

### 4.3 Assessing Vulnerability: Identification of Assets and Development Trends

To understand risk, a community must evaluate what assets are exposed to hazard events. The inventory of assets considers the population, structures, and lifelines that could be impacted by hazard events. This section presents inventory data used for this risk assessment and discusses development trends in the area of interest. The consideration of development trends is important because areas of future development could increase the inventory that is exposed and that could be lost should a hazard event occur.

Inventory data quantify the people, places, and things that could be injured, damaged, or destroyed during the occurrence of a hazard. Once the overall asset inventory has been established, the portion of the inventory that is at risk of being impacted by the various hazards is identified. This “at-risk” subset can be identified by overlaying the hazard area (for example, flood zone) with the asset data to estimate the assets at risk. For example, areas of residential development may be compared with flood zones to determine the locations and number of structures at risk of damage or destruction from flooding. Understanding vulnerable assets can help guide mitigation strategies and efforts. Hazard exposure and loss estimates in Section 4.4 use this approach.

HAZUS-MH includes data for a number of asset categories, including population, buildings, infrastructure, and lifelines. The **built environment** includes these buildings, infrastructure, and lifelines. HAZUS-MH uses **occupancy classes** to categorize buildings as commercial, residential, industrial, government, or “other”.

Because HAZUS-MH was used to support this mitigation plan, HAZUS-MH provided data was used as a starting point for inventory data. HAZUS-MH includes a range of asset data based on national and regional data sets, such as the U.S. Census for population data and Dun & Bradstreet and other data for building stock and value estimates. Further, Tetra Tech discussed the data needs of the risk assessment process with the planning committee and discussed areas where local data might supplement or refine the nationally provided data. A range of potential data sources were identified by the planning committee. Assistance from local emergency management personnel, county planners, GIS professionals, and others was then used to collect additional data. The mitigation planning contractor then reviewed this data with the planning committee and selected data for inclusion, focusing on critical and essential facilities first. These facilities include police and fire stations, schools, hospitals, and other buildings that are critical to community functions and recovery after a hazard event. A range of other data also were reviewed; for example, local parcel data was reviewed for building value data but this data set did not provide all of the attributes needed for HAZUS-MH. Local building and facility data were used to supplement the HAZUS-MH-provided data for individual, site-specific critical facility categories.

Appendix C of this mitigation plan, *Data Summary Matrix*, provides a detailed summary of the data collection efforts and data sets selected for this mitigation plan. At the time of plan preparation, these represented the best available data to support the plan; long term data improvement plans were discussed and are presented in Section 5, Mitigation Strategy. As the risk assessment and plan are revised over time, data will be updated and refined, using the actions described in Section 5.

Inventory data for Delaware County are discussed under the following categories: (1) population and demographics, (2) general building stock (aggregate inventory), and (3) critical facilities (site-specific inventory). Each of these categories is discussed in this section.

The databases included in HAZUS-MH are called **provided data** and allow users to run a preliminary analysis without collecting or using local data. Examples of HAZUS-MH provided data include building data, transportation lifeline data, population data, and critical facility information. For Delaware County, a range of local and other data were reviewed and, where feasible, local data was used to supplement the HAZUS-MH provided data, as discussed in this section.

## 1 Population and Demographics

According to the U.S. Census Bureau, the 2004 population of Delaware County was approximately 48,055. U.S. Census Bureau data, obtained from the Cornell University Geospatial Data Information Repository (CUGIR), identified the 2000 population of Delaware County as 48,055. After a comparison of these data to the provided data included in HAZUS-MH (2000 census population of 48,055), it was determined that HAZUS-MH population data would be used without modification.

Delaware County is one of the most rural counties in NYS, ranked 5<sup>th</sup> out of the 62 counties for population density, with an average density of only 33 per square mile (2000 U.S. Census Bureau).

Figure 4-3-1 shows the distribution of the general population for Delaware County by Census Block.

Figure 4-3-1. Distribution of General Population in Delaware County

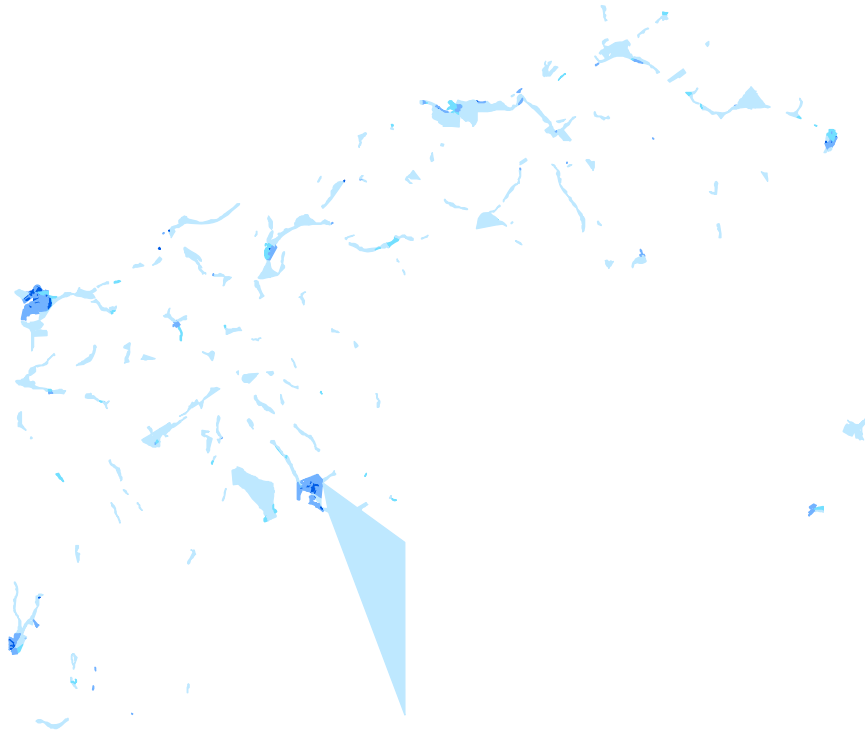


Table 4-3-1. Delaware County Population Statistics (2000 U.S. Census)

| Town         | Population (2000) | Pop. Over 65 / % of Total | Pop. with household income less than \$20k/yr. / % of Total |
|--------------|-------------------|---------------------------|---|
| Andes        | 1356              | 293 / 22                  | 148 / 11  |
| Bovina       | 664               | 145 / 22                  | 41 / 6  |
| Colchester   | 2042              | 468 / 23                  | 235 / 12  |
| Davenport    | 2774              | 387 / 14                  | 258 / 9   |
| Delhi        | 4629              | 825 / 18                  | 359 / 8   |
| Deposit      | 1687              | 293 / 17                  | 232 / 14  |
| Franklin     | 2621              | 431 / 16                  | 197 / 8   |
| Hamden       | 1280              | 231 / 18                  | 108 / 8   |
| Hancock      | 3449              | 652 / 19                  | 408 / 12  |
| Harpersfield | 1603              | 400 / 25                  | 147 / 9   |
| Kortright    | 1633              | 252 / 15                  | 146 / 9   |
| Masonville   | 1405              | 191 / 14                  | 122 / 9   |
| Meredith     | 1588              | 212 / 13                  | 139 / 9   |
| Middletown   | 4051              | 973 / 24                  | 480 / 12  |
| Roxbury      | 2509              | 492 / 20                  | 275 / 11  |
| Sidney       | 6109              | 1157 / 19                 | 713 / 12  |
| Stamford     | 1943              | 335 / 17                  | 205 / 11  |
| Tompkins     | 1105              | 186 / 17                  | 104 / 9   |
| Walton       | 5607              | 1005 / 18                 | 743 / 13  |
| Study Area   | 48,055            | 8928 / 19                 | 5,060 / 11  |

Source: HAZUS-MH FEMA 2004.

Figure 4.3.2 shows the distribution of the elderly (>65 years old) population within Delaware County, along with the locations of senior living and nursing homes. An inventory of senior living and nursing home facilities may be found in Section 4.3.3.1. As can be seen from this figure, the elderly population is located generally in the population centers of the County (villages and hamlets) without any significant aberrations in density between population centers.

Figure 4.3.3 shows the distribution of the low-income (family income < \$20K/yr) population within the County. Per the 2004 Delaware County Community Health Assessment (CHA), the highest income towns (Bovina, Meredith, Hamden, Delhi, Andes and Franklin – in descending order of income level) are located in the central region of the county. The middle income towns of Davenport, Roxbury, Stamford, Walton, Tomkins and Harpersfield, dispersed throughout the county, are more rural than the higher income towns, have one or more large employers, or are within commuting distance of Otsego County. The lowest income towns of Middletown, Kortright, Colchester, Hancock, Masonville, Sidney and Deposit are generally located on the southern and western fringe of the county, and are typically quite rural and far from major sources of employment.

In the Town and Village of Sidney, the three primary areas that have notable concentrations of low-income households are Sidney Center, Sherwood Heights in the Village, and the North End of the Village near the Susquehanna River (Consolidated Plan, 1998).

The 2004 CHA notes that “given the degree of population dispersion, the modest sized population of towns in the county, and the long distances separating most communities, it has proven impossible to develop transportation services that can link the county’s social, economic, and health care networks and facilities”. This challenge is also a concern when considering emergency response, including evacuation, to impending and occurring hazard events.

Figure 4-3-2. Distribution of Elderly (>65 yrs.) Population and Senior Centers in Delaware County

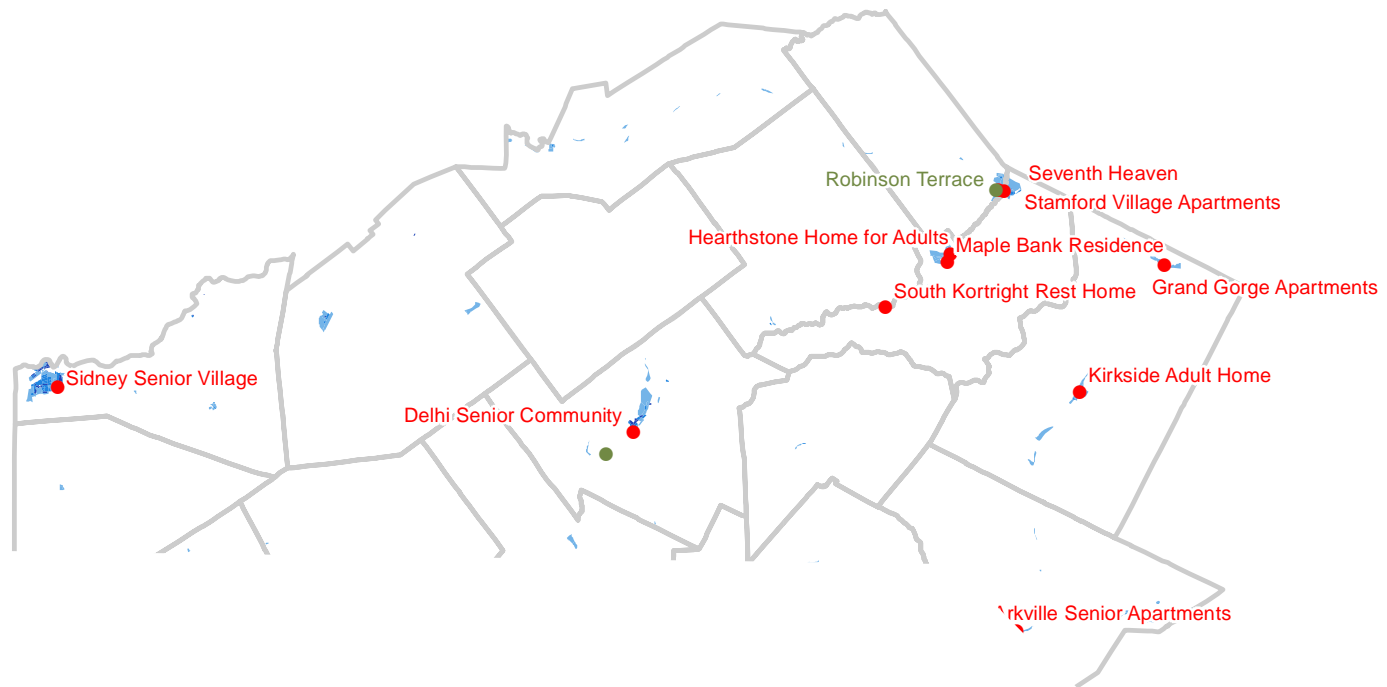
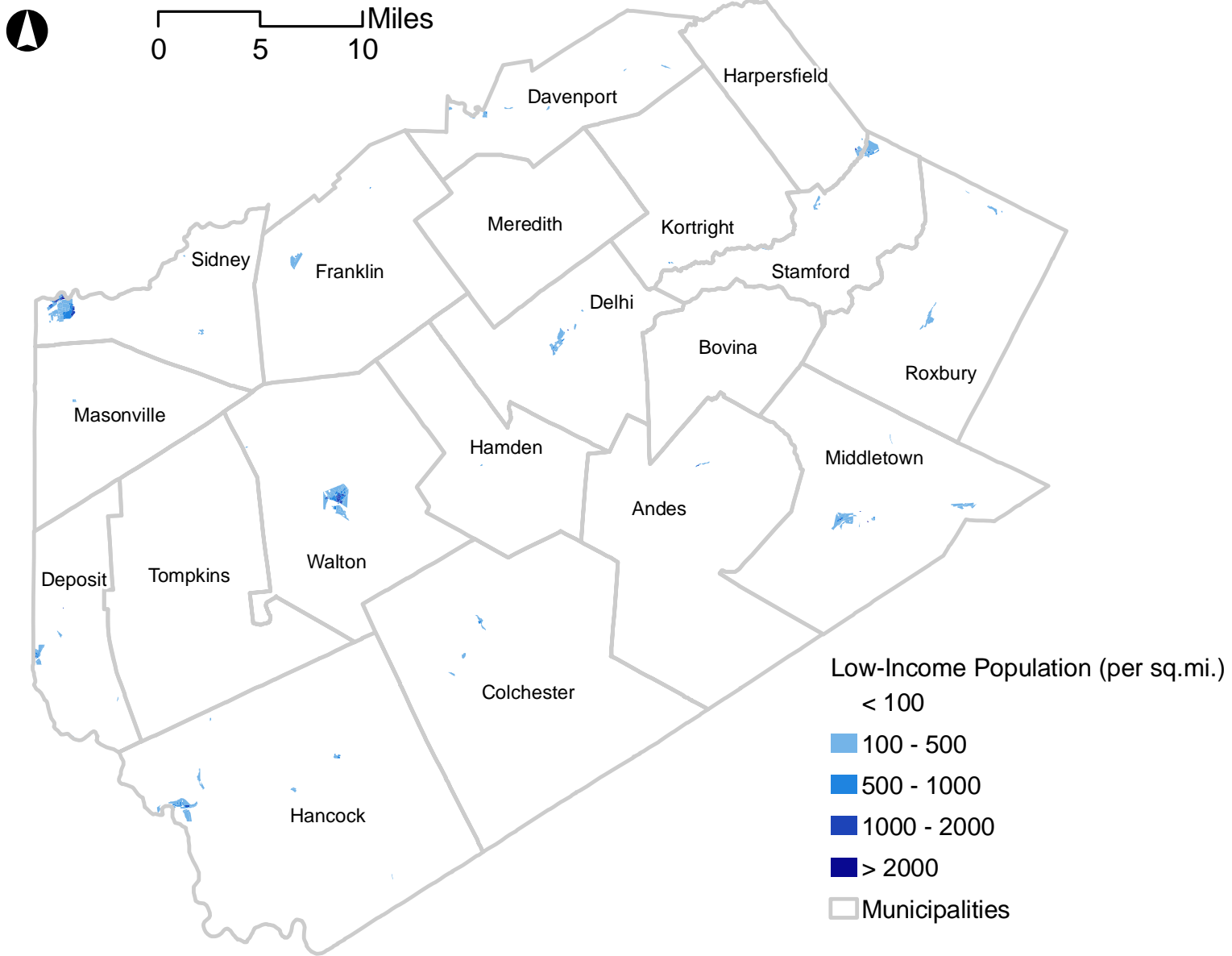


Figure 4-3-3. Distribution of Low-Income Population in Delaware County



### 4.3.2 General Building Stock

A number of data sources were reviewed and used to develop a structural inventory for the County. Primarily the default building stock data in HAZUS-MH, which is based on the 2000 U.S. Census, was used without modification. Based on the availability local data, parcel level (assessors) data developed by DCPD and GIS personnel were reviewed as an additional source of local inventory data. The data set is strong; however, a number of the attributes required for HAZUS-MH are not included in the data set (for example year of construction, type of construction, number of stories, and other factors). In the future, Delaware County may consider collecting additional attribute data for buildings and combining available local data with HAZUS-MH regional building classification data to group buildings into general occupancy classes (such as residential, commercial, and industrial). Such efforts are facilitated by the use of the HAZUS-MH building information tool (BIT) provided with HAZUS-MH.

The data in HAZUS-MH estimates that there are nearly 22,000 structures in Delaware County with a total building replacement value (excluding contents) of \$3.24 billion (2004 dollars). Approximately 99% of the buildings (and 88% of the building value) are associated with residential housing. Table 4-3-2 presents the estimated number of buildings and structural replacement value (exposure value) of these buildings by occupancy class for Delaware County, based on HAZUS-MH default data.

Table 4-3-2. Inventory of General Building Stock by Occupancy Class in Delaware County

| Town         | Total<br>Count / Value (\$K) | Residential<br>Count / Value (\$K) | Commercial<br>Count / Value (\$K) | Industrial<br>Count / Value (\$K) |
|--------------|------------------------------|------------------------------------|-----------------------------------|-----------------------------------|
| Andes        | 1,079 / 149,260              | 1,073 / 136,611                    | 6 / 7,786                         | 0 / 1,095                         |
| Bovina       | 433 / 61,011                 | 432 / 57,365                       | 0 / 1,631                         | 0 / 242                           |
| Colchester   | 1,300 / 168,746              | 1,290 / 151,424                    | 7 / 10,857                        | 1 / 2,035                         |
| Davenport    | 1,135 / 128,398              | 1,132 / 116,753                    | 2 / 6,061                         | 0 / 1,535                         |
| Delhi        | 1,373 / 312,306              | 1,343 / 245,879                    | 23 / 41,711                       | 0 / 4,890                         |
| Deposit      | 749 / 96,022                 | 748 / 91,164                       | 1 / 3,434                         | 0 / 570                           |
| Franklin     | 1,094 / 145,435              | 1,091 / 135,010                    | 3 / 3,996                         | 0 / 1,261                         |
| Hamden       | 703 / 85,752                 | 699 / 83,407                       | 4 / 2,178                         | 0 / 74                            |
| Hancock      | 1,922 / 257,794              | 1,908 / 223,493                    | 10 / 23,040                       | 1 / 5,855                         |
| Harpersfield | 668 / 99,138                 | 667 / 92,139                       | 0 / 3,044                         | 1 / 2,069                         |
| Kortright    | 780 / 102,868                | 775 / 93,143                       | 4 / 5,683                         | 0 / 677                           |
| Masonville   | 601 / 76,936                 | 601 / 69,118                       | 0 / 1,703                         | 0 / 836                           |
| Meredith     | 685 / 82,922                 | 685 / 82,815                       | 0 / 107                           | 0 / 0                             |
| Middletown   | 2,262 / 365,221              | 2,249 / 319,567                    | 10 / 31,453                       | 0 / 3,852                         |
| Roxbury      | 1,547 / 229,260              | 1,540 / 199,659                    | 7 / 23,661                        | 0 / 1,516                         |
| Sidney       | 2,054 / 367,589              | 2,014 / 293,139                    | 28 / 43,019                       | 11 / 24,451                       |
| Stamford     | 826 / 120,495                | 825 / 117,376                      | 1 / 2,929                         | 0 / 0                             |
| Tompkins     | 616 / 71,238                 | 616 / 69,047                       | 0 / 881                           | 0 / 1,220                         |
| Walton       | 2,101 / 324,082              | 2,073 / 268,284                    | 21 / 37,780                       | 2 / 7,004                         |
| Study Area   | 21,928 / 3,244,473           | 21,761 / 2,845,393                 | 127 / 250,954                     | 16 / 59,182                       |

Source: HAZUS-MH FEMA 2004. The building values shown do not include building contents. Generally, contents for residential structures are valued at about 50 percent of the building's value. For commercial facilities, the value of the content is generally about equal to the building's structural value.

Figures 4-3-4 shows the distribution and exposure density of residential buildings in Delaware County. Exposure density is the dollar value of structures per unit area, exclusive of the building content value. The following structural exposure densities are shown in units of \$1,000,000 (\$M) per square mile.

Tables 4-3-3a and 4-3-3b summarize the distribution of manufactured homes in Delaware County (by town), and mobile home parks, respectively. Figure 4-3-5 shows the distribution of manufactured housing (mobile homes), which is a subset of the residential building class. The 2000 U.S. Census of Population and Housing, accessed on the NYS Data Center website, indicates that there are 4,599 manufactured homes in Delaware County.

Figures 4-3-6 and 4-3-7 show the distribution and exposure density of buildings in the commercial and industrial occupancy categories, respectively. Viewing distribution maps can help communities evaluate aspects of the study area in relation to the specific hazards. Further discussion of these maps is included in Section 4.4 for specific hazards.

Table 4-3-3a. Manufactured Housing in Delaware County

| Jurisdiction                            | Total # in Town | # in Village |
|---|-----------------|--------------|
| Andes                                   | 145             | 0            |
| Bovina                                  | 56              | 0            |
| Colchester                              | 363             | 0            |
| Davenport                               | 439             | 0            |
| Delhi                                   | 199             | 0            |
| Delhi Village                           | 0               | 26           |
| Deposit                                 | 184             | 0            |
| Deposit Village                         | 0               | 52           |
| Franklin                                | 206             | 0            |
| Franklin Village                        | 0               | 5            |
| Hamden                                  | 160             | 0            |
| Hancock                                 | 501             | 0            |
| Hancock Village                         | 0               | 52           |
| Harpersfield                            | 157             | 0            |
| Stamford Village (Harpersfield Portion) | 0               | 9            |
| Kortright                               | 222             | 0            |
| Masonville                              | 154             | 0            |
| Meredith                                | 141             | 0            |
| Middletown                              | 343             | 0            |
| Fleishmann's Village                    | 0               | 8            |
| Margaretville                           | 0               | 7            |
| Roxbury                                 | 249             | 0            |
| Sidney                                  | 295             | 0            |
| Sidney Village                          | 0               | 32           |
| Stamford                                | 142             | 0            |
| Hobart Village                          | 0               | 15           |
| Stamford Village (Stamford Portion)     | 0               | 28           |
| Tompkins                                | 210             | 0            |
| Walton                                  | 433             | 0            |
| Walton Village                          | 0               | 27           |
| <b>Delaware County</b>                  | <b>4,599</b>    | <b>*</b>     |

\*Included with total for town.

