

Profile of the Town of Schaghticoke

**Town of Schaghticoke
Comprehensive Plan**

Volume 2

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History

Multiple Indian tribes inhabited the land that is now the Town of Schaghticoke, as early as 1300. In 1675, Governor Andros, governor of the colony of New York, planted a tree of Welfare near the junction of the Hoosic River and Tomhannock Creek, and area already known as Schaghticoke, "the place where the waters mingle." This tree symbolized the friendship between the English and the Dutch, and the Schaghticoke Indians. The Indians were Mohican refugees from New England welcomed to Schaghticoke because they agreed to help protect the English from the French and the Iroquois. They stayed until 1754. Until the Revolutionary War, Schaghticoke was part of the colony of New York with most of its citizens governed by the city of Albany, which owned the land they rented.

Meanwhile, the rest of what is now the town of Schaghticoke was sold by New York in several large land grants. Settlement was slow until after the revolution because Schaghticoke was a dangerous place in which to live, its inhabitants subject to raid by Indians and Tories.

The "new" New York State government organized much of the state into towns by an act of Legislature in 1788. Schaghticoke was among those towns. Schaghticoke was part of Albany County until Rensselaer County was formed in 1791. After the Revolution, many immigrants came to Schaghticoke, especially from England and Ireland. Population centers grew up near streams, where the water powered mills of various kinds. In 1792, William Chase constructed the first bridge over the Hoosic River at what would become the Village of Schaghticoke. Most residents were farmers, growing crops used in the local industries. Though the town of Schaghticoke developed industrially and agriculturally, it never developed a political center. One of its hamlets, Hemstreet Park, faces Mechanicville across the Hudson River; two others, Pleasantdale and Speigletown, were part of Lansingburgh for almost 100 years. Melrose grew up at the junction of the railroad and the road. A substantial number of its homes were built as vacation retreats by the wealthy Trojans. The Village of Schaghticoke was incorporated as Harts Falls in 1867. The falls of the Hoosic powered large woolen, flax, and powder mills among others.

In the 20th century, agriculture remained strong in Schaghticoke, while industry all but disappeared. Hemstreet Park, Pleasantdale, Speigletown, and part of Melrose grew into suburbs, their residents' commute to work in Troy or Albany. Today, agriculture is still a force in the community, but Schaghticoke is experiencing increasing residential development, along with the political, social and economic issues that entails.

Local Historic Sites and Events

Some of the significant historic sites include:

In Village:

- ✓Driver Memorial Library
- ✓Schaghticoke Fairgrounds

- ✓Trinity Episcopal Church
- ✓Schaghticoke Presbyterian Church
- ✓Brick Row
- ✓St. John's Rectory
- ✓St. Johns Church
- ✓Soldiers Monument
- ✓Municipal Building
- ✓Mill Sites

In the Town:

- ✓Knickerbocker Mansion
- ✓Melrose Methodist Church
- ✓Melrose School, Mineral Springs Road
- ✓Melrose Monument
- ✓Reynolds Overhead Pass
- ✓Hemstreet Park School
- ✓Speigletown School, (now a dentist office)
- ✓Fred Mckinley House
- ✓Grant Hollow
- ✓Antolick House, dating to 1800
- ✓Boston and Maine Viaduct
- ✓Melrose Depot for Boston and Maine Railroad
- ✓Numerous cemeteries
- ✓Avenue A
- ✓Lock 3 and 4 along the Hudson River

There are two historic turnpike markers 1) on the corner of Fogarty Road and Route 40 and 2) south of Albert Drive on the north side of Route 40.

Physical and Environmental Features

Topography and Slope: The Hudson and Hoosic Rivers dominate the natural landscape of Schaghticoke. Lands adjacent to the Hudson River are at the lowest elevations in the Town and are relatively flat with little topography. However, the numerous tributaries and drainages flowing west to the Hudson River create a network of ravines throughout the western half of the Town. More significant topography is seen east of New York Route 40 where rolling hills and ridges reach higher elevations in places. Most of the steep slope areas occur along the Hudson Rivers' tributaries and along the Hoosic River. The central part of Town is relatively flat.

Bedrock Geology: Three shale formations underlie the Town of Schaghticoke Groundwater Assessment area (area). These are the Middle Ordovician Age Snake Hill Formation and Normanskill Shale and the Lower Cambrian Age Schodack Formation.

The three shale formations are closely related and are part of a detached sheet that was thrust westward by mountain building forces from its original position onto younger rocks native to the Hudson River Valley. These forces highly compressed the shale formations, creating tight folds that tilt towards the west. The pressure applied from the mountain building forces also created joint, faults and fracture openings within the bedrock. It is from these fractures and faults zones that groundwater moves through the bedrock formations and where it can be most easily withdrawn for water supply.

The Snake Hill Formation is dark blue, gray and black shale with some sandstone and carbonaceous bands. This formation yields water at an average rate of 2 to 3 gallons per minute (gpm) that typically is hard, turbid water that also contains hydrogen sulfide (sulfur) gas. The average well depth for the Snake Hill Formation in Rensselaer County is 140 feet. The Snake Hill Formation is a weak shale that does not support large fractures. Well records show there is typically increasing yield with increasing depth to approximately 300 feet. At depths greater than 300 feet, there is little or no increase in yield as the number and size of the joints decrease with depth.

The Normanskill shale is a dark green to black shale with some intermixed hard, altered limestone (chert) beds. Groundwater is typically moderately hard, with iron and may contain sulfur. Average yield is 4 to 5 gpm and the average well depth is 125 feet.

Primarily lacustrine silt and clay deposits overlie the Normanskill Shale and Snake Hill Formation. The low permeability of the silt and clay greatly limits the amount of water percolating into the bedrock. Bedrock wells that are drilled in areas overlain by these lacustrine deposits generally have very low yields.

The Schodack Formation is a Lower Cambrian Age, red and purple shale with local units of calcareous sandstone and thinly bedded limestone. The sandstone is quartz-rich, making it difficult to drill through. The Schodack Formation does yield small, but reliable amounts of water up to 5 gpm. Groundwater from this formation typically contains iron and is moderately hard. The average depth of a well drilled in the Schodack Formation is 125 feet.

Results from the water well survey indicate the majority of bedrock wells are shale. Wells drawing groundwater from limestone are located at Hayes Road, Route 40 and Sherman Hill Road. Yield and groundwater quality for bedrock wells in the Assessment area are discussed in Sections 5.0 and 6.0.

Surficial Geology: Surficial Geology units (also known as overburden) are pertinent to groundwater supply because the permeability of the units can affect recharge to the underlying bedrock aquifer and in some areas, surficial geology units can be water supply aquifers. Two units that are likely recharge areas for bedrock and also serve as water supply aquifers are discussed below.

A broad expanse of stratified fine gravel and coarse sand extends westward from the Village of Schaghticoke and covers an area of approximately 20 square miles to the northwest towards the Hudson River. This unit is identified as "ld", Lacustrine Delta. This unit is used as a water supply aquifer on Verbeck Avenue, Clum Road and the western portion of Route 67 (Old Schaghticoke Road).

In some areas of the lacustrine delta deposit, a thick deposit of fine sand and clay lies below coarser surficial beds and limits downward percolation of groundwater, causing it to discharge as springs along the valley walls of the Hoosic River. Several springs are documented from the water well survey on the north side of Route 67 (Old Schaghticoke Road) and are used as a water supply source by some residents.

The lacustrine delta deposit overlies a glacial till unit (also known as hardpan) that covers bedrock. Glacial till in this region is predominantly clay and is a mix of rock fragments ranging in size from clay particles to cobbles and boulders. Most of the fragments in Rensselaer County are derived from local shale and slate rock. The till is a deposit from Pleistocene glaciers as they melted and is typically found directly over bedrock. Depending on its composition and density, till can prohibit groundwater from percolating downward into top of bedrock fracture openings.

The second overburden unit that is a likely recharge area for bedrock is located in the northeast section of the Assessment area and is identified in Plate 3 as "og", outwash Sand and Gravel. This material was deposited by meltwater streams from Pleistocene age glaciers and is characterized by highly permeable, well-sorted sand and gravel beds that vary in thickness. This unit is found in two locations of the Assessment area and includes parts of Madigan Road, Northline Drive, Sylvan Drive, and parts of County Route 114, Schwinger, Dorr and Aken Roads. Survey results indicate that three parcels on County Route 114 and most of Sylvan Drive utilize the sand and gravel aquifer as a primary water supply source.

Soils: There are many pockets of hydric (wet) soils throughout Schaghticoke. They are most often associated with existing wetlands and streams. Some are on current agricultural lands that have been drained over the years.

Prime soils and Soils of Statewide Significance are also abundant throughout Town. They predominate soils north of the Village of Schaghticoke and East of Verbeck Ave. Another significant concentration of these agricultural soils can be found along the Hoosic River. South of New York State Route 67, there tends to be fewer prime soils and more soils of statewide importance. Most of the farmed parcels in Schaghticoke have some prime or statewide significant soils on them.

Surface Water, Wetlands, Watersheds, Water Districts, and Floodzones

For a complete description of the surface water classification system see the New York State Department of Environmental Conservation, Division of Water's web site:

<http://www.dec.state.ny.us/website/dow/index.html>, or for specific regulations see: <http://www.dec.state.ny.us/website/regs/701.htm>.

The Hudson and Hoosic Rivers are the dominant surface water features of the Town. Several regulated wetlands (both New York State and Federally regulated wetlands) are found scattered throughout Schaghticoke. These wetlands are often associated with either the rivers or their tributaries. To the east of the town boundary with Pittstown, the largest surface water body in the area is found: The Tomhannock Reservoir. There are no other major bodies of surface water in Schaghticoke.

Three major watersheds exist. Part of the northern portion of Town is included in the Hudson River/Fish Creek and Batten Kill Watershed. The rest of the northern part of Town is part of the Hoosic River Watershed and the remainder of Schaghticoke is included in the Hudson River Watershed.

The United States Federal Emergency Management Agency (FEMA) has mapped the 100-year and 500-year flood hazard zones in Schaghticoke (see the Flood Zones map). The mapped boundaries delineate the flood elevation that has a 1 percent chance (100-year zone) or 0.2 percent chance (500-year zone) of being equaled or exceeded each year. In Schaghticoke, these areas are found along the Hoosic River. There are also substantial areas along the Hudson near River Road. One significant area included in a floodzone is the confluence of the Hudson and Hoosic Rivers. While floodplains and wetlands are considered two distinct types of land classifications, and are inventoried and regulated by different government agencies, their boundaries often overlap.

