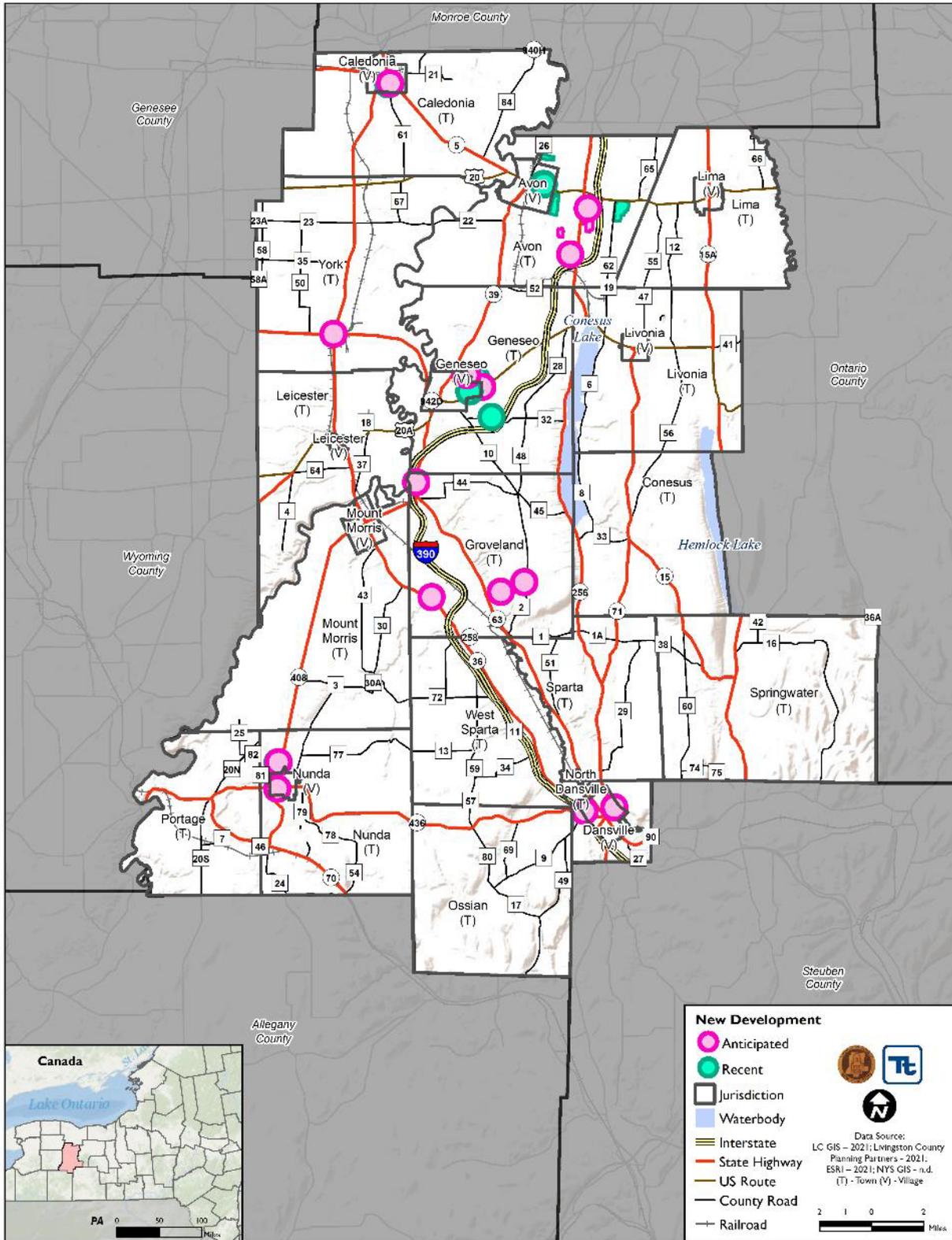
Source: Genesee/Finger Lakes Regional Planning Council 2013; Census 2020

4.5.3 Future Growth and Development

A summary of development planned within Livingston County is illustrated in Figure 4-9. Details regarding development specific to each participating municipality is provided in Section 9, Jurisdictional Annexes. Locations of development are indicated on the Hazard Area Extent and Location Maps included in Section 9, Jurisdictional Annexes.



Figure 4-9. Planned Development in Livingston County, New York





4.5.4 Evacuation Routes, Sheltering, Temporary and Long-Term Housing

Evacuation Routes

The primary roads and highways shown in Figure 4-1 are the evacuation routes for Livingston County. The route used depends on the location of the incident. The county assists with the coordination and communication of evacuation routing as necessitated by the execution of local municipal emergency operation plans. The jurisdictional annexes in Section 9 identify the local evacuation routes identified by each community.

Shelters

Due to the variable nature of hazard events and associated sheltering needs within the county, Livingston County relies on real-time outreach methods to inform the public of pending and active evacuations and available sheltering resources. Outreach methods include variable message sign boards, media (radio, television, newspapers), and social media.

With support and cooperation of the American Red Cross and local jurisdictions, the county maintains an inventory of suitable shelter locations and can assist with the coordination and communication of shelter availability, as necessitated by the execution of local municipal emergency operation plans. Shelters are listed in Table 4-7.

Table 4-7. Shelters in Livingston County

Site Name	Address	Jurisdiction	Capacity	Accommodate Pets?	ADA Compliant?	Backup Power?	Types of Medical Services Provided	Other Services Provided	Identified by:
Avon Central School	161-245 Clinton St.	Avon (V)	350	-	-	Yes	-	-	County
Avon Village Hall	74 Genesee St.	Avon (V)	50	-	-	Yes	-	-	County
Caledonia Mumford Central School	99 Main St.	Caledonia (V)	162	-	-	Yes	-	-	County
Dansville Central School	280-284 Main St.	Dansville (V)	250	-	-	No	-	-	County
Genesee Country Christian School	4120 Long Point Rd.	Geneseo (T)	50	-	-	No	-	-	County
Geneseo Central School	4050 Avon Rd.	Geneseo (V)	350	-	-	Yes	-	-	County
Keshequa Central School	15 Mill St.	Nunda (V)	100	-	-	Yes	-	-	County
Lakeville Fire Department	5822 Stone Hill Rd.	Livonia (T)	200	-	-	No	-	-	County
Leicester, Village of, building	52 South Parkway	Leicester (V)	50	-	-	No	-	-	County
Honeoye Falls-Lima Elementary School	7342 College St.	Lima (V)	385	-	-	No	-	-	County
Livonia Central School	2 Bulldog Blvd.	Livonia (T)	300	-	-	No	-	-	County
Mount Morris Central School	30 Bonadonna Ave.	Mount Morris (V)	250	-	-	Yes	-	-	County
York Central School	2578 Genesee St.	York (T)	400	-	-	No	-	-	County



