



## SECTION 4 COUNTY PROFILE

This profile describes the general information of the county (physical setting, population and demographics, general building stock, and land use and population trends) as well as critical facilities located within Cattaraugus County. In Section 5 (Risk Assessment), specific profile information is presented and analyzed to develop an understanding of the study area, including the economic, structural, and population assets at risk and the particular concerns that may be present related to hazards analyzed (for example, a high percentage of vulnerable persons in an area).

### 4.1 GENERAL INFORMATION

Cattaraugus County was established in 1808 and is comprised of separate municipalities, which include two cities, 32 towns, and nine villages. Three Seneca Nation Territories are also located in the county: the Allegany Reservation, located in the southwest portion of the county; the Cattaraugus Reservation, located in the northwest corner of the county; and the Oil Springs Reservation, located along the central east border of the county. The county had an estimated 2018 population of 76,483 (U.S. Census Bureau American Community Survey 5-Year Estimates, 2018). According to the U.S. Census Bureau, Cattaraugus County is the 35th most populated county in New York State (U.S. Census, 2010).

Cattaraugus County is located in southwest New York State, north of the Commonwealth of Pennsylvania. The County is bordered by Chautauqua County to the west, Erie and Wyoming Counties to the north, Allegany County to the east, and the Commonwealth of Pennsylvania to the south. The county extends approximately 37 miles north and south, and 38 miles east and west, with a total area of about 1,324 square miles (both land and water). Several major highways run through Cattaraugus County, including New York State Routes 17 (the Southern Tier Expressway), 16, 96, 240, 242, 353, and 417. U.S. Routes 62 and 219 also run through the county.

Cattaraugus County’s population decreased by 3.6 percent between 2010 and 2018. The total population is projected to continue decreasing over time (Cornell University, 2017). Youth populations have decreased slightly from 2010 to 2018, while elderly populations have increased during the same period.

### 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 4-1 shows FEMA disaster declarations that included Cattaraugus County through 2020 (records date back to 1954).

**Table 4-1. History of Hazard Events in Cattaraugus County, New York**

Disaster Number	Date of Event	Declaration Date	Incident Type	Title
DR-233	October 30, 1967	October 30, 1967	Flood	Severe Storms and Flooding
DR-338	June 23, 1972	June 23, 1972	Flood	Tropical Storm Agnes
DR-494	March 19, 1976	March 19, 1976	Severe Ice Storm	Ice Storm, Severe Storms, and Flooding
EM-3027	January 29, 1977	January 29, 1977	Snow	Snowstorms





Disaster Number	Date of Event	Declaration Date	Incident Type	Title
DR-527	February 5, 1977	February 5, 1977	Snow	Snowstorms
EM-3107	March 13-17, 1993	March 17, 1993	Snow	Snow
DR-1095	January 19-30, 1996	January 24, 1996	Flood	Severe Storms and Flooding
DR-1233	June 25-July 10, 1998	July 7, 1998	Severe Storm(s)	Severe Storms and Flooding
EM-3136	January 1-15, 1999	January 15, 1999	Snow	Snow
DR-1335	May 3-8, 2000	July 21, 2000	Severe Storm(s)	Severe Storms and Flooding
DR-3155	May 22-November 11, 2000	October 11, 2000	Other	West Nile Virus
EM-3157	November 19-21, 2000	December 4, 2000	Snow	Snow
DR-1391	September 11, 2001	September 11, 2001	Fire	Fires and Explosions
EM-3170	December 24-29, 2001	December 31, 2001	Snow	Snow
DR-1486	July 21-August 13, 2003	August 29, 2003	Severe Storm(s)	Severe Storms, Flooding, and Tornadoes
EM-3186	August 14-16, 2003	August 23, 2003	Other	Power Outage
DR-1534	May 12-June 17, 2004	August 3, 2004	Severe Storm(s)	Severe Storms and Flooding
DR-1564	August 12-September 16, 2004	October 1, 2004	Severe Storm(s)	Severe Storms and Flooding
EM-3262	August 29-October 1, 2005	September 30, 2005	Hurricane	Hurricane Katrina Evacuation
EM-1857	August 8-10, 2009	September 1, 2009	Severe Storm(s)	Severe Storms and Flooding
EM-3351	October 27-November 8, 2012	October 28, 2012	Hurricane	Hurricane Sandy
DR-4180	May 13-22, 2014	July 8, 2014	Severe Storm(s)	Severe Storms and Flooding
DR-4204	November 17-26, 2014	December 22, 2014	Snow	Severe Winter Storm, Snowstorm, and Flooding
EM-3434	January 20, 2020 and continuing	March 13, 2020	COVID-19	New York Covid-19 Pandemic
DR-4480	January 20, 2020 and continuing	March 20, 2020	COVID-19 Pandemic	New York Covid-19 Pandemic

Source: FEMA 2020

## 4.3 PHYSICAL SETTING

This section presents topography and geology, hydrology and hydrography, and climate.

### 4.3.1 Topography and Geology

Cattaraugus County is located in the northwest portion of the Allegheny Plateau region of New York State. The northern part of the county is generally flat, while steeper slopes are found in the central and southern parts of the county. The southern region of the county – characterized by hills and valleys – is the only unglaciated portion of western New York State. Bob’s Pond, Cabic Pond, Case Lake, Crystal Lake, Cuba Lake, Harwood Lake, Lime Lake, New Albion Lake, Quaker Lake, Rainbow Lake, Red House Lake, Science Lake, and Timber Lake are within the county.

### 4.3.2 Hydrography and Hydrology

The major river of Cattaraugus County is the Allegheny River. Cattaraugus Creek forms the border between Cattaraugus County and Erie County and flows west into Lake Erie. Great Valley Creek and Little Valley Creek



drain the central portion of the county into the Allegheny River. Other important waterways within the county include Ischua, Oil, Olean, Tunungwant, Conewango, Little Conewango, Mansfield, and Caneadea Creeks.

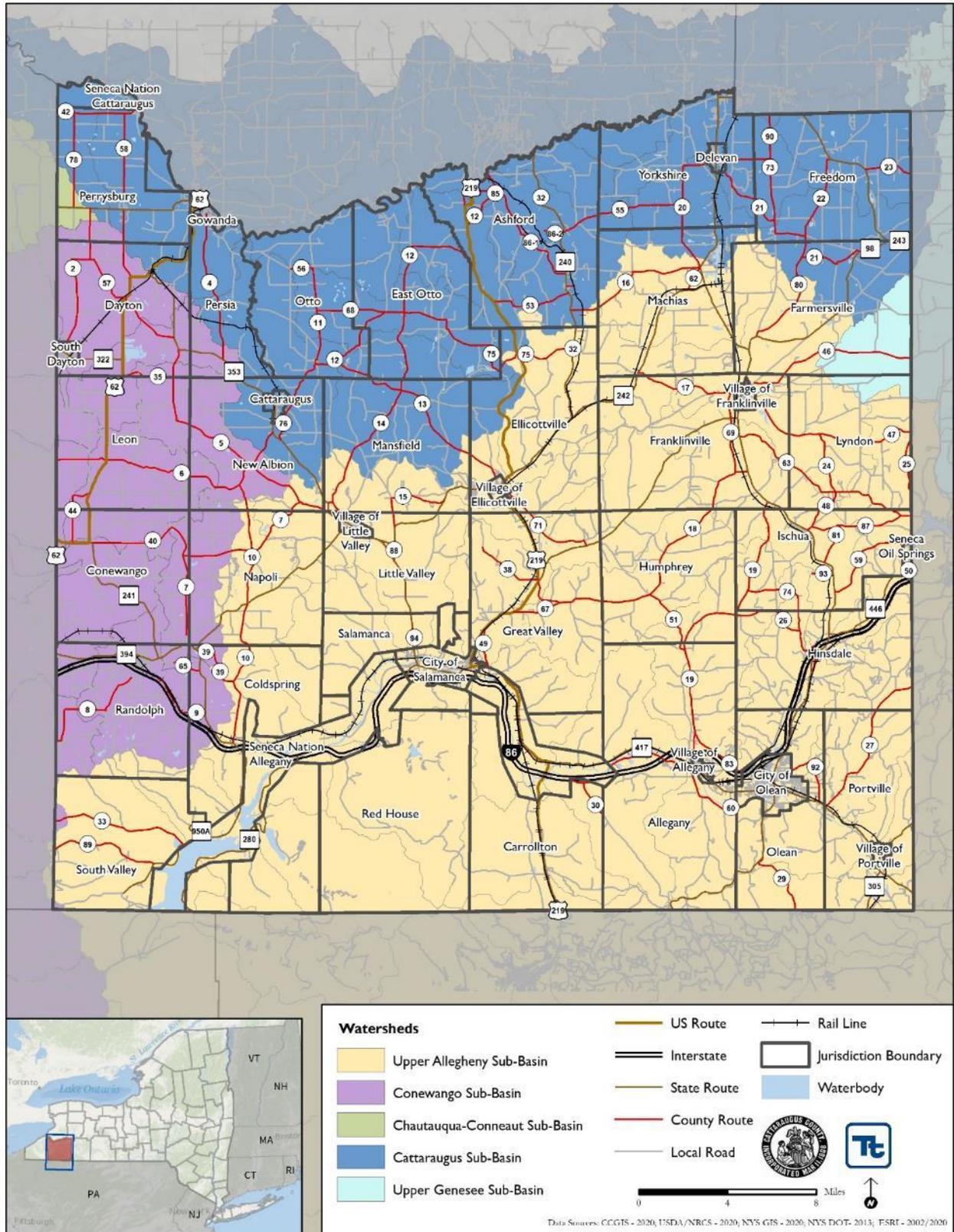
### **Drainage Basins and Watersheds**

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There are portions of five watersheds located within Cattaraugus County, as noted in Figure 4-1. These watersheds drain into the Great Lakes Basin and the Allegheny River Basin. A watershed is the area of land that drains into a body of water, such as a river, lake, stream, or bay. It is separated from other systems by high points in the area, such as hills or slopes. It includes not only the waterway itself but also the entire land area that drains to it. For example, the watershed of a lake would include not only the streams entering the lake but also the land area that drains into those streams and eventually the lake. Drainage basins generally refer to large watersheds that encompass the watersheds of many smaller rivers and streams. Cattaraugus County is part of three drainage basins: the Allegheny River Basin, the Lake Erie and Niagara River Basin, and the Genesee River Basin.



Figure 4-1. Watersheds Located Within Cattaraugus County





### 4.3.3 Climate

The climate of New York State is very similar to most of the Northeast U.S. and is classified as Humid Continental. Differences in latitude, character of topography, and proximity to large bodies of water all have an effect on the climate across New York State. Precipitation during the warm, growing season (April through September) is characterized by convective storms that generally form in advance of an eastward-moving cold front or during periods of local atmospheric instability. Occasionally, tropical cyclones will move up from southern coastal areas and produce large quantities of rain. Both types of storms are typically characterized by relatively short periods of intense precipitation that produce large amounts of surface runoff and little recharge (Cornell, Date Unknown).

The cool season (October through March) is characterized by large, low-pressure systems that move northeastward along the Atlantic coast or the western side of the Appalachian Mountains. Storms that form in these systems are characterized by long periods of steady precipitation in the form of rain, snow, or ice, and tend to produce less surface runoff and more recharge than the summer storms because they have a longer duration and occasionally result in snowmelt (Cornell, Date Unknown).

The climate of Cattaraugus County is characterized by mild summers and severe winters. Overall, the county averages 44 inches of precipitation each year with an average temperature of 45 degrees (FEMA Flood Insurance Study [FIS], 1978).

## 4.4 POPULATION AND DEMOGRAPHICS

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 (Methodology) of this plan, modeling of the impacts of natural hazards on the population was performed using FEMA's Hazards U.S. Multi-Hazard (HAZUS-MH) including the available population information from the 2010 U.S. Decennial Census data indicating a county population 80,776. However, according to U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Population Estimates, the county contains a population of approximately of 76,483, or a slight decrease in population (American Community Survey, 2018). A detailed population table for the 2018 American Community Survey population statistics is shown below in Table 4-2. Figure 4-2. shows the distribution of the general population density (persons per square mile) in 2018 by Census block. For the purposes of this plan, the best available data was referenced to support the analysis, i.e., 2014-2018 American Community Survey 5-Year Population Estimates. .



Table 4-2. Cattaraugus County Population Statistics (2018 American Community Survey 5-Year Estimates)

Jurisdiction	American Community Survey 5-Year Estimates (2014 - 2018)										
	Total	Population Over 65	Percent Population Over 65	Population Under 5	Percent Population Under 5	Non-English Speaking Population	Percent Non-English Speaking	Disabled Population	Percent Disabled	Persons Living in Poverty	Percent Persons Living in Poverty
Allegany (T)	5,741	1,307	22.8%	198	3.4%	119	2.1%	823	14.3%	422	7.4%
Allegany (V)	1,922	232	12.1%	143	7.4%	10	0.5%	172	8.9%	445	23.2%
Ashford (T)	2,192	468	21.4%	155	7.1%	23	1.0%	297	13.5%	222	10.1%
Carrollton (T)	1,429	261	18.3%	73	5.1%	16	1.1%	208	14.6%	200	14.0%
Cattaraugus (V)	959	208	21.7%	27	2.8%	23	2.4%	200	20.9%	136	14.2%
Coldspring (T)	672	80	11.9%	37	5.5%	0	0.0%	112	16.7%	96	14.3%
Conewango (T)	1,653	190	11.5%	255	15.4%	275	16.6%	131	7.9%	476	28.8%
Dayton (T)	1,352	209	15.5%	84	6.2%	65	4.8%	173	12.8%	368	27.2%
Delevan (V)	1,007	126	12.5%	27	2.7%	0	0.0%	176	17.5%	275	27.3%
East Otto (T)	1,055	149	14.1%	46	4.4%	24	2.3%	144	13.6%	147	13.9%
Ellicottville (T)	877	205	23.4%	15	1.7%	13	1.5%	109	12.4%	59	6.7%
Ellicottville (V)	283	99	35.0%	10	3.5%	0	0.0%	50	17.7%	38	13.4%
Farmersville (T)	1,075	228	21.2%	90	8.4%	17	1.6%	191	17.8%	201	18.7%
Franklinville (T)	1,303	330	25.3%	85	6.5%	0	0.0%	180	13.8%	184	14.1%
Franklinville (V)	1,575	220	14.0%	115	7.3%	15	1.0%	266	16.9%	250	15.9%
Freedom (T)	2,276	529	23.2%	195	8.6%	59	2.6%	240	10.5%	126	5.5%
Gowanda (V)	1,805	321	17.8%	109	6.0%	24	1.3%	309	17.1%	378	20.9%
Great Valley (T)	1,689	412	24.4%	21	1.2%	2	0.1%	288	17.1%	123	7.3%
Hinsdale (T)	2,074	340	16.4%	119	5.7%	6	0.3%	479	23.1%	321	15.5%
Humphrey (T)	860	85	9.9%	29	3.4%	0	0.0%	138	16.0%	230	26.7%
Ischua (T)	731	169	23.1%	15	2.1%	8	1.1%	150	20.5%	115	15.7%
Leon (T)	1,114	155	13.9%	136	12.2%	178	16.0%	186	16.7%	251	22.5%
Little Valley (T)	664	133	20.0%	64	9.6%	0	0.0%	64	9.6%	157	23.6%
Little Valley (V)	1,180	168	14.2%	87	7.4%	23	1.9%	163	13.8%	181	15.3%



Jurisdiction	American Community Survey 5-Year Estimates (2014 - 2018)										
	Total	Population Over 65	Percent Population Over 65	Population Under 5	Percent Population Under 5	Non-English Speaking Population	Percent Non-English Speaking	Disabled Population	Percent Disabled	Persons Living in Poverty	Percent Persons Living in Poverty
Lyndon (T)	718	106	14.8%	46	6.4%	1	0.1%	102	14.2%	140	19.5%
Machias (T)	2,380	462	19.4%	117	4.9%	5	0.2%	365	15.3%	230	9.7%
Mansfield (T)	810	138	17.0%	70	8.6%	38	4.7%	88	10.9%	89	11.0%
Napoli (T)	1,218	172	14.1%	69	5.7%	23	1.9%	205	16.8%	242	19.9%
New Albion (T)	1,009	239	23.7%	33	3.3%	0	0.0%	148	14.7%	92	9.1%
Olean (C)	13,805	2,429	17.6%	561	4.1%	153	1.1%	2,480	18.0%	2,738	19.8%
Olean (T)	2,183	345	15.8%	137	6.3%	21	1.0%	349	16.0%	289	13.2%
Otto (T)	797	137	17.2%	63	7.9%	9	1.1%	109	13.7%	139	17.4%
Perrysburg (T)	1,598	365	22.8%	84	5.3%	15	0.9%	327	20.5%	221	13.8%
Persia (T)	653	229	35.1%	3	0.5%	2	0.3%	91	13.9%	117	17.9%
Portville (T)	2,630	624	23.7%	72	2.7%	63	2.4%	410	15.6%	146	5.6%
Portville (V)	965	149	15.4%	121	12.5%	0	0.0%	124	12.8%	145	15.0%
Randolph (T)	2,476	419	16.9%	149	6.0%	41	1.7%	304	12.3%	342	13.8%
Red House (T)	42	10	23.8%	1	2.4%	0	0.0%	5	11.9%	0	0.0%
Salamanca (C)	5,553	790	14.2%	499	9.0%	118	2.1%	784	14.1%	1,455	26.2%
Salamanca (T)	447	120	26.8%	10	2.2%	5	1.1%	55	12.3%	32	7.2%
South Dayton (V)	673	81	12.0%	44	6.5%	0	0.0%	131	19.5%	42	6.2%
South Valley (T)	276	82	29.7%	4	1.4%	0	0.0%	49	17.8%	113	40.9%
Yorkshire (T)	2,762	525	19.0%	169	6.1%	10	0.4%	633	22.9%	249	9.0%
<b>Cattaraugus County (Total)</b>	<b>76,483</b>	<b>14,046</b>	<b>18.4%</b>	<b>4,387</b>	<b>5.7%</b>	<b>1,404</b>	<b>1.8%</b>	<b>12,008</b>	<b>15.7%</b>	<b>12,222</b>	<b>16.0%</b>