Properties in or around all these lands will typically be required to purchase flood insurance to safeguard against the danger of inundation. Communities that agree to manage flood hazard areas by adopting minimum standards can participate in the National Flood Insurance Program (NFIP). The standards are contained in Section 60.3 of the NFIP regulations. Communities that do not participate are subject to the sanctions outlined in Section 202(a) of the Flood Disaster Protection Act of 1973. Section 202(a) makes flood insurance, Federal grants and loans, Federal disaster assistance, and Federal mortgage insurance unavailable for the acquisition or construction of structures located in the floodplain shown on the NFIP maps (<http://www.fema.gov/nfip/ask.htm#2>).

Water Districts

There are four (4) water districts within the Town. Consolidated Water District #1 and Water District #3 (Pleasantdale) are located in the portion of the Town south of Melrose and are supplied by the City of Troy water system and serves a population of approximately 2,810 people. Water District #2 is located in Hemstreet Park on the east side of the Hudson River and is supplied by the City of Mechanicville and serves a population of approximately 580 people. The Village of Schaghticoke Water District is supplied by four (4) wells screened in sand and gravel deposits located on the north side of the Hoosic River which serves a population of 685 people. The Assessment focuses on the remaining Town area that receives its water supply from individual residential wells and two (2) non-community supply wells (NCSWs) and one (1) community supply well (CSW). The Town population within the Assessment area is approximately 3,326 people.

Viewsheds

A viewshed analysis was conducted in the Town. This analysis consisted of physically locating specific locations in the town that had long views of the landscape and using the GIS to map viewsheds for each point. These points should be considered a preliminary identification of important view locations. Maps were produced showing the location and extent of viewsheds from each location.

Ecological Data

Breeding Bird Atlas

The Town of Schaghticoke was included in the 1980 to 1985 New York State Breeding Bird Atlas. The town is currently included in the update to this data base (2000 to 2005). To date, a total of 92 different bird species have been recorded as being present and likely breeders in the town. Of these, one (Northern Harrier) is considered threatened species, two are listed as species of special concern by the state (Horned Lark and Vesper Sparrow), 7 are game species, 2 are unprotected and 80 have protected status as migratory birds. The species present in the town illustrate the wide variety of habitats available and range from water and shore birds, to those founding open fields and forests.

Herpetological Atlas

The New York State Department of Environmental Conservation has conducted very limited inventory work of reptiles and amphibians in Schaghticoke. The records indicate that that the Eastern Box Turtle, Jefferson Salamander, Spotted Salamander and Northern Redback Salamander are found within the Town.

Significant Ecological Communities

According to the New York State Natural Heritage Program, there is one location within the town that has been identified as having a rare species and ecological community. The Davis Sedge is considered to be a threatened plant species and is found at one location in the town at the mouth of the Hoosic River.

In addition, according to Mr. David Hunt of Ecological Intuition & Medicine and formally an employee of the New York Natural Heritage Program of the New York State Department of Environmental Conservation (NYSDEC), state listed rare plant species are located along the riparian areas of the Hudson River. Mr. Hunt has identified 238 populations of county rare plants, 100 of which are actively tracked taxa, and 15 populations of state rare plants, 5 of which are actively tracked species existing within the Town of Schaghticoke.

Land Uses

Between 1992 and 2002, there were 284 new home starts in the town. That includes one and two family homes. During that time frame, five non-residential structures were built including a new church, Stewarts, Melrose Post Office, salt shed, and the town garage.

Agricultural Properties

There are 222 agriculture class parcels covering 13,739 acres. They range from 0.1 acres to 370 acres, with an average size of 62 acres. Agricultural uses are found in all parts of the town with the highest concentration found to the northeast of the village. Other concentrations are found west of the village along State route 67 and County route 125, and in the west central portion of the town along Pinewoods Road, and Gutbrodt Road.

Agricultural Districts

Portions of Agriculture Districts 2 and 5 are found in the Town of Schaghticoke. These districts cover 21,416 acres of land, or nearly 65% of the Town's 33,182 acres.

Residential Properties

There are 2,329 residential class parcels covering 8,353 acres. They range from 1/20th of an acre up to 174 acres in size, with an average size of 3.6 acres. Many of the smaller lots are concentrated in small hamlets, with a concentration of larger lot development in the southeastern section of the town.

Commercial Properties

Commercial properties in the Town of Schaghticoke include businesses such as contractors, funeral homes, restaurants, apartment buildings (in village), convenience stores, auto repair and garages, lumber store, farms, antiques, surveyor, gun shop, drug store, insurance, dentist, and sand and gravel operations.

There are 58 commercial parcels covering 540 acres in the town, with an average size of 9.3 acres. They range from 1/5th of an acre, to 254 acres in size. The majority of these parcels are located in the hamlet areas, adjacent to them, or along the major roads connecting them.

Community Service Properties

There are 31 community service class parcels covering 113 acres in the town ranging from less than 1/5th of an acre, up to 43 acres in size. These properties include uses such as churches, cemeteries, fire companies, little league fields, and town owned properties.

Public Service Properties

There are 61 public service parcels covering 800 acres ranging from 1/5th acre to 122 acres, with an average size of 13 acres. These properties include those owned by hydro power suppliers, railroads, electric and natural gas transmission corridors, and town properties used to supply water and sewer services.

Recreation and Entertainment Properties

There are 11 recreation and entertainment parcels in the town covering 540 acres, with an average size of 50 acres. They range from 1 to 232 acres in size. These parcels are owned by RV parks, Rod and Gun clubs, Golf courses, and Marinas.

Wild Forested Conservation Lands and Public Parks

There is one 1.9 acre parcel in this property class owned by the State of NY, and located along River Road north of the intersection with Allen.

Vacant Land

There are 664 parcels classified as vacant land covering 6,000 acres. They range from small “sliver” parcels of less than 1/100th of an acre up to 198 acres, with an average size of 9 acres.

Open Space

Agriculture over 5 acres – 204 parcels, 13,661 acres
Residential over 10 acres – 176 parcels, 5,408 acres
Community Services over 5 acres – 4 parcels, 74 acres
Public Services over 5 acres – 8 parcels, 437 acres
Recreation and Entertainment over 5 acres – 7 parcels, 526 acres
Vacant Land over 5 acres – 213 parcels, 5,384 acres

There are 25,490 acres of undeveloped land in the Town of Schaghticoke. The eastern portion of the town (from New York State Route 40 east from the village to the town line) is almost exclusively undeveloped agricultural farmland. Other locations in town have substantial areas of undeveloped land, but they are more interspersed with residential lots, vacant lots and existing smaller parcels.

New Housing Starts

Analysis of housing starts indicates trends in land use. Between 1992 and 2002, 284 one and two-family homes were built in Schaghticoke. The rate has been relatively steady with a slight downward rate between 1995 and 1998. In 2001 and 2002 there were 35 and 34 new homes built, respectively.

Zoning Buildout Analysis

A buildout analysis was done to show the potential number of new residential dwelling units that could occur in the future if all developable land in the town were to be built according to the Town’s current zoning law. A buildout analysis applies current zoning regulations and calculates the total residential density allowed at full buildout of the town. It does not predict when this could occur.

The general process followed to calculate buildout conditions was to a) identify areas in the town having environmental constraints that would not support new residential development b) identify areas in the town that already have residential development and therefore would not allow new development, and c) calculate the amount of new residential development that would be allowed by Schaghticoke’s current zoning ordinance in the remaining undeveloped areas of the Town. A geographic information system software program was used to conduct the analysis. In essence, the analysis calculates the total land base of the town, subtracts all lands having environmental

constraints and already built areas, and then applies the zoning rules to calculate the number of allowable new residences. For purposes of this analysis, it was assumed that all new development would be single-family dwellings.

Current zoning has the following requirements for residential development:

Table 1 Minimum lot sizes used in the buildout calculations

District	Minimum Square Foot with no water or sewer	Minimum Square Foot with water or sewer	Minimum Square Foot with both water and sewer
RA-Single Family	60,000	40,000	40,000
R60-Single Family	60,000	40,000	40,000
R40-Single Family	40,000	30,000	30,000
HD-Hamlet	40,000	20,000	10,000
All Other Zones	No Residential Uses Allowed	No Residential Uses Allowed	No Residential Uses Allowed

Results of the Buildout Analysis

Table 2 below, details the result of the analysis.

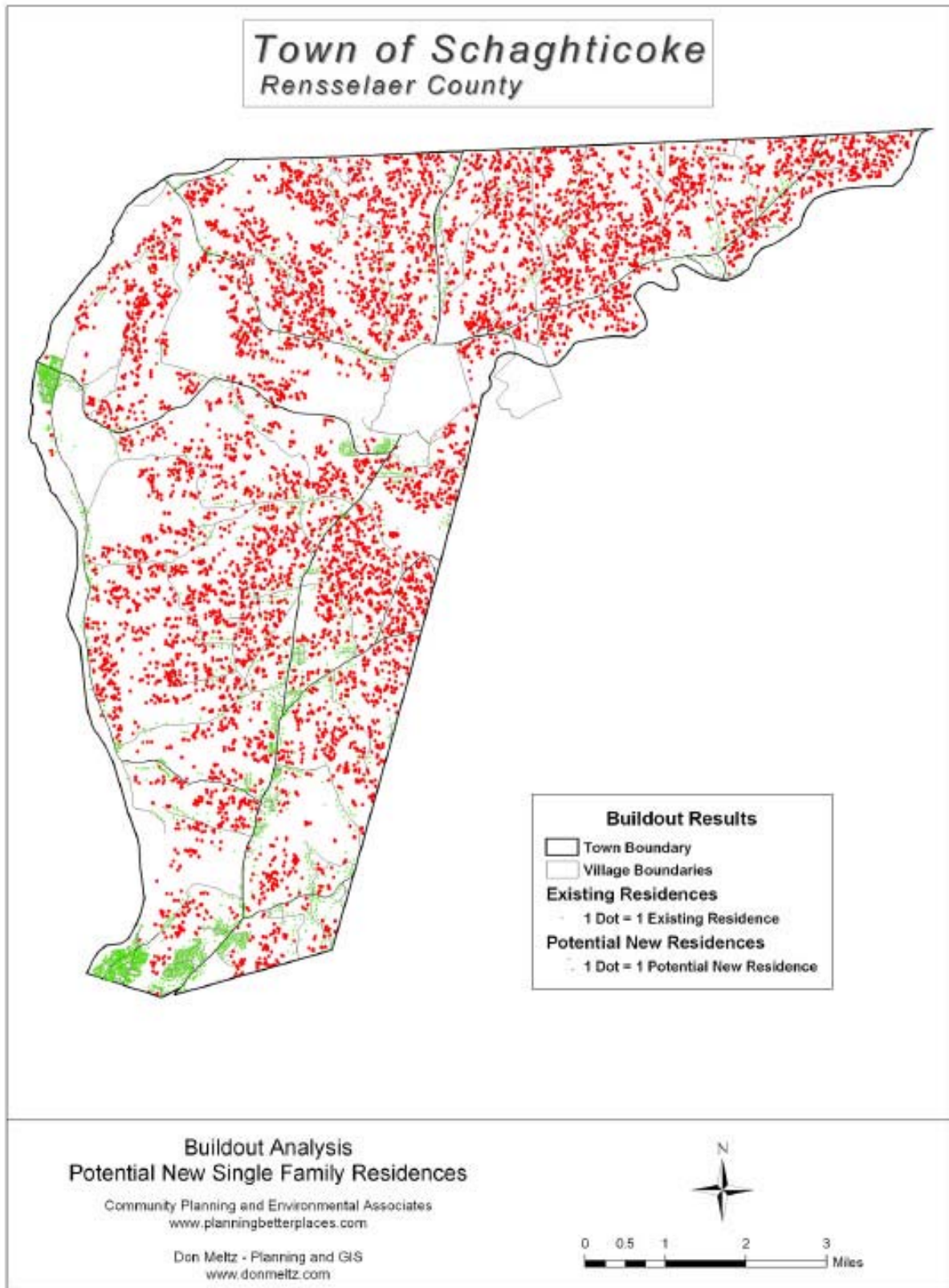
Currently, there are 2,462 existing residential parcels (NYS RPS 2002 data) accommodating 7,401 residents. Under full buildout conditions, there is the potential for an additional 9,704 single family homes. Using an average household size of 2.75 (2000 Census) this would result in an additional **26,686** residents at full buildout. Currently 20.5% of the population is school-age, (5 to 17 years old). This would result in an additional **5,471** students in the local school districts at full buildout. At a student/teacher ratio of 15 to 1, this would mean an additional **365** teachers needed for the school districts. At 175 gallons per day per new household, this would require an additional **1,698,200** gallons of drinking water supplied each day (both public and private wells).

