

9.8 TOWN OF NICHOLS

This section presents the jurisdictional annex for the Town of Nichols.

A.) HAZARD MITIGATION PLAN POINT OF CONTACT

Primary Point of Contact	Alternate Point of Contact
Name Barbara Crannell, Deputy Supervisor Address Phone Number 607-699-3171 Email address bcrannell@stny.rr.com	Name Chester Spenser, Committee Member Address Phone Number 607-699-3110 Email address n/a

B.) PROFILE

Population

2,525 (estimated 2010 U.S. Census)

Location

The Town of Nichols is in Tioga County, New York. The town consists of 33.7 square miles and is located between the Susquehanna River to the north and west, the Town of Owego to the east and Bradford County, Pennsylvania to the south. The Southern Tier Expressway (New York State Route 17 and future Interstate 86) passes across the town south of the Susquehanna River. New York State Route 282 connects NY-17 to the Pennsylvania state line.

Brief History

The Sullivan Expedition of 1779 passed through the area, destroying native settlements. Many of Indians returned to their former habitations after peace was declared. They came back to their hunting and fishing grounds at the mouth of the Wappasening, and not until settlement was well advanced did they leave the region to live on the land government set apart for their use.¹

The first permanent settlers arrived before 1787, but they were regarded as squatters by the first official settler, who arrived about 1791. The Town of Nichols was established in 1824 from part of the Town of Tioga.

Governing Body Format

Town Supervisor
 4 Council Members/Town Board

¹ History of Nichols, NY, Date Unknown (<https://history.rays-place.com>)

Growth/Development Trends

The following table summarizes major residential/commercial development and major infrastructure development that are identified for the next five (5) years in the municipality. Refer to the map in section I of this annex which illustrates the hazard areas along with the location of potential new development.

New Development/Potential Development in Municipality						
Property Name	Type (Residential or Commercial)	Number of Structures	Address	Block and Lot	Known Hazard Zone	Description/ Status
Tioga Downs Hotel	Commercial	2	West River Road			Hotel-Ongoing
Army Reserve Training Center	Commercial	3	Stanton Hill Road			Training Center-In Progress
Housing	Residential	10-15	Various			Housing

C.) NATURAL HAZARD EVENT HISTORY SINCE 2000

Tioga County has a history of natural hazard events as detailed in Volume I, Section 5 of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events affecting the County and its municipalities. Below is presented a summary of events dating from the year 2000 to indicate the range and impact of natural hazard events in this community. Specific damages have been indicated if available from reference or local sources. For details of events prior to 2000, refer to Volume I, Section 5 of this plan.

Type of Event	FEMA Disaster # (if applicable)	County Designated?	Date	Approximate Damage Assessment
Severe Storms / Flash Flood	DR-1335	Yes	May 3 – August 12, 2000	\$1.25 M in property damages County-wide.
Wind	N/A	N/A	December 12, 2000	Over \$64 K in property damage County-wide.
Drought	N/A	N/A	November 2001 – January 2002	Three month duration with the lowest PDSI of -3.28 in December.
Tornado F1	N/A	N/A	May 31, 2002	There were seven injuries and \$600 K in property damage County-wide.
Snowstorm	EM-3173	Yes	December 25, 2002	Snowfall totals in Tioga County ranged from 8.3 to 10.3.
Snowstorm	EM-3173	Yes	January 2-4, 2003	\$475 K in property damage County-wide.
Snowstorm	EM-3184	No	February 16-17, 2003	Snowfall totals in Tioga County ranged from 9.5 to 15 inches. The County had over \$152 K in property damage.
Severe Storm	N/A	N/A	July 21, 2003	Approximately \$50 K in property damage County-wide.
Wind	N/A	N/A	September 19, 2003	Approximately \$50 K in property damage County-wide.

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Type of Event	FEMA Disaster # (if applicable)	County Designated?	Date	Approximate Damage Assessment
Wind	N/A	N/A	October 15, 2003	Over \$58 K in property damage County-wide.
Wind	N/A	N/A	November 13, 2003	Over \$52 K in property damage County-wide.
Flood	N/A	N/A	March 1, 2004	\$40 K in property damages County-wide.
Flash Flood	N/A	N/A	July 7, 2004	The Town of Spencer had \$150 K in property damages.
Remnants of Hurricane Ivan	DR-1565	Yes	September 16-18, 2004	Approximately \$1M in property damage County-wide.
Flash Flood	N/A	N/A	March 28, 2005	Approximately \$70K in property damage County-wide.
Severe Storms and Flooding	DR-1589	Yes	April 2-4, 2005	Approximately \$500K in property damage County-wide.
Drought	N/A	N/A	Summer 2005	Not available.
Severe Storm	N/A	N/A	June 6, 2005	Approximately \$50 K in property damage County-wide.
Flash Flood	N/A	N/A	June 10, 2005	Approximately \$20K in property damage County-wide.
Flood	N/A	N/A	October 25, 2005	The Town of Waverly had \$20 K in property damages from the flooding event.
Flood	N/A	N/A	November 30 – December 1, 2005	The Town of Waverly had \$25 K in property damages from the flooding event.
Flood	N/A	N/A	January 18, 2006	Heavy rainfall caused minor flooding in Tioga County. The Town of Barton had \$10 K in property damages from the flooding event.
Severe Storm and Flooding	DR-1650	Yes	June 26-30, 2006	Over \$105M in property damage County-wide; \$40,000 Town Barn Losses; one property buy-out \$48,000 (Approx)
Flash Flood	DR-1670	Yes	November 16-17, 2006	Approximately \$35 K in property damages County-wide.
Severe Winter Storm	N/A	N/A	February 13-14, 2007	Snowfall totals in Tioga County ranged from 12 to 18 inches.
Riverine Flood	N/A	N/A	March 15-16, 2007	The Town of Barton had approximately \$5 K in property damage.
Riverine Flood	N/A	N/A	March 25-30, 2007	Not available.
Drought	N/A	N/A	October – November 2007	Not available.
Winter Weather	N/A	N/A	November 17, 2007	Not available.
Heavy Snow	N/A	N/A	December 13, 2007	Not available.
Tornado	N/A	N/A	May 16, 2009	Approximately \$10 K in property damage County-wide.



