

Section I Introduction

A. Purpose

The purpose of the Hazard Mitigation Plan is to give Schoharie County and its municipalities an integrated strategy and direction for planning development and implementing hazard mitigation projects that will minimize disaster impacts and losses. The goals and objectives set forth in this plan, including the proposed projects and actions to be taken, have been cooperatively determined and agreed upon by all governing bodies within Schoharie County. It is understood that this is not an emergency response plan, but a plan to guide future projects and development with the goal of protecting lives and decreasing or eliminating damages to property and infrastructure caused by natural and manmade hazards that affect our communities. To achieve this goal, the Hazard Mitigation Plan is organized into three parts; 1) identification of natural and manmade hazards and vulnerabilities that may impact Schoharie County and its municipalities, 2) the establishment of goals and objectives that will guide County and local government actions to minimize hazard impacts on citizens and property, and 3) a description of how the County and local jurisdiction will implement the actions called for in the plan.

B. Scope

This is a multi-jurisdiction, all-hazards mitigation plan. It addresses the risks, vulnerabilities and strategies for mitigating all hazards in Schoharie County and each of its sixteen (16) towns and six (6) villages, which have participated in development and approval of the plan.

The plan is intended to meet hazard mitigation planning requirements established by federal law in the *Disaster Mitigation Act of 2000*, (DMA 2000), Public Law 106-390.

C. Background

Following devastating floods in 1996, community leaders determined that a proactive and committed stance needed to be taken throughout Schoharie County to reduce future flood losses and disaster impacts. The need to implement strong hazard mitigation measures and to improve community protection was underscored by severe flooding again in 2006 and once more reinforced by the unprecedented and record-breaking flooding in 2011.

On the heels of these high-profile disasters, it was realized more than ever that an integrated community strategy and new approaches to funding disaster prevention and mitigation were essential. These hard-hitting disasters and the community's resolve to strengthen our disaster

mitigation approach were paralleled by implementation of the federal *Disaster Mitigation Act of 2000 (DMA 2000)*, which provides support and funding for hazard mitigation planning and improvements. In response to community needs and following the requirements of DMA 2000, Schoharie County -- including all towns and villages located in the county -- prepared a Multi-Jurisdictional All-Hazards Mitigation Plan (HMP) in 2006, which is replaced and updated by this 2013 plan.

Hazard Mitigation is any sustained action taken to reduce or eliminate the long term risk and effects that can result from specific hazards.

FEMA defines a Hazard Mitigation Plan as the process a jurisdiction uses and the document it prepares to evaluate potential natural hazards and implement strategies and actions to mitigate such hazards

DMA 2000 was enacted by Congress to improve disaster preparedness and prevention by providing incentives and resources to states and local governments to develop pre-disaster mitigation plans and implement hazard mitigation actions. Congress has authorized funding and the Federal Emergency Management Agency (FEMA) has issued requirements for development of hazard mitigation plans, including revisions and updates. The New York State Office of Emergency Management (NYSOEM) administers the DMA 2000 program in New York and supports local government planning and project funding.

DMA 2000 requires that hazard mitigation plans be updated every five (5) years in order to effectively prepare for disasters and reduce potential hazards. DMA 2000 is intended to facilitate cooperation between state and local authorities by encouraging agencies to communicate and collaborate with each other in the planning process. This kind of integrated government planning better enables local and state governments to prioritize community mitigation needs and develop a unified hazard mitigation strategy that includes the entire county.