Table 2 Results of the Buildout Calculations

<i>Town of Schaghticoke Buildout Calculations</i>		
<i>Zoning District</i>	<i>Existing Residential Parcels (not residential dwelling units)</i>	<i>Potential New Residential Parcels (Single Family)</i>
HD-Hamlet	626	97
R40-Residential	458	371
R60-Residential	436	1,589
RA-Residential Agriculture	792	7,647
Entire Town (including non-residential zones)	2,462	9,704

Map 1: Results of the Buildout Calculations

(green dots are current residential properties, red dots are potential new residential properties)



Notes on the build out:

- ✓The map on the previous page shows the potential number of new residences if the town was completely built out at the densities outlined in the existing zoning ordinance. The technique illustrates the results of your existing zoning regulations.
- ✓One green dot represents existing residential parcels; the actual number of dwelling units on each parcel is not available from the data provided by Rensselaer County Real Property. It is likely that most parcels have only one residential unit on them, but that data was not available for this analysis.
- ✓The red dots represent potential new dwelling units. They are randomly located in areas having no environmental constraints, and only on parcels large enough to accommodate this new development.
- ✓The potential for multi family residences was not considered. In order for this to be included in the analysis more information on existing multifamily housing and recent multi family developments would be required.
- ✓Placement of new central water supplies and sewage treatment facilities in other areas of the Town would significantly change these results as Schaghticoke's zoning allows for a much higher density when this infrastructure is provided.
- ✓The technique can be used to show different development and zoning scenarios as we alternatives are suggested in the comprehensive planning process.

Cultural and Historic Resources

Scenic Areas and Byways: There are no formally designated scenic roads or byways in Schaghticoke. However, several roads have been identified as being very scenic by residents. These include River Road, the end of Pinewoods, Knickerbocker Road, and Route 67 across from the Hoosic River. Other scenic areas and viewsheds have been identified on the Important Scenic View map.

Recreation: A golf course operates near Howland Ave.

Youth/Senior Recreation: There are no specific facilities

Trails: There are currently no hiking trails in town.

Library: Two libraries serve the Town of Schaghticoke: The Arvilla Driver Memorial Library in the Village of Schaghticoke and the Valley Falls Free Library in Valley Falls. The Arvilla Driver Library has over 6,800 volumes and includes a children's room, video and audio collections, and both fiction and non-fiction rooms. The library offers three computers with Internet access and an additional one in the children's room for games. Numerous events are sponsored by the library such as story times, winter sleigh riding

and an extensive summer reading program. Funding is received from grants, the Hoosic Valley School District and some from the Village of Schaghticoke.

Tourism: Some of the tourist related events and attractions include:

- Schaghticoke Fair
- Soldier Monument
- Reynolds Overhead Pass
- Hoosic River
- Tomahannock Creek and Reservoir
- Deepkill Creek
- Buttermilk Falls
- Hudson River
- Viewmere Farms
- Liberty Ridge Farms
- Mechanicville Golf Course
- Canal Parks (Knickerbocker Road and Route 67)
- Deer Run Campgrounds

Community Facilities and Infrastructure

Highways and Roads

State Routes 40 and 67 are two-lane arterial highways that provide primary access to the Town of Schaghticoke. County roads, including CR 126, 122, 119, and 125 serve the Town. Bridge crossings over the Hudson are located on New York Route 67 leading to Mechanicville and, in the northern portion of Town, over County Route 125. There are 81 miles of town roads and all but 10 are paved. The town does receive CHPS money, and has a capital improvement and road maintenance plan in place.

Traffic Counts

Route	Location	Count AADT/Year	Count AADT/Year	Count AADT/Year	Count AADT/Year	Count AADT/Year	Total Percent Change
State 40	Troy Line to CR 126 Spieglestown	10705/2003	10700/2000	10500/97	8950/94	9900/93	8.1%
	CR 126 Speigletown to Church St. Melrose		10700/2000	10500/97	8950/94	9900/93	8.1%

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Route	Location	Count AADT/Year	Count AADT/Year	Count AADT/Year	Count AADT/Year	Count AADT/Year	Total Percent Change
	Church St. Melrose to Start Route 67	9659/2003	9659/2000	8950/98	8350/95	8350/82	15.7%
	Route 67/Route 40		6353/2000	6450/97	5750/94	4750/90	33.7%
	Route 67 to Village		9050/2000	8450/98	7750/97	6900/94	31.2%
	Village to Washington Co. Line	3388/2003	3350/2000	3250/98	2350/97	2050/94	65.0%
State 67	CR 121 to Route 40		5900/00	5750/97	6750/94	6750/90	-12.6%
	Start at Route 40		4600/00	2950/98	2400/95	3150/92	46%
	Overlap Route 40		9050/00	8450/98	7750/97	6900/94	31.2%
	State Street to Valley Falls	6831/02	6800/00	6600/99	5850/98	4650/95	46.2%
Local	Hansen Road From Allen to Rt. 40	282/01					
Local	River Road from Troy line to CR 124	1172/01					
Local	South Main St. (Village)	9327/01					

Changes in Traffic on State Roads:

On State Route 40, there have been dramatic increases in traffic volume from the intersection of Routes 40 and 67 north to the Washington County line. Traffic volumes increased 65% between the village and the county line. South of the village, traffic volumes increased eight to 15%. Most sections of State Route 40 have also seen large increases in traffic volumes in the order of 30% to 46% increases between the 1990's and 2000. One section of Route 67 saw a 12.1% reduction in traffic volumes (from County Route 121 to Route 40).

There is public bus service (CDTA) twice a day running from Hoosick Falls to Troy.

Infrastructure and Facilities

Water: The town is served by several water districts that were built in the 1960's. In Pleasantdale, 99% of the residents are served by public water. A new water main was installed from Pleasantdale north on Route 40 to the hamlet of Melrose. The residential area of Speigletown (about 115 homes) is also served by public water and connects with the main from Pleasantdale. The new main, built in 2000, was designed to accommodate additional growth of vacant lands from Speigletown to Melrose. The hamlet of Hemstreet Park also has public water. All water mains in the town are eight and 12 inches and all water comes from Troy except for Hemstreet Park, where the water originates from Mechanicville. Connection to water is not mandatory at this time.

The dam for the Tomahannock Reservoir is located in the Town of Schaghticoke.

Sewer: Pleasantdale is the only area now serviced by municipal sewer service. Connection is mandatory for all structures in the hamlet and waste is treated at the Rensselaer County Sewer treatment plant. There is little capacity on that system for future growth.

A system has been proposed for the 202 homes in Hemstreet Park and if implemented, would be designed to take care of existing housing with little room for growth. Saratoga County would treat waste from this district.

Cell Towers: There are no cellular towers located in the Town of Schaghticoke. The town does not have a local law regulating cell towers, but does have a 75 foot height limit on structures in the local zoning law.

Emergency Services

Police: The Rensselaer County Sheriff and New York State Police provide police protection for the Town of Schaghticoke.

Fire: There are eight fire companies that serve the Town of Schaghticoke. These are Hemstreet Park, Hoosic Valley, Johnsonville, Pleasantdale, Melrose, Schachticoke, Speigletown, and Valley Falls.

Rescue Squad: Three ambulances serve the town: John Ahearn, Johnsonville, and Hoosic Valley.

Local Government

Town Budget

Four years of town budgets were analyzed from 1999 to 2003. Between those years, the total town budget increased about 25% with most of the increase in appropriations occurring between 2000 and 2001. Between 1999 and 2003, the General town wide fund increased 28%, the general part-town increased 11%, the highway town wide increased

16% and the highway part-town increased 27%. The largest appropriation goes towards the “General, Town-wide” fund. It has received 23% to 25% of all appropriations. Other major appropriations include, in order, Highway, part-town, solid waste, and highway town-wide funds. Taken all together, the fire departments serving the town receive about 15% of all appropriations (2003 budget data). For the fire departments, Spiegletown and Melrose have shown moderate increases in their appropriations over the last few years. Of all the funds, that for solid waste has increased the most (about 6.5%).

Current Land Use Regulations

The following local land use regulations exist in the Town of Schaghticoke as of November 2004:

Conservation Advisory Council: Chapter 7

Town of Schaghticoke Zoning Law: October 1998 and amendments

Environmental Quality Review: Chapter 61

Fire Prevention and Building Code Administration: Chapter 66

Flood Damage Prevention: Chapter 69

Freshwater Wetlands: Chapter 72

Landfills: Chapter 82

Mobile Homes: Chapter 89

Subdivision of Land: Chapter 108

Demographic Profile

According to the US Census, the Town of Schaghticoke had a total 2000 population of 7,401 persons. The population in the Town has steadily increased over the past four decades except for a recent decrease of 2.2% between 1990 and 2000 (see Chart 1).