Source: American Community Survey 2018

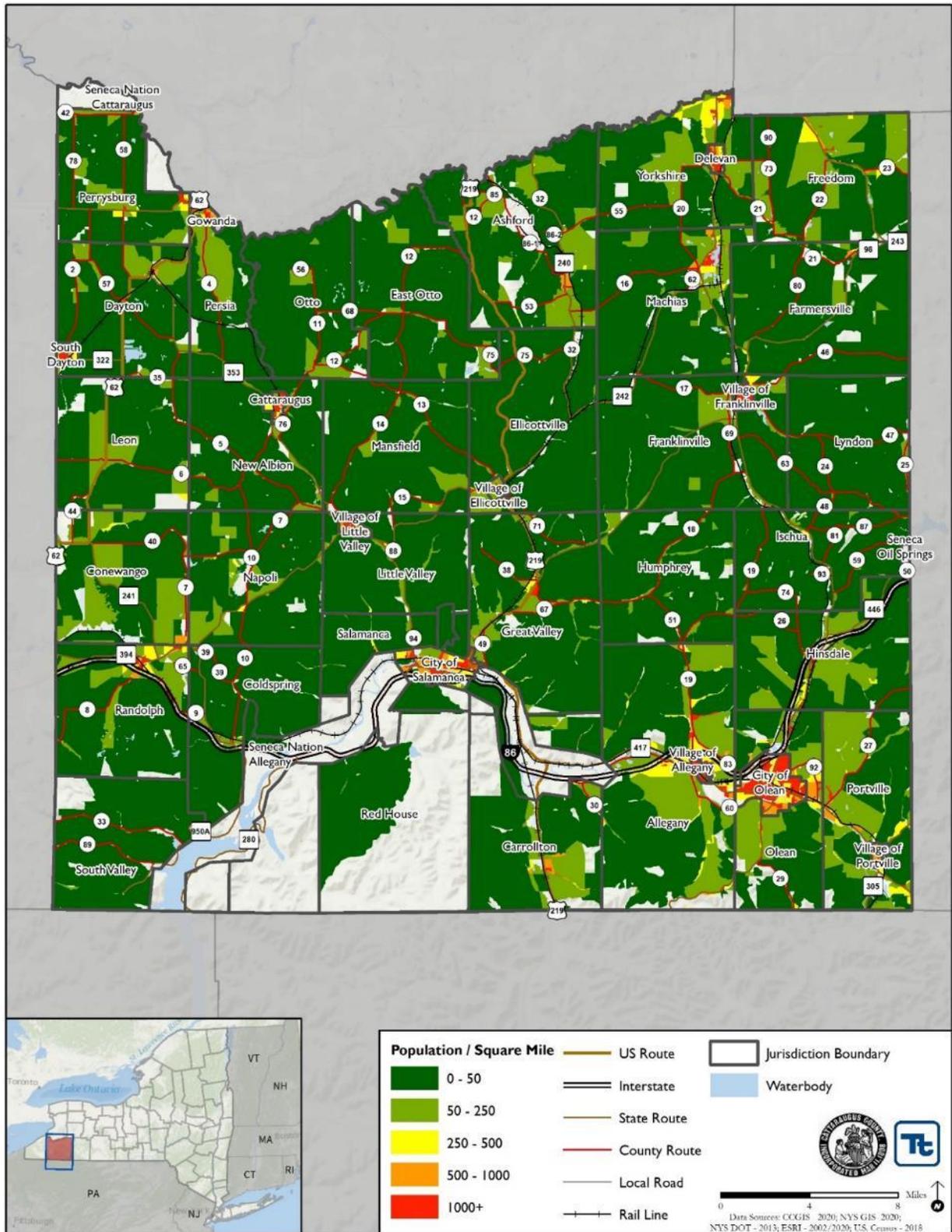
Note: Individuals below poverty level (Census poverty threshold for a 3-person family unit is approximately \$19,642). Refer to Poverty Thresholds by the Census Bureau of more information.



It is noted that the Census data for household income provided in HAZUS-MH includes two ranges (\$0-10,000 and \$10,000-\$20,000/year) that were totaled to provide the “low-income” data used in this study. This does not correspond exactly with the “poverty” thresholds established by the 2018 U.S. Census Bureau. According to the values established in 2018 by the U.S. Census Bureau, households with three adults and no children with an annual household income below \$19,642 per year, or households with one adult and two children with an annual household income below \$20,231 per year are identified as “low income” for this region (U.S. Census Bureau, 2018). This difference is not believed to be significant for the purposes of this planning effort.



Figure 4-2. 2018 American Community Survey 5-Year Estimates Population Distribution and Density of General Population for Cattaraugus County, New York





### 4.4.1 Vulnerable Populations

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The 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 to a hazard and the location and construction quality of their housing. For the purposes of this study, vulnerable populations shall 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 may be more seriously affected during the course of an emergency or disaster. Vulnerable populations have unique needs that should be taken into consideration by public officials to help ensure the safety of demographics with a higher level of risk. For the purposes of this planning process, vulnerable populations in Cattaraugus County include children, elderly, low-income, the physically or mentally disabled, and non-English speakers.

#### Age

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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 to respond to hazard events and are more likely to suffer health-related consequences. Those living on their own may have more difficulty evacuating their homes. The elderly are also more likely to live in senior care and living facilities (described in Section 4.6.1) 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 Cattaraugus County was 42 years. Hazus-MH reports 5.7 percent of the 2018 Cattaraugus County population is under the age of 5. Of the 2018 population, 18.4 percent of the county's population is age 65 and older. Figure 4-3 shows the distribution of persons over age 65 and the distribution of population under 5 in Cattaraugus County.

#### Income

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The 2014-2018 American Community Survey 5-Year Estimates find that the median household income in Cattaraugus County was \$42,204 and the per capita income was \$24,628. The U.S. Census Bureau identifies households with two adults and two children with an annual household income below \$24,339 per year as "low income" (U.S. Census 2018). The 2014-2018 American Community Survey 5-Year Estimates indicates a total of 16 percent persons below the poverty level within the county. Figure 4-3 below illustrates the low-income population density in Cattaraugus County.

#### Physically or Mentally Disabled

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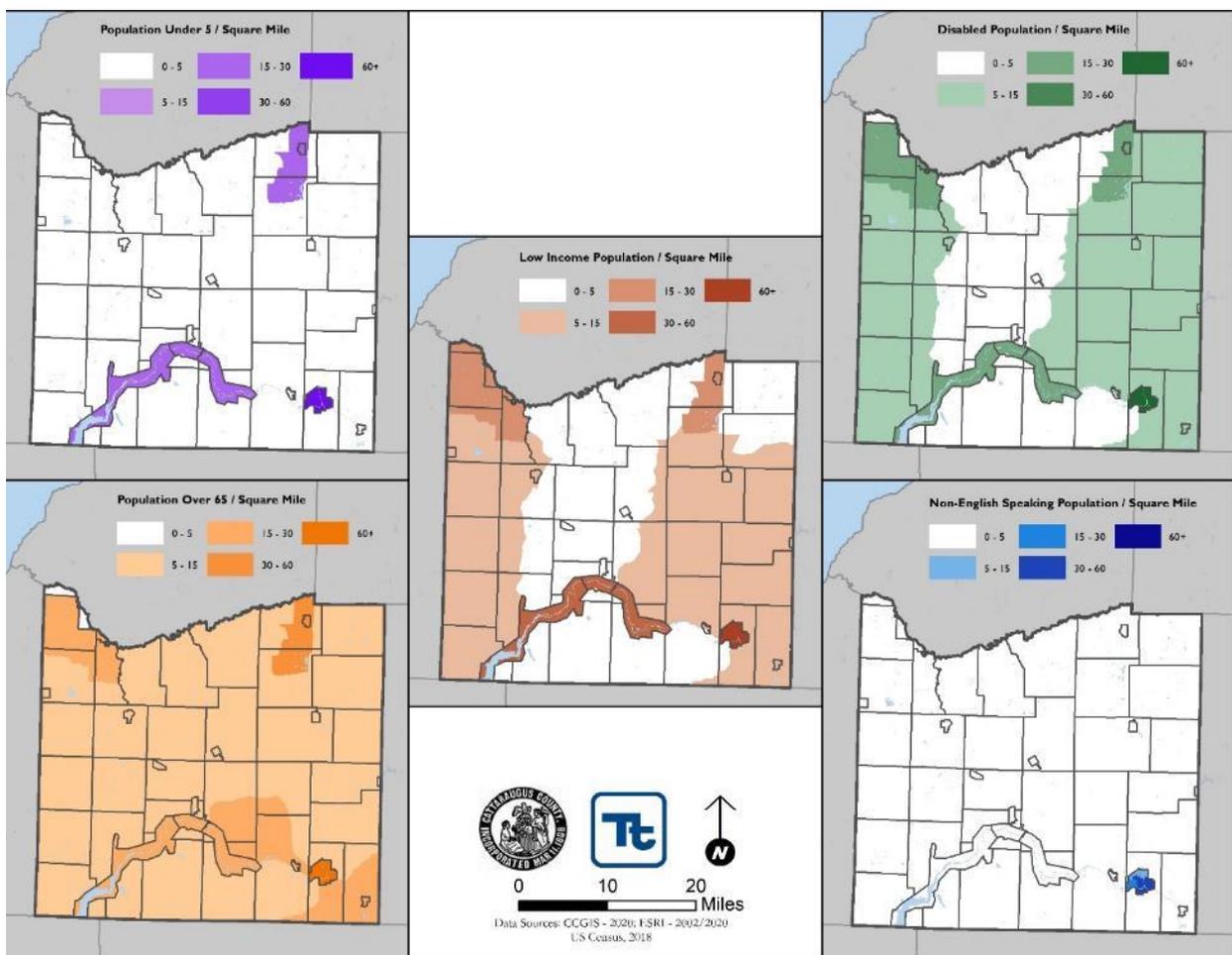
"Persons with a disability include those who have physical, sensory, or cognitive impairment that might limit a major life activity (Center for Disease Control, 2015)." These impairments may increase the level of difficulty that individuals may face during an emergency. Cognitive impairments may reduce an individual's capacity to receive, process, and respond to emergency information or warnings. Individuals with a physical or sensory disability may face issues of mobility, sight, hearing, or reliance on specialized medical equipment. According to the 2014-2018 American Community Survey, 15.7 percent residents of Cattaraugus County are living with a disability. Figure 4-3 shows the geographic distribution of disabled individuals throughout Cattaraugus County, including individuals with: hearing, vision, cognitive, ambulatory, self-care, and independent living difficulties.



### Non-English Speakers

Individuals who are not fluent or do not possess a working proficiency in English are vulnerable because they may have difficulty understanding information being conveyed to them. Cultural differences can also add complexity to how information is being conveyed to populations with limited proficiency of English (Centers for Disease Control, 2015). According to the 2014-2018 American Community Survey, 4.7 percent of residents of the county’s population over the age of 5 primarily speak a language other than English at home; of those 1,411 individuals are reported to speak English less than “very well.” Of the county’s population, 1.2 percent speak Spanish, 2.7 percent speak other Indo-European languages, 0.3 percent speak Asian and Pacific Island Languages, and 0.5 percent speak other languages. Figure 4-3 below shows the geographic distribution of individuals who speak English less than “very well.”

**Figure 4-3. 2018 Distribution and Density of Persons Vulnerable Populations in Cattaraugus County, New York**



### Population and Demographic Trends

This section discusses population trends to use as a basis for estimating future changes that could result from the seasonal character of the population and significantly change the character of the area. Population trends can provide a basis for making decisions on the type of mitigation approaches to consider 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. Various Census Bureau products were used as sources for the population

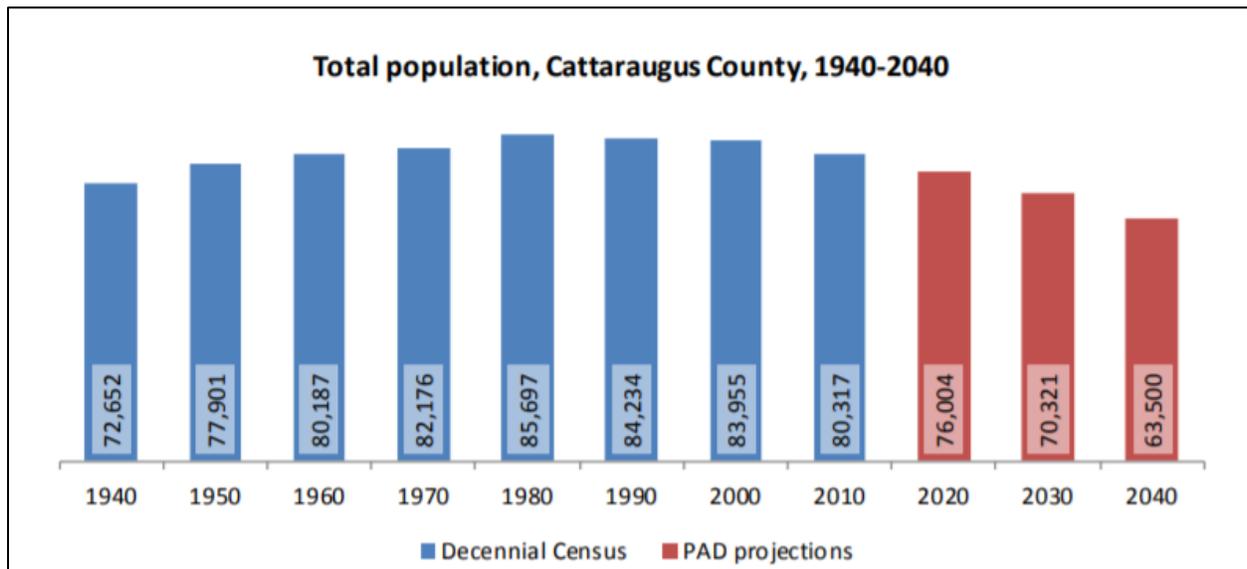




trends section. The Decennial Census is the official population count taken every 10 years. American Community Survey 5-Year Estimates are used to show annual population changes, but it is not an official population count. 5-Year Estimates are used because they are the most accurate form of American 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.

Cornell University’s Program on Applied Demographics produced population projections by county and by age and sex for New York State. The projections were completed in 2011 and are in 5-year intervals up to the year 2040. The projections are based upon rates of change estimated from historic data. The projections have been combined with historical census information to illustrate population trends within Cattaraugus County over a longer study period. Cattaraugus County experienced population growth from 1940 until 1980. There has been a slight decrease in population each decade since 1980. This population decrease is projected to continue through the year 2040. Figure 4-4 shows the observed and projected population change in Cattaraugus County from 1940 through 2040.

Figure 4-4. Cattaraugus County Population Change, 1940 to 2040



Source: U.S. Census Bureau, 2020; Cornell 2017  
Years listed in red are population projections

Population changes at the municipal level are also important to capture to better understand changing populations within the county and where the concentration of population resides. Section 9 (Jurisdictional Annexes) discusses recent changes in population for each municipality.

### 4.5 GENERAL BUILDING STOCK

The 2010 U.S. Census data identified 41,111 housing units in Cattaraugus County. The 2014-2018 American Community Survey 5-Year Estimates reported 41,520 housing units in Cattaraugus County which represents a 1 percent increase in housing units from 2010. The U.S. Census defines a household as all the persons who occupy a housing unit; and defines a housing unit as a house, an apartment, a mobile home, a group of rooms, or a single room that is occupied (or if vacant, is intended for occupancy) as separate living quarters. Therefore,



you may have more than one household per housing unit. The median value of an owner-occupied housing unit in Cattaraugus County was estimated at \$86,200 (U.S. Census 2018).

For this update, the default general building stock in HAZUS-MH v4.2 was updated and replaced with a custom-building inventory for Cattaraugus County. The general building stock was updated countywide with a custom-building inventory using the 2018 Microsoft building stock inventory data set. The building inventory attributes were updated using parcel tax assessor information provided by Cattaraugus County GIS. Attributes provided in the spatial files were used to further define each structure, such as year built, number of stories, basement type, occupancy class, and square footage. The centroid of each building footprint was used to estimate the building location. Structural and content replacement cost values (RCV) were calculated for each building using the available assessor data, the building footprint, and RS Means 2019 values. The updated building inventory (39,499 buildings with a total building replacement value [structure and content] of greater than \$38.5 billion) was incorporated into Hazus-MH at the structure and aggregate level. Approximately 84.6 percent of the buildings (33,423 buildings) and 54.2 percent of the building stock replacement value are associated with residential housing. The residential building count is less than housing unit counts above, because the general building stock inventory includes individual structures and not the individual units of each building. One apartment building could have more than 10 units but is only represented in the inventory as one structure. Refer to Section 5.1 (Methodology and Tools) for a more detailed description of the general building stock inventory.

Generally, contents for residential structures are valued at about 50 percent of the building's value. For non-residential facilities, the value of the content is about equal to the building's structural value. Actual content value varies widely depending on the usage of the structure.

The 2014-2018 American Community Survey data identified that the majority of housing units (66.5 percent or 27,593 units) in Cattaraugus County are single-family detached units. The 2017 U.S. Census Bureau's County Business Patterns data identified 1,608 business establishments employing 21,775 people in Cattaraugus County. The retail trade industry has the highest number of establishments in the county, with 311 establishments. This is followed by the accommodation and food services industry with 209 establishments and the other services sector (except public administration) with 206 establishments (U.S. Census, 2017).

Figure 4-5, Figure 4-6, and Figure 4-7, show the distribution and exposure density of residential, commercial, and industrial buildings, respectively, in Cattaraugus County based on the aggregate custom-building stock values input into HAZUS-MH v4.2. Exposure density is 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 Figure 4-5, Figure 4-6. Distribution of Commercial Building Stock and Exposure Density in Cattaraugus County and Figure 4-7 can assist communities in visualizing areas of high exposure and in evaluating aspects of the study area in relation to the specific hazard risks.