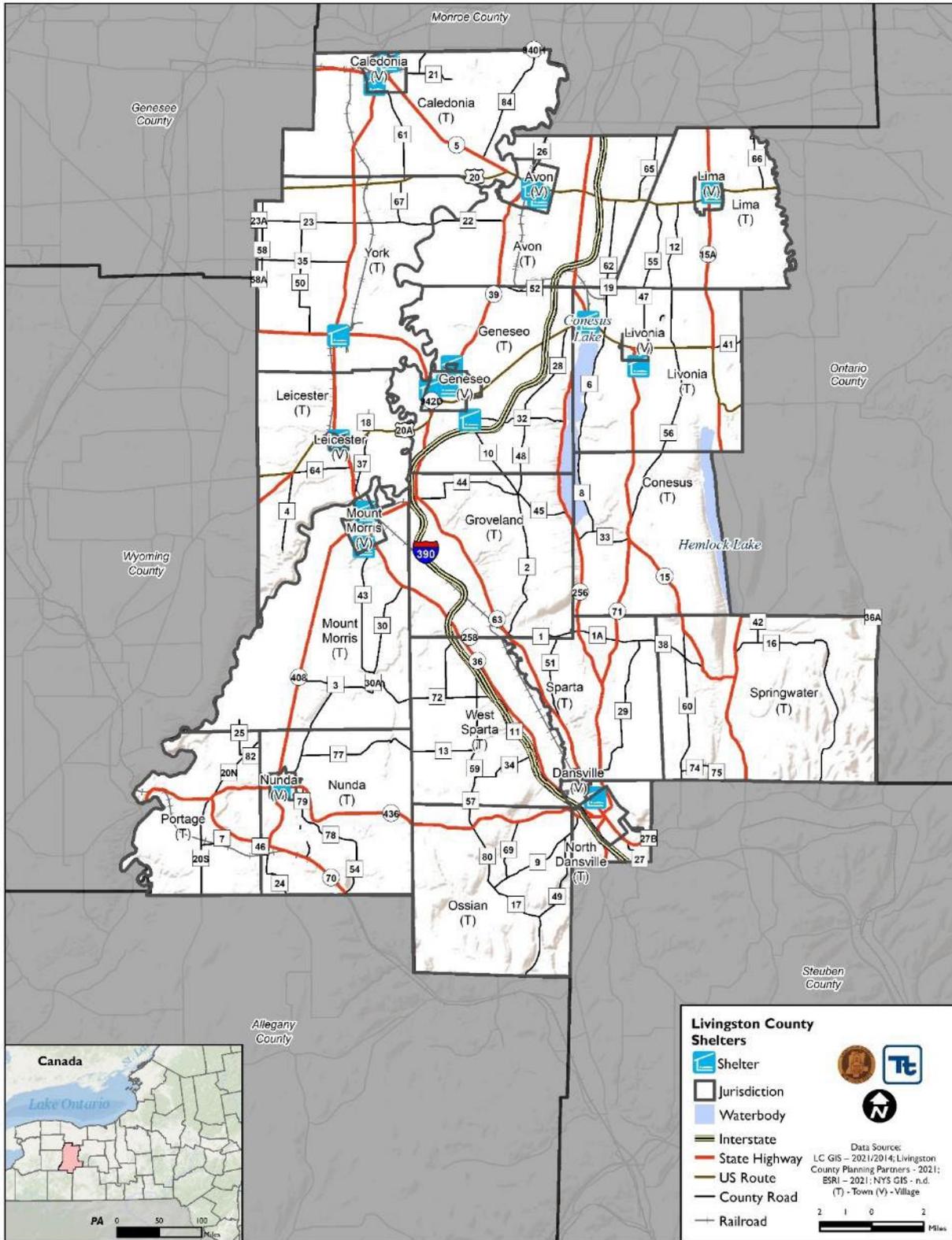
Site Name	Address	Jurisdiction	Capacity	Accommodate Pets?	ADA Compliant?	Backup Power?	Types of Medical Services Provided	Other Services Provided	Identified by:
Genesee Valley Educational Partnership - BOCES	27 Lackawanna Ave.	Mount Morris (V)	100	-	-	No	-	-	County
NYS Armory	34&40 Avon Rd.	Geneseo (V)	300	-	-	yes	-	-	County
JW Jones Hall Caledonia Fire Department	354 Leicester St.	Caledonia (V)	-	-	-	No	-	-	County
State University of New York at Geneseo	Route 63	Geneseo (V)	-	-	-	No	-	-	County

Note: - Unavailable

Figure 4-10 displays the shelters throughout the county. Each municipality’s capability assessment in Section 9, Jurisdictional Annexes, includes further information on evacuation, sheltering, temporary, and long-term housing provisions within Livingston County.



Figure 4-10. Shelters in Livingston County





Temporary Housing

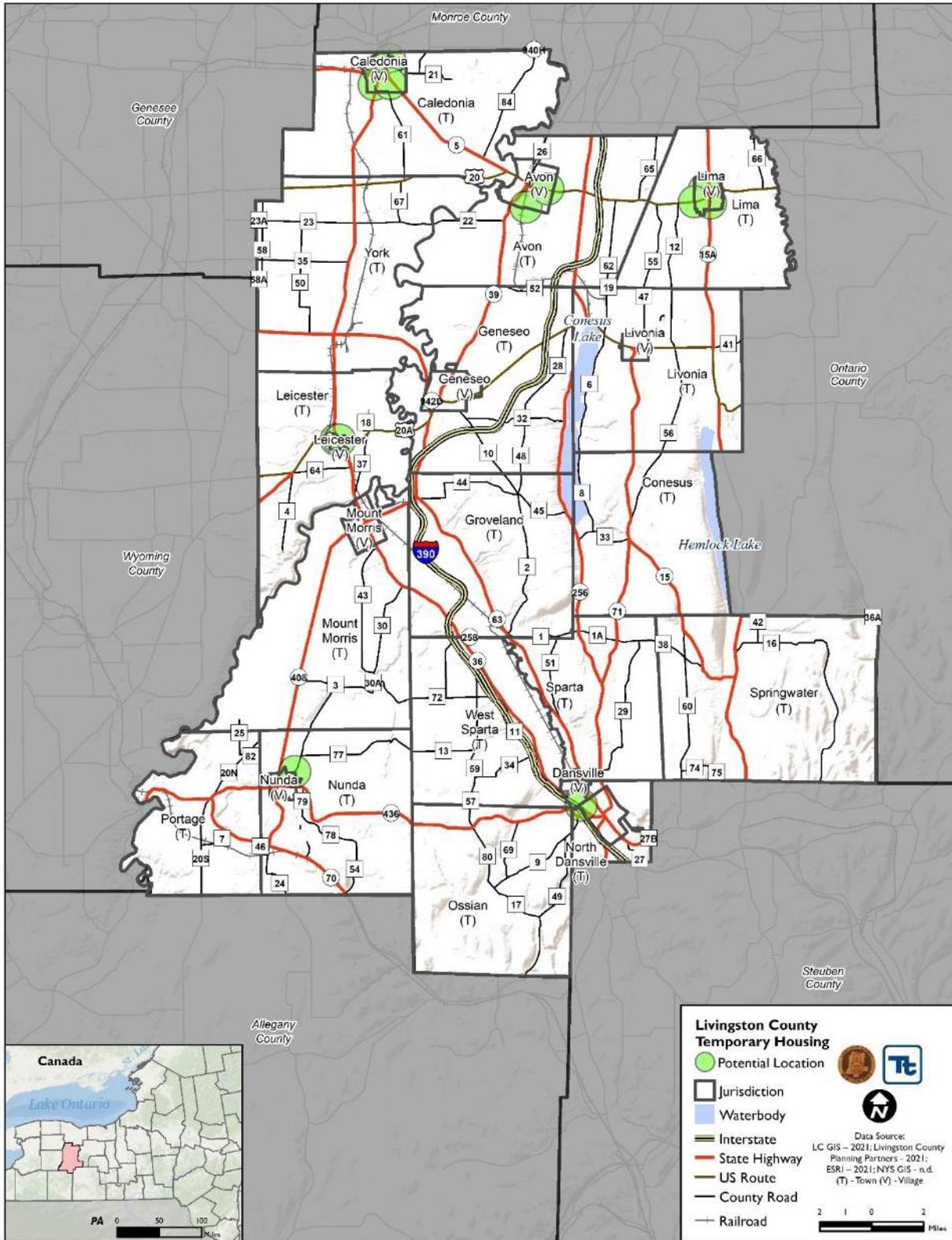
In order to identify potential sites for temporary housing and relocation, each municipality provided possible locations suitable for the placement of temporary housing for residents displaced by disaster, including sites to accommodate relocation of houses out of the floodplain or for the construction of new replacement developments. In addition, farming fields, parks, and rural locations could be used for space for temporary housing though proper utility access would need to be addressed. Campgrounds may be able to be utilized for temporary housing as well and are more likely to have access to utilities than other open space locations. Capacity of campgrounds would be dependent on time of year and available vacancies in campsites. These locations are indicated in Table 4-8 and illustrated on the map in Figure 4-11.