Age Structure

Chart 2 shows the fluctuations in age structure over the years. There are fewer numbers of very young people in town compared to 1980 and 1970 and higher numbers of senior citizens. Compared to Rensselaer County as a whole (Chart 3), the Town of Schaghticoke has a similar age structure with the exception that the Town has fewer people aged 15 to 24 years old. The Town has slightly more if its population aged 45 to 54 years than the county. The number of young people (0 to 14 years old) was steady between 1990 and 2000, but the numbers of people aged 15 to 34 years old declined from previous years. The number of people aged 45 to 54 years is at the highest level since 1970 and now comprises 16% of the whole population. That age group increased 50%. The number of people aged 65 and older also increased in 2000 to its highest levels. If trends continue, the Town will have about 20% more elderly in 20 years than currently exists.

Chart 1: Population Changes in Town of Schaghticoke

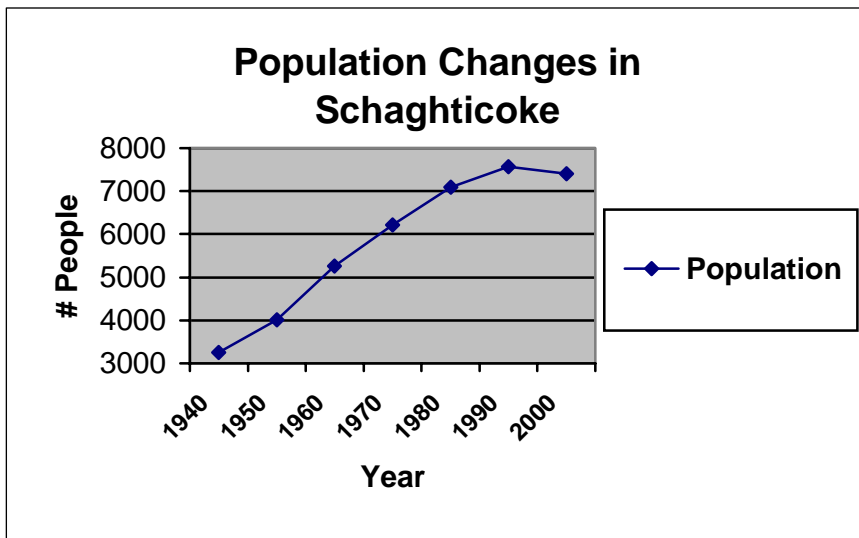


Chart 2: Age Group Comparison: 1970-2000



Chart 3: Comparison of Age Groups: Rensselaer County and Town and Village of Schaghticoke

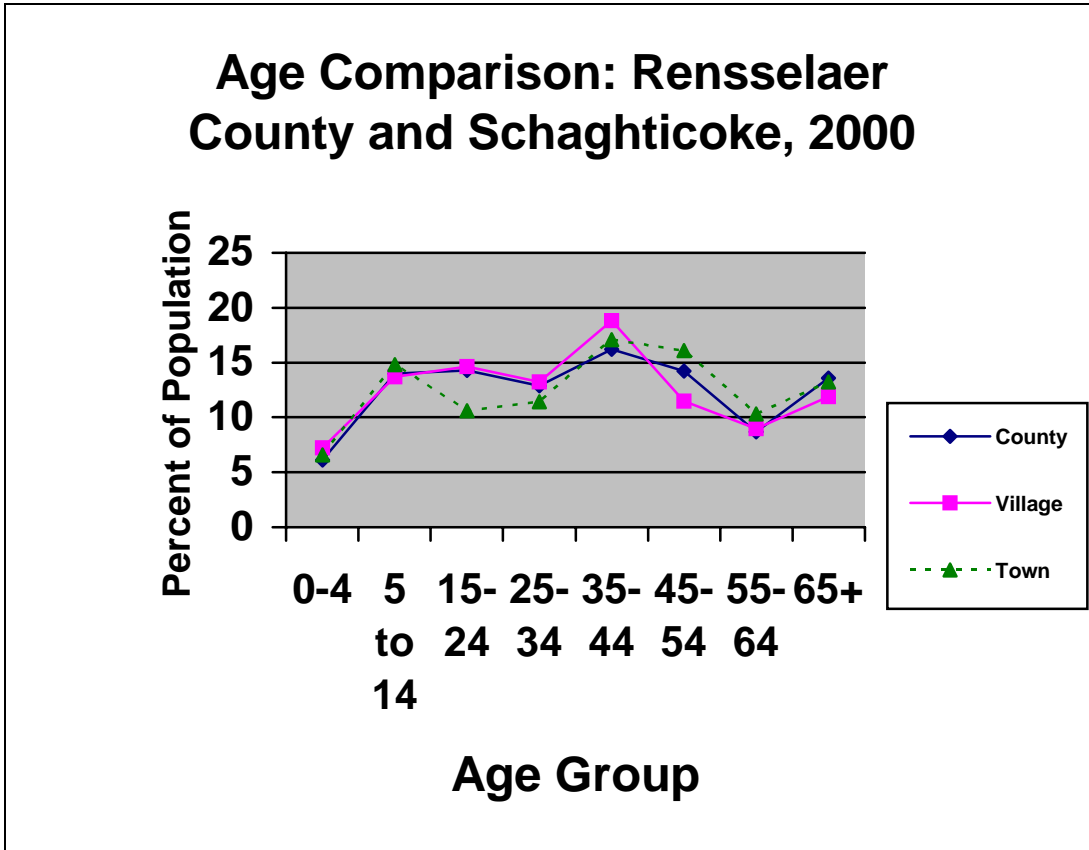


Table 1: Age and Percent of Population for Town of Schaghticoke

Age Group	1970 Census	1980 Census	1990 Census	2000 Census
0-4	494 (7.9%)	483 (6.8%)	531 (7.0%)	487 (6.6%)
5-14	1575 (25.3%)	1299 (18.3%)	1107 (14.6%)	1097 (14.8%)
15-24	794 (12.8%)	1205 (17%)	1121 (14.8%)	781 (10.6%)
25-34	603 (9.7%)	1057 (14.9%)	1149 (15.2%)	843 (11.4%)
35-44	842 (13.5%)	801 (11.3%)	1262 (16.7%)	1268 (17.1%)
45-54	745 (12.0%)	842 (11.9%)	798 (10.5%)	1189 (16.1%)
55-64	581 (9.4%)	720 (10.1%)	746 (9.9%)	760 (10.3%)
65+	582 (9.4%)	687 (9.7%)	851 (11.2%)	976 (13.2%)
Total	6,216	7,094	7,565	7,401

Households

The number of households in Schaghticoke increased to 2,729 in 2000, up from 2,243 (a 22% increase) in 1980 while the average household size has decreased from 2.92 to 2.73. During the past decade, the number of families decreased 1 percent and the number of families headed by a female with no male present (this represents 7.9% of all families in Schaghticoke) decreased 23 % to 164 families. The average household size for Rensselaer County as a whole was 2.46 in 2000, and had 18.3% of its families classified as female-headed families with no male present.

Table 2: Selected Demographic Characteristics (1970 – 2000)

Subject	1970	1980	1990	2000	Percent Change 1990-2000
Population and Age					
Total Population	6,220	7,094	7,565	7,401	-2.2%
Median Age	NA	30.7	NA	38.4	NA
Households and Families					Percent Change 1990-2000
Number of Households	NA	2,243	2,576	2,729	5.9%
Number of Families	NA	1,873	2,110	2,088	-1.0%
Married Couple Families	NA	NA	1,792	1,821	1.6%
Female householder, no male	NA	NA	214	164	-23.4%
Average Household size	NA	2.92	NA	2.73	NA

Subject	1970	1980	1990	2000	Percent Change 1990-2000
Housing Characteristics					Percent Change 1990 - 2000
Number Housing Units	NA	2,331	2,656	2,812	5.9%
Occupied Housing	NA	2243	2,576	2,709	5.2%
Owner-occupied	NA	1887	2,161	2,307	6.8%
Renter-occupied	NA	356	415	402	-3.1%
Vacant Housing	NA	79	80	103	28.8%

Source: United States Census Bureau, Census from 1970, 1980, 1990, and 2000

Table 3: Selected Demographic Characteristics (1980-2000)

Subject	1980	1990	2000	Percent Change 1990-2000
Residency Status				
Lived in same house past 5 years	4579	4958	5490	10.7%
Lived in different house, same county	1301	1221	750	-38.2%
Lived in different house, out of county, same state	448	679	642	-5.5%
Lived in different house, different state	206	167	172	3.0%
Location of Employment				
Worked in County	1268	1758	1,454	-17.3%
Worked out of County	1700	2094	2,042	-2.5%
Worked at home	NA	103	111	7.8%
Educational Attainment				
< 9 th grade	187	330	160	-51.5%
Attended 9-12 grade	60	612	378	-38.3%
Some college	31	1777	2,222	25.0%
Graduate or higher degree	NA	201	306	52.2%
Labor Force (16 years and older)				
In labor force	3,445	4,100	3,770	-8.0%
Not in labor force	1,684	1,694	1,950	15.1%
Unemployed	49	170	169	.06%
Occupations (of those employed)				

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Subject	1980	1990	2000	Percent Change 1990-2000
Agriculture, Forestry, Fisheries and mining	74	119	47	-60.5%
Construction	146	247	342	38.5%
Manufacturing	681	593	350	-59.0%
Transportation	187	164	153	-6.7%
Wholesale Trade	137	134	161	20.1%
Retail Trade	496	745	461	-38.1%
Finance, Insurance, Real Estate	104	288	251	-12.8%
Business and Repair Svc and personal services	85	124	NA	NA
Entertainment/Recreation	107	43	36	-16.3%
Health and Educational Services	217	721	941	30.5%
Professional services	*	*	166	NA
Other Services	107	201	126	37.3%
Public Administration	298	385	358	-7.0%
Income Characteristics				
Median Household Income	19,347	38,782	48,393	24.8%
# With Farm self-employment income	49	85	NA	NA
# With Social Security Income	619	720	862	19.7%
# With Public Assistance Income	112	96	45	-54.1%
# With Retirement Income	NA	520	710	36.5%
Median Family Income	\$21,787	\$42,524	\$57,423	35.0%
Per Capita Income	\$6,356	\$14,351	\$20,673	44.1%
People with Income below poverty level	131	271	347	28.0%
Housing Characteristics				
Single Family Units	1,916	2,131	2,397	12.5%
2 or more units in structure	208	374	272	-27.3%
Mobile Home or Trailer	81	138	136	-1.4%
Median Gross Rent	199	448	444	-.09%
Median Value of owner-occupied housing unit	\$35,446	\$90,500	\$101,200	11.8%

Source: United States Census Bureau, Census from 1970, 1980, and 1990

*1980 & 1990 Professional combined with Health & Education as categories differ from 2000 census data

*2000 Census category changes: Business & Repair & Personal eliminated. Professional services expanded to: Professional, scientific, management, administrative, and waste management services. Entertainment & Recreation expanded to: Arts, entertainment, recreation, accommodation and food services. Health & Educational services expanded to: Educational, health and social services.