Table 4-3-3b. Mobile Home Parks in Delaware County

| Mobile Home Park Name            | Jurisdiction   | Capacity |
|----------------------------------|----------------|----------|
| Deposit Trailer Court            | Deposit (T)    | 12       |
| Sunshine Mobile Home Park        | TBD            | 7        |
| Bellows Trailer Park             | TBD            | 5        |
| D & J Trailer Court              | Roxbury (T)    | 5        |
| Amato's Trailer Park             | Colchester (T) | 7        |
| Bryces's Trailer Court 1         | Deposit (T)    | 7        |
| Bryces's Trailer Court 2         | Deposit (T)    | 9        |
| Braemer Court                    | Stamford (T)   | 8        |
| Pappas Trailer Court             | TBD            | 10       |
| Green Meadows Mobile Court       | Delhi (T)      | 11       |
| Lone Pine Trailer Court          | Hancock (T)    | 12       |
| Beaver Spring Lake Mobile Home   | Davenport (T)  | 14       |
| Riverview Trailer Park           | Hancock (T)    | 14       |
| River Road Mobile Home Park      | Walton (T)     | 15       |
| Stratton Falls Mobile Home Park  | Roxbury (T)    | 15       |
| Belaire Mountain Estates Inc.    | Middletown (T) | 16       |
| Maple Hill                       | Sidney (V)     | 17       |
| Pine Ridge Mobile Home Park      | Davenport (T)  | 17       |
| Greenacre Manufactured Homes     | Davenport (T)  | 18       |
| Blume's Mobile Home Park         | Stamford (V)   | 21       |
| Hillside Terrace                 | Walton (T)     | 21       |
| Ballard's Mobile Home Park       | Walton (T)     | 23       |
| Riverside Trailer Court          | TBD            | 23       |
| Park Lane Homes                  | TBD            | 27       |
| Leisure Village                  | Delhi (T)      | 28       |
| Roric Rentals, inc.              | Delhi (V)      | 28       |
| Mountainview Estates             | TBD            | 29       |
| Brookside Village                | Middletown (T) | 35       |
| Barnes Trailer Park              | Sidney (T)     | 38       |
| Walton Country Meadow Park       | Walton (T)     | 58       |
| Charlotte Creek Mobile Home Park | Davenport (T)  | 84       |
| Mountainview Mobile Home Park    | Davenport (T)  | 134      |

Source: New York State Department of Health – Oneonta District Office

Figure 4-3-4. Residential Exposure Density in Delaware County

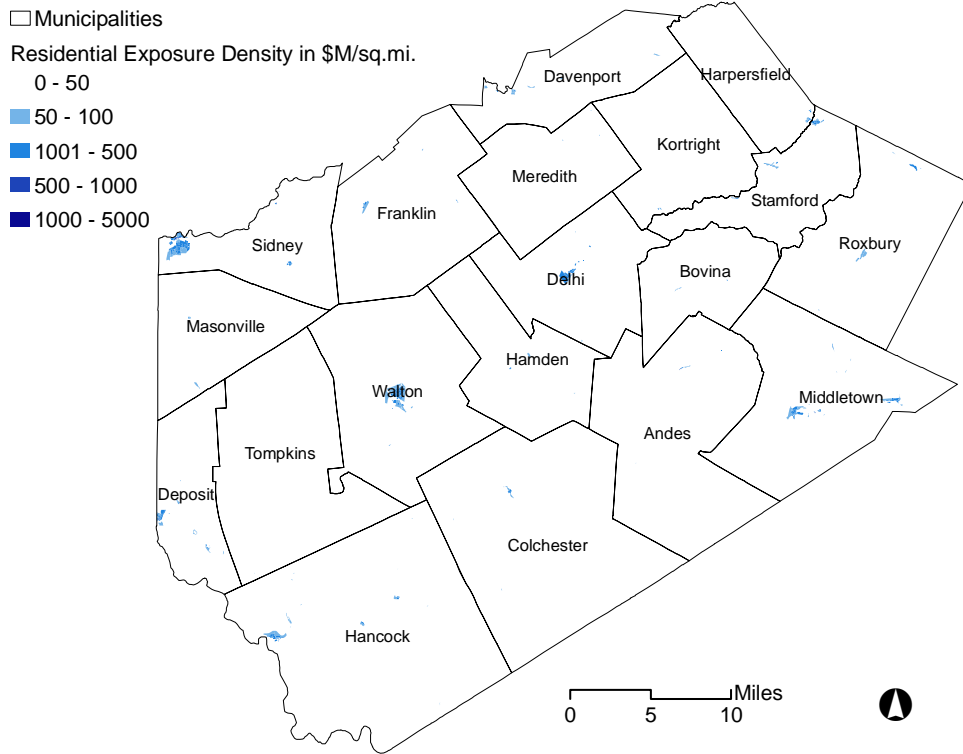


Figure 4-3-5. Manufactured Housing in Delaware County (Exposure Density)

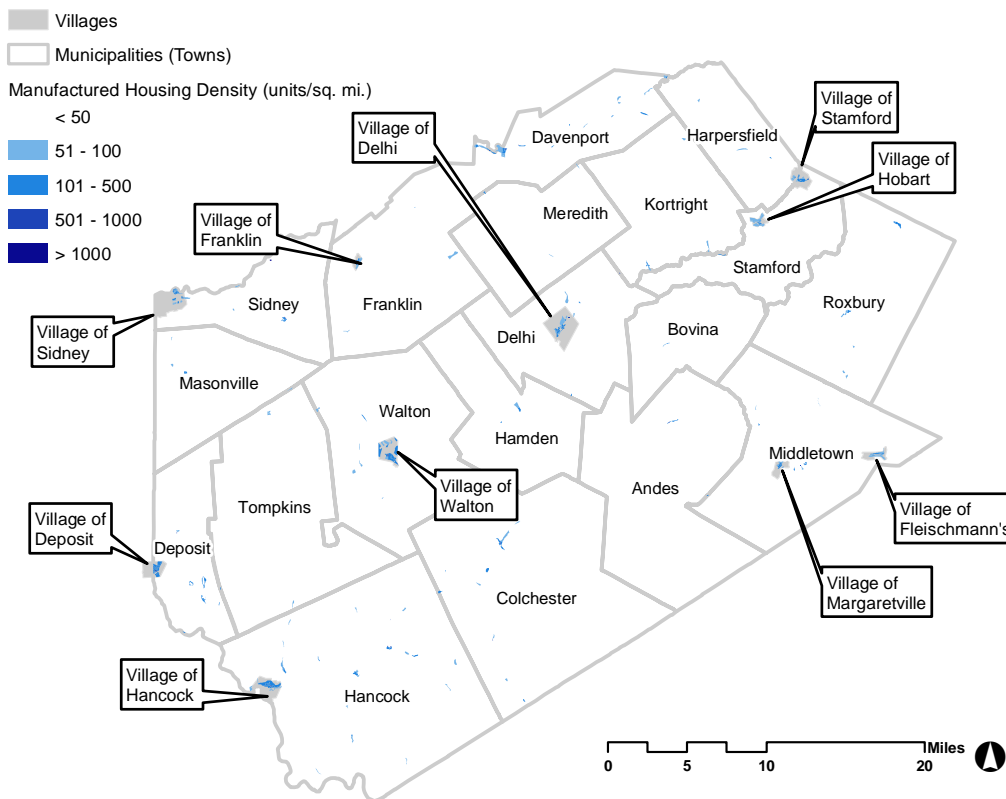


Figure 4-3-6. Commercial Exposure Density in Delaware County

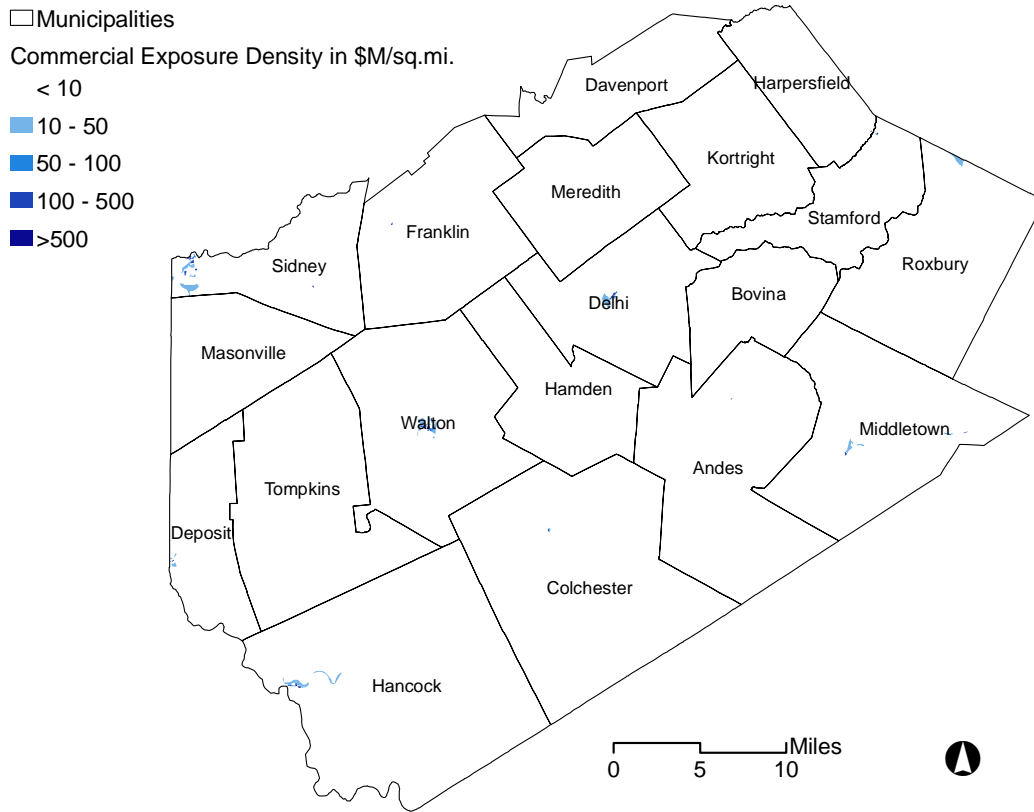
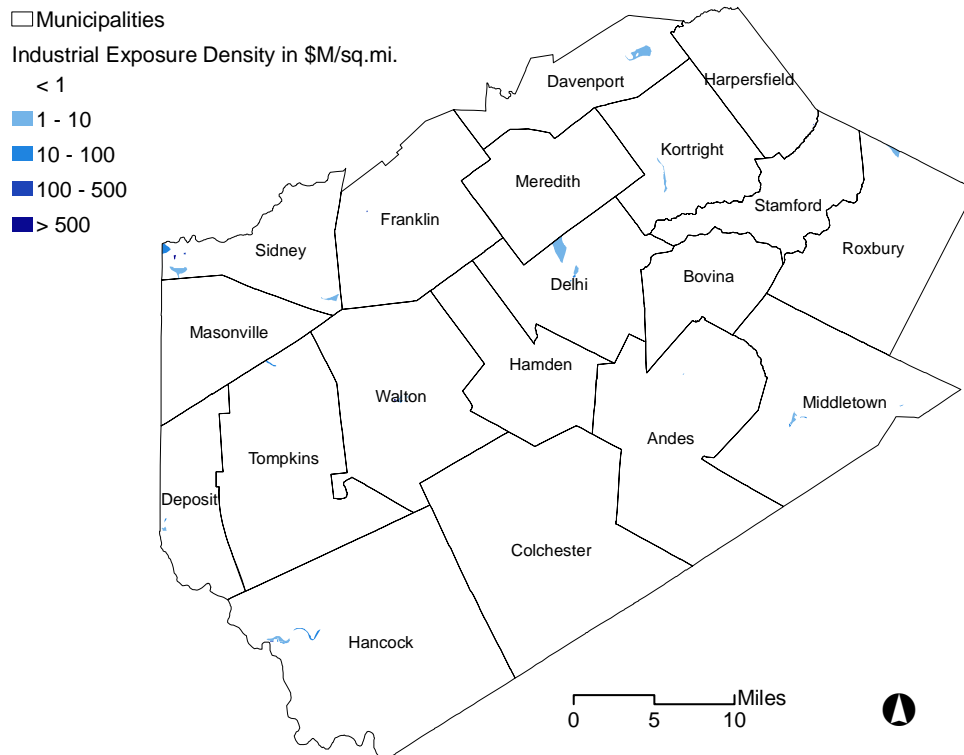


Figure 4-3-7. Industrial Exposure Density in Delaware County



### 4.3.3 Critical Facilities (Site Specific Inventory)

Critical facilities are defined in Appendix B, the Glossary, and include essential facilities, transportation systems, lifeline utility systems, high-potential loss facilities, and hazardous materials facilities. For the purposes of this Plan, essential facilities included in this risk assessment of Delaware County include hospitals and medical facilities, police and fire, EMS, schools, and major employers. Lifeline utility systems include, to the extent possible given availability of data, potable water, wastewater, oil, natural gas, electric power facilities, and communication systems.

#### 4.3.3.1 Essential Facilities

A comprehensive inventory of essential facilities in Delaware County is being developed from various sources including HAZUS-MH provided data, DCPD-GIS data, internet sources of county and municipal data, as well as input from Delaware County government staff. The inventory of essential facilities presented in this section represents the current state of this effort at the time of publication of the draft Plan. The risk assessment results presented in Section 4.4 are based on default (Level 1) HAZUS-MH inventory data, enhanced where practical with local data. The inventory and risk assessment shall be updated in the final version of the Plan being submitted to FEMA to include the best available inventory assembled from this ongoing effort.

**Police, Fire and EMS:** Tables 4-3-4 and 4-3-5 provide an inventory of police stations, fire stations and EMS facilities in Delaware County. Figure 4-3-8 displays the locations of these facilities based on the DCPD-GIS dataset.

Table 4-3-4. Police Stations in Delaware County

| Police Facility Name        | Town/Village             | Cost<br>(Structural Value) | Bldg.<br>Type (1) | Backup Power<br>(Y/N) |
|-----------------------------|--------------------------|----------------------------|-------------------|-----------------------|
| NYS Trooper (Margaretville) | Village of Margaretville | \$191,153.00               | Concrete (1)      | TBD                   |
| Walton Village Police       | Village of Walton        | \$446,339.00               | Concrete (1)      | TBD                   |
| NYS Armory                  | Village of Walton        | \$664,210.00               | Concrete (1)      | TBD                   |
| Delhi Village PD            | Village of Delhi         | \$329,120.00               | Concrete (1)      | TBD                   |
| NYCDEP                      | Colchester               | \$392,855,855.00           | Concrete (1)      | TBD                   |
| Future DEP (Beerston)       | Walton                   | \$1,551,014.00             | Concrete (1)      | TBD                   |
| Sidney Police Department    | Village of Sidney        | \$1,652,000 (1)            | Concrete (1)      | TBD                   |
| NYS Trooper (Sidney)        | Otsego County            | \$1,652,000 (1)            | Concrete (1)      | TBD                   |
| Hancock Village PD          | Village of Hancock       | \$204,878.00               | Concrete (1)      | TBD                   |
| (Future) NYS Trooper        | Deposit                  | \$14,792.00                | Concrete (1)      | TBD                   |
| Town of Colchester PD       | Colchester               | \$54,054.00                | Concrete (1)      | TBD                   |
| Deposit Village PD          | Village of Deposit       | \$14,792.00                | Concrete (1)      | TBD                   |
| DCSD                        | Village of Delhi         | \$9,709,057.00             | Concrete (1)      | TBD                   |
| NYSDEC - Region 4           | Stamford                 | \$1,666.00                 | Concrete (1)      | TBD                   |
| Delaware Highway Patrol     | Sidney Center            | \$1,652,000 (1)            | Concrete (1)      | TBD                   |

(1) HAZUS-MH default data (2004), otherwise cost (structural value) data provided by DCPD.  
TBD indicates “to be determined”.

The Delaware County Emergency Operations Center (DCEOC) is located at the Delaware County Public Safety Building in Delhi. In the event that this facility becomes inoperable, an auxiliary DCEOC would be established at the NYS Police Barracks – Troop C in Sidney.

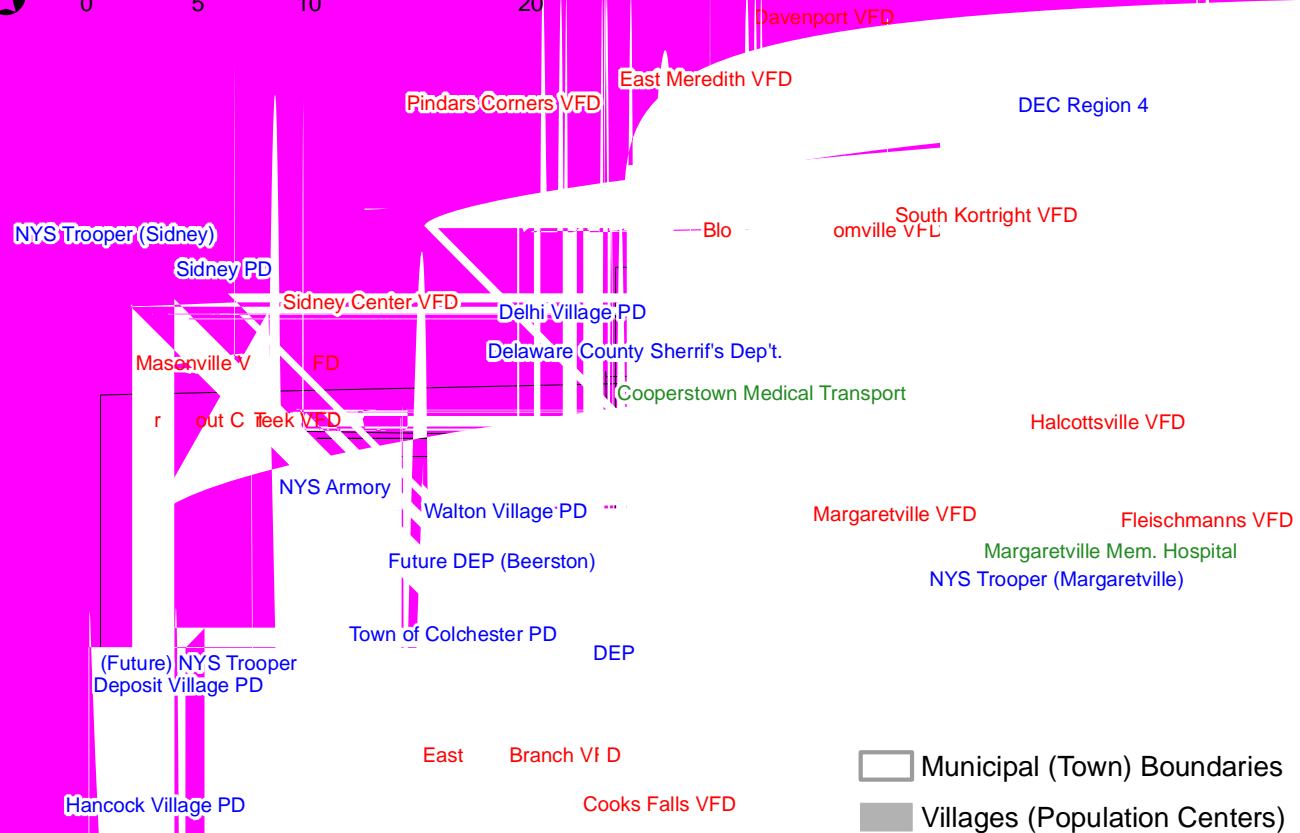
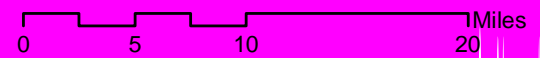
Table 4-3-5. Fire Stations and EMS Facilities in Delaware County






| Fire/EMS Facility Name                        | Fire and/or EMS | Address                 | Town/Village  | Value (Structural Value) | Bldg. Type (1) | Backup Power (1) | Ambulatory | EMS Capability   |                          |
|---|-----------------|-------------------------|---------------|--------------------------|----------------|------------------|------------|------------------|--------------------------|
|   |                 |                         |               |                          |                |                  |            | Non-Transporting | Level of Care            |
| Arena VFD                                     | Fire            | 2411 Mill Brook Rd.     | Arena         | \$185,641.00             | Wood           | N                |            |                  |                          |
| Andes VFD                                     | Both            | 5259 Cty Hwy 1          | Andes         | \$342,000.00             | Concrete       | TBD              | X          |                  | Adv. EMT - Intermediate  |
| Bovina VFD                                    | Both            | 36 Maple Ave.           | Bovina Center | \$89,521.00              | Wood           | TBD              | X          |                  | Adv. EMT - Intermediate  |
| Downsville VFD                                | Both            | 15166 State Hwy 30      | Downsville    | \$439,189.00             | Concrete       | Y                | X          |                  | Adv. EMT - Critical Care |
| Cooks Falls VFD                               | Fire            | 116 Cooks Falls Rd.     | Roscoe        | \$157,657.00             | Concrete       | N                |            |                  |                          |
| Davenport VFD                                 | Both            | 15838 State Highway 23  | Davenport     | \$107,781.00             | Wood           | N                |            | X                | Adv. EMT - Critical Care |
| Pindars Corners VFD                           | Both            | 8898 State Hwy 23       | W. Davenport  | \$181,527.00             | Concrete       | N                |            | X                | Basic Life Support       |
| Delhi VFD                                     | Both            | 140 Delview Terrace Ext | Delhi         | \$592,548.00             | Concrete       | N                | X          |                  | Adv. EMT - Critical Care |
| Deposit VFD                                   | Fire            | 130 Second St.          | Deposit       | \$227,810.00             | Concrete       | Y                |            |                  |                          |
| Franklin VFD                                  | Both            | 351 Main St.            | Franklin      | \$22,000.00              | Concrete       | Y                | X          |                  | Adv. EMT - Critical Care |
| Treadwell VFD                                 | Fire            | 9202 Cnt Hwy 16         | Treadwell     | \$270,000.00             | Concrete       | N                |            |                  |                          |
| Treadwell Fire Department Emerg. Squad        | EMS             | Jackson Hill Road       | Treadwell     | TBD                      | TBD            | TBD              | X          |                  | Adv. EMT - Intermediate  |
| Delhi VFD (Delancy)                           | Fire            | 140 Delview Terrace Ext | Delancy       | \$90,347.00              | Concrete       | N                |            |                  |                          |
| Hancock VFD                                   | Fire            | 230 East Front St.      | Hancock       | \$5,853.00               | Concrete       | Y                |            |                  |                          |
| Hancock FD Emerg. Squad                       | EMS             | 181 Park Street         | Hancock       | TBD                      | TBD            | TBD              | X          |                  | Basic Life Support       |
| East Branch VFD                               | Both            | 29 Bridge St.           | East Branch   | \$1,463.00               | Wood           | N                | X          |                  | Adv. EMT - Intermediate  |
| Bloomville VFD (Kortright Rural FD)           | Both            | 243 Scotch Hill Rd.     | Bloomville    | \$37,100.00              | Wood           | N                | X          |                  | Adv. EMT - Critical Care |
| Masonville VFD                                | Both            | 15488 State Hwy 8       | Masonville    | \$105,400.00             | Concrete       | N                | X          |                  | Adv. EMT - Intermediate  |
| Meridale VFD                                  | Both            | 50 Cnty Hwy 10          | Meridale      | \$74,093.00              | Concrete       | N                | X          |                  | Adv. EMT - Intermediate  |
| Fleischmanns VFD                              | Fire            | 1298 Main St.           | Fleischmanns  | \$37,564.00              | Steel          | N                |            |                  |                          |
| Margaretville VFD (Middletown-Hardenburgh FD) | Both            | 77 Church St.           | Margaretville | \$323,589.00             | Concrete       | Y                |            |                  |                          |