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

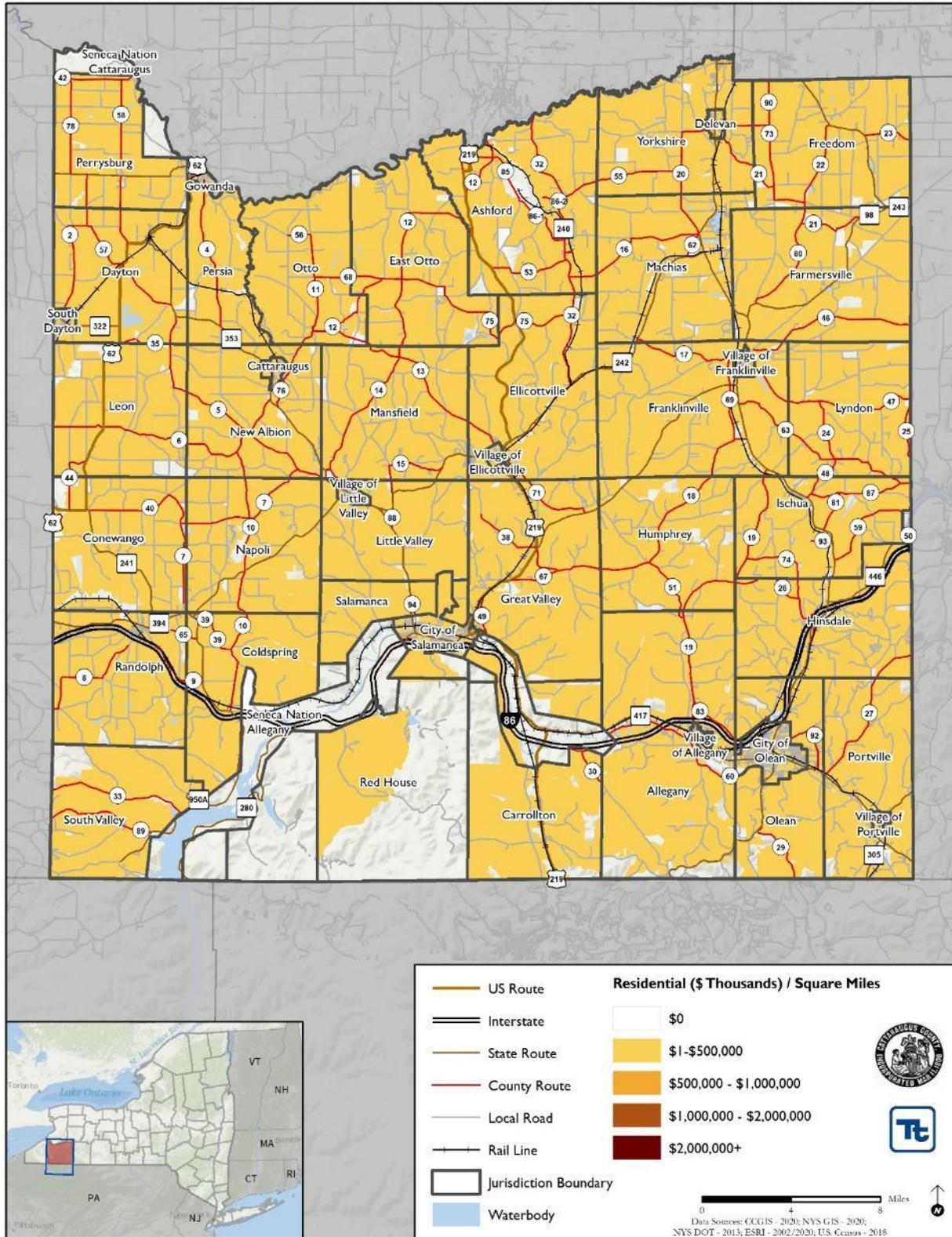




Figure 4-6. Distribution of Commercial Building Stock and Exposure Density in Cattaraugus County

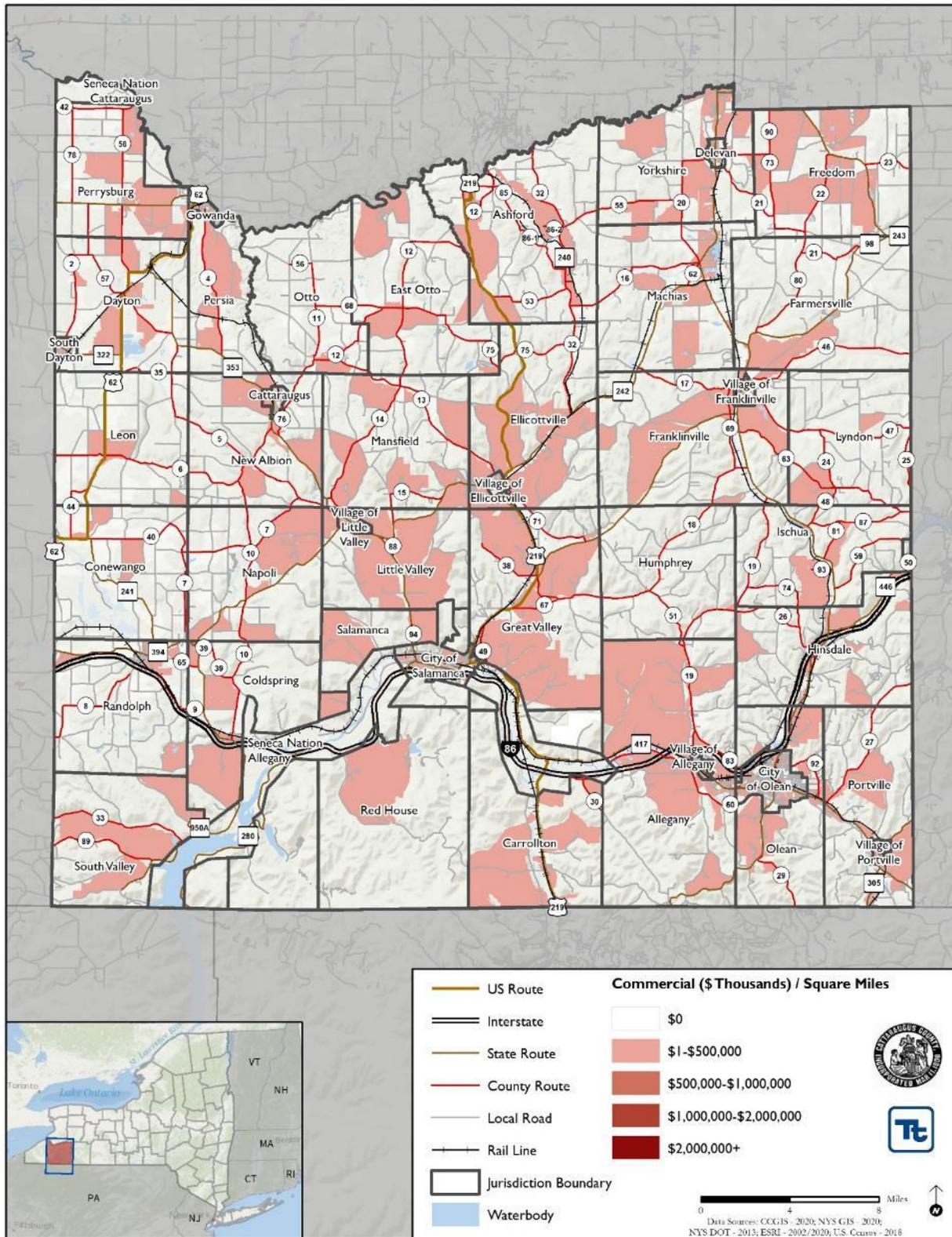
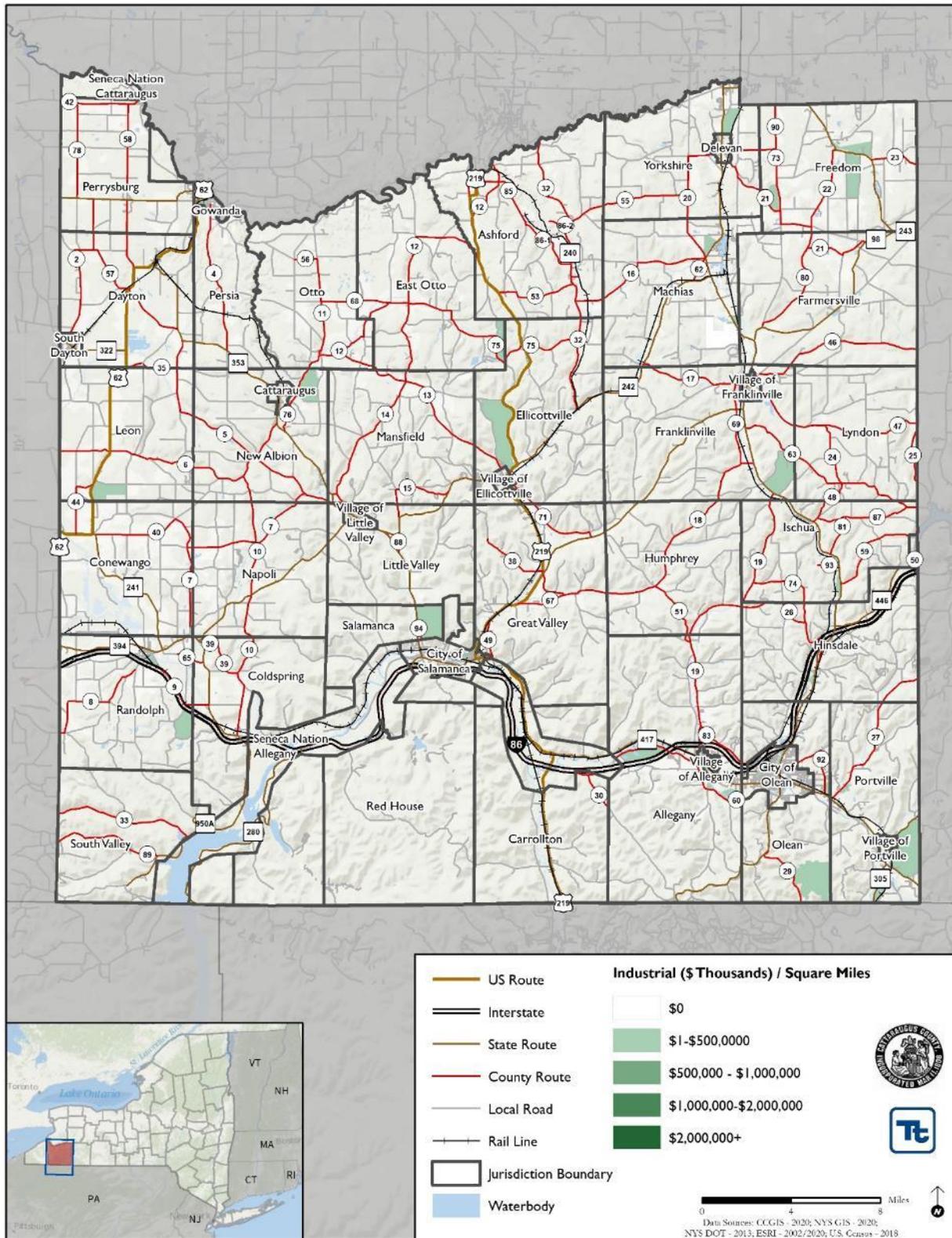




Figure 4-7. Distribution of Industrial Building Stock and Exposure Density in Cattaraugus County





### **4.5.1 Land Use and Development Trends**

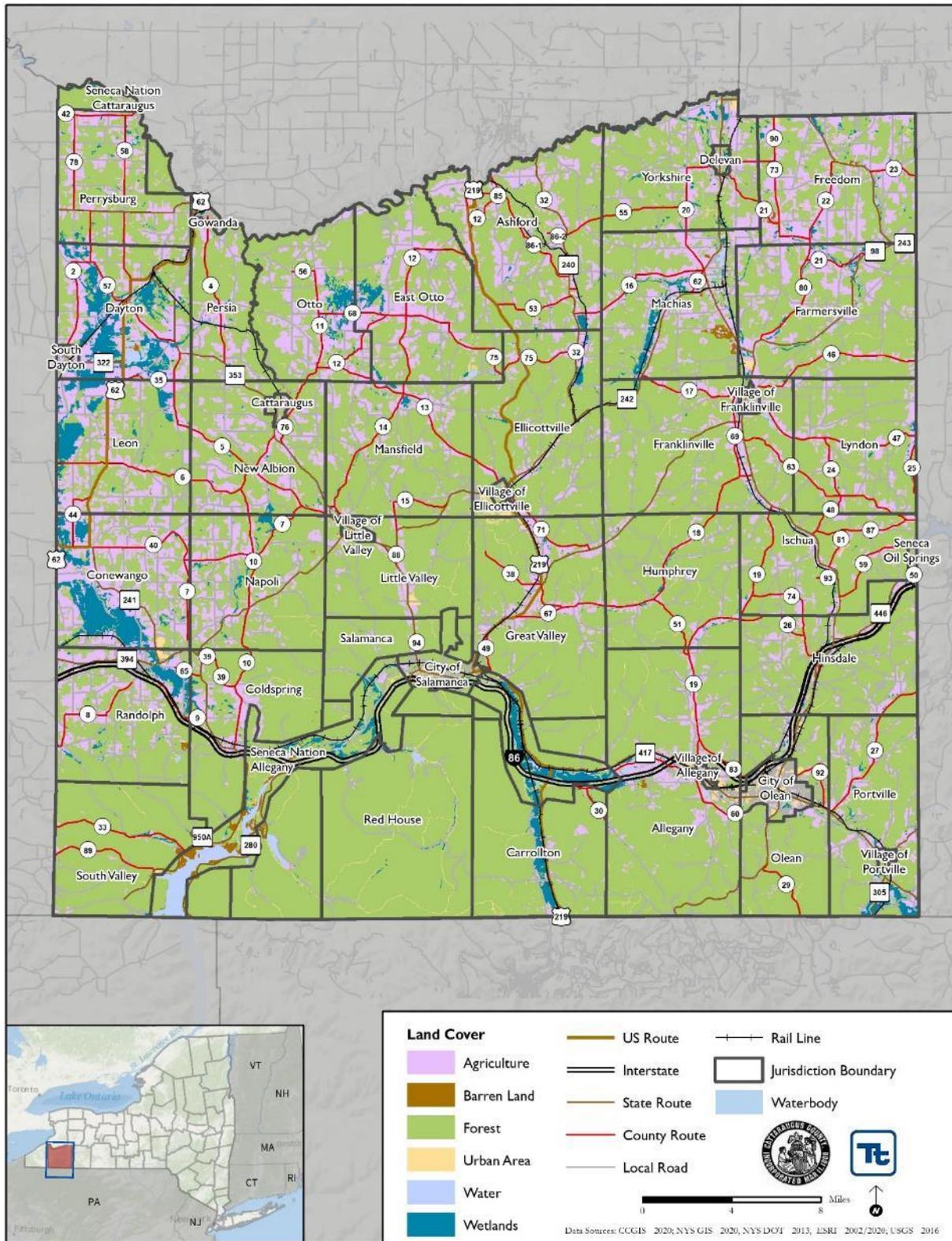
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Land use in Cattaraugus County is influenced by natural resources, topographic constraints, water lines, sewers, and roads. The county has a relatively compact development pattern and is made up of rural, suburban, and urban areas (Cattaraugus County Department of Economic Development, Planning & Tourism, 2015).

The urbanized area in the county is mainly found in the Cities of Olean and Salamanca. Suburban areas include villages and hamlets and are surrounded by farmland, wooded areas, parks, and protected open space. Retail and commercial uses are concentrated in central business districts and along heavily developed and travelled roadways and intersections. Agriculture remains a large land use. Although the number of farms is decreasing slightly, the size of farms is increasing. This trend toward fewer but larger farm operations parallels statewide trends (Cattaraugus County Department of Economic Development, Planning & Tourism, 2015).



Figure 4-8. 2011 Land Cover for Cattaraugus County





### **4.5.2 Development Trends and New Development**

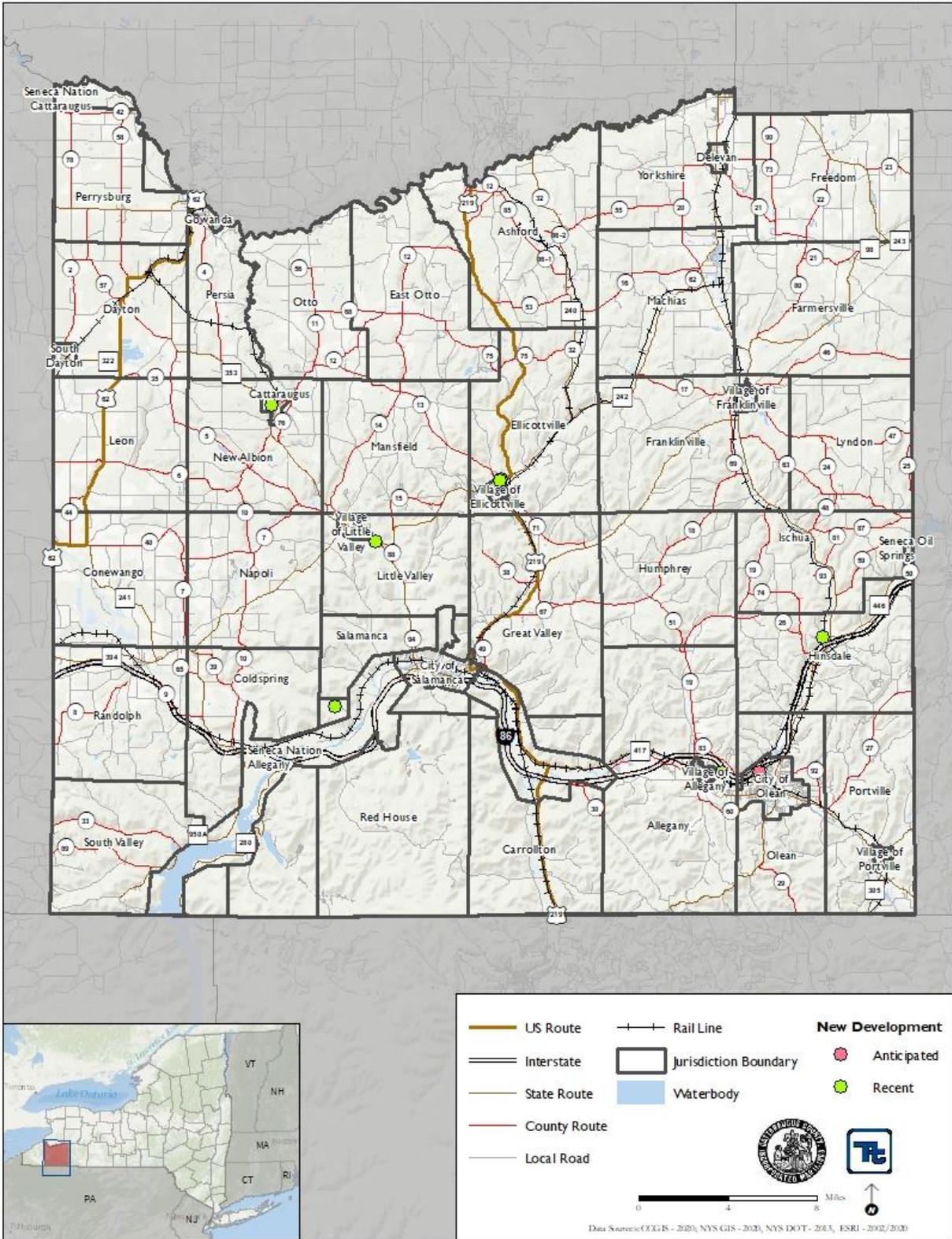
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In New York State, land use regulatory authority is vested in towns, villages, and cities. However, many development and preservation issues transcend local political boundaries. In Cattaraugus County, each city, town and village is empowered by the Municipal Home Rule Law to plan and zone within its boundaries. DMA 2000 requires that communities consider land use trends, which can impact the need for, and priority of, mitigation options over time. Land use trends can also 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 land use trends 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. Figure 4-9 identifies areas of recent and expected future development identified during this planning process.