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Type of Event	FEMA Disaster # (if applicable)	County Designated?	Date	Approximate Damage Assessment
Flash Flooding	N/A	N/A	September 30 – October 1, 2010	Approximately \$75 K in property damage County-wide.
Heavy Snow	N/A	N/A	March 6-7, 2011	In Tioga County, snowfall totals ranged from 13 to 18 inches.
Severe Storm, Flooding, Straight-Line Winds	DR-1993	Yes	April 27-28, 2011	Approximately \$3 M in property damages County-wide; \$154,379 losses for various projects in the Town of Nichols.
Severe Storms	N/A	N/A	May 26, 2011	Approximately \$45 K in property damage County-wide.
Heat Wave	N/A	N/A	July 21-23, 2011	A record high of 100°F occurred.
Remnants of Tropical Storm Lee	DR-4031	Yes	September 7-12, 2011	Over \$477 M in property damage County-wide; \$678,212 for various projects in the Town of Nichols.

Note: N/A = Not applicable

D.) NATURAL HAZARD RISK/VULNERABILITY RISK RANKING

Rank #	Hazard type	Estimate of Potential Dollar Losses to Structures Vulnerable to the Hazard ^{a, c}	Probability of Occurrence	Risk Ranking Score (Probability x Impact)	Hazard Ranking ^b
1	Flood	1% Annual Chance: \$113,682,000 0.2% Annual Chance: \$117,305,000	Frequent	45	High
2	Severe Winter Storm	1% of GBS: \$1,094,880 5% of GBS: \$5,474,400	Frequent	39	High
3	Severe Storm	100-Year MRP: \$0 500-Year MRP: \$22,771 Annualized Loss: \$469	Frequent	30	Medium
4	Earthquake	500-Year MRP: \$116,714 2,500-Year MRP: \$1,219,526 Annualized Loss: \$1,238	Occasional	20	Low
5	Drought	Not available	Frequent	18	Low

^{a.} Building damage ratio estimates based on FEMA 386-2 (August 2001)

^{b.} High = Total hazard priority risk ranking score of 38 and above

Medium = Total hazard priority risk ranking of 21-37

Low = Total hazard risk ranking 20 or below

^{c.} The valuation of general building stock and loss estimates was based on the default general building stock database provided in HAZUS-MH 2.0 (RSMMeans 2006).

^{d.} Loss estimates are structural values only; does not include the value of contents.

^{e.} Loss estimates represent both structure and contents.

^{f.} The HAZUS-MH earthquake model results are reported by Census Tract.

E.) CAPABILITY ASSESSMENT

This section identifies the following capabilities of the local jurisdiction:

- Legal and regulatory capability
- Administrative and technical capability
- Fiscal capability
- Community classification.

The Town indicates that it has moderate fiscal capability, planning and regulatory capability, and administrative and technical capability with a moderately willing political capability to enact policies or programs to reduce hazard vulnerabilities in the community.

E.1) Legal and Regulatory Capability

Regulatory Tools (Codes, Ordinances., Plans)	Do you have this?	Enforcement Authority	Code Citation (Section, Paragraph, Page Number, Date of adoption)
1) Building Code	Y	Local	x
2) Zoning Ordinance	Y	Local	x
3) Subdivision Ordinance	N	Local	
4) NFIP Flood Damage Prevention Ordinance	Y	Local	x
4a) Cumulative Substantial Damages	Y	Local	
4b) Freeboard	Y	Local	
5) Growth Management	N	Local	
6) Floodplain Management / Basin Plan	Y	Local or Watershed	
7) Stormwater Management Plan/Ordinance	N	Local	
8) Comprehensive Plan / Master Plan/ General Plan	Y	Local	County Plan
9) Capital Improvements Plan	N	Local or County	
10) Site Plan Review Requirements	Y	Local	
11) Open Space Plan	Y	Local or County	Ag Plan
12) Stream Corridor Management Plan	Y	Local or Watershed	Cornell Study-Prelim
13) Watershed Management or Protection Plan	N	Local or Watershed	
14) Economic Development Plan	N	County	
15) Comprehensive Emergency Management Plan	Y	Local or County	
16) Emergency Response Plan	Y	Local or County	Under Development
17) Post Disaster Recovery Plan	N	Local	Under Development
18) Post Disaster Recovery Ordinance	N	Local	
19) Real Estate Disclosure Requirement	Y	State	State Law
20) Other [Special Purpose Ordinances (i.e., critical or sensitive areas)] Farmland Preservation	Y	Local or County	X 2012