Table 4-3-5. Fire Stations and EMS Facilities in Delaware County

| Fire/EMS Facility Name                          | Fire and/or EMS | Address                | Town/Village    | Value (Structural Value) | Bldg. Type (1) | Backup Power (1) | Ambulatory | EMS Capability   |                          |
|---|-----------------|------------------------|-----------------|--------------------------|----------------|------------------|------------|------------------|--------------------------|
|   |                 |                        |                 |                          |                |                  |            | Non-Transporting | Level of Care            |
| Halcottsville VFD                               | Fire            | 369 Halcottsville Rd.  | Halcottsville   | \$73,205.00              | Wood           | Y                |            |                  |                          |
| Arkville VFD                                    | Both            | 43365 State Highway 28 | Arkville        | \$191,153.00             | Wood           | N                |            | X                | Basic Life Support       |
| Grand Gorge VFD                                 | Fire            | 37429 State Hwy 23     | Grand George    | \$1,121,415.00           | Steel          | TBD              |            |                  |                          |
| Grand Gorge Rescue Squad                        | EMS             | Main Street            | Grand George    | TBD                      | TBD            | TBD              | X          |                  | Adv. EMT - Critical Care |
| Roxbury VFD                                     | Both            | 53613 State Hwy 30     | Roxbury         | \$176,223.00             | Concrete       | N                | X          |                  | Adv. EMT - Critical Care |
| Sidney VFD                                      |                 | 72 River St.           | Sidney          | \$174,700.00             | Concrete       | N                |            |                  |                          |
| Sidney Center VFD                               |                 | 72 River St.           | Sidney Center   | \$173,500.00             | Concrete       | N                |            |                  |                          |
| Sidney Emergency Squad #1                       |                 | 72 River Street        | TBD             | TBD                      | TBD            | TBD              | X          |                  | Adv. EMT - Critical Care |
| Sidney Center FD Emerg. Squad                   |                 | Main Street            | TBD             | TBD                      | TBD            | TBD              | X          |                  | Adv. EMT - Critical Care |
| Hobart VFD                                      | Both            | 80 Cornell Ave.        | Hobart          | \$590,000.00             | Concrete       | N                | X          |                  | Adv. EMT - Critical Care |
| Stamford VFD                                    | Both            | 111 Main St.           | Stamford        | \$246,666.00             | Concrete       | Y                | X          |                  | Adv. EMT - Critical Care |
| South Kortright VFD                             | Fire            | 10668 Cnty Hwy 18      | South Kortright | \$19,666.00              | Wood           | N                |            |                  |                          |
| Trout Creek VFD                                 | Both            | 8695 Cnty Hwy 27       | Trout Creek     | \$39,215.00              | Wood           | N                | X          |                  | Adv. EMT - Critical Care |
| Walton VFD                                      | Both            | 59 West St.            | Walton          | \$38,224.00              | Concrete       | Y                | X          |                  | Paramedic                |
| Cooperstown Medical Transport (EMS)             | EMS             | TBD                    | TBD             | \$637,213.00             | Concrete       | N                |            |                  |                          |
| East Meredith VFD                               | Both            | 6192 Cnty Hwy 10       | East Meredith   | \$134,575.00             | Steel          | N                |            | X                | Basic Life Support       |
| Margaretville Memorial Hospital (EMS/Ambulance) | EMS             | 42084 State Hwy 28     | Margaretville   | \$4,949,743.00           | Concrete       | Y                | X          |                  | Paramedic                |

(1) Building Type and Backup Power data provided by N. Delameter and G. Morrison, October 2005



-  Municipal (Town) Boundaries
-  Villages (Population Centers)
-  EMS Facilities
-  Police Stations
-  Fire Departments

### Hospitals and Medical Facilities:

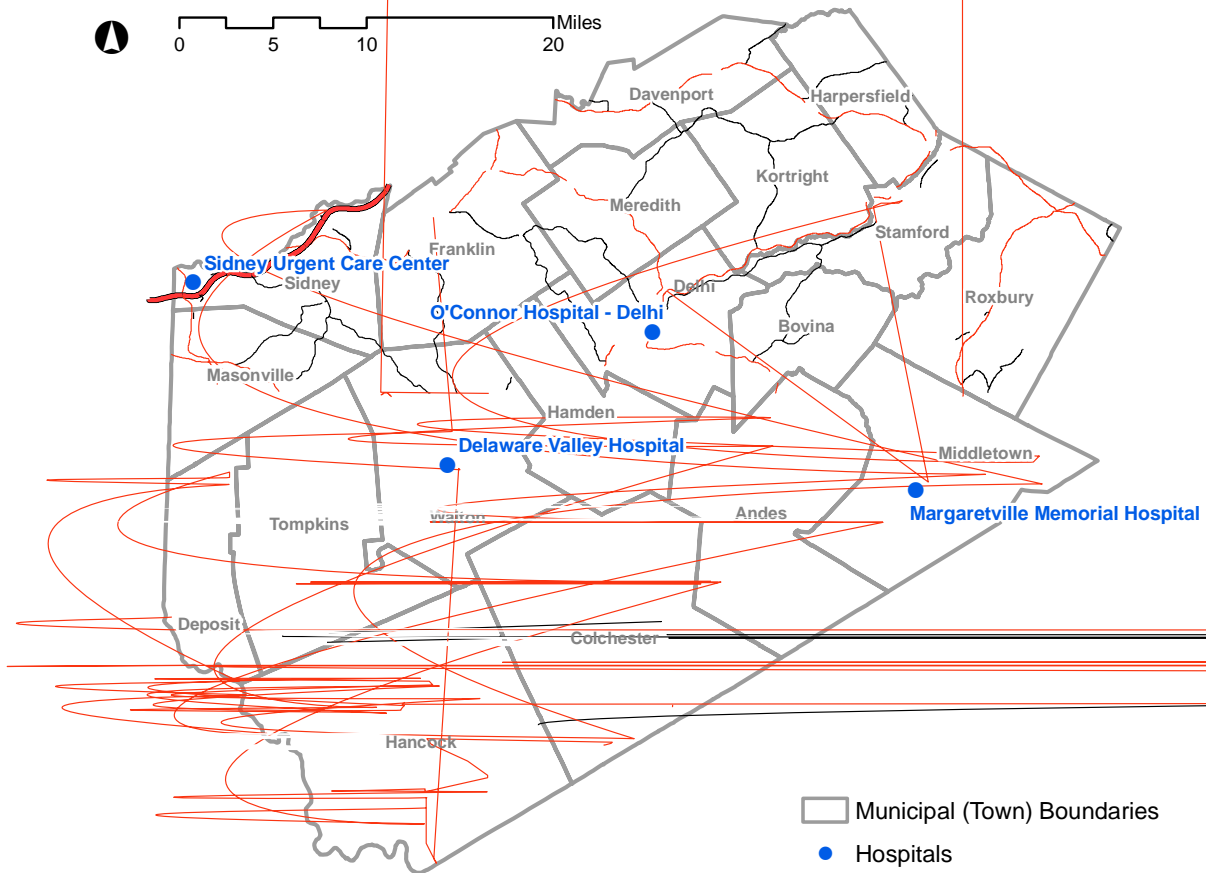
Table 4-3-6 provides an inventory of hospitals and major medical facilities in Delaware County. Figure 4-3-9 displays the locations of these facilities based on the DCPD-GIS dataset.

Table 4-3-6 Major Medical Facilities in Delaware County

| Facility Name                   | Town/Village  | # Beds | Structural Value (\$) | Bldg. Type(1) | Backup Power (Y/N) |
|---------------------------------|---------------|--------|-----------------------|---------------|--------------------|
| Margaretville Memorial Hospital | Margaretville | 22     | 3,860,800             | Concrete      | Y                  |
| Delaware Valley Hospital        | Walton        | 33     | 1,355,392             | Concrete      | Y                  |
| O'Connor Hospital - Delhi       | Delhi         | 16     | 9,370,000             | TBD           | Y                  |
| Sidney Urgent Care              | Sidney        | N/A    | TBD                   | TBD           | TBD                |

Source: All data from DCPHD, except Structural Value which is Delaware County Parcel GIS Data, Difference of Current Total and Current Land Assessed Value

Figure 4-3-9 Major Medical Facilities in Delaware County



## Senior Living / Senior Care:

Table 4-3-7 provides an inventory of senior living (Level II) and senior care facilities in Delaware County. Please refer to Figure 4-3-2 for the geographic locations of these facilities.

Table 4-3-7 Senior Living / Senior Care Facilities in Delaware County

| Name                                 | Town            | Type                | Capacity |
|--------------------------------------|-----------------|---------------------|----------|
| Delhi Senior Community               | Delhi           | Senior Housing      | 25       |
| Meadow Park Apartments               | Deposit         | Senior Housing      | 82       |
| Seventh Heaven                       | Stamford        | Level II Adult Home | 17       |
| Hearthstone Home for Adults          | Hobart          | Level II Adult Home | 24       |
| South Kortright Rest Home            | South Kortright | Level II Adult Home | 23       |
| Park Terrace Adult Home              | Walton          | Level II Adult Home | 23       |
| Stamford Village Apartments          | Stamford        | Senior Housing      | 24       |
| Arkville Senior Apartments           | Arkville        | Senior Housing      | 8        |
| Sidney Senior Village                | Sidney          | Senior Housing      | 40       |
| Grand Gorge Apartments               | Grand Gorge     | Senior Housing      | 24       |
| Mountainview Estates                 | Walton          | Senior Housing      | 35       |
| Westbrook Apartments                 | Walton          | Senior Housing      | 37       |
| Maple Bank Residence                 | Hobart          | Senior Housing      | 9        |
| Kirkside Adult Home                  | Roxbury         | Level II Adult Home | 21       |
| Roscoe Community Nursing Home        | Roscoe          | Nursing Home        | 85       |
| Robinson Terrace                     | Stamford        | Nursing Home        | 122      |
| Countryside Care Center              | Delhi           | Nursing Home        | 199      |
| Mountainside Residential Care Center | Margaretville   | Nursing Home        | 82       |

Source: DCPD-GIS data, amended and cross-checked with the 2004 CHA

In addition, 8 Level I adult homes provide care for another 29 residents.

It is noted that, subsequent to the 2004 CHA report (which included 2004 DCPHD data), The Hospital Nursing Care facility in Sidney closed and the capacity of the Countryside Care Center in Delhi increased from 165 to 199. Table 4-3-7 reflects these changes.

## Schools:

The DC Chamber website indicates that there are 13 in-county school districts, enrolling approximately 8,200 K-12 students. Further, two [Board of Cooperative Educational Services \(BOCES\)](#) centers (“Otsego Northern Catskills” and “Delaware-Chenango”) offer various life skill programs, and the County is home to the SUNY College of Technology at Delhi. Table 4-3-8 inventories schools in Delaware County identified in the DCPD-GIS data, the Delaware County Chamber of Commerce website, and/or HAZUS-MH default data. Figure 4-3-10 displays the locations of these facilities based on the DCPD-GIS dataset.

## Sheltering Resources:

Various facilities within the County have established agreements with the ARS, Delaware County and Head Start to provide sheltering and other living and staging resources in the event of a disaster or other emergency. Tables 4-3-9 and 4-3-10 provide a listing of those facilities with facility agreements and a summary of shelters within the County, respectively, taken directly from Appendix 1 of the Delaware County CEMP (Draft, December 2003).

Table 4-3-8 Educational Facilities in Delaware County

| Facility Name                          | Town/Village     | Type of Fac. | Enroll. | Designated Shelter | Shelter Capacity | Structural Value | Bldg. Type (1) | Backup Power (Y/N) |
|--|------------------|--------------|---------|--------------------|------------------|------------------|----------------|--------------------|
| Andes Central School                   | Andes            | TBD          | 184     | ARC/DC             | TBD              | \$697,600.00     | Masonry        | TBD                |
| Charlotte Valley Central School        | Davenport        | TBD          | 485     | No                 | TBD              | \$6,547,390.00   | Masonry        | TBD                |
| Delaware Academy                       | Delhi            | TBD          | 1283    | ARC                | TBD              | \$37,368,022.00  | Masonry        | TBD                |
| Kellogg School                         | Treadwell        | TBD          | TBD     | No                 | TBD              | TBD              | Masonry        | TBD                |
| Deposit Central School                 | Deposit          | TBD          | TBD     | DC                 | TBD              | \$12,400,887.00  | Masonry        | TBD                |
| Downsville Central School              | Downsville       | TBD          | 352     | No                 | TBD              | \$10,866,666.00  | Masonry        | TBD                |
| Franklin Central School                | Franklin         | TBD          | 387     | ARC/DC             | TBD              | \$7,825,000.00   | Masonry        | TBD                |
| Hancock Central School                 | Hancock Village  | K-12         | 628     | ARC/DC             | TBD              | \$290,243.00     | Masonry        | TBD                |
| Margaretville Central School           | Margaretville    | TBD          | 542     | ARC/DC             | TBD              | \$3,147,435.00   | Masonry        | TBD                |
| Roxbury Central School                 | Roxbury          | TBD          | 418     | ARC/DC             | TBD              | \$1,393,792.00   | Masonry        | TBD                |
| Sidney Central School                  | Sidney           | TBD          | 1565    | DC                 | TBD              | \$16,120,000.00  | Masonry        | TBD                |
| South Kortright Central School         | South Kortright  | TBD          | 456     | ARC/DC             | TBD              | \$8,930,100.00   | Masonry        | TBD                |
| Stamford Central School                | Stamford         | TBD          | 544     | ARC                | TBD              | \$11,000,000.00  | Masonry        | TBD                |
| Walton (Townsend) Central School       | Walton           | TBD          | TBD     | No                 | TBD              | \$1,720,530.00   | Masonry        | TBD                |
| Walton Central School                  | Walton           | TBD          | 1392    | ARC/DC             | TBD              | \$5,646,439.00   | Masonry        | TBD                |
| The Family School                      | Hancock          | TBD          | TBD     | No                 | TBD              | \$697,560.00     | Masonry        | TBD                |
| Manhattan Country School               | Roxbury          | TBD          | TBD     | No                 | TBD              | \$412,993.00     | Masonry        | TBD                |
| Delaware-Chenango-Madison-Otsego BOCES | Sidney Center    | Vocational   | TBD     | No                 | TBD              | TBD              | TBD            | TBD                |
| Otsego-Northern Catskills BOCES        | Grand Gorge      | Vocational   | TBD     | No                 | TBD              | TBD              | TBD            | TBD                |
| SUNY Delhi                             | Delhi            | TBD          | TBD     | DC                 | TBD              | \$56,436,775.00  | Masonry        | TBD                |
| Del Co Chapter Assoc For Ret. Children | Walton NY        | TBD          | TBD     | No                 | TBD              | \$396,059.00     | TBD            | TBD                |
| Delaware Co Chapter NYS Arc Bldg.      | Hamden NY        | TBD          | TBD     | No                 | TBD              | \$8,008,398.00   | TBD            | TBD                |
| Head Start School                      | Hancock NY       | TBD          | TBD     | No                 | TBD              | \$209,756.00     | TBD            | TBD                |
| SEVA Foundation Inc                    | So Kortright NY  | TBD          | TBD     | No                 | TBD              |                  | TBD            | TBD                |
| Delaware Opportunities Inc.            | Delhi NY         | TBD          | TBD     | No                 | TBD              | \$175,256.00     | TBD            | TBD                |
| Manhattan Country School               | Roxbury NY       | TBD          | TBD     | No                 | TBD              | \$322,198.00     | TBD            | TBD                |
| Joshua House Inc                       | Sidney Center NY | TBD          | TBD     | No                 | TBD              | \$244,300.00     | TBD            | TBD                |
| Rainbow Infant-Toddler Day Care Inc.   | Sidney NY        | TBD          | TBD     | No                 | TBD              | \$48,600.00      | TBD            | TBD                |
| Broome Co Office - Mental Retardation  | Sidney NY        | TBD          | TBD     | No                 | TBD              | \$305,900.00     | TBD            | TBD                |
| Joshua House Inc                       | Sidney Center NY | TBD          | TBD     | No                 | TBD              | \$24,900.00      | TBD            | TBD                |
| Project Independence Inc               | Hobart NY        | TBD          | TBD     | No                 | TBD              | \$31,000.00      | TBD            | TBD                |

(1) HAZUS-MH default data (2004), amended by DCPD-GIS data and input from DCPHD

(2) TBD indicates "to be determined"

(3) ARC = American Red Cross, DC = Delaware County

Table 4-3-9 Sheltering Agreements in Delaware County

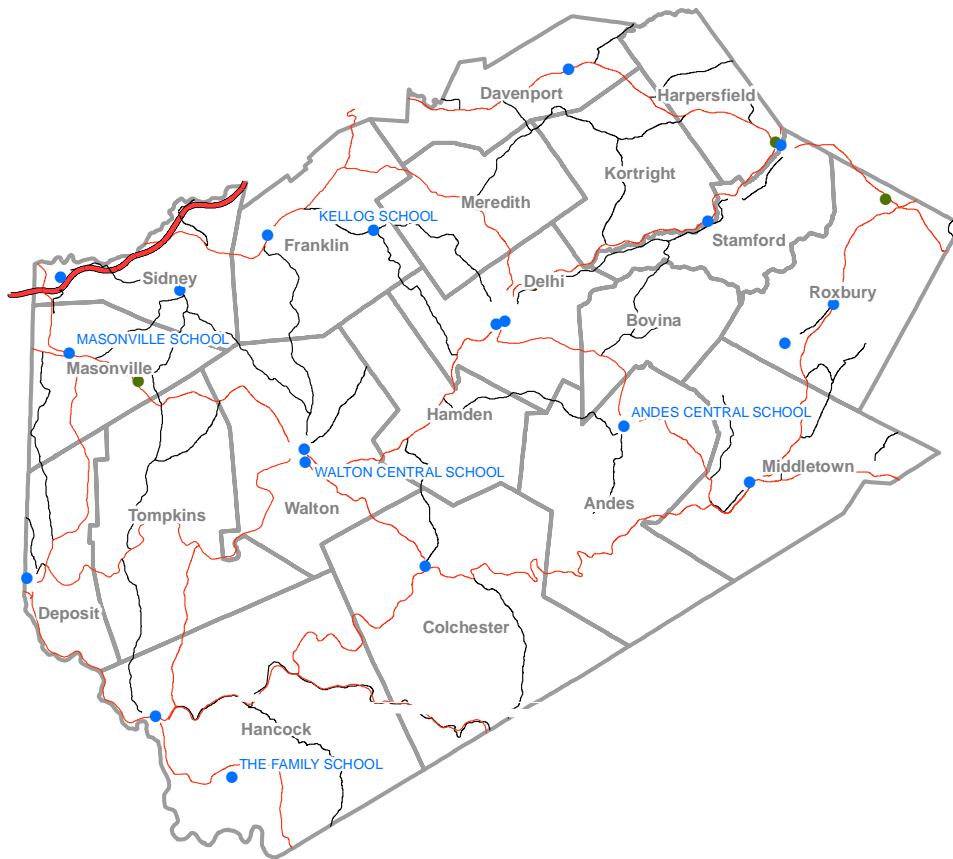
| Towns        | Facility                     | ARC | Delaware Co. | Headstart |
|--------------|------------------------------|-----|--------------|-----------|
| Andes        | Andes Central School         | X   | X            |           |
| Andes        | Andes Fire Hall              | X   |              |           |
| Andes        | United Methodist Church      | X   |              |           |
| Bovina       | Bovina Fire Department       | X   |              |           |
| Bovina       | U.P. Church                  | X   |              |           |
| Colchester   | Christian Missionary         | X   |              |           |
| Colchester   | Cook Falls Fire Dept.        | X   |              |           |
| Colchester   | Downsville Fire Dept.        | X   |              |           |
| Colchester   | Downsville Fire Dept.        | X   | X            |           |
| Colchester   | James Moore AL               | X   |              |           |
| Davenport    | Charlotte Valley CS          | X   | X            |           |
| Davenport    | Methodist Church             | X   |              | X         |
| Delhi        | Alliance Fellow Church       | X   |              | X         |
| Delhi        | Assembly of God              | X   |              |           |
| Delhi        | Clark Co.                    | X   |              |           |
| Delhi        | Delaware Academy             | X   |              |           |
| Delhi        | Donald Gleason               | X   |              |           |
| Delhi        | First Presbyterian Church    | X   |              |           |
| Delhi        | SUNY-total school            |     | X            |           |
| Delhi        | United Ministry Church       | X   |              |           |
| Deposit      | Deposit Central School       |     | X            |           |
| Deposit      | Head Start-Columbia Lake     |     |              | X         |
| Franklin     | Franklin Central School      | X   | X            |           |
| Franklin     | Head Start-Main Street       |     |              | X         |
| Hamden       | Del. Co. Resource Center     |     | X            |           |
| Hamden       | Hamden Inn                   |     | X            |           |
| Hancock      | Baptist Church               | X   |              |           |
| Hancock      | E. Branch Fire Dept.         | X   |              |           |
| Hancock      | Fish's Eddy Head Start       |     |              | X         |
| Hancock      | Emory Methodist Church       | X   |              |           |
| Hancock      | Hancock Central School       | X   | X            |           |
| Hancock      | Office building              | X   |              |           |
| Hancock      | Presbyterian Church          | X   |              |           |
| Hancock      | White Birch Airport          | X   |              |           |
| Harpersfield | Col. Harper Grange           | X   |              |           |
| Kortright    | N. Kortright Presbyterian    | X   |              |           |
| Kortright    | S. Kortright Central School  | X   | X            |           |
| Kortright    | United Methodist Church      | X   |              |           |
| Kortright    | W. Kortright Centre          | X   |              |           |
| Masonville   | Masonville Federated Church  |     | X            |           |
| Meredith     | E. Meredith Church           |     | X            |           |
| Middletown   | Arena Fire Department        | X   |              |           |
| Middletown   | Arkville Fire Department     | X   |              |           |
| Middletown   | Fairview House               |     | X            |           |
| Middletown   | Fleischmanns Fire Dept.      | X   |              |           |
| Middletown   | Head Start-Frank Street      |     |              | X         |
| Middletown   | M. Post 216 A. Leg           | X   |              |           |
| Middletown   | Margaretville Central School | X   | X            |           |
| Middletown   | U. Methodist Church          | X   |              |           |
| Roxbury      | Grand G. Fire Dept.          | X   |              |           |
| Roxbury      | Grand G. Fire Dept.          | X   |              |           |
| Roxbury      | J. Gould Reform Church       | X   |              |           |
| Roxbury      | NOCO-Grand Gorge             | X   |              |           |
| Roxbury      | Roxbury Central School       | X   | X            |           |
| Roxbury      | Roxbury Central School       | X   |              |           |
| Sidney       | Sidney Central School        |     | X            |           |
| Sidney       | Sidney Civic Center          |     | X            |           |
| Stamford     | BOCES=Cyr. Center            | X   | X            |           |
| Stamford     | Hobart Activity Center       |     | X            | X         |

| Towns    | Facility                   | ARC | Delaware Co. | Headstart |
|----------|----------------------------|-----|--------------|-----------|
| Stamford | Hobart Methodist Church    | X   |              |           |
| Stamford | Robinson Terrace           | X   |              |           |
| Stamford | Stamford Baptist Church    | X   |              |           |
| Stamford | Stamford Central School    | X   |              |           |
| Stamford | Stamford Veterans Club     | X   |              |           |
| Tompkins | Harrold BOCES              | X   | X            |           |
| Tompkins | Trout Center Fire Dept.    | X   |              |           |
| Walton   | Christ Episcopal Church    | X   |              |           |
| Walton   | United Presbyterian Church | X   |              |           |
| Walton   | Walton Central School      | X   | X            |           |
| Walton   | Walton Grange              |     | X            |           |