Figure 4-9. Cattaraugus County New Development





### 4.5.3 Potential Sites for Temporary Housing and Relocation

Flooding events in Cattaraugus County are anticipated to occur most often at a relatively small geographic scale, and Cattaraugus County also has very few dense concentrations of flood-prone residences. Other identified hazards in the plan are not likely to require temporary housing accommodations. As such, the need for temporary housing for displaced residents is relatively small in scale and could likely be absorbed by facilities available through the American Red Cross (ARC), Salvation Army, etc. and the existing available housing stock.

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. These locations are indicated in Table 4-3 and are located on the map in **Error! Reference source not found.** below.

**Table 4-3. Potential Temporary Housing Locations in Cattaraugus County**

Site Name	Address	Jurisdiction	Infrastructure/ Utilities Available	Capacity	Type
Allegheny Fire Hall and Community Center	186 Main Street	Village of Allegheny	Yes	35	Park
St. Bonaventure University	3261 West State Road	Village of Allegheny	Yes	50	Open Space
Microtel	3234 NY-417, Olean	Village of Allegheny	Yes	20	Hotel
Hampton Inn	101 Main Street, Olean	Village of Allegheny	Yes	50	Hotel
Municipal Building	640 Main Street	Town of Carrollton	Yes	15	Municipal
Highbanks Campground	1370 W. Perimeter Road, Steamburg, NY	Town of Coldspring	Yes	Unknown	Campground
Fire Hall	2603 Route 394, Steamburg, NY	Town of Coldspring	No	Unknown	Open fields
Highway Barn	-	Town of Coldspring	No	Unknown	Open fields
Conewango Fire Department	12447 NE Road, Conewango Valley	Town of Conewango	Unknown	Unknown	Fire Department
Pope Haven Campground	11948 Pope Road, Randolph	Town of Conewango	Unknown	Unknown	Campground
Town Hall/Highway Department	4762 Conewango Road	Town of Conewango	Unknown	Unknown	Municipal
Town of Dayton	Town-wide	Town of Dayton	Unknown	Unknown	Agricultural fields
10 fields	Various	Village of Delevan	Unknown	Unknown	Agricultural fields
Rainbow Lake Resort	6994 Plato Road	Town of East Otto	Unknown	800 sites	Campground
Town Hall	Main Street	Town of East Otto	Unknown	1-2 acres	Municipal
Village Park	Parkside Drive	Town of Ellicottville	Yes	100+	Park
Former Signore property	-	Town of Ellicottville	Yes	100+	Former industrial
Franklinville Fire Hall	Elton Road	Town of Farmersville	Yes	Unknown	Fire Hall
Harwood Haven	Route 98	Town of Farmerville	Yes	Unknown	Campground
Triple R Campground	Bryant Hill Road	Town of Franklinville	Yes	300	Campground
Shamrock Pines	Route 98S	Town of Franklinville	Yes	150	Campground
Fire Hall	6035 Depot Street	Town of Great Valley	No	100	Fire Hall
Town Hall	4808 Route 219	Town of Great Valley	No	25	Municipal
Valley View	Route 16	Town of Ischua	Yes	100	Campground
Town Hall	12195 Leon New Albion Rd.	Town of Leon	Yes	4	Municipal
Fire Hall	12194 Leon New Albion Rd.	Town of Leon	Yes	2	Fire Hall
Fairgrounds	501 Erie Street	Village of Little Valley	Yes	200	Fairground
9 <sup>th</sup> Street Area	9 <sup>th</sup> and Erie Streets	Village of Little Valley	Yes	50	Storage Area
First Street Pool	99 First Street	Village of Little Valley	Yes	25	Park
Winship Field	-	Village of Little Valley	Yes	15	Open Field
Wastewater Treatment Plant	7 Mountain View Drive	Village of Little Valley	Yes	75	Wastewater Treatment Plant



Site Name	Address	Jurisdiction	Infrastructure/ Utilities Available	Capacity	Type
3204 Hadelmare Avenue	3204 Hadelmare Avenue	Town of Machias	Yes	20	Municipal
Christian Family Camp	9714 Leon Road	Town of New Albion	Unknown	Unknown	Campground
Queen Street	Queen Street	Town of Olean	Yes	50	Unknown
Dugan Road	Dugan Street	Town of Olean	Yes	20	Unknown
Lazy Acres	8625 Otto-Maples Road Cattaraugus, NY 14719	Town of Otto	Yes	300	Private
James Hill	8613 Otto-Maples Road Cattaraugus, NY 14719	Town of Otto	Yes	100	Private
Portville Central School	500 Elm Street	Town of Portville	Yes	100	School
Olean Wholesale	1587 Haskell Road	Town of Portville	Yes	500	Parking lot/field
Trailer Park	1263 Portville Obi Road.	Town of Portville	Yes	20	Trailer Park
Pope Haven Campground	11948 Pope Road	Town of Randolph	Unknown	Unknown	Campground
TOPS Friendly Markets parking lot	51 Main Street	Town of Randolph	Unknown	Unknown	Parking lot
R&M Restaurant	265 Main Street	Town of Randolph	Unknown	Unknown	Parking lot
Seneca Allegany Resort & Casino	777 Seneca Allegany Blvd.	City of Salamanca	Yes	250	Hotel
Holiday Inn Express	779 Broad Street	City of Salamanca	Yes	100	Hotel
Salamanca Fire Hall/City Hall	225 Wildwood Ave	City of Salamanca and Town of Salamanca	Yes	150	Municipal

### Shelters

The ARC has primary contractual responsibility to provide shelter for Cattaraugus County individuals and families during an emergency occurring in Cattaraugus County. Services of the ARC include emergency sheltering needs, mass care, feeding, information and referral, and special population assistance, including pets. The ARC is responsible for maintaining shelter agreements with selected facilities.

HAZUS-MH v4.2 estimates displacement and long-term sheltering needs for flood, hurricane, and earthquake events. These results are presented under Impacts on Life, Health, and Safety in the Vulnerability Assessments for Section 5.4.1 (Flood) and Section 5.4.3 (Severe Storm). These results indicate that the need for sheltering large numbers of residents is minimal. However, these results should be used as a starting point for determining the sheltering needs for the county, as this will not include sheltering for populations in surrounding counties or residents that are displaced due to widespread power outages.



Table 4-4. Shelters in Cattaraugus County

Site Name	Address	Municipality	Capacity	Accommodates Pets?	ADA Compliant?	Backup Power?	Types of Medical Services Provided	Other Services Provided	Identified by:
Highway Fire Hall	3790 Birch Run Road	Town of Allegany	Unknown	Yes	Yes	No	Basic medical services	None identified	Town of Allegany
Allegany Fire Hall	186 Main Street	Village of Allegany	300	Yes	Yes	Yes	Defibrillator	None identified	Village of Allegany
Allegany-Limestone Central School	3131 5 Mile Road	Village of Allegany	300	No	Yes	Yes	Defibrillator	None identified	Village of Allegany
Community Building	186 Main Street	Village of Allegany	200	Yes	Yes	No	None identified	None identified	Village of Allegany
Old School Building	120 Maple Avenue	Village of Allegany	200	Yes	No	No	None identified	None identified	Village of Allegany
Municipal Building	640 Main Street	Town of Carrollton	Unknown	Yes	Yes	Yes	EMS AMB	None identified	Town of Carrollton
Fire Station	5886 Church	Town of Carrollton	Unknown	Yes	Yes	Yes	EMS AMB	None identified	Town of Carrollton
Community Center	616 Main Street	Town of Carrollton	Unknown	Yes	Yes	Yes	EMS AMB	None identified	Town of Carrollton
Village of Cattaraugus Fire Department	24 Memorial Drive	Village of Cattaraugus	130	Unknown	Unknown	Unknown	None identified	None identified	Village of Cattaraugus
Village of Cattaraugus Ambulance Building	211 Main Street	Village of Cattaraugus	Unknown	Unknown	Unknown	Unknown	None identified	None identified	Village of Cattaraugus
Fire Hall	2603 Route 394, Steamburg	Town of Coldspring	100	Yes	Yes	Yes	Basic medical services	None identified	Town of Coldspring
Town Hall	2604 Lebanon Road, Steamburg	Town of Coldspring	75	Yes	Yes	No	None identified	None identified	Town of Coldspring
Town Hall/ Highway Department building	4762 Conewango Road	Town of Conewango	100	Yes	Yes	Yes	Basic medical services	None identified	Town of Conewango
Conewango Fire Department	12447 NE Road	Town of Conewango	100	Yes	Yes	Yes	Basic medical services	None identified	Town of Conewango
Dayton Fire Hall	9604 Allen St., Dayton	Town of Dayton	150	Yes	No	Yes	Basic medical services	None identified	Town of Dayton
Dayton Town Hall	9100 US-62, South Dayton	Town of Dayton	150	Yes	No	Yes	Basic medical services	None identified	Town of Dayton
Delevan Training Center	1006 N Main St	Village of Delevan	397	Yes	Yes	Yes	Defibrillator	None identified	Village of Delevan
East Otto Fire Hall	8990 Reed Hill	Town of East Otto	99	No	Yes	No	EMS-BLS medical services	None identified	Town of East Otto
Ellicottville Central School	5873 US-219, Ellicottville	Town of Ellicottville	500+	Yes	Yes	No	None identified	None identified	Town of Ellicottville
Ellicottville Town Center	28 Parkside Drive Ellicottville	Town of Ellicottville	300	Yes	Yes	No	None identified	None identified	Town of Ellicottville
Fire Hall	30 Fillore Drive	Village of Ellicottville	50-75	Yes	Yes	Yes	Ambulance and first aid services	None identified	Village of Ellicottville
Town Center	28 Parkside Drive	Village of Ellicottville	150	Yes	Yes	Yes	None identified	None identified	Village of Ellicottville



Site Name	Address	Municipality	Capacity	Accommodates Pets?	ADA Compliant?	Backup Power?	Types of Medical Services Provided	Other Services Provided	Identified by:
Town/Village Hall	1 W Washington	Village of Ellicottville	50	Yes	Yes	No	None identified	None identified	Village of Ellicottville
Fire Hall	Elton Road	Town of Farmersville	125	Only accommodates working dogs	Yes	Yes	Provides BAS/ALS and provides rescue services	None identified	Town of Farmersville
Baptist Church	Church Street	Town of Farmersville	50	No	No	No	Provides BAS/ALS and provides rescue services	None identified	Town of Farmersville
Comm. Church	Route 98	Town of Farmersville	150	No	Yes	No	Provides BAS/ALS and provides rescue services	None identified	Town of Farmersville
Franklinville Hire Hall	Route 16	Town of Farmersville	Unknown	Only accommodates working dogs	Yes	Yes	Provides BAS/ALS and provides rescue services	None identified	Town of Farmersville
Franklinville Central School	Route 16	Town of Farmersville	Unknown	Only accommodates working dogs	Yes	Unknown	Provides BAS/ALS and provides rescue services	None identified	Town of Farmersville
Firehall	S Main Street	Town of Franklinville	300	No	Yes	Unknown	EMT/Ambulance medical services	Kitchen	Town of Franklinville
School	S Main Street	Town of Franklinville	600	No	Yes	Unknown	None	Kitchen	Town of Franklinville
Fire Hall	69 North Main Street	Village of Franklinville	Unknown	Unknown	Yes	Unknown	None identified	None identified	Village of Franklinville
Gowanda Central District High School	10674 Prospect Street	Village of Gowanda	As needed	Yes	Yes	Yes	As needed	Provides food service	Village of Gowanda
Gowanda Elementary School	450 Aldrich Street	Village of Gowanda	As needed	Yes	Yes	Yes	As needed	Provides food service	Village of Gowanda
Fire Hall	230 Aldrich Street	Village of Gowanda	As needed	Yes	Yes	Yes	As needed	Provides food service	Village of Gowanda
Fire Hall	6035 Depot Street	Town of Great Valley	200	No	Yes	Yes	First Aid and Defibrillator medical services.	None identified	Town of Great Valley
SPCA	2944 Route 16	Town of Hinsdale	50	Yes	Yes	Unknown	None identified	None identified	Town of Hinsdale
Fire Department	4591 Humphrey Road	Town of Humphrey	100	Yes	Yes	Yes	Basic medical services	None identified	Town of Humphrey
Fire Hall	Route 16	Town of Ischua	250	Yes	Yes	No	Basic medical services	None identified	Town of Ischua
Fire Hall	12194 Leon New Albion Rd.	Town of Leon	150	Yes	Yes	Yes	EMT	None identified	Town of Leon
Town Hall	12195 Leon New Albion Rd.	Town of Leon	50	Yes	Yes	No	None	None identified	Town of Leon
Fire Hall	101 Third Street	Village of Little Valley	500	Yes	Yes	No	None identified	None identified	Village of Little Valley
Village Hall	103 Rock City Street	Village of Little Valley	50	Yes	Yes	Yes	None identified	None identified	Village of Little Valley
County Building	303 Court Street),	Village of Little Valley	Unknown	No	Yes	Yes	None identified	None identified	Village of Little Valley



Site Name	Address	Municipality	Capacity	Accommodates Pets?	ADA Compliant?	Backup Power?	Types of Medical Services Provided	Other Services Provided	Identified by:
Little Valley School Building	207 Rock City Street	Village of Little Valley	500	Yes	Yes	No	None identified	None identified	Village of Little Valley
Fire Department	816 Lyndon Center Road	Town of Lyndon	Unknown	Yes	Yes	Yes	Basic medical services	None identified	Town of Lyndon
Fire Department	9154 RT 16	Town of Machias	258	Yes	Yes	No	None identified	None identified	Town of Machias
Olean Municipal Building	101 E State St	City of Olean	Unknown	Unknown	Unknown	Yes	None	Bomb shelter	City of Olean
John T. Ash Community Building	112 N Barry Street	City of Olean	Unknown	Unknown	Unknown	Yes	Basic medical services	None identified	City of Olean
Town of Olean Fire Department	1297 Old Rock City Road	Town of Olean	150	No	Yes	Yes	None identified	None identified	Town of Olean
Town of Olean Town Hall	2634 Route 16 North	Town of Olean	50	Yes	Yes	No	None identified	None identified	Town of Olean
Weston Mills Fire Department and Community Center	1310 Olean-Portville Road	Town of Olean	300	No	Yes	Yes	None identified	None identified	Town of Olean
Hinsdale Fire Hall	3832 Church Street	Town of Olean	150	No	Yes	Yes	None identified	None identified	Town of Olean
Otto Fire Dept.	9099 Jark Road	Town of Otto	100	Yes	Yes	Yes	Volunteer EMT's	None identified	Town of Otto
Perrysburg Fire Hall	12007 Main St, Perrysburg	Town of Perrysburg	100	Unknown	Unknown	Yes	Basic medical services	None identified	Town of Perrysburg
Perrysburg Town Hall	10460 Peck Hill Road, Perrysburg	Town of Perrysburg	100	Unknown	Unknown	Yes	Basic medical services	None identified	Town of Perrysburg
Gowanda Central School	10674 Prospect Street	Town of Perrysburg	100	Unknown	Unknown	Yes	Basic medical services	None identified	Town of Perrysburg
Versailles Community Center	11703 Main Street	Town of Perrysburg	100	Unknown	Unknown	Yes	Basic medical services	None identified	Town of Perrysburg
Versailles Fire Hall	11851 Buffalo Road	Town of Perrysburg	100	Unknown	Unknown	Yes	Basic medical services	None identified	Town of Perrysburg
Versailles Methodist Church	Main Street, Versailles	Town of Perrysburg	100	Unknown	Unknown	Yes	Basic medical services	None identified	Town of Perrysburg
7 <sup>th</sup> Day Adventist Church	10700 North Road, Perrysburg	Town of Perrysburg	100	Unknown	Unknown	Yes	Basic medical services	None identified	Town of Perrysburg
Gowanda Volunteer Fire Department	230 Aldrich Street	Town of Persia	50	Yes	Yes	Yes	Emergency first aid, AED and CPR	Food, water and restroom facilities.	Town of Persia
Weston Mills VFD and Community Center	1310 Orleans-Portville Road	Town of Portville	200	Yes	Yes	Yes	None identified	None identified	Town of Portville
Fire Hall	70 Main Street	Town of Randolph	100	Yes	Yes	Yes	Basic medical services	None identified	Town of Randolph
Town Hall	72 Main Street	Town of Randolph	100	Yes	Yes	Yes	Basic medical services	None identified	Town of Randolph



Site Name	Address	Municipality	Capacity	Accommodates Pets?	ADA Compliant?	Backup Power?	Types of Medical Services Provided	Other Services Provided	Identified by:
NYS Office of Parks, Recreation, and Historic Preservation – Allegheny Region Administration lobby	2373 ASP Route #1-Suite 3, Salamanca	Town of Red House	Unknown	Unknown	Yes	Yes	None identified	None identified	Town of Red House
Salamanca Fire Department	225 Wildwood Ave	City of Salamanca	200	Yes	Yes	Yes	None	None identified	City of Salamanca
Salamanca School	50 Iroquois Drive	City of Salamanca	500	Yes	Yes	Yes	None	None identified	City of Salamanca
City Hall	225 Wildwood Ave	City of Salamanca	100	Yes	Yes	Yes	None	None identified	City of Salamanca
Salamanca Fire Department	225 Wildwood Ave	Town of Salamanca	200	Yes	Yes	Yes	None identified	None identified	Town of Salamanca
Salamanca School	50 Iroquois Drive	Town of Salamanca	500	Yes	Yes	Yes	None identified	None identified	Town of Salamanca
City Hall	225 Wildwood Ave	Town of Salamanca	100	Yes	Yes	Yes	None identified	None identified	Town of Salamanca
Town Hall	4295 Center Street Ext.	Town of Salamanca	20	Yes	Yes	No	None identified	None identified	Town of Salamanca
Holiday Inn Express	779 Broad Street	Town of Salamanca	Yes	No	Yes	Yes	None identified	None identified	Town of Salamanca
Seneca Allegany Resort & Casino	777 Seneca Allegany Blvd.	Town of Salamanca	250	Unknown	Yes	Yes	None identified	None identified	Town of Salamanca
Salamanca High School	50 Iroquois Drive	Town of Salamanca	200	No	Yes	Yes	None identified	None identified	Town of Salamanca
South Dayton Volunteer Fire Station #1	34 Maple Street, South Dayton	Village of South Dayton	Significant	Yes	Yes	Yes	None	None identified	Village of South Dayton
American Legion	4 Mill Street, South Dayton	Village of South Dayton	Significant	Yes	Yes	Yes	None	None identified	Village of South Dayton
Delevan Training Center	1006 Main Street	Town of Yorkshire	397	Yes	Yes	Yes	Defibrillator	None identified	Town of Yorkshire
Yorkshire Town Hall	82 S Main Street	Town of Yorkshire	200	Yes	Yes	Yes	None identified	None identified	Town of Yorkshire

Note: ADA = Americans with Disabilities Act

\* Activation of CART - County Animal Rescue Team



## Evacuation Routes

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Section 24 of the New York State Executive Law-2B allows first responders to take actions necessary to protect public safety in the absence of an emergency declaration. This authority is often applied when immediate action is necessary to evacuate citizens from a hazardous or potentially unsafe area.