Table 3 illustrates the major demographic trends in the Town of Schaghticoke. This can be summarized as follows:

- *74% of the Town's population has lived in the same house for the past five years. Of those that have moved to the Town, 48% have moved here from other county locations and 41% have moved here from other NY State locations.
- *More than double the number of workers now works out of the county as compared to those who work in the county. 7.8% work at home. There has been a large decrease (17.3%) in the number of people working in the county since 1990.
- *There have been increased numbers of people attending college (a 25% increase between 1990 and 2000) and an even larger increase in the number of people receiving graduate degrees (a 52% increase). These trends are coupled with continued decreases in the number of people not graduating from high school.
- *There have been an increased number of people not in the labor force. This probably reflects the increasing number of senior citizens in town. The unemployment rate is basically unchanged from 1990.
- *There have been large decreases in the number of people employed in agriculture (60% decrease), manufacturing (59% decrease) and retail trade (38%) since 1990. At the same time, health services, wholesale trade and construction occupations have shown increases in the number of town residents employed in those fields.
- *Household income, per capita income and median family income all rose since 1990. Those with social security income or retirement income rose almost 20% and 37%, respectively. The number of people receiving public assistance income decreased by half between 1990 and 2000 at the same time that the number of people living below the poverty level rose. This trend likely reflects changes to public assistance programs. 4.7% of the town's population is classified as living below the poverty level. This compares to 1.8% of the population in that category in 1980.
- *Eighty-five percent of housing units in Town are single-family dwellings. Only 4.8% of all units are mobile homes and this percentage has not really changed over the past decade. The number of mobile homes in Town is consistent with most other locations in the region, except for Pittstown, which has a much higher percentage of its housing stock in that category than all other locations analyzed. Although the population decreased, the number of housing units increased by 6%. This is a common trend seen in many rural areas.
- *The number of housing units have steadily increased since 1990 with a 13.4% increase between 1980 and 1990 and a 5.9% increase between 1990 and 2000.

14% of all units are rental. There has been a large increase of 29% in the number of vacant housing units (most of which are considered seasonal dwellings) since 1990.

*Schaghticoke has a very low level of dwellings with two or more units in them compared to most other towns analyzed. Sand Lake has twice as many, and Pittstown has three times as many 2+ units.

For comparison, specific demographic characteristics of the Town of Schaghticoke were compared with the Towns of Brunswick, Sand Lake, Pittstown and Grafton, and with Rensselaer County as a whole (Table 5, below). Schaghticoke's population decreased while all others rose three to five percent. The percent of Schaghticoke's population that is over 65 years is about the same as that of Rensselaer County and other towns in the county. The number of housing units in Town increased about the same as the County, overall, and Sand Lake and Grafton, but is lower than in Pittstown and Brunswick. All locations saw the number of housing units increase in levels far above population increases. The percentage of vacant housing in Schaghticoke is lower than that of all other municipalities compared. Household incomes are about the same as the Town of Grafton, lower than the Town of Brunswick but higher than that of Rensselaer County. The percentage of people living below the poverty line is slightly higher in Schaghticoke than in Brunswick but lower than the percentages for other Rensselaer County towns. Schaghticoke's gross monthly rent is in line with that of other locations. The median value of a home is in line with that of Rensselaer County and other towns, except that it is lower than that in Sand Lake and Grafton.

Housing Affordability

There are several ways to determine if housing is generally affordable in a community. One method is to determine the "rental index". This index shows the maximum gross rent a given household can afford. Affordable rental housing is generally considered to be no more than 30% of a household's monthly income. The average monthly rental rate in Schaghticoke is \$444.00. The median household income is \$48,393. This is about \$4,032 of income per month. Thirty percent of this is \$1,209, which means that the average household could afford \$1,209 per month in rent. This figure is higher than the average monthly rent. Thus, rentals are generally affordable in Schaghticoke.

Another method to determine affordability is to look at the ratio between the median value of a single-family house and median household income. Nationally, a ratio of 2 or less is considered to be affordable. The affordability ratio for Schaghticoke is \$101,200 (median value of homes) divided by \$48,393 (median household income), or 2.09. This figure is slightly above the desired ratio of two. This indicates that some families would spend more than twice their annual income on a home, although the local index is not far from the desired national index.

Finally, the purchase price multiplier also gives an indication of affordability. This looks at the maximum mortgage approval amount likely to be given to potential homebuyers.

This is usually about 2.25 times annual income. The figure below shows this multiplier plus a 10% down payment. This is the amount of money that would be able to be afforded for a mortgage by the median household.

$$2.25 \times \$48,393 = \$108,884.25$$
$$\$108,884.25 \times 10\% \text{ down} = \$119,772.68$$

Thus, median households would be able to afford a \$119,772 dollar house. The median value of a house in the area is \$101,200. This would indicate that the average household does not have difficulty affording the average house in Town. Thirty-four percent of households earn less than \$35,000 and it is this subset of the population that are most likely to have difficulty owning the average priced house. However, the 2000 Census indicates that about 46% of all of Schaghticoke's houses are valued between \$50,000 and \$99,000 so even some households earning less than the median income level seem likely to find a lower-priced house to purchase.

Overall, the housing affordability study indicates that the town is a generally affordable place to live, in terms of housing.

Table 5: Demographic Comparison

Characteristic	Town of Schaghticoke	Town of Brunswick	Town of Grafton	Rensselaer County	Pittstown	Sand Lake
Percent Population Increase	-2.2%	5.6%	3.7%	-1.2%	3.2%	4.5%
Percent Population aged over 65 years	13.2%	14.9%	9.4%	13.6%	13.5%	10.6%
Percent Increase in Housing Units	5.9%	11.9%	5.9%	5.6%	8.3%	5.0%
Percent Increase in # Households	5.9%	11.4%	15.4%	3.9%	7.6%	10.1%
Percent of housing stock vacant	3.7%	4.4%	29.5%	9.4%	7%	8.2%
Median Household Income	\$48,393	\$56,528	\$48,347	\$42,905	\$49,968	\$57,795
Percent of population below poverty line	4.7%	3.2%	6.0%	9.5%	6%	4.7%
Median gross rent (monthly)	\$444	\$612	\$469	\$445	\$571	\$603
Median value of home	\$101,200	\$115,400	\$96,300	\$102,900	\$108,000	\$123,500
Percent of housing stock in single-family units	85.2%	78.1%	89%	58.3%	67%	82.6%
Percent of housing stock in 2+ units	9.7%	18.4%	1.4%	37.7%	33%	17.4%

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Characteristic	Town of Schaghticoke	Town of Brunswick	Town of Grafton	Rensselaer County	Pittstown	Sand Lake
Percent of housing stock in mobile homes	4.8%	3.5%	8.6%	4.0%	25.4%	3.4%

Public Input

Visioning Workshop Summary

The Town of Schaghticoke hosted a visioning workshop in September 2003. The development of a shared vision statement is important for the long-term success of Schaghticoke's Comprehensive Plan. A vision statement is necessary to judge future policies, programs, and actions. It also acts as a "consistency test" for decisions made at the local level. Visioning is a strategic tool that will help Schaghticoke:

- Develop a greater sense of community consensus
- Establish long-term direction for the community
- Initiate effective and creative problem solving
- Build commitment to implement the vision and plan
- Develop priorities for the comprehensive plan

At the workshop held in September 2003, 45 participants worked through a visioning process to develop a vision for the future of the town. Small groups worked together to identify specific elements of their vision and to devise a statement that characterizes that vision. The first step was to identify both negative and positive elements of the Town. These elements, or factors, were recorded, and then ranked by the individual groups by placing a "priority" sticker next to the factor each group member felt was the most significant. The following two tables categorize all of the negative and positive factors identified along with the number of priority stickers each category received at this first stage of the visioning process.

Positive Factors Identified by the Workshop Participants:

Positive Category	Number of Responses in Category	Number of Priority Stickers for this category	Positive Factors Identified
Rural/Community Character	7	10	Rural Character Rural environment Rural atmosphere Rural character Rural atmosphere, character Peaceful Nice Hamlets and Villages
Scenic beauty	4	6	Physical beauty Natural beauty Beautiful open spaces Scenic beauty of the town
Environment	3	5	Large amount of river frontage Natural resources, Hudson/Hoosic/Tomhanock Open space
Roads	8	3	Good highways and maintenance Good Town roads Town roads Roads well kept in winter Town highway maintenance Road infrastructure Roads in excellent shape Good snowplowing
Planning/Zoning	8	3	Town Planning that expanded water services Town comprehensive plan Good zoning Controlled development Good zoning Trailer ordinance Zoning laws relating to trailers Zoning laws
People/Sense of community	6	3	Good community support in times of need Feeling of community, neighbors Diversity People Sense of community Friendly Town
Taxes/Tax Base	3	2	Low taxes Tax rate compared to other Towns is lower Low taxes in Town, held moderate
Schools	4	1	School districts, Hudson Valley Community College School District Elementary school School system
Government	3	1	Town Government open and helpful Good Town government Small government, more friendly
Fair Grounds	3	1	Schaghticoke Fair Schaghticoke Fair

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Positive Category	Number of Responses in Category	Number of Priority Stickers for this category	Positive Factors Identified
Access	3	1	Fair grounds Location to Albany and Saratoga Good access to other areas with cultural importance Proximity to educational, cultural activities
Safety	2	1	Relatively quite and safe place to live Low crime
Emergency services	2	1	Emergency and fire services Good fire protection and rescue
Health Care	1	1	Good medical facilities nearby
Agriculture	2	0	Farmland Agricultural roots, families staying on the land
Transportation	1	0	Rail line through town
Recreation	1	0	Recreational opportunities
Police coverage	1	0	Good police coverage
Infrastructure	1	0	Plentiful water supply
Children	1	0	Summer youth program
Business and Industry	1	0	Wiley Brothers and Agway

Negative Factors Identified by the Workshop Participants:

Negative Category	Number of Responses in Category	Number of Priority Stickers for this category	Negative Factors Identified
Traffic	8	9	Traffic on 40 and 67 Traffic on Route 40 Route 40 Traffic on Route 40 Need a traffic plan Traffic on Route 40 and side roads Heavy traffic on Route 40 Oversized vehicles using Route 40
Planning/Zoning	8	7	Development, number of new homes Density without infrastructure, water/sewer Lot sizes too small, too much development Growth without planning Need a community vision with younger input Lack of promotion of the Town, both business and social/historical Accuracy of maps, floodplain, wetlands Zoning allows large parcels of land to be chopped up
Taxes/Tax Base	4	6	Tax base too residential Taxed too high, town and school High taxes Belief that tax base leads to Business
Stores	4	5	Need supermarket Not enough stores to shop in

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Negative Category	Number of Responses in Category	Number of Priority Stickers for this category	Negative Factors Identified
			Inability to maintain grocery store No grocery store
Government	4	4	Not keeping public informed, lack of communication Government too small to be effective Too many rules Lack of communication between local government and communities
Business and Industry	6	3	Lack of commercial/business Lack of industry, jobs Too little manufacturing, few jobs Lack of industry to increase tax base Incentives for businesses to stay once tax incentives are up Lack of commercial district
Schools	3	2	Quality of school Lack of adult education classes Attractiveness of schools/too many students leaving Hoosic Valley
Rural/Community Character	4	1	No town center Cleanliness Losing rural atmosphere Fractured communities within the town
Centralized services	4	1	No consolidation of services between hamlets Lack of centralized services for Town and Village Cooperation between Town and Village Coordinated fire companies, lack of paid department
Grants	1	1	Town does not look into State and Federal grants
Dredging	1	1	Possibility of a De-watering site
Enforcement	4	0	Recreational vehicles misuse land Law enforcement Construction and demolition sites unregulated Minimal law enforcement
Emergency services	5	0	Lack of coordinated Town wide fire protection and EMS Too many Fire Districts, added cost Emergency services, fire/ambulance Lack of communication between fire departments Uniformity among fire departments
Infrastructure	4	0	Cable access Lack of sewer system Water system expansion/development Lack of water west of Route 40
Community Center	4	0	No Community Center Lack of community center/library No community center building

Negative Category	Number of Responses in Category	Number of Priority Stickers for this category	Negative Factors Identified
Environment	2	0	No Town Park Little understanding of aquifers No protection of environmental resources
Transportation	2	0	No passenger train to Albany Minimum bus service
Solid Waste	2	0	Garbage collection Illegal dumping on back roads
Senior services	2	0	Lack of senior services Senior services
Solid Waste	2	0	Need better recycling effort Recycling
Recreation	2	0	No trails for hiking, biking No recreation for children
Police coverage	2	0	Lack of police/Sheriff Police force
Parks	2	0	Lack of a park No parks
Agriculture	2	0	Lack of services for farmers, agriculture Loss of farms and farmland
Roads	1	0	Completion of roads
Library	1	0	Library system
Fair Grounds	1	0	Under utilized fair grounds
Children	1	0	Programs for Kids

Vision Statements

After identifying, categorizing, and prioritizing these negative and positive factors, the groups turned the factors into short phrases and statements about the direction Schaghticoke should be headed in. These were then further developed into more complete sentences and descriptions resulting in the following 7 statements describing what the town of Schaghticoke should be like in the future:

Group #1

Schaghticoke should be a community where people share a strong sense of belonging with wide-open spaces, with wildlife, businesses they support, and places to join together for recreation and social events. It should be a safe place for families, children, and individuals to grow and live.

Group #2

Schaghticoke should be a rural community, close enough to urban centers to enjoy what they have without suffering urban problems. Have a variety of businesses for residents to work at, and shop at. Provide what its residents want and does not spend taxpayer dollars on things residents do not need.

Group #3

The Town supports the local economic base, and encourages new growth. The Town strives to provide an environmentally safe and sound area that supports the charm of the rural setting and the history of the area. The recreational facilities support children, adults, seniors, and people with disabilities. The schools rate in the top 25% nationally on standardized testing. Rural and suburban alike, taxes are considered fair.

Group #4

In the future, in the Town of Schaghticoke there exists a Town center catering to all age groups, providing educational, recreational, and cultural opportunities. There are small shopping areas and restaurants. There is a town park and open space that can be utilized for recreational opportunities. There is a sense of community, a friendly atmosphere with low crime rate, and housing opportunities. There is good infrastructure in place with controlled traffic. There are excellent schools and adequate job opportunities. There is a minimized, well running government.

Group #5

The Town will maintain adequate services for all stakeholders. The Town will offer a maintained and continually improved public service, while ensuring fiscal accountability. The Town shall responsibly maintain and improve accessibility for all residents. The Town will allow continued reasonable development while maintaining the beautification within.

Group #6

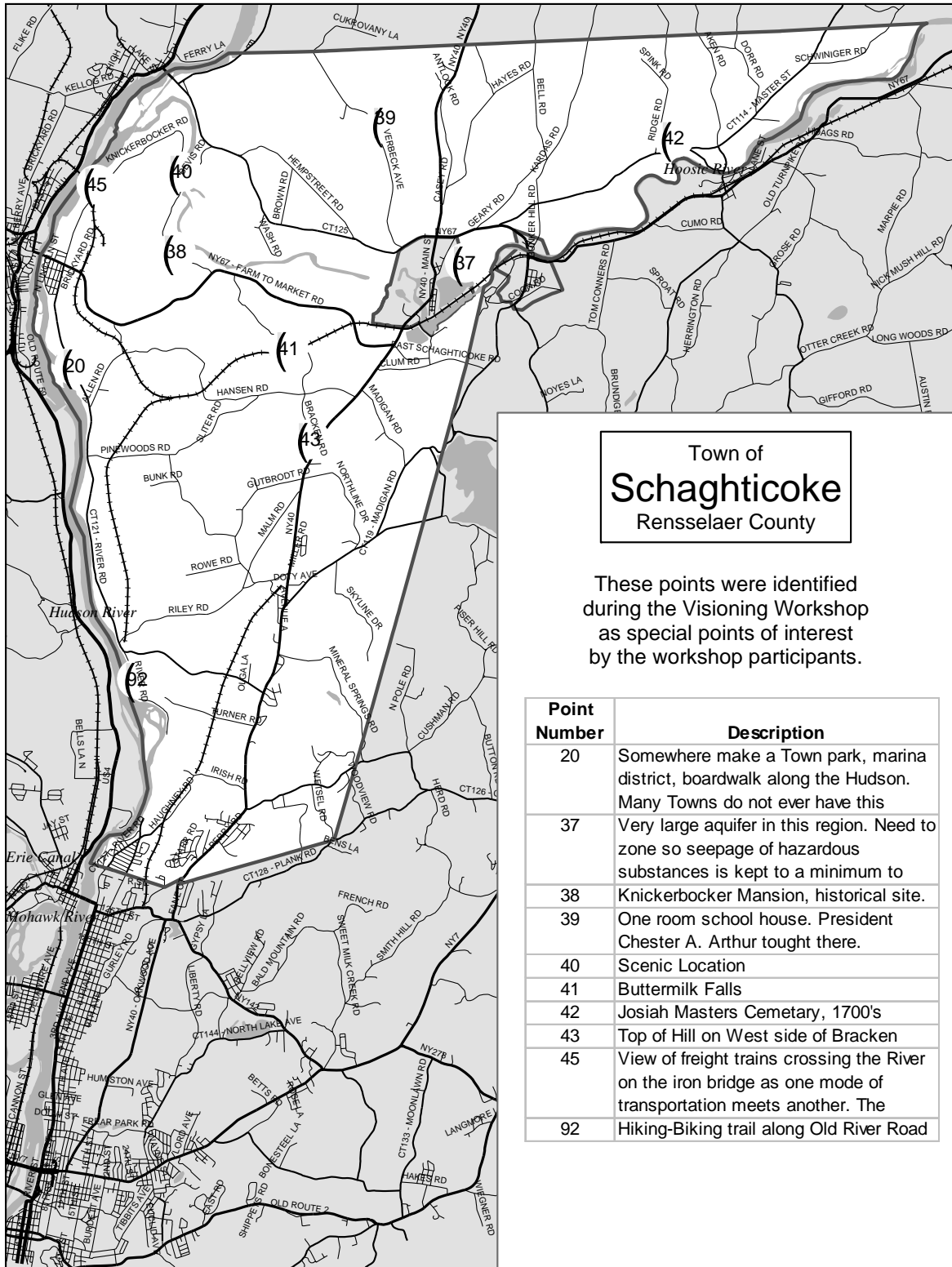
Schaghticoke:

- Managing existing green space to limit over development
- Quality of life is the overall goal
- An ongoing process which manages resources to preserve, develop, and maintain community goals
- Affordable convenient public transportation that has reduced the community's dependence on personal vehicles
- Citizens routinely rely on and are employed at local businesses
- Development of river front and community center provide many entertainment opportunities

Group #7

Schaghticoke will have:

- Economic development to allow for job creation
- Through careful regulation and proper zoning, maintain the rural character and open space
- A program to maintain access and beauty of the river
- A community center where residents can recreate and congregate
- A shopping district combining needed services, "character" shops, and sidewalks
- The sharing of services for the good of all communities
- No truck traffic allowed on Route 40



Summary of Written Survey

A survey was mailed to all households in the Town of Schaghticoke in the summer of 2003. There was a 23% return rate. The following summarizes the results:

About the Survey Respondents:

1. *WHAT AREA OF THE TOWN DO YOU LIVE?* The majority of respondents are residents of Melrose and Speigletown, followed by Pleasantdale. All other communities were represented by about 7 to 9 percent of respondents.
2. *HOW MANY YEARS HAVE YOU LIVED IN TOWN?* 52% of respondents have lived in Schaghticoke for more than 25 years. However, 12% have been in town for less than 6 years.
3. *ARE YOU A SEASONAL OR YEAR-ROUND RESIDENT?* 98% of respondents are year round residents.
4. *WHERE ELSE HAVE YOU LIVED?* 19% of respondents have been in Schaghticoke all their lives. For those that have moved from somewhere else, the vast majority (52%) has come from elsewhere in Rensselaer County.
5. *HOW MANY PEOPLE OF DIFFERENT AGE GROUPS ARE IN YOUR HOUSEHOLD?* Average household size of respondents is 2.64 people. Those age groups least represented by the survey are aged 19 to 21. Respondents represented 265 school-aged children, 142 people aged over 65 years, and 533 people aged 19 to 65 years. In total, the number of residents “represented” by this survey is 946, or about 13% of the total town population. When the age structure of the respondents is compared to the actual age structure of the town, the survey slightly over-represents school-aged children (29% survey vs. 21.4% actual), under-represents middle-aged people (43% survey vs. 65.2% actual), and over-represents people aged 65 and older (27% survey vs. 13.2% actual).
6. *WHAT MOST INFLUENCED YOUR ORIGINAL DECISION TO LIVE HERE?* Of all the responses, the rural and farmland characteristics of the town were characteristics that most influenced people to live in Schaghticoke (53% indicated this as the most influential characteristic). This was followed by close to friends and relatives, born or raised here, affordable housing, and close to work.
7. *WHY DO YOU CONTINUE TO LIVE IN TOWN?* When asked why they continue to live in the town, the reasons were almost identical: rural and farmland character was highest, followed by close to friends/relatives, low crime rate, born or raised here and close to work. Schools were the least important of the characteristics offered on this question. About 11% to 13% indicated that town services, affordable housing and low property taxes were reasons respondents continue to live in town.