Table 4-8. Potential Temporary Housing Locations in Livingston County

Site Name	Address	Jurisdiction	Infrastructure / Utilities Available	Capacity	Type
Village Parking	746 Genesee St	Village of Avon	Water, electric	5	Parking lot
Tops Parking	600 Dream Valley	Village of Avon	None	3	Parking lot
Jones Hall	366 Leicester Rd	Village of Caledonia	Yes	Unsure	Building
Caledonia Mumford School	99 North Street	Village of Caledonia	Yes	Unsure	Building
One Technology	1 Technology Place	Village of Caledonia	Yes	Unsure	Parking Lot
Village Park	25 South Parkway	Village of Leicester	Water, electric	25	Park
Scorsone Property	Route 36/Market St	Village of Leicester	Water, electric (but no hookup)	50	Vacant land
Elim Bible Institute	7245 College St	Town of Lima	Parking lots, thousands of square feet of auditorium space, water, electric, septic	100	
St. Rose Church	1985 Lake Ave	Town of Lima	Parking lots and back lawn areas	10	
Lima Farms	7042 West Main St	Town of Lima	Water, sewer, electric	18	Manufactured or mobile homes
Dansville Airport	176 Franklin St	Town of North Dansville	Yes	57 acres	Airport
Creek Rd Mobile Park	Creek Road	Town of Nunda	Water, septic	20-25	Mobile homes



Figure 4-11. Potential Temporary Housing Locations in Livingston County





Long-Term Housing

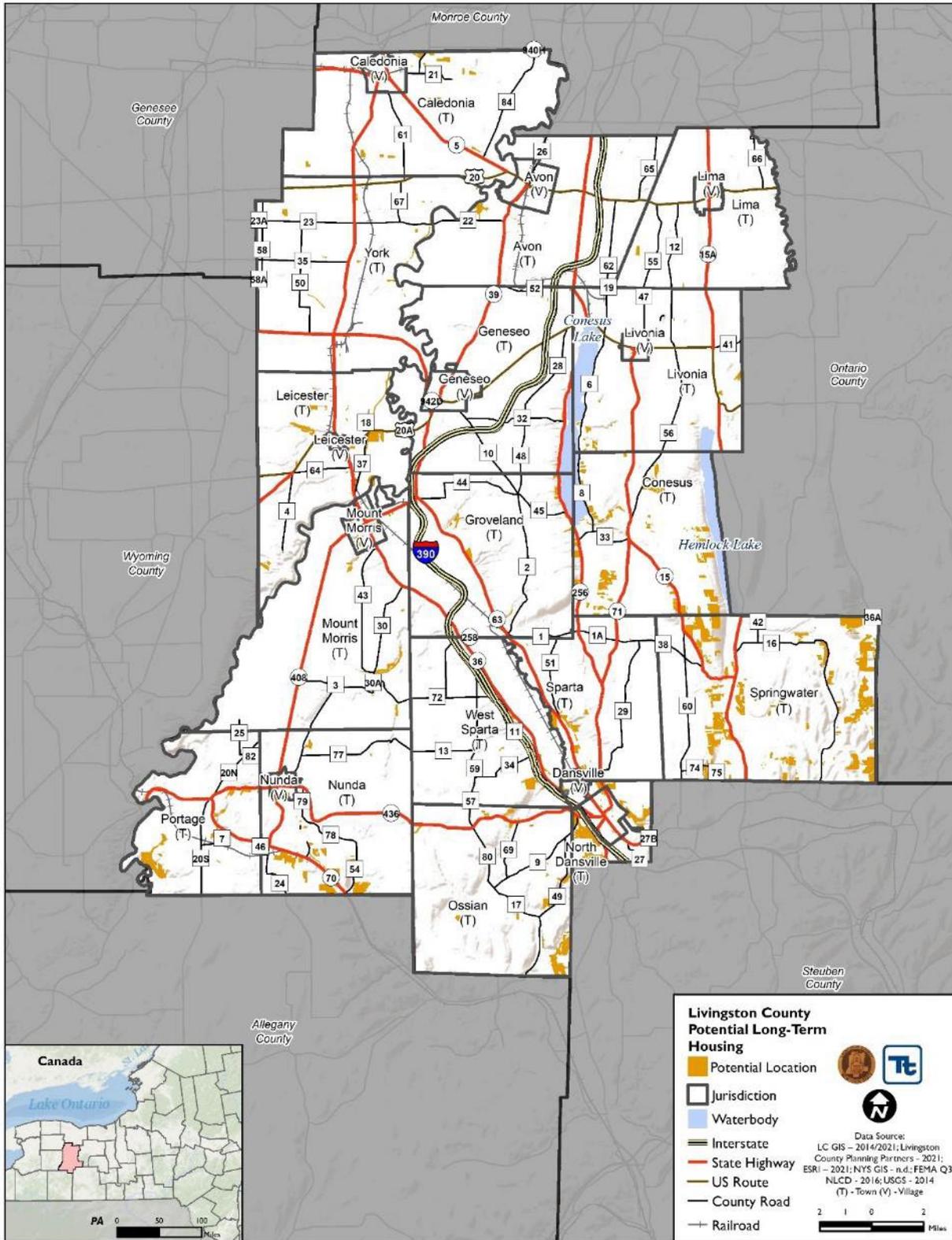
A buildable block analysis was conducted to support identification of potential sites suitable for relocating houses out of hazard areas (i.e., the floodplain) or building new homes in the event structures are destroyed by a natural hazard event. The analysis identified potential areas for post-disaster development in accordance with the 2017 NYS DHSES Hazard Mitigation Planning Standards Guide requirement “to identify long-term housing options for relocating displaced residents to maintain post-disaster social and economic stability.” The analysis provides an indication of vacant land suitable for development. In this case, vacant land is defined as a block that is classified as vacant and is located outside the following hazard areas:

1. FEMA floodplain (1- and 0.2-percent annual chance flood)
2. Wetlands (National Wetlands Inventory; National Land Cover Database)
3. Land that has steep slopes (>15-percent gradient) without consideration of ownership or availability

Figure 4-12 provides potential long-term housing locations in Livingston County. Developable land displayed on the figure represents the portion of each identified vacant block with greater than 50 percent of their land area outside the three above hazard areas.