Cattaraugus County has identified I-86, U.S. 219, Route 62, and Route 16 as evacuation routes. The primary roads and highways can also serve as evacuation routes for the county. The route used depends on the location of the incident. The county is fortunate to have a variety of well-connected arterial roadways throughout all regions, offering a variety of routing options. Figure 4-10 illustrates the major roadways in Cattaraugus County that would be utilized as evacuation routes in and out of the county in the event of an emergency that results in an evacuation.

Other than evacuation plans based on the geographically specific risks, evacuations are conducted on an event-specific basis. Because of the variable nature of such events, the Cattaraugus County Risk Management Division of the Human Resources Department assists with the coordination and communication of evacuation routing for the county. County residents can enroll in NY-Alert, a program that allows residents to receive emergency-related information specific to their area. Alerts include severe weather warnings, significant highway closures, hazardous material spills, and other emergency conditions. Residents can receive alerts via text message, phone, email, or fax.

## Responsibilities & Priorities

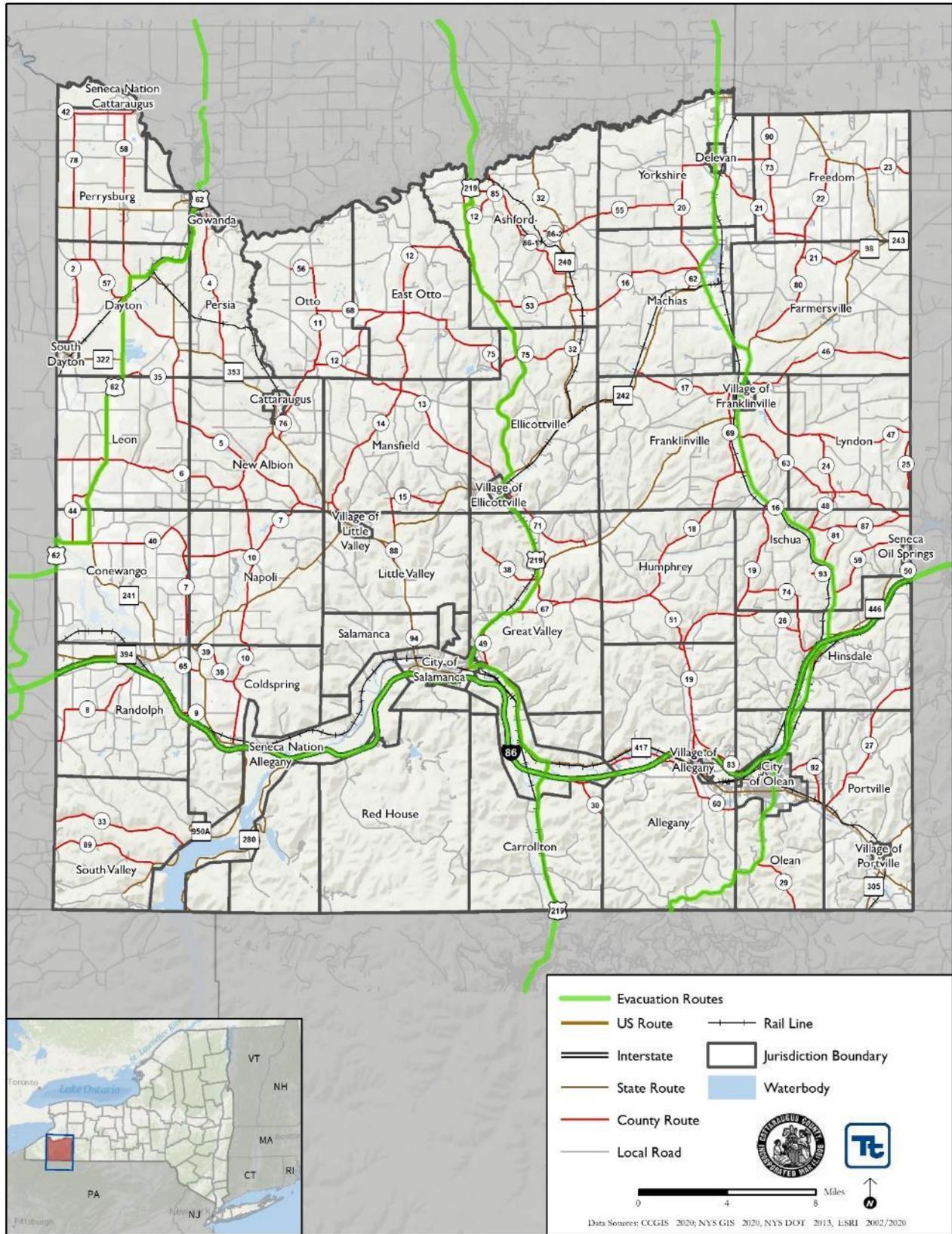
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During evacuation, state and local personnel are responsible for clearing roadways of debris and making repairs. State responsibilities include clearing debris from impacted roadways and public property. Local responsibilities include removing debris to a storage/disposal site. Priorities for debris removal after an evacuation are as follows:

- First priority – clearing of transportation corridors to allow passage of emergency vehicles
- Second priority – clearing of transportation corridors and other property to allow utility crews access to damaged power lines and other utility infrastructure needing repair to allow for power restoration
- Third priority – other emergency-related needs, as identified by the affected local municipality or by state agencies, and as authorized by the State Coordinating Officer.



Figure 4-10. Evacuation Routes in Cattaraugus County





### Long-Term Housing

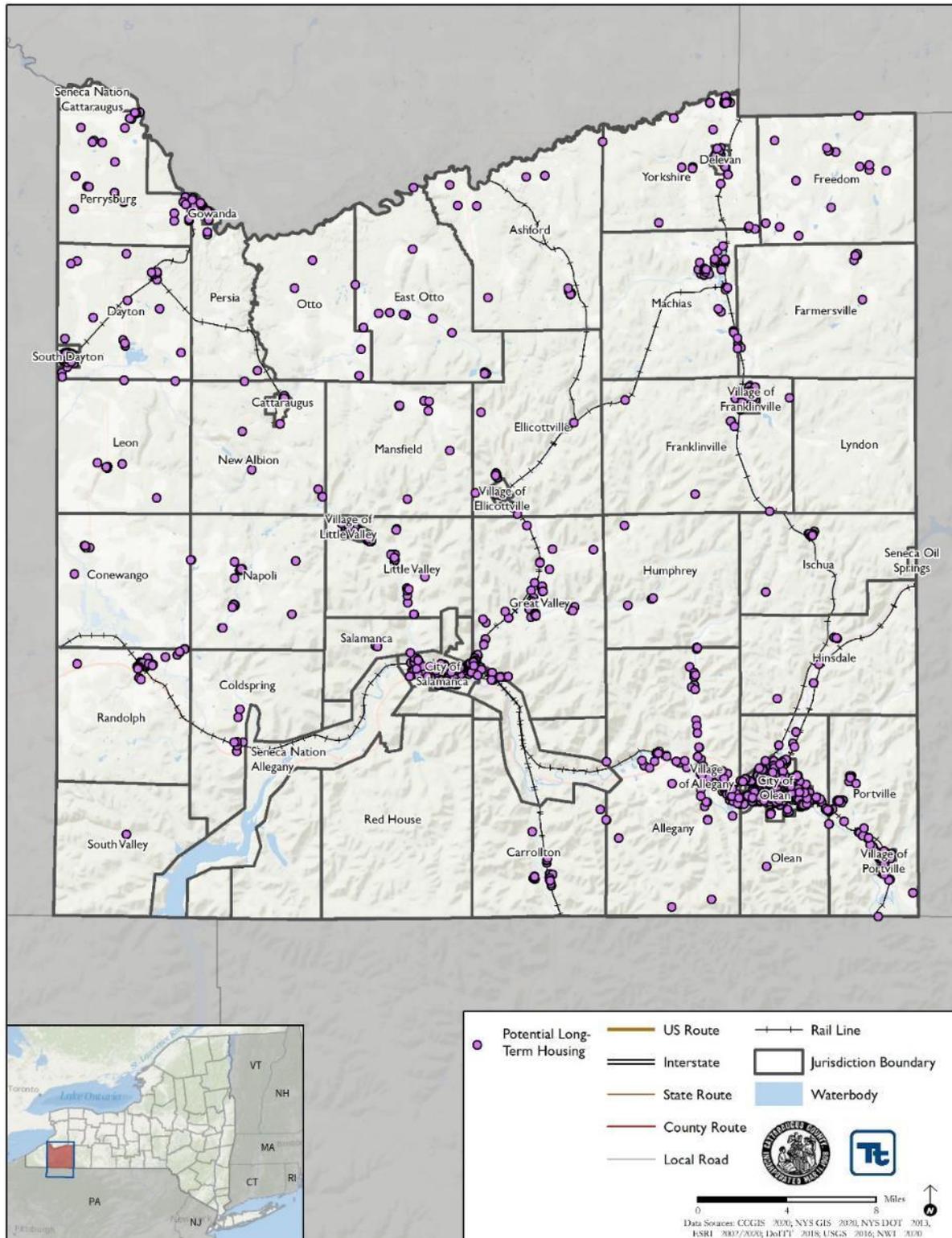
A buildable parcel analysis was conducted to support identification of potential sites suitable for relocating houses out of hazard areas (i.e., the floodplain) or building new homes in the event structures are destroyed by a natural hazard event. The analysis identified potential areas for post-disaster 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 parcel 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)

Figure 4-11 provides potential long-term housing locations in Cattaraugus County. Developable land displayed on the figure represents the portion of each identified vacant parcels with greater than 50 percent of their land area outside the two above hazard areas.



Figure 4-11. Potential Long-Term Housing Locations in Cattaraugus 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 as 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. Also included are Tier II facilities (hazardous materials) and rail yards; rail lines hold or carry significant amounts of hazardous materials with a potential to impact public health and welfare in a hazard event.

A comprehensive inventory of critical facilities in Cattaraugus County was developed from various sources, including the Cattaraugus County Office of Emergency Services and Department of Public Works, and input from the Steering Committee and Planning Partnership. The inventory of critical facilities presented in this section represents the current state of this effort at the time of publication of the draft HMP and used for the risk assessment in Section 5 (Risk Assessment). The numbers and types of critical facilities and infrastructure identified for this plan are indicated in Appendix F.

**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.

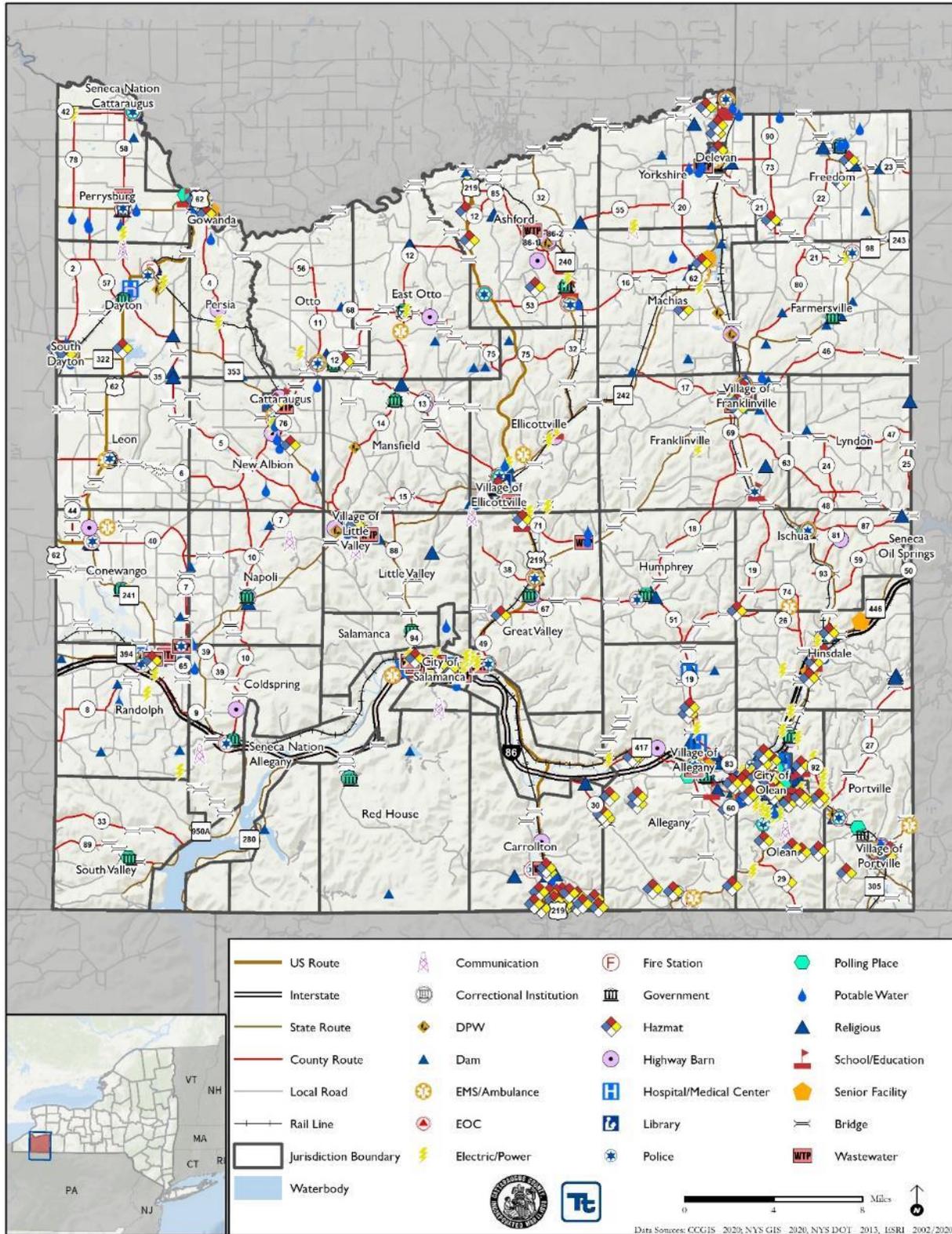
**Essential facilities** are a subset of critical facilities that include those facilities that are important to ensure a full recovery following the occurrence of a hazard event. For the county risk assessment, this category was defined to include police, fire, EMS, schools/colleges, shelters, senior facilities, and medical facilities.

### 4.6.1 Essential Facilities

This section provides information on emergency facilities, hospital 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 4-12 shows the location of the facilities and a list of the critical facilities is provided in Appendix F (Critical Facilities).



Figure 4-12. Critical Facilities in Cattaraugus County





## Emergency Facilities

The Cattaraugus County Office of Emergency Services is responsible for coordinating the county's emergency planning and management, including coordination of fire service and emergency medical services, training of first responders, and the creation and maintenance of Comprehensive Emergency Management Plans. The Office of Emergency Services works with county departments and other local, state, and federal agencies during an emergency to help protect lives and property, assist those injured, and to provide the rapid restoration of normal services. The office is comprised of three divisions:

- Emergency Management – this department is designated to coordinate all emergency management activities: mitigation, preparedness, response and recovery.
- Fire Services – this division is responsible directing and overseeing fire service activities, responses to multi-agency emergencies, and training requests; additionally, it coordinates fire service training within the county in conjunction with the New York State Office of Fire Prevention and Control.
- Emergency Medical Services – this division oversees the coordination of all certified first responder and emergency medical technician training, the issuance of first responder ID tags, and delivery of Critical Incident Stress Management.

