

CHAPTER 5: DEMOGRAPHIC AND SOCIO-ECONOMIC PROFILE

POPULATION, DISTRIBUTION, AND DENSITY

The population living year-round within the boundaries of the Seneca Lake watershed was estimated to be just under 54,000 in 1990, as shown in Figure 5.1. The figure maps the distribution of population across the Seneca Lake Watershed, using dots of five different sizes (ranging from the smallest dot of one to twenty persons to the largest dot of 275-500 persons). It clearly and at once shows three aspects of the demography of the watershed better than any table or numbers would – how many people there are, how they are distributed across the landscape (approximately) and at roughly what density. Figure 5.1 shows only year-round residents. If another map were done showing year-round and seasonal residents on the same basis, it might be reasonable to expect more dots around and near the lakeshore (cottages and vacation houses).

Based on the total land area within the watershed, the total population was distributed at an average density of about 117 people per square mile. However, as can be seen from Figure 5.1, the actual density varies markedly between the more heavily populated and more densely settled areas (e.g., Geneva, Penn Yan, Watkins Glen) and the rest of the watershed. As might be expected, the greatest population density in the watershed in 1990 could be found in the City of Geneva and in the larger villages.

Figure 5.1 is the only figure in this chapter for which the data show just the population within the actual watershed boundaries. Aside from Figure 5.1, all other tables and figures in this chapter present U.S. Census data by whole municipality. In some cases, if only a small portion of that municipality is within the physical boundary of the watershed, and if it is not possible to generate a specific statistic for that area, then data for that municipality are not presented. The ability to make demographic statements about the ‘watershed’ (aside from those which can be seen from Figure 5.1) is therefore limited. All other demographic data in the remainder of this chapter, therefore, can only be presented in the form in which it is available, that is by whole municipality. The Village of Dresden for example is entirely contained within the area of the watershed, whereas the Village of Horseheads, on the other hand, has only a small part of its area in the watershed (at the upper reaches of the watershed’s main tributaries, Catharine Creek). The availability of 1990 census data in digital form was what enabled the estimation of total watershed population given above. A breakdown of population density for each municipality in the watershed is provided in descending order in Table 5.1.

POPULATION CHANGE

In general terms, the total population of the municipalities comprising the watershed has been relatively stable over the last thirty years and is projected to increase only slightly over the next ten years. (See Table 5.2 for actual and projected populations of watershed municipalities from 1970 to 2010.) However, on an individual basis, as can be seen on Table 5.2, many municipalities had significant population increases or decreases between 1970 and 1990 (even more between 1970 and 2010). Five municipalities were shown to

have population decreases of 25% or more between 1970 and 1990 (Millport, Montour, Ovid, Romulus, and Dresden), while nine had population increases of 25% or more during the same period (Odessa, Hector, Orange, Tyrone, Varick, Barrington, Milo, Starkey, and Torrey). The population declines in Ovid and Romulus are probably a reflection of the reductions-in-force at the Seneca Army Depot and later the closing in those two towns. Efforts to reuse the vast base, if successful, could result in increases in population (though the people would likely not be counted until the next census in 2010).

Data for the Town and Village of Horseheads were not included in this analysis because only a small is within the watershed. See Figure 5.2, which shows the communities included for analysis as part of this chapter.

In Ontario County, the Seneca Lake Watershed contains significant portions of the City of Geneva and the Towns of Geneva and Seneca. From 1970 to 1990 only the Town of Geneva grew in population (6.7%), while the other Ontario County municipalities in the watershed lost population. Projected changes in population show minimal growth for the City of Geneva and the Ontario County towns in the Seneca Lake watershed between 1990 and 2010. (Although small portions of the Towns of Gorham and Phelps lie within the watershed, they are not included in this analysis.)

All of Schuyler County's four Villages and portions of its eight Towns are within the Seneca Lake watershed. However, the Town of Cayuta's portion was too small to include in this review. Consistent with the trends in the rest of the watershed, all towns gained in population between 1970 and 1980 with only the Villages of Burdett and Watkins Glen losing people. The 1980 to 1990 change in population was mixed for Schuyler communities: Dix, Hector, Orange, Reading and Tyrone as well as the Village of Montour Falls, gained in population. The Towns of Catharine and Montour lost residents. The Villages of Burdett and Watkins Glen continued their population decline. Census data would seem to indicate a dramatic population increase in the small Village of Odessa from 1980 to 1990, however, the population increase in the Village of Odessa and a nearly corresponding decrease from the Town of Montour may be related to a shift of census boundaries to correct a previous error.) The Village of Odessa is projected to have a slight population increase through 2010.

Within Seneca County, there are six towns and two villages that lie within the watershed. (The Town of Waterloo has only a small portion of the watershed within its boundaries, and, therefore, is not included in the analysis.) The majority of these towns and villages experienced a decline in population between 1970 and 1980 and a small increase during the next decade. The only two Towns (Fayette and Varick) to experience growth in population in each of the past two decades were those located in the most northeastern portion of the watershed. Other than the Towns of Fayette and Varick, only the Town and Village of Lodi grew in population between 1970 and 1990. The remaining towns and villages experienced losses in population over 15% over the same time period.