Figure 4-12. Potential Long-Term Housing Locations in Livingston County, New York





4.6 CRITICAL FACILITIES

Critical facilities and infrastructure are those that are essential to the health and welfare of the population. These become especially important after any hazard event. Critical facilities are typically defined to include police and fire stations, schools, and emergency operations centers. Critical infrastructure can include the roads and bridges that provide ingress and egress and allow emergency vehicles access to those in need and the utilities that provide water, electricity, and communication services to the community.

A comprehensive inventory of critical facilities in Livingston County was developed from various sources, including input from the Planning Committees. The inventory of critical facilities presented in this section represents the current status of this effort at the time of the HMP publication, and the inventory was used for the risk assessment provided in Section 5, Risk Assessment. When the analysis determined a jurisdiction contained critical facilities within the 1-percent and 0.2-percent annual chance floodplain, or they were at risk from flood damage, mitigation actions were developed to reduce the risk to these facilities. Each relevant jurisdictional annex contains information on critical facility loss estimates, and where appropriate, includes mitigation actions for critical facilities in the floodplain or other hazard areas. A detailed lists of the critical facilities in Appendix E, Critical Facilities.

Critical facilities are those facilities considered critical to the health and welfare of the population and that are especially important following a hazard. As defined for this HMP, critical facilities include essential facilities, transportation systems, lifeline utility systems, high-potential loss facilities, and hazardous material facilities.

Essential facilities are a subset of critical facilities that include those facilities that are important to ensure a full recovery following the occurrence of a hazard event.

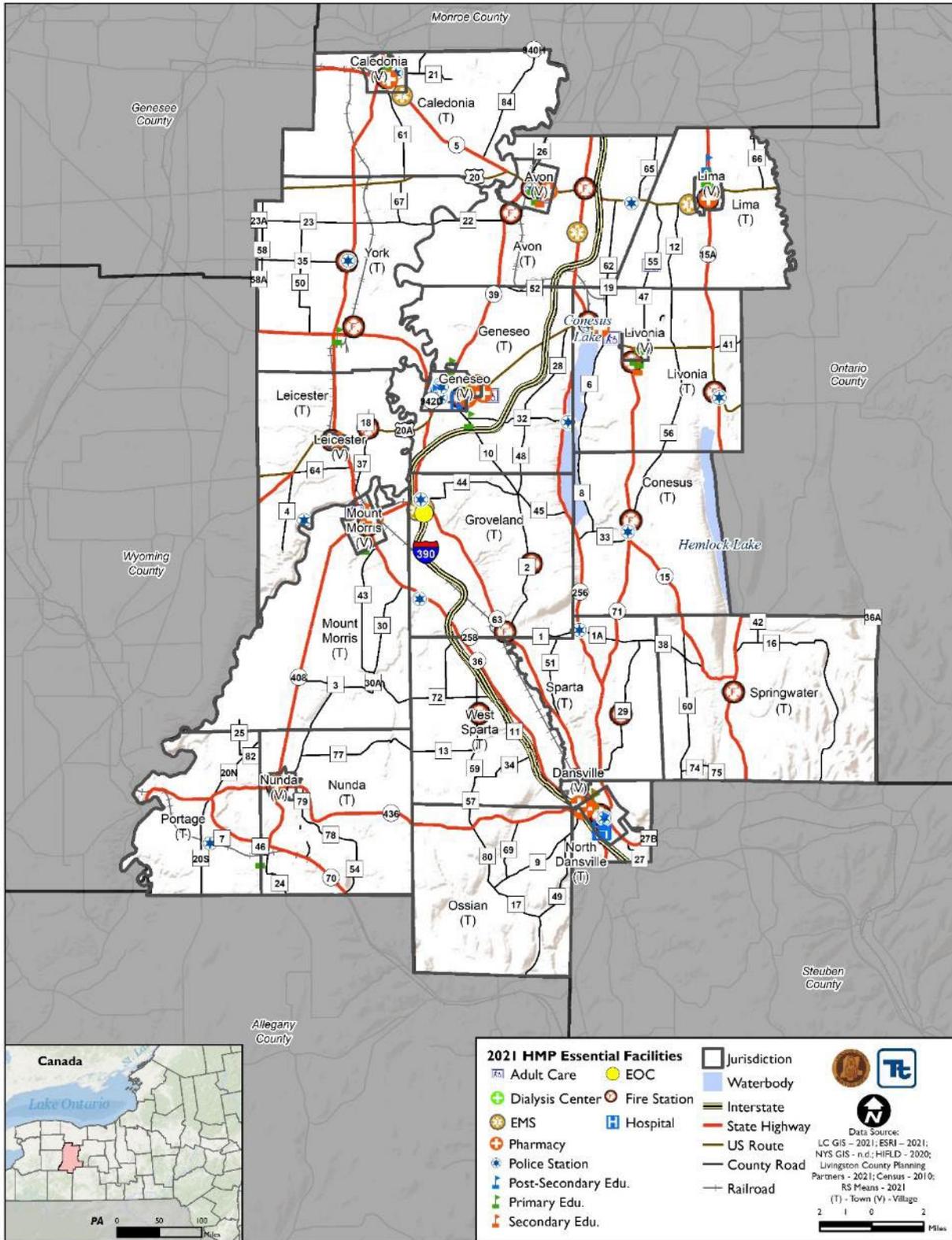
For the county risk assessment, this category was defined to include police, fire, EMS, schools/colleges, shelters, senior facilities, and medical facilities.

4.6.1 Essential Facilities

This section provides information on emergency facilities, hospitals, and medical facilities, schools, shelters, and senior care and living facilities. For the purposes of this plan, emergency facilities include police, fire, emergency medical services (EMS), and emergency operations centers (EOC). Figure 4-13 displays the location of the essential facilities in Livingston County.



Figure 4-13. Essential Facilities in Livingston County





Emergency Facilities

The Livingston County Office of Emergency Management (OEM) is responsible for coordinating the county's emergency services and emergency planning. The OEM coordinates with county and local emergency responders so that the county is prepared to respond to and recover from all natural and man-made emergencies. The OEM reduces loss of life and property through an all-hazards emergency management program of mitigation, preparedness, response, and recovery throughout Livingston County. OEM serves as the focal point for the coordination and liaison between local, state, and federal governments in response to and recovery from major emergencies and disasters.

The OEM provides for volunteer fire and EMS training and serves in an administrative and management capacity for all county emergency services. The OEM maintains all emergency plans and actively manages a number of federal preparedness grants.

There are 22 fire stations and 12 emergency medical service providers in Livingston County.

Police enforcement and public safety are maintained by the New York State Police (NYSP), Livingston County Sheriff's Department, and local town and village police departments. The Livingston County Sheriff's Office is located in Geneseo and is responsible for operations at the Livingston County Jail as well as operating the 911 Emergency Communications Center. The center can dispatch the Sheriff's Office, Avon, Caledonia, Geneseo, Mt. Morris, Nunda, and Dansville Police Departments, the New York State Police, New York State Park Police, and the State University Police at SUNY-Geneseo. There is a New York State Police facility on Groveland Station Road in the Town of Groveland.

