

Comprehensive Plan Inventory Report* of the Town of Newfield



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* as of 8/10/2010

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The following Inventory Report has been written and edited by the planning board members above, as well as former board member Crystal Doner and the following volunteers: Scott Smith, Tom Gerow, Karl Maki, Rob Brewer, JoAnne James, William Hurley, and Cheryl Thomas. We would like to thank everyone, including those community members that gave of their time answering questions that made this report possible.

Formation of the Newfield Town Planning Board

On February 8, 2007, the Newfield Town Board passed Local Law #1 2007 to establish a Town Planning Board, for the purpose of developing a comprehensive plan that reflects Newfield's community values, goals and vision for the future. That plan is to provide a mechanism to protect the health, safety and general welfare of the community and to facilitate planning for transportation, water and sewer improvements, drainage, schools, parks and recreation. For additional purpose, intent, powers, training requirements, membership appointment, and other procedures refer to Local Law #1 2007.

The Tompkins County Comprehensive Plan contains Principles, Policies and Actions that can help lead our community to a bright future. The Plan is based on the overarching principle that we must work together, between different levels of government and among public and private sectors, if we are to be successful as a community. Working together within the framework of this plan, we can envision the Tompkins County of twenty years from now as a place where:

http://www.tompkinsco.org/planning/compplan/compplan_for_web.pdf

The purpose of this document is to provide factual information on a variety of topics and issues that can be the basis for further consideration by the town planning board, the town council and Newfield citizens as we all work toward developing a comprehensive plan for Newfield. This document does not attempt identify a complete listing of potential issues, nor express any planning element pertinent to such issues. Issues and plans will be the content of the Comprehensive Plan. Each member of the planning board, with the assistance of other volunteers, wrote one or more chapters. We wish to thank those volunteers for their time in researching and preparing the chapters on which they worked. We relied heavily on internet sources and where appropriate we have listed the url address for those websites. We also interviewed representatives of various organizations and agencies either via phone conversations or at our bi-weekly meetings.

Each chapter provides at least an outline of relevant facts and statistics, future plans (if available), additional sources of information on the topic, and a brief listing of pertinent issues. We realize that much more information is available and may be desired by reviewers of the document, but we have done the best we can considering time we have as volunteers. We welcome suggestions of additional information and we will include those in future versions of this document, which will continue to be developed by the planning board.

Introduction to What a Comprehensive Plan Is and Why It Is Needed

The following outline was adapted from a presentation on the NY Planning Federation website: <http://www.nypf.org/> The Newfield Town Planning Board is a member of the federation.

What is a Comprehensive Plan?

- A document that sets forth a community's goals and strategies for achieving these goals
- A guide to decision-making on important land-use issues
- An outline of what needs to be done and how to do it in order to ensure that the community grows in an orderly and well thought-out fashion
- Plans should be routinely reviewed for relevancy and assessment of adherence and effectiveness. Plans should be updated and revised as necessary.

Why prepare a Comprehensive Plan?

- To establish a community vision
- To ensure economic stability
- To coordinate growth and development
- To protect and conserve valuable natural resources
- To provide direction to other governmental agencies and non-governmental organizations
- To back up land-use tools

What Does the Comprehensive Plan Do?

- Identifies the community's present status regarding several key topics and issues, such as economic development, natural resource inventory, etc. This is the purpose of our base-line document.
- Identifies status of those topics and issues 15 to 20 years in the future
- Provides a conceptual road map for getting to this point

Community Outreach and Solicitation

- Involve the public
- Conduct issues identification workshop
- Conduct community survey
- Hold workshops or focus group meetings
- Hold public meetings – at midpoint and at end of comprehensive plan development

Content of the Comprehensive Plan

- Introduction and regional setting
- Demographics and population projection
- Existing land use and land-use regulations
- Adjacent town, county, and regional planning
- Natural, historic, and cultural resources
- Housing
- The local economy
- Public utilities, facilities, and services
- Parks and recreation
- Environmental concerns including pollution, water resources, energy development
- Transportation
- Future land use

Chapter Format

- Inventory of existing conditions
- Analysis of future needs
- Goals and objectives
- Action strategies/Recommendations

Prior to Adopting the Plan

- Planning board is required to make the draft plan available to the public for review and to hold a public hearing
- Governing board is also required to hold its own public hearing
- Plan must be referred to the county or regional planning agency for comment (*239-m review*)
- Plan is subject to SEQR procedures
- Plan must consider applicable county agriculture and farmland protection plans, and agricultural districts, where such exist
- Plan must include maximum intervals for periodic review or update

Implementing the Plan

- Distribution and availability
- Land-use regulations
- Capital improvements
- Volunteer efforts

Sources of information, advice and assistance

- Tompkins County Planning Department
- Adjacent Town Planning Boards
- NYS Dept. of Environmental Conservation
- USDA Natural Resources Conservation Service
- Finger Lakes Land Trust
- NY Planning Federation
- NYS Dept. of State Div. of Local Government
- NY Conference of Mayors and Municipal Officials (NYCOM)
- Cornell Dept. of City and Regional Planning
- Cornell Community and Rural Development Institute (CaRDI)
- NYS Energy Research and Development Authority (NYSERDA)

How Newfield will Benefit by Having a Comprehensive Plan

Many people would describe Newfield as a quiet, rural town and village where time moves slowly and change is slow. To many residents, those are desirable characteristics of the town. Others may view those same characteristics as being undesirable. The truth is that indeed Newfield is relatively stable (from many perspectives), but there are many factors or influences primarily from outside the town (county, state, national and even international) that may bring about significant change and in a relatively short time frame. Most people agree that change is inevitable. Foreseeing, preparing for and managing that change for the betterment of the town is the purpose of The Comprehensive Plan.

Newfield is very fortunate to have varied and abundant natural resources that provide opportunities for prosperity and reasonable growth; e.g. open land, water resources, forests, and agricultural land. Similarly Newfield is fortunate to have an involved, experienced and well-educated populace that volunteer and participate on public service boards and committees. Developing a comprehensive plan BEFORE resources are

scarce and before issues become contentious is highly desirable, compared to the alternative. Having resources and having capable citizens will make the process of developing a well-crafted and well-supported comprehensive plan much easier.

One of the primary goals of the town planning board is to survey the citizens regarding many key development and land-use issues so that the board ideally can define a consensus of opinion on many issues. Where a consensus can be identified, the board will be in position to move ahead to find information and resources to help guide change or preserve the status quo as the case may be. For example, the majority of citizens will likely support the preservation of viable farms in the town. This is a common concern throughout NYS and consequently state government policies (NYS Agricultural Districting Law) and funding exists to help communities protect farming and farmlands (Municipal Agricultural and Farmland Protection Plan). A common prerequisite of receipt of such funding is the necessity of having a comprehensive plan that specifically states the desirability of maintenance of farmland. Such grants typically make available funding whereby willing farmers can enter into a land easement that protects their right to farm, while typically providing an economic incentive to do so by purchasing development rights. Some towns in the county have secured farms in this manner.

For many issues, a comprehensive plan can define a vision of a desired goal that can only be achieved via change. How that change comes about, its timing, cost, and impact will require input and guidance of the town board, with support of the planning board. An example here might be how the town desires to deal with opportunities for renewable energy resources.

Unique characteristics of Newfield include good farmland, private and public forests, a wildlife refuge, and wetlands and lands owned by local colleges and universities. There are also various protected lands included that encompass about 30% of Newfield in the western third of the Town. There are additional areas that have been identified by the Tompkins County Planning Department as Unique Natural Areas in their Comprehensive Plan. In addition they have identified areas that are Important Bird Areas. All these areas, when added to the currently protected lands, will encompass almost 50% of Newfield. These facts and observations will be considered when developing Newfield's Comprehensive Plan. We encourage all residents of Newfield to become familiar with these lands.

History

The Town of Newfield was established in the late 1700's and was originally called Florence. It was included in the Town of Spencer and considered part of Tioga County. The town was separated from Spencer in 1811 and named Cayuta. The name was changed to Newfield in 1822 when it became part of Tompkins County.

Newfield is approximately 90 square miles of land located about five miles south of the Town of Ithaca. It has successfully maintained one of the lowest regional tax rates while still offering the convenience of access to numerous educational resources. Many residents commute to Ithaca, Elmira or Binghamton for employment.

The original settlers were primarily British. Many Czechoslovakians and Finlanders settled in the area during the end of the 19th Century to the beginning of the 20th century. The population had increased to 3,816 by 1850. The town's population actually decreased a bit from the mid 1800's to the early 1900's but later began to grow again. By 1970, the town's population rebounded a bit to a total of 3,816. In 2000, the most recent census data available, the population had reached 5,108.

The Newfield Covered Bridge is perhaps the most treasured historical site in town. It is the oldest "working" covered bridge in New York State. It was built between the years of 1851 – 1853. The bridge has been refurbished two times in its history, the first in 1969 when it was almost destroyed and a second time in 1998.

In its early history the churches were an integral part of the Newfield Community. Though many in the community are still members of the local congregations, the school and the fire hall have also become central gathering places for residents.

Sources include:

Newfield 150 Years – Authored by George M. Finley, Frances Winch, Andrew Andersen, Robin Andersen and Alan Chaffee, Newfield Central School District Web Site, Newfield History Web Site, and Census Data provided by Joanne James for the Housing section of the Plan

Websites of interest:

Newfield Historical Society - <http://newfieldhistoricalsociety.org/>

Housing and Population

Newfield's close proximity to Ithaca, Elmira, Horseheads, and Watkins Glen and the lack of regulations have shaped the housing inventory over the last fifty years. There are six mobile home parks of varying sizes, many modular homes, but also substantial homes scattered throughout the hills and valleys that make up the township.

Newfield has provided lower cost housing alternatives for many years and in recent years more and more people have discovered its convenience and beauty. It is anticipated that more development will continue to move towards Newfield due to the perceived benefits of the Tompkins County area and the available land to develop.

Population in July 2009: 5,225. Population change since 2000: +2.3%

Population density: 89 people per square mile (very low).

Males: 2,523  (48.3%)

Females: 2,702  (51.7%)

Median resident age:  35.7 years

New York median age:  35.9 years

Ancestries of population:

German (21.2%), Irish (17.5%), English (17.1%), United States (8.3%), Italian (7.0%), Dutch (5.5%).

Races in Newfield:

- White alone - 4,881 (95.6%)
- Two or more races - 68 (1.3%)
- Black alone - 52 (1.0%)
- Hispanic - 53 (1.0%)
- American alone - 27 (0.5%)
- Asian alone - 19 (0.4%)
- Other race alone - 8 (0.2%)

Estimated median household income in 2008: Newfield: \$47,813 (it was \$36,693 in 2000) New York: \$56,033

Estimated per capita income in 2008: \$21,694

Dec. 2009 cost of living index in Newfield: 85.9 (less than average, U.S. average is 100)

Total population in 2008: 5,161 (Urban population: 409, Rural population: 4,752 (74 farm, 4,678 nonfarm))

Houses: 2,191 (2,033 occupied: 1,515 owner occupied, 518 renter occupied)