E.2) Administrative and Technical Capability

Staff/ Personnel Resources	Available (Y or N)	Department/ Agency/ Position
1) Planner(s) or Engineer(s) with knowledge of land development and land management practices	N	Consultant Hire
2) Engineer(s) or Professional(s) trained in construction practices related to buildings and/or infrastructure	N	CEO
3) Planners or engineers with an understanding of natural hazards	N	County
4) NFIP Floodplain Administrator	Y	Robert Klossner, CEO Town of Nichols
5) Surveyor(s)	N	
6) Personnel skilled or trained in "GIS" applications	Y	County
7) Scientist familiar with natural hazards	N	
8) Emergency Manager	Y	County / Volunteers
9) Grant Writer(s)	N	
10) Staff with expertise or training in benefit/cost analysis	N	Volunteers

E.3) Fiscal Capability

Financial Resources	Accessible or Eligible to use (Yes/No/Don't know)
1) Community Development Block Grants (CDBG)	No
2) Capital Improvements Project Funding	No (Through budgeting process)
3) Authority to Levy Taxes for specific purposes	No
4) User fees for water, sewer, gas or electric service	Yes (Army project, Bet Buy)
5) Impact Fees for homebuyers or developers of new development/homes	No
6) Incur debt through general obligation bonds	No
7) Incur debt through special tax bonds	No
8) Incur debt through private activity bonds	No
9) Withhold public expenditures in hazard-prone areas	No
10) State mitigation grant programs (e.g. NYSDEC, NYCDEP)	Yes
11) Other-Partnering Arrangements or Intergovernmental Agreements	Yes

E.4) Community Classifications

Program	Classification	Date Classified
Community Rating System (CRS)	NP	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	Unknown	N/A
Public Protection	6	
Storm Ready	NP	N/A
Firewise	NP	N/A

N/A = Not applicable. NP = Not participating. - = Unavailable.

The classifications listed above relate to the community’s effectiveness in providing services that may impact it’s vulnerability to the natural hazards identified. These classifications can be viewed as a gauge of the community’s capabilities in all phases of emergency management (preparedness, response, recovery and mitigation) and are used as an underwriting parameter for determining the costs of various forms of insurance. The CRS class applies to flood insurance while the BCEGS and Public Protection classifications apply to standard property insurance. CRS classifications range on a scale of 1 to 10 with class one (1) being the best possible classification, and class 10 representing no classification benefit. Firewise classifications include a higher classification when the subject property is located beyond 1000 feet of a creditable fire hydrant and is within 5 road miles of a recognized Fire Station.

Criteria for classification credits are outlined in the following documents:

- The Community Rating System Coordinators Manual
- The Building Code Effectiveness Grading Schedule
- The ISO Mitigation online ISO’s Public Protection website at <http://www.isomitigation.com/ppc/0000/ppc0001.html>
- The National Weather Service Storm Ready website at <http://www.weather.gov/stormready/howto.htm>
- The National Firewise Communities website at <http://firewise.org/>

F.) MITIGATION STRATEGY

F.1) Past Mitigation Actions/Status

Under the Pro-active leadership of Nichols Town board Deputy Supervisor a joint Flood Mitigation Group was established to include Town/Village/Fire Dept./Tioga Downs/TCOEM/Nichols CCN. As such there have been 9 meetings to date concerning lessons learned and what needs to be done to better cope with the recent severe flooding from our beautiful river. Along with supporting the DMA 2000 Hazard Mitigation Plan Update for Tioga County, we have worked to have local Town meetings to educate our constituents with respect to FMEA programs concerning Buyouts, Home raising’s and Flood Proofing to enhance our ability to live alongside a normally peaceful and beautiful river. To date, there are eight buyouts being considered as well as one house raising. In addition, 5 local residents have come forth and generated a LOI to flood proof their homes as mitigation against the \$225,000 collective damage these homes suffered via Tropical storm Lee (See Attachment). This LOI was supported by the Nichols Deputy Supervisor and Faxed to the NYSOEM - Mitigation Dept. on 1/30/12.

Tioga Downs provided community with extensive support during and after Tropical Storm Lee including financial, food, waste pickup via their trucks/personnel and purchasing a new boat for Nichols Fire

Department for rescue efforts. In addition they have made their Regional Vice President available to support the Joint Nichols Flood Mitigation Group efforts and have superbly demonstrated Nichols Neighbors helping Neighbors policy.

Nichols Town/Village are concurrently updating associated Flood Mitigation Plans establish efforts needed for completion and dates.