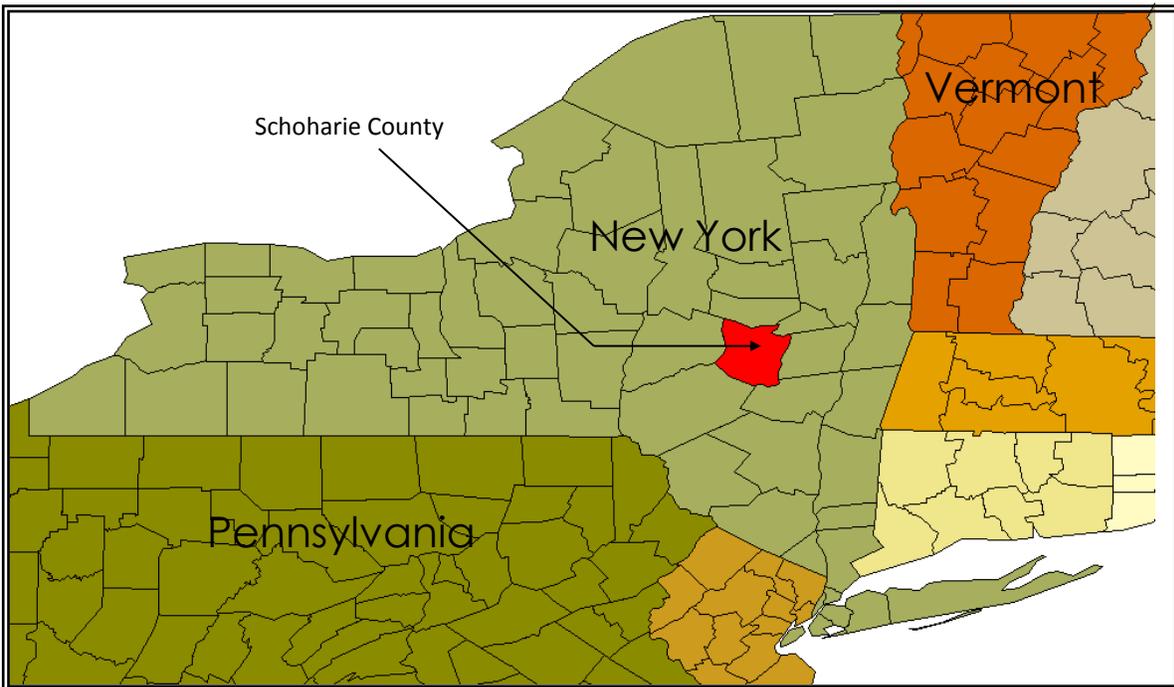
FEMA estimates that for every dollar spent on damage prevention (**mitigation**), twice that amount is saved when post-disaster damages and impacts are avoided

D. Community Overview

Geography

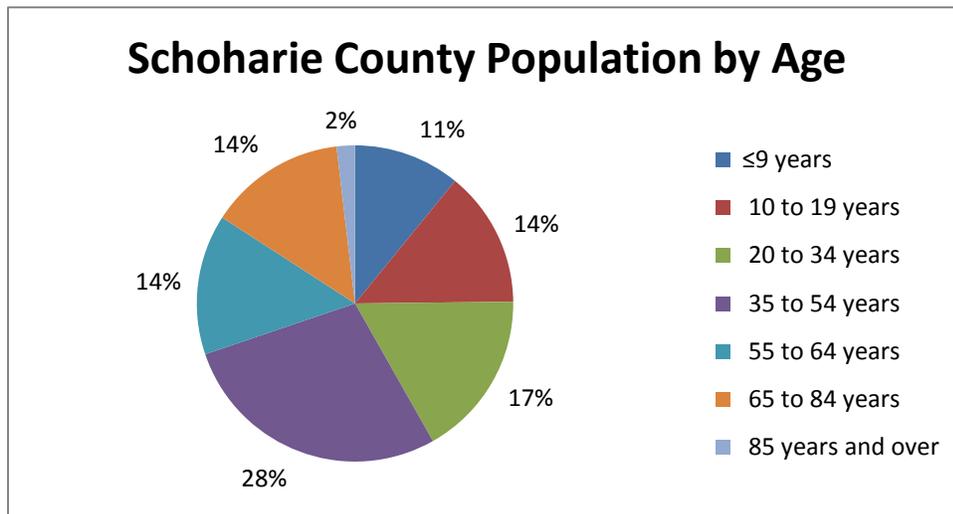
Schoharie County is located in the east-central part of upstate New York, approximately 30 miles west of Albany and 135 miles north of New York City. The County is primarily identified by its rural, community oriented character and natural features. Schoharie County is part of the Albany – Schenectady – Troy Metropolitan Statistical Area (MSA) and shares borders with Montgomery, Schenectady, Albany, Greene, Delaware, and Otsego Counties. Schoharie County is the least populated county in the region with 32,749 people (2010 Census).