% of renters here:  25%

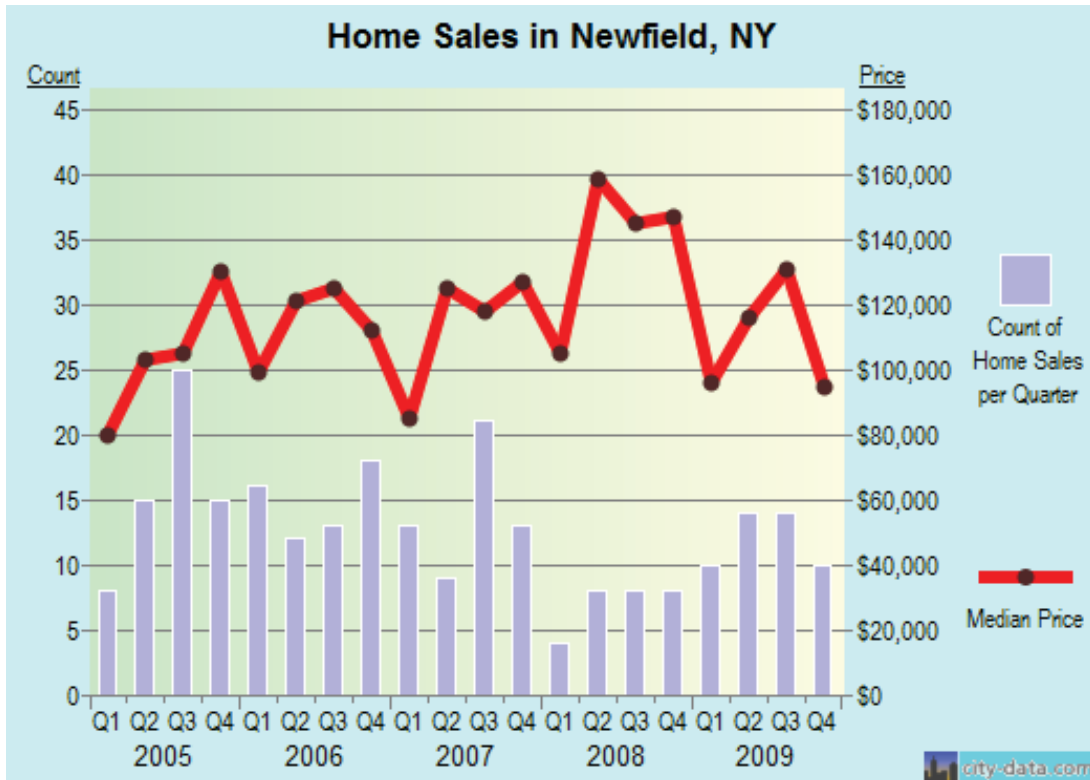
State:  47%

Median rent asked for vacant for-rent units in 2008: \$560

Estimated median house value in 2008: Newfield: \$123,762 (it was \$70,900 in 2000), New York: \$318,900

Mean prices in 2008: All housing units: \$116,451; Detached houses: \$141,430; Townhouses or other attached units: \$39,702; In 2-unit structures: \$129,752; Mobile homes: \$32,596

Housing density: 37 houses per square mile



Read more: <http://www.city-data.com/city/Newfield-New-York.html>

Useful websites:

Resource Conservation and Development Program - <http://www.nrcs.usda.gov/programs/rcd/>

New York State Building Code - <http://www.dos.state.ny.us/code/lc-codes.html>

Newfield Fire & Building Code Officer - <http://townofnewfieldny.com/code.html>

Tompkins County Health Department - <http://www.tompkins-co.org/health/>

Economic Development

In order to consider economic development options for Newfield we must first take stock of the economic conditions in our town today. The data on Newfield's business establishments and the numbers of workers they employ are very sparse. We do have some information for 1998, 2002 and 2007 for the private sector and 2009 for the public sector, the most recent years the data are available: The private sector data are actually collected at the ZIP code level, but our 14867 zip code appears to cover all of the town and a few blocks of Enfield. These data are presented in the following table.

For each industry, the table presents the number of establishments and employees (specified as ranges) in each category. For the year 2007, there were a total of 51 establishments. Of those, two are public sector establishments, The Newfield Central School District and the Town of Newfield government. The remaining 49 are private sector firms. The public sector contributes one third of the total annual payroll of nearly \$10.8 million and employs approximately 210 individuals. With a payroll of \$6.656 million, business firms employ somewhere between 250 and 499 individuals. That broad category for business employee numbers is in part to preserve confidentiality because, with a few exceptions, a large portion of the business activity in the town is made up of small firms. Four-fifths of the 49 business firms in the town employ 1-4 workers while the top two firms employ 50-99 and 20-49 employees, respectively.

While helpful for getting a feel for the economic activity in the Town, these numbers are not complete in two dimensions. First, it is likely that a substantial number of individuals are self employed. Presuming many of those do not hire any employees; they would not be included in the numbers described above. Second, the table represents a snapshot of economic activity at one point in time but does not reflect how economic activity has changed over time.

While town and school employment has been stable over the past decade there have been changes in the number of business firms and size of those firms as measured by the number of employees. From 1998 to 2007 the number of business establishments in the Town grew from 37 to 47. The size distribution of business firms changed dramatically, however. The number of the smallest firms employing 1-4 individuals increased from 24 to 39 while the number of mid-size firms with 20-49 employees dropped from 4 to 1. In terms of industry category, those losses were one each from construction, manufacturing and information. The remaining firm that employs 20-49 individuals is a manufacturing firm. These gains and losses from 1998 to 2007 yield a ten percentage point increase in the share of all firms employing 1-4 individuals, from 70 to 80 percent of all firms. At best, the increase in the number of smallest firms provided just enough jobs to compensate for the minimum possible job loss from the departure of the 3 larger firms. At worst, smallest firm jobs increased by 15 while larger firm jobs decreased by 147. The actual situation is probably somewhere in between, meaning that the town has experienced a net loss in jobs from 1998 to 2007. The implication is that more town residents seek employment outside the town and commute to jobs further away.

Business Patterns for the Town of Newfield (ZIP code 14867)

Number of Establishments by Employment-size class in 2007

Annual payroll: \$10,801,400

	Total	1-4	5-9	10-19	20-48	50-99	100-249
Total	51	39	5	3	2	1	1
Mining	1	1	0	0	0	0	0
Construction	8	7	1	0	0	0	0
Manufacturing	2	1	0	0	1	0	0
Retail trade	7	5	1	1	0	0	0
Transportation & warehousing	2	1	1	0	0	0	0
Information	2	1	1	0	0	0	0
Finance & insurance	1	1	0	0	0	0	0
Real estate & rental & leasing	2	1	0	1	0	0	0
Professional, scientific & technical services	3	3	0	0	0	0	0
Admin, support, waste mgt, remediation services	9	7	1	0	0	1	0
Accommodation & food services	4	3	0	1	0	0	0
Other services (except public administration)	8	8	0	0	0	0	0
Education (2009)	1	0	0	0	0	0	1
Local Government (2009, many part time)	1	0	0	0	1	0	0

Source: U.S. Census Bureau and Individual Canvassing

Useful websites:

Tompkins Area Development - <http://www.tcad.org/>

US Economic Census - <http://www.census.gov/econ/census07/>

CARDI (Community and Rural Development Institute) - <http://devsoc.cals.cornell.edu/cals/devsoc/outreach/cardi/>

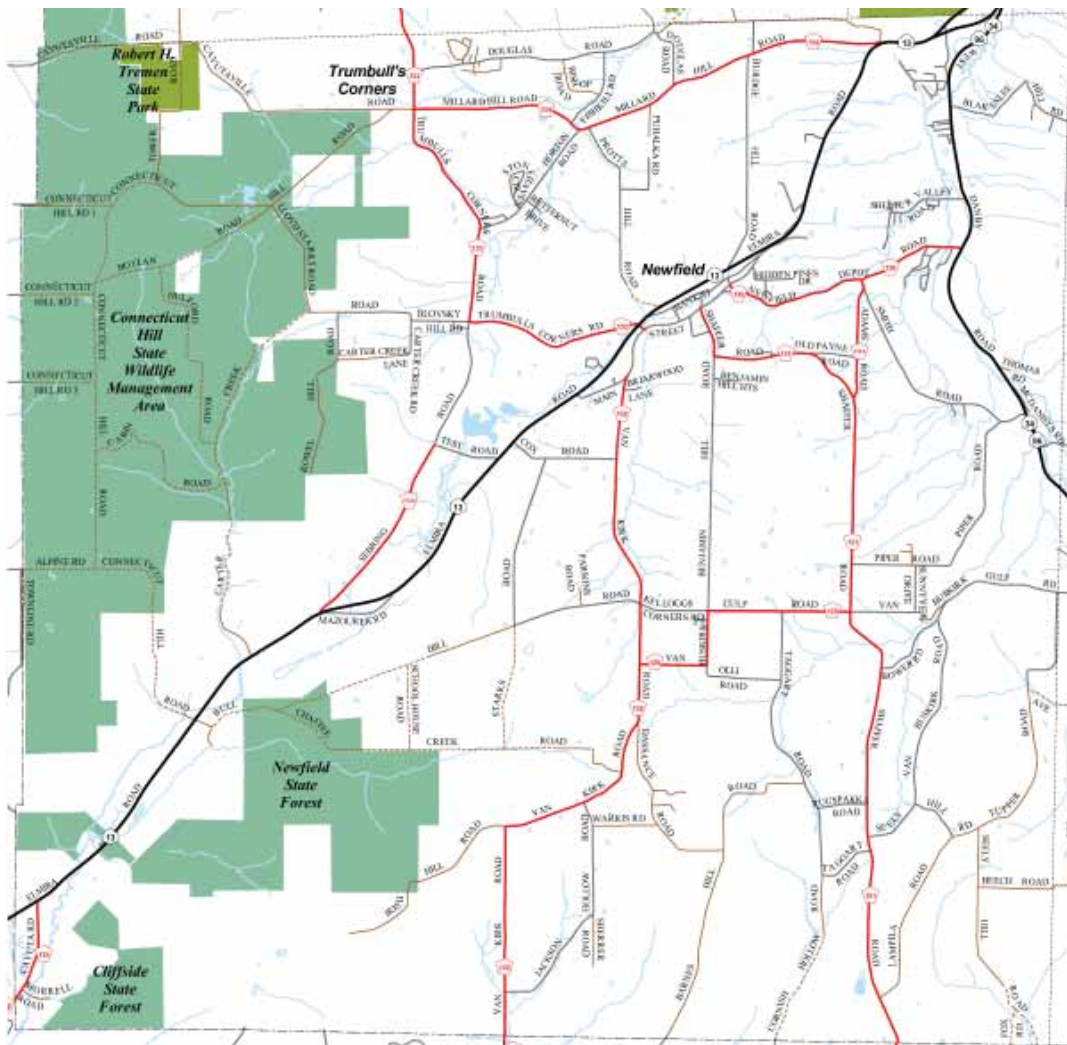
Transportation

Transportation infrastructure and issues influence nearly all land-use considerations in the town. Placement and quality of transportation corridors impact access for residential, farming, development, recreation and scenic vistas. Costs of highway construction, improvement and maintenance are a large portion of the town budget. A key issue to address is consolidation of development and similar transportation needs to ensure adequate and safe access, while keeping costs down.

The state, county and town highway departments each have work plans that will influence how traffic patterns will be handled into the future. The town planning board may wish to make specific comments on those plans and how they will likely impact (complementary or otherwise) other aspects of the comprehensive plan. For instance, housing and business development should be in concert with transportation issues. Mass transit plans will influence road design and improvement needs.

Highway Map for Town of Newfield

<http://co.tompkins.ny.us/maps/roads/Newfield.aspx>



Future Plans

The Ithaca-Tompkins County Transportation Council (ITCTC) 20-year long range transportation plan will be updated over the next year.

<http://www.tompkins-co.org/itctc/index.html>

The 2007-2012 TIP is the current TIP document

Adopted by the ITCTC Policy Committee on May 15, 2007

Effective October 1, 2007 to September 30, 2012

2011-2015 Final TIP

Review our current 2025 LRTP

Visit our 2030 LRTP Update web page

Coordinated public transit-human services transportation plan for Tompkins County

<http://tccordinatedplan.weebly.com/>

NYS DOT plans. Cortland office: 607-280-5580. Our region is #3, Central NY. Program projects contain road repair and construction plans on a 5-yr. basis, updated every 2 years. <https://www.nysdot.gov/projects>

There is only one improvement scheduled for Newfield in the next 5 years. In 2011 the Rt. 13 Carter Creek bridge will be replaced. Another improvement that will impact Newfield to some extent is the Town of Ithaca project widening of Rt. 13 from Jct. with 13A to Jct. with Rt. 327, also scheduled for 2011. Another tentative plan is the construction of a pull-off lane at Jct. of Trumbulls Corners Rd. and Rt. 13. There are no plans to enlarge RT. 13 to 4 lanes in the foreseeable future.

County Highway Department plans:

Bill Sczesy, County Highway Manager, 274-300. Has 5-yr. plan. Priority and work are dependent on availability of funding.

