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This document is intended to be printed double-sided on letter size paper.

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## Project Overview



The State of New York Department of State (DOS) has provided funding to the Town of Nichols to create the Long Term Community Recovery Strategy (LTCRS). The Town is working in conjunction with the Tioga County Department of Economic Development and Planning and the New York State Department of State to complete this study.

### Regional Setting

The Town of Nichols is located along the southern border of Tioga County, in the Southern Tier region of New York State. The County, which measures 523 square miles, is located approximately 30 miles west of the City of Binghamton and is within a three- to four-hour drive of major metropolitan centers such as Philadelphia, New York, and Buffalo.

Tioga County is comprised of nine towns and six villages, and according to the 2010 US Census, includes more than 51,125 residents. The County is well served by a network of interstate, state, and local highways including Interstates 88, 81, and 17/I-86, as well as State Routes 17C, 34, 38, 79, 96, and 434. Easily accessed by major transportation routes, the local economy is dependent on a wide variety of industries including tourism, retail, manufacturing, and education. The majority of the county's residents live within the Town of Owego.



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## Community Profile

The Town of Nichols is a rural, bedroom community located in the Southern Tier Region of New York State. The Town, established in 1824, encompasses approximately 33.7 square miles. Nichols is located between the Susquehanna River to the north and west, the Town and Village of Owego to the east, and Bradford County, Pennsylvania to the south. As a part of the Susquehanna River Basin, the Town is located in one of the most flood-prone watersheds in the country, and is



vulnerable to local flash floods which often affect smaller tributaries with little advance warning.

The major employers in the Town of Nichols are the Best Buy Warehouse/ Distribution Center and Tioga Downs Casino. Other key employment sectors include agriculture and gravel mining.

In 2010, the U.S. Census reported that the Town of Nichols' population was 2,525 residents. This represents a 59 person decrease from the 2,584 person population reported in 2000. The median age of community residents was 41.6 years, which is slightly less than the 42.6 years of age reported for the County. The 2010 Census also reported that the Town population was predominately white (96.2%), the median household income was \$47,009 (slightly less than the County figure of \$53,789 and the New York State reported figure of \$56,951), and that approximately 81.6% of the Town's housing units were owner

occupied and the remaining 18.4% were rentals.

The Town of Nichols is currently guiding its local land use decisions based on the following:

- Town of Nichols Code
- Town of Nichols Zoning Ordinance
- Zoning Amendment – create I-2 District and I-2-B-A-R District
- 2011 Nichols Agriculture and Farmland Protection Plan

In 2006 the Town completed the Greater Nichols 2020 Plan. Although this work was completed, it still has not been officially adopted by the Town Board.

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## Impact of Tropical Storm Lee

On September 7, 2011, Tropical Storm Lee stalled over the Southern Tier and dropped over 11" of rain on Tioga County during a 24-hour period. The torrential rains, coupled with a swollen Susquehanna River and saturated grounds from Hurricane Irene, led to record high water levels.

The rising waters of both the Susquehanna River and the Wappesening Creek caused severe flash flooding, and damaged homes, businesses and infrastructure in the Town of Nichols. Many of the roads in Nichols were closed, including I-86, West River Road, South Main Street, Moore Hill, Briggs Hill, Decker Hill and Sulpher Springs Road.

Many residents were forced to leave their homes and take shelter in the Nichols Elementary School. Thanks to the generous volunteers in the Nichols community, these families were provided with immediate shelter needs—beds, blankets, and food.

During the storm, many residents and stranded motorists from out of town took

shelter at the Nichols Elementary School. The storm knocked out the power for a week, and the emergency shelter site was left without electricity. A local elected official provided a small 5,500 watt generator that was used to power several lights in the hallway. The remainder of the building was dark. The Steering Committee stated that the shelter would benefit in future emergencies from a generator.

On September 10, 2011, the Tioga County Emergency Management Office requested the assistance of the Disaster Assistance Response Team (DART) to inspect 3,750 homes in Tioga County. Of those homes requiring inspection, 100 were located in the Town of Nichols. In 2012, the Town requested buyout assistance for 8 homes.

The residential areas hardest hit were located along the banks of the Susquehanna River (River Road) and Wappasening Creek. Most who suffered flood damage reported that they had to replace all items located on the ground floors, including heating systems



Nichols Elementary School

and water tanks. They also talked about the painful loss of irreplaceable items like family photographs and memorabilia.

## Extreme Weather Events

According to the recent report, *ClimAID: the Integrated Assessment for Effective Climate Change Adaptation Strategies in New York State*, the need to plan for the mitigation and recovery from future flood events in the Town of Nichols, and the entire Southern Tier, is a growing concern as we enter into the 21<sup>st</sup> century.

In 2008, the New York State Energy Research and Development Authority (NYSERDA) initiated “ClimAID” as part of its Environmental Monitoring, Evaluation, and Protection Program (EMEP). As part of the project, a three-year study was conducted by more than 50 scientists from Cornell University, Columbia University, and the City University of New York to identify and assess climate change impacts and adaptation options for New York

State.

The results of the study were compiled in the 600-page report that warns that New Yorkers should begin to prepare for an increased number of heat waves and snowier winters, severe floods, and a range of other effects on the environment, communities and human health. Average annual temperatures in New York State are projected to rise by 4 to 9 degrees by the year 2080, and the amount of precipitation that falls in the State is projected to increase by 5 to 15 percent.

A summary of extreme weather events predicted for the Southern Tier in the 21<sup>st</sup> century is provided below:

ClimAID Region 3 (Southern Tier): Projected Extreme Events					
	Extreme Event	Baseline	2020s	2050s	2080s
<b>Heat Waves</b>	Number of days/ year with maximum temperature exceeding 90° F	10	11 - 25	15 - 45	19 - 70
	Number of days/ year with maximum temperature exceeding 95° F	1	2 - 7	2 - 18	4 - 38
	Number of heave waves/year	1	1 – 3	2 – 6	2 - 9
	Average duration of heat wave	4	4 – 5	4 – 5	4 - 7
<b>Cold Events</b>	Number of days/year with minimum temperature at or below 32° F	152	116 - 145	86 - 168	68 - 124
<b>Intense Precipitation</b>	Number of days/year with rainfall exceeding 1 inch	6	5-8	5 - 8	5 - 10
	Number of days per year with rainfall exceeding 2 inches	0.6	0.5 - 1	0.5 - 1	0.4 - 2