Law enforcement is also provided by a regional ranger and forest ranger with the New York State Department of Environmental Conservation (NYSDEC), Division of Lands and Forest.

Livingston County residents can receive medical care at the Noyes Health facilities in Dansville and Geneseo. Other EMS locations are in the Towns of Avon, Caledonia, Groveland, Leicester, Lima, Livonia, and York, and the Villages of Dansville, Geneseo, Mount Morris, and Nunda. Emergency medical services are coordinated by the Livingston County Department of Emergency Medical Services, which integrates nine transporting ambulance services, seven fire department first response agencies, four advanced life support services, three air medical agencies, and the SUNY Geneseo First Response Agency.

Schools

Livingston County is home to 24 primary and secondary education facilities and has four post-secondary education institutions. In times of need, schools can function as shelters and are an important resource for the community. For information regarding shelters, see the Shelters subsection above.

Senior Care and Living Facilities

Livingston County has five senior care facilities. The 2015-2019 American Community Survey 5-Year Estimates identified 10,929 people over the age of 65 living within Livingston County. The Livingston County Office of the Aging develops and administers county services directed toward older residents, including direct services such as respite for caregivers, meals on wheels, and case management; coordinating with the State Department of Health and the State Office for the Aging; administering state, federal, and local funds within programs targeted toward older residents; connecting residents with healthcare providers; guiding residents through the process of applying for and managing Medicaid, Medicare, and long-term health insurance; and designing and administering educational programs for older adults and their caregivers.



4.6.2 Transportation Systems

Livingston County is located 10 minutes south of the New York State Thruway I-90 on I-390, western New York State's only north-south expressway. According to the New York State Department of Transportation (NYS DOT) Highway Data Services Highway Mileage Report (2017), the county has 1,363.7 miles of roadway. Of the total roadway miles in Livingston County, 268.7 miles are State-owned roadways, 242.5 miles are county roadways, and 1,074.5 miles are local roadways (NYS DOT 2017).

Livingston County's road and bridge infrastructure consists of 243 miles of highway and 72 bridges. The county Highway Department is responsible for maintaining and repairing the county's road and bridge infrastructure.

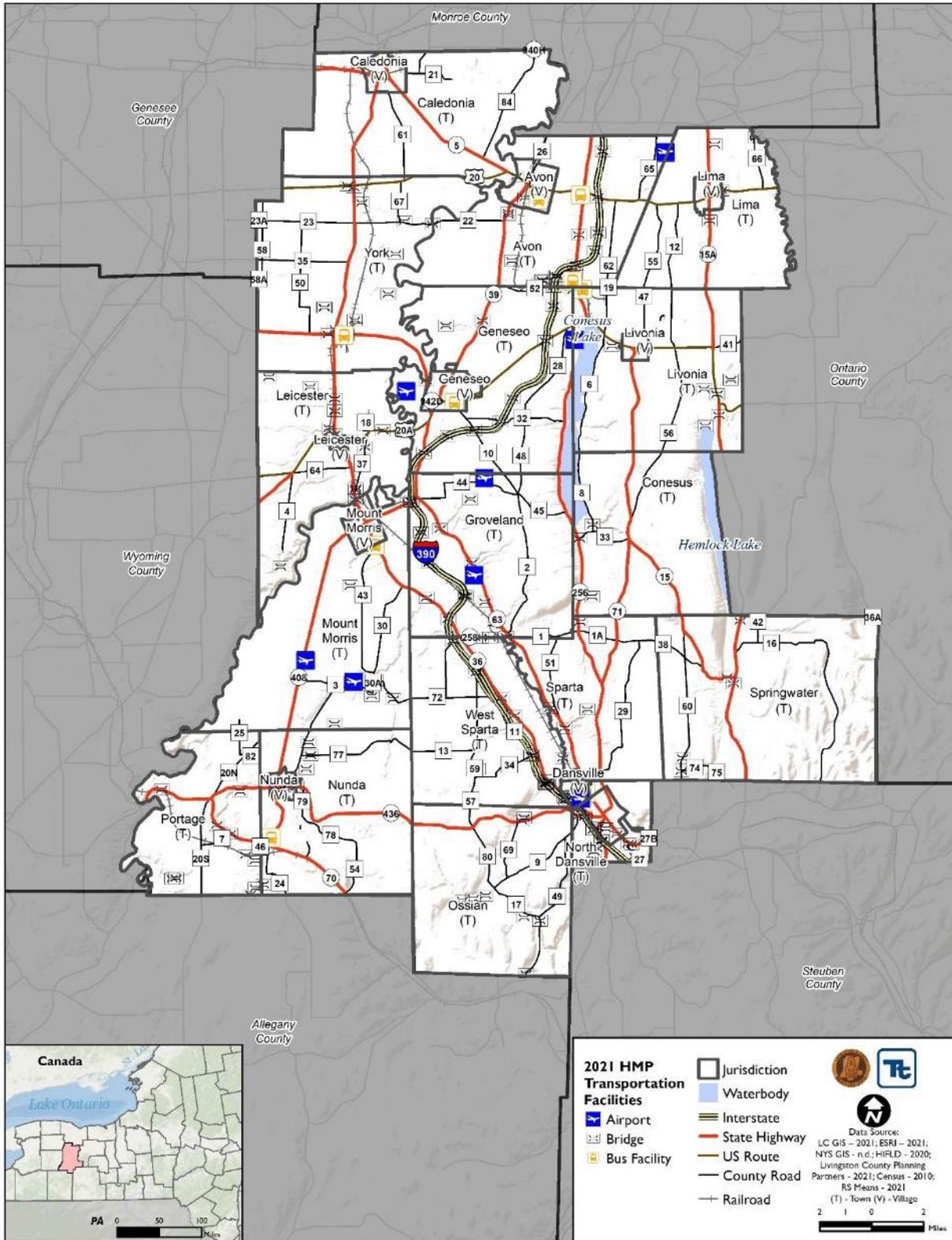
I-390 (the Genesee Expressway) is a limited access highway that connects with I-90, the New York State Thruway in Monroe County to the north, and with I-86/NYS Route 17 (the Southern Tier Expressway) to the south. I-390 serves commuters and is a major component of the regional freight movement network. Approximately 72 miles of I-390 is in Livingston County (Livingston County Planning Department 2013).

Interchanges are located at U.S. Route 20/NYS Route 5 (Exit 10) and NYS Route 15 (Exit 9) in the Town of Avon, NYS Route 20A (Exit 8) in the Town of Geneseo, NYS Route 63/NYS Route 408 (Exit 7) in the Town of Mount Morris, and NYS Route 36 in the Towns of Groveland (Exit 6) and North Dansville (Exits 4 and 5) (Livingston County Planning Department 2013).

The streets and highways of Livingston County are maintained by the various levels of municipal government, including the New York State Department of Transportation and Livingston County Highway Department, Forestry, and Parks. Tertiary roads and streets are maintained by the individual towns or villages. NYSDEC is responsible for roads within state forest lands. Major transportation routes and railways are illustrated on Figure 4-14.



Figure 4-14. Major Transportation Routes and Railways in Livingston County





Bus and Other Transit Facilities

The Livingston Area Transportation Service (LATS) is a subsidiary of the Rochester-Genesee Regional Transit Authority (RGRTA). LATS provides public transit service within Livingston County and has installed shelters at key locations in villages and at public service offices throughout the county. LATS operates nine fixed routes throughout the county including a medical shuttle into Rochester. Some of the routes are customized for SUNY Geneseo, the Arc of Livingston/Wyoming Counties, Livingston County Office for the Aging, and other organizations (Livingston County Planning Department 2013).