About The Future of Schaghticoke

8. *OVER THE NEXT 20YEARS, DO YOU THINK THE POPULATION SHOULD DO?* Over 55% of respondents indicated that the population of the town should increase somewhat. About 10% said it should increase greatly, while 30% felt it should stay the same. 5% desire to see a decrease in population.

9. *WHICH BEST DESCRIBES HOW SCHAGHTICOKE HAS CHANGED SINCE YOU MOVED HERE?* The majority of respondents said that the town has not seen a change since they moved here (48.3%). Almost 20% said the town is a more desirable place to live although 16% said it is a less desirable place to live.
10. *WHAT DO YOU LIKE LEAST ABOUT THE TOWN OF SCHAGHTICOKE?* Taxes (62), traffic increases (59), no grocery store (44), lack of water and poor quality (28), lack of sewer system (26), uncontrolled growth (24), lack of police services (19), road conditions (19), poor code enforcement (18)
11. *WHAT DO YOU LIKE MOST ABOUT THE TOWN OF SCHAGHTICOKE?* Rural atmosphere, small town feel (164), quiet (63), friendly people (54), location (41), scenic views and open space (26), highway maintenance (17).
12. *HOW DO YOU USE YOUR PROPERTY?* Almost all respondents use their property as personal residences (97.5%). About 11% also use their properties for farms and 7% have home businesses. Less than 4% of respondents used their properties for investment, seasonal home, rental or commercial uses.

Important aspects of Town's Environment

13. *WHAT IS THE IMPORTANCE OF THE FOLLOWING ASPECTS OF THE TOWN'S ENVIRONMENT?* Most respondents (over 85%) felt that the towns drinking water (availability and quality) and air quality were aspects of the environment that were extremely to very important. Over 50% of respondents felt that the following environmental resources were extremely to very important: stream-water quality, farmland, scenic views, stream corridors, wildlife habitat, open space/recreation, and mature forests. About 35% also felt that wetlands, river access and historic buildings were extremely to very important aspects of Schaghticokes' environment. Overall, the majority of respondents felt that all of the environmental aspects were some level of "important". The only aspects considered by more than 6% of respondents to be not important were in the areas of river access (18% said this aspect was not important), wetlands (15%) and historic buildings (11%). There were very few people who were undecided about this question (less than 4%). There are about 12% to 19% of respondents who felt that many of the environmental aspects were somewhat important.

About New Development in Schaghticoke

14. *HOW IMPORTANT IS IT FOR THE TOWN TO REVIEW THE FOLLOWING ASPECTS OF NEW DEVELOPMENT?* The majority of respondents (65% of 79%) felt that it was extremely to very important that the town review traffic impacts, impact on streams and wetlands, density of development, proximity of commercial development to residences and impact on farmland. The other aspects were felt to be important in the following order: landscaping, historic character, business signs, site design and layout, scenic impacts, and impact on hillsides and ravines. There were very few people who felt that these aspects were not that important (most less than 4%) with the exception that 14% felt that

- it was not important to review business signs and 9% felt that it was not important to review historic character.
15. *HOW COMPATIBLE DO YOU FEEL EACH OF THE FOLLOWING FORMS OF NEW RESIDENTIAL OR COMMERCIAL DEVELOPMENT WOULD BE FOR THE TOWN?* Respondents were clear that there were several uses felt to be incompatible everywhere by the majority of people. These included adult uses, commercial junkyards, truck terminal, mobile home parks and landfills. From 52% to 76% of the respondents felt that other uses were compatible in some places including: non-fast food restaurants, shopping plazas or other retail, single family residences on small lots, bed and breakfasts, golf course, fast food restaurants, light manufacturing, mini-storage/warehouse, office building, conservation subdivisions, further development of hamlets and single family residences as second homes. There was a lack of consensus on the compatibility of three uses: about half of the respondents felt that motel/hotels should be compatible some places and half felt that they are incompatible everywhere. Likewise, half felt that condominiums/townhouses/apartments were compatible in some places and half felt that they are incompatible elsewhere. And half felt that single family residences on large lots were compatible everywhere and half felt they were compatible some places. A smaller percentage (less than 20%) of respondents indicated that the land uses were compatible everywhere.
16. *HOW MUCH ADDITIONAL NEED IS THERE FOR THE FOLLOWING TYPES OF CONSUMER ESTABLISHMENTS?* Of the 12 consumer establishments identified in the survey, only one, supermarket, was identified by the majority of respondents as having a strong need for it in Schaghticoke. Conversely, junkyards were strongly identified by over 81% as having no need for this use in town. There did not seem to be a strong desire for appliance stores and 53% of respondents said they felt there was no need for this use. The other uses were quite mixed with about half of the respondents indicating there was some level of need and half indicating that there was no need.

About Services and Recreational Needs in Town

17. *HOW WOULD YOU RATE THE QUALITY OF THE FOLLOWING PUBLIC AND SEMI-PUBLIC SERVICES?* Many people had a neutral or undecided opinion about the quality of public and semi-public services listed on the survey. For example, over half of the respondents were neutral about senior citizens. The likely explanation for this is that only senior citizens would be knowledgeable about the quality of those services. Likewise, most people were neutral about the zoning board of appeals. However, for those that did have an opinion, most of the public and semi-public services listed on the survey were considered to be of high to good quality. There were very few people who felt that the services were of poor quality. Police protection received mixed results with about half of those with an opinion on this service indicating it was good quality and half saying they were fair to poor quality. Senior services and youth programs also received similar mixed results. Highway maintenance, fire protection, rescue squad/ambulance and the town hall were all had significant numbers of

respondents indicating these services were of high quality. Overall, the areas that appear to need improvement are police protection, senior services and youth programs.

18. *WHAT CHANGES DO YOU THINK NEED TO BE MADE TO IMPROVE THE RECYCLING PROGRAM IN THE TOWN?* Have recycling pick-up more often (newspapers too) (25), encourage and enforce recycling in households (23), more days per year to bring large items (14), provide large garbage cans and bins for everyone (14).
19. *HOW IMPORTANT TO YOU ARE THE FOLLOWING RECREATIONAL OPPORTUNITIES?* There was a real mix of results related to recreational needs. There was no one recreational opportunity that was felt to be extremely important by most respondents. However, 22% felt that a community center was extremely important. A sizeable percentage of respondents felt that the following opportunities were not that important: snowmobile trails (40%), public swimming pools (36.8%), horseback riding trails (32%), ice skating (31%), supervised recreation programs for adults (33%), and skateboard facility (52%). Overall, the recreational opportunities included in the survey indicated that most people felt they were somewhat important to important.
20. *WOULD YOU SUPPORT AN INCREASE IN TAXES TO COVER SOME OF THE COSTS ASSOCIATED WITH THE RECREATIONAL PROGRAMS INDICATED ABOVE THAT YOU FEEL ARE IMPORTANT?* About one-third of respondents said they would support an increase in taxes to cover some of the costs associated with providing additional recreational programs, about 39% said they would not support a tax increase for this purpose and about 29% said it depends.
21. *WOULD YOU SUPPORT AN INCREASE IN USER FEES TO COVER SOME OF THE COSTS ASSOCIATED WITH THE RECREATIONAL PROGRAMS INDICATED ABOVE THAT YOU FEEL ARE IMPORTANT?* A large majority (71%) said they would support an increase in user fees to cover some of the costs associated with providing the recreational programs.
22. MAP
23. *PLEASE LIST THE MOST IMPORTANT OPPORTUNITIES THAT CAN BE TAKEN ADVANTAGE OF IN THE TOWN OF SCHAGHTICOKE IN THE NEXT TEN YEARS.* Develop water and sewer (57), develop more recreational opportunities (47), save farm land and open space (44), encourage light industrial and high tech commercial development (42), new small businesses (41), grocery store (37), planned growth (34), more access to rivers (25), improve family and senior programs (23), increase housing (22), build a community center (18)
24. *PLEASE LIST THE THREE MOST IMPORTANT THREATS THAT YOU FEEL FACE THE TOWN OF SCHAGHTICOKE IN THE NEXT TEN YEARS.* Over-development (88), increased tax burden (85), increased traffic (Route 40 – 35) (83), Hudson River dredging – PCBs (51), loss of rural environment & farm land/ scenic views (54), over-crowding/ population dense in areas (53), uncontrolled development (37), proliferation of crime (33), too much commercial development that doesn't fit (29), lack of public water and sewer (27), educational quality lacking, especially in Lansingburg (26), no more low cost housing or trailer parks (24), loss of tax revenue (21), not enough law enforcement (17).

MAPS

The following maps have been included as data layers in the Geographic Information System developed for the Town of Schaghticoke:

- Topography
- Water Features
- Watersheds
- Floodzone
- Slope
- Property Boundaries
- Property Class
- Community Properties
- Agricultural Districts
- Agricultural Soils
- Bedrock Geology
- Surficial Geology
- Zoning
- Aerial Photography
- Undeveloped Areas
- Contiguous Undeveloped Areas
- Viewsheds

Note: Copies of all maps, above, are available for viewing at the Schaghticoke Town Hall or at www.townofschaghticoke.org.

Appendix A

Town of Schaghticoke Groundwater Assessment

INTRODUCTION

A Groundwater Assessment (Assessment) was conducted for the Town of Schaghticoke (Town) by Sterling Environmental Engineering, P.C. (STERLING) for the portion of the Town that uses groundwater from individual or community water supply wells as a primary water supply source. The Assessment is intended to be a resource for Comprehensive Planning decisions by characterizing the aquifers currently utilized and defining areas of the Town where groundwater quantity and/or groundwater quality may restrict use as a water supply.

