9.8 TOWN OF COXSACKIE

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

A.) HAZARD MITIGATION PLAN POINT OF CONTACT

Primary Point of Contact	Alternate Point of Contact
Alex Betke, Town Supervisor 16 Reed Street Coxsackie, NY 12051 518-731-2727 Email: alexbetke@coxsackie.org	Bambi Hotaling, Town Clerk 16 Reed Street Coxsackie, NY 12051 518-731-2727 E-mail: clerk@coxsackie.org

B.) TOWN PROFILE

Population

9,023 (estimated 2007 U.S. Census). The population, at the time of the 2000 census, was 8,884.

Location

The Town of Coxsackie occupies 36.9 square miles in the northeast portion of Greene County. Coxsackie is located on the Hudson River 19 miles south of Albany and 10 miles north of Catskill. The latitude of Coxsackie is 42.345N. The longitude is -73.865W. The Town of Coxsackie has a reported six (6) miles of Hudson River waterfront area.

Climate

The Town of Coxsackie generally experiences seasonable weather patterns characteristic of the northeastern U.S. During periods of extreme weather, temperatures can fall well below 0 degrees and infrequently exceed 100 degrees F in the summer. The winters of Coxsackie are long and cold. Winter high temperatures are usually in the middle to upper 20s°F, with minimum temperatures of 15°F expected. Precipitation averages 37 inches with approximately 18 inches falling between April and September. Average annual snowfall is 68 inches each year. Last freeze dates range from April 13th to May 26th in the spring and from September 26th to October 24th in the fall.

Brief History

The settlement of the Town of Coxsackie began in the 17th Century, around 1652 as part of the development of New Netherlands. The area became a district in 1772 and the Town of Coxsackie was founded in 1788. In 1790, when the Town of Durham was formed, a portion of the Town of Coxsackie was lost. Further land was lost when the Towns of Cairo, Greenville, New Baltimore and Athens were formed.

Governing Body Format

The Town of Coxsackie is governed by a Town Supervisor and four Town Council members, all of whom are elected.

Growth/Development Trends

There has been a significant increase in the Town's population growth rate of 28.5%. The number of Town of Coxsackie residents increased from 5511(1990) to 9023 (estimated 2007 U.S. Census). There was a significant 13.2% increase in the number of households in the Town between 1990 and 2000.

There will be increased demand for Town services and resources due to the expansion of the 9W corridor, building the Empire Liquor Warehouse, and the current construction of the Ducummon Industries factory (formerly Dynabil). A major condominium/golf course project called "Hamlet on the Hudson" has been proposed, as well as development on the River Road.

Per Greene County Comprehesive Economic Plan (2007):

	Town and Village of Coxsackie
Potential Growth Areas	Residential • Conservation subdivisions or the use of PUDs are preferred along with low-density developments. • More development is allotted for the Sleepy Hollow community. • Bailey Street (west) is encouraged to have increased residential development. • Single-family residential is encouraged within the County Route 9 and Kings Road area. • Hamlet on the Hudson: Located on Farm and Market Road, this 18-hole golf course community is proposed to include 554 condominiums, a 130,000 square foot clubhouse and restaurant, a 400 person catering, gym, indoor water park and other amenities and services. • United Mobile Home is in the early stages of planning for the development of large senior land leased community.
	Commercial • Encourage commercial uses and subdivisions I appropriately zoned areas along Route 9W. • Encourage light commercial, industrial, and municipal services on Bailey Street (east)
	Waterfront • Riverfront revitalization including commercial, recreation, retail, and water-based commerce and activities.
	Industrial • The Green County Industrial Development Agency has several large parcels available for in industrial development or office parks within the Town of Coxsackie.

C.) NATURAL HAZARD EVENT HISTORY SPECIFIC TO THE TOWN

Type of Event	FEMA Disaster # (if applicable)	Date	Preliminary Damage Assessment
Flood / Ice Jam	Not applicable	March, 1896	Not available
Ice Jam	Not applicable	March, 1936	Not available
Flood (Hurricane Diane)	DR-45	August, 1955	Not available
Flood (Hurricane Katie)	DR-52	October, 1955	Not available

Type of Event	FEMA Disaster # (if applicable)	Date	Preliminary Damage Assessment
Snowstorm / Extreme Cold	Not applicable	January, 1961	Not available
Extreme Cold	Not applicable	January, 1963	Not available
Extreme Cold	Not applicable	February, 1963	Not available
Snowstorm / Extreme cold	Not applicable	January, 1964	Not available
Extreme Cold	Not applicable	January, 1971	Not available
Extreme Cold	Not applicable	February, 1971	Not available
Flood (Tropical Storm Agnes)	Not applicable	June, 1972	$806,000 (countywide)
Extreme Cold	Not applicable	February, 1980	Not available
Extreme Cold	Not applicable	January, 1981	Not available
Flood	DR-792	April, 1987	$2,000,000 (countywide)
Severe Winter Storm	DR-801	October, 1987	Not available
Ice Storm	Not applicable	December, 1991	$385,000 (countywide)
Blizzard / Extreme Cold	EM-3107	March, 1993	Not available
Extreme Cold	Not applicable	January, 1994	Not available
TSTM	Not applicable	July, 1995	$60,000
Flood	Not applicable	October, 1995	$3,000,000 (countywide)
Blizzard	DR-1083	January, 1996	$160,000
Severe Storm and Flooding	DR-1095	January, 1996	$10,000,000 (countywide)
Flood	Not applicable	January, 1996	$300,000
TSTM / Lightning	Not applicable	June, 1996	$29,000
Snowstorm	Not applicable	March / April, 1997	$709,000 (countywide)
Flood	Not applicable	May, 1998	$40,000
Severe Storm/Flooding (Hurricane Floyd)	DR-1295	September, 1999	$3,000,000 (countywide)
Severe Storms	DR-1335	May/September, 2000	$115,000
TSTM / Hail / Lightning	Not applicable	June, 2001	Between $370,000 and $400,000 (countywide)
Snowstorm	EM-3173	December 2002 / January 2003	$29,000
Snowstorm	EM-3184	February, 2003	Not available
Landslide	Not applicable	March 2003	Not available
Severe Storms, Tornado, and Flooding	DR-1486	July/August, 2003	Between $75,000 and $1,100,000