The County occupies approximately 622 square miles (2010 US Census Bureau). The terrain is a mix of rounded mountain sides and flat, narrow valleys. Elevation ranges from an average of 1,200 feet in the northern limestone plateau of the County to approximately 2,000 feet in the higher southern plateaus. Higher elevations exceeding 2,500 feet exist in the south of the County which are part of the Catskill Mountain range. Schoharie Creek flows north from the Catskill Mountains and Greene County, forming a south to north stream corridor through the center of Schoharie County to the Mohawk River. The Schoharie Creek watershed spans an area of approximately 950 square miles. The course of Schoharie Creek includes two (2) reservoir-dam systems; the Gilboa Dam and Schoharie Reservoir, which are part of and managed by the New York City Water Supply System, and the Blenheim-Gilboa dam and reservoir that is a hydro-electric power generating station operated by the New York Power Authority (NYPA).



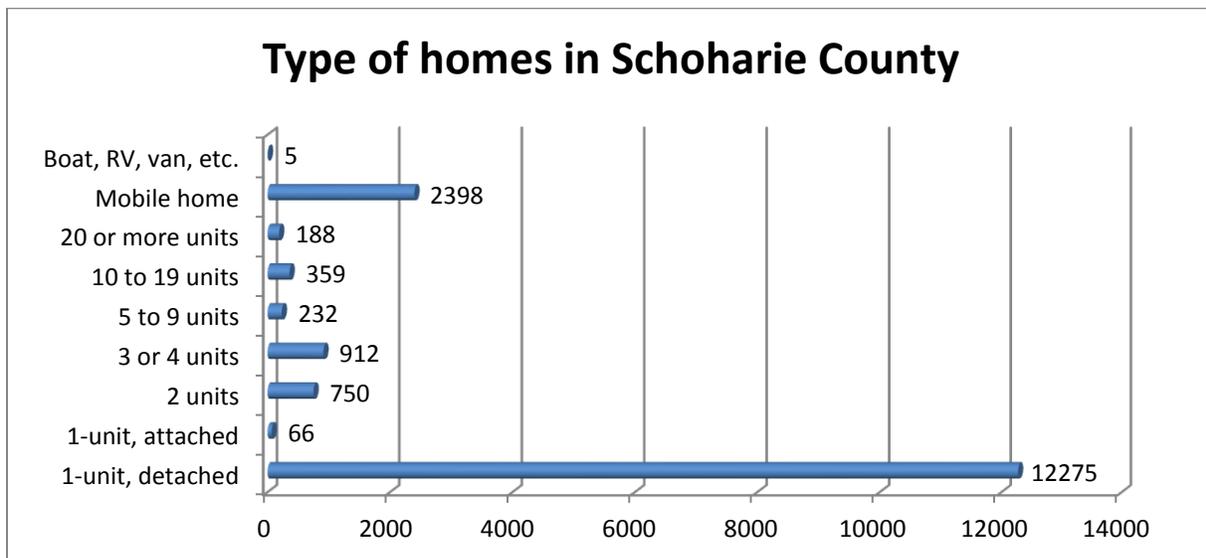
Population and Housing

According to the 2010 U.S. Census, the Schoharie County population was 32,749, with 52.7 persons per square mile, 2.38 persons per household and the median age of residents was 43 years. The 2007-2011 U.S. Census estimate determined that 10.7% of persons are below the poverty level.



2007-2011 ACS 5-Year Estimates

According to the 2007-2011 U.S. Census American Community Survey (ACS) Five (5) Year Estimates, there are 17,185 total housing units in Schoharie County. Of those housing units, 12,275 are a one (1) unit detached structure and 2,398 are mobile homes. 74.5% of housing units are occupied, while approximately 25.5% are vacant.