Town Highway Department plans:

Kevin Berggren, Town Highway Superintendent, 564-3616. Has 3-yr. plan. Priority and work are dependent on availability of funding. <http://townofnewfieldny.com/highways.html>

Sources of Information:

www.nysdot.gov

www.nysdot.gov/smartplanning

<http://www.tompkins-co.org/highway/>

Ithaca-Tompkins County Transportation Council

<http://www.tompkins-co.org/itctc/>

Transportation-focused generic environmental impact statement (Cornell's impact on transportation over the next decade) www.tgeisproject.org

Municipal Utilities

The current status and future plans for municipal utilities impacts the town's capacity for future growth. Municipal Utilities includes water, sewer, sidewalks, and street lights

Water Districts

District No. 1

The existing Town Water District #1 was approved by the State of New York in 1968 and was constructed shortly thereafter. The source of groundwater is the Newfield Aquifer along with two 8-inch drilled wells approximately 146 feet in depth, located at Pine Circle that tap into this supply. Each well is equipped with a 200-gpm vertical turbine pump with a 20 horsepower electric motor. The well water is treated with a blend of inorganic phosphates to control deposition of mineral iron as well as sodium hypochlorite for disinfecting. Water is pumped through the distribution system into the 2000,000-gallon water storage tank on Trumbulls Corners Road. Due to the wide variation in ground surface elevations, there are two pressure zones created by a pressure reducing stations station. All of the system south of the intersection of Main Street and NYS Route 13 floats with the Trumbulls Corners tank. North of that point, the pressure is reduced by a pressure reducing value (PRV). The majority of the 41,200 feet of distribution mains are constructed of 6-inch diameter asbestos cement pipe. The present consumption is well within the original design.

District No. 2

The extension of municipal water service to Water District No. 2 went into operation in November 2006 and required the installation of over 21,100 feet of 10-inch and 4,700 feet of 8-inch distribution mains together with gate valves, fire hydrants and curb services. One 150,000-gallon and one 308,000-gallon water storage tanks within isolated pressure zones connect to the water mains within Water District No. 2 with the source supply in Water District No. 1. To supplement the capacity of the groundwater supply at Pine Circle, two additional wells were developed in the Newfield Aquifer. Connected to the water mains in Water District No. 1, to supplement the capacity of the groundwater supply at Pine Circle, two additional wells were developed in the Newfield Aquifer. Connected to the water mains in Water District No. 1, the wells proved redundancy to single source system.

Design Estimates

Water District	Design Average Day Demand (gpd)	Design Maximum Day Demand (gal)	Maximum Hourly Demand (gpm)
Water Dist #1	100,000	144,000	200
Water Dist #2	96,000	150,000	208
Total	196,000	294,000	408

Sewer System

District No. 1

The Newfield District operates a community septic system established in 1984. The system receives and treats septic flows from 180 homes and businesses and from the Newfield Central School. Each home, business and school has its own septic tank. Wastewater only from contributing septic tanks is transported through a collection system via gravity flow and four intermediate pump stations to a central pump station located on Depot Road, which pumps the wastewater to the District's treatment facility. The treatment facility consists of 8 leach fields that are fed separately by a dosing chamber that receives all wastewater flows pumped from the central station. The dosing chamber houses two 7 horsepower electric pumps witch pump the wastewater to the

leach fields. The district's collection system consists of approximately 140,000 linear feet of forced mains ranging from 11/4 to 6 inch diameter, 12 manholes and approximately 40 cleanouts.

The current treatment facility is permitted for a maximum 30-day average flow of 0.30 million gallons per day (mgd) or 30,000 gallons per day (gpd). Influent flows pumped to the treatment facility are calculated on a weekly basis by reading the cumulative run hours for the two pumps at the central station for the affected period by multiplying the run hours value times a flow rate of 10,500 gallons per hour, which equates to a design pumping capacity of 175 gallons per minute. Currently the District exceeds 95 percent of the treatment facility's permitted 30-day average flow limit, this means no additional septic installation will be authorized at this time.

Sidewalks:

Capacity – There are approximately 4,000 square feet of sidewalks in the Town located along Main Street.

Current Maintenance – Town subcontracts snow removal, current with Robert Evil(sp?) Town would replace any blocks if necessary.

Future Plans – There are currently no plans to increase or alter the existing sidewalks

Source of information: Telephone conversations with Glenn Casterline and Rodney Williams 12/1/08

Street Lights:

Capacity – There is currently one street light district and on street at large district

Number of lamps in street light district 112

Number of lamps in at large district 20

Current Maintenance – The town leases the street lights from NYSEG. NYSEG is responsible for bulb replacement and basic maintenance.

Future Plans – There are currently no plans to increase or alter the existing light districts

Source: Telephone calls with Kathy Crance, Town Clerk; NYSEG, Bob Walsh, NYSEG Bill

Newfield Central School

The Newfield Central School District was established in 1938 when various one room school houses were consolidated and their programs moved to the existing location in 1939. The current campus includes two instructional buildings totaling 223,460 square feet that house a Pre-K/Elementary School, a Middle School, and a High School. The 2010-2011 enrollment is approximately 975 students and is estimated to remain fairly stable over the next five years. The campus is situated on 46 acres on Main Street in the center of Newfield.

The buildings are well maintained and have undergone a variety of building improvements over the years. The current building project in 2010-11 will see the completion of ADA required improvements, some new doors, AC in the elementary library, and newly tiled walls in several elementary school hallways.

The earliest school in Newfield was housed in a log cabin, built around 1804 on Bank Street. This log cabin was soon replaced with a building called the "Yellow School House" situated on what is now part of the old Newfield Cemetery.

In 1812, Daniel Tompkins, Governor of New York State and namesake of our county, had passed into law a plan to provide for a complete system of public schools throughout the state. By 1822, twelve schools with a student population of 652 had been organized in the Newfield Township. School aid that year was \$150.84. By 1844, attendance swelled to 1,087 in 23 school houses. Soon these schools, generally consisting of one room with grades 1 through 8 in the same room, spread throughout the District. The school year was about three months long. The records show that teachers taught for \$.75 to \$1.50 per week and were maintained or boarded around the district by parents of the school children as part of their salary.

In 1869 the hamlet of Newfield decided to form a new consolidated District and combined the two school houses in the hamlet. A new building, located on Bank Street was constructed and eventually completed in 1871 at a cost of \$6,328.39 to accommodate two hundred children. By 1873 the Board of Education added instruction beyond grade 8, although until 1895 the students had to travel to Ithaca to take Regents Examinations. In 1898 the Newfield School District graduated its first high school class.

The pay of teachers also grew. In 1897 a teacher received \$99.00 for the eighteen week school year. However, for this amount it was expected that teachers would also supervise children on playgrounds and streets after the school day and in the evening hours.

By 1905 an addition was built on the Bank Street School, in part, to house its library of 190 books.

In 1938 the community decided to centralize all of the one room school houses into one building at the current site consisting of twelve elementary classrooms and five secondary classrooms. The building was constructed at a cost of \$220,000 shared by the federal and state governments.

In 1949 eight additional elementary classrooms were added to this building.

In 1957 came another addition with an industrial arts shop, a 200 seat cafeteria, eleven more classrooms and some remodeling of the original 1939 building.

In 1962 four additional classrooms were added. In 1967 a fourth addition was constructed with a new gym/auditorium music room, library and ten classrooms. (1)

In 1974 a separate High School was built along with a bus garage and some renovations on the original school at the cost of \$3.5 million. The class of 1976 was the first to graduate from that building.

In 1998, a middle school wing was added to the High School and significant infrastructure renovations and improvements at a cost of \$10 million took place across the campus.

Improvements to athletic fields, the bus garage and computer technology worth \$4 million occurred in 2000.

Newfield – 150 Years (1822-1972) G. Finley, F. Winch, A. Andersen, R. Andersen, A. Chaffee

Art Craft of Ithaca, 1972

Useful websites:

<http://www.newyorkschoools.com/districts/newfield-central-school-district.html> Shows Population

www.schoolmatters.com/schools.aspx/q/page=dl/did=12670 Shows Performance data

www.newfieldschools.org (shows district map, report card, facility use policy and more)

www.co.tompkins.ny.us/gis/maps/pdfs/School_Map_24_36.pdf (Shows District Map)

Energy

Rising energy prices in recent years have brought energy issues to the forefront of thinking and planning, from our choice of automobiles and appliances, to the impact energy costs have on our local taxes, and how energy decisions can impact our local landscape. Newfield is unique in that not only will its residents feel the pressures of increased energy costs in their own homes and local buildings, but the town, with its abundant resources such as wood, wind, natural gas, and sunlight, will see its own pressures as these alternative energy sources are developed.

The town of Newfield is blessed with an abundance of natural resources. It has plentiful precipitation levels and abundant water reserves. Much of the open land is forested with maturing 75 to 100 year-old second-growth forests. There is still a fair amount of open tillable farmland. At an average elevation of over 1000 feet and hilltops topping out at around 2000 feet, it has a potentially usable wind resource. The town is also sitting on the northeast edge of the Marcellus shale gas reserve, one of the largest natural gas formations found in recent years.¹

All of Newfield's energy resources will get increased attention in coming years as fossil fuels are depleted and alternative energy sources become mainstream. Oil production in the U.S. peaked in 1970 at 9.4 million barrels per day. By 2005 production had dropped to 4.7 million bpd. It has also been predicted that world oil production will reach its peak of about 100 million bpd within the next 5-10 years, if it hasn't already.² As of 2005 world oil production was 84 million bpd, and it is questionable whether the capacity exists to make it to the theoretical 100 million bpd mark. There may be plenty of oil in the upcoming years, but there won't be plenty of cheap oil as it becomes harder to extract the last half of the peak. At least one prediction is for \$7.00 /gal. gasoline by 2010 and a mass exodus of vehicles off of American highways by 2012 (some 10 million fewer than there are today) as vehicles become less affordable to drive for people of lower incomes.³ This prediction was before the current recession and the resulting cheaper fuel prices, so the time frame will be shifted outward, but the fact remains that the era of cheap fuel is over.

Since our economy is directly connected to the price and availability of oil⁴, affecting everything from driving habits to the price of fertilizer and the end products in the supermarkets and department stores, higher fuel prices will have profound effects on our lives. The first of these changes will be the most noticeable as energy production will move from a more distant, impersonal level to a more local and locally visible level. Some of the energy resources available locally and how they concern town planning will be explained further.

1 "The U.S. currently produces roughly 30 trillion cubic feet of gas a year, and these numbers are dropping. According to Engelder, the technology exists to recover 50 trillion cubic feet of gas from the Marcellus, thus keeping the U.S. production up. If this recovery is realized, the Marcellus reservoir would be considered a Super Giant gas field." Unconventional natural gas reservoir could boost U.S. supply, Penn State Live, <http://live.psu.edu/story/28116>

2 Crude Awakening by Kevin Drum, Washington Monthly June 2005, <http://www.washingtonmonthly.com/features/2005/0506.drum.html>

3 Heading for the Exit Lane by Jeff Rubin, CIBC World Markets StrategEcon June 26, 2008, http://research.cibcwm.com/economic_public/download/sjun08.pdf

4 "Our industrial societies and our financial systems were built on the assumption of continual growth – growth based on ever more readily available cheap fossil fuels. Oil in particular is the most convenient and multi-purposed of these fossil fuels. Oil currently accounts for about [43% of the world's total fuel consumption](#) [PDF], and [95% of global energy used for transportation](#) [PDF]. Oil and gas are feedstocks for plastics, paints, pharmaceuticals, fertilizers, electronic components, tires and much more. Oil is so important that the peak will have vast implications across the realms of war and geopolitics, medicine, culture, transport and trade, economic stability and food production. Significantly, for every one joule of food consumed in the US, around [10 joules of fossil fuel energy](#) have been used to produce it."

Energy Bulletin: Peak Oil Primer, <http://www.energybulletin.net/primer>

Solar energy has enjoyed technological advances in recent years. Solar {spell out} (pv) panels for electrical generation once had the reputation of using more energy for their manufacture than they could pay back in their operating life. That has changed; now the energy payback period for solar pv is 2-4 years with a life expectancy of about 25 years.⁵ A more efficient use of solar energy can be realized, in our area, by converting solar energy to heat instead of electricity. Construction utilizing passive solar gain, solar water heating, and hot water radiant heat using evacuated tube solar collectors are all examples of this. Solar energy may not impact town planning much, other than possible discussions of using solar energy in the town's public buildings, but it will be an increasing source of local power as installation costs drop and panels become more efficient.