2006 Mitigation Project	Status	Action
Wappasening Creek needs to be studied using the Rosgen method in order to stabilize sections of the stream. Several smaller projects have occurred towards the mouth of Wappasening Creek, these have been undertaken to remove gravel and stabilize a portion of the stream. Further work needs to be done on upper portions of the stream.	Incomplete	Included in 2012 Mitigation Strategy below.
Wappasening Creek – concerns of gravel deposits, streambank erosion and large woody debris (stream capacity). District recognizes there are concerns with this stream – funding is a limitation and interest of landowners to complete work.	Incomplete	Included in 2012 Mitigation Strategy below.
<p>Flooding of Hunts and Smith Creeks near Best Buy warehouse, concerns that debris and gravel deposits will exacerbate flooding in the area. Municipal officials concerned that future flooding may reach power station.</p> <p>Site Investigated Recommendations: Hunts and Smith Creeks should be evaluated by SWCD and determine if need to remove gravel and tree debris. Municipal officials should work with NYSEG and discuss concerns for flooding of power station. (ownership of station?)</p> <p>District worked with Town of Nichols after November flood to obtain permits for gravel removal from NYSDEC at the mouth of Hunts Creek</p> <p>District personnel completed evaluation – gravel and debris cleanout necessary and reestablishment of channel at bridge approach.</p>	Complete	NA
Sackett Creek – concerned with gravel deposits and large woody debris in stream (stream capacity?) Minimart contacted SWCD, technical assistance was given, recommended hiring private engineer to design rip rap to alleviate erosion problems.	Complete	NA
<p>Tioga Downs – stormwater runoff from the site discharges to W. River Road; pipes are not sufficient of size to handle storm events and road floods causing road closures.</p> <p>History of flooding in the area should be evaluated to determine if flooding occurred prior to Tioga Downs, if flooding was not prevalent in the area before the site was developed there may be concerns with SW retention on site and DEC should be contacted.</p>	Incomplete	Included in 2012 Mitigation Strategy below.

F.2) Hazard Vulnerabilities Identified

It is estimated that in the Town of Nichols, 212 residents live within the 1% annual chance flood area (NFIP Special Flood Hazard Area). Of the municipality's total land area, 11.9% is located within the 1% annual chance flood area. \$113,682,000 (65.9%) of the municipality's general building stock replacement cost value (structure and contents) is located within the 1% annual chance flood area.

There are 65 NFIP policies in the community and there are 47 policies located within the 1% annual chance flood area. FEMA has identified 18 Repetitive Loss (RL) including 0 Severe Repetitive Loss (SRL) properties in the municipality.

NFIP Summary

Municipality	# Policies (1)	# Claims (Losses) (1)	Total Loss Payments (2)	# Rep. Loss Prop. (1)	# Severe Rep. Loss Prop. (1)	# Polices in 100-year Boundary (3)	# Polices in 500-Boundary (3)	# Policies Outside the 500-year Flood Hazard (3)
Nichols (T)	65	92	\$2,667,766	18	0	47	50	15

Source:

- (1) Policies, claims, repetitive loss and severe repetitive loss statistics provided by FEMA Region 2, in April 2012 using the “Comm_Name”. These statistics are current as of January 31, 2012. Please note the total number of repetitive loss properties includes the severe repetitive loss properties.
- (2) Total building and content losses from the claims file provided by FEMA Region 2 (current as of January 31, 2012).
- (3) The policy locations used are based on the latitude and longitude provided by FEMA Region 2.

HAZUS-MH estimates that for a 1% annual chance flood, \$6,326,000 (3.7%) of the municipality's general building stock replacement cost value (structure and contents) will be damaged, 268 people may be displaced, 117 people may seek short-term sheltering, and an estimated 1746 tons of debris could be generated. HAZUS-MH estimates no damage and loss of use to critical facilities in the community as a result of a 1% annual chance flood event,

Please refer to the Hazard Profiles for additional vulnerability information relevant to this jurisdiction

F.3) PROPOSED HAZARD MITIGATION INITIATIVES

Note some of the identified mitigation initiatives in Table F are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in municipal priorities.

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals and Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Type
1	This project entails Flood Mitigation for 5 homes located on East River Road in the Town of Nichols N.Y. These homes suffered extensive damage to their lower levels (Finished Basements) that is estimated to be \$225,000 from Tropical Storm Lee September 2011 as well as flooding due to the 100 year flood of 2006.	Existing	Flood	1-1, 1-2, 1-9	Town of Nichols Administrator/homeowners, and TCOEM	High \$225,000 per occurrence	\$192,300	HMGP with homeowner match	Short	High	PP
2	Wappasening Creek needs to be studied using the Rosgen method in order to stabilize sections of the stream. Several smaller projects have occurred towards the mouth of Wappasening Creek, these have been undertaken to remove gravel and stabilize a portion of the stream. Further work needs to be done on upper portions of the stream.	N/A	Flood	1-1, 4-1, 4-4	Town Highway Department with support of TCSWCD and NCRS	High	High	HMGP or EWP grant	Short	High	SP



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Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals and Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Type
3	Wappasening Creek – concerns of gravel deposits, streambank erosion and large woody debris (stream capacity). District recognizes there are concerns with this stream – funding is a limitation and interest of landowners to complete work.	N/A	Flood	1-1, 4-1, 4-4	Town Highway Department with support of TCSWCD and NCRS	High	High	HMGP or EWP grant	Short	Medium	PP
4	Sackett Creek-Perform stream bank stabilization/restoration in accordance with NRCS standards and specifications. Floodwaters caused Sackett Creek to create an entirely new channel into a field coming within 25 feet of the house on the property, depositing a large amount of sediment in the main channel threatening the bridge downstream. To prevent this from occurring in the future the bank will be protected with rip-rap and two in stream structures will be installed to take pressure off the bank while allowing sediment to pass through the reach. Approximately	New	Flood	1-1, 4-1, 4-4	SWCD and NRCS	High	High (\$146,000)	EWP	Short	High	SP