2007-2011 ACS 5-Year Estimates

Schoharie County, Municipal and Regional Population Changes 1990 to 2010

Comparisons between 1990 and 2000 data are highlighted **red**
 Comparisons between 2000 and 2010 data are highlighted **green**

County	1990	2000	Difference	% Change	2010	Difference	% Change
Schoharie	31,859	31,582	-277	-0.87%	32,749	1,167	3.70%
Delaware	47,225	48,055	830	1.76%	47,980	-75	-0.16%
Greene	44,739	48,195	3,456	7.72%	49,221	1,026	2.13%
Montgomery	51,981	49,708	-2,273	-4.37%	50,219	511	1.03%
Otsego	60,517	61,676	1,159	1.92%	62,259	583	0.95%
Schenectady	149,285	146,555	-2,730	-1.83%	154,727	8,172	5.58%
Albany	292,594	294,565	1,971	0.67%	304,204	9,639	3.27%
Saratoga	181,276	200,635	19,359	10.68%	219,607	18,972	9.46%

Town	1990	2000	Difference	% Change	2010	Difference	% Change
Blenheim	332	330	-2	-0.60%	377	47	14.24%
Broome	926	947	21	2.27%	973	26	2.75%
Carlisle	1,672	1,758	86	5.14%	1,948	190	10.81%
Cobleskill	2,002	1,874	-128	-6.39%	1,947	73	3.90%
Conesville	684	726	42	6.14%	734	8	1.10%
Esperance	1,777	1,663	-114	-6.42%	1,731	68	4.09%
Fulton	1,514	1,495	-19	-1.25%	1,442	-53	-3.55%
Gilboa	1,207	1,215	8	0.66%	1,307	92	7.57%
Jefferson	1,190	1,285	95	7.98%	1,410	125	9.73%
Middleburgh	1,860	2,117	257	13.82%	2,246	129	6.09%
Richmondville	1,554	1,626	72	4.63%	1,692	66	4.06%
Schoharie	2,324	2,269	-55	-2.37%	2,283	14	0.62%
Seward	1,651	1,637	-14	-0.85%	1,763	126	7.70%
Sharon	1,349	1,296	-53	-3.93%	1,288	-8	-0.62%
Summit	973	1,123	150	15.42%	1,148	25	2.23%
Wright	1,385	1,547	162	11.70%	1,539	-8	-0.52%

Village	1990	2000	Difference	% Change	2010	Difference	% Change
Cobleskill Village	5,268	4,533	-735	-13.95%	4,678	145	3.20%
Esperance Village	324	380	56	17.28%	345	-35	-9.21%
Middleburgh Village	1,436	1,398	-38	-2.65%	1,500	102	7.30%
Richmondville Village	843	786	-57	-6.76%	918	132	16.79%
Schoharie Village	1,045	1,030	-15	-1.44%	922	-108	-10.49%
Sharon Springs Village	543	547	4	0.74%	558	11	2.01%