Table 4-3-10 Shelter Facilities in Delaware County

| Town         | Facility               | 1 <sup>st</sup> Contact | Phone1       | Phone2         | Agree Date | FC#Phone     | 2 <sup>nd</sup> Contact |
|--------------|------------------------|-------------------------|--------------|----------------|------------|--------------|-------------------------|
| Andes        | Andes Cent School      | John Buckhart           | 607-746-2412 | 914-676-3739   | 01/22/1998 |              | Jennifer Leaver         |
|              | United Methodist       | George Wright           | 607-363-7418 | 914-676-4713   | 04/04/1995 |              | Walter Sprague          |
|              | Andes Fire Hall        | Richard Winner          |              |                | 04/23/1997 |              |                         |
| Bovina       | U.P. Church            | Marge Russell           | 607-832-4242 | 607-832-4253   | 03/17/1999 |              | Karen Patricia          |
|              | Bovina Fire Dept.      | Robert Burgen           | 607-832-4857 | 607-832-4287   | 04/28/1997 |              | Tom Hilson              |
| Colchester   | Downsville CS          | Roger Hutchinson        | 607-363-2806 | 607-363-7795   | 08/26/1996 | 607-363-2100 | Robert Mackey           |
|              | James Moore AL         | Michael Hume            | 607-363-7931 | 607-363-2808   | 03/19/1997 | 607-363-7876 | Eugene Mills            |
|              | Downsville FD          | Tim Barnes              | 607-363-7887 | 607-363-7527   | 05/19/1997 | 607-363-2235 | Dennis Bennett          |
|              | Cooks Falls FD         | Pete Fuller             | 607-498-5137 | 607-498-4662   | 03/18/1998 | 607-498-4309 | James Lacey             |
|              | Christian Missionary   |                         |              |                |            |              |                         |
| Davenport    | Charlotte Valley CS    | David Whipple           | 607-278-5525 | 607-278-5489   | 02/17/1999 | 607-278-5511 | Ed Waid                 |
| Delhi        | Alliance Fellow Ch.    | Norman Worden           |              |                | 02/09/1999 |              |                         |
|              | First Presbyterian Ch. | Rev. A. Whitman         | 607-746-2155 | 607-746-3171   | 07/09/1998 |              | Joyce & Gary Mann       |
|              | United Ministry Ch.    | Mark Chatterton         | 607-746-2077 |                | 02/15/1997 | 607-746-2191 |                         |
|              | Clark Co.              | B. Scott Clark          | 607-746-2077 | 607-746-2830   | 02/02/1999 | 607-746-2727 | Paul Roach              |
|              | Assembly of God        | Paul Keehr              | 607-746-7219 | 607-746-7164   | 02/18/1999 |              | Matt Dreyfus            |
|              | Delaware Academy       | Gary Worden             | 607-746-2553 | 607-746-3972   | 04/24/1995 | 607-746-2105 | Al Donato               |
|              | Donald Gleason P.      | William Moyses          | 607-746-6295 | 607-746-2961   | 02/03/1999 | 607-746-3035 | Robert Johnson          |
| Franklin     | Franklin CS            | Douglas Ido             | 607-746-6515 | 607-829-8820   | 01/14/1998 | 607-829-3551 | Michael Hyzer           |
| Hancock      | E. Branch Fire Dept.   | Rodney Keesler          | 607-865-7994 | 607-363-7397   | 01/06/1998 | 607-637-2206 | Allen Hadden            |
|              | Hancock CS             | Bob Possemato           | 607-637-2259 | 607-637-2640   | 04/20/1998 | 607-637-3584 | Glen Day                |
|              | Baptist Church         | Robert Florence         | 607-637-3343 | 1-717-635-5826 | 08/07/1996 | 607-637-3584 | Herm Wood               |
|              | Presbyterian Church    | Edythe Benson           | 607-637-2266 | 607-637-2507   | 02/02/1997 |              | Etsyl Davis             |
|              | White Birch Airport    | Max Fransico            | 607-637-3677 | 607-637-5407   | 02/02/1999 | 607-637-3677 | Everett Rhinebeck       |
|              | Office Building        | E. Gerald Mackin        | 607-637-4707 |                | 02/03/1999 | 607-637-3651 |                         |
|              | Emory Methodist C.     | Rev Francis Wait        | 607-637-2206 | 607-637-3689   | 09/05/1996 | 607-637-2206 | Philip Terwilliger      |
| Harpersfield | Co. Harper Grange      | Barbara Hill            | 607-652-6792 | 607-652-7829   | 04/07/1997 | 607-652-2600 | Dwayne Hill             |
| Kortright    | United Methodist C.    | Richard Kenyon          | 607-538-9256 | 607-538-9440   | 02/26/1997 | 607-538-9440 | Rev. W Carpenter        |
|              | W. Kortright Centre    | Martha Vanburek         | 607-278-5113 | 607-278-5360   | 08/23/1996 | 607-278-5454 | Kathleen Howarth        |
|              | N. Kortright P. Ch.    | Donald Kerr             | 607-652-4445 | 607-652-5152   | 04/10/1999 | 607-278-5677 | Evang. Maclaury         |
|              | South Kortright        | Richard Cook            | 607-538-9060 | 607-538-9637   | 01/26/1998 | 607-652-2600 | Robert Doroski          |
| Middletown   | Margaretville C.S.     | John Reidel             | 845-586-2647 | 914-586-4757   | 01/21/1998 | 914-586-2647 | Mike Boice              |
|              | M. Post 216 A. Leg     | Donald Kearney          | 914-586-2219 | 914-586-4590   | 03/28/1997 | 914-586-3466 | George Vinning          |
|              | U. Methodist Ch.       | Rev. Skidmore           | 914-254-5261 | 914-254-5589   | 09/25/1996 | 914-254-5261 | Herbert Blish           |
|              | Fleischmanns F.D.      | Richard Osterhou        | 914-254-5912 | 914-254-5600   | 01/01/1998 | 914-254-5221 | Todd Wickham            |
|              | Arkville Fire Dept.    | Robert Sweeney          | 914-586-4649 | 914-586-4958   | 03/07/1997 | 914-586-3003 | John Sanford            |
|              | Arena Fire Dept.       | Eugene Wickam           | 914-586-4785 | 914-586-4982   | 04/03/1997 | 914-586-2333 | Larry Wickham           |
| Roxbury      | NCOC-Grand Gorge       |                         |              |                | 02/26/1999 |              |                         |
|              | Grand G. Fire Dept.    | Thomas Murray           | 607-588-6128 | 607-588-6005   | 03/23/1997 | 607-588-6666 | Henry Gockel            |
|              | Grand Gorge Civic      | Thomas Hynes            | 607-326-7921 | 607-588-7351   | 03/04/1999 | 607-588-6166 | Charles Oakley          |
|              | Roxbury Fire Dept.     | Jim Bouton              | 607-326-4033 | 607-326-7351   | 12/27/1997 | 607-326-7575 | Steve Green             |
|              | Roxbury Cent School    |                         |              |                |            |              |                         |

| Town     | Facility             | 1 <sup>st</sup> Contact | Phone1       | Phone2       | Agree Date | FC#Phone     | 2 <sup>nd</sup> Contact |
|----------|----------------------|-------------------------|--------------|--------------|------------|--------------|-------------------------|
| Stamford | Robison Terrace      | Pamela Harmen           | 607-652-2566 | 607-652-7901 | 03/24/1997 | 607-652-7521 | James Vanhoesen         |
|          | Stamford Cent, Sch   | William Lister          | 607-652-7855 | 607-652-7715 | 05/13/1999 | 607-652-7301 | Joseph Beck             |
|          | BOCES-Cyr Ctr.       | Dr. William Miles       | 607-652-1327 | 607-538-9824 | 02/04/1999 | 607-652-7531 | Paul Marold             |
|          | Hobart Methodist Ch. | Richard Elder           | 607-538-9365 | 607-538-9332 | 02/05/1999 | 607-538-9691 | Herb Hait               |
|          | Stamford Vets Club   | Frank Kerzner           | 607-652-4292 | 607-652-7200 | 08/25/1999 | 607-652-7467 | Fred Dugan              |
|          | Stamford Baptist Ch. | Waylen Bray             | 607-652-7978 | 607-652-3609 | 02-06/1999 | 607-652-3713 | Frank Hornbeck          |
| Tompkins | Harrold BOCES        | Timothy Thomas          |              |              | 09/26/1996 | 607-865-2500 |                         |
|          | Trout Cr. Fire Dept. | Chris Kinney            | 607-865-7039 | 607-865-9341 | 04/05/1997 | 607-865-4810 | Pat Backus              |
| Walton   | Walton Cent. School  | George Mack             | 607-865-5326 | 607-865-6643 | 09/05/1996 | 607-865-4116 | Andrew Jackson          |
|          | Christ Episcopal Ch. | Theodore Mead           | 607-865-6669 | 607-865-4698 | 01/12/1997 | 607-865-4698 | Rev. Nick Servalas      |
|          | United Presby. Ch.   | Rev. M. Hathaway        | 607-865-5024 | 607-865-5070 | 01/12/1997 | 607-865-4390 | Mary Hafele             |



Industrial parks in the County include the 64-acre Sidney Industrial Park in Sidney, and the 16-acre Walton Industrial Park in Walton.

The Delaware County Chamber website further notes that an abundance of excellent and unique raw materials has led to the growth of several natural resource-based industries in Delaware County including medium-density fiberboard (MDF), bluestone, and engravable wood products. Natural resource-based companies in Delaware County include:

- Indian Country (Deposit)
- Johnstone and Rhodes Bluestone (Hancock)
- Larimar and Norton (Hancock)
- Norbord Industries (Deposit)
- Tompkins Bluestone (Colchester)
- Cannonsville Lumber (Deposit)
- Mallory Lumber (Hancock)

The Delaware County Chamber website indicates that Delaware County is home to over 700 farms occupying nearly 200,000 acres. The principal sources of cash farm income include milk, vegetables, grain and livestock. According to the DCAP, dairy farming constitutes approximately 80% of agricultural sales in Delaware County. However, the Delaware County CHA notes that the county has seen a sharp decline in the number of dairy farms (203 as of 2013), losing 130 dairy farms (39% loss) since 1990.

The 1997 Census of Agriculture (USDA) for Delaware County identified 717 farms covering about 184,000 acres, with about half of the farmland identified as cropland. About 32% of the farms are in the 50-179 acre range, while almost 40% are in the 180-499 acre range. The total value of agricultural lands and buildings in Delaware County was indicated as about \$192 million, with an additional \$33 million of machinery and equipment (market value).

The 1997 Census of Agriculture indicates the market value of agricultural products sold totaled about \$43.5M, comprised of about \$4.9M of crops (including nursery and greenhouse crops) and \$38.7M of livestock, poultry and associated products. The 1997 agricultural census identified the following statistics:

#### Livestock and Poultry:

- Cattle and calves inventory: 34,685 head
- Hogs and pig inventory: 237 head
- Sheep and lamb inventory: 875 head
- Poultry: 2,631 head

#### Crops:

- Corn for grain or seed: 718 acres, producing 72,850 bushels
- Corn for silage or green chop: 8,308 acres, producing 115,105 tons (green)
- Oats for grain: 57 acres, producing 3,236 bushels
- Hay, alfalfa, other grains: 62,725 acres, producing 100,997 tons (dry)
- Vegetables: 260 acres
- Orchards: 33 acres

Forestry resources within Delaware County are extensive. U.S. Forest Service statistics, identified in the “Hancock, Gateway to the Delaware, Community Profile”, indicate over 600,000 acres of private timberland producing nearly 94 million (M) cubic feet of softwoods and over 1 billion cubic feet of hardwoods.

### 4.3.3.2 Transportation Systems

This section presents available inventory data for highways, roadways and associated systems; air transportation systems; and public transportation.

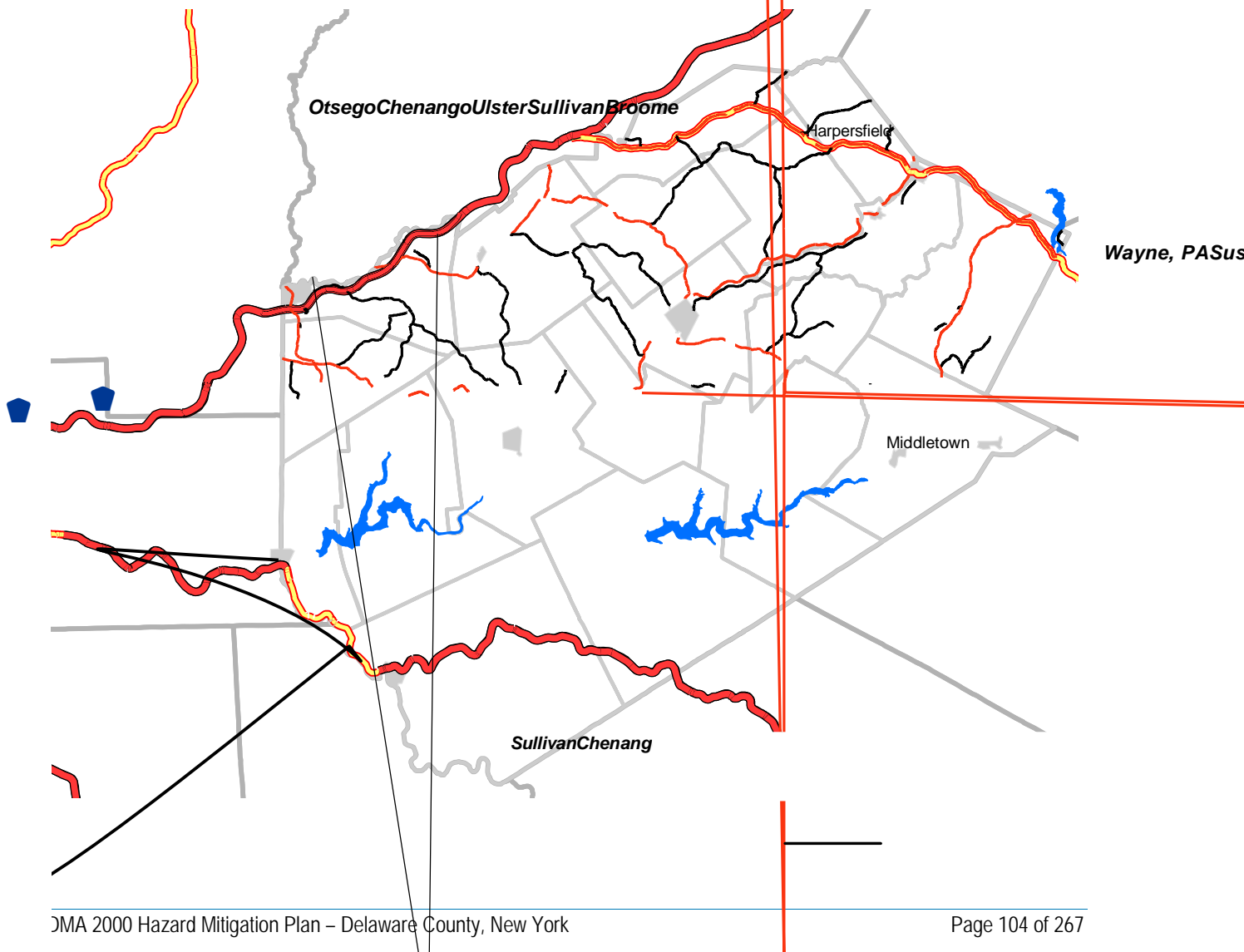
#### Highway, Roadways and Associated Systems:

Figure 4-3-11 shows the major roadways, railroads and associated bridges that serve the Delaware County area. Travelers from the NYC area generally use State Highway 17 (soon to be upgraded to Interstate 86 according to the Delaware County Chamber website), running from Harriman to Binghamton, to access Delaware County from the south. Interstate 88, connecting Binghamton and Albany, runs along the northern border of Delaware County. State Highway 23 traverses the northeastern portion of the county and intersects Interstate 87 to the east. Intra-county travel is typically on the State Highways of 206, 30, 10, 28 and 257, as well as County and local roads.

Schoharie

The 2004 CHA notes that most of the County lacks access to an interstate highway, and most of the travel between residents and services is along state and county road, generally characterized as “narrow, winding, two-lane roads that are difficult to traverse during winter months”.

Figure 4-3-11. Major Roads, Railroads and Associated Bridges in Delaware County



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64.8

47.7

94.7

89.0

14.0

replacement value of County bridges, the estimated average value is between \$200,000 to \$250,000. Therefore, the total replacement value would be approximately \$68.5 million.

As it appears there is reasonable correlation between the numbers and locations of bridges between the HAZUS-MH provided data and the information available from the DCDPW, it was decided to use the default HAZUS-MH highway bridge data “as-is” in this risk assessment.

### **Railway and Associated Systems:**

The HAZUS-MH provided data includes approximately 57 miles of railroad in Delaware County. This includes approximately 4.7 miles of railroads and sidings in the town of Sidney owned by Delaware and Hudson, 31 miles of rail owned by Conrail that runs along the Delaware River on the New York/Pennsylvania border through the towns of Deposit and Hancock, and 21 miles of rail owned by Penn Central Railroad in the towns of Roxbury and Middletown. HAZUS-MH uses a default replacement value of \$850,000 per mile of rail, thus based on this valuation there is over \$44M of railroad in Delaware County. It is noted that the DCPD rail dataset agrees closely with the HAZUS-MH rail segments data, however includes rail segments outside of the county.

Data available on the CUGIR website includes significant railroad segments in Stamford, Walton, Hamden and Sidney that the Planning Group has identified as inactive. The Delaware County Chamber website identifies the rail lines serving the western end of Delaware County as the Canadian Pacific Rail System, running from Albany to Binghamton, and the rail lines serving the southern of the county along its rail corridor from Binghamton to Hoboken, New Jersey (NJ) as the Norfolk Southern Rail System.

The Delaware & Ulster Rail Road is a scenic tourist railroad that runs along the East Branch of the Delaware from Arkville to Halcottsville and Roxbury. There are no ferry or light-rail systems in Delaware County.

### **Air Transportation Systems:**

While there are no major airports or Federal Aviation Administration (FAA)-controlled airfields in Delaware County, there are 12 uncontrolled airfields identified within the HAZUS-MH provided data with a total replacement value for airport facilities and runways of \$ 77,172 (HAZUS-MH applies a default replacement value on such airport facilities and runways of \$ 6,431 per facility). The Delaware County Chamber website indicates that charter and freight service are available from the Sidney Municipal Airport.

Emergency helicopters serve the Delaware Valley and O’Connor Hospitals, as well as the Public Safety Building.

### **Public Transportation:**

The 2004 CHA notes that “a county-wide public transportation system does not exist, and only limited transportation services are provided by a few county agencies and community organizations – but limited to their clients”. This lack of public transportation can reduce the ability of low-income, elderly, sick or disabled persons to access shelter or evacuate during a disaster. Therefore, Section 5 considers mitigation strategies to address potential evacuation or shelter support.

#### **4.3.3.3 Utilities**

Compiling comprehensive data for utility systems in Delaware County has proved difficult, and the process is ongoing. Utility system data that were available through HAZUS-MH were not considered

sufficient to support accurate loss estimates, and utility data available from the DCPD is incomplete at this time. The following sections presents the current state of the inventory of utility systems, recognizing that the final Plan shall include a more comprehensive inventory.

### Potable Water Supply:

The HAZUS-MH provided data included only a single potable water treatment facility in the County (Andes Public Library on Main Street). The Town of Hamden Comprehensive Plan – 2000 identifies two public water supply systems, one each for Delancy and Hamden. Both of these systems are currently undergoing major upgrades costing approximately \$2M to ensure both quantity and quality of supply.

DCPD provided an inventory of potable water supplies in Delaware County. Table 4-3-12 provides this list which includes complete water treatment facilities as well as simple well supplies serving the public in restaurants, campgrounds, etc.

Table 4-3-12 Potable Water Supply Sources in Delaware County

| Water System Name  | Town/Village    | Population Served | Primary Water Source Type           | Water System ID |
|--|-----------------|-------------------|-------------------------------------|-----------------|
| <b>Community Water Systems:</b> Water Systems that serve the same people year-round (e.g. in homes or businesses). |                 |                   |                                     |                 |
| Allen Residential Center   | South Kortright | 215               | Ground water                        | NY1202009       |
| Andes Water District   | Middletown      | 260               | Ground water                        | NY1200248       |
| Arkville Water District  | Margaretville   | 250               | Ground water                        | NY1200249       |
| Ballards Mobile Home Park  | Walton          | 46                | Ground water                        | NY1210657       |
| Barnes Trailer Park  |                 | 96                | Ground water                        | NY1206335       |
| Belaire Mountain Estates Inc.  | Margaretville   | 50                | Ground water                        | NY1206334       |
| Bloomville Water District  | Bloomville      | 220               | Ground water                        | NY1200250       |
| Bovina Center Water Dist. No 1   | Bovina Center   | 142               | Surface water                       | NY1200251       |
| Brace Residential Center   | Masonville      | 57                | Ground water                        | NY1209224       |
| Cooks Falls Water District   | Downsville      | 150               | Ground water                        | NY1200253       |
| Corbett Community Corp.  | Downsville      | 93                | Ground water                        | NY1200254       |
| Davenport Water Co   | Davenport       | 104               | Groundwater<br>UDI Surface<br>water | NY1200255       |
| Delaware Co Cntryside Care Ctr   | Delhi           | 456               | Ground water                        | NY1205152       |
| Delhi Village  | Del             | 3833              | Ground water                        | NY1200257       |
| Denver Water District  | Roxbury         | 360               | Ground water                        | NY1205399       |
| Downsville Water District  | Downsville      | 500               | Ground water                        | NY1200258       |
| East Branch Valley Inc   | East Branch     | 133               | Ground water                        | NY1200259       |
| Family Foundation, Inc.  | Hancock         | 335               | Ground water                        | NY1222078       |
| Fishes Eddy Community Water Sup  | Fleishmans      | 125               | Ground water                        | NY1200260       |
| Fleischmanns Village   | Fleishmans      | 625               | Groundwater<br>UDI Surface<br>water | NY1200261       |
| Franklin Village   | Franklin        | 480               | Ground water                        | NY1200262       |
| Grand Gorge Water District   |                 | 380               | Ground water                        | NY1200263       |
| Greenacre Manufactured Home Park   |                 | 45                | Ground water                        | NY1206336       |
| Halcottsville Water District No. 1   | Margaretville   | 48                | Ground water                        | NY1200264       |
| Hamden Water Dist 1 - Hamden   | Hamden          | 115               | Ground water                        | NY1200265       |
| Hamden Water Dist 2 - Delancey   | Hamden          | 135               | Ground water                        | NY1200256       |
| Hancock Village  | Hancock         | 1189              | Ground water                        | NY1200266       |
| Hobart Village   | Hobart          | 380               | Ground water                        | NY1200267       |