Wind energy is a hot topic these days. Newfield recently made the news with its 6-month moratorium on new wind turbine installations. The town has more recently formulated a local windmill law, as has its neighbor Enfield. All of our hilltop areas in Newfield are above the 10.1 m/hr average annual wind speed (at 30 meters height) considered the threshold to be considered for NYSERDA's small wind system's initiative.⁶ The typical residential wind mill is 80 to 121 feet in height and may not create a major visual impact, but doubtlessly be a topic of town discussion as more people become interested in power generation from residential windmills. One person's monument to energy independence will be another person's eyesore. The typical commercial windmill tower stands 213-262 ft. and is 300-400 ft to the highest tip of the blade. Most wind turbines in NY State are rated at 1.5 megawatts, and produce enough energy to supply 740 homes. The proposed wind farm in Enfield called for 10-15 windmills of this size. Besides the visual impact and the generation of clean power, wind energy will have an economic impact on a town. A commercial wind project will increase the tax base. Wind projects have lower impacts on existing services such as water, sewer, and road wear than do other types of developments (such as real estate) and can therefore directly contribute money to the town. For example, the 30 megawatt wind energy project in Fenner, NY, provides the town approximately \$150,000 per year from payments in lieu of tax revenue, and the 11.6 megawatt Madison wind energy project is provides approximately \$30,000 per year for both the Town of Madison and the Madison Central School District.⁷ However, windmills would forever change the looks of our hilltops, and those living near the windmills may have noise concerns.

Geothermal is another source of home heating and cooling energy that will be used more in the future, as energy costs rise. A geothermal heat pump, just as an air source heat pump, extracts heat from outside your home, and brings it inside for heat in the winter. The reverse is done in the summer, extracting heat from inside the house.⁸ Efficiencies of geothermal heating systems can approach 300-600% when the weather is coldest, as compared to air source heat pumps, which have efficiencies in the 175-250% range when the outside weather is cool⁹ Though these systems are somewhat expensive to install, current tax incentives are making them more and more popular, and they are an especially attractive option for new construction. As with solar energy, geothermal energy will not have much impact on town planning, other than the possible discussion of using geothermal energy to heat public buildings.

Biomass is getting a lot of press these days, but has been a fuel source in the Newfield area as long as people have been on the scene. Many people in the town heat at least partially with wood, wood pellets, or corn.

5 PV FAQ's: What is the energy payback for PV?, U.S. Dept. of Energy, www.nrel.gov/docs/fy04osti/35489.pdf

(Note that this is energy payback, not the payback for an installed system including installation costs. In our area it is still hard to justify, on cost savings alone, a solar pv system installed without government subsidies if it is installed where there is easy access to grid power.)

6 See http://www.renovusenergy.com/wind_overview.html and the wind map here:

<http://windexplorer.awstruwind.com/NewYork/NewYork.htm>

7 The NYSERDA web site has many informative documents concerning wind energy and town planning here:

<http://www.powernaturally.org/programs/wind/toolkit.asp>

8 <http://www.nyserda.org/programs/geothermal/default.asp>

9 http://www.energysavers.gov/your_home/space_heating_cooling/index.cfm/mytopic=12640

“Wood is still the largest biomass energy resource today, but other sources of biomass can also be used. These include food crops, grassy and woody plants, residues from agriculture or forestry, and the organic component of municipal and industrial wastes. Even the fumes from landfills (which are methane, a natural gas) can be used as a biomass energy source.”¹⁰ Much of what we hear in the news lately concerns converting biomass to fuels such as ethanol. There is still an argument as to whether ethanol is a “green” energy source that has more energy than is used to produce it.¹¹ A recent EPA study has suggested that an unintended byproduct of ethanol production is deforestation in places such as Brazil as farmers try to cash in on higher corn prices. “Dan Kammen at the Univ. of California Berkeley...says, for starters, it might make sense to rethink the best way to get energy out of green plants. A study in the latest *Science* magazine, for instance, suggests that liquid fuels like ethanol aren't the best way to go. Better to burn the material to make electricity.”¹² Locally, as fuel prices rise we will probably see much more interest in converting biomass to heat. The “Fuels For Schools” program in the western U.S. Is a good example of a way to decrease school district heating costs through the use of biofuel burners.¹³ If there becomes a local interest in electricity generation using biomass, there will be the potential of a much greater impact on our town. Power plants would use a huge amount of forest products to run. This would provide a market for trees that have little value as lumber trees. While this would provide jobs and a financial gain from our local forests, it will also put more stress on our local forest resources. If done sustainably, we would have a cheap power and heat source forever. If done for short-term gain, the resource will disappear as it did in the 1800's when the forests were cut down for farmland. Locally, the most noticeable negative impact of biomass burning is the smoke from wood stoves and furnaces. Many towns now are regulating installations of outdoor wood boilers. Montreal, Quebec made the news recently as it is looking to ban wood stoves and fireplaces entirely.¹⁴ In the U.S., the EPA regulates emissions on new wood stoves and is in the process of regulating (currently with a voluntary program) emissions of outdoor wood boilers.¹⁵ The New York, DEC is also drafting legislation to regulate outdoor wood boilers.¹⁶ Growth and harvest of biomass for fuel in Newfield is a very likely topic for the planning board.

The impact of the recently discovered natural gas reserves in our area will be mostly on an industrial level as gas companies compete for land leases and space to drill wells. This is another controversial topic. On one hand, gas exploration may mean an economic boon to the area. “In 2008, Penn State University estimated the economic value of the formation at \$1 trillion and that, for every \$1 billion in royalties paid to Pennsylvania residents, nearly 8,000 jobs would be created. In mid-2008, in northeastern Pennsylvania, gas operators were offering landowners as much as \$3,000 per acre and 15 percent royalty over the period of the lease. A landowner with a well on his property could expect to make \$800,000 in royalties during the first year of production.”¹⁷ On the other hand, the drilling process could be an ecological nightmare for years to come for some people. “...state regulators in New Mexico have compiled hundreds of instances of groundwater

10 http://www.nrel.gov/learning/re_biomass.htm, an excellent source for more information on biofuels.

11 For contrasting views see: http://www1.eere.energy.gov/biomass/biomass_basics_faqs.html, and <http://www.news.cornell.edu/stories/july05/ethanol.toocostly.ssl.html>

12 EPA's New Biofuel Regs Could Curtail Industry, by Richard Harris, NPR News May 10, 2009, <http://www.npr.org/templates/story/story.php?storyId=103893530&ft=1&f=1007>

13 A project of the USDA forest service and other parties. See their web site, <http://www.fuelsforschools.info/>

14 Montreal Moves to Snuff Out Wood Stoves, CBS news Feb. 4, 2009, <http://www.cbc.ca/health/story/2009/02/04/mtl-wood-stove-ban-0204.html>

15 <http://www.epa.gov/NE/communities/woodcombustion.html>

16 See DEC's web page on outdoor wood boilers, <http://www.dec.ny.gov/chemical/51986.html> A draft copy of the legislation can be seen here: <http://www.altheating.com/NYCRR247OutdoorWood%20BoilerRegulationsDraft.pdf>

17 Background: Marcellus Shale in Northeastern Pennsylvania, PBS, <http://www.pbs.org/wnet/blueprintamerica/reports/in-the-hills/background-marcellus-shale-in-northeastern-pennsylvania/333/>

contamination resulting from gas and oil drilling. In Colorado, an industry watchdog group has gathered evidence of contamination in 300 cases. And in the Barnett Shale in Texas - the formation geologists consider most similar to the Marcellus Shale - the state has overseen the cleanup of radioactive material dredged up at hundreds of gas drill sites.”¹⁸ New York's DEC recently released its environmental impact statement concerning oil and gas drilling ¹⁹ to much controversy. At the heart of the controversy, is the practice of hydraulic fracturing, where up to 3 million gallons of water combined with a proprietary mix of chemicals are injected into each well in order to fracture the shale where the gas is trapped, thereby releasing the gas. The fact that the gas industry has no oversight from the EPA through the Safe Drinking Water Act, and the NYSDEC has only 19 inspectors in place to oversee the more than 13,000 current drilling sites in the state²⁰, has many people concerned with the possible effects the drilling industry may have on water quality in the state. The EPA has recently launched a new study on hydraulic fracturing²¹, and also recommended that NY State do a broader study of the potential environmental impact that drilling will cause before reviewing more permits to drill in the Marcellus Shale.²² With two town wells serving residents in the town, and town roads that stand to be affected by heavy drilling equipment, Newfield would be well advised to take an active interest in the well drilling process in the future. Residents with questions concerning drilling can get some local information concerning gas exploration and concerns from the DEC web site²³. Cornell Cooperative Extension also has very comprehensive site dealing with all aspects of natural gas exploration and drilling²⁴.

Any future energy policy will include conservation, recycling, and reuse. As long as energy is relatively cheap, we in the US are poor at energy conservation. We currently have per capita energy use that is more than 2 times that of Europe, more than 6 times that of Central and South America, and more than 4 times the per capita average of the world.²⁵ Higher energy prices will drive conservation measures, so we will, no doubt, be forced to be better at energy conservation in the future. One way to conserve energy is through the use of recycled and reused products. Recycled aluminum saves 95% energy over virgin aluminum, recycled glass 50% over virgin glass, and recycled paper 60% over virgin paper.²⁶ For example, the use of aluminum shingles instead of asphalt to re-roof a residential building can make a difference. The aluminum shingles themselves save energy if they are made of a high recycled content. They may have a high reflective value on the finish color, making them eligible for “Energy Star” rating²⁷ which can give the building owner a \$1500 tax credit in 2009-2010. The reflective finish will save on the building's cooling costs, and with an expected use life of 50+ yrs., the shingles will save energy by avoiding another roof tear-off and replacement in 15-25 years, the typical life of an asphalt roof. In Newfield, even our annual garage sale is a way to encourage reuse and recycling.

Transportation issues will be another area affected by energy availability and cost. Obviously, it will influence the types of cars we drive, and how much driving we do. On a town level, there may be an increased need for more bus service. This may, in turn, increase the need for more park and ride lots. Tompkins County's comprehensive plan ²⁸ calls for the increased use of bicycles to save energy and reduce greenhouse gases. While

18 Natural Gas Drilling: Is New York Ready?, by Llya Marritz, WNYC News, July 22, 2008,

<http://www.wnyc.org/news/articles/104157>

19 <http://www.dec.ny.gov/energy/47554.html>

20 http://www.syracuse.com/news/index.ssf/2009/12/a_fortune_in_natural_gas_lies.html

21 <http://www.propublica.org/feature/epa-launches-national-study-of-hydraulic-fracturing>

22 <http://www.nytimes.com/2009/12/31/science/earth/31drill.html>

23 Landowners Guide to Gas and Oil Leasing, <http://www.dec.ny.gov/energy/1553.html>

24 Natural Gas Development Resource Center, <http://gasleasing.cce.cornell.edu/>

25 Data from Energy Information Administration website, <http://www.eia.doe.gov/emeu/international/energyconsumption.html>, see chart, <http://www.eia.doe.gov/pub/international/iealf/tablee1c.xls>

26 <http://earth911.com/reduce/energy-costs-and-conservation-facts/>

27 See U.S. Dept. of Energy web site for details, http://www.energystar.gov/index.cfm?c=roof_prods.pr_roof_products

28 <http://www.tompkins-co.org/planning/compplan/index.htm>

it's unlikely that one will ever see a daily rush hour exodus of bicycles heading to and from Ithaca, there will be an increase of bikes, scooters, and motorcycles on the road. If the school system also encourages the use of bicycles with the newer generations of children as a way to promote a healthier and more energy independent lifestyle, there may be town planning issues involved. Local speed limits, bicycle safety, motorist awareness, and bike lanes near the school are all potential topics of discussion.

Man induced climate change due to the burning of fossil fuels and deforestation is a generally accepted fact, these days²⁹. Future energy policy will include incentives to reduce greenhouse gas emissions. Locally, this may include opportunities for owners of forested land to take advantage of carbon credit programs³⁰. This, in turn, may affect town planning as there may be more incentive to retain open forested land rather than clear and fragment it for development.