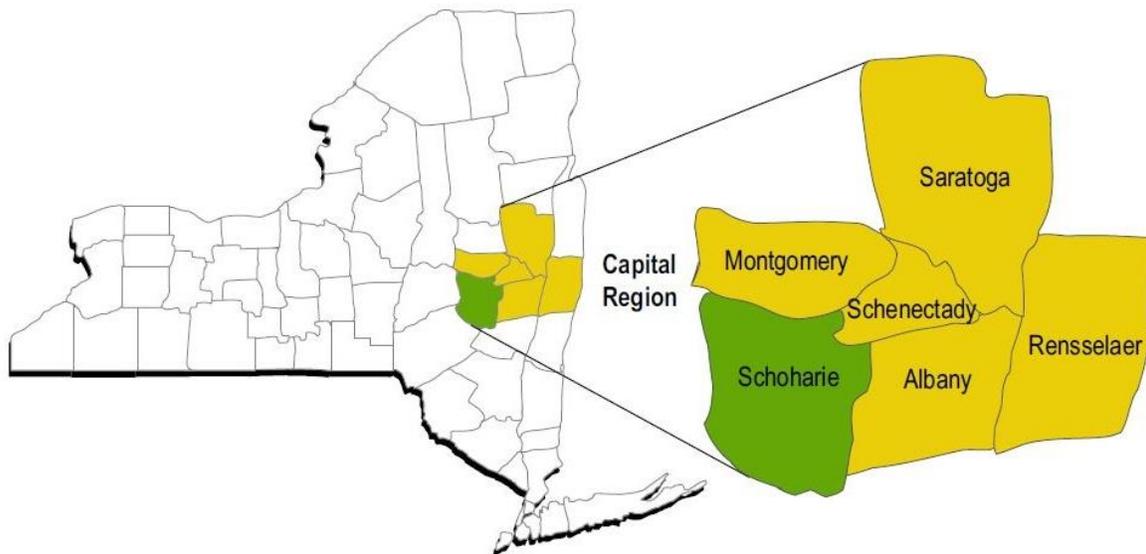
Cumulative population of Towns	23,828
Cumulative population of Villages	8,921
Sum of the Towns and Villages	32,749

Source: U.S. Census, 2010, 2000 and 1990

Economy and Employment

Agricultural activity has been the traditional leader of the Schoharie County economy, and while not an income and employment growth sector, the Schoharie County Agricultural and Farmland Protection Plan (2000) notes that agriculture remains the predominant industry in Schoharie County and that dairy production accounts for 66% of agricultural sales.

Schoharie County is part of New York State's Capital District economic center and shares in portions of the growth and development that have occurred across this region. According to Schoharie County Economic Development, the principal growth