| Water System Name   | Town/Village               | Population Served | Primary Water Source Type           | Water System ID |
|---|----------------------------|-------------------|-------------------------------------|-----------------|
| Leisure Village   |                            | 85                | Ground water                        | NY1208176       |
| Margaretville Village   | Margaretville              | 660               | Groundwater<br>UDI Surface<br>water | NY1200268       |
| Mt View Mobile Home Park  |                            | 220               | Ground water                        | NY1206338       |
| Phoenix House   | South Kortright            | 200               | Ground water                        | NY1208249       |
| Pine Ridge Mobile Home Park   | Davenport                  | 45                | Ground water                        | NY1215266       |
| River Road Trailer Park   | Walton                     | 52                | Ground water                        | NY1210658       |
| Roric Rentals, Inc.   | Delhi                      | 60                | Ground water                        | NY1206333       |
| Roxbury Water District  | Roxbury                    | 750               | Ground water                        | NY1200269       |
| Sidney Village  | Sidney                     | 5100              | Ground water                        | NY1200270       |
| Stamford Village  |                            | 1280              | Surface water                       | NY1200272       |
| Stratton Falls Mhp  | Roxbury                    | 45                | Ground water                        | NY1212402       |
| Treadwell Water District  | Franklin (Or<br>Treadwell) | 165               | Groundwater<br>UDI Surface<br>water | NY1200273       |
| Walton Country Meadow Park  |                            | 160               | Ground water                        | NY1220347       |
| Walton Village  | Walton                     | 3070              | Ground water                        | NY1200274       |
| <b>Non-Transient Non-Community Water Systems:</b> Water Systems That Serve The Same People, But Not Year-Round (E.G. Schools That Have Their Own Water System). |                            |                   |                                     |                 |
| Charlotte Valley Central School   | Colchester                 | 600               | Ground water                        | NY1202631       |
| Delaware County Resource Center   |                            | 202               | Ground water                        | NY1215515       |
| DMV International   | Delhi                      | 100               | Ground water                        | NY1230000       |
| Kraft Foods N.A.  | Walton                     | 200               | Ground water                        | NY1210799       |
| Masonville BOCES  | Masonville                 | 200               | Ground water                        | NY1215462       |
| Masonville Elementary School  | Masonville                 | 200               | Ground water                        | NY1202633       |
| NYS Electric And Gas Corp   |                            | 40                | Ground water                        | NY1219937       |
| Sidney Ctr Elementary School  | Sidney                     | 100               | Ground water                        | NY1202634       |
| South Kortright Central School  | South Kortright            | 560               | Ground water                        | NY1205873       |
| <b>Transient Non-Community Water Systems:</b> Water Systems that do not consistently serve the same people (e.g. rest stops, campgrounds, gas stations).        |                            |                   |                                     |                 |
| 4-H Camp Shankitunk   | Hamden                     | 120               | Ground water                        | NY1208252       |
| Andel Inn   | Andes                      | 52                | Ground water                        | NY1206550       |
| Bear Springs Camping Area   |                            | 100               | Ground water                        | NY1208194       |
| Beaver Spring Lake Campground   |                            | 100               | Ground water                        | NY1208241       |
| Beaver-Del Hotel & Campsites  |                            | 75                | Ground water                        | NY1215385       |
| Bobcat Ski Center   | Bovina                     | 80                | Ground water                        | NY1216831       |
| Buck Horn Lodge   | East Branch                | 50                | Ground water                        | NY1208261       |
| Buena Vista Motel   | Delhi                      | 90                | Ground water                        | NY1208236       |
| Butternut Grove Campsite  | Roscoe                     | 54                | Ground water                        | NY1208179       |
| Camp Hilltop  | Hancock                    | 230               | Ground water                        | NY1208205       |
| Camp Kingswood  |                            | 84                | Ground water                        | NY1208184       |
| Camp Lman Achai   |                            | 150               | Ground water                        | NY1208254       |
| Camp Nubar  |                            | 200               | Ground water                        | NY1208253       |
| Camp Radalbek, Inc.   | Hancock                    | 25                | Ground water                        | NY1208204       |
| Catskill Mountain Kampground  | Downsville                 | 90                | Ground water                        | NY1208167       |
| Country Store & Kitchen   | Roscoe                     | 25                | Ground water                        | NY1222496       |
| Country Store 5   | Roscoe                     | 25                | Ground water                        | NY1230010       |
| Davenport Center Diner  | Prattsville                | 46                | Ground water                        | NY1221953       |
| Delaware County Koa   | Franklin                   | 50                | Ground water                        | NY1208168       |

| Water System Name  | Town/Village    | Population Served | Primary Water Source Type | Water System ID |
|--|-----------------|-------------------|---------------------------|-----------------|
| Delaware Valley Agricultural Society   | Walton          | 25                | Purchased ground water    | NY1230027       |
| Delaware Valley Campsite   | Downsville      | 150               | Ground water              | NY1208177       |
| Delhi College Golf Snack Bar   | Delhi           | 80                | Ground water              | NY1218852       |
| Deposit Motel, Ltd.  | Deposit         | 50                | Ground water              | NY1208263       |
| Do Drop Inn  | Hancock         | 25                | Ground water              | NY1206551       |
| Downsville Motel   | Downsville      | 60                | Ground water              | NY1222037       |
| East Branch Motel, Inc.  | East Branch     | 48                | Ground water              | NY1218944       |
| East Branch Rest Area 17 West  | Hancock         | 250               | Ground water              | NY1219084       |
| East Sidney Lake Park  | Sidney          | 200               | Ground water              | NY1208169       |
| Fairway Inn  | Sidney          | 25                | Ground water              | NY1215522       |
| French Woods Festival, Inc.  | Hancock         | 750               | Ground water              | NY1208264       |
| <b>Transient Non-Community Water Systems:</b> Water Systems that do not consistently serve the same people (e.g. rest stops, campgrounds, gas stations). (Continued) |                 |                   |                           |                 |
| Frenchwoods Golf & Country Club  | Hancock         | 48                | Ground water              | NY1230008       |
| Funny Farm @ Rexs Auction Center   |                 | 25                | Ground water              | NY1230025       |
| Gascons Grocery  | Masonville      | 25                | Ground water              | NY1230011       |
| Green Acres Motel  | Hancock         | 44                | Ground water              | NY1208186       |
| Greens Long River Inn  |                 | 40                | Ground water              | NY1219283       |
| Hamden General Store   | Hamden          | 25                | Ground water              | NY1230022       |
| Hanah Country Resort   | Hancock         | 120               | Ground water              | NY1208189       |
| Hardwood Hills Golf Course/Country Cream   | Masonville      | 25                | Ground water              | NY1206534       |
| Harpersfield General Store   | Harpersfield    | 25                | Ground water              | NY1230012       |
| Hess Mart #32383   | Margaretville   | 25                | Ground water              | NY1230013       |
| Hidden Inn   | South Kortright | 125               | Ground water              | NY1206544       |
| High Hills Country Club, Inc.  | Hancock         | 40                | Ground water              | NY1220639       |
| Homestead Farm Estate  |                 | 40                | Ground water              | NY1208188       |
| Huffs Tavern, Inc.   | Sidney Center   | 60                | Ground water              | NY1216825       |
| I88 Rest Unadilla East Bound   |                 | 250               | Ground water              | NY3818337       |
| Kababish Cottage Cafe  |                 | 25                | Ground water              | NY1219328       |
| La Salette Restaurant  | Hancock         | 75                | Ground water              | NY1206552       |
| Lake Delaware Boys Camp Inc  |                 | 112               | Ground water              | NY1208251       |
| Little Pond State Campsite   |                 | 300               | Ground water              | NY1208195       |
| Little Village Inn   |                 | 25                | Ground water              | NY1208193       |
| Mama Marias Pizzeria   |                 | 52                | Ground water              | NY1221789       |
| Manhattan Country School Farm  |                 | 25                | Ground water              | NY1221361       |
| Margaretville Bowl   | Margaretville   | 50                | Ground water              | NY1225000       |
| Margaretville Motel  | Margaretville   | 40                | Ground water              | NY1208190       |
| Maywood Station General Store  | Sidney Center   | 25                | Ground water              | NY1230016       |
| Meredith Inn   | Meredith        | 25                | Ground water              | NY1206536       |
| Merrills Farm Vacations  | Roscoe          | 45                | Ground water              | NY1219529       |
| Miller Hollow Campground   | Roscoe          | 46                | Ground water              | NY1208181       |
| Millers Bar-B-Q  | Walton          | 38                | Ground water              | NY1206545       |
| Mountain Brook Inn   | Bovina Center   | 40                | Ground water              | NY1208239       |
| My Place Diner   |                 | 30                | Ground water              | NY1230004       |
| NYCDEP Downsville  |                 | 57                | Ground water              | NY1230030       |
| Oakleys Place  | Arkville        | 25                | Ground water              | NY1206599       |
| Octagon Motor Lodge  |                 | 25                | Ground water              | NY1230031       |

| Water System Name  | Town/Village    | Population Served | Primary Water Source Type | Water System ID |
|--|-----------------|-------------------|---------------------------|-----------------|
| Oppenheimers Regis Hotel   |                 | 150               | Ground water              | NY1208171       |
| Ouleout Creek Golf Club  | Franklin        | 75                | Ground water              | NY1221954       |
| Owls Nest at Highmount, Inc  |                 | 150               | Ground water              | NY1206540       |
| Ox Bow Campsites   | East Branch     | 340               | Ground water              | NY1221806       |
| Pakatakan Motel  | Arkville        | 38                | Ground water              | NY1208244       |
| Peaceful Valley Campsites  | Downsville      | 740               | Ground water              | NY1208185       |
| Pine Lake Environmental Center   |                 | 110               | Ground water              | NY1215383       |
| Pioneer Trails Campground  |                 | 60                | Ground water              | NY1208240       |
| Quickway #12   | Sidney          | 25                | Ground water              | NY1230023       |
| Quickway 2   | Sidney          | 25                | Ground water              | NY1230018       |
| Rainbow Lodge  | Walton          | 110               | Ground water              | NY1216819       |
| Red Rose Motel & Rest  | Roscoe          | 30                | Ground water              | NY1212387       |
| Riverside Cafe & Lodge   | Roscoe          | 40                | Ground water              | NY1208237       |
| <b>Transient Non-Community Water Systems:</b> Water Systems that do not consistently serve the same people (e.g. rest stops, campgrounds, gas stations). (Continued) |                 |                   |                           |                 |
| Roadhouse Inn  | Hamden          | 50                | Ground water              | NY1206604       |
| Russell Brook Campsite   | Roscoe          | 140               | Ground water              | NY1208255       |
| Serenity Path Wellness Lodge   | East Branch     | 25                | Ground water              | NY1230028       |
| Seva Institute   | South Kortright | 34                | Ground water              | NY1220346       |
| Shepard Hills Golf Assoc. I  | Roxbury         | 25                | Ground water              | NY1215521       |
| Sherris Place  | Harpersfield    | 25                | Ground water              | NY1219285       |
| Silver Lake Water Association  | Walden          | 58                | Ground water              | NY1222896       |
| Silver Lake West Side Water As   |                 | 45                | Ground water              | NY1218319       |
| Ski Plattekill   | Roxbury         | 500               | Ground water              | NY1216821       |
| Smiths Colonial Motel  | Hancock         | 56                | Ground water              | NY1212391       |
| Stratton Falls Campsite  | Roxbury         | 184               | Ground water              | NY1208183       |
| Suits Us Farm  | Bovina Center   | 200               | Ground water              | NY1208238       |
| SUNY Delhi Lower Campus Farm   | Delhi           | 50                | Ground water              | NY1222997       |
| T Bar Restaurant   | Roxbury         | 60                | Ground water              | NY1219593       |
| Tally Ho Restaurant (Of Davenport)   | West Davenport  | 75                | Ground water              | NY1206549       |
| Tavern On The Green  |                 | 125               | Ground water              | NY1206608       |
| Terrys Shinhopple Campsite   | East Branch     | 40                | Ground water              | NY1208166       |
| The Fieldstone House   | Sidney Center   | 25                | Ground water              | NY1230005       |
| The Inn Between  | Arkville        | 48                | Ground water              | NY1206539       |
| The Meadows Golf Course  |                 | 25                | Ground water              | NY1230029       |
| Timberline Motel   | Hancock         | 36                | Ground water              | NY1208187       |
| Trout Creek General Store  | Trout Creek     | 25                | Ground water              | NY1230021       |
| Twin Islands Campsite  | Roscoe          | 135               | Ground water              | NY1208182       |
| Unadilla I88 Rest Area West Bound  |                 | 250               | Ground water              | NY3818209       |
| Valley View Motel  | Hamden          | 25                | Ground water              | NY1208170       |

### Wastewater Treatment:

Due to the generally rural nature of much of the County, on-site septic disposal is prevalent through much of the region. Sewer systems generally service the population centers found within the villages in the County. The Town of Hamden Comprehensive Plan – 2000 indicates that there are no sewer systems within the Town, which includes the hamlets of Hamden and Delancy.

The Village of Margaretville completed a new wastewater treatment plant (WWTP) in 2000.

An October, 2001 Press Release from the NYCDEP indicated wastewater treatment plant upgrades to the municipal facilities owned by the Villages of Delhi, Hobart, Stamford, Walton, and the facility serving the Worcester Creamery (formerly Mountainside Dairy Farms) in Roxbury.

DRBC Aug. 2002 Notices (Doc. No. 02-1481) indicate that the Village of Andes was to construct a 0.062 million gallon per day (mgd) WWTP to serve Village residents, located between Cabin Hill and Tremper Kill Roads.

A May 2004 Press Release announced state grants and interest-free and low-interest financing for clean waster projects, provided through the NY Drinking Water and Clean Water State Revolving Funds. Included in this package was \$150,000 of long-term, low-interest loans to the Town of Roxbury for a new water transmission main and upgraded water source to supply the Grand Gorge Water District with water from the Roxbury Water District, work to be completed in May 2004.

The HAZUS-MH provided data included 10 wastewater treatment with default replacement values of \$ 78,588 per plant. No wastewater lift stations or piping was provided in the HAZUS-MH default data. The NYDEC provided a dataset of wastewater treatment plants serving their watershed areas. Additional WWTP facilities were provided by the DCPD, which is based on a summary of State Pollution Discharge Elimination System (SPDES) permits. Table 4-3-13 provides a summary of wastewater treatment facilities, based on these sources of data:

Table 4-3-13 Wastewater Treatment Facilities in Delaware County

| Facility Name                            | Jurisdiction      | Capacity (mgd) | Pop. Served |
|--|-------------------|----------------|-------------|
| Aerospace Operations                     | Sidney (V)        | TBD            | TBD         |
| Kraft Foods Inc. - Walton                | Walton (V)        | TBD            | TBD         |
| Delhi (V) Sewage Treatment Plant         | Delhi (V)         | TBD            | TBD         |
| Stamford (V) Sewage Treatment Plant      | Stamford (V)      | TBD            | TBD         |
| Village of Hobart PCF                    | Hobart (V)        | TBD            | TBD         |
| Agbu Camp Nubar (Seasonal)               | Andes (T)         | TBD            | TBD         |
| NYCDEP Margaretville (V) STP             | Margaretville (V) | TBD            | TBD         |
| NYCDEP Grand Gorge (H) STP               | Roxbury (T)       | TBD            | TBD         |
| Walton (V) Sewage Treatment Plant        | Walton (V)        | TBD            | TBD         |
| Hobart (V) Sewage Treatment Plant        | Stamford (T)      | TBD            | TBD         |
| Sidney (V) Water Pollution Control Plant | Sidney (V)        | TBD            | TBD         |
| Allen Residential Center                 | Kortright (T)     | TBD            | TBD         |
| Brace Residential Center                 | Masonville (T)    | TBD            | TBD         |
| Belle Terre Camp For Girls               | Stamford (T)      | TBD            | TBD         |
| Masonville Inn & Motor Lodge Inc         | Masonville (T)    | TBD            | TBD         |
| Ultra Dairy/DMV International            | Delhi (T)         | TBD            | TBD         |
| Pioneer Trails Camping Resort            | Hamden (T)        | TBD            | TBD         |
| Gordondale Apartments                    | Meredith (T)      | TBD            | TBD         |
| Mountainside Farms Inc.                  | Roxbury (T)       | TBD            | TBD         |
| Hancock (V) Sewage Treatment Plant       | Hancock (V)       | 0.35           | TBD         |
| Robert W Harrold Campus                  | Masonville (T)    | TBD            | TBD         |
| Denver Sewer District WWTP Roxbury Run   | Roxbury (T)       | TBD            | TBD         |
| Regis Hotel                              | Middletown (T)    | TBD            | TBD         |
| Camp French Woods                        | Hancock (T)       | TBD            | TBD         |
| Johnston & Rhodes Stonemill              | Hancock (T)       | TBD            | TBD         |
| T'ai Chi Camp                            | Andes (T)         | TBD            | TBD         |

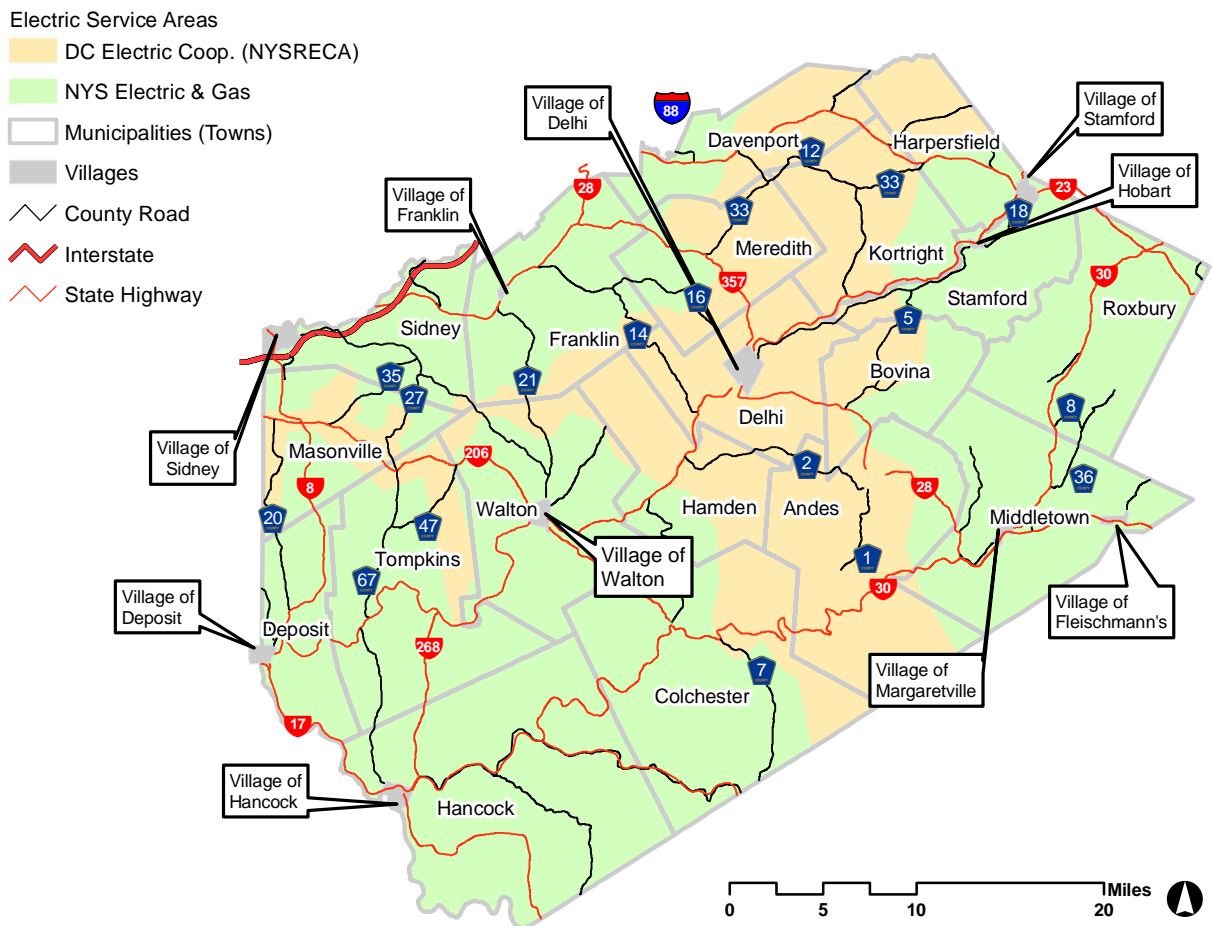
| Facility Name                           | Jurisdiction     | Capacity (mgd) | Pop. Served |
|---|------------------|----------------|-------------|
| Beaver Spring Lake Campground           | Davenport (T)    | TBD            | TBD         |
| Becton Dickinson                        | Hancock (T)      | TBD            | TBD         |
| 4 H Camp Shankitunk                     | Delhi (T)        | TBD            | TBD         |
| Roundup Ranch                           |                  | TBD            | TBD         |
| Delaware BOCES                          | Masonville       | TBD            | TBD         |
| Camp Radalbek Inc                       | Tompkins (T)     | TBD            | TBD         |
| D O T Resident Eng Headquarters         | Stamford (T)     | TBD            | TBD         |
| Catskill Mountain Kampground            | Colchester (T)   | TBD            | TBD         |
| Penn Quality Meats Coop., Inc.          | Stamford (T)     | TBD            | TBD         |
| County Meadow Park                      | Walton (T)       | TBD            | TBD         |
| SEVA Institute                          | Kortright (T)    | TBD            | TBD         |
| South Kortright Center For Boys         | S. Kortright     | TBD            | TBD         |
| Downsville Restaurant                   | Colchester (T)   | TBD            | TBD         |
| Basile's Pizzeria & Restaurant          |                  | TBD            | TBD         |
| Washer & Dryer                          | Franklin (T)     | TBD            | TBD         |
| Beaver-Del Campsites                    | Hancock (T)      | TBD            | TBD         |
| Log Cabin Motel                         | Hancock (T)      | TBD            | TBD         |
| NAFCO/Highland Meadows                  | Kortright (T)    | TBD            | TBD         |
| Penn Quality Meats Cooperative Inc.     | Stamford (T)     | TBD            | TBD         |
| Barnes Trailer Park                     | Sidney (T)       | TBD            | TBD         |
| Leisure Village Mobile Home Park        | Delhi (T)        | TBD            | TBD         |
| Green Meadows Mobile Court Inc.         | Delhi (T)        | TBD            | TBD         |
| Walton Bulk Plant                       | Walton (T)       | TBD            | TBD         |
| Grand Gorge Bulk Plant                  | Roxbury (T)      | TBD            | TBD         |
| Franklin Central School                 | Franklin (T)     | TBD            | TBD         |
| Lane Robbins At Hilltop                 | Hancock (T)      | TBD            | TBD         |
| Margaretville Mt Inn                    | Middletown (T)   | TBD            | TBD         |
| Old Schoolhouse Inn & Restaurant        | Colchester (T)   | TBD            | TBD         |
| Palace Hotel                            | Middletown (T)   | TBD            | TBD         |
| Norbord Industries Inc.                 | Deposit (T)      | TBD            | TBD         |
| Peace Plantation Sanctuary              | Walton (T)       | TBD            | TBD         |
| Lasalette Restaurant                    | Hancock (T)      | TBD            | TBD         |
| Yeshiva Metzyonim D'satmar Camp         | Middletown (T)   | TBD            | TBD         |
| Walton (T) Vehicle Maintenance Facility | Walton (T)       | TBD            | TBD         |
| Old Schoolhouse Inn                     | Colchester (T)   | TBD            | TBD         |
| Lyon Mountain Spring Water Inc.         | Stamford (T)     | TBD            | TBD         |
| NYCDEP Downsville Shop                  | Colchester (T)   | TBD            | TBD         |
| Lake Lafever Subdivision                | Kortright (T)    | TBD            | TBD         |
| Downsville Fire District                | Colchester (T)   | TBD            | TBD         |
| Nuckel Residence                        | Andes (T)        | TBD            | TBD         |
| Religious School & Children's Camp      | Fleischmanns (V) | TBD            | TBD         |
| Roxbury Central School                  | Roxbury (T)      | TBD            | TBD         |
| Roxbury Run Village                     | Roxbury (T)      | TBD            | TBD         |
| Regis Hotel (Seasonal)                  | Fleischmanns (V) | TBD            | TBD         |
| Family School                           | Hancock (T)      | TBD            | TBD         |
| Hanah Country Resort                    | Middletown (T)   | TBD            | TBD         |
| Wissahickon Spring Water                | Kortright (T)    | TBD            | TBD         |
| Maintenance Patrol - Deposit            | Deposit (T)      | TBD            | TBD         |
| Downsville Maintenance Patrol           | Colchester (T)   | TBD            | TBD         |

| Facility Name                           | Jurisdiction | Capacity (mgd) | Pop. Served |
|---|--------------|----------------|-------------|
| Highway Maintenance Subhead - Stamford  | Stamford (T) | TBD            | TBD         |
| Maplewood Estate                        | Roxbury (T)  | TBD            | TBD         |
| Andes (V) Library Well Treatment System | Andes (V)    | TBD            | TBD         |

**Electric Utility Systems:**

The HAZUS-MH provided data does not include any oil, natural gas or electric power facility information for the County. With regard to electric service, the County is served by the Delaware County Electric Cooperative (DCEC) and NYS Electric & Gas (NYSEG). The DCPD provided digital data showing the general locations of power lines and customers served by the DCEC, which is a member of the NYS Rural Electric Cooperative Association (NYSRECA). NYSEG data has not been made available. Figure 4-3-12 shows the general electric service areas within the County, based on the available DCEC data. The NYSEG service area depicted is simply those areas outside of those clearly show to be within the DCEC data. While suitable for the purposes of this HMP, the very general nature of these service area delineations must be understood. The DCEC data includes approximately 680 miles of power lines within the county, providing service to 4,433 customers.