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Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals and Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Type
	630 feet of bank protection is needed in this location. There is currently rip rap on both banks down to the bridge below this section and rip rap on the opposite bank of this reach. This causes the stream more erosive force on the bank in question and if not addressed now will continue to be a problem in the future for both the homeowner, and the three business (on both sides) and bridge downstream. The rock work will insure the stream does not continue to erode into a new channel.										
5	Tioga Downs – stormwater runoff from the site discharges to W. River Road; pipes are not sufficient of size to handle storm events and road floods causing road closures. History of flooding in the area should be evaluated to determine if flooding occurred prior to Tioga Downs, if flooding was not prevalent in the area before the site was developed there may be concerns with SW	Existing	Flood	1-1, 1-5, 1-8, 2-3, 3-3	Town Administration with support from TCSWCD	Medium	Low	Local Funds	Short	High	SP



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Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals and Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Type
	retention on site and DEC should be contacted.										
6	Lower Briggs Road Site (PW No. 5112107) Installation of fill and rip rap to protect the road and allow it to be passable as heavy rainfalls created flash flooding on small streams in the town. Lower Briggs Road was severely impacted in several locations by the tributary paralleling the stream.	Existing	Flood	1-1, 4-1, 4-4	Town Highway Superintendent with support of TCSWD	High	Medium	FEMA Public Assistance	Short	High	SP
7	Lower Briggs Road Site (PW No. 5112108) Installation of fill and rip rap to protect the road and allow it to be passable as heavy rainfalls created flash flooding on small streams in the town. Lower Briggs Road was severely impacted in several locations by the tributary paralleling the stream.	Existing	Flood	1-1, 4-1, 4-4	Town Highway Superintendent with support of TCSWD	High	Medium	FEMA Public Assistance	Short	High	SP
8	Flood early warning system to mitigate future damage by monitoring two stream locations and river as well as three rain gauges and weather station. The computer stations will be located at Tioga Downs a local	NA	Flood	1-7, 1-10, 2-2, 3-3, 5-2, 6-3	Town of Nichols with support from Tioga County SWCD/TCOEM	High	Medium (\$63,019)	HMGP and Local match	Short	High	PP



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	race track/casino in a secure room for monitoring of local flood events. The system will be tied into the Federal Flood Warning System and will be manned by community volunteers. A similar system in Corning NY has been working for over 30 years and is credited with proactive emergency service.										
9	Mt. Pleasant Road-Site #1-During the flood of September 2011, the culvert pipe crossing Mt. Pleasant Road sustained severe erosion around the outlet of the pipe; leaving the pipe exposed. NRCS and SWCD identified this site for outlet protection which will protect the pipe and road from erosion during future events. Also, a plunge pool will be constructed to stop a head cut in the stream bed.	Existing	Flood	1-1, 1-2	SWCD and NRCS with support from the Town Highway Department	High	Medium (\$54,000)	EWP	Short	High	SP
10	Mt. Pleasant Road-Site #2-During the September 2011 flood, heavy rain falls created flash flood phenomenon in our streams. The stream that parallels Mt. Pleasant Road	Existing	Flood	1-1, 1-2	SWCD and NRCS	High	High	EWP	Short	High	SP



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	sustained severe streambank erosion causing damage to the road shoulder and road. NRCS and SWCD identified this site for rock rip rap protection which will protect the road from erosion during future events.										
11	<p>Retrofit structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority.</p> <p>Phase 1: Identify appropriate candidates for retrofitting based on cost-effectiveness versus relocation.</p> <p>Residences on West River Road have been identified as candidates for residential home elevations.</p> <p>Phase 2: Where retrofitting is determined to be a viable option, work with property owners toward implementation of that action based on available funding from FEMA and local match availability.</p>	Existing	Flood, Severe Storm, Earthquake	1-1, 1-2, 1-9	Municipality (via Municipal Engineer/NFIP Floodplain Administrator) with support from NYSOEM, FEMA	High	Medium (approximately \$70,000 per home) Low after grant match	FEMA FMA/HMGP Mitigation Grant Programs and local budget (or property owner) for cost share	Short	High	PP



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12	<p>Purchase, or relocate structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority.</p> <p>Phase 1: Identify appropriate candidates for relocation based on cost-effectiveness versus retrofitting. Residences on West River Road, South Main Street, Sunnyside Drive, and East River Road have been identified to be demolished and to turn the land into green space for the Town.</p> <p>Phase 2: Where relocation is determined to be a viable option, work with property owners toward implementation of that action based on available funding from FEMA and local match availability.</p>	Existing	Flood, Severe Storm	1-2, 1-9, 3-2	Municipality (via Municipal Engineer/NFIP Floodplain Administrator) with support from NYSOEM, FEMA	High	Medium to High (Low after grant match)	FEMA Mitigation FMA/HMGP Grant Programs and local budget (or property owner) for cost share	Short	High	PP
13	Maintain compliance with and good-standing in the NFIP including adoption and enforcement of floodplain management	New & Existing	Flood, Severe Storms	1-1, 1-2, 1-3, 1-6, 1-7, 1-9	Municipality (via Municipal Engineer/NFIP Floodplain Administrator) with support from NYSOEM, ISO FEMA	High	Low - Medium	Local Budget	Ongoing	High	PP