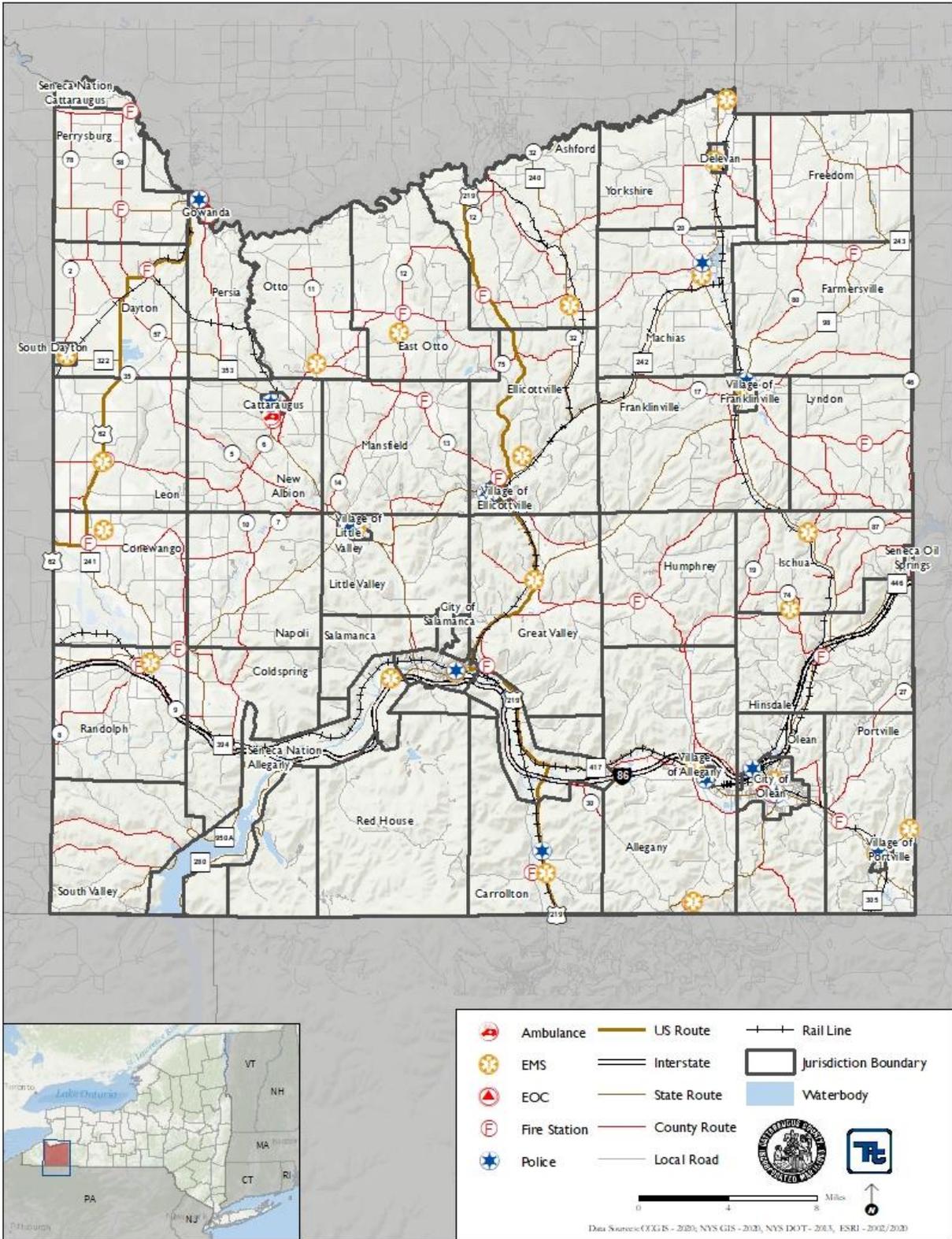
Emergency communications within Cattaraugus County are coordinated by the Cattaraugus County Communication Division and the Cattaraugus County 9-1-1 Center. The mission of the Cattaraugus County Communication Division is to serve as the critical and vital link between the residents and visitors of Cattaraugus County and the emergency services providers that serve them.

The Cattaraugus County Sheriff's Office, located in the Town of Little Valley, is the primary law enforcement agency in the county, and consists of several main operating divisions, including the Administrative Division, Communication Division, Detective Division, Jail Division, and the Patrol Division. In addition to the Sheriff's Department, several municipalities have their own police departments. The New York State Police also provide services within the county.

Cattaraugus County identified 33 EMS stations, 37 fire stations, and 12 police stations in the county (Cattaraugus County, 2020).



Figure 4-13 Emergency Facilities in Cattaraugus County

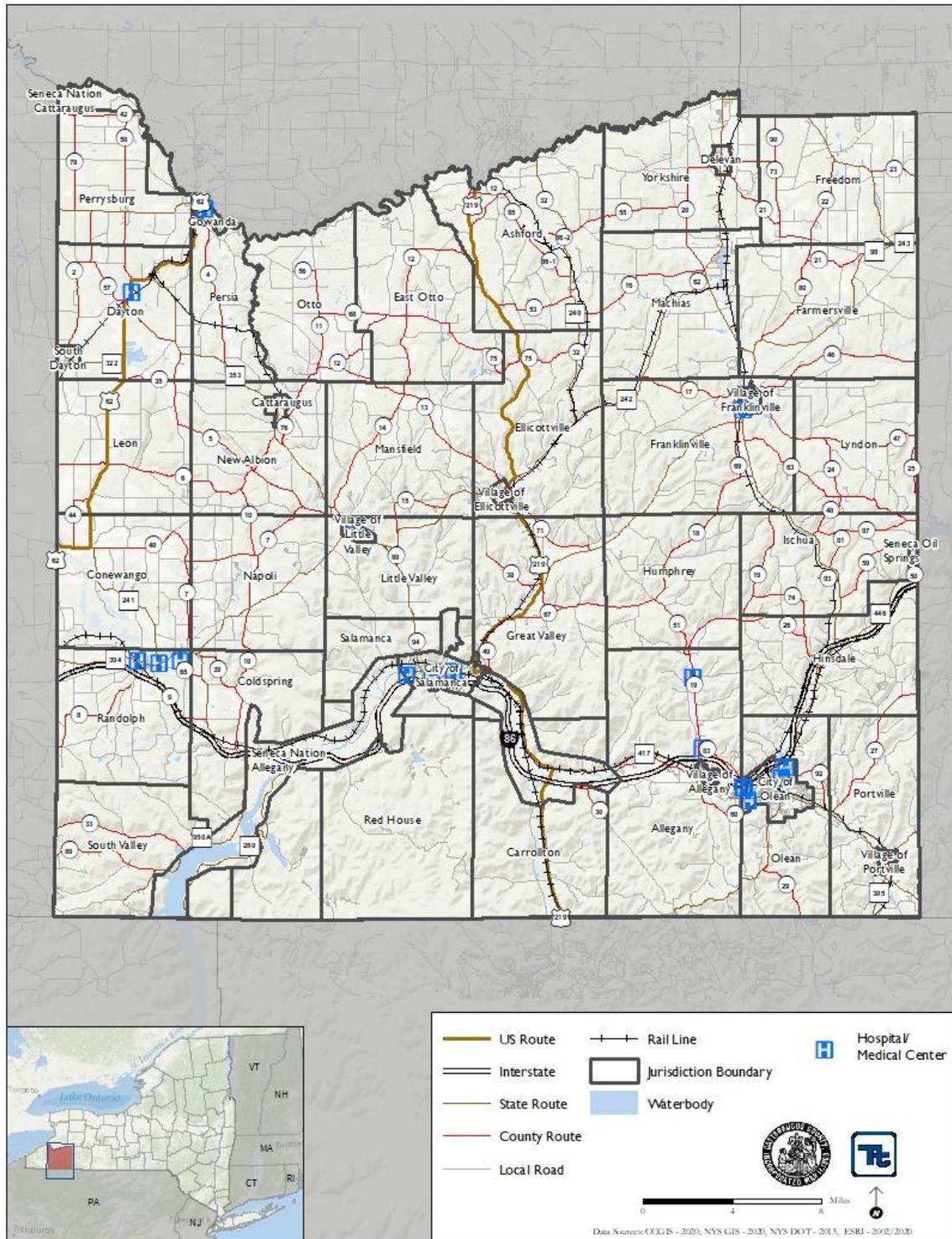




### Hospitals and Medical Facilities

One major hospital is located within Cattaraugus County (Olean General Hospital). Additional medical facilities are located throughout the county.

Figure 4-14 Hospitals and Medical Facilities in Cattaraugus County



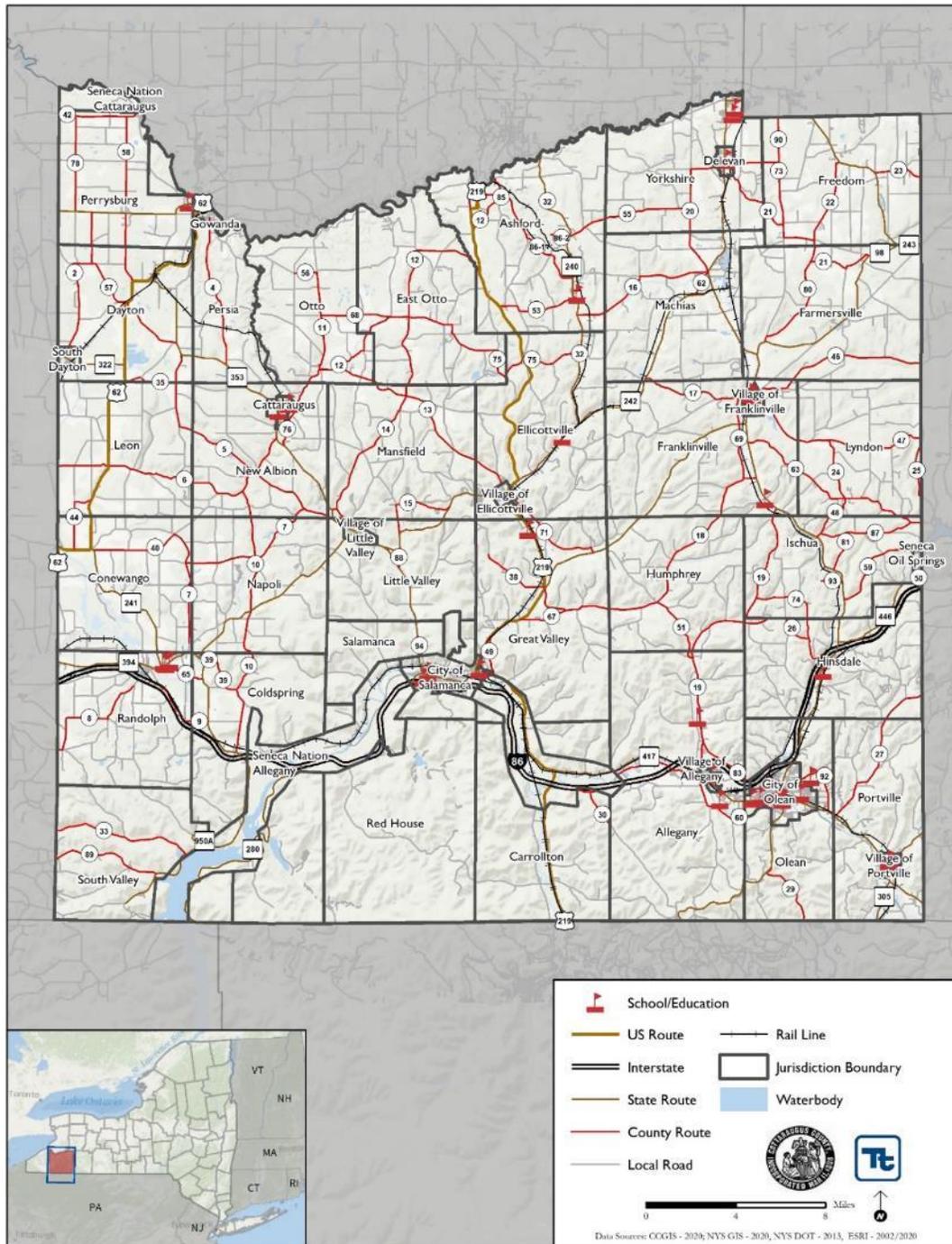


### Schools

Cattaraugus County is home to 13 school districts. St. Bonaventure University, the Cattaraugus Allegany BOCES – Practical Nursing Program, and the Continental School of Beauty are also located within the county.

In times of need, schools can function as shelters and are an important resource to the community. Figure 4-15 shows the location of schools within the county.

Figure 4-15. Schools within Cattaraugus County

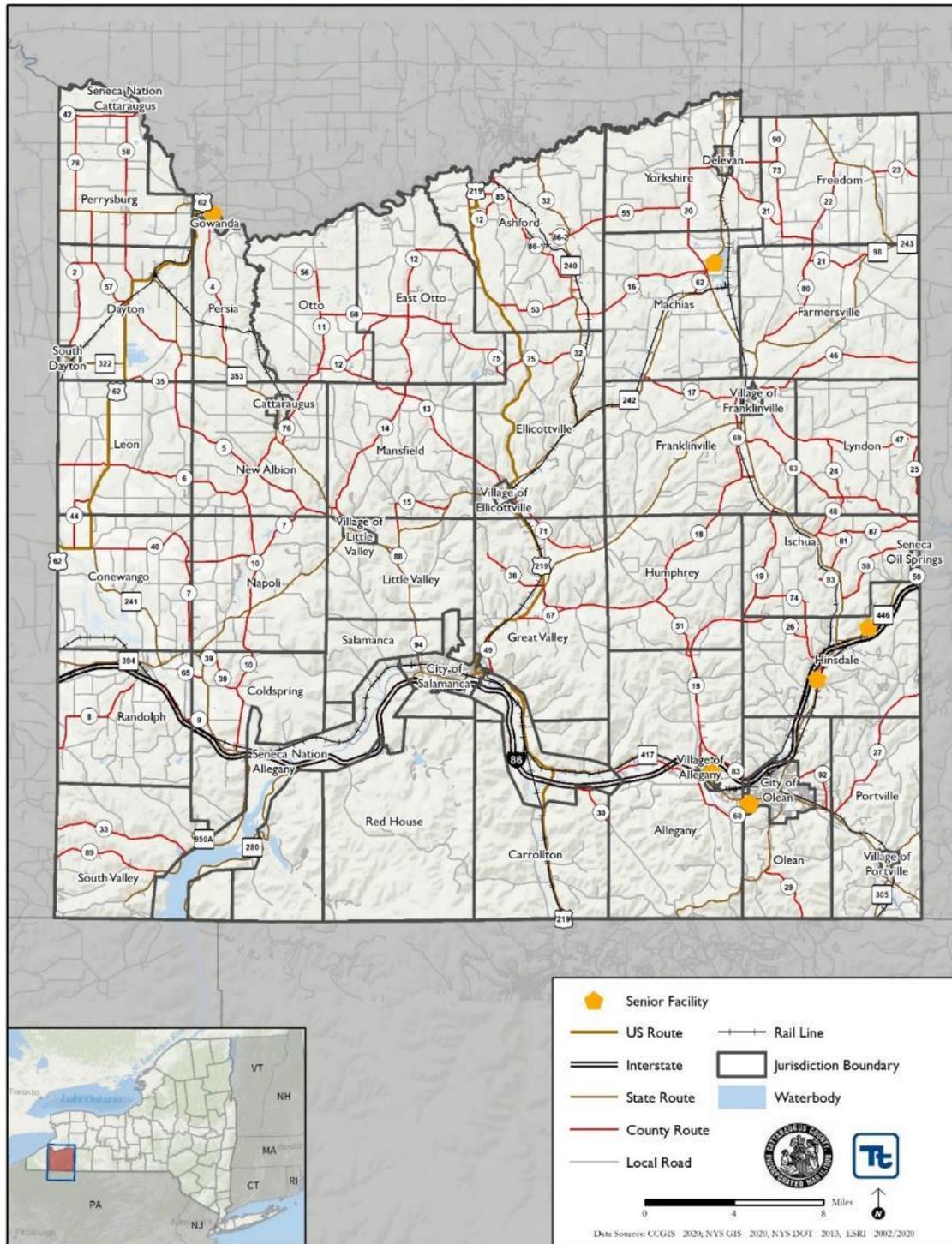




### Senior Care and Living Facilities

Cattaraugus County has three senior care facilities. The 2014-2018 American Community Survey 5-Year Estimates identified 14,106 people over the age of 65 living within Cattaraugus County. Figure 4-16 shows the location of senior care facilities within the county. These facilities include three assisted living facilities.

Figure 4-16. Senior Facilities in Cattaraugus County





## 4.6.2 Transportation Systems

Cattaraugus County's transportation network offers residents and employees various options for transportation throughout the county and the region. Transportation throughout the county runs along Interstate 86 and US Routes 62 and 219. There are over 150 county routes and 15 state routes as well. Nearly 3,000 miles of roadways in Cattaraugus County are owned by individual municipalities, with most of them identified as being local roadways. The county owns approximately 438 miles of the roads in the county. Transportation features are shown in Figure 4-17.

### Highway, Roadways and Associated Systems

Two very important interstate transportation corridors intersect in the southern part of Cattaraugus County, Interstate 86 (east/west) and US Highway 219 (north/south). Interstate 86 (Route 17) runs along the southern portion of New York State and connects with Interstate 87 north of New York City. US Highway 219 runs north to Buffalo and south to Maryland and West Virginia. They intersect at Interstate 86 Exit 21 in Salamanca and Exit 23 at Bradford Junction. New York State Highway 16, which also runs north/south on the eastern side of the county, intersects with Interstate 86 at Exit 26 in Olean. Refer to Figure 4-17.

### Airports and Heliports

Air passenger service is provided by the Cattaraugus County-Olean Airport. This publicly owned facility features a paved and a grass runway and is most suitable for small private planes, gliders, turboprop, and jet air craft.

### Bus and Other Transit Facilities

Bus service in Cattaraugus County is provided by five independent carriers: Access Allegany, First Transit, Inc., Olean Area Transportation System (OATS), Seneca Transit System, and the Wyoming Transit Service.

Access Allegany is a public and private transit system provided by Allegany County. Access Allegany services Allegany County but works in collaboration with neighboring transit systems (Orleans Area Transit and Hornell Area Transit) to provide users with no-cost transfers, allowing individuals to travel across Cattaraugus, Allegany, and Steuben Counties. First Transit, Inc. provides public and private transportation services throughout the United States. In Cattaraugus County, First Transit, Inc. is the contractor for the Olean Area Transit System and the Seneca Transit System. The City of Olean owns five buses used within the Olean Area Transportation System, and the system also uses contractor-owned vehicles for the provision of OATS services when city-owned buses are scheduled for maintenance and repairs. The Olean Area Transit System services the City of Olean and surrounding area. The Seneca Transit System provides public transit services that connect the Seneca Allegany Territory with the Seneca Cattaraugus Territory. The Wyoming Transit Service provides transportation services for Cattaraugus County individuals living in the Village of Delevan.