area affecting Schoharie and local employment since 2000 has been the location of major retail distribution centers in or near Schoharie County by companies such as Wal-Mart, Target, Rite-Aid, and Family Dollar. Schoharie County and its capital region partners are well positioned with transportation, technical and education resources that make it an attractive commercial hub for serving northeast America and Canada.



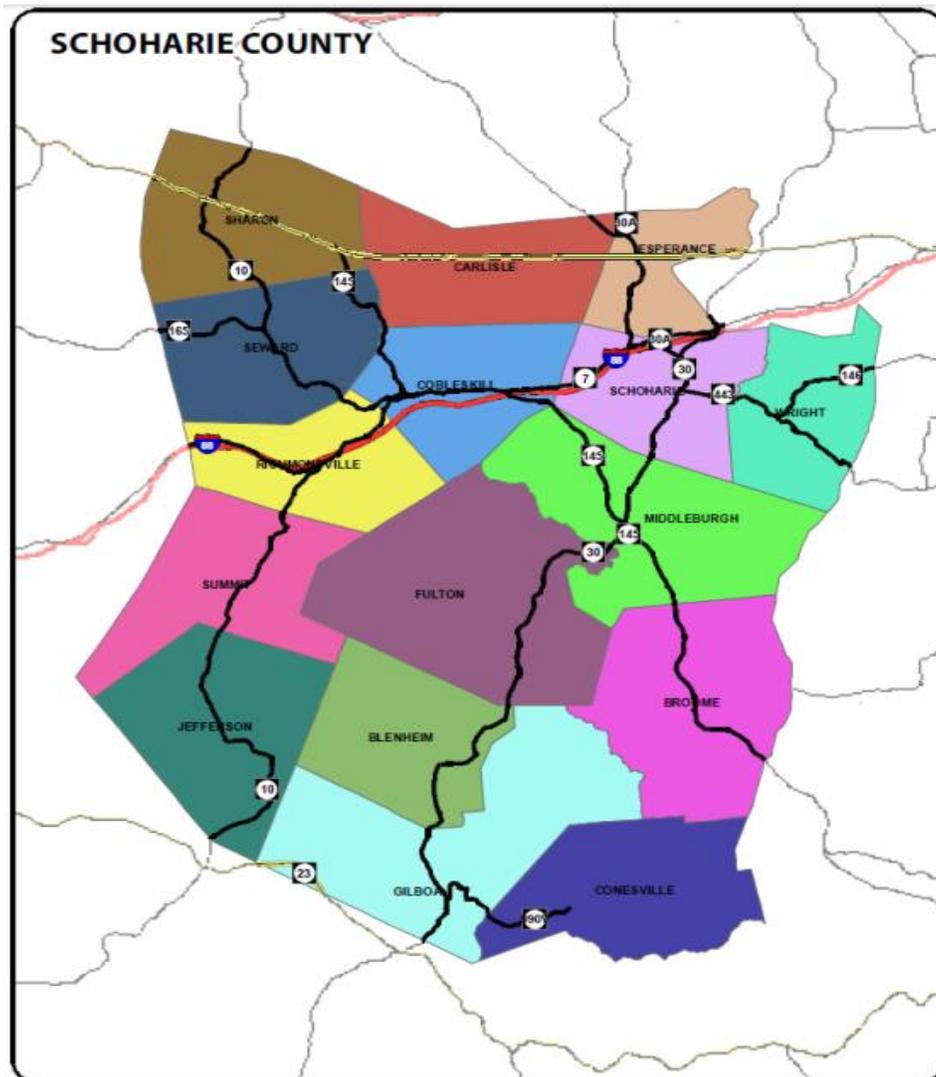
Renewed manufacturing opportunities that focus on small business and technical applications continue to be a target growth area for Schoharie County. The area is now home to plastics manufacturers that make medical device packaging for international companies and there is manufacturing capacity and a skilled workforce available to support local expansion.