A water well survey was mailed to all Town residences located within the Assessment area. A copy of the mailed survey and accompanying cover letter are included in Appendix A of Volume 1 of the Groundwater Assessment Report. The survey includes questions concerning yield, aquifer type, water supply and quality. Completed surveys were returned to STERLING, the responses were tabulated, and attempts were made via a door-to-door survey from June 8, 2004 to June 17, 2004 to contact residents at addresses where no response to the mailed survey was received. The final completion rate for surveys is approximately 30%.

In order to obtain available information on the characteristics of the aquifers serving the Town, a literature review was conducted. Copies of well log records filed with the NYSDEC and the Rensselaer County Department of Health were reviewed and data from the logs was used to aid in creating the Groundwater Resources Maps. Information regarding the existing municipal water supply districts was obtained from the New York State Department of Health (NYSDOH). Information regarding the surficial and bedrock geology within the Town was obtained from reports published by the United States Geological Survey (USGS), the New York State Geological Survey (NYSGS) and data available from the New York State Geographic Information System (GIS). A list of references used to assist in producing the Assessment report is provided in Appendix B, Volume I of the Groundwater Assessment Report.

EXISTING WATER DISTRICTS

The Town of Schaghticoke is divided into four (4) separate water districts: #1, #2, #3 and the Village of Schaghticoke. Water District #1, also referred to as "Consolidated District #1", is composed of former Water Districts 1, 4, 4b, 5, 6, and 7 and serves the region of the Town south of the hamlet of Melrose extending to the Town's southern boundary, totaling approximately 1,710 people. Water District #2 serves Hemstreet Park located adjacent to the east side of the Hudson River serves a population of 580 people. Water District #3 serves 1,100 people in Pleasantdale. Water Districts #1 and #3 are supplied by the City of Troy water system and Water District #2 is supplied by the City of Mechanicville water system.

The Village of Schaghticoke Water District (Village) has four (4) public water supply wells. Well #1 is 160 feet deep with an estimated yield of 50,400 gallons per day (gpd). Well #2 is 170 feet deep with an estimated yield of 144,000 gpd. Well #3 is 175 feet deep with an estimated yield of 144,000 gpd. Well #4 has an estimated yield of 288,000 gpd and is currently not used.

The Village well supply water is drawn from a sand and gravel aquifer with high conductivity. Sampling results indicate the water quality is considered good, with the exception of elevated levels of iron and manganese. On average, the Village uses 100,000 gpd. Major consumers are the Hoosic Valley Central School and several Village businesses. The only time that this usage level increases noticeably is during the Schaghticoke Fair every Labor Day Weekend. During this period, the usage increases to approximately 257,000 gpd.

In August 2001, the Village submitted a pre-Application Form to the Drinking Water State Revolving Fund (DWSRF) for water treatment, storage replacement and distribution systems improvements. According to Village Mayor William Town, the Village application is still pending and to this date has not qualified for funding. Manganese levels in the Village water supply are indicated by testing to be slightly elevated at 0.35 mg/l (The NYSDOH Drinking Water Standard is 0.3 mg/l). The distribution system dates back to the 1920s. The Village flushes the system twice a year to address manganese precipitation in the distribution pipes. The Village is currently conducting well yield pump tests on its four water supply wells to verify water supply volume. The four Village wells are artesian (flowing) and approximately 30,000 gpd of excess water is discharged into the Hoosic River.

Previous discussions have occurred between the Village and Town with regards to extending the Village water system to the area including Matthew and Muriel Lanes, where individual well yield and excessive sulfur are common. To date, funding for extending the Village water system is not available.

Community and Non-Community Water Supply Wells

According to the NYSDOH, community supply well (CSW) is defined as a well that serves a permanent population of 25 people or more as its primary water source. A non-community supply well (NCSW) serves a transient population such as those found at restaurants or other types of businesses.

In addition to the municipal water supply wells that serve the Village of Schaghticoke, there are two NCSWs that serve two restaurants and one CSW that serves an apartment complex within the Town of Schaghticoke. One NCSW is located at Viewmere Farm Dairy Bar on Route 40 and the second NCSW is located at the former Old Stable Pizzeria and a CSW is located at the Kingsley Arms Apartment Complex on Route 40, according to the Rensselaer County Department of Health (RCDOH).

WELL YIELD AND GROUNDWATER AQUIFER UNITS

According to results from the water well survey conducted by STERLING, groundwater yield amounts for the shale bedrock aquifer ranges from less than one (1) to over ten (10) gallons per minute (gpm). In some areas of the Town, water levels in wells are affected by the pumping of nearby neighboring wells.

Well yield data for the various aquifer units utilized were obtained from the water well survey conducted by STERLING and are summarized in Plate 1, Volume I of the Groundwater Assessment Report.

Some parcels in the Assessment area have residential wells that are either low yielding (less than 5 gallons per minute), periodically pump dry, or wells in which groundwater levels are impacted by neighbors' well use. These areas are identified as Groundwater Yield Concern Overlay Zones. Low yield wells are located at various locations on Route 40 at the intersection of Hansen Road to Bracken Road, Malm Road, part of Riley Road, part of River Road, Sliter Road, and part of Hansen Road to Route 40. This area is shown as Groundwater Overlay Zone 1. Roads that are located within Overlay Zone 1 include Gutbrodt Road, Kalbfliesh Lane, Weatherwax Road, Pinewoods Road and Bunk Lane. Groundwater Overlay Zone 2 includes a portion of Mineral Springs Road and Groundwater Overlay Zone 3 includes the easternmost section of Old Schaghticoke Road (Route 67), Matthew Drive and Joseph Court (the eastern boundary of Overlay Zone 3 is estimated due to the lack of water well survey data from Old Schaghticoke Road to the west). Neighbor impacted wells are located on part of Hansen Road, Matthew Lane, Mineral Springs Road, Pinewoods Road and a section of Old Schaghticoke Road that is near Muriel Lane.

The Groundwater Yield Overlay Zones are located over the Normanskill and Snake Hill Formation shales. These bedrock units are typically overlain by low permeability silt and clay deposits, which limits the amount of groundwater percolating into the underlying bedrock aquifer.

Higher yielding wells (>10 gpm) are generally located north of Route 67 and are found in both bedrock and overburdened wells. There are several sand and gravel wells located on Verbeck Avenue that have yields greater than 10 gpm.

GROUNDWATER QUALITY

Groundwater quality limitations for the Assessment area that were identified by the water well survey include hardness, turbidity, iron, hydrogen sulfide (sulfur) and methane gas. Locations of parcels with groundwater quality limitations are shown on Plate 2 "Groundwater Quality". Due to the widespread occurrence in the Assessment area, hard water is not mapped.

Hydrogen sulfide is prevalent in many of the water supply wells in the Assessment area. Iron and/or iron bacteria is more prevalent in the eastern section of the Assessment area and most likely corresponds with bedrock wells that intersect the Normanskill shale and

Schodack Formation shale which typically have a higher iron content than the Snake Hill Formation shale (Cushman). Turbid well water is scattered in the Assessment area and is found in wells located on Joseph Court, Riley Road, Malm Road, part of Route 40 near Malm Road, Sliter Road, Hansen Road and Verbeck Avenue. According to the well survey, methane gas is the least prevalent groundwater quality limitation in the Assessment area and is present in wells located on Riley Road, Hansen Road, the western section of Old Schaghticoke Road, Hempstreet Road and the central section of County Route 114.

Hardness

As water moves through soil and rock, it dissolves very small amounts of minerals. Calcium and magnesium dissolved in water are the two most common minerals that contribute to hardness. The degree of hardness becomes greater as the calcium and magnesium content increases. Hard water causes mineral deposit problems on cookware and heating elements and also requires more soap for washing.

Treatment

There are many commercial ways of treating hard water including water filters, water softeners, electromagnetic water conditioners and reverse osmosis.

Hydrogen Sulfide

Hydrogen sulfide gas occurs naturally in many groundwater conditions. It is formed from decomposing underground deposits of organic matter. Hydrogen sulfide often is present in wells drilled in shale or sandstone, or near coal or peat deposits or oil fields. Hydrogen sulfide may also be derived from sulfate-reducing bacteria.

Hydrogen sulfide is the primary cause for the “rotten egg” taste and odor in water. In high concentrations it is a flammable, poisonous gas that is highly soluble in water. In addition to its unpleasant odor, hydrogen sulfide is corrosive and causes black stains on silverware and fixtures. Typically, hydrogen sulfide may be reduced or removed by shock chlorination, water heater modification, activated carbon filtration, oxidizing filtration or oxidizing chemical injection. Often treatment for hydrogen sulfide is the same as for iron, allowing the removal of all three contaminants in one process.

Iron

Iron compounds, common in rocks and soil, are easily dissolved in water, particularly acidic water. Water may also contain iron from corrosion of iron pipes, pumps, and fixtures.

Small amounts of dissolved iron in drinking water present no concerns, but high levels of iron can cause rusty stains to form on laundry and appliances. Potatoes boiled in iron-

rich water turn black, and iron combines with the tannins in tea and coffee to form a black, inky appearance and unpalatable metallic taste. For these reasons, the Environmental Protection Agency (EPA) recommends limiting iron concentrations in drinking water to 0.3 mg/L limit.

When exposed to air, ferrous iron (dissolved state) oxidizes to ferric iron (precipitated state), which can form insoluble stain-causing rust. Excess ferric iron creates problems in plumbing systems, water softeners, and other water-related devices.

Elevated iron concentration can support the growth of iron bacteria causing rusty color in water supplies or creating a slime that clogs valves, plumbing fixtures, and water-using appliances. The removal of iron can be one of the more difficult tasks in water conditioning. Two common iron treatment methods are catalytic oxidizing filters or oxidation-filtration systems. If iron bacteria is present then chlorination or ozonation may also be required.

Methane Gas

Methane, also known as natural gas, is naturally occurring and can enter wells from underground deposits. Methane is a colorless, odorless, tasteless and combustible gas. It is not dangerous in drinking water and escapes quickly into the atmosphere before it is consumed. This gas, however, can be an explosive hazard in poorly ventilated or confined areas. For most accurate results, methane gas testing should be conducted at the well site by a certified water-testing laboratory. Removal of methane can be done by properly venting a well or by aeration of the water with venting off of the gas.

Turbidity

Turbidity is a visual haziness in water caused by the presence of insoluble suspended particles. Groundwater wells that have not been developed properly after installation may be turbid due to suspended sediment derived from fine-grained deposits such as clay. Turbidity is undesirable for health as well as for aesthetic reasons because turbidity can interfere with disinfectants and microorganisms. Treatments for turbidity usually involve settling and filtration, or redeveloping a well.