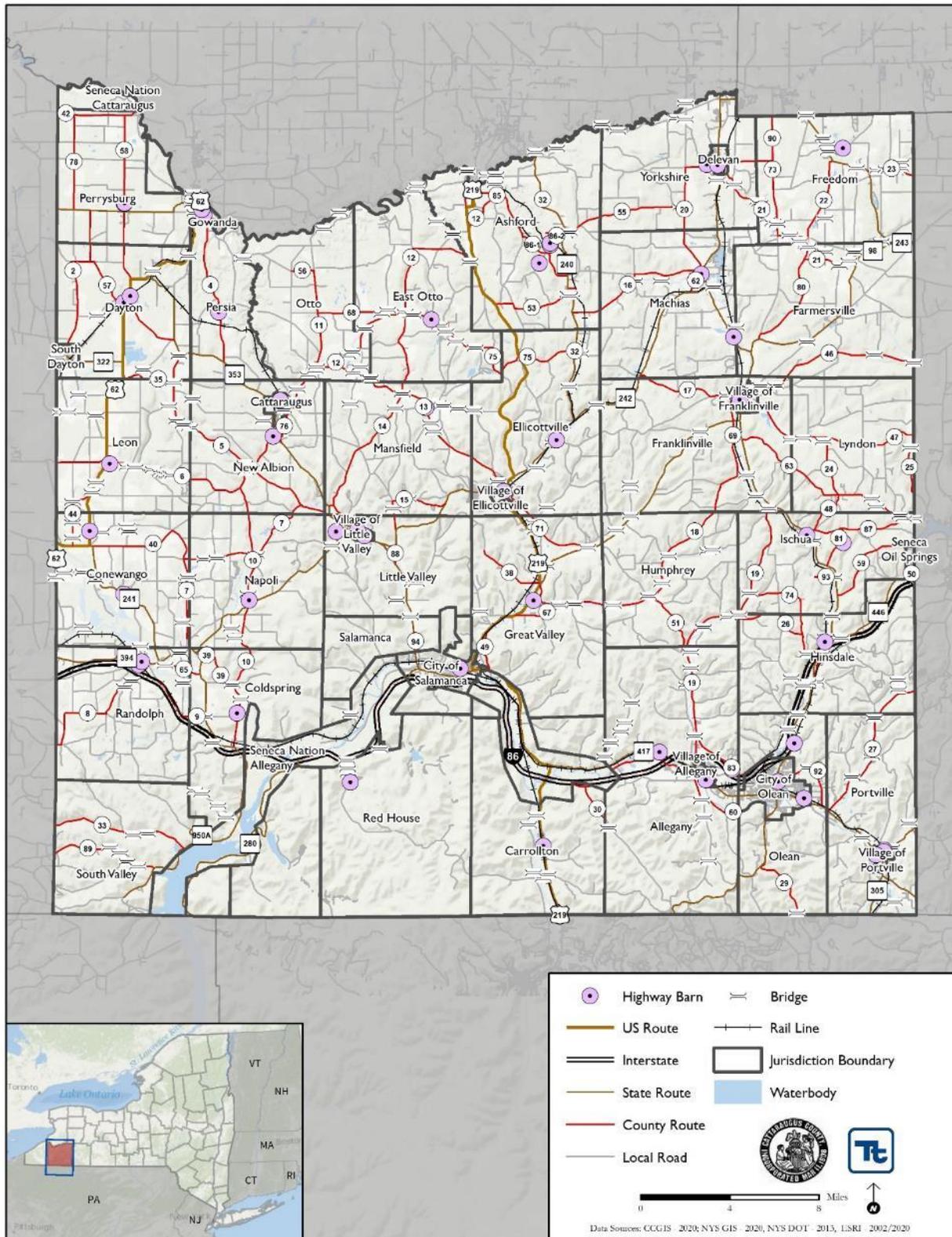
Rideshare services are also present in the county, including Uber and Lyft, although service will be dependent on driver location and availability.

### Railroad Facilities

For freight, the Southern Tier Extension Railroad Authority (STERA) and the Western New York and Pennsylvania Railroad, LLC, operate the rail lines in Cattaraugus County. STERA operates the Buffalo Rail Line (which travels the eastern portion of the county from north to south) and the Southern Tier Extension Rail Line (which travels the southern portion of the county from east to west). The Operations Office of the Western New York and Pennsylvania Railroad, LLC, is located in the Town of Olean.



Figure 4-17. Transportation Features in Cattaraugus County





### 4.6.3 Lifeline Utility Systems

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This section presents data and information on lifeline utility systems. Lifelines include utility services and infrastructure that provide water, power, and other necessary services to residents. Because of heightened security concerns, some location information for lifelines is not provided in this HMP, although the number of facilities and their general location are considered (as data are available). Additionally, because the majority of power supply lines are privately held, this information is generally difficult to obtain and is not for public release. However, consideration of the utilities in the area is presented below to support the risk assessment in Section 5 (Risk Assessment).

#### Potable Water

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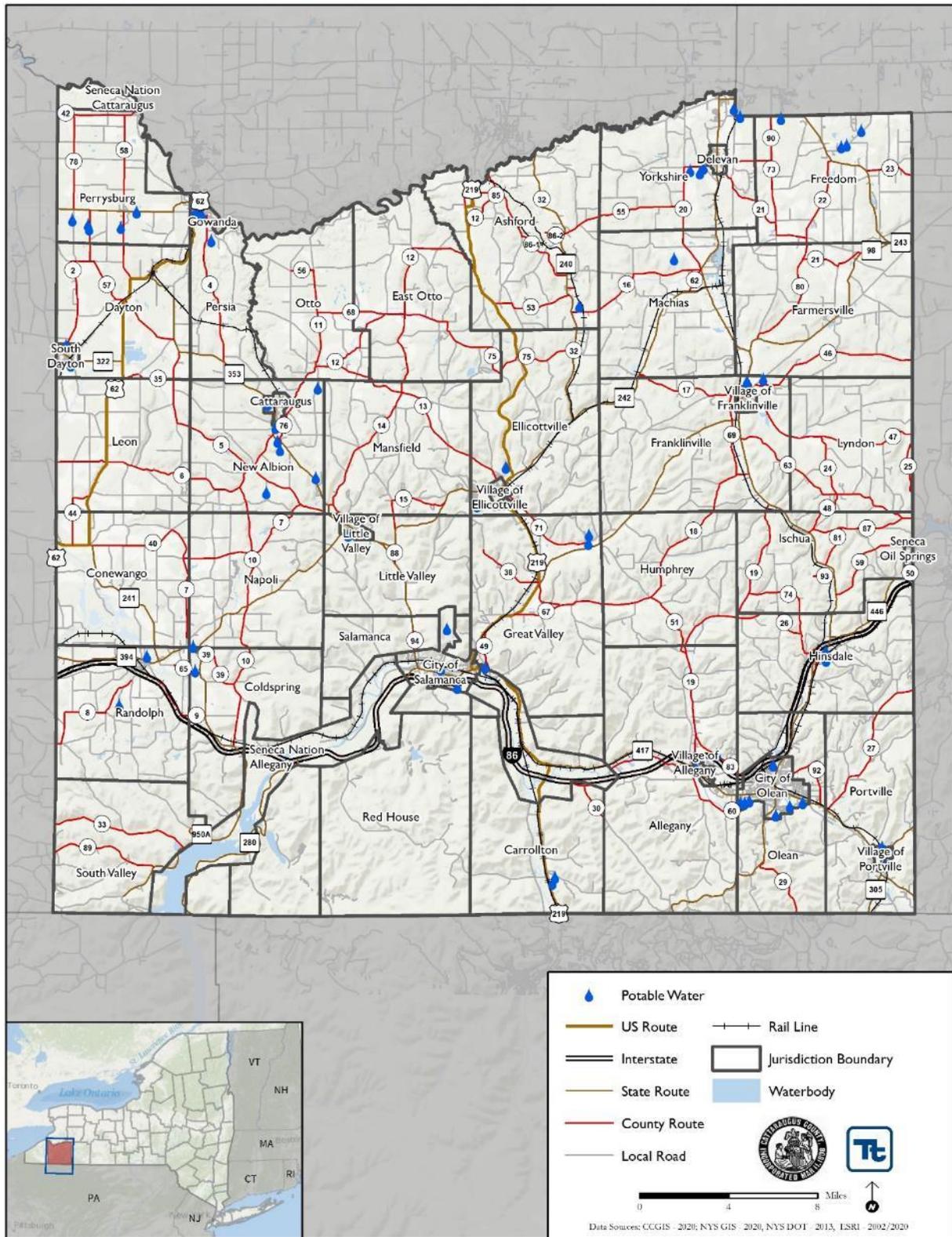
Because of the rural nature of the county, the most common sources of potable water within Cattaraugus County are municipal and private sources. Private sources of water include drilled wells, driven point wells, and springs. Municipal water supplies (provided by towns and cities) include community water systems, noncommunity water systems, non-transient noncommunity water systems, and water systems regulated as a condition of a “Permit to Operate” issued by the Department of Health. The Cattaraugus County Environmental Health Division is responsible for ensuring compliance with treatment, reporting, and water quality standards for all public water systems.

The NYS DEC Water Well Information database began documenting potable water wells beginning in 2000, and currently reports 386 new wells drilled within the county since that date.

Figure 4-18 identifies potable water facilities in Cattaraugus County.



Figure 4-18. Potable Water Facilities in Cattaraugus County





## **Wastewater Facilities**

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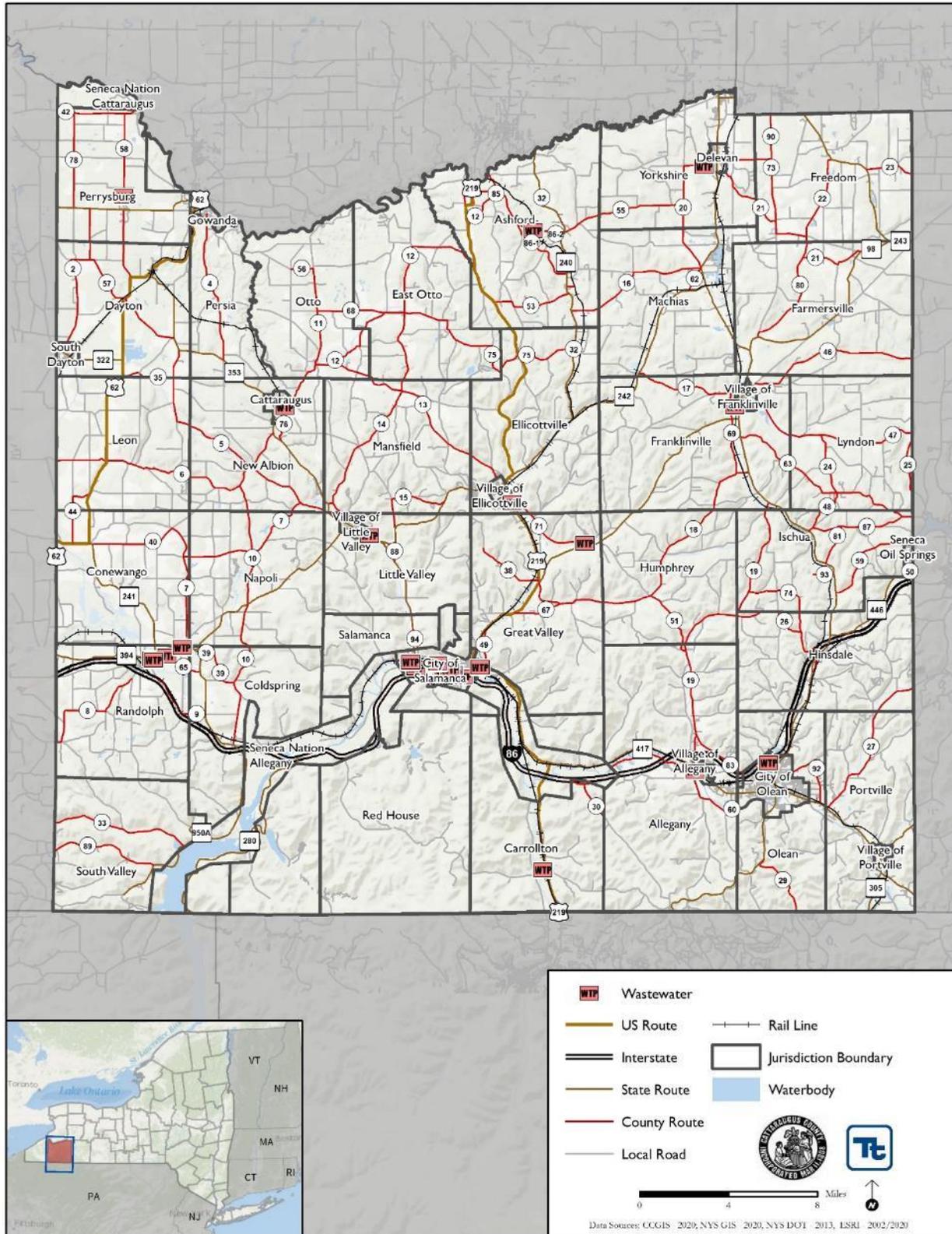
Wastewater treatment for most municipalities is provided by municipal or private treatment facilities. There are 26 municipal wastewater treatment facilities in the county. Municipal wastewater treatment services are provided by wastewater treatment plants, wastewater treatment facilities, and sewage treatment plants. Private wastewater treatment within Cattaraugus County includes septic systems and sand filters.

Where municipal sewage treatment is not available, on-site septic systems are used. Soil quality in the county is variable, resulting in many parts of the county being unsuitable for on-site wastewater treatment. Undersized or unmaintained on-site septic systems can be an issue, particularly in the drinking watersheds, where exposure and runoff can impair water quality.

During the planning process, the Steering Committee and Planning Partnership identified 17 wastewater treatment facilities in Cattaraugus County. Of these 17 facilities, 14 are county owned. Additionally, 139 pump stations were identified, of which 132 are county owned. These facilities and pump stations are displayed in Figure 4-19.



Figure 4-19. Wastewater Facilities in Cattaraugus County

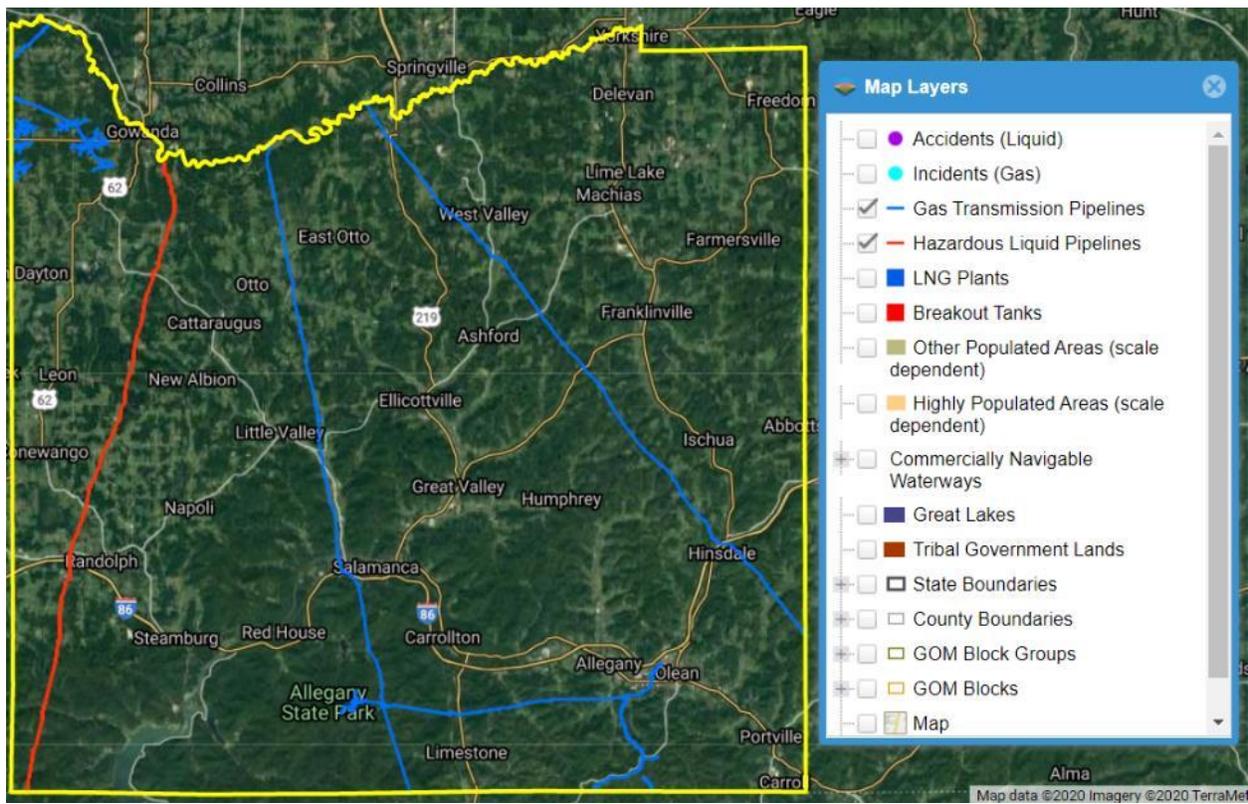




### Energy Resources

Gas and electric power in Cattaraugus County are transmitted and distributed primarily by New York State Electric and Gas. Numerous gas transmission pipelines and one hazardous liquid pipeline cross the county. Figure 4-20 shows the location of pipelines in Cattaraugus County.