Dial-A-Ride service is available in Avon, Dansville, and Mount Morris Monday through Friday, and between all other communities in the county on specific days of the week. Dial-A-Ride service requires calling 24 hours in advance to reserve a pickup. Fare is \$2.00 on the fixed routes. The Dial-A-Ride fare within a community is \$1.00, and between communities is \$2.00. LATS also operates complementary American with Disabilities Act (ADA)-compliant paratransit service during the hours that LATS fixed routes are in operation (Livingston County Planning Department 2013).

Railroad Facilities

The two active short line railroads in Livingston County are (1) Genesee and Wyoming Inc. (G&W) and (2) Livonia, Avon & Lakeville Railroad Corporation (LAL). Both provide direct interconnections with four Class I railroads: Norfolk Southern (NS), CSX Transportation (CSX), Canadian National (CN), and Canadian Pacific (CP) mainline railroad (Livingston County Planning Department 2014). Approximately 10.6 miles of the Norfolk Southern is located in the Towns of Portage and Nunda in Livingston County. Three short-line railroads operate in Livingston County. They connect to main line tracks through interchanges with CSX located in Rochester and with Norfolk Southern at Silver Spring (Livingston County Planning Department 2013).

LAL operates on 11.5 miles of single track that pass through the Towns of Livonia and Avon. This short line interchanges with CSX Transportation at Genesee Junction, with the Rochester and Southern Railroad (RSR) at Brooks Avenue Yard in Rochester, and with NS and CP along the Southern Tier Line at Silver Springs via trackage rights over RSR. Sidings in the Hamlet of Lakeville and the Village of Avon support the transport of commodities including dry bulk fertilizer, sweeteners, grain, and lumber. LAL operates the Lakeville Yard bulk transfer facility. LAL handles 440,000 tons of freight in 2,744 carloads annually (Livingston County Planning Department 2013).

G&W operates on 34.2 miles of single track in the Towns of Caledonia, York, Leicester, Mount Morris, Groveland, West Sparta, Sparta, and North Dansville. RSR, which was acquired by G&W, Inc. in 1986, operates on 3.3 miles of single track in the Town of Caledonia. Commodities transported on the G&W and RSR include aggregates, brick and cement, chemicals, coal, food and feed products, forest products, and steel and scrap metals. G&W and RSR carry 2.8 million tons of freight in more than 18,700 carloads annually (Livingston County Planning Department 2013).

Airports

Airports in Livingston County fall into two categories: public airports and private airports. Public airports include large commercial airports for major airplane carriers that are open to the public. Private airports are often used for small charter flights and private jets and airplanes. Military airports and restricted land zones are also identified as private airports. In Livingston County, there are two public airports and six private airports, listed in Table 4-9.



Table 4-9. Airports in Livingston County

Airport Name	Municipality	Facility Usage
Dansville Municipal Airport	Town of North Dansville	Public
Geneseo Airport	Town of Geneseo	Public
Seven Gullies Airport	Town of Groveland	Private
Bedsons Land Base Airport	Town of Lima	Private
Lakeville Airport	Town of Lakeville	Private
Scotts Sky Ranch Airport	Town of Mount Morris	Private

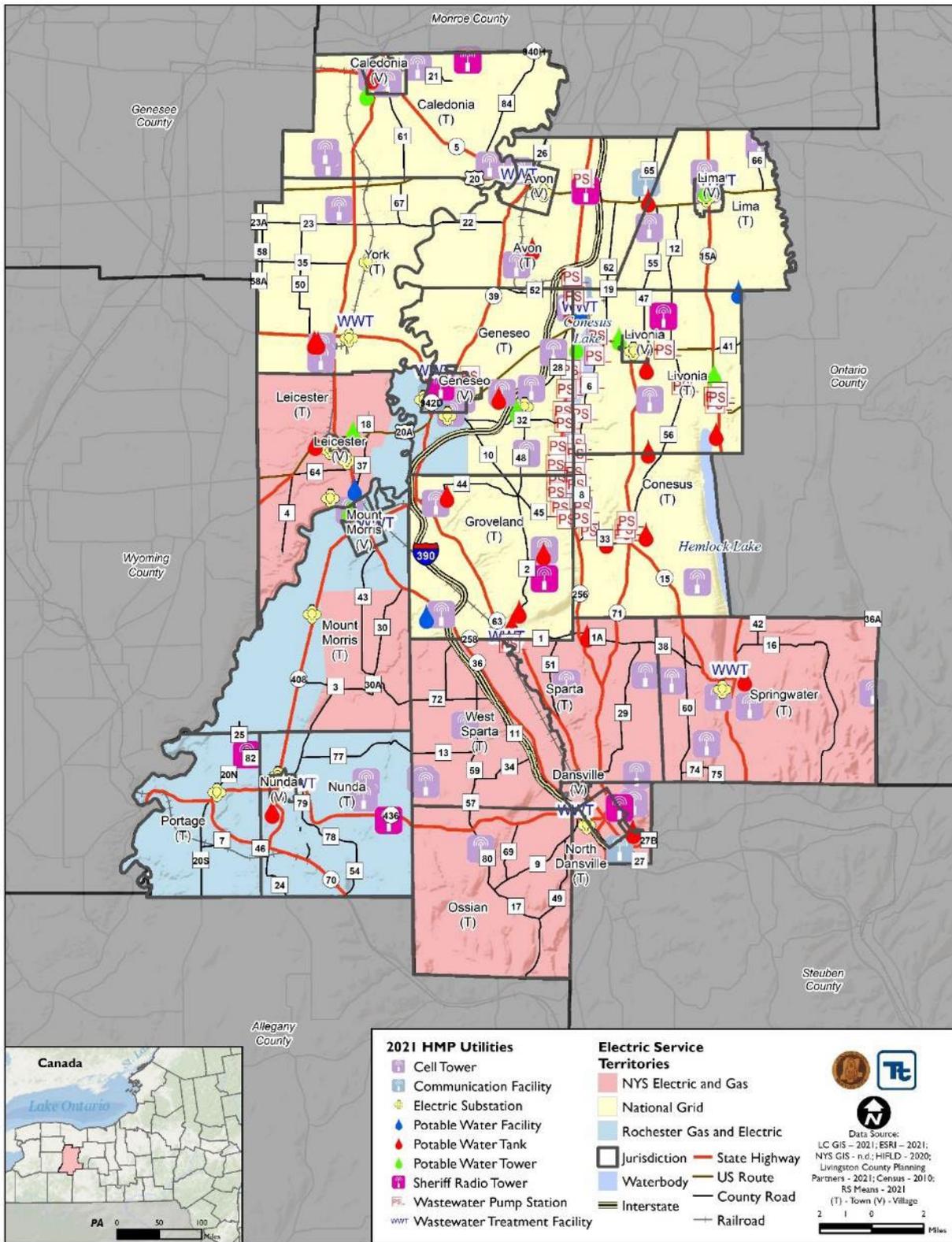
Regional airports within the vicinity of Livingston County include the Greater Rochester International Airport, Buffalo Niagara International Airport, Elmira Corning Regional Airport, and Syracuse Hancock International Airport (Livingston County Planning Department 2014).