The municipalities of Yates County that are within the watershed include seven towns and three villages. The Towns of Jerusalem and Potter are excluded from the analysis because only a small portion of the towns fall within the watershed. The remaining towns and villages experienced a 10% growth in population between 1970 and 1990. The populations in these municipalities grew over two and half times faster between 1980 and 1990 than they did in the previous decade. With the exception of the Town of Benton, the Yates County towns in the Seneca Lake Watershed experienced over a 20% growth in population between 1970 and 1990. Over the same period the villages in the watershed grew minimally, if at all, with the Village of Dresden seeing a nearly 25% decline in population. Overall, the population is expected to continue to grow slowly between 1990 and 2010 for Yates County municipalities in the watershed.

Figures 5.3, 5.4, and 5.5 show the communities which have gained or lost population. With gains in residents come the increased potential for associated impacts on the lake and its watershed from new development. Losses in population in the established village centers are often accompanied by loss of tax revenue needed to maintain aging infrastructure and facilities.

HOUSING

Of the municipalities located partially or totally in the Seneca Lake Watershed, most housing units were classified as rural non-farm in the 1990 Census (21,894 or 70.4%). Urban households accounted for 26.4% of the total housing units (8,232) while farm housing units constituted the remainder (about 700 or 3.2%). All of the 5,654 housing units in the City of Geneva are classified as urban, making up 68.7% of urban housing units in the watershed.

If population and economic trends continue, the number of housing units within the watershed might be expected to increase over time. Given existing patterns of development, some portion will be more concentrated and denser housing in the City, Villages, and hamlets, some portion will be distributed across the landscape on or near existing roads, while another portion might be increased and more dense settlement along the highly-valued lakeshores. In some areas of the watershed, the influx of Mennonites has resulted in a reversal of a long-standing decline in the data – the number of small farms has actually been on the rise in Yates County. An increase in farm households will likely be reflected in the new census data when it becomes available in 2002.

It is not surprising that, with the population exodus from the villages and the city and with the associated loss of farmland and open space, the bulk of the population in the watershed live in non-farm homes in a country setting. If population trends continue, future housing units can be expected to be built on current farmlands and open space, creating a conflict between farmer/new resident over odors/machinery noise, etc. while eroding the “critical mass” of active farms and their supporting agri-businesses. This shift poses a challenge to local officials to incorporate the new homes into the fabric of their communities without damage to the rural way of life.

HOUSING OCCUPANCY

The municipalities of the five counties in the Seneca lake Watershed had an average of 84% occupancy rate. However, averages are misleading since the difference between Chemung/Ontario and Schuyler/Seneca/Yates are marked. The Chemung County municipalities had the highest occupancy rate of the counties at 94% followed by Ontario County at 93%. Schuyler, Seneca and Ontario county municipalities lagged behind with 80%, 78% and 78% occupancy rates respectively.

Of the 567 vacant housing units in the Ontario County municipalities, 40% were classified as 'vacant - for rent' in the 1990 Census. Almost half (48%) of the vacant housing units in the City of Geneva fell within this classification during the same period. In Schuyler, Seneca and Yates county municipalities the overwhelming majority of vacant housing units (75%, 73.5% and 81%, respectively) were classified as being for seasonal, recreational, or occasional use. Chemung County, with no lake front within its borders, had only a 19% vacancy rate attributable to camps or cottages.

For the Seneca County municipalities, this may be attributable to the presence of Seneca Lake to the west and Cayuga Lake to the east, while the same reason may apply to the Yates County municipalities with Keuka Lake to the west and Seneca Lake to the east. Schuyler County also has a large number of seasonal dwellings because Seneca Lake splits the county. All three of these Finger Lakes are used extensively for recreation and other activities. The large number of vacant homes falling under this classification could be cottages and summer homes built, maintained, and used for the purpose of enjoying the lakes' amenities. It is impossible to tell by census data at the county subdivision level how many of these housing units are located on Seneca Lake shores as opposed to Cayuga or Keuka Lake shores.

The number of housing units by urban and rural classifications are presented in Table 5.3, while Table 5.4 displays the tenure of occupied units and status of vacant units.

HOUSING SERVED BY PUBLIC UTILITIES

In 1990, about 64% of dwelling units in Chemung County were served by a public water system or private company. The majority of housing units in the Ontario County municipalities (93%) were similarly supplied. All of the housing units in the City of Geneva and more than 75% of the housing units in the Towns of Geneva and Seneca received their water in this manner. During the same period in Seneca County, 71% of the housing units in the towns in the watershed received their water from individual wells (dug or drilled). A little less than half (47%) of the housing units in the Yates County towns received their water from a public system or private company with the majority of those left using individual drilled wells.

Almost all (99%) of the housing units in the City of Geneva relied on public sewers for

sewage disposal in 1990. The majority of housing units (64%) in the Town of Geneva also used a public system during the same time period. In the Town of Seneca, 97% of the housing units relied on septic tanks or cesspools for sewage disposal. A similar percentage is true for the rural Towns of Catlin (95%) and Veteran (95%) within Chemung County. Overall, 76% of households within Schuyler County communities are served by private sewage disposal systems. The Towns of Montour and Dix, with villages within their boundaries, reflect the availability of public sewer with only 42% and 47% on septic systems respectively. Of the Seneca County municipalities in the watershed, only the Town of Romulus had more housing units utilizing a public sewer than septic tanks or cesspools in 1990. In Yates County, the majority of housing units in the Towns of Milo and Starkey used a public system while the majority of housing units in the remaining towns in the watershed relied on septic tanks and cesspools.