Figure 4-20. Pipelines in Cattaraugus County



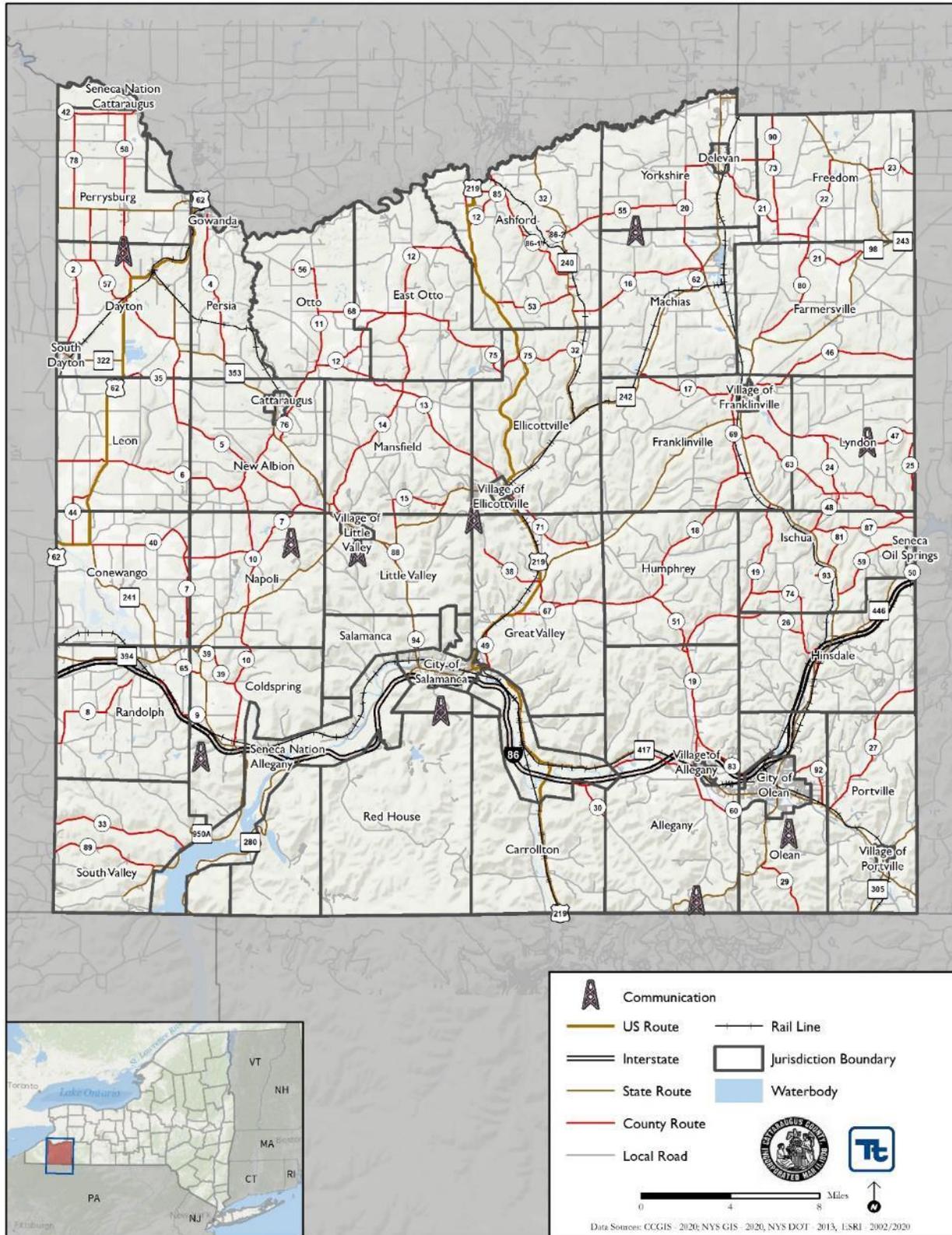
Source: USDOT PHSMA 2020

### Communications

Cattaraugus County is served by a variety of communications systems, including traditional land line and cellular service provided by multiple companies, such as Verizon, AT&T, Sprint, and T-Mobile. Wireless Broadband internet service is provided by Southern Tier Wireless, DFT, and Spectrum. Plans to provide the county with fiber-optic internet by Armstrong Communications are currently in the engineering and design phase. In addition to land line, fiber optic, and cellular communications systems, Cattaraugus County has an extensive radio communications network that is utilized by emergency services agencies, hospitals, law enforcement, public works, transportation, and other supporting organizations. Communication facilities within Cattaraugus County are shown in Figure 4-21.



Figure 4-21. Communication Facilities within Cattaraugus County





#### 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 and levees are discussed below.

##### 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 contains 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 2019, Cattaraugus County contains three hazardous sites in the Federal Superfund Program that are included on the NPL (CERCLIS, 2019).

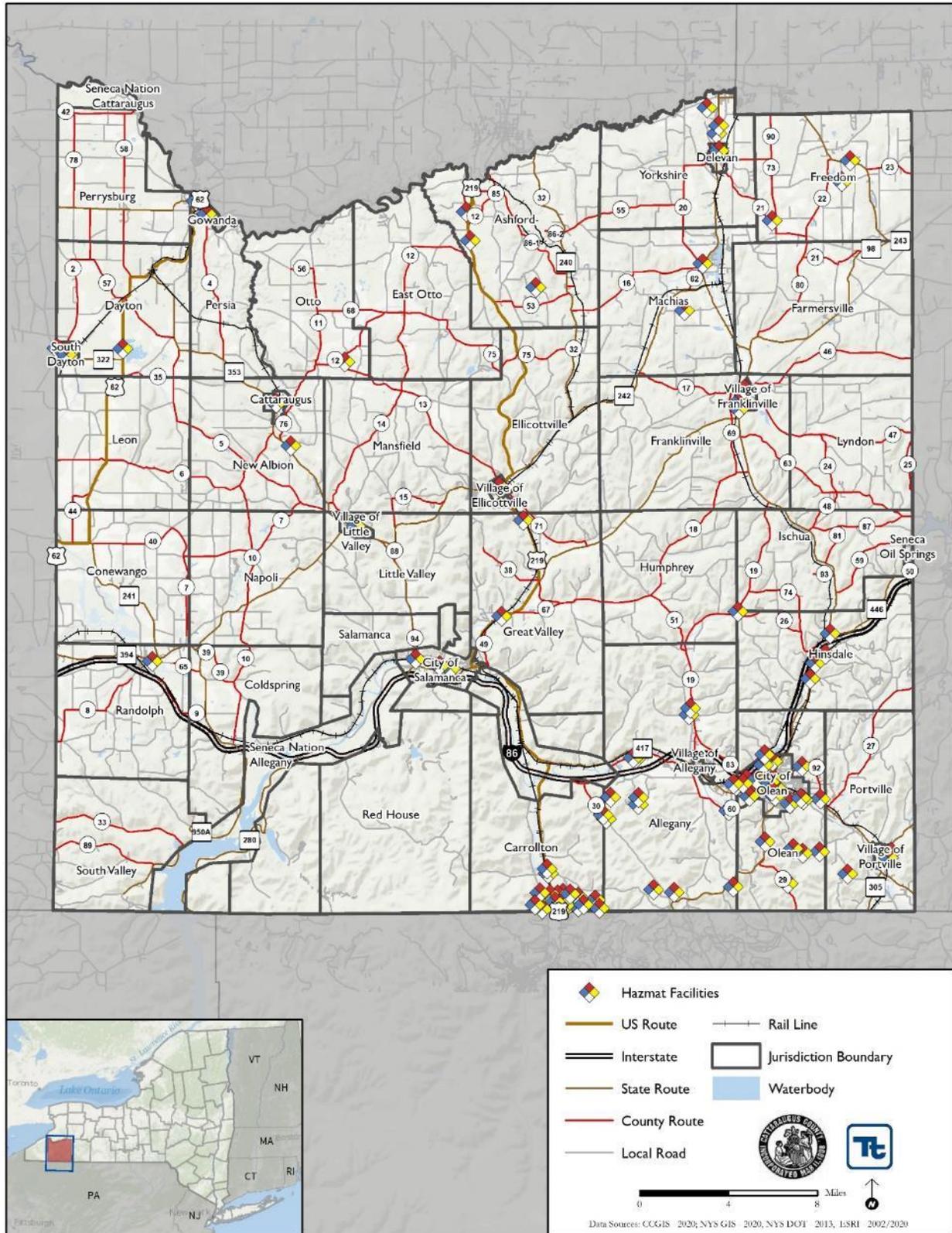
Superfund sites are contaminated locations, requiring a long-term response to clean up hazardous materials; NPL sites are included. The EPA Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) (Superfund) Public Access Database (CPAD) reports currently one archived Superfund site is located in Cattaraugus County (CERCLIS, 2019). An archived Superfund site is a site with no further interest under the Federal Superfund Program based on available information and that is no longer part of the CERCLIS inventory.

In addition to the hazardous waste sites, there are numerous hazardous facilities in Cattaraugus 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 August 2020, 457 sites are listed in the NYSDEC’s Bulk Storage Program Database in Cattaraugus County, New York (New York State Department of Environmental Conservation [NYSDEC] 2020).

Figure 4-22 identifies HAZMAT facilities within Cattaraugus County.



Figure 4-22. HAZMAT Facilities within Cattaraugus County





## Dams and Levees

### Dams

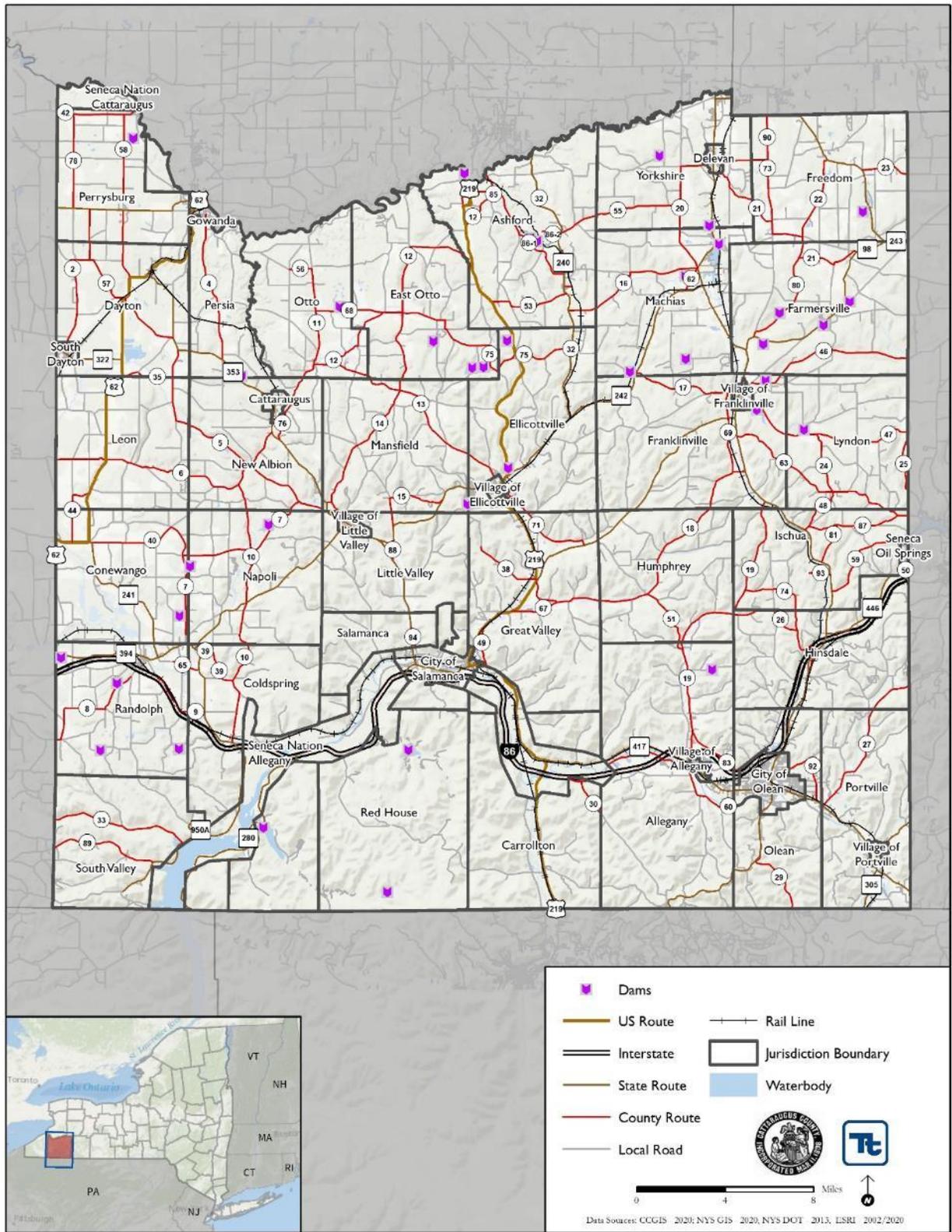
According to the NYSDEC Division of Water Bureau and Flood Protection and Dam Safety, there are three hazard classifications of dams in New York State. The dams are classified in terms of potential for downstream damage if the dam were to fail. The hazard classifications are as follows:

- *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.

The New York State Inventory of Dams, identifies 164 dams in Cattaraugus County: 85 low hazard, 14 intermediate hazard, 12 high hazard, 52 negligible or no hazard classification, and 1 with no classification code (NYSDEC, 2020). In addition, the Cuba Lake Spillway Dam in neighboring Allegany County could impact Cattaraugus County during a dam failure event. Figure 4-23 shows dam locations in Cattaraugus County.



Figure 4-23. Dam Locations in Cattaraugus County





## Levees

Seven accredited levee systems are present within Cattaraugus County, operated and maintained by the New York State Department of Environmental Conservation. The locations of these levee systems are displayed in Figure 4-24. The Right Bank Olean Creek levee is accredited and is maintained by the New York State Department of Environmental Conservation (NYSDEC). The Olean Creek system consists of approximately 2.39 miles of levee embankment along the Olean Creek. A flood in the area behind the levee could impact nearly 1,953 people, 774 commercial and residential structures and cause an estimated \$280 million of possible flood-related damage (USACE, 2020).

The Left Bank Olean Creek levee system is located on Olean Creek and the Allegheny River in the Town of Olean. The system consists of 4.09 miles of levee embankment. A flood in the area behind the levee could impact approximately 5,083 people, 2,364 commercial and residential structures, and could cause an estimated \$1.04 billion of possible flood-related damage (USACE, 2020).

The North of Dodge Creek levee system is located on the right bank of Dodge Creek and the right bank of the Allegheny River in the Town of Portville. The system consists of 2.4 miles of levee embankment. A flood in the area behind the levee could impact approximately 513 people, 255 commercial and residential structures, and cause an estimated \$80 million of possible flood-related damage (USACE, 2020).

The South of Dodge Creek levee system is located on the banks of the Oswayo Creek, the Allegheny River, and the south bank of the Dodge Creek in the Town of Portville. The system consists of approximately 2 miles of levee embankment. A flood in the area behind the levee could impact approximately 499 people, 275 commercial and residential structures, and cause an estimated \$136 million in possible flood-related damage (USACE, 2020).

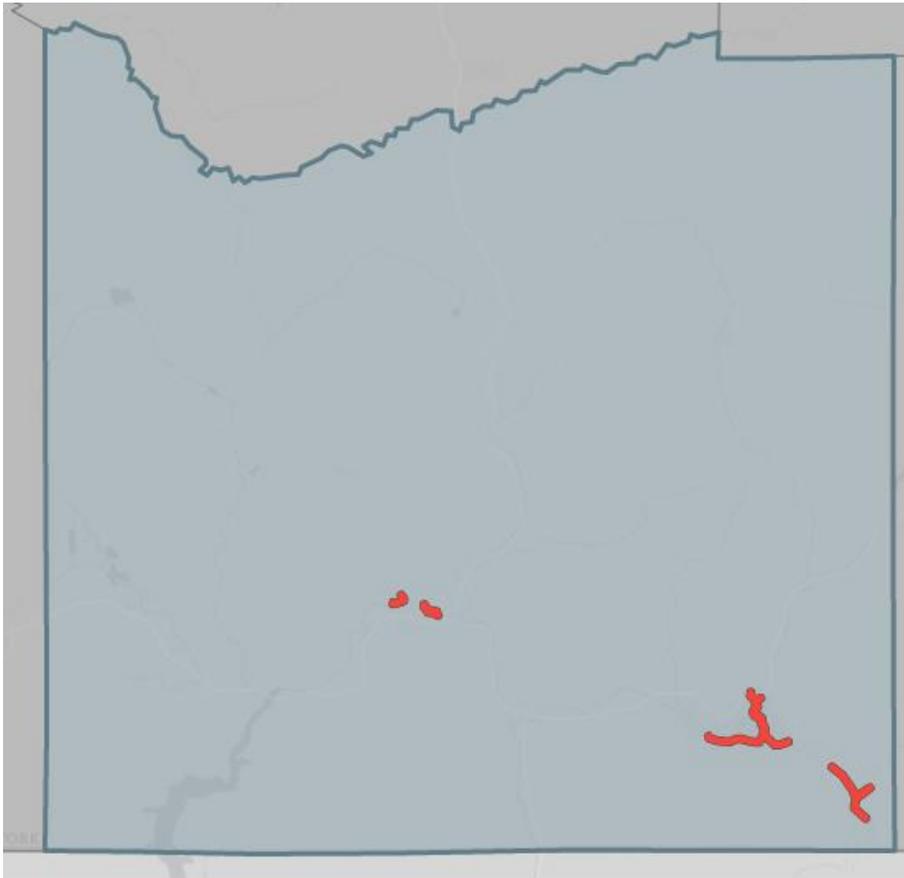
The Left Bank Allegheny levee system is located on the left bank of the Allegheny River in the Town of Salamanca. The system consists of approximately 0.5 mile of levee embankment on the left bank of the Allegheny River. A flood in the area behind the levee could impact approximately 71 people, 29 commercial and residential structures, and cause an estimated \$20.6 million in flood-related damage (USACE, 2020).

The Right Bank Allegheny River levee system is located on the left bank of the Allegheny River in the Town of Salamanca. It consists of approximately 0.73 mile of levee embankment on the left bank of the Allegheny River. A flood in the area behind the levee could impact approximately 61 people, 30 commercial and residential structures, and could result in an estimated \$9.58 million in flood-related damage (USACE, 2020).

The Right Bank West Salamanca levee system is located on the left bank of the Allegheny River in the Town of Salamanca. The system consists of approximately 0.88 mile of levee embankment on the left bank of the Allegheny River. A flood in the area behind the level could impact approximately 177 people, 92 commercial and residential structures, and could cause an estimated \$18.5 million in flood-related damage (USACE, 2020).



Figure 4-24. Levee System Locations in Cattaraugus County



Source: USACE, 2020