4.6.3 Lifeline Utility Systems

This section presents data and information on potable water, wastewater, energy resources, and communication utility systems. Because of heightened security concerns, only partial local utility lifeline data needed to complete the analysis have been obtained. Figure 4-15 shows the locations of the facilities for these various lifeline utility systems.



Figure 4-15. Utility Lifelines in Livingston County



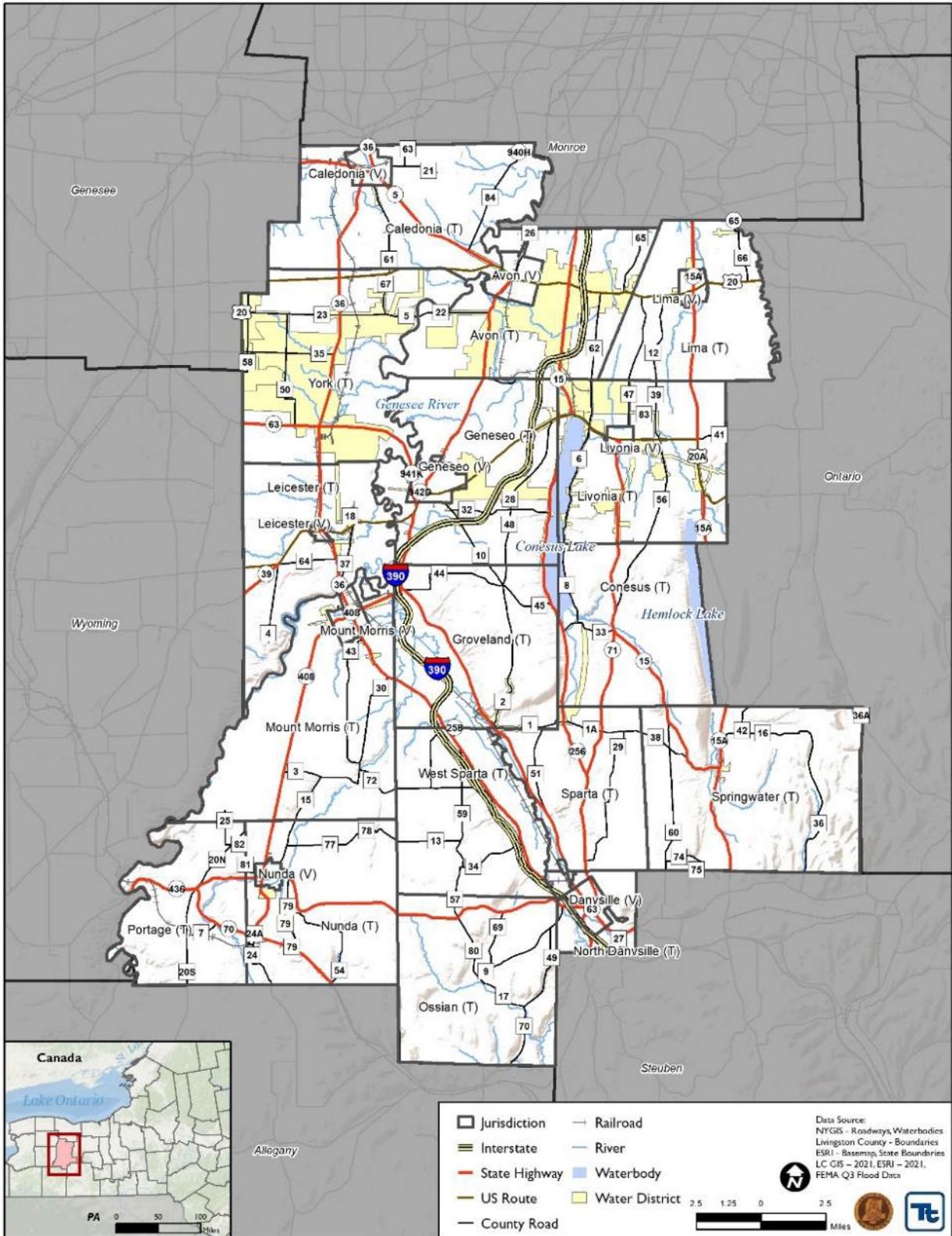


Potable Water

Public water service is available in all county villages and parts of most towns. Conesus Lake, Silver Lake, Hemlock Lake, and reservoir impoundments are the principal supply sources (Livingston County 2014). Potable water supply resources in Livingston County are identified in Appendix E. Because the water towers rely on gravity to dispense water, they do not need a backup power supply. Water service areas (i.e., water districts) are shown in Figure 4-16.



Figure 4-16. Water Districts in Livingston County





Wastewater Facilities

Public sewer service is available in the Villages of Avon, Lima, Geneseo, Mount Morris, Nunda, and Dansville. Additional sewer and water service is provided to all population centers and travel corridors through the Livingston County Water and Sewer Authority (WSA). Water and sewer distributions and collections systems in Livingston County have adequate capacity to meet present and future needs (Livingston County 2014). Wastewater facilities in Livingston County are identified in Appendix E.

Energy Resources

Electric service to the county is provided by several investor-owned utility companies. National Grid provides electrical service in the northern half of the county. New York State Electric and Gas Corporation (NYSEG) provides electricity and natural gas in the southern half of the county. Rochester Gas and Electric Corporation (RG&E) provides natural gas in the northern and western parts of the county, and electricity in the southwest corner of the county.

Communications

The Rochester area is one of the largest telecommunications centers in the United States due to the original pioneering efforts in this area developed by Frontier Communications and Global Crossings. Accordingly, the area is a frame-relay network hub offering international transmission coverage (Livingston County 2014).

Frontier is the incumbent local exchange carrier for all of Livingston County. They are a provider of local, data, and Internet services for the business community. Spectrum is the predominant cable provider. In addition, satellite service is readily available.

Radio service in the county is provided by WBEE, WHAM, WYSL, WGSU, and WDNV Stations. WHAM is an emergency alert station. All stations are broadcast out of Livingston County, with the exception of WBEE and WHAM, which are broadcast out of Rochester.



4.6.4 High-Potential Loss Facilities

High-potential loss facilities include dams, levees, hazardous materials (HAZMAT) facilities, nuclear power plants, and military installations. Dams are discussed below. Figure 4-17 shows the locations of the high-potential loss facilities in the county.

Military Installations

The Geneseo Armory is the only military facility located in Livingston County. The 108th Infantry from the National Guard reports to this location.

HAZMAT Facilities

A Superfund site consists of land in the United States that has been contaminated by hazardous waste and identified by the U.S. Environmental Protection Agency (EPA) as a candidate for cleanup because it poses a risk to human health and/or the environment. These sites are placed on the National Priorities List (NPL). The NPL is the list of national priorities among the known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States and its territories. The NPL is intended primarily to guide the EPA in determining which sites warrant further investigation.

Abandoned hazardous waste sites placed on the federal NPL include those that the EPA has determined present “a significant risk to human health or the environment,” with the sites being eligible for remediation under the Superfund Trust Fund Program. As of August 2021, Livingston County has no hazardous sites in the federal Superfund Program that are listed on the NPL (CERCLIS 2021).