The quality of surface and groundwater resources within the watershed can be influenced by private sewage disposal systems. Systems that are poorly maintained, improperly sited, overloaded and/or have exceeded their design life expectancy can cause surface or groundwater contamination. Nutrients and pathogens, from failed systems, which are not buffered by contact with the proper soil environment and its associated bacteria are transported beyond the intended treatment site.

Off-site (underground) movement of bacteria and nutrients (nitrate) can pose health risks for those homeowners/families who rely on groundwater withdrawal. Failed septic tanks and leach fields or cesspools in close proximity to lake tributaries or the shoreline present an immediate water quality threat with the introduction of nutrients by overland or underground flow that support increased aquatic plant populations. People who engage in water sports are susceptible to disease transmission from untreated vectors.

Census information regarding sources of water and means of sewage disposal for housing units are shown in Tables 5.5 and 5.6, respectively, and displayed on Figures 5.6, 5.7, and 5.8. Also see Chapter 7I. regarding the Home*A*Syst program, which included surveying lakeshore residents about various issues, including water and wastewater systems.

HOUSEHOLD/PERSONAL INCOME

None of the towns in the watershed had per capita (per person) income rates above the state average of just over \$16,500 in 1990. The Town of Geneva had the highest per capita income, however, this was still only 95% of the state average. Overall, it appears that the urbanizing Towns of Seneca, Fayette, Geneva, and Varick to the north and the Town of Veteran to the south had the highest median household incomes followed by the more rural lakeside towns. The City of Geneva ranked 19th out of the 22 watershed towns/cities in terms of median household income.

Poverty statistics also seem to echo the pattern above. The City of Geneva and the Towns of Starkey and Milo had a greater percentage of their populations below the poverty level

than the state average in 1990. The Towns of Geneva and Seneca had the lowest percentage of persons below the poverty level in Ontario, Seneca, and Yates counties and, as stated above, had the highest per capita incomes of any municipalities in those three counties. The per capita incomes, median household incomes, and the percent of population below the poverty level, as determined by income, for each of the towns and the city in the watershed are presented in Table 5.7 and Figure 5.9.

EDUCATION

Educational attainment – the number of years of schooling – is another statistic available through the U.S. Census of Population. It can be an indicator of workforce quality and may be a factor to consider in developing educational strategies for the watershed management effort among other things. More than half of the Schuyler towns exceeded the state average for educational attainment. Of the Yates County towns in the watershed, only Benton had a higher percentage of population with a high school diploma or higher than the state average. All three of the Ontario county municipalities in the watershed had a higher percentage of their populations with a high school diploma or higher than the state average. In contrast, of all the municipalities in the watershed, only the Town of Geneva had higher percentage of persons with a bachelor's degree or higher than the state average. This could be attributable to the presence of Hobart and Smith Colleges.

LABOR FORCE/UNEMPLOYMENT

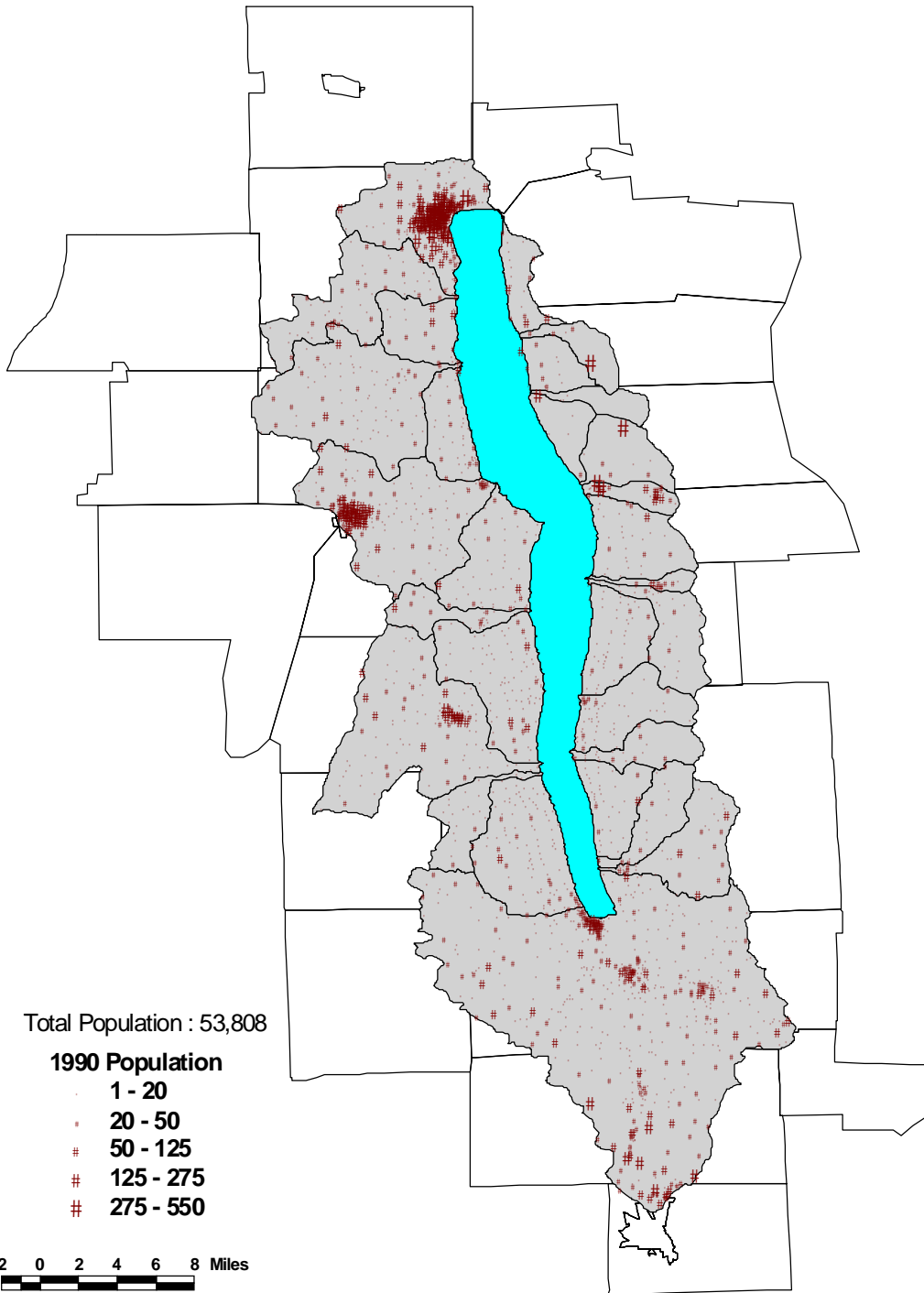
Labor force participation rates for the watershed municipalities ranged from just over half (52.3%) in the Town of Orange to about three-quarters (73.4 %) in the Town of Seneca in 1990. Only about one-third of the communities in the study area (9 out of 22) had a higher percentage of population in the labor force than the average of nearly two-thirds (63.6%) for the state as a whole.