Increased costs of energy and the need to conserve energy and decrease carbon emissions will make local sources of products and food more cost efficient. Newfield has an excellent source of local hardwood lumber and forest products. Pasture raised local beef uses much less energy and fossil fuel to produce than feedlot finished beef grown halfway across the country³¹. Also, it may no longer make sense to ship a product such as iceberg lettuce, which is 95% water, from water-strapped California to water-rich Newfield when there are so many more nutritious local lettuce choices. These things all have an effect on town planning as the town looks at open spaces, forests, existing farmland use, farm co-ops, and farmers' markets. Encouraging production of local food and products will make Newfield more self-sufficient when energy costs increase in the future.

The energy picture is going to change drastically in the future as the world is forced to move away from fossil fuel dependence toward other energy sources. Newfield is uniquely blessed with an abundance of natural resources that can be tapped for local energy, and the ability to produce much of its own food and building products. If its resources are managed properly, there will be a supply of energy and resources indefinitely. The town will want to carefully consider the balance of long-term planning versus more immediate short-term gains in the whirl of energy production and use.

29 See the US EPA Climate Change web site, <http://www.epa.gov/climatechange/>

30 See the University of Minnesota extension website, http://www.myminnesotawoods.umn.edu/legal/lega_carbon.html

31 "even given the lowest estimates for fossil fuel inputs to feedlot beef production, grass-fed beef would appear to be the superior energy bargain, requiring a lifetime total expenditure of some 134 fewer gallons of crude oil per cow." (calculations in this article for the amount of crude oil used to grow a grass fed steer from conception to slaughter is 74 gallons, for a feed lot grain finished steer, 208 gallons.), <http://www.whiteoakpastures.com/article-mideastoil.html>

Health, Safety, and Security

The Health and Safety are vital to a strong and functional community. The factors must be adequately addressed to allow residents to live long, prosperous lives, and a feeling that residents can live a safe and healthy life. Health, Safety, and Security Newfield has characteristics that reflect the variability in relation to health. Reviews of state statistics show this variability in relation to Female Breast Cancer, Colorectal Cancer, Prostate Cancer and Lung and Bronchus Cancer, in addition to Air Quality, among the Towns within Tompkins County and other counties in Central NYS. Safety reflects the importance of the Law Enforcement Community (Sheriff's Department, State Police), and Newfield Fire Department community. Waste Management must be managed to also reflect the quality of a healthy community environment for the Newfield residents. These priorities are vital to the Newfield Comprehensive Plan.

Health

Four cancer tissue sites account for most of the total cancer burden in New York State; lung, colon, breast, and prostate. Breast cancer now strikes more women than any other type of cancer. Lung cancer is responsible for more cancer deaths, more than any other cancer site. Prostate cancer is the most common non-skin cancer in America, affecting many men. Colorectal cancer is the fourth most diagnosed cancer in the U.S.

Detailed information is available from the New York State Cancer Registry showing the comparison by Incidence type in relation to towns by Zip Code within Tompkins County. Refer to the web site for more detail. <http://www.health.state.ny.us/statistics/cancer/registry>

Air Quality

Air pollutants originate from many human activities. Most pollutants come from industries that manufacture chemicals and other goods, from off-road vehicles and power equipment, and from energy facilities that burn oil, gas or coal. Air pollution damages health and the environment in a variety of ways. Hot summer weather sets the stage for formation of ozone and fine particulate matter, two pollutants of concern for human health.

The Town of Newfield is a rural community that enjoys superior air quality. The New York State Department of Environmental Conservation delineates the NYS Ambient Air Quality in terms of Inhalable Particulates and Air gas components (Carbon Monoxide, Sulfur Dioxide, Ozone) for NYSDEC Region 7, which includes Tompkins County. Refer to the DEC web site for Newfield/Tompkins County Air Quality Index (AQI). <http://www.dec.ny.gov/chemical/54719.html>

Waste Management and Illegal Dumping

There are many providers of Waste Management services available to Newfield residents. The towns of Tompkins County are subject to illegal dumping. Tony Petito, Newfield Junk Code Enforcement Officer (residents can report illegal dumping by contacting the Town Clerk's office at: 607-564-9881), the Sheriff's Department, and Department of Environmental Conservation investigate cases of Illegal Dumping and issue tickets and fines to violators. For Recycling and Solid Waste visit Tompkins County website for Current Licensed Haulers Companies and Commercial/Residential Dumpster Service Companies.. For information relative to breakdown of illegal dumping by municipality visit the Tompkins County|Solid Waste web site. It is to be noted that Newfield has a lower number of violations of Illegal Dumping among the municipalities. Tompkins County Solid Waste website: <http://www.recycletopkins.org/>

Law Enforcement and Fire Protection

The Security of the Newfield town environment is dependent on the first responders i.e., Volunteer Firemen, Emergency Medical Service (EMS) and Law Enforcement (County Sheriff, State Police).

Law Enforcement

Tompkins County Sheriff's Department

The Tompkins County sheriff's primary presence in the Town of Newfield is a Satellite Office located in the Newfield Town Hall. A new software system is being installed with communication links to local, NY State and Federal for crime calls. The Tompkins County Sheriff's Office pursues Law Enforcement, serves legal papers and responds to calls (generally minor crimes, Burglary, Larceny, and Domestic Violence). The Sheriff's office responds to Traffic Accidents and checks various types of domestic licenses. The Sheriff's office also provides Education and Awareness classes to the school population. The level of crime activity and traffic accidents are relatively low as noted in the Sheriff's Office Annual Report and consistent with the relative accident and crime free environment in the town.

The Sheriff's Office Annual Report includes data on Law Enforcement, Corrections, Civil Matters, Records, Sex Offender Registry, Local Resources (Other Local Police Departments), Special Programs (D.A.R.E. ; R.A.D. Defense Program, Child Seat Program, Media Releases and Links); such as Traffic, DWI, MWA and DWI Arrest, Missing Persons Investigations and Reward Posters (Homicide Investigation) ; and State/National Web Links. Refer to Tompkins County Sheriffs web site for detailed information.

<http://www.tompkins-co.org/sheriff/division.aspx?sectionID=20>

New York State Police

New York State Police provide essential police services to the public statewide. NYS Police provide regular patrols to assist motorists and other members of the public to ensure highways are safe and traffic flows smoothly. NYS Police through its Uniformed Force and Bureau of Criminal Investigation (BCI) conducts criminal and non-criminal investigations and provides technical and support services to local police departments and assists law enforcement agencies at all levels in investigating serious crimes; related to drug enforcement, violent felonies, violent crime, firearms tracing, and forensic investigative support services.

Troop "C" monitors the Newfield area and provides law enforcement, crime prevention, ensures highway safety, promotes peace and order to provide disorder control and safety and security for individuals and groups of citizens. Troop "C" has a Zone 3 Satellite Station located near NYS Highway "13", on Test Road in the Town Of Newfield. For additional information the NYS Police web site is <http://www.troopers.state.ny.us/> and http://www.troopers.state.ny.us/Contact_Us/Troop_Information/Troop_C/

Fire Protection

Town of Newfield is within a Fire Protection District. Newfield Fire Department is contractually obligated to the Town with a yearly contract to respond to fire alarms, and incident calls. Currently the Town Of Newfield has a three-year contract with the Newfield Fire Department commencing with October 2009. At contract negotiation the Newfield Fire Department presents an annual report to the Newfield Town Board.

The Newfield Fire Department is organized as a private corporation with a CEO, Operations Chief, EMS Chief and two assistant chiefs. Lead firefighters undergo Incident Command System Training. The Volunteer Firemen undergo 40 hours per year of fire training. Current Fire Alarm calls are approximately 400 calls per year. Presently there are over 50 Volunteer Firemen. The Fire Department oversees Accessible Ponds with "Dry Hydrants" and provides the school student population with classes on "Sparky the Firedog" concerning Fire Safety. Refer to Town Of Newfield Fire Department Web Site for detailed information.

<http://townofnewfieldny.com/community/fire/fire.html>

Emergency Medical Services (EMS)

The Newfield Fire Department has a limited number of trained EMT personnel. In order to provide for daytime medical emergencies, when most fire personnel are at their livelihood employment; the Newfield Fire

Department has mutual aid agreements, both in fire safety and emergency medical response services with the City of Ithaca, in addition to, the Ithaca City hazardous material team.

Disaster plans for natural or otherwise disasters are being drafted. Since the Town of Newfield is primarily a rural area, the Newfield Fire Department has designated "accessible ponds" with "dry hydrants" to be used for sources of water as needed. The Fire Volunteers meet several times a month for training and other activities throughout the year. Refer to (<http://tompkinsfireems.com/main/>).

The town of Newfield has a part-time building and code enforcement officer, appointed by the Town Board. The code officer processes building permits and makes inspections to assure building projects meet state code requirements. Residents can contact the code enforcement officer by contacting the Town Clerk's office at: 607-564-9881.

Useful websites:

Community Health Assessment, Tompkins County Health Department
<http://www.tompkins-co.org/health/cha05/index.htm>

Agriculture

The first recorded farming practiced in Newfield was by the Saponi Tribe during the early 1700's in the Pony Hollow area. The Saponi had relocated from the Virginia area due to unrest in their native areas and were permitted to settle in this area by the Cayugas. This area was identified by the Natives due to the good draining soils, proximity to year-round creeks and woodlands for materials and hunting.

There were additional stories of natural caves utilized by the Saponi. The Sullivan Expedition removed the tribe and the land was soon used by settlers for agriculture.

By 1847 crops reported included barley, buckwheat, millet, white beans, flaxseed, and potatoes. Livestock included sheep, horses, and cattle. As we look around Newfield's hills and valleys, there are still evidences of the Finns and Czechs that came around the turn of the century and they had to contend with the by then impoverished soils.

Reports show that in 1878 out of 34,892 acres contained in Newfield 25,000 were under cultivation but much of the land was not conducive to long-term use. The most recent Agricultural Assessment from land owners in Newfield in 2007 included 22 active farmers and 8 active renters involving 2,560 acres in production. Most of the old farm land has converted back to forest and old-field meadows.

Today Pony Hollow ushers in Tompkins County from the south as State Route 13 bisects the Newfield valley. On both sides of Route 13 lies fertile farm land, streams, wetlands and thousands of acres of protected State and University owned lands.

Farming activity is very clearly seen throughout the town although farming practices have changed and the number of farmers has declined. According to the Tompkins County Planning Board 30% of the land is agriculture. There are only 3 dairy farms in Newfield as of 2010. Cash cropping of hay, oats, barley, corn and soybeans continues to be a viable option for a number of Newfield's farmers. Other farmers in Newfield maintain fruit orchards, vegetable crops, greenhouse operations, Christmas trees, beef and sheep and chickens occupy a few farms. Organic crop farming has been introduced to several tracts of land in the Township with spelt (similar to wheat), oats, barley, clover and buckwheat as produce. The farmers market in Ithaca provides an outlet for cut flowers, perennials, fruits, and vegetables

Significant increases in back-yard horse owners in Newfield occurred over the last 10 years including some horse farms with more than 10 horses. Creating a demand for continued use of ag lands to provide hay.

Challenges which continue to affect farmers in Newfield include weather problems, plant and animal diseases, weed, insect and wildlife competition along with economic uncertainties. The future of Newfield's agriculture is dependent upon a number of factors and some out of the farmer's control. They include "the farmer's age, health, financial stability, family lifestyle preferences, prices of crops, livestock and land, taxation policies, community support for agriculture, traffic patterns on rural roads and consumer preferences for certain types of food.

The people of Newfield should be made aware that farming is a business as well as a form of land use and a way of life which is important to maintain in the future. Newfield presently has agricultural land in an Agricultural District. Farmland is given a partial exemption from taxes to encourage the continued use of farmland for agricultural production.

The purpose is to forestall conversion of farmland to non-agricultural uses. In addition to taxation benefits the law also provides protections against overly restrictive local laws, private nuisance suits involving agricultural practices and government and non-government funded conservation easements or construction projects. There

are also consequences for removing land from use prior to its 8 year commitment. Land in Agricultural Districts is classified according to its value in producing products and not on its potential developmental value.