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	requirements (e.g. regulating all new and substantially improved construction in Special Hazard Flood Areas), floodplain identification and mapping, and flood insurance outreach to the community. Further, continue to meet and/or exceed the minimum NFIP standards and criteria through the following NFIP-related continued compliance actions identified as Initiatives 10 – 19 (below).										
14	Begin the process to adopt higher regulatory standards to manage flood risk (i.e. increased freeboard, cumulative substantial damage/improvements).	New & Existing	Flood, Severe Storms	1-1, 1-7	Municipality (via Municipal Engineer/NFIP Floodplain Administrator) with support from NYSOEM, FEMA	Low	Low	Municipal Budget	Short	High	PP
15	<p>Conduct and facilitate community and public education and outreach for residents and businesses to include, but not be limited to, the following to promote and effect natural hazard risk reduction:</p> <ul style="list-style-type: none"> • Provide and maintain links to the HMP website, and regularly post notices on the County/municipal homepage(s) referencing the HMP webpages. • Prepare and distribute informational letters to flood vulnerable property owners and neighborhood associations, explaining the availability of mitigation grant funding to mitigate their properties, and instructing them on how they can learn more and implement mitigation. • Use email notification systems and newsletters to better educate the public on flood insurance, the availability of mitigation grant funding, and personal natural hazard risk reduction measures. • Work with neighborhood associations, civic and business groups to disseminate information on flood insurance and the availability of mitigation grant funding. 										
	See above.	NA	All Hazards	1-5, 1-7, 2-1, 2-2, 3-3, 3-4	Municipality with support from Planning Partners, NYSOEM, FEMA	Low - Medium	Low - Medium	Municipal Budget; HMA programs with local or county match	Short	High	PE
16	Have designated NFIP	N/A	Flood,	1-6, 1-8	NFIP Floodplain	Medium	Low	Municipal Budget	Short	High	PP



SECTION 9.8: TOWN OF NICHOLS

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals and Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Type
	Floodplain Administrator (FPA) become a Certified Floodplain Manager through the ASFPM, and pursue relevant continuing education training such as FEMA Benefit-Cost Analysis.		Severe Storms		Administrator				(DOF)		
17	Archive elevation certificates	NA	Flood, Severe Storm	1-3, 1-5, 1-6, 1-8, 2-3	NFIP Floodplain Administrator	Low	Low	Local Budget	On-going	High	PP
18	Continue to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Section 7.0	New & Existing	All Hazards	All	Municipality (via mitigation planning point of contacts) with support from Planning Partners (through their Points of Contact), NYSOEM	High	Low – High (for 5-year update)	Local Budget, possibly FEMA Mitigation Grant Funding for 5-year update	Ongoing	High	PP
19	Complete the ongoing updates of the Comprehensive Emergency Management Plans	New & Existing	All Hazards	1-1, 1-7, 3-1, 5-1, 6-2, 6-3, 6-4	Municipality with support from NYSOEM	Low	Low	Local Budget	Ongoing	High	PP
20	Create/enhance/maintain mutual aid agreements with neighboring communities for continuity of operations.	New & Existing	All Hazards	5-3, 5-4	Municipality with support from Surrounding municipalities and County	Low	Low	Local Budget	Ongoing	High	PP
21	Identify and develop agreements with entities that can provide support with FEMA/SOEM paperwork after disasters; qualified damage assessment personnel – Improve post-disaster capabilities – damage assessment; FEMA/SOEM	NA	All Hazards	5-1, 5-2, 5-3	Municipality with support from County, NYSOEM, FEMA	Medium	Medium	Local budget	Short	High	PP



SECTION 9.8: TOWN OF NICHOLS

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals and Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Type
	paperwork compilation, submissions, record-keeping										
22	Work with regional agencies (i.e. County and SOEM) to help develop damage assessment capabilities at the local level through such things as training programs, certification of qualified individuals (e.g. code officials, floodplain managers, engineers).	NA	All Hazards	5-1, 5-2, 5-3	Municipality with support from County, NYSOEM	Medium	Medium	Local budget, FEMA HMA and HLS grant programs	Short – Long-term DOF	High	PP
23	<p>Participate in local, county and/or state level projects and programs to develop improved structure and facility inventories and hazard datasets to support enhanced risk assessment efforts. Such programs may include developing a detailed inventory of critical facilities based upon FEMA’s Comprehensive Data Management System (CDMS) which could be used for various planning and emergency management purposes including:</p> <ul style="list-style-type: none"> • Support the performance of enhanced risk and vulnerability assessments for hazards of concern. • Support state, county and local planning efforts including mitigation (including updates to the State HMP), comprehensive emergency management, debris management, and land use. <p>Improved structural and facility inventories could incorporate flood, wind and seismic-specific parameters (e.g. first floor elevations, roof types, structure types based on FEMA-154 “Rapid Visual Screening of Buildings for Potential Seismic Hazards” methodologies). It is recognized that these programs will need to be initiated and supported at the County and/or State level, and will require training, tools and funding provided at the county, state and/or federal level.</p>										
	See above.	Existing	All Hazards	1-3, 1-6, 1-7, 2-3, 2-5	HMP Coordinator	Medium-High	Medium-High	Mitigation grant programs (PDM or HMGP) with local match	Long term DOF	High	PP

Notes:

*Does this mitigation initiative reduce the effects of hazards on new and/or existing buildings and/or infrastructure? Not applicable (NA) is inserted if this does not apply.