The Town of Reading had the lowest unemployment rate at 3.1%. The Town of Ovid, with an unemployment rate of 3.5% also has the second lowest labor force participation rate of the three county area. Although the overall percentage of people in the labor force is low as discussed previously, only about one third of the towns had unemployment figures higher than the state average indicating that jobs are available for those people actively seeking employment.

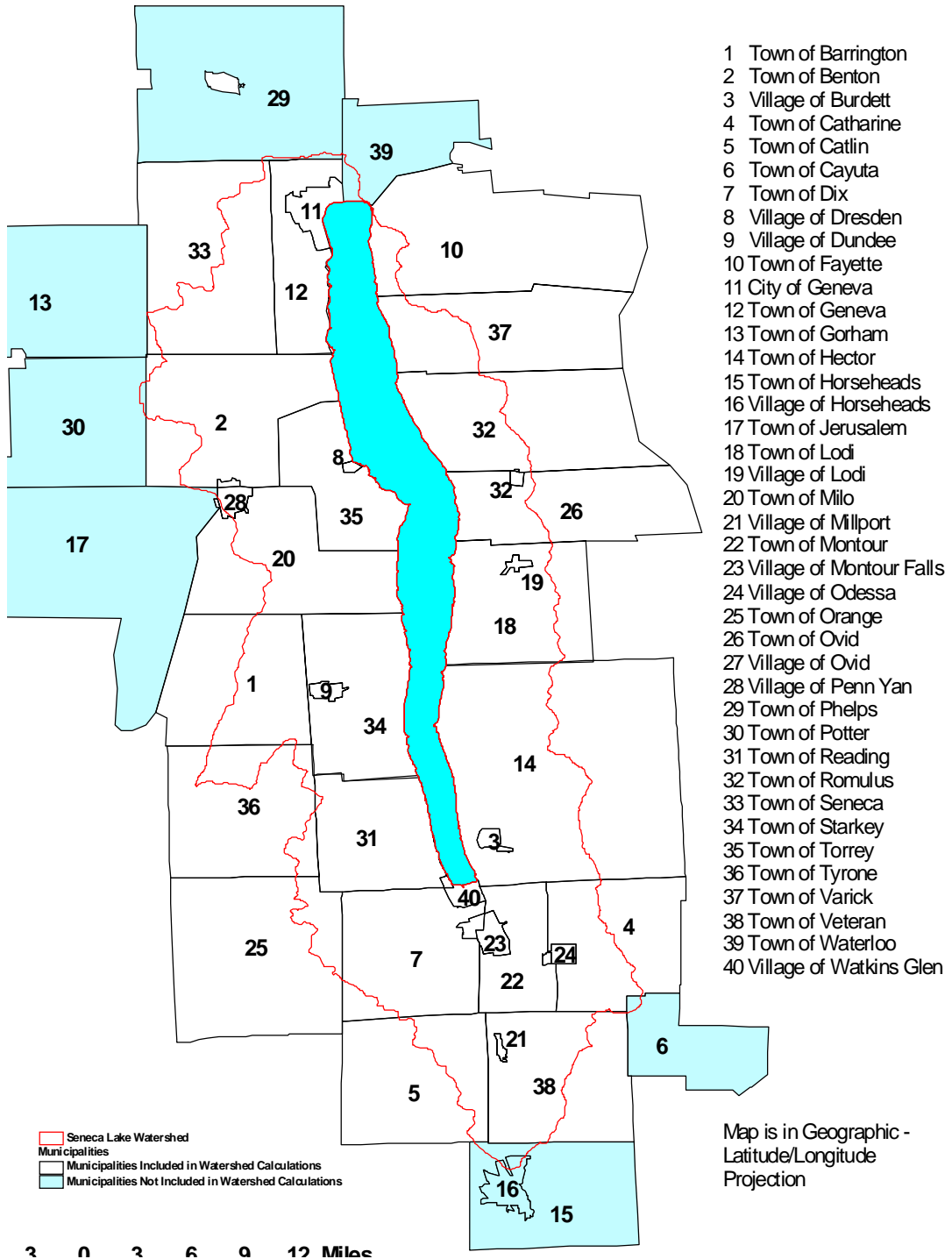
Labor force participation rates, unemployment rates, and the educational attainment levels from the 1990 census are shown in Table 5.8.