Figure 4-3-12 Electric Service Areas in Delaware County



## Oil and Natural Gas Systems:

The HAZUS-MH default data did not include any oil, natural gas or electric power facility information for the county, and the DCPD does not have such datasets available at this time. Generalized mapping provided by The Pipeline Group identifies a natural gas pipeline, owned by Texas Eastern Transmission, that running generally east-west through the northern portion of Davenport and Harpersfield. The Steering Committee indicated that a pipeline explosion occurred in the North Harpersfield area in January, 2004, setting a home ablaze.

## Communication Systems:

The HAZUS-MH default data includes 8 broadcast facilities. Further, DCPD provided a GIS shapefile of emergency communication towers. Table 4-3-14 summarizes communications facilities in Delaware County based on these data sources:

Table 4-3-14 Communication Facilities (Towers) in Delaware County

| Tower               | Location                   |
|---------------------|----------------------------|
| Mt. Utsayantha      | Tower Mt. Rd. Stamford     |
| Craig Hill          | Andes                      |
| Houck Mountain      | Walton                     |
| Ed Klug             | Franklin                   |
| White Birch Airport | Town of Tompkins           |
| Belleayre           | Highmount (Ulster County)  |
| Coon Hill           | Outside Village of Hancock |
| Sidney              | Sidney (State Police)      |

### 4.3.3.4 High-Potential Loss Facilities

High-potential loss facilities include dams, levees, nuclear power plants and military installations. The HAZUS-MH provided data identifies 56 dams in Delaware County.

The “Major Dams of New York” dataset, provided by the U.S. Army Corps of Engineers (USACE), identified four (4) major dams in Delaware County. The “Major Dams” information came from the National Inventory of Dams (NID) which was produced by USACE in cooperation with FEMA's National Dam Safety Program, and includes dams of 50 feet or more in height, or with a normal storage capacity of 5,000 acre-feet or more, or with a maximum storage capacity of 25,000 acre-feet or more. The Downsville Dam (Figure 4-3-14), near Downsville, and the Cannonsville Dam (Figure 4-3-13), near Deposit, are both owned by the City of New York and are classified as “High Hazard” dams. The East Sidney Dam, federally owned, is classified as a “High Hazard” dam. The Sidney Upper Reservoir Dam (aka: Taylor Reservoir Dam) near the Village of Sidney who owns the dam, is classified as a “Significant Hazard” dam.

The Delaware County GIS “Dam” dataset includes 164 dams (including the three “Major” dams previously described) as indicated on Figure 4-3-15 and in Table 4-3-15. These records includes data on the dams including the National ID, dam type, purpose, year completed, ownership, downstream hazard (no, low, moderate, high), whether an emergency action plan exists, the hazard code, and the date of last inspection.

Figure 4-3-13 Cannonsville Dam near Deposit



Figure 4-3-14 Downsville Dam (Pepacton Reservoir) near Downsville



Figure 4-3-15 Dams in Delaware County

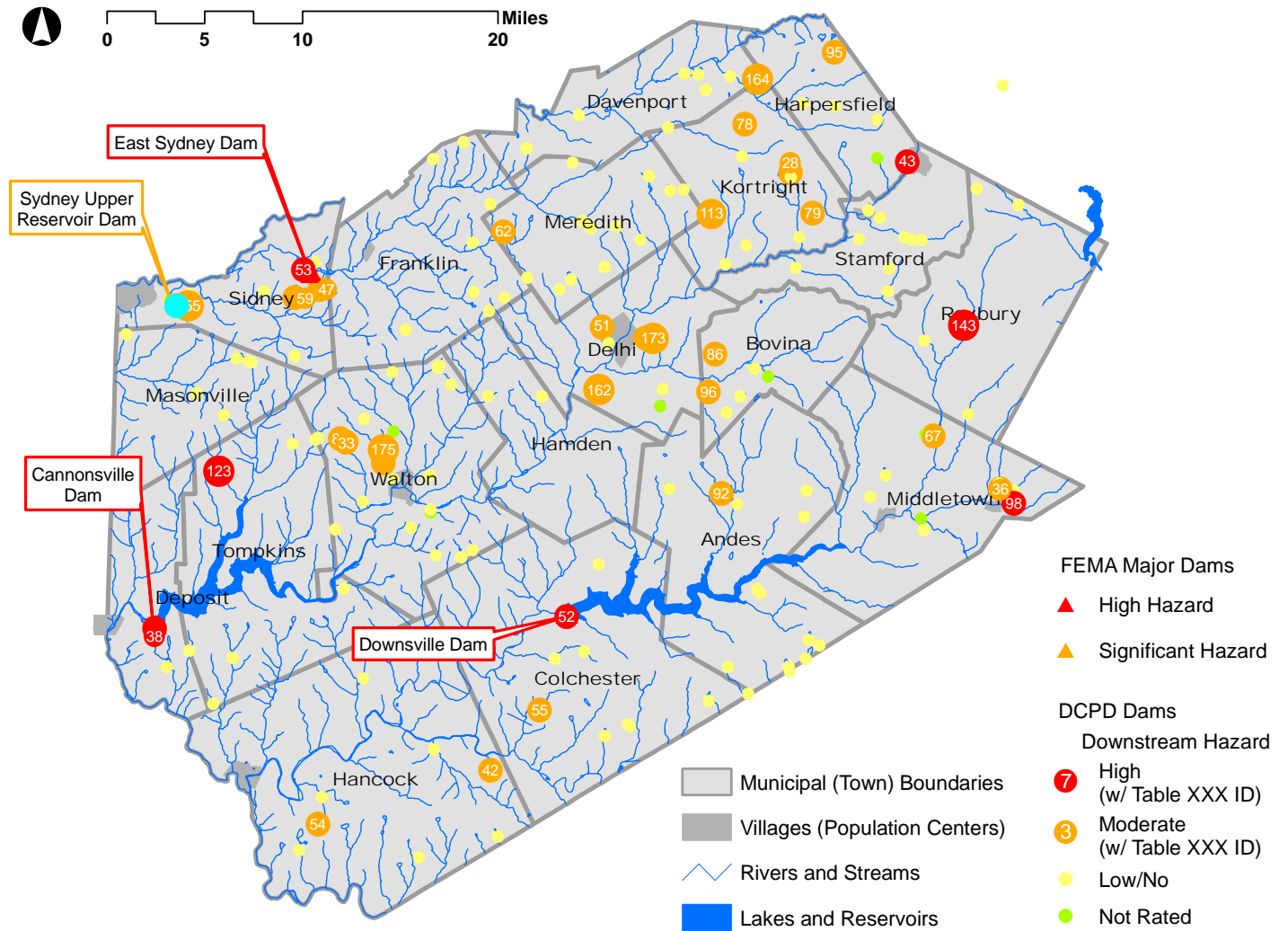


Table 4-3-15 Dams in Delaware County

| Map ID | Name                          | National ID | Nearest Population (NP) | Distance to NP | Dam Type         | Purpose          | Year Completed | Owner Type | Downstream Hazard | Emerg. Plan | Phase_I_IN | Last Inspected |
|--------|-------------------------------|-------------|-------------------------|----------------|------------------|------------------|----------------|------------|-------------------|-------------|------------|----------------|
|        |                               | NY14494     |                         |                |                  |                  |                |            | NO HAZARD         |             |            | 11/1/1972      |
| 3      | (145-0804)                    | NY14522     |                         |                |                  |                  |                |            | NO HAZARD         |             |            | 10/16/1972     |
| 4      | (145-0805)                    | NY14523     |                         |                |                  |                  |                |            | NO HAZARD         |             |            | 10/16/1972     |
| 5      | (145-0826)                    | NY14524     |                         |                |                  |                  |                |            | NO HAZARD         |             |            | 10/17/1972     |
| 6      | (145-0862)                    | NY14526     |                         |                |                  |                  |                |            | NO HAZARD         |             |            | 10/16/1972     |
| 7      | (145-0881)                    | NY14527     |                         |                |                  |                  |                |            | NO HAZARD         |             |            | 10/17/1972     |
| 8      | (145-0898)                    | NY14528     |                         |                |                  |                  |                |            | NO HAZARD         |             |            | 1/24/1973      |
| 9      | (145-0900)                    | NY14529     |                         |                |                  |                  |                |            | NO HAZARD         |             |            | 10/16/1972     |
| 10     | (160-0664)                    | NY14593     |                         |                |                  |                  |                |            | NO HAZARD         |             |            | 10/16/1972     |
| 11     | (160-0686)                    | NY14594     |                         |                |                  |                  |                |            | NO HAZARD         |             |            | 9/20/1972      |
| 12     | (160-0689)                    | NY14595     |                         |                |                  |                  |                |            | NO HAZARD         |             |            | 9/21/1972      |
| 13     | (160-0690)                    | NY14596     |                         |                |                  |                  |                |            | NO HAZARD         |             |            | 9/21/1972      |
| 14     | (160-1362)                    | NY14599     |                         |                | EARTH            |                  |                |            |                   |             |            | 8/14/1990      |
| 15     | (161-0567)                    | NY14604     |                         |                |                  |                  |                |            | NO HAZARD         |             |            | 9/20/1972      |
| 16     | ALBERT L BONNER POND DAMS A&B | NY12459     | EAST SIDNEY             |                | EARTH            | RECREATION       | 1964           | PRIVATE    | LOW               |             |            | 1/23/1973      |
| 17     | ANATOLE MATKOVSKY POND DAM    | NY12454     | WALTON                  | 6              | EARTH            | RECREATION       | 1958           | PRIVATE    | LOW               |             |            | 1/24/1973      |
| 18     | ANTHONY DECARO POND DAM       | NY12575     | NONE                    |                | EARTH            | RECREATION       | 1977           | PRIVATE    | LOW               |             |            |                |
| 19     | ARKVILLE RAILROAD DAM         | NY14333     | ARKVILLE                |                | TIMBER CR        |                  |                | PRIVATE    |                   |             |            | 3/28/1974      |
| 20     | ARTHUR RASMUSSEN POND DAM     | NY12470     | NONE                    |                | EARTH            | RECREATION       | 1962           | PRIVATE    | LOW               |             |            | 11/10/1972     |
| 21     | AUGUST ANDERSON POND DAM      | NY12484     | LONG EDDY               | 3              | EARTH            | RECREATION       | 1965           | PRIVATE    | LOW               |             |            | 11/1/1972      |
| 22     | B B SHEPPS POND DAM           | NY12602     | ROCKLAND                | 3              | EARTH            | RECREATION       | 1960           | PRIVATE    | LOW               |             |            | 10/8/1998      |
| 23     | BEAVER RUN DAM                | NY01458     | LORDVILLE               | 3              | EARTH            | RECREATION       | 1976           | PRIVATE    | LOW               |             |            | 10/8/1998      |
| 24     | BEAVER SPRING POND DAM        | NY12576     | DAVENPORT               | 1              | EARTH            | RECREATION       | 1981           | PRIVATE    | LOW               |             |            | 1/1/1980       |
| 25     | BERNADINA RIEPING DAM         | NY14135     | PEAKVILLE               | 1              | EARTH            | RECREATION       |                | PRIVATE    | LOW               |             |            | 10/8/1998      |
| 26     | BERNARD TYMESON POND DAM      | NY12474     | WALTON                  | 5              | EARTH            | RECREATION       | 1971           | PRIVATE    | LOW               |             |            | 6/18/1997      |
| 27     | BETTY BROOK BEAVER DAM        | NY12712     | SOUTH KORTRIGHT         | 2              | GRAVITY,ROCKFILL | HYDRO.RECREATION | 1906           | PRIVATE    | LOW               |             |            | 6/25/1998      |
| 28     | BETTY BROOK DAM               | NY00528     | SOUTH KORTRIGHT         | 4              | EARTH            | RECREATION       | 1972           | PRIVATE    | MODERATE          |             |            | 5/2/1996       |
| 29     | BIG POND DAM                  | NY00648     | LEWBEACH                | 5              | LAID-UP          | RECREATION       | 1913           | STATE      | NO HAZARD         | NR          | NO         | 7/9/1996       |

Table 4-3-15 Dams in Delaware County

| Map ID | Name                            | National ID | Nearest Population (NP) | Distance to NP | Dam Type         | Purpose    | Year Completed | Owner Type | Downstream Hazard | Emerg. Plan | Phase I_IN | Last Inspected |
|--------|---------------------------------|-------------|-------------------------|----------------|------------------|------------|----------------|------------|-------------------|-------------|------------|----------------|
| 30     | BISHOP & CHASE MARSH DAM & DIKE | NY01035     | SIDNEY                  | 2              | EARTH            | WILDLIFE   | 1954           | PRIVATE    | LOW               | NR          | NO         | 12/18/1996     |
| 31     | BLOOMVILLE DAM                  | NY12561     | BLOOMVILLE              |                | ROCKFILL,MASONRY | HYDROELEC  | 1901           | PRIVATE    | LOW               |             |            | 9/20/1994      |
| 32     | BRS DEVELOPMENT DAM             | NY01253     | DELHI                   | 4              | EARTH            | RECREATION | 1987           | PRIVATE    | LOW               |             |            | 5/1/1996       |
| 33     | BRUCE PERSSON DAM               | NY14848     | WALTON                  | 3              | EARTH            | RECREATION | 1999           | PRIVATE    | MODERATE          |             | NO         | 6/16/1999      |

Table 4-3-15 Dams in Delaware County

| Map ID | Name                            | National ID | Nearest Population (NP) | Distance to NP | Dam Type      | Purpose               | Year Completed | Owner Type | Downstream Hazard | Emerg. Plan | Phase 1_IN | Last Inspected |
|--------|---------------------------------|-------------|-------------------------|----------------|---------------|-----------------------|----------------|------------|-------------------|-------------|------------|----------------|
| 58     | FERDINAND HARPER MARSH DAM      | NY12723     | STURGES CORNER          | 2              | EARTH         |                       | 1953           | PRIVATE    | LOW               |             |            | 10/16/1972     |
| 59     | FOWLER FINCH POND DAM           | NY01046     | NORTH FRANKLIN          | 7              | EARTH         | RECREATION            | 1958           | PRIVATE    | MODERATE          |             |            | 6/18/1997      |
| 60     | FRANCIS F KIPP FARM POND DAM    | NY12472     | WALTON                  | 2              | MASONRY       | FIRE/STOCK            | 1964           | PRIVATE    | LOW               |             |            | 11/1/1972      |
| 61     | FRED DEBARI DAM                 | NY14180     | MASONVILLE              | 2              | EARTH         |                       |                | PRIVATE    | LOW               |             |            |                |
| 62     | GEORGE BRYANT DAM               | NY01048     | TREADWELL               | 2              | EARTH         | RECREATION,FIRE/STOCK | 1965           | PRIVATE    | MODERATE          | NR          | NO         | 5/1/1996       |
| 63     | GEORGE PATTERSON POND DAM       | NY12582     | LEW BEACH               | 1              | EARTH         | RECREATION            | 1970           | PRIVATE    | LOW               |             |            | 11/1/1972      |
| 64     | GERRIT LYDECKER POND DAM        | NY00535     | DELHI                   | 8              | EARTH         | RECREATION            | 1965           | PRIVATE    | LOW               |             |            | 9/21/1994      |
| 65     | GIFFORD, KAHABKA & RUTENBER DAM | NY01037     | EAST MASONVILLE         | 1              | EARTH         | RECREATION,FIRE/STOCK | 1959           | PRIVATE    | LOW               | NR          |            | 12/18/1996     |
| 66     | GLENN THOMPSON LAKE DAM         | NY14887     |                         |                | EARTH         | RECREATION            | 1994           | PRIVATE    | LOW               | NO          | NO         | 5/2/1996       |
| 67     | HALCOTTSVILLE DAM               | NY01223     | HALCOTTSVILLE           | 0              | LAID-UP       | RECREATION            | 1909           | PRIVATE    | MODERATE          | NR          | NO         | 7/9/1996       |
| 68     | HALCOTTSVILLE RESERVOIR DAM     | NY14734     | HALCOTTSVILLE           | 1              |               | WTR SUPPLY            |                | PRIVATE    |                   |             |            |                |
| 69     | HALOWACH & PIERCE POND DAM      | NY12569     | NONE                    |                | EARTH         | RECREATION            | 1961           | PRIVATE    | LOW               | NR          | NO         | 10/7/1998      |
|        | HAROLD BURROWS POND DAM A & B   | NY12573     | EAST MERIDITH           | 2              | EARTH         | RECREATION            | 1970           | PRIVATE    | LOW               |             |            | 10/16/1982     |
| 71     | HERBERT W KLUMPE POND DAM #2    | NY12568     | WATAUGA FALLS           | 4              | EARTH         | RECREATION,FIRE/STOCK | 1959           | PRIVATE    | LOW               |             |            | 10/16/1972     |
| 72     | HETTERICH FARM POND DAM         | NY14168     | BOVINA CENTER           | 1              | EARTH         | RECREATION,WILDLIFE   |                | PRIVATE    | LOW               |             |            | 10/8/1998      |
| 73     | HOBART LOWER POND DAM           | NY12716     | HOBART                  |                | GRAVITY       | HYDROELEC             | 1982           | LOCAL GOV  | LOW               |             |            | 9/21/1972      |
|        | HOBART UPPER POND DAM           | NY12717     | HOBART                  |                | GRAVITY       | HYDROELEC             | 1983           | LOCAL GOV  | LOW               |             |            | 3/9/1983       |
| 75     | HOBART WATER SUPPLY DAM #1      | NY12713     | HOBART                  | 3              | BUTTRESS      |                       | 1914           | LOCAL GOV  | LOW               |             |            | 9/21/1972      |
| 76     | HOBART WATER SUPPLY DAM #3      | NY12715     | HOBART                  | 1              | EARTH,MASONRY | WTR SUPPLY2           | 1900           | LOCAL GOV  | LOW               |             |            | 9/21/1972      |
|        | HOWARD HUNTINGTON DAM           | NY14783     | MASONVILLE              | 1              | EARTH         | RECREATION            | 1990           | PRIVATE    | LOW               |             |            | 5/23/1991      |
| 78     | HOWARD LA FEVER DAM             | NY00444     | EAST MEREDITH           | 6              | EARTH         | RECREATION            | 1979           | PRIVATE    | MODERATE          |             |            | 7/28/2000      |
| 79     | HOWARD LA FEVER DAM             | NY01454     | SOUTH KORTRIGHT         | 2              | EARTH         | RECREATION            | 1976           | PRIVATE    | MODERATE          |             |            | 6/25/1998      |
| 80     | HUGGINS LAKE DAM                | NY00529     | BEAVERKILL              | 3              | EARTH         | RECREATION            | 1962           | STATE      | LOW               |             |            | 4/15/1980      |
| 81     | HUNT POND DAM                   | NY12564     |                         |                | GRAVITY       | RECREATION            | 1929           | PRIVATE    | NO HAZARD         |             |            | 6/27/1994      |
| 82     | HUNTLEY HOLLOW FARM POND DAM    | NY14800     | NONE                    |                | EARTH         | FIRE/STOCK,RECREATION | 1992           | PRIVATE    | LOW               | NR          | NO         | 9/23/1992      |
| 83     | IVARS PAUKSIS DAM               | NY01457     | EAST SIDNEY             | 7              | EARTH         | RECREATION            | 1976           | PRIVATE    | LOW               |             |            | 5/1/1996       |
| 84     | JAMES ROBINSON POND DAM         | NY12475     | WALTON                  | 2              | EARTH         | RECREATION            |                | PRIVATE    | NO HAZARD         |             |            | 6/25/1980      |