Superfund sites are contaminated locations requiring a long-term response to clean up hazardous materials; NPL sites are included. The EPA Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) (Superfund) Public Access Database (CPAD) reports that there are currently no archived Superfund sites located in Livingston County (CERCLIS 2021). An archived Superfund site is one that has no further interest under the federal Superfund Program based on available information and is no longer part of the CERCLIS inventory.

In addition to the hazardous waste sites, there are approximately 56 hazardous facilities in Livingston County cataloged by the NYSDEC’s Bulk Storage Program Database. The Bulk Storage Program includes three types of facilities: Petroleum Bulk Storage (PBS), Major Oil Storage Facilities (MOSF), and Chemical Bulk Storage (CBS). Registration with NYSDEC is mandatory for all PBS facilities with a total storage capacity of 1,100 gallons or more; all CBS underground tanks and all stationary aboveground tanks with a capacity of 185 gallons or more; and all MOSF sites storing more than 400,000 gallons of petroleum products. As of September 2020, 50 sites are listed in the NYSDEC’s Bulk Storage Program Database in Livingston County, New York (NYSDEC 2021).

EPA identifies six facilities under the Toxic Release Inventory (TRI). These facilities are required to annually report how much of each chemical is recycled, combusted for energy recovery, treated for destruction, and disposed of or otherwise released on and off site (EPA 2021).



Dams and Levees

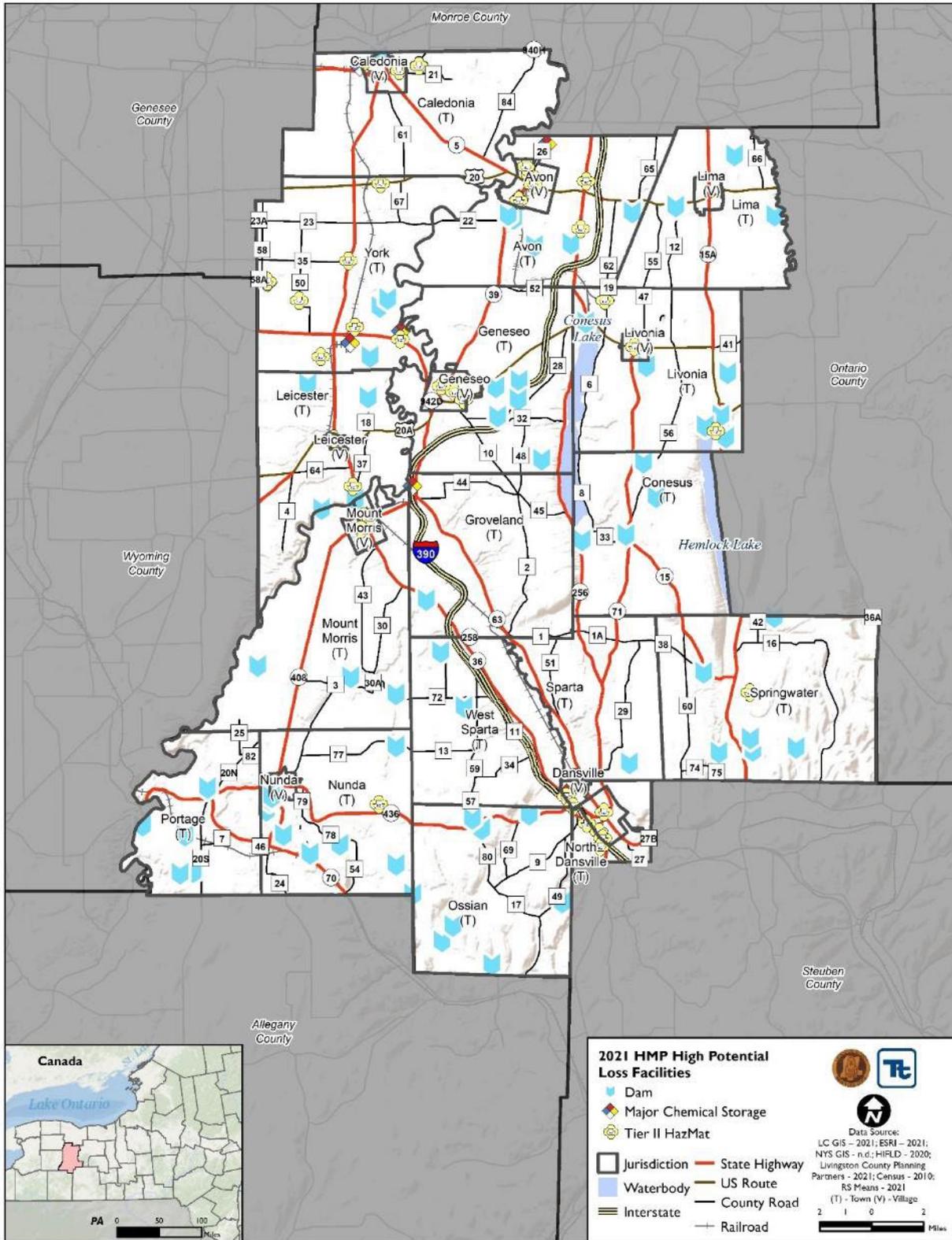
According to the NYSDEC Division of Water Bureau and Flood Protection and Dam Safety, there are three hazard classifications of dams in New York State. The dams are classified in terms of potential for downstream damage if the dam were to fail. The hazard classifications are as follows:

- *Low Hazard (Class A)* is a dam located in an area where failure will damage nothing more than isolated buildings, undeveloped lands, or township or county roads and/or will cause no significant economic loss or serious environmental damage. Failure or operation problems would result in no probable loss of human life. Losses are principally limited to the owner's property.
- *Intermediate Hazard (Class B)* is a dam located in an area where failure may damage isolated homes, main highways, and minor railroads; interrupt the use of relatively important public utilities; and will cause significant economic loss or serious environmental damage. Failure or operation problems would result in no probable loss of human life but can cause economic loss, environmental damage, disruption of lifeline facilities, or impact other concerns. Class B dams are often located in predominantly rural or agricultural areas but may also be located in areas with population and significant infrastructure.
- *High Hazard (Class C)* is a dam located in an area where failure may cause loss of human life; serious damage to homes, industrial, or commercial buildings; important public utilities; main highways or railroads; and will cause extensive economic loss. This is a downstream hazard classification for dams in which excessive economic loss (urban area including extensive community, industry, agriculture, or outstanding natural resources) would occur as a direct result of dam failure.

According to the U.S. Army Corps of Engineers (USACE) National Inventory of Dams (NID) and the National Performance of Dam Programs (NPDP), 13 dams are located within Livingston County (with two listed as high hazard, five listed as significant hazard, six listed as low hazard, and none listed as unknown hazard). For the purpose of this plan, the NYSDEC data from the New York State GIS Clearinghouse will be used. According to GIS data, there are 69 dams located in Livingston County. According to the National Levee Database maintained by USACE, there are no levees in Livingston County (USACE 2021). Appendix F lists the names and locations of the dams and levees found in the county.



Figure 4-17. High-Potential Loss Facilities in Livingston County





4.6.5 Other Facilities

The Planning Partnership has also identified additional facilities (user-defined facilities) as critical facilities. Some of these additional facilities fall under categories previously defined above as well as under other critical categories. These facilities were included in the risk assessment conducted for the county. Figure 4-18 shows the locations and types of these facilities in the county.

Figure 4-18. Other Facilities in Livingston County