By and large, the major employers in the watershed are located in the more 'urban' areas: Geneva, Penn Yan, Dundee, and Watkins Glen. Table 5.9 lists some of the major employers in the watershed counties along with the number of employees and the primary product or service produced.

1990 Population Distribution Across The Watershed

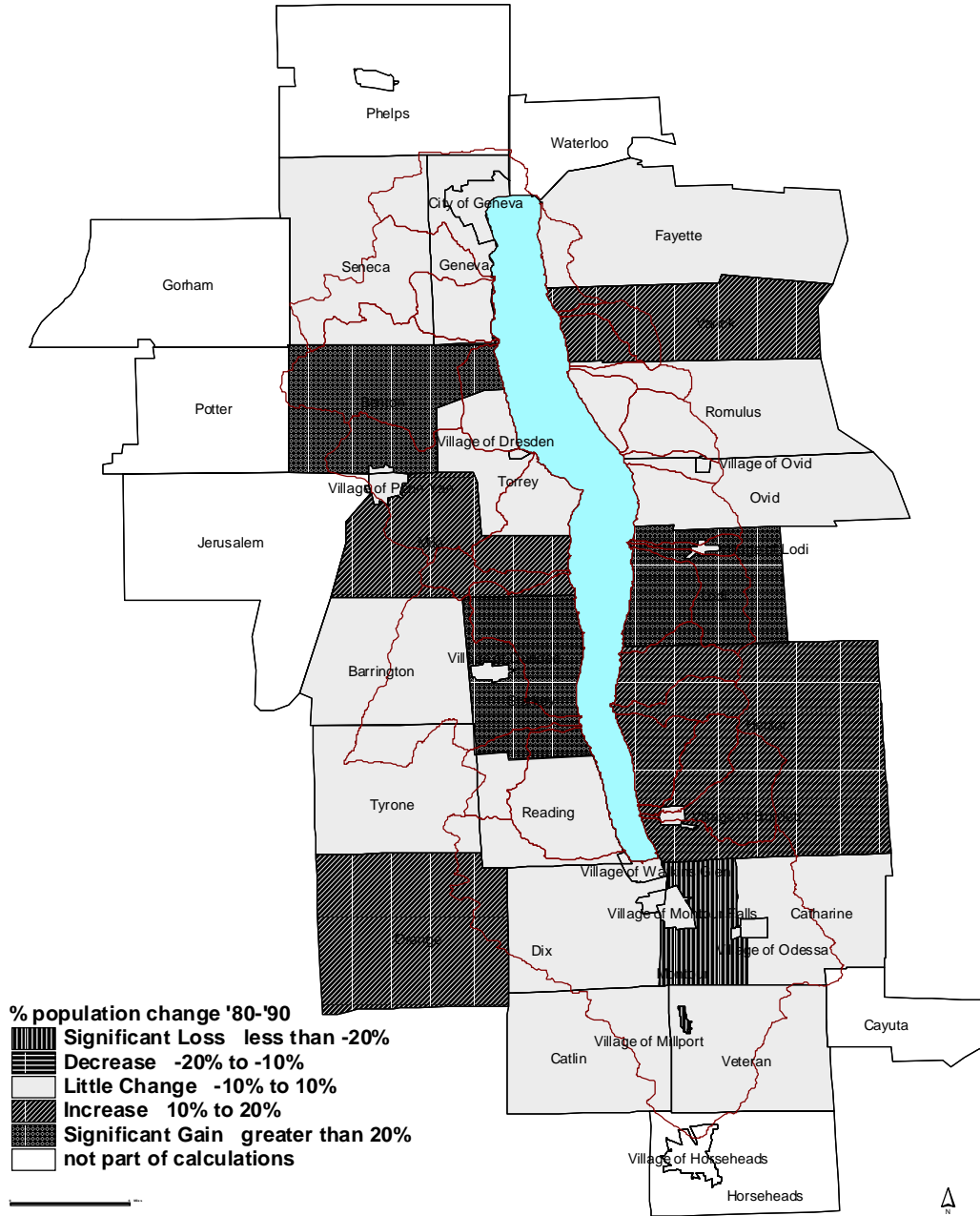


Seneca Lake Watershed Municipalities Reference Map

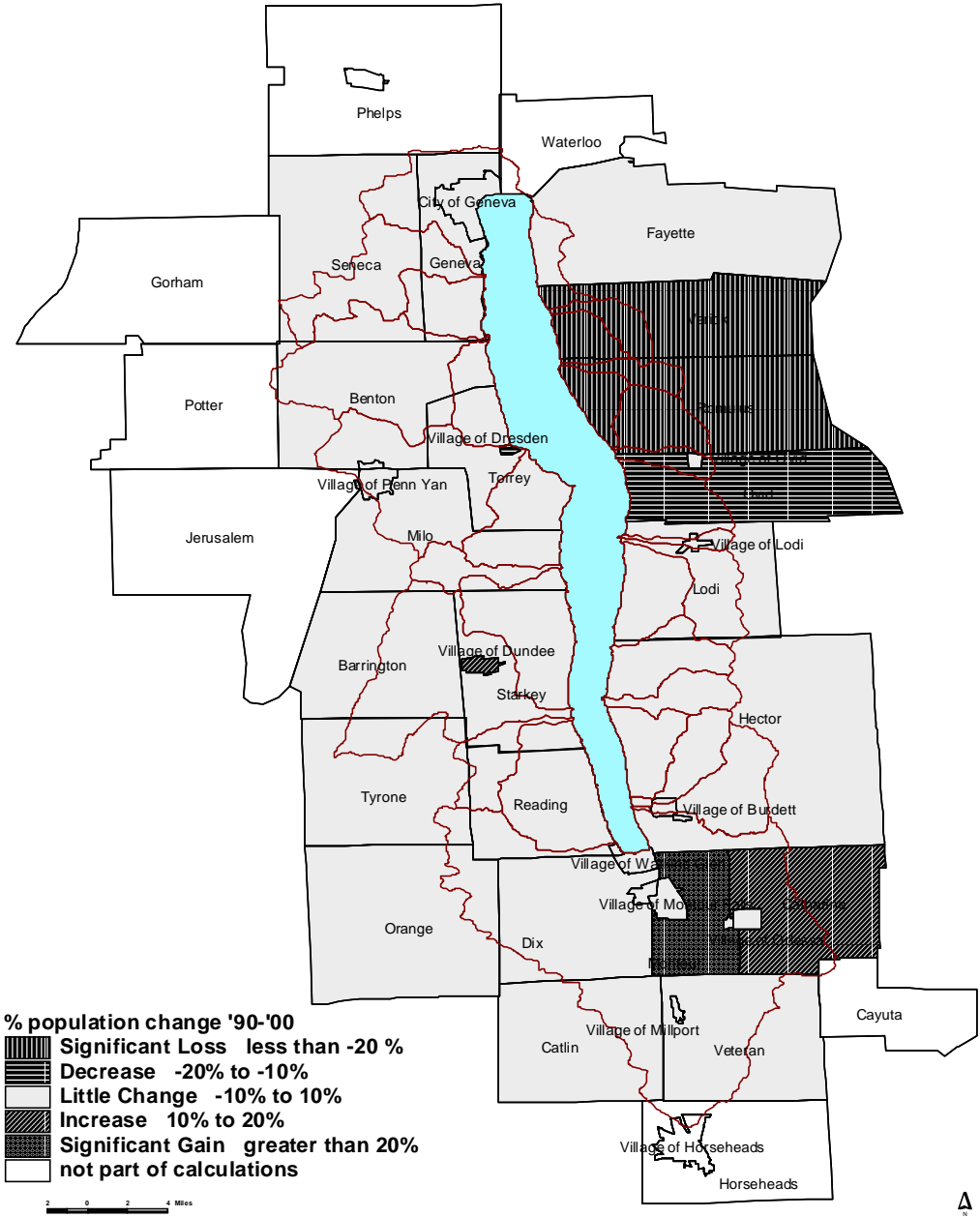


- 1 Town of Barrington
- 2 Town of Benton
- 3 Village of Burdett
- 4 Town of Catharine
- 5 Town of Catlin
- 6 Town of Cayuta
- 7 Town of Dix
- 8 Village of Dresden
- 9 Village of Dundee
- 10 Town of Fayette
- 11 City of Geneva
- 12 Town of Geneva
- 13 Town of Gorham
- 14 Town of Hector
- 15 Town of Horseheads
- 16 Village of Horseheads
- 17 Town of Jerusalem
- 18 Town of Lodi
- 19 Village of Lodi
- 20 Town of Milo
- 21 Village of Millport
- 22 Town of Montour
- 23 Village of Montour Falls
- 24 Village of Odessa
- 25 Town of Orange
- 26 Town of Ovid
- 27 Village of Ovid
- 28 Village of Penn Yan
- 29 Town of Phelps
- 30 Town of Potter
- 31 Town of Reading
- 32 Town of Romulus
- 33 Town of Seneca
- 34 Town of Starkey
- 35 Town of Torrey
- 36 Town of Tyrone
- 37 Town of Varick
- 38 Town of Veteran
- 39 Town of Waterloo
- 40 Village of Watkins Glen