Limestone mining in Schoharie County has also been an important part of the local economy for decades, providing a natural resource used in roadway engineering and pharmaceutical products. Three natural gas and propane pipelines traverse portions of Schoharie County, which are an important source of local revenues and modestly contribute to the county's employment profile. As part of the growing Capital District economic region and in conjunction with programs at the State University of New York at Cobleskill, Schoharie County is also well positioned to take advantage of developing trends in the region's rapidly expanding bio and micro-technology fields. Future economic and employment prospects could be an option if New York State authorizes natural gas shale extraction.

Tourism has been a successful and long-standing cultural and economic asset for Schoharie County. In the late 1800's, visitors were first drawn to Schoharie County to take advantage of what many considered were 'healing' natural mineral waters. The Howe Caverns have been one of New York State's most popular natural attractions for decades. The dams, reservoirs and hydro-electric generation facilities in the Schoharie Valley – combined with the regions rich history, recreational resources, rural markets, picturesque hills and valleys, natural features and vistas generate significant economic benefits.

Transportation

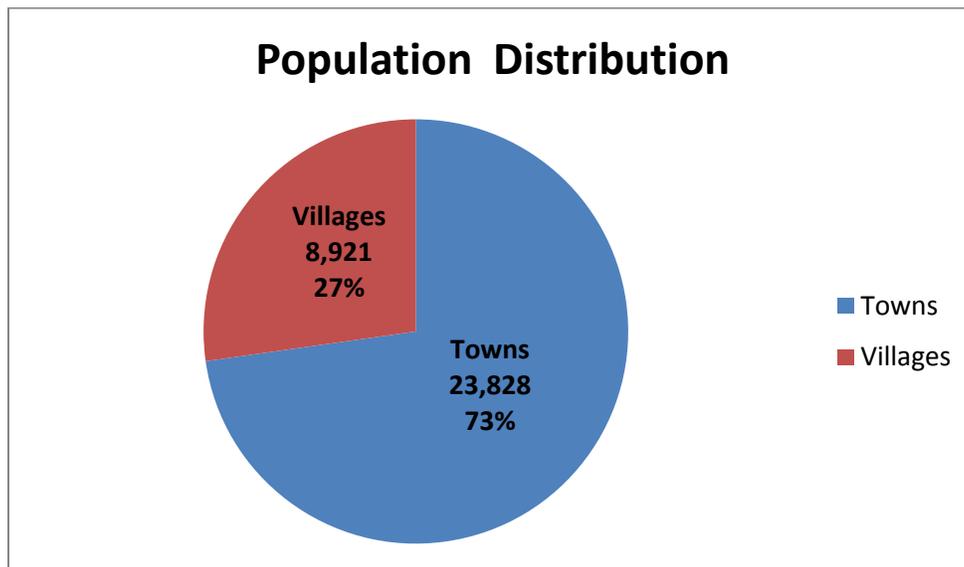
Major interstate and regional transportation systems that run east-west through the north and center of Schoharie County include Interstate 88, U.S. Route 20, NYS Routes 7 and 443, and the Canadian Pacific railway. The railroad has freight service through Esperance, Schoharie, Cobleskill and Richmondville, but no passenger service. State highways with north-south routes include NYS Routes 10, 30, 30A and 145. According to the New York State Department of Transportation (NYDOT), the busiest average daily vehicle count is on State Route 7 through the Village of Cobleskill, with an average of 16,248 vehicles per day. Interstate 88 (a four lane divided highway) has an average daily count of 10,000 –11,000 vehicles. The busiest County highways are Mineral Springs Road and Barnerville Road in the Village of Cobleskill, with approximately 2,300 and 3,900 vehicles per day respectively. There are no commercial airports in the County and one private airport serving small aircraft. The County relies on major terminals and national carriers in nearby Albany and Schenectady for passenger rail and air services.



Land Use

Schoharie County's modest population, rural character and agricultural focus means open space is plentiful; with farmland, scenic valleys and vibrant forests dominating the landscape. Life and activity in Schoharie County are centered in historic communities and villages that are principally located along the Schoharie Creek valley and the interstate highway and rail transportation corridor. Even in the populated villages, densities are very low compared to urban and suburban communities elsewhere in the state; and where multi-family housing exists, it is likely to be buildings with four (4) or fewer units that are only two or three stories high.

27% of the population in Schoharie County is concentrated in the Villages of Cobleskill, Schoharie, Middleburgh, Sharon Springs and Richmondville - all in the northern half of the County.



Schoharie County – Distribution of Land Uses (Percent of Total Acres)							
Jurisdiction	Residential	Commercial and Industrial	Agricultural	Public and Recreation	Woodland and Forest	Unused	Total Acres
Blenheim	31 %	< 1 %	6 %	7 %	35 %	20 %	21,638
Broome	41	1	10	< 1	25	22	30,401
Carlisle	26	< 1	55	< 1	2	16	21,397
Cobleskill, T	18	4	47	5	7	18	16,644
Cobleskill, V	23	19	13	28	0	16	1,922
Conesville	38	< 1	15	3	18	27	25,388
Esperance, T	40	3	27	< 1	< 1	29	11,963
Esperance, V	35	2	8	5	0	50	293
Fulton	28	< 1	15	< 1	33	22	40,217
Gilboa	35	< 1	25	7	4	27	37,376
Jefferson	38	< 1	24	2	6	29	27,396
Middleburg, T	45	2	20	1	5	28	30,846
Middleburgh, V	41	6	25	11	2	16	690
Richmondville, T	31	1	3	3	< 1	33	17,369
Richmondville, V	37	3	23	10	< 1	28	884
Schoharie, T	29	2	40	1	< 1	28	17,030
Schoharie, V	41	6	33	15	0	7	1,001
Seward	26	1	42	< 1	5	25	22,851
Sharon	14	1	53	3	3	14	23,349
Sharon Springs	34	23	4	15	< 1	24	1,102
Summit	45	< 1	11	< 1	9	35	23,442
Wright	38	1	37	< 1	4	19	17,896
Total Countywide	33 %	1 %	26 %	3 %	11 %	24 %	391,097

Source: Schoharie County Planning Department (2002)

Percentages may not total 100 due to rounding

< 1 Less than 1%

Town figures exclude Villages