Type of Event	FEMA Disaster # (if applicable)	Date	Preliminary Damage Assessment
			(countywide)
Flood (Hurricane Ivan)	Not applicable	September, 2004	Not available
Severe storms and Flooding	DR-1589	April, 2005	$1,300,000 (countywide)
Severe storms and Flooding	DR-1650	June/July, 2006	Not available
Snowstorm (Valentine's Day Storm)	Not applicable	February, 2007	Not available
Snowstorm (St. Patrick's Day Storm)	Not applicable	March, 2007	Not available
Severe Storms and Inland and Coastal Flooding (Nor'Easter)	DR-1692	April, 2007	Between $1,300,000 and $111,000,000 (may be inaccurate) (countywide)
Severe Ice Storm	DR-1827	12-13 to 12-31-08	Approximately $1,200,000 county-wide

Number of FEMA Identified Repetitive Flood Loss Properties: 0 [a]
Number of FEMA Identified Severe Repetitive Flood Loss Properties: 0 [a]

[a] Source: FEMA Region II, 2008.

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]
4	Earthquake	$4,834,752 [e]	Low	10	Low
1	Flood	$7,725,000 [e]	High	54	High
3	Ground Failure	Not available [f]	Medium	24	Medium
1	Severe Storm	$693,769 [d]	High	54	High
2	Severe Winter Storm	$25,063,900 [d]	High	48	High

a. Building damage ratio estimates based on FEMA 386-2 (August 2001)
b. High = Total hazard priority risk ranking score of 40 and above
Medium = Total hazard priority risk ranking of 20-39
Low = Total hazard risk ranking below 20
c. The valuation of general building stock and loss estimates determined in Greene County were based on the default general building stock database provided in HAZUS-MH MR3 (R.S. Means 2006).
d. 500-year MRP structural value loss estimate only; does not include the value of contents. For severe winter storm, the loss estimate is 10% of total general building stock value.
e. Loss estimates for both structure and contents (500-year MRP for the flood hazard and 2,500-year MRP for the earthquake hazard).
f. 56.6% of the general building stock in the Town is exposed or located within the approximate landslide hazard area.

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.

E.1) Legal and Regulatory Capability

Regulatory Tools (Codes, Ordinances., Plans)	Local Authority (Y or N)	Prohibitions (State or Federal) (Y or N)	Higher Jurisdictional Authority (Y or N)	State Mandated (Y or N)	Code Citation (Section, Paragraph, Page Number, date of adoption)
1) Building Code	Y	N	Y	Y	Sec. 74.2 of the Coxsackie Town Code. The town adopted the NYS Building Code as its standard in 1987
2) Zoning Ordinance	Y	N	N	N	Chapter 201 of the Coxsackie Town Code, adopted 8/31/87, updated & reprinted 2003
3) Subdivision Ordinance	Y	N	N	N	Chapter 174 of the Coxsackie Town Code.
4) NFIP Flood Damage Prevention Ordinance (if you are in the NFIP, you **must** have this.)	Y	Y	Y	Y	Effective Date: 4/21/2008
5) Growth Management	Y	N	N	N	Coxsackie Community Comprehensive Plan
6) Floodplain Management / Basin Plan	Y	Y	Y	N	Coxsackie Community Comprehensive Plan
7) Stormwater Management Plan/Ordinance	Y	N	Y	Y	Coxsackie Community Comprehensive Plan pp. 57, 98, 100
8) Comprehensive Plan / Master Plan/ General Plan	Y	N	N	N	Coxsackie Community Comprehensive Plan
9) Capital Improvements Plan	Y	N	N	N	
10) Site Plan Review Requirements	Y	Y	Y	N	Article VIII of the Town Zoning Ordinance
11) Open Space Plan	Y	N	N	N	Coxsackie Community Comprehensive Plan pp. 102-104
12) Economic Development Plan	Y	N	N	N	
13) Emergency Response Plan	Y	N	Y	Y	Town of Coxsackie Comprehensive Emergency Management Plan (Under Development)
14) Post Disaster Recovery Plan	Y	N	N	N	
15) Post Disaster Recovery Ordinance	Y	N	N	N	
16) Real Estate Disclosure req.	N	N	N	N	
17) Other [Special Purpose Ordinances (i.e., critical or sensitive areas)]	Y	N	Y	N	Natural Resource Protection Standards included in local zoning, require protection of wetlands, streams and steep slopes

E.2) Administrative and Technical Capability

Staff/ Personnel Resources	Available (Y or No)	Department/ Agency/Position
1) Planner(s) or Engineer(s) with knowledge of land development and land management practices	Y	Bill White, Chairman Planning Board
2) Engineer(s) or Professional(s) trained