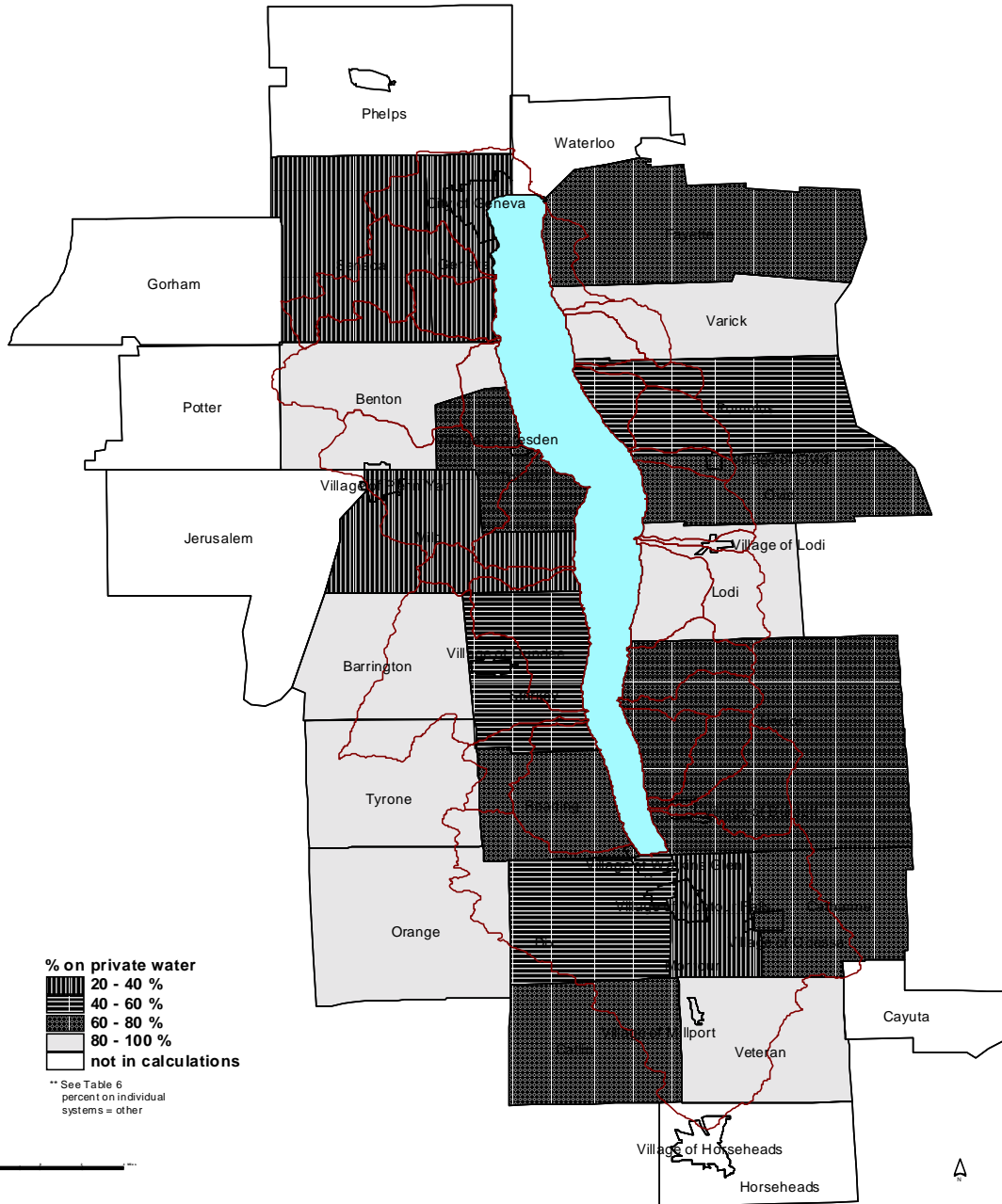
Percent Changes in Population 1980 - 1990



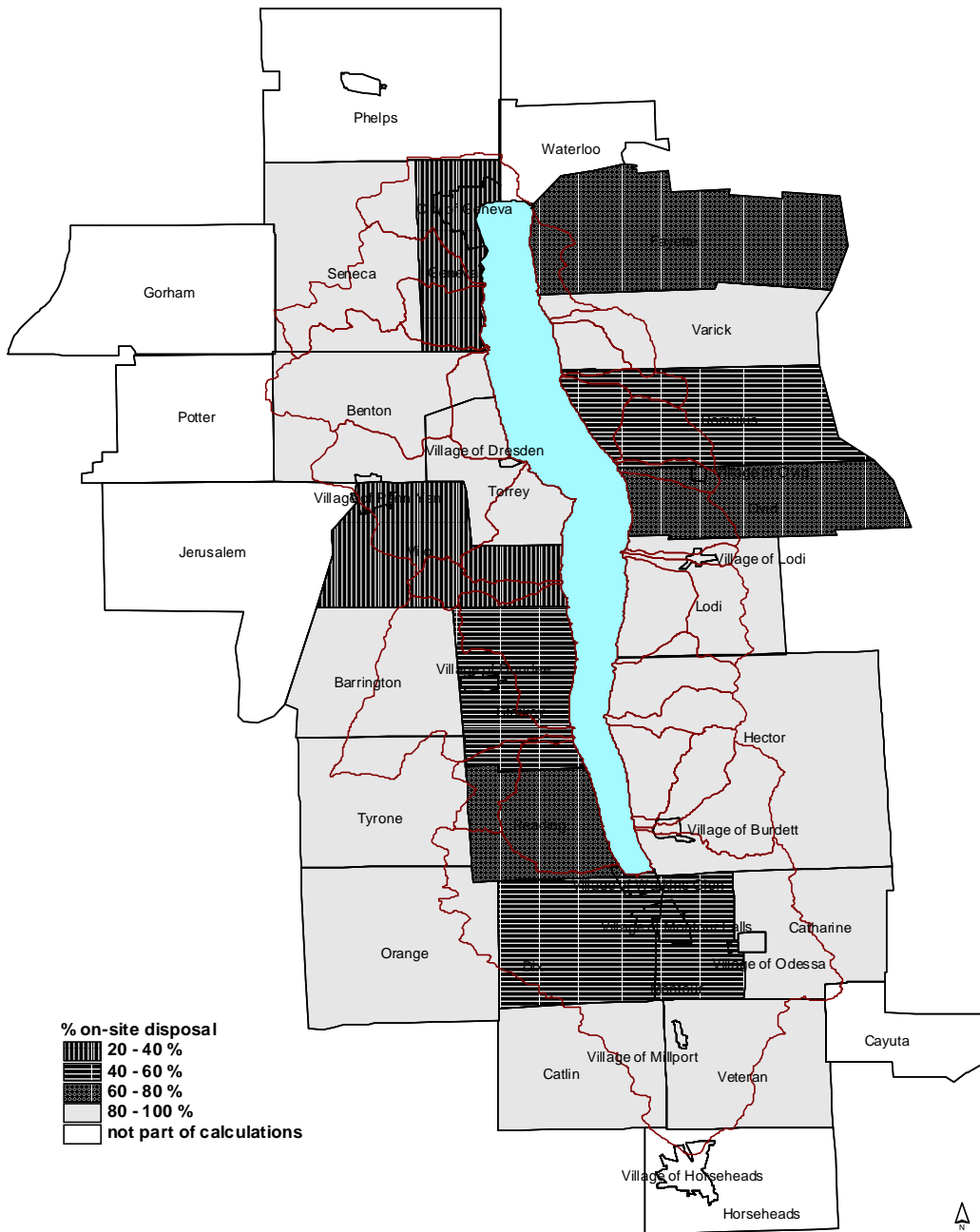
Percent Changes in Population 1990 - 2000