Table 4-3-15 Dams in Delaware County

| Map ID | Name                               | National ID | Nearest Population (NP) | Distance to NP | Dam Type         | Purpose               | Year Completed | Owner Type | Downstream Hazard | Emerg. Plan | Phase I_IN | Last Inspected |
|--------|------------------------------------|-------------|-------------------------|----------------|------------------|-----------------------|----------------|------------|-------------------|-------------|------------|----------------|
| 85     | JEROME E ARLEDGE POND DAM          | NY12476     | PINESVILLE              | 3              | EARTH            | RECREATION            | 1973           | PRIVATE    | MODERATE          | NR          | NO         | 4/12/1996      |
| 86     | JEROME J ROACH DAM                 | NY00538     | LAKE DELAWARE           | 2              | EARTH            | RECREATION,FIRE/STOCK | 1965           | PRIVATE    | MODERATE          | NR          | NO         | 7/28/2000      |
| 87     | JOHN BRAYMER RECREATIONAL POND DAM | NY12461     | TREADWELL               | 3              | EARTH            | RECREATION            | 1966           | PRIVATE    | LOW               |             |            | 11/9/1972      |
| 88     | JOHN CARLSON DAM                   | NY14718     | NONE                    |                | EARTH            | RECREATION            |                | PRIVATE    | NO HAZARD         |             |            | 7/8/1994       |
| 89     | JOHN CRANE DAM                     | NY15038     |                         |                | EARTH            | RECREATION            |                | PRIVATE    | LOW               |             |            |                |
| 90     | JOHN ROBINSON'S LAKE DAM           | NY01602     | CLEAVER                 | 1              | EARTH            | RECREATION            |                | PRIVATE    | NO HAZARD         |             |            | 7/10/1996      |
| 91     | KAHABKA & RUTENBER POND DAM        | NY12338     | EAST MASONVILLE         | 1              | EARTH            | RECREATION            | 1959           | PRIVATE    | LOW               | NR          | NO         | 1/24/1973      |
| 92     | KAZAM POND DAM                     | NY01438     | NONE                    |                | EARTH            | RECREATION,OTHER      | 1977           | PRIVATE    | MODERATE          | NR          | NO         | 7/12/1996      |
| 93     | KERR CREEK DAM                     | NY12466     | WALTON                  | 2              | ROCKFILL,MASONRY |                       | 1888           | PRIVATE    |                   |             |            | 11/10/1972     |
| 94     | KNAPP DAM                          | NY12732     | BEAVER KILL             | 7              | GRAVITY,ROCKFILL |                       | 1915           | PRIVATE    | LOW               |             |            | 10/31/1972     |
| 95     | KORIANSKI POND DAM                 | NY01455     | STURGES CORNER          | 6              | EARTH            | RECREATION,OTHER      | 1974           | PRIVATE    | MODERATE          |             |            | 7/28/2000      |
| 96     | LAKE DELAWARE DAM                  | NY01262     | LAKE DELAWARE           | 1              | EARTH            | RECREATION            | 1840           | PRIVATE    | MODERATE          | NR          | NO         | 7/12/1996      |
| 97     | LAKE MIRIAM DAM                    | NY12599     | COOKS FALLS             | 4              | EARTH,BUTTRESS   | RECREATION            | 1954           | PRIVATE    | LOW               |             |            | 11/1/1972      |
| 98     | LAKE SWITZERLAND DAM               | NY00759     | FLEISCHMANS             |                | GRAVITY          | RECREATION            | 1906           | PRIVATE    | HIGH              | YES         |            | 6/15/1999      |
| 99     | LAUNT POND DAM                     | NY00643     | SHINHOPPLE              | 6              | EARTH            | RECREATION            | 1938           | STATE      | LOW               |             |            | 1/26/1996      |
| 100    | LAUREL LAKE DAM                    | NY14910     |                         |                | EARTH            |                       |                | PRIVATE    | LOW               | NR          | NO         |                |
| 101    | LAZIO POND DAM                     | NY01498     | NONE                    |                | EARTH            | RECREATION            | 1975           | PRIVATE    | LOW               |             |            | 5/2/1996       |
| 102    | LEO HANNON POND DAM #1             | NY15013     |                         |                | EARTH            | RECREATION            |                | PRIVATE    | LOW               |             |            | 1/26/1996      |
| 103    | LEO HANNON POND DAM #2             | NY15014     | WALTON                  |                | EARTH            | RECREATION            |                | PRIVATE    | LOW               |             |            | 1/26/1996      |
| 105    | LEO HANNON POND DAM #3             | NY15015     |                         |                | EARTH            | RECREATION            |                | PRIVATE    | LOW               |             |            | 1/26/1996      |
| 104    | LEO HANNON POND DAM #4             | NY15016     |                         |                | EARTH            | RECREATION            |                | PRIVATE    | LOW               |             |            | 1/26/1996      |
| 106    | LEWIS KOLAR DAM                    | NY12744     | DUNRAVEN                | 3              | EARTH            | RECREATION            | 1989           | PRIVATE    | LOW               |             |            |                |
| 107    | LITTLE POND DAM                    | NY12733     | BEAVER KILL             | 7              | BUTTRESS         |                       | 1916           | STATE      | LOW               |             |            | 5/24/1996      |
| 108    | LOWER DAM                          | NY14954     | CORBETT                 | 3              | EARTH            | RECREATION            |                | PRIVATE    | LOW               |             |            | 7/10/1997      |
| 109    | MANCE POND DAM                     | NY14756     | NONE                    |                | EARTH            | RECREATION            | 1991           | PRIVATE    | LOW               | NR          | NO         | 9/23/1992      |
| 110    | MANUEL RODRIGUES FARM POND DAM     | NY12724     | NONE                    |                | EARTH            | FIRE/STOCK            | 1959           | PRIVATE    | LOW               |             |            | 9/21/1972      |
| 111    | MARCUS RICHTSFIELD POND DAM        | NY12571     | MERIDALE                | 5              | EARTH            | FIRE/STOCK            | 1966           | PRIVATE    | LOW               |             |            | 10/16/1982     |
| 112    | MASONVILLE DAM                     | NY01475     | EAST MASONVILLE         |                | EARTH            | RECREATION            |                | PRIVATE    | LOW               |             |            | 12/18/1996     |

Table 4-3-15 Dams in Delaware County

| Map ID | Name                                 | National ID | Nearest Population (NP) | Distance to NP | Dam Type      | Purpose    | Year Completed | Owner Type | Downstream Hazard | Emerg. Plan | Phase I_IN | Last Inspected |
|--------|--------------------------------------|-------------|-------------------------|----------------|---------------|------------|----------------|------------|-------------------|-------------|------------|----------------|
| 113    | MCDOWELL DAM                         | NY00536     | BLOOMVILLE              | 3              | EARTH         | RECREATION | 1965           | PRIVATE    | MODERATE          |             |            | 7/28/2000      |
| 114    | MCDOWELL LAKE DAM                    | NY12730     | WEST HARPERSFIELD       | 2              | EARTH         | RECREATION | 1977           | PRIVATE    | LOW               |             |            |                |
| 115    | MERIDALE DAM #3                      | NY12562     | MERIDALE                | 1              | GRAVITY       |            | 1917           |            | LOW               |             |            | 10/16/1972     |
|        | MERIDALE FARMS AEROBIC LAGOONS DAMS  | NY12574     | MERIDALE                | 1              | EARTH         | OTHER      | 1974           | PRIVATE    | LOW               |             |            | 9/21/1994      |
| 117    | MITCHELL POND DAM                    | NY14787     | MARGARETVILLE           | 1              | EARTH         | FIRE/STOCK | 1991           | PRIVATE    | LOW               |             |            | 11/15/1991     |
| 118    | MOUNTAIN LAKE DAM                    | NY01327     | LEWBEACH                | 6              | EARTH         | RECREATION | 1930           | PRIVATE    | LOW               | NR          | NO         | 7/9/1996       |
| 119    | MUD POND DAM                         | NY14823     | ANDES                   | 4              | EARTH         | RECREATION |                | PRIVATE    | LOW               | NO          | NO         | 9/22/1994      |
| 120    | N Y WILDLIFE GAME MANAGEMENT DAM #11 | NY12467     | DOWNSVILLE              | 3              | EARTH.MASONRY |            | 1936           | PRIVATE    | LOW               |             |            | 11/1/1972      |
| 121    | OLD CLUMP DAM                        | NY14792     | NONE                    |                | EARTH         |            |                |            | LOW               |             |            | 3/8/1991       |
| 122    | ONEONTA SPORTSMEN'S CLUB MARSH DAM   | NY12450     | NORTH FRANKLIN          | 2              | EARTH         |            | 1953           | PRIVATE    | LOW               |             |            | 1/24/1973      |
| 123    | PAM DAWBER DAM                       | NY01199     | NONE                    |                | EARTH         | RECREATION | 1949           | PRIVATE    | HIGH              | YES         |            | 6/16/1999      |
| 124    | PARADISE LAKE DAM                    | NY12742     | BEAVER KILL             | 8              | EARTH         |            | 1966           | PRIVATE    | LOW               |             |            | 6/16/1997      |
| 125    | PECK WILDLIFE MARSH DAM              | NY12722     | WEST HARPERSFIELD       | 4              | EARTH         |            | 1952           | PRIVATE    | LOW               |             |            | 6/25/1998      |
| 126    | PENN CENTRAL B DAM                   | NY12736     | ARKVILLE                |                | TIMBER CR     |            |                | PRIVATE    | LOW               |             |            | 3/28/1974      |
| 127    |                                      |             |                         |                |               |            |                |            |                   |             |            |                |

Table 4-3-15 Dams in Delaware County

| Map ID | Name                         | National ID | Nearest Population (NP) | Distance to NP | Dam Type        | Purpose                | Year Completed | Owner Type | Downstream Hazard | Emerg. Plan | Phase 1_IN | Last Inspected |
|--------|------------------------------|-------------|-------------------------|----------------|-----------------|------------------------|----------------|------------|-------------------|-------------|------------|----------------|
| 140    | RONALD KYTAN POND DAM        | NY12572     | WEST KORTRIGHT          | 1              | EARTH           | RECREATION             | 1964           | PRIVATE    | LOW               |             |            | 10/16/1982     |
| 141    | ROODS CREEK DAM              | NY14314     |                         |                | EARTH           | RECREATION             |                | PRIVATE    | NO HAZARD         |             |            |                |
| 142    | ROXBURN RUN CLUB DAM         | NY12741     | DENVER                  | 1              | EARTH           | RECREATION             | 1977           | PRIVATE    | NO HAZARD         |             |            | 6/25/1980      |
| 143    | ROXBURY DAM                  | NY00788     | ROXBURY                 | 1              | EARTH           | RECREATION             | 1912           | PRIVATE    | HIGH              | YES         | YES        | 7/21/1998      |
| 144    | RQM DAM #1                   | NY12477     | READBURN                | 1              | EARTH           | RECREATION             |                | PRIVATE    | NO HAZARD         |             |            | 6/16/1999      |
| 145    | RQM DAM #2                   | NY12478     | READBURN                | 2              | EARTH           | RECREATION             | 1980           | PRIVATE    | LOW               |             |            |                |
| 146    | RUSS GRAY DAM                | NY12468     | BEERSTON                | 4              | ROCKFILL        |                        | 1937           | FEDERAL    | LOW               |             |            | 11/1/1972      |
| 147    | SCHWARTZBERG POND DAM        | NY12585     |                         |                | EARTH           | RECREATION             |                | PRIVATE    | LOW               |             |            | 8/18/1988      |
| 148    | SEXSMITH LAKE DAM            | NY12565     | DAVENPORT               | 2              | GRAVITY,EARTH   | RECREATION,FIRE/STOCK  | 1916           | PRIVATE    | LOW               |             |            | 10/17/1972     |
| 149    | SHAW POND DAM                | NY12581     | LEW BEACH               | 1              | EARTH           | RECREATION             | 1966           | PRIVATE    | LOW               |             |            | 11/1/1972      |
| 150    | SHEFFIELD FARMS CO INC DAM   | NY12463     | WALTON                  |                | EARTH           |                        |                | PRIVATE    | LOW               |             |            | 11/1/1972      |
| 151    | SHELMANDINE FARM POND DAM    | NY12725     | NORTH BLENHEIM          | 4              | EARTH           | RECREATION             | 1965           | PRIVATE    | LOW               |             |            | 11/18/1970     |
| 152    | SIDNEY #4 DAM                | NY12331     | SIDNEY                  |                | EARTH           | WTR SUPLY2             |                | LOCAL GOV  | LOW               |             |            | 7/20/1998      |
| 153    | SIDNEY LOWER DAM             | NY01085     | SIDNEY                  | 2              | EARTH           | WTR SUPLY2             | 1936           | LOCAL GOV  | LOW               |             |            | 7/20/1998      |
| 154    | SIDNEY RESERVOIR #2 DAM      | NY14733     | SIDNEY                  | 3              | EARTH           | WTR SUPPLY             |                | LOCAL GOV  |                   |             |            |                |
| 155    | SIDNEY UPPER RESERVOIR DAM   | NY01086     | SIDNEY                  | 2              | EARTH           | WTR SUPLY2             | 1936           | LOCAL GOV  | MODERATE          |             |            | 6/16/1999      |
| 156    | SILVER LAKE DAM              | NY12578     |                         |                | MASONRY,LAID-UP | FIRE/STOCK             | 1890           | PRIVATE    | LOW               |             |            | 7/13/1993      |
| 157    | SILVER LAKE IMPROVEMENT DAM  | NY12344     | SILVER LAKE             |                | EARTH           | OTHER                  | 1930           | PRIVATE    | LOW               |             |            | 11/10/1972     |
|        | SIMMONS MILL DAM             | NY12718     | STAMFORD                | 1              | ROCKFILL        | IRRIGATION             | 1905           | PRIVATE    | LOW               |             |            | 9/21/1972      |
| 159    | SPRING LAKE DAM              | NY01261     | DELHI                   | 4              | EARTH           | RECREATION             | 1920           | PRIVATE    | LOW               | NR          | NO         | 1/1/1980       |
| 160    | STANLEY COUSE POND DAM       | NY12456     | FRANKLIN                | 6              | EARTH           | RECREATION             | 1960           | PRIVATE    | LOW               |             |            | 1/24/1973      |
| 161    | STEVEN CERESNA FARM POND DAM | NY12455     | BARTLETT HOLLOW         | 7              | EARTH           | FIRE/STOCK,RECREATION, | 1960           | PRIVATE    | LOW               |             |            | 11/9/1972      |
| 162    | T BERTRAM ANDERSON DAM       | NY00533     | DE LANCEY               | 3              | EARTH           | RECREATION             | 1973           | PRIVATE    | MODERATE          | NR          | NO         | 5/2/1996       |
| 163    | TANGLEWOOD LAKE DAM          | NY12584     | DELANCEY                | 4              | EARTH           | RECREATION             | 1980           | PRIVATE    |                   |             |            |                |
| 164    | THOMAS J KELAHER DAM         | NY01051     | BUTTS CORNER            | 2              | EARTH           | RECREATION             | 1961           | PRIVATE    | MODERATE          |             |            | 7/28/2000      |
| 165    | THOMAS MITCHELL POND DAM     | NY12731     | GRAND GORGE             | 2              | EARTH           | RECREATION,FIRE/STOCK  | 1986           | PRIVATE    | LOW               |             |            | 11/26/1986     |
| 166    | THREATENING POND DAM #1      | NY12479     | CLEAVER                 | 2              | EARTH           | RECREATION             | 1987           | PRIVATE    | LOW               |             |            | 9/21/1994      |
| 167    | THREATENING POND DAM #2      | NY12480     | CLEAVER                 | 2              | EARTH           | RECREATION             | 1987           | PRIVATE    | LOW               |             |            | 9/21/1994      |
| 168    | TODD POND DAM                | NY12721     | NONE                    |                | EARTH           | OTHER                  | 1950           | PRIVATE    | LOW               |             |            | 7/12/1996      |
|        | TUNIS LAKE DAM               | NY12579     | LAKE                    | 3              | BUTTRESS        | RECREATION             | 1914           | PRIVATE    | LOW               |             |            | 10/31/1972     |

Table 4-3-15 Dams in Delaware County

| Map ID | Name                       | National ID | Nearest Population (NP) | Distance to NP | Dam Type | Purpose    | Year Completed | Owner Type | Downstream Hazard | Emerg. Plan | Phase I_IN | Last Inspected |
|--------|----------------------------|-------------|-------------------------|----------------|----------|------------|----------------|------------|-------------------|-------------|------------|----------------|
|        |                            |             | DELAWARE                |                |          |            |                |            |                   |             |            |                |
| 170    | UPPER DAM                  | NY14955     | CORBETT                 | 4              |          | RECREATION |                | PRIVATE    | LOW               |             |            |                |
| 171    | V C PETERS POND DAM        | NY12481     | PEAS EDDY               | 1              |          | HYDROELEC  | 1916           | PRIVATE    | LOW               |             |            | 12/12/1972     |
| 172    | VANLEY BLACKMAN MARSH DAM  | NY12453     | MUNDALE                 | 3              | EARTH    |            | 1956           | PRIVATE    | LOW               |             |            | 11/9/1972      |
| 173    | WALDEMAR DERKE POND DAM    | NY12570     | NONE                    |                | EARTH    | RECREATION | 1963           | PRIVATE    | MODERATE          |             |            | 6/25/1998      |
| 174    | WALTON WATER CO DAM        | NY12464     | WALTON                  |                | EARTH    |            | 1915           | PRIVATE    | LOW               |             |            | 11/9/1972      |
| 175    | WEST BROOK DAM             | NY12465     | WALTON                  | 1              | ROCKFILL |            | 1888           | PRIVATE    | MODERATE          |             |            | 6/16/1999      |
| 176    | WESTERN DELAWARE BOCES DAM | NY14805     | TROUT CREEK             | 2              | EARTH    | WILDLIFE   |                | LOCAL GOV  | LOW               | NR          | NO         |                |
| 177    | WILLIAM HOWES POND         | NY14901     | SIDNEY                  |                | EARTH    | RECREATION | 1995           | PRIVATE    | LOW               |             |            | 12/19/1996     |

There Steering Committee identified a levee located in East Branch built by the USACE. There are no nuclear power plants or military installations in Delaware County.

#### 4.3.3.5 Hazardous Material Facilities

EPA data for Toxic Release Inventory (TRI) facilities were used to estimate the number of major hazardous material (HazMat) facilities (fixed) in the mitigation planning study area. TRI regulations impact facilities that use, store, or emit greater than the specified amounts of TRI-regulated chemicals. TRI data generally captures the larger facilities which store and use greater quantities of HazMat. Six (6) HazMat TRI facilities were identified in Delaware County (USEPA, 2004), as follows:

|                                |         |   |
|--------------------------------|---------|---|
| AJS Controls, Inc.             | Sidney  | Lead  |
| Amphenol Corporation           | Sidney  | Cadmium, chromium, copper, cyanide compounds, Hydrochloric (HCl) acid, HF acid, lead, mercury, Methyl Ethyl Ketone (MEK), nitrate compounds, nitric acid, PCBs, sulfuric acid, trichloroethylene. |
| DMV International Nutritionals | Fraser  | Toluene   |
| Kraft Foods Global, Inc.       | Walton  | Nitrate compounds, nitric acid  |
| Morningstar/Ultradairy         | Fraser  | Benzo(g,h,i)perylene, nitric acid, polycyclic aromatic compounds  |
| Norbord Industries, Inc.       | Deposit | Formaldehyde, lead, methanol  |
| Tyco-Mallinckrodt HealthCare   | Hobart  | TBD   |

The HAZUS-MH default data listed three hazardous materials facilities, specifically Becton Dickinson (Hancock), DMV and Amphenol. Becton Dickinson handles ammonia according to the HAZUS-MH data, while the other two facilities were previously identified in the EPA TRI database.

#### 4.3.4 Analyzing Population and Development Trends

This mitigation plan provides a general overview of population and land uses and the types of development occurring within the study area. This section discusses existing and proposed land uses as well as development trends and future changes that could significantly change the character of the area. This information provides 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. Finally, this information (hazard analyses and proposed mitigation activities) will be incorporated into the Delaware County Comprehensive Plan and Delaware County CEMP. Currently the County does not have an adopted comprehensive plan, however once this plan is available, relevant information will be incorporated in this Plan.

#### Population and Demographics

This section evaluates past, current and projected population data for Delaware County.

U.S. Census data indicates that the population of Delaware County has remained quite stable as far back as 1960. This data, as presented in the Delaware County 2005-2010 Community Health Assessment, indicated that the population grew only 1.76% in the last decade (1990-2000). Future population projections for the County, provided by the Cornell Institute for Social and Economic Research – NYS Statistical Information System (Sept. 2002) predicted a 0.52% loss in population during the period 2000-2015.

While the population has, and is predicted to, remain relatively stable, data shows that County is becoming increasingly rural. U.S. Census statistics indicate an increase in the rural population of 8.5% during the period 1990-2000, with larger towns and villages losing population to towns with small populations. Over the last decade, the largest towns in the County have seen significant losses in population, with Deposit (-7.5%), Delhi (-7.7%) and Sidney (-8.4%) experiencing the greatest losses. Those towns that are experiencing the greatest gains in population are located in the northeastern region and along the County perimeters, including Bovina (+20.7%), Middletown (+18.9%), Kortright (+15.8%) and Davenport (13.8%) over the same period (CHA, 2005). The 2004 CHA noted that this trend “will increasingly challenge the capacity of the DCPHD and associated health and human service agencies to provide services to this dispersed population”, and “make it difficult to insure the timely delivery of fire and emergency medical services”.

The CHA noted a considerable aging of the population of Delaware County, and asserted that nearly one quarter of the county’s population was aged 60 years or more. Towns with populations that exceed the county median age (41.4) years are clustered along the south and southeastern region of the county, an area that has seen the greatest increase in second home development primarily the result of an influx of retired persons. The CHA believed that this trend is likely to continue throughout the current decade.

The 2004 CHA indicated that over the last three decades the County has experienced only minimal changes in racial composition. However, the growth of the Hispanic population in the towns of Middletown, Delhi, Sidney and Hancock are notable and “can have significant implications for the delivery of health and human services”, particularly in the area of communication.

## Land Use

Land use regulatory authority is vested in New York States towns, villages, and cities. However, many development and preservation issues transcend local political boundaries. Delaware County’s land cover can be divided into five major categories. The first category is forest, which makes up approximately 83% of the study area based on National Land Cover Dataset (NLCD) obtained from the USGS. The second category is agriculture, including crops, pastures and inactive farmland at 15% coverage. Water is the third category with 1.4% land coverage. The fourth category is developed, including residential, commercial and industrial at less than 1%. Wetlands cover less than 0.5% of Delaware County based on the NYS Regulatory Wetland delineations (0.2% based on the NLCD – this discrepancy is believed to be due to the difficulties and inherent error associated with the methods used in developing the NLCD – the NYS Regulatory Wetland delineations are believed to be more representative of wetland complexes in the County).

Agriculture remains significant in Delaware County. According to the DCAP, dairy farming constitutes approximately 80% of agricultural sales in Delaware County. Table 4-3-16 identifies the current land use (in acreage and percent of total) of Delaware County and it’s comprising municipalities. Figure 4-3-16 maps the current land use of Delaware County. The Delaware County CHA noted that the county has seen a sharp decline in the number of dairy farms (203 as of 2003), losing 130 dairy farms (39% loss) since 1990.

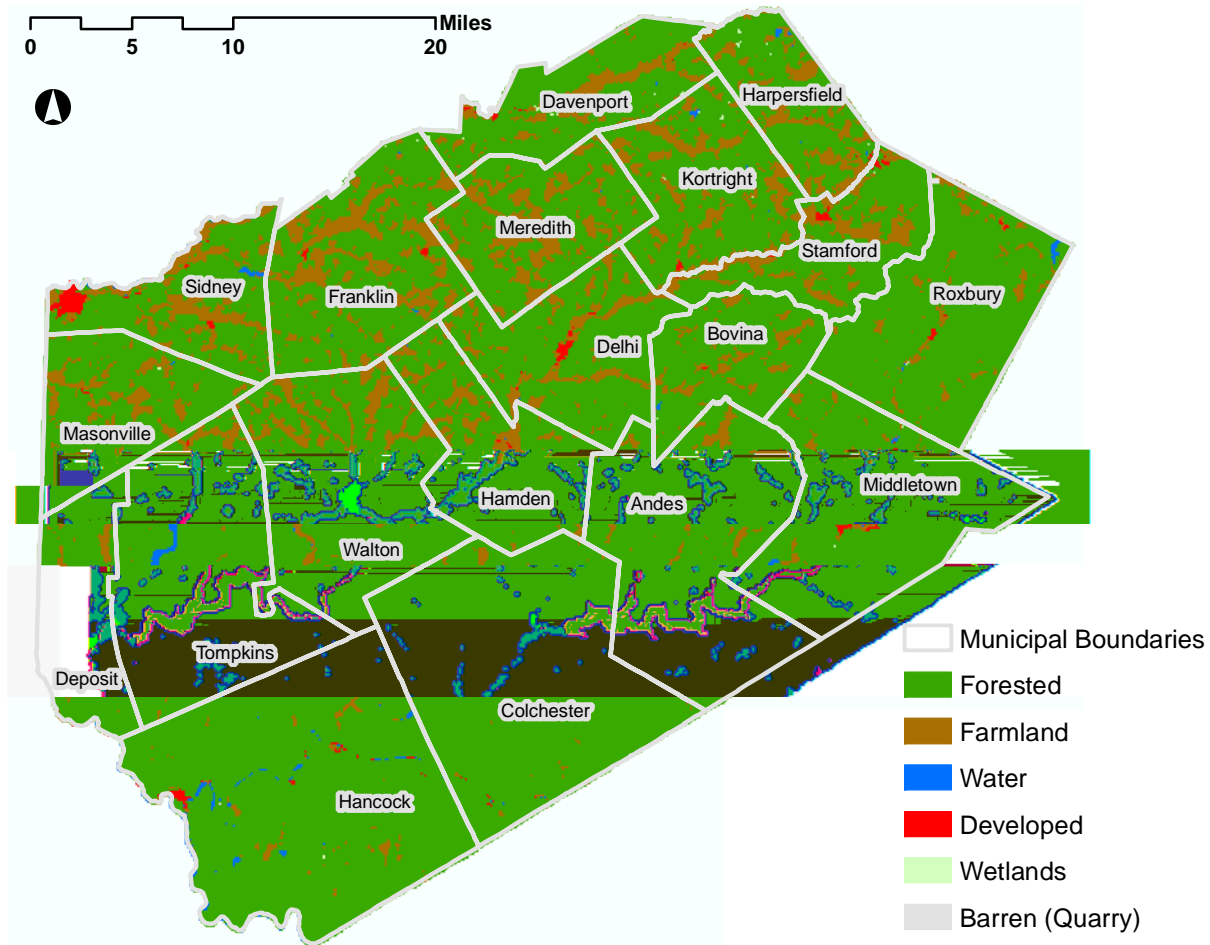
Growth and development in the Cannonsville Basin is greatly influenced by the overarching concern of maintaining water quality in this NYC watershed. Agreements between the County and NYC have allowed some growth and expansion in the Cannonsville Basin; however this part of the County will likely see lesser growth and development than outside of the Cannonsville Basin.