Costs:

Where actual project costs have been reasonably estimated:

Low = < \$10,000

Medium = \$10,000 to \$100,000

High = > \$100,000

Where actual project costs cannot reasonably be established at this time:

Low = Possible to fund under existing budget. Project is part of, or can be part of an existing on-going program.

Medium = Could budget for under existing work-plan, but would require a reapportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.



High = Would require an increase in revenue via an alternative source (i.e., bonds, grants, fee increases) to implement. Existing funding levels are not adequate to cover the costs of the proposed project.

Benefits:

Where possible, an estimate of project benefits (per FEMA's benefit calculation methodology) has been evaluated against the project costs, and is presented as:

Low = < \$10,000

Medium = \$10,000 to \$100,000

High = > \$100,000

Where numerical project benefits cannot reasonably be established at this time:

Low = Long term benefits of the project are difficult to quantify in the short term.

Medium = Project will have a long-term impact on the reduction of risk exposure to life and property, or project will provide an immediate reduction in the risk exposure to property.

High = Project will have an immediate impact on the reduction of risk exposure to life and property.

Potential Funding Sources:

ACOE = US Army Corps of Engineers

CBDG = Community Development Block Grants

DEC = NY Department of Environmental Conservation

DHSES=Department of Homeland Security Emergency Services

EMPG = Emergency Management Planning Grant

EWP = Emergency Watershed Protection Grants (NRCS)

FMA = Flood Mitigation Assistance Grant Program (FEMA)

HLS = Homeland Security Programs

HMGP= Hazard Mitigation Grant Program (FEMA)

HMA = Hazard Mitigation Assistance (FEMA)

NOAA= National Oceanic and Atmospheric Association

PDM = Pre-Disaster Mitigation Grant Program (FEMA)

RFC = Repetitive Flood Claims Grant Program

SHSP = State Homeland Security Program Grant

SRL = Severe Repetitive Loss Grant Program (FEMA)

WQIP = Water Quality Improvement Project Program (NYSDEC)

Timeline:

Short = 1 to 5 years. Long Term= 5 years or greater. OG = On-going program.

DOF = Depending on funding.

Notes (for Mitigation Project Type):

1. PP=Prevention and Property Protection: Government, administrative or regulatory actions or processes that influence the way land and buildings are developed and built. These actions also include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations and acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.
2. PE=Public Education and Awareness: Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and school-age and adult education programs.
3. NR=Natural Resource Protection: Actions that minimize hazard loss and also preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

4. SP=Structural Projects: Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.
5. ES=Emergency Services: Actions that protect people and property, during and immediately following, a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities.

G.) PRIORITIZATION OF MITIGATION INITIATIVES

Initiative #	# of Objectives Met	Benefits	Costs	Do Benefits equal or exceed Costs? (Yes or No)	Is project Grant eligible? (Yes or No)	Can Project be funded under existing programs/budgets? (Yes or No)	Priority (High, Med., Low)
1	3	H	H	Y	Y	Y	H
2	3	H	H	Y	Y	Y	H
3	3	H	H	Y	Y	N	M
4	3	H	H	Y	Y	Y	H
5	5	M	L	Y	N	N	H
6	3	H	M	Y	Y	Y	H
7	3	H	M	Y	Y	Y	H
8	6	H	M	Y	Y	Y	H
9	2	H	M	Y	Y	Y	H
10	2	H	H	Y	Y	Y	H
11	3	H	H	Y	Y	Y	M-H
12	3	H	H	Y	Y	Y	M-H
13	6	H	L-M	Y	N	Y	H
14	2	L	L	Y	N	Y	H
15	6	L-M	L-M	Y	Y	Y	H
16	2	M	L	Y	Y	Y	H
17	5	L	L	Y	N	Y	H
18	All	H	L-M	Y	Y	Y	H
19	7	L	L	Y	N	Y	H
20	2	L	L	Y	N	Y	M
21	3	M	M	Y	Y	Y	H
22	3	M	M	Y	Y	Y	H
23	5	M-H	M-H	Y	Y	Y	H

Notes: H = High. L = Low. M = Medium. N = No. N/A = Not applicable. Y = Yes.

Explanation of Priorities

High Priority = A project that meets multiple objectives (i.e., multiple hazards), benefits exceeds cost, has funding secured or is an on-going project and project meets eligibility requirements for the Hazard Mitigation Grant Program (HMGP) or Pre-Disaster Mitigation Grant Program (PDM) programs. High priority projects can be completed in the short term (1 to 5 years).

Medium Priority = A project that meets goals and objectives, benefits exceeds costs, funding has not been secured but project is grant eligible under, HMGP, PDM or other grant programs. Project can be completed in the short term, once funding is completed. Medium priority projects will become high priority projects once funding is secured.

Low Priority = Any project that will mitigate the risk of a hazard, benefits do not exceed the costs or are difficult to quantify, funding has not been secured and project is not eligible for HMGP or PDM grant funding, and time line for completion is considered long term (1 to 10 years). Low priority projects may be eligible other sources of grant funding from other programs. A low priority project could become a high priority project once funding is secured as long as it could be completed in the short term.

Prioritization of initiatives was based on above definitions: Yes

Prioritization of initiatives was based on parameters other than stated above: Not applicable.

H.) FUTURE NEEDS TO BETTER UNDERSTAND RISK/VULNERABILITY

None at this time.

I.) HAZARD AREA EXTENT AND LOCATION

A hazard area extent and location map has been generated for the Town of Nichols to illustrate the probable areas impacted within the Town of Nichols and is provided on the next page. This map is based on the best available data at the time of the preparation of this Plan, and is considered to be adequate for planning purposes. Maps have only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Town of Nichols has significant exposure. The Planning Area maps are provided in the hazard profiles within Section 5.4, Volume I of this Plan.

J.) ADDITIONAL COMMENTS

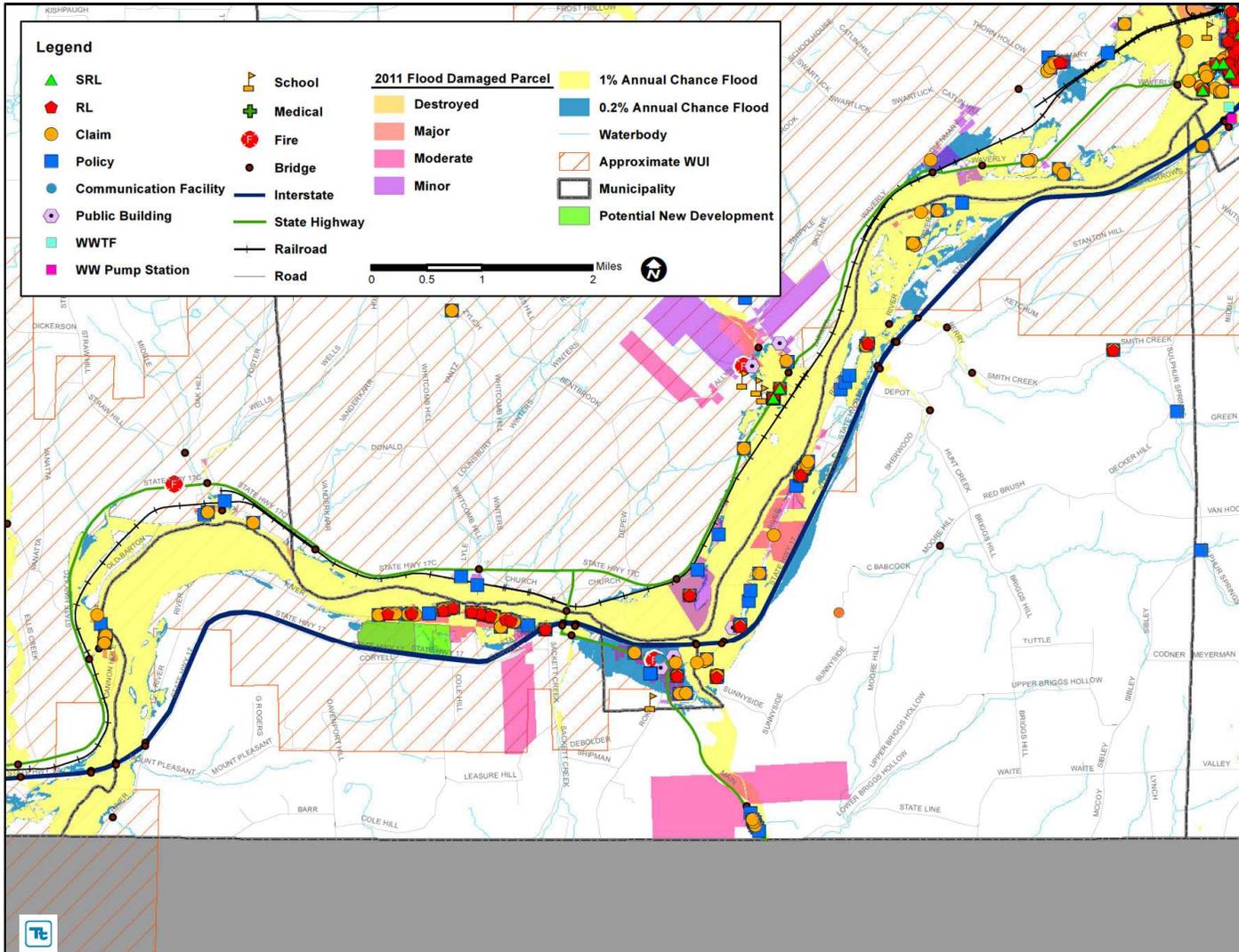
No additional comments at this time.

Project Information:

This project entails Flood Mitigation for 5 homes located on East River Road in the Town of Nichols N.Y. These homes suffered extensive damage to their lower levels (Finished Basements) that is estimated to be \$225,000 from Tropical Storm Lee September 2011 as well as flooding due to the 100 year flood of 2006.

4 homes have sunken driveways that allowed river water to enter the homes. Effective Flood Mitigation would be Elevation or cost effective Flood Gates built to FEMA/Army Core of Engineering standards. This LOI is proposing Flood Gates. 1 house has 2 car driveway and 3 have single car driveways.

Figure 9.8-1. Town of Nichols Hazard Area Extent and Location Map



Sources: FEMA, 2011

Notes: NFIP = National Flood Insurance Program. RL = Repetitive Loss. SRL = Severe Repetitive Loss. The entire municipality is vulnerable to the following hazards: drought, earthquake, severe storm, and severe winter storm.