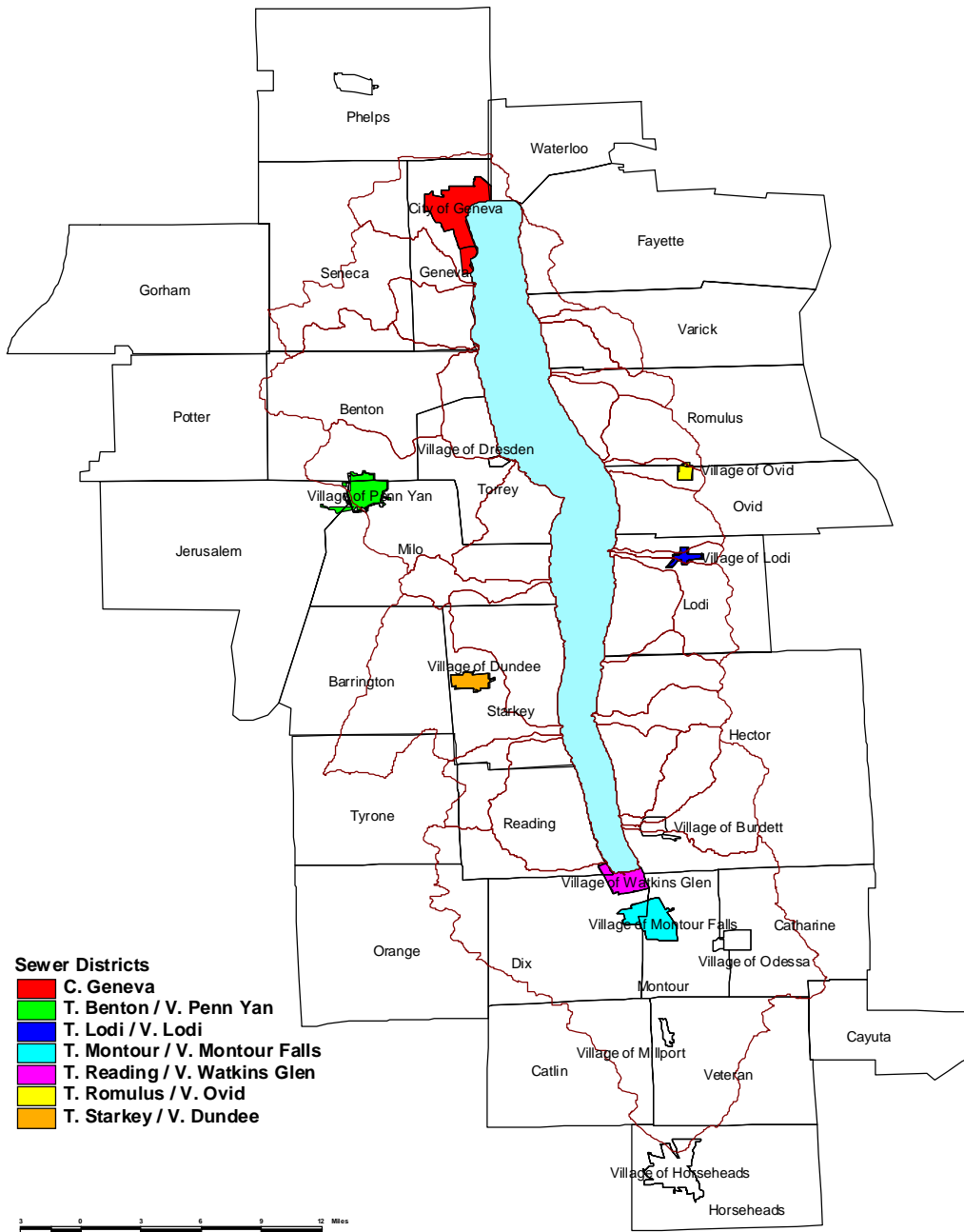
Percent of Homes With Private Water Supply



Percent of Homes With On Site Sewage Disposal



Seneca Lake Watershed Sewer Districts



Median Household Income