The agriculture district survey was updated in 2007 and the web address is www.tompkins-co.org/planning/documents/Newfield_000.pdf. This map details all land in Newfield that is part of district, but it includes unfarmed lands like forest, lands that are not currently worked, and residential properties.

Farm Land classification is in three categories:

- 1) “Best” grade soils which grow top yielding crops. These soils are usually gravel based and well drained. Their creation came from glacial activity moving south grinding rock, clay, dirt, and redistributing it in valley regions. These also helped create aquifers and wetlands.
- 2) Second grade soils classified as “fair”. These soils grow good crops but sometimes they have lower yield rates. Soils can be wet during critical planting dates, meaning lost growing degree days, late planting, and early frost risk.
- 3) Third grade soils are usually land on side hills and not under cultivation. This land is close to bed rock, typically requires late planting and is muddy during harvest time. The soil ph is poor due to over cropping and inadequate nutrient replacement.

Agricultural soil mapping can be obtained by the Tompkins County soil survey, identifying soil types, percent, and grade. The Tompkins County natural resources inventory, Tompkins County soil survey, and Soil Conservation Service in cooperation with Cornell University Agricultural Experiment Station are additional resources.

The importance of agriculture and open lands in Newfield that could be worked needs to be documented and discussed. Keeping the industry alive required the lands to be worked and in useable condition for future generations. A sustainable food supply is important to all people and farm land contributes to the open space environment. Potential commercial business opportunities and employment are additional benefits

Newfield needs to address the importance of preservation of agricultural lands without unduly infringing upon property rights or the right to farm. Farm land not in the agricultural district that has open land should receive some consideration for assistance to maintain the farming community.

	Total Newfield Acres = 34892	
	Farm Land worked under cultivation	Undeveloped Land
1864	23,492	11,400
1878	25,000	9,892
1972	5,300	29,592
2009	4 – 6,000	28,892 – 30,892

Useful websites:

Newfield Ag District Map: <http://www.tompkins-co.org/planning/documents/Newfield.pdf>

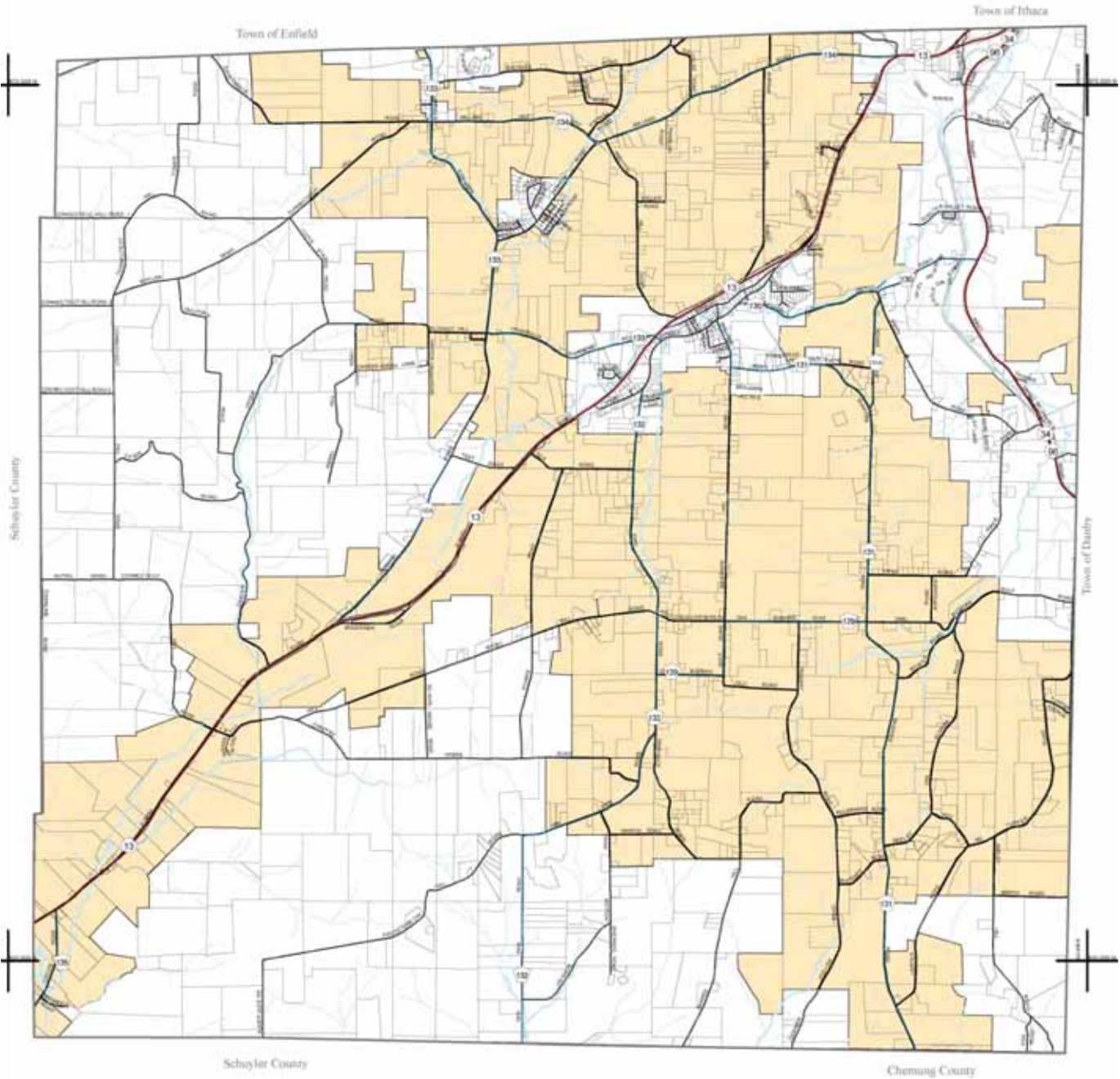
History of Agriculture in Newfield: <http://newfieldhistoricalsociety.org/html/agriculture.html>

New York State Ag Districts: <http://www.agmkt.state.ny.us/AP/agsservices/agdistricts.html>

Brochure Local Laws and Agricultural Districts: How Do They Relate?

<http://www.agmkt.state.ny.us/AP/agsservices/guidancedocuments/305-a2pagePamphlet.pdf>

Newfield Ag District Map

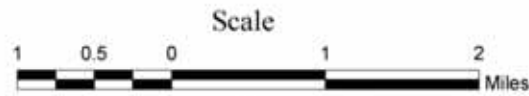


Legend

- State Highways
- County Roads
- Local Roads
- Perennial Streams
- Intermittent Streams
- Tax Parcels
- Agricultural District

References

Roads and Hydrographic Data
 Tompkins County Digital Planning Map, 1996, 1992 & 1978
 2007 Agricultural District Boundaries and
 2007 Tax Parcel Boundaries produced by
 Tompkins County Assessment Department



Scale

1:24,000
 New York State Plane
 Central Projection
 1983 North American Datum



Prepared by the
 Tompkins County Planning Department

Map 3 of 5



Disclaimer

Tompkins County does not warrant the accuracy or completeness of the information provided. The end user of these maps agrees to accept the data as is with the full knowledge that errors and omissions may exist, and to hold harmless the County for any damages that may result from an inappropriate use of these maps.

Forest, Wildlife Management and Natural Areas

Newfield has an abundance of forest land which, along with other protected areas and agriculture, give Newfield the rural feel and character that its many residents seek. The forests are an important component, not only to Newfield's character, but to the mental, physical and economic health of Newfield residents. The forests clean the air we breathe, filter the water we drink, and provide habitat for animals we view and hunt. These areas also create opportunities for recreation and solitude; provide economic opportunities through forest management activities such as logging, maple syrup, firewood and lumber; and the forests also provide open space desired by many residents.

Newfield has not always been rich with forests. At the time of the early 1900's, Newfield was barely 20% forested. At that time agriculture was king but as time wore on, farms fell on hard times during the depression and many more were abandoned due to the newfound efficiency and productivity of Midwestern farmland; the forest slowly made its return. Currently, approximately 65% of Newfield's land base is forested, similar to the state-wide total.

Newfield forests and natural areas vary widely: from the headwaters to the Cayuga Lake Inlet, to the waterfalls of the Van Buskirk Gorge to the large tracts of forestland on Connecticut Hill and other State forestlands. The ownership of these valued lands varies just as much as the landscape itself: from State and County government to Cornell University and Ithaca College; from The Finger Lakes Land Trust to Greensprings Cemetery Association. But the majority of the forests are owned by private non-industrial forest owners; most who are Newfield residents, but many are non-residents from other communities throughout the US. This diversity adds to the richness of Newfield's landscape and culture.

There are a number of native and introduced forest pests that are threatening the very fabric of our forests: Exotic Insects such as the Hemlock Woolly Adelgid, Emerald Ash Borer, Beech Bark Scale Disease, Dutch Elm Disease, and the Asian Long Horned Beetle; as well as, non-native invasive plant species such as garlic mustard, multiflora rose, Japanese barberry, Japanese knotweed, and many more. To learn more about these challenges please review <http://nyis.info/>

The majority of areas identified in this chapter have already been identified by Tompkins County, Finger Lakes Land Trust and even New York State. Cornell University and Ithaca College also have a strong presence in Newfield and work closely with these other sources.

In this chapter you will see descriptions of ownership, maps, specific descriptions of our natural areas and some statistical data outlining our forest resource. You will also find descriptions and web links to these resources in our Town and other information including maps available through various other entities.

Connecticut Hill Wildlife Management Area

Connecticut Hill is the largest Wildlife Management Area in NY State, totaling 11,045 acres. It is located 16 miles southwest of Ithaca and 1 mile northeast of Alpine, astride the Tompkins-Schuyler County lines. State Route 13 provides access to the eastern side of the area. Approximately 5,747 acres are in the West side of the Town of Newfield. Property is tax exempt.

The area borders other natural areas such as Robert Treman State Park and is in very close proximity to Newfield State Forest, Cliffside State Forest, Arnot Forest and other Cornell-owned lands. It is managed by the Department of Environmental Conservation and is open to the public for many uses. A web link is below that details the area and permitted uses. www.dec.ny.gov/outdoor/9331.html

Cliffside State Forest

Cliffside wins the prize as the least accessible public land in Tompkins County. The forest is located in the Southwest corner of Newfield and the Northwest corner of Cayuta, NY. It contains a total of 977 acres of which 303 acres are within Newfield. Property taxable for school taxes only.

There are no roads to the north. To the west, Morrell Road dead-ends short of the forest boundary. A narrow strip of private land separates the state forest from NY Route 224 to the south. It is contiguous to the Arnot Forest which allows the best access to the forest. <http://www.ilovethefingerlakes.com/recreation/stateforests-cliffside.htm>

Newfield State Forest

The Newfield State forest is located in the southwest area of Newfield and is comprised of 1,552 acres. It is contiguous to the Arnot Forest and Cliffside Forest. Although it seems to receive few visitors, this forest can offer pleasant and challenging hikes. It can be reached from NY Route 13 by turning east on Bull Hill Road, or by taking any of a few roads south from the village of Newfield. There are several trailheads from Chaffee Creek Road (purple arrows on the map below), most notably the pipeline access track, which forms an obvious intersection with the road. Property taxable for school taxes only and public use is permitted.

<http://www.ilovethefingerlakes.com/recreation/stateforests-newfield.htm>

Tompkins County Forest - Newfield

The county owns various parcels of land in Newfield for the purpose of Forest Management and research. The total land area is approximately 478 acres located contiguously and in proximity to the Newfield State Forest and the Arnot Forest. The forest is managed by Tompkins County and is incorporated in their "Forest Management Plan". Property is tax exempt.