Table 4-3-16 Current Land Use in Delaware County

| Land Use Classification (acres / percent of land) |                   |                      |                      |                    |                   |                   |                |
|---|-------------------|----------------------|----------------------|--------------------|-------------------|-------------------|----------------|
| Municipality                                      | Developed         | Forested             | Farmland             | Water              | Wetlands          | Wetlands (1)      | Total Acres    |
| Andes   | 59 / 0.1          | 62171 / 86.3         | 7737 / 10.7          | 2013 / 2.8         | 25 / 0            | 116 / 0.2         | 72049          |
| Bovina  | 26 / 0.1          | 23437 / 82.2         | 4878 / 17.1          | 119 / 0.4          | 38 / 0.1          | 142 / 0.5         | 28520          |
| Colchester  | 317 / 0.3         | 84237 / 92.5         | 3399 / 3.7           | 3006 / 3.3         | 29 / 0            | 128 / 0.1         | 91036          |
| Davenport   | 247 / 0.7         | 27319 / 81.3         | 5542 / 16.5          | 122 / 0.4          | 304 / 0.9         | 696 / 2.1         | 33601          |
| Delhi   | 466 / 1.1         | 32466 / 78.5         | 8328 / 20.1          | 53 / 0.1           | 25 / 0.1          | 199 / 0.5         | 41363          |
| Deposit   | 357 / 1.3         | 23665 / 82.9         | 3620 / 12.7          | 889 / 3.1          | 3 / 0             | 60 / 0.2          | 28543          |
| Franklin  | 152 / 0.3         | 38441 / 73.6         | 13428 / 25.7         | 93 / 0.2           | 72 / 0.1          | 260 / 0.5         | 52209          |
| Hamden  | 115 / 0.3         | 29814 / 77.8         | 8295 / 21.6          | 75 / 0.2           | 5 / 0             | 70 / 0.2          | 38325          |
| Hancock   | 790 / 0.8         | 97657 / 94.3         | 3628 / 3.5           | 1274 / 1.2         | 180 / 0.2         | 481 / 0.5         | 103593         |
| Harpersfield                                      | 158 / 0.6         | 19398 / 71.5         | 7178 / 26.5          | 163 / 0.6          | 203 / 0.7         | 632 / 2.3         | 27121          |
| Kortright   | 115 / 0.3         | 29665 / 73.9         | 10034 / 25           | 116 / 0.3          | 191 / 0.5         | 611 / 1.5         | 40150          |
| Masonville  | 69 / 0.2          | 28199 / 81.1         | 6366 / 18.3          | 70 / 0.2           | 57 / 0.2          | 236 / 0.7         | 34772          |
| Meredith  | 53 / 0.1          | 26883 / 72           | 10278 / 27.5         | 75 / 0.2           | 30 / 0.1          | 293 / 0.8         | 37341          |
| Middletown  | 573 / 0.9         | 54849 / 88.1         | 6323 / 10.2          | 456 / 0.7          | 34 / 0.1          | 153 / 0.2         | 62282          |
| Roxbury   | 297 / 0.5         | 48490 / 86.4         | 6921 / 12.3          | 243 / 0.4          | 45 / 0.1          | 274 / 0.5         | 56106          |
| Sidney  | 1161 / 3.6        | 22896 / 70.6         | 8015 / 24.7          | 292 / 0.9          | 55 / 0.2          | 181 / 0.6         | 32431          |
| Stamford  | 395 / 1.3         | 23666 / 76.2         | 6935 / 22.3          | 4 / 0              | 16 / 0.1          | 190 / 0.6         | 31040          |
| Tompkins  | 38 / 0.1          | 57723 / 86.3         | 5167 / 7.7           | 3863 / 5.8         | 52 / 0.1          | 209 / 0.3         | 66865          |
| Walton  | 693 / 1.1         | 50290 / 80.5         | 11110 / 17.8         | 313 / 0.5          | 7 / 0             | 117 / 0.2         | 62495          |
| <b>Totals</b>                                     | <b>6092 / 0.7</b> | <b>781276 / 83.1</b> | <b>137193 / 14.6</b> | <b>13248 / 1.4</b> | <b>1377 / 0.2</b> | <b>5048 / 0.5</b> | <b>93,9842</b> |

(1) Per NYS Regulatory Wetlands Delineations

Figure 4-3-16. Land Use in Delaware County



Source: National Land Cover GIS Data

### Land Use Trends, Projections and Goals

Population growth and development potential are severely limited due to the area’s topography and soils. Delaware County is situated at the western edge of the Catskill Mountains and, as a result, has very hilly topography with streams and rivers situated at valley bottoms. The soils of Delaware County, while good for dairy farming, are not particularly good for crops or for siting individual septic systems. Therefore, as is typical of other similar areas, small population centers have grown up along the valley bottoms, adjacent to the streams and rivers, because that land is the best available for development.

In NYS, land use authority is delegated almost entirely to local governments. As Table 4-3-17 indicates Delaware County municipalities take very seriously their responsibilities to protect the health, safety and welfare of their residents. A large majority of towns and villages have adopted comprehensive plans on which to base their land use regulations. Many of those same towns and villages have also adopted one or more land use tools like subdivision review, zoning, and site plan review. In addition, all County municipalities have adopted the NYS Building and Fire Codes and have Flood Damage Prevention local laws in place. These are administered by the local code enforcement officials listed in Section 2.3.

Table 4-3-17. Land Use Regulations and Planning Activities in Delaware County (August 2005)

| Towns           | TPAS | Comprehensive Plan | Subdivision Regs | Road Take-Over Policy | Soil Profile Analysis | Sanitary Code | Dump Control Law | Mobile Home Regs | Site Plan Review | Zoning | Critical Environmental Areas | Historic District | Wellhead Protection Plan | Cell Towers | Wind Turbines | Access to Town Highway | Junkyards | Highway Management Plan | Right to Farm | Storm water Mgmt. Plan |
|-----------------|------|--------------------|------------------|-----------------------|-----------------------|---------------|------------------|------------------|------------------|--------|------------------------------|-------------------|--------------------------|-------------|---------------|------------------------|-----------|-------------------------|---------------|------------------------|
| Andes           | X    | X                  | X                | X                     | X                     | -             | X                | X                | X                | X      | -                            | X                 | -                        | X           | -             | -                      | X         | I                       | X             | -                      |
| Bovina          | X    | X                  | X                | X                     | -                     | -             | X                | X                | X                | X      | -                            | X                 | -                        | -           | -             | X                      | -         | -                       | -             | -                      |
| Colchester      | X    | X                  | X                | -                     | -                     | -             | X                | -                | -                | -      | -                            | -                 | -                        | -           | -             | X                      | -         | -                       | -             | -                      |
| Davenport       | X    | X                  | X                | X                     | X                     | -             | X                | -                | -                | -      | -                            | -                 | -                        | -           | -             | -                      | X         | I                       | -             | -                      |
| Delhi           | X    | X                  | X                | X                     | X                     | -             | X                | X                | X                | X      | -                            | -                 | -                        | -           | -             | X                      | -         | -                       | -             | -                      |
| Deposit         | X    | X                  | X                | -                     | -                     | -             | -                | X                | -                | -      | -                            | -                 | -                        | -           | -             | -                      | -         | -                       | -             | -                      |
| Franklin        | X    | X                  | X                | X                     | X                     | X             | X                | X                | X                | X      | -                            | -                 | X                        | X           | -             | -                      | -         | -                       | X             | -                      |
| Hamden          | X    | X                  | X                | -                     | X                     | -             | X                | X                | X                | -      | -                            | -                 | -                        | X           | -             | -                      | -         | -                       | X             | -                      |
| Hancock         | X    | -                  | X                | -                     | -                     | X             | X                | -                | -                | -      | -                            | -                 | -                        | -           | -             | -                      | X         | -                       | -             | -                      |
| Harpersfield    | X    | X                  | X                | X                     | X                     | X             | X                | X                | I                | -      | -                            | -                 | -                        | X           | X             | P                      | I         | -                       | X             | -                      |
| Kortright       | X    | X                  | X                | X                     | X                     | X             | X                | -                | -                | -      | -                            | -                 | -                        | X           | -             | -                      | -         | I                       | X             | -                      |
| Masonville      | -    | -                  | -                | X                     | -                     | -             | X                | -                | -                | -      | -                            | -                 | -                        | -           | -             | -                      | X         | -                       | -             | -                      |
| Meredith        | X    | X                  | X                | -                     | X                     | -             | X                | X                | -                | -      | -                            | -                 | -                        | X           | -             | -                      | X         | -                       | -             | -                      |
| Middletown      | X    | X                  | X                | X                     | -                     | -             | X                | X                | X                | X      | -                            | X                 | -                        | -           | -             | X                      | -         | -                       | -             | -                      |
| Roxbury         | X    | X                  | X                | -                     | O                     | -             | X                | -                | -                | -      | X                            | X                 | X                        | X           | X             | -                      | -         | -                       | -             | -                      |
| Sidney          | X    | X                  | X                | X                     | X                     | X             | X                | X                | X                | X      | -                            | -                 | -                        | X           | X             | -                      | X         | -                       | -             | -                      |
| Stamford        | X    | X                  | X                | X                     | -                     | -             | -                | -                | X                | -      | -                            | -                 | -                        | -           | -             | -                      | -         | -                       | X             | -                      |
| Tompkins        | X    | X                  | X                | -                     | X                     | X             | X                | -                | X                | -      | -                            | -                 | -                        | -           | -             | -                      | X         | -                       | -             | -                      |
| Walton          | X    | X                  | X                | -                     | -                     | -             | -                | X                | X                | X      | -                            | -                 | -                        | -           | -             | -                      | -         | -                       | X             | -                      |
| <b>Villages</b> |      |                    |                  |                       |                       |               |                  |                  |                  |        |                              |                   |                          |             |               |                        |           |                         |               |                        |
| Delhi           | X    | X                  | X                | -                     | -                     | -             | X                | X                | X                | X      | -                            | X                 | -                        | -           | -             | -                      | -         | -                       | -             | -                      |
| Deposit         | -    | -                  | -                | -                     | -                     | X             | X                | X                | -                | X      | -                            | -                 | -                        | -           | -             | -                      | -         | -                       | -             | -                      |
| Fleischmanns    | -    | -                  | -                | -                     | -                     | -             | -                | X                | -                | X      | -                            | X                 | X                        | -           | -             | -                      | -         | -                       | -             | -                      |
| Franklin        | -    | -                  | -                | -                     | -                     | -             | -                | -                | -                | -      | -                            | X                 | -                        | -           | -             | -                      | -         | -                       | -             | -                      |
| Hancock         | X    | X                  | -                | -                     | -                     | X             | -                | X                | -                | X      | -                            | -                 | -                        | -           | -             | -                      | X         | -                       | -             | -                      |
| Hobart          | X    | X                  | X                | -                     | -                     | X             | -                | X                | -                | X      | -                            | -                 | -                        | -           | -             | -                      | -         | -                       | -             | -                      |
| Margaretville   | X    | X                  | -                | -                     | -                     | -             | X                | X                | X                | X      | -                            | -                 | X                        | -           | -             | -                      | -         | -                       | -             | X                      |
| Sidney          | X    | X                  | X                | -                     | -                     | -             | X                | X                | X                | X      | -                            | -                 | -                        | -           | -             | -                      | X         | -                       | -             | -                      |
| Stamford        | X    | X                  | -                | -                     | -                     | -             | X                | X                | X                | X      | -                            | X                 | X                        | -           | -             | -                      | X         | -                       | -             | -                      |
| Walton          | X    | X                  | X                | -                     | -                     | X             | X                | X                | X                | X      | -                            | X                 | -                        | -           | -             | -                      | -         | -                       | -             | X                      |

Notes: Source is XXX. X = adopted. O = official policy, not yet adopted into regulations. I = In Progress. P = proposed. - = Not implemented.

Table 4-3-18 identifies the land use trends, projections and goals for the County and participating jurisdictions. By projecting land use in Delaware County, the communities can evaluate if future land use and could increase exposure to hazards and can plan to mitigate potential impacts as part of the development planning process. To facilitate a better understanding of local development, analysis of local Comprehensive Plans and other guiding documents was completed.

Table 4-3-18 Projected Land Use and Development

| Area               | Land Use Projections and Goals   |
|--------------------|--|
| Delaware County    | <ul style="list-style-type: none"> <li>▪ TBD</li> </ul>  |
| Town of Andes      | <ul style="list-style-type: none"> <li>▪ A loss of farms and increase in second homeownership is characteristic of Andes (Comprehensive Plan, 2003). The hamlet of Andes is the center of commercial activity in the Town. Development focuses on Main Street redevelopment and those parcels in the 'hamlet extension area'. Despite that, the hamlet (former Village of Andes) is now being sewerred. The zoning and subdivision local laws will be updated to match the requirements of the sewer district. Preservation of the rural character and agriculture are high priorities.</li> </ul>   |
| Town of Bovina     | <ul style="list-style-type: none"> <li>▪ Through its Comprehensive Plan (2002), Bovina wishes to protect its rural landscape and farmland through using local laws to steer development away from floodplains and encouraging cluster subdivision. Bovina Center's new community wastewater system will encourage development in the hamlet of Bovina Center. Updating subdivision and zoning laws will occur as part of the establishment of the wastewater district. Several large lot major subdivisions of former family farms have occurred within the past several years. This trend is expected to continue and updating the local laws to encourage appropriate development will be important.</li> </ul>  |
| Town of Colchester | <ul style="list-style-type: none"> <li>▪ Comprehensive Plan (2002) goals include ensuring adequate emergency services, enhancing enforcement of local laws and building codes, providing for public infrastructure (sewage treatment) that promotes appropriate economic development, communication and efficient use of taxes. Steep slope and wellhead protection were mentioned as was establishing setbacks to protect streams.</li> </ul>   |
| Town of Davenport  | <ul style="list-style-type: none"> <li>▪ The Town's comprehensive plan (1970s) needs to be updated. The Town does have subdivision regulations but has development pressures from the adjacent City and Town of Oneonta that would indicate the need for more protective land use measures.</li> </ul>   |
| Town of Delhi      | <ul style="list-style-type: none"> <li>▪ Delhi's Comprehensive Plan (2002) indicates future land use will be strongly influenced by State Routes 10 and 28. The Plan recommends updating the zoning and subdivision local laws to provide additional protections. Controlling stream bank erosion is also a priority for the Town.</li> </ul>  |
| Village of Delhi   | <ul style="list-style-type: none"> <li>▪ According to the Comprehensive Plan (2000), no large scale annexation is planned in the Village and subdivision of new lots is infrequent. The Village is the focus of Main Street redevelopment efforts and is the County seat. It is also home to the SUNY-Delhi College of Technology. Originally a two-year school, Delhi has been shifting to a greater number of four-year programs but still has room for expansion on its existing property. The Village suffered severe flooding during the 1996 events.</li> </ul>  |
| Town of Deposit    | <ul style="list-style-type: none"> <li>▪ Deposit's Comprehensive Plan (2004) indicates the community's desire to preserve the rural character of the town by encouraging open space protection (farmland, forests, water resources and river corridors). State Route 17 is in the process of being transformed into Interstate 86 (I-86). It is anticipated that there will be some additional development in the town because of this change despite the physical limitations of the area. The Town recently adopted subdivision regulations for the first time. A Site Plan local law will be considered.</li> </ul>   |
| Town of Franklin   | <ul style="list-style-type: none"> <li>• The Town will be undertaking a comprehensive planning process beginning in 2006. Zoning and subdivision local laws are currently in effect. The Town of Franklin has seen parcelization of farms into house lots but the Village of Franklin has not. The Village has been investigating improved wastewater management solutions which could lead to some Main Street redevelopment.</li> </ul>  |
| Town of Hamden     | <ul style="list-style-type: none"> <li>• The Town's Comprehensive Plan (2000) notes two land use development trends in the town. Loss of active farmland is noted. There are still approximately 40 farms in Hamden, but many of these are very small enterprises and the number of larger farms has clearly declined. The hamlets of Hamden and DeLancey have NYCDEP-designated 'Hamlet Extension Areas' which encourage concentrated development around already developed areas along State Route 10 and County Route 2. Generally, however, it does not appear that the town will face any substantial development pressure in the foreseeable future. The Town recently developed a municipal water supply for the hamlet of Hamden and is in the process of developing wastewater solutions for the Hamden and DeLancey.</li> </ul> |
| Town of Hancock    | <ul style="list-style-type: none"> <li>• The Town will soon begin work on updating a draft comprehensive plan from 1989. Hancock is approximately 90 minutes from NYC and sits along the Delaware River near some of the best fishing in the East. As a result, development pressure tends to be higher than in other Delaware County towns. As Rt. 17 changes to I-86, it is anticipated that even more development pressure could be felt. It is anticipated that the Town's subdivision regulations will also be updated following the comprehensive</li> </ul>   |

| Area                 | Land Use Projections and Goals   |
|----------------------|--|
|                      | planning process and both will include appropriate hazard mitigation actions and safeguards.   |
| Town of Harpersfield | <ul style="list-style-type: none"> <li>Harpersfield's Comprehensive Plan (2003) fully supports agriculture but recognizes the slow conversion of farmland to large-lot residential use. The Plan indicates the need for improved enforcement of local laws. The Town's subdivision regulations are being updated to include language for conservation subdivisions.</li> </ul>   |
| Town of Kortright    | <ul style="list-style-type: none"> <li>Like other towns, Kortright has seen its share of farm conversion to second home development. The Comprehensive Plan (2003) indicates the desire to maintain rural character and preserve the agricultural way of life. The subdivision regulations are being updated to provide enhanced protection. Stream bank stabilization is a priority. The hamlet of Bloomville is undertaking a community wastewater management study to determine the appropriate means to handle present and anticipated wastewater concerns in the hamlet.</li> </ul>   |
| Town of Masonville   | <ul style="list-style-type: none"> <li>Masonville does not have a comprehensive plan or development tools. Like other Delaware County towns, Masonville has seen a decrease in farming and an increase in second homeownership.</li> </ul>   |
| Town of Meredith     | <ul style="list-style-type: none"> <li>The draft update of Meredith's Comprehensive Plan (adoption expected in 2006) finds a similar loss of farms and an increase in second homeownership and conversion of second homes to primary residences. The Town's subdivision regulations are to be updated and zoning and site plan laws considered. Preservation of the rural character is an important goal. The Plan also calls for better management of existing infrastructure and investigation of solutions for improved wastewater management in the town. Enhanced code enforcement is also a goal.</li> </ul>                                       |
| Town of Middletown   | <ul style="list-style-type: none"> <li>The Town is in the process of updating its older comprehensive plan. Middletown is the focus of much of the population increase in Delaware County over the past 20 years with numerous second homeowners coming from the NYC area. Portions of Middletown and the Villages of Margaretville and Fleischmanns were severely damaged during the floods of 1996.</li> </ul>   |
| Town of Roxbury      | <ul style="list-style-type: none"> <li>Roxbury is another focus of much of the population increase in Delaware County over the past 20 years with numerous second homeowners coming from the NYC area, some of whom are converting to year-round residents. The hamlet of Roxbury has public water and is now sewerred and is a focus a Main Street redevelopment efforts. Roxbury's Comprehensive Plan was updated in 2002.</li> </ul>  |
| Town of Sidney       | <ul style="list-style-type: none"> <li>The Consolidated Plan – Village and Town of Sidney (1998) indicates the Town has seen an influx of retirees from the NYC area, many of whom have constructed new homes in the Town which exceed the median value of existing homes. It is expected that this trend will continue.</li> </ul>  |
| Town of Stamford     | <ul style="list-style-type: none"> <li>Stamford's Comprehensive Plan is older (1970s) and is in need of updating. The Town has subdivision regulations and has seen a decrease in farms and an increase in second homeownership.</li> </ul>  |
| Village of Hobart    | <ul style="list-style-type: none"> <li>The Village of Hobart's Comprehensive Plan (2004) indicates that Tyco/Mallinckrodt is the dominant employer in the village and will be looking to expand in the future. The company already owns several parcels in the Village which could be more intensely developed. Minimal parcelization and no annexation is planned in the rest of the Village.</li> </ul>  |
| Village of Stamford  | <ul style="list-style-type: none"> <li>The Village of Stamford is working to update their comprehensive plan. The Village is a focus of Main Street redevelopment efforts. Minimal parcelization and no annexation is planned.</li> </ul>  |
| Town of Tompkins     | <ul style="list-style-type: none"> <li>Tompkins has seen a large decrease in buildable land, farms and population since the completion of the Cannonsville Dam. Second homeowners are becoming more numerous yet large-scale impacts are not anticipated in the Town's Comprehensive Plan (2002). Emergency services, wastewater management in the hamlet of Trout Creek, and preservation of rural character and the environment are main Plan goals.</li> </ul>  |
| Town of Walton       | <ul style="list-style-type: none"> <li>The Town's 2005 Draft Comprehensive Plan update indicates the desire to maintain the rural character of the Town. Updating the subdivision regulations is a priority as is consideration of additional land use mechanisms.</li> </ul>  |
| Village of Walton    | <ul style="list-style-type: none"> <li>According to the Village's Comprehensive Plan (2000), no large scale annexation is planned in the Village and subdivision of new lots is infrequent within the existing village boundaries. Main Street redevelopment efforts are focused in the Village. The Water Street area, adjacent to the Delaware River, has been targeted for development but is burdened with several environmental constraints: <ul style="list-style-type: none"> <li>1) It is within the 100-year floodplain.</li> <li>2) There are two wells on-site that require protection under any development proposal.</li> </ul> </li> </ul> |

| Area | Land Use Projections and Goals   |
|------|--|
|      | <ul style="list-style-type: none"> <li>▪ 3) The proximity to the River triggers protections under the NYC Watershed MOA.</li> <li>▪ 4) A Phase I Environmental Assessment needs to be done.</li> </ul> <p>This area represents a significant opportunity for the Village. However, in light of regulatory issues, early efforts toward recreational uses should be given strong consideration. Other non-intense uses could result providing the regulatory considerations are met. The Village suffered severe flooding during the 1996 events.</p> |