Cornell's University Arnot Forest

The Arnot Teaching and Research Forest, "the Arnot", is situated in the hilly, forested Southern region of Newfield and Northern region of Van Etten, New York. The Arnot (pronounced R-not) is owned by Cornell University and managed by the Department of Natural Resources in the College of Agriculture and Life Sciences (CAL S). It is the largest actively managed forest owned by Cornell University. The Arnot provides a place for Cornell faculty and students to carry out elements of the three-part mission of CAL S: Teaching, Extension, and Research, in service to the citizens of New York. The current Arnot Forest is 4,075 acres of which 1,324 acres are contained within Newfield. Property is Tax Exempt and open to the public. The web link details the area and the permitted uses: www.arnotforest.info

Cornell University's Other Natural Areas – There are various parcels in Newfield utilized and managed by Cornell. These areas are tax exempt and open to public use.

Carter Creek at Connecticut Hill (426 acres) – This area is contiguous to Connecticut Hill Wildlife area and is primarily forested. www.cornellplantations.org

Fischer Old-Growth Forest (41 acres) – This area is located off of Route 13 just east of Stella's Barn. It consists of many old growth trees and is actively visited by Cornell students. www.greentieredu.wordpress.com

Ithaca College Bob Robinson Preserve

The Bob Robinson Family Preserve, located off Piper Road, features many rare ecological communities. The property consists of 77.05 acres and contains unique parts of the VanBuskirk Gorge. The goal is to assist in maintaining and improving the diverse ecological character of the area. To keep this site functioning and safeguard its biodiversity, this area will be mainly left unaltered. There will still be possibilities for student and faculty research in the area to increase understanding of this site and enhance educational experience. Property is tax exempt and not for public use.

***NOTE:** Accessing the preserve is by permit only. Contact ICNL for more information or download a permit application. No hunting is allowed. <http://www.ithaca.edu/naturallands/robinsonpreserve/>

Ithaca College Natural Resource Reserve

The Ithaca College Natural Resource Reserve is more intensely managed than the Bob Robinson Family Preserve and consists of 48.11 acres. Unlike the Preserve across the road, the Ithaca College Natural Resource Reserve will be mainly used to explore the creation of non-timber forest products like mushrooms and ginseng. This will give Ithaca College students opportunities to do field research and become involved in Ithaca College Natural Lands. There is also hope that by encouraging the cultivation of non-timber forest products sustainable economic benefits will result. In addition, this site will also be used as an educational tool for forestry and other wildlife. Areas of this reserve will be altered for research and educational purposes. Property is tax exempt and not for public use.

***NOTE:** Accessing preserve is by permit only. Contact ICNL for information. No hunting is allowed. <http://www.ithaca.edu/naturallands/icnrr/>

VanBuskirk Gulf

The two previous parcels are part of the VanBuskirk Gulf, an area that has become a Natural Feature Focus Area in the Tompkins County Plan. <http://www.tompkins-co.org/planning/nffa/docs/VanBuskirkGulf.pdf>

Finger Lakes Land Trust

The FLLT has one property in Newfield located in the Northeast corner of the town. The parcel was formally owned by the Babcock family and consist 124 acres of which 81 acres are in Newfield. It is located in close proximity to Lower Treman Park. Property is tax exempt. Please visit: www.fllt.org/news/index.php?id=5

Useful websites:

Newfield from 1870 & 1970 looking at Protts Hill from Main St.:



This picture describes the significant change in forest cover which has occurred over the last one hundred plus years. More information at: www.newfieldhistoricalsociety.org/

Invasive pests' clearinghouse website:

NY Invasive Species Clearinghouse website NYIS.INFO is your gateway to science-based information, breaking news, and new and innovative tools to prevent, detect, control and manage biological invaders in New York. NYIS.INFO links scientific research, State and Federal management programs and policy information, outreach education and grassroots invasive species action to help you become part of the battle against invasive species in and around New York. <http://nyis.info/Default.aspx>

Environmental Management Council Website:

Information on the Tompkins County Unique Natural Areas (UNAs)

Here you can find many of the presentations, brochures, and other educational materials that the EMC has prepared. In addition to viewing these documents online, feel free to come browse the EMC library of over five hundred environmentally-related documents that are historical in nature. Topics such as UNA's, open burning, wind energy, Lake Source cooling and gas exploration to name a few. Newfield has 15 UNAs in the Town comprising 6,167 acres totaling 16% of our land base. http://www.tompkins-co.org/emc/educational_materials.htm

Tompkins County website:

Contains maps, GIS mapping capability, roads and a host of other information about the county and its governmental workings. <http://www.tompkins-co.org>

Tompkins County Natural Resources Inventory GIS website:

A great interactive website for mapping Tompkins County <http://gisweb.tompkins-co.org/tcimap/CORE/MAIN.ASP>

Link to information on aerial photographs for Tompkins County http://www.tompkins-co.org/planning/nri/analysis_resources.pdf

The Finger Lakes Trail Conference:

The Finger Lakes Trail System consists of the main Finger Lakes Trail (FLT) which goes from the Pennsylvania-New York border in Allegany State Park to the Long Path in the Catskill Forest Preserve as well as five branch and 14 loop trails all of which extend from the main FLT. The main FLT is 562.9 miles in length; the branch and loop trails total 236 miles. The trail system was and continues to be built and maintained by organizational as well as individual and family trail sponsors. In all cases but one (the Interloken Trail in Schuyler County which is maintained by personnel of the U.S. Forest Service) these groups and individuals are volunteers. The Finger Lakes Trail Conference (FLTC) was organized in 1962 "to promote and coordinate the building, maintenance, and protection of the FLT System." One of the organizational trail sponsors is the Cayuga Trails Club (CTC) which has as its "home" Ithaca, NY.

The entire FLT system, located almost equally on private and public land, is open for use by the general public with no fees charged for its use. It is intended for foot travel. Within Tompkins County approximately 16 miles of the main FLT is located in the town of Newfield. <http://www.fingerlakestrail.org>

Watershed Forestry Resource Guide:

This website is a central clearinghouse for all things related to forests and watersheds. There have been many recent efforts towards managing urban forests for watershed health that have resulted in a variety of highly useful tools and training materials. This site compiles these resources into a format that can be easily accessed and downloaded. www.forestrytoolkit.squarespace.com

Conserving Natural Areas and Wildlife in Your Community

Smart Growth Strategies for Protecting the Biological Diversity of New York's Hudson River Valley

Conserving Natural Areas and Wildlife in Your Community is a guide for anyone involved or interested in biodiversity conservation and local land use planning and decision-making, including elected officials, volunteer board members, and interested citizens and organizations. It describes how to find biological information about your community and the tools and techniques that local governments can use to conserve natural areas and wildlife. <http://www.dec.ny.gov/lands/50083.html>

NYS Open Space Plan Link

“...the State, through the Governor’s Quality Communities initiative, has embarked on a comprehensive effort in partnership with local governments, private non-profit conservation organizations and private citizens to promote local open space programs...”

“...guided by the priorities identified in the Open Space Plan and funded in large measure through the State’s dedicated Environmental Protection Fund.” <http://www.dec.ny.gov/lands/47990.html>

Tompkins County Assessment Department <http://www.tompkins-co.org/assessment/>

The Return of Agricultural Lands to Forest <http://www.townofnewfieldny.com/planning/Bills.pdf>

Water/watershed

Water is one of the most taken for granted natural resources we have. We use our water resources for drinking, recreation, agriculture, and for environmental benefits. Water sources should be protected and used appropriately.

The three major categories of water resources are surface water, groundwater, and wetlands. Surface water consists of streams, creeks, lakes, and ponds. Groundwater is water that is stored in the underground spaces between deposits of sand, gravel, and silt, and in the cracks in bedrock. Groundwater deposits that can be expected to yield significant quantities to wells are called aquifers. Areas where surface water infiltrates into these aquifers are called recharge areas and are particularly important to the protection of groundwater quantity and quality. Wetlands include land areas that are inundated with water year-round, as well as areas that are dry for part of the year but collect water seasonally.

Wetlands and riparian areas (lands associated with streams and rivers) are important because they temporarily store floodwaters, filter pollutants from surface waters, control erosion and sediment, supply surface water flow and recharge groundwater supplies, and provide habitat for fish and wildlife. (From the Tompkins Co. Comprehensive plan)

Humans use on the average use 80 – 100 gallons of water per day. The greatest use is flushing toilets and taking showers/baths (as shown below). Cows and horses will drink on the average of 8 – 15 gallons of water per day, depending on the life stage, weight, and climate.

Some water consumption facts are:

- 3.3 gallons of water is required to make 1/4 pound of hamburger
- 7 gallons of water is required to flush a toilet (without water saving methods)
- 30 gallons of water is used for the average shower (without water saving methods)
- 7.7 gallons of water is used to process one can of vegetables

Water in the town of Newfield is abundant, given the aquifers, stream system and wetlands within the town. The town has two water districts (see chapter on town utilities). Outside of the water districts homes have drilled wells.

Wastewater is handled through the town sewer district (see chapter on town utilities), outside of the district homes have independent septic systems. Streams are monitored on a voluntary basis.

Wetlands provide filtration for stormwater runoff. A large wetland exists between Route 13 and Sebring Road. Protection of wetlands is important especially since many were drained or tilled so the land could be used for farming in the 1960's. Many ponds are located in the rural areas of the town. These ponds are used for recreation, fire control, and agricultural purposes.

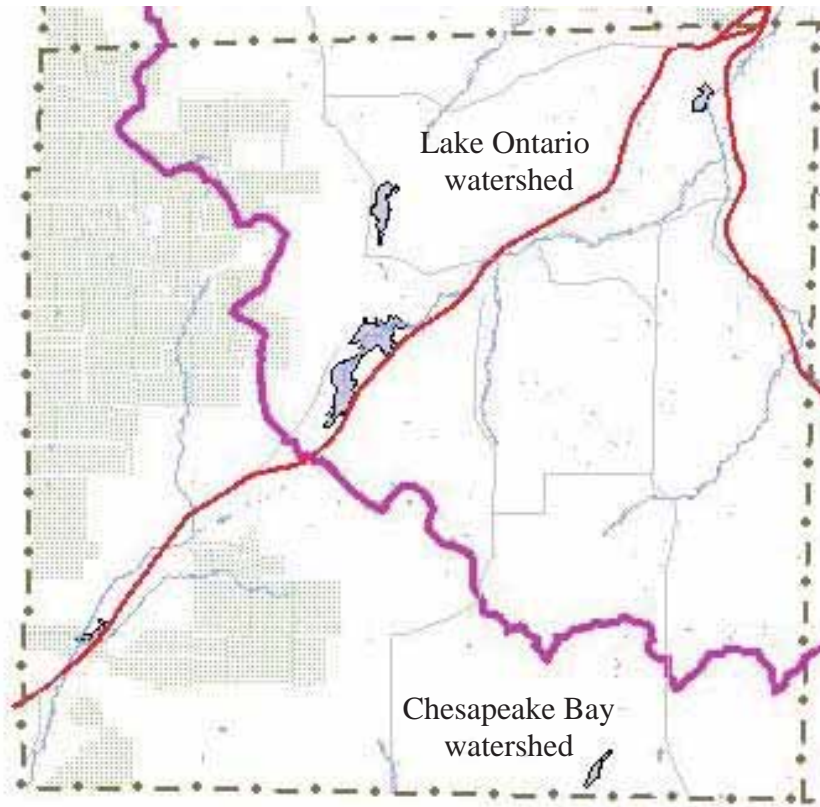
The town is unique with two watersheds, approximately 60% of the town water runoff supplies the watershed for Lake Ontario, and 40% supports the Chesapeake Bay watershed (see attached map).

Issues regarding water:

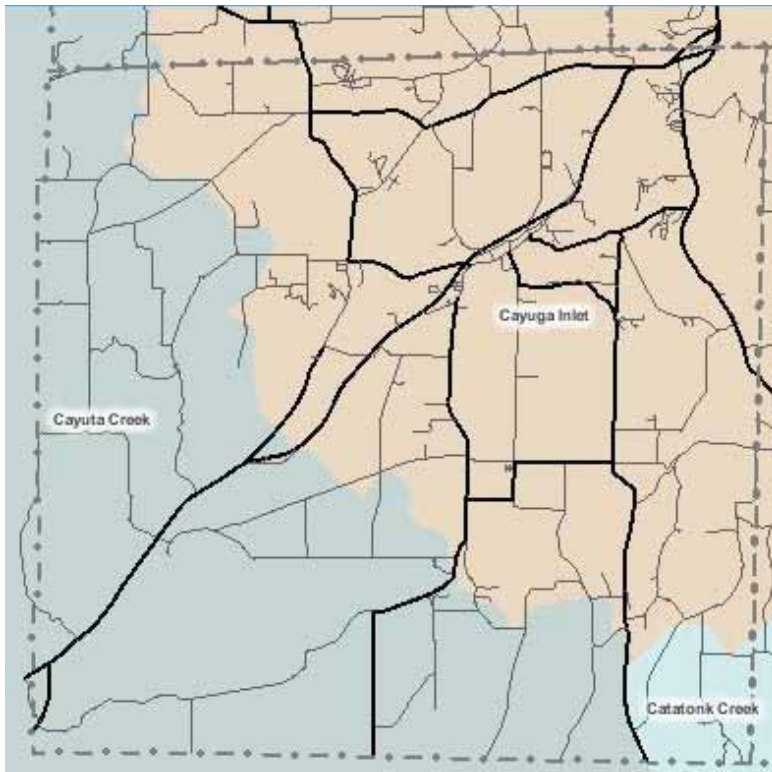
- The need for stream buffers.
- Leaking faucets/use of water.
- Climate change will affect our water supply.
- Development of floodplains
- Roadside ditch management is a cause for concern for stormwater runoff.
- Effects our water supply will/could have on our abundance of forestlands in the town.

- The effects of wastewater on the watershed.
- How will we fare if a water shortage occurs, how can we prepare?

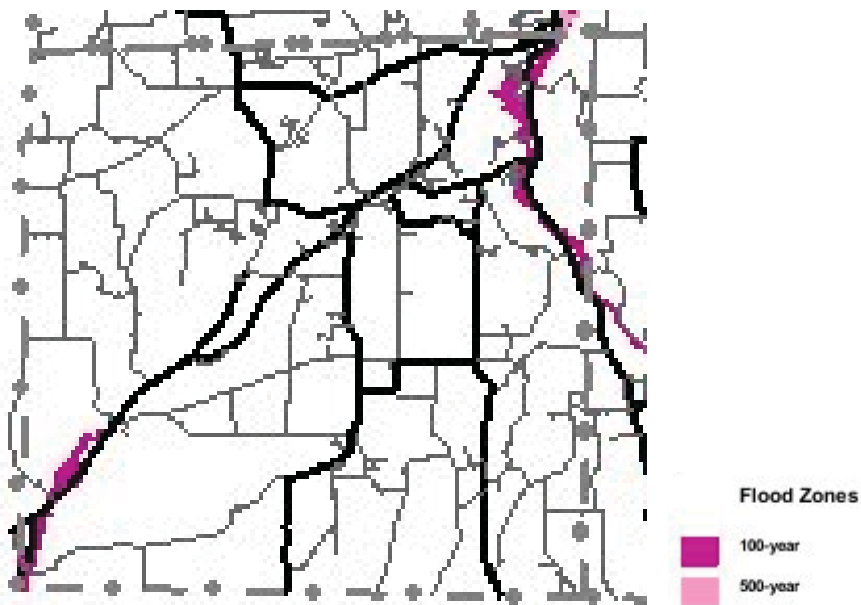
The following maps of Newfield are from an interactive map at:
<http://gisweb.tompkins-co.org/tcimap/CORE/MAIN.ASP>



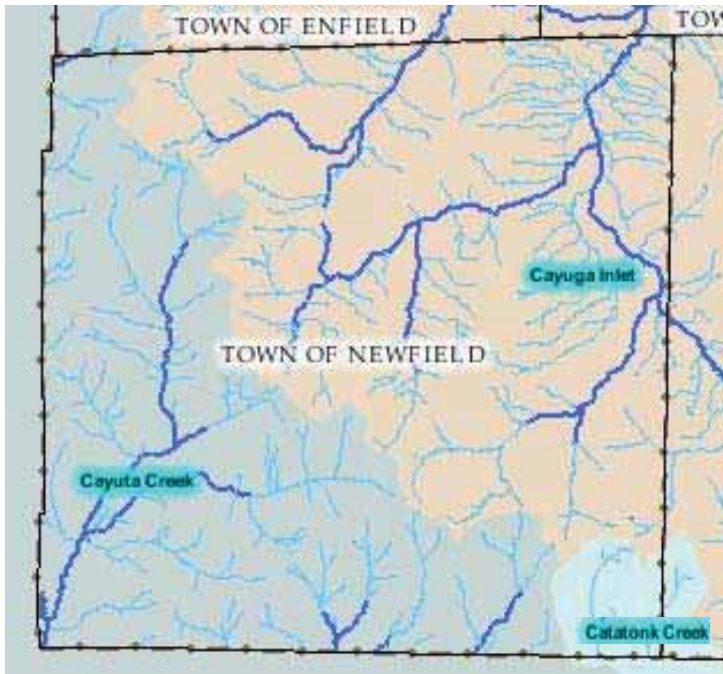
Watershed Map



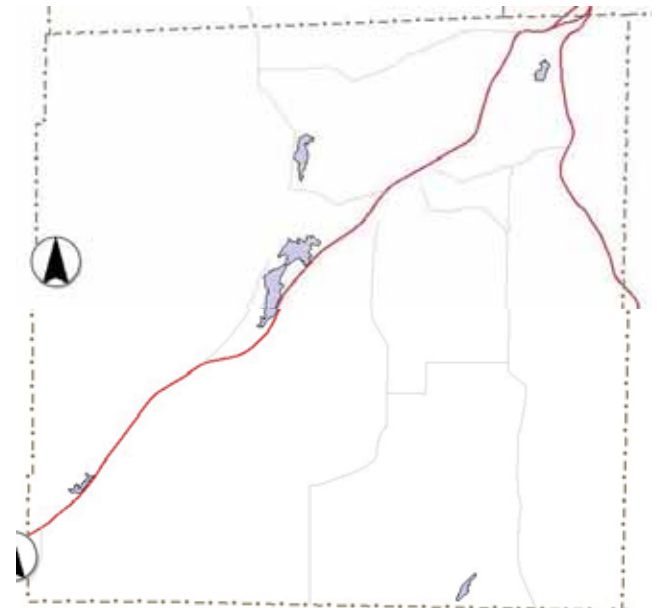
Surficial Aquifers



Floodplains



Streams of Newfield



Wetlands in Newfield

Useful websites:

Tompkins County Planning board: <http://www.tompkins-co.org/planning/Water%20Resources/index.htm>

Comprehensive Plan chapter on water: <http://www.tompkins-co.org/planning/compplan/5%20environment.pdf>

NYS Department of Environmental Conservation, Division of Water <http://www.dec.ny.gov/>

Taken from the website: To care for these diverse resources, DEC uses regulation, scientific study, planning, technical assistance and land acquisition. For landowners, local officials, businesspeople, householders, the regulated community, students, teachers and all citizens, the department provides information about resources, how to protect them, and how to participate in department programs.

This website brings together much of this information. It also shows some of DEC's resource management techniques, and provides opportunities for individuals and groups to give input for planning and management for the future of our lands and waters.

Cayuga Lake Watershed Network <http://www.cayugalake.org/>

Mission: The Cayuga Lake Watershed Network identifies key threats to Cayuga Lake and its watershed, and it advocates for solutions that support a healthy environment and vibrant communities.

Cayuga Lake Watershed Intermunicipal Organization <http://www.cayugawatershed.org/>

Mission: "To create, modify, and implement a watershed management plan to allow local governments within the watershed to work together for the purposes of accessing dollars, cost savings, cost sharing, and efficiency of activities among municipalities. This plan, when completed, will prioritize water quality problems and solutions.

The Inter-municipal Organization will provide direction for the regional planning boards and other staff, and oversee the entire project."

Tompkins County Soil and Water Management District <http://www.tcsxcd.org/>

About the District: The Tompkins County Soil and Water Conservation District was created in the 1940's, along

with 37 other county Soil and Water Conservation Districts. However, Tompkins County Soil and Water Conservation District has only been active since 1994.

The District is governed by a Board of Directors made up of representatives from Grange, the Farm Bureau, two County legislators, and an At-large member.

Stormwater Runoff in Roadside Ditches <http://ei.cornell.edu/watersheds/Ditches/default.asp>

Roadside ditches drain stormwater from roads, fields, parking lots, and buildings. Ditches are designed and managed to prevent flooding of these structures by providing rapid flow of runoff water. However, impacts on quantity and quality of water in streams and lakes typically is not considered when ditches are designed, built, and maintained.

Natural Resources Conservation Service (originally called the Soil Conservation Service)

<http://www.ndcsmc.nrcs.usda.gov/technical/Stream/>

Stream Corridor Restoration Team Workgroup. Purpose is to provide an easy to access repository of technical training and design resources for NRCS employees.

USDA and Forest Service have put out a booklet, or downloadable pdf on buffers.

<http://www.bufferguidelines.net/>

The Conservation Buffers website offers resources for planning and designing buffers in rural and urban landscapes. The primary resource is *Conservation Buffers: Design Guidelines for Buffers, Corridors, and Greenways* which provides over 80 illustrated design guidelines synthesized and developed from a review of over 1400 research publications.

Each guideline describes a specific way that a vegetative buffer can be applied to protect soil, improve air and water quality, enhance fish and wildlife habitat, produce economic products, provide recreation opportunities, or beautify the landscape.

USGS has many publications that have come out the last couple of years about contaminants found in groundwater. The impacts of those on human health or other factors would be another step (not sure which step the organization wants).

Domestic Well Water Quality study - March 2009

http://water.usgs.gov/nawqa/studies/domestic_wells/

Pesticides in streams and groundwater - major publication in 2006 plus others

<http://water.usgs.gov/nawqa/pnsp/>

Publications search page

<http://water.usgs.gov/nawqa/bib/>

Tompkins County Water Quality Strategy 2009 Update



Fact Sheet:

Floodplain Easement Program

- **Permanent Floodplain Easements** will be acquired by NRCS.
- Applications will be taken by NRCS staff at local USDA Service Centers.
- Applications will be ranked using the New York Floodplain Easement Program Eligibility Determination and Ranking Worksheet (attached).
- Land **eligible** for enrollment in the Floodplain Easement Program (FPE) includes:
 - Land damaged by flooding at least **twice in last 10 years** or **once in the last twelve months**.
 - **Other land** within the floodplain that is functionally dependent on eligible acres as described above, or that would improve the practical management of the easement. Only one acre of other land may be enrolled for each acre of land eligible as described above.
 - Land that would be inundated or adversely impacted as a result of a dam breach.
 - Land **must** be privately owned or owned by State or local units of government. Federally owned land is not eligible.
- Landowners must provide copy of deed for property offered. If property is owned by an entity, the entity must provide the necessary documentation to prove ownership.
 - A title search must be conducted prior to an offer being made.
- **Easement compensation** will be based on the least of the following 3 criteria:
 - **Area-Wide Market Analysis**, establishing fair market value of land
 - **Geographic Area Rate Cap** (see attached rates)
 - **Landowner's Offer**
- A hazardous substance database records search will be conducted prior to an FPE offer.
- An environmental evaluation and cultural resources review will be completed.
- **All** legal and administrative costs are paid 100% by NRCS.
- A restoration plan will be developed.
 - **NRCS pays 100% of the restoration costs** (removing dikes, fencing out livestock, alternative water, planting trees or native vegetation, etc.).
- **Compatible Uses:** If landowner requests compatible uses, such as haying, grazing or managed timber harvesting, those associated costs are the responsibility of the landowner. Compatible use authorization will only be made if the agency determines that the proposed use is consistent with the long-term protection and enhancement of the floodplain functions and values of the easement area. NRCS will prescribe the amount, method, timing, intensity, and duration of the compatible use in a management plan.
- Landowners still own the land and must pay real estate taxes, control noxious plants and pests, and maintain all fences at their own expense. Landowners retain the right to control public access, quiet enjoyment, and undeveloped recreational use such as hunting and fishing.
- Timelines
 - National Sign-up Period is **March 9-27, 2009**.
 - All offers for acquiring easement will be made to landowners by **May 4, 2009**.
 - All easements will be recorded by **December 3, 2009**
 - All restoration will be fully completed by **December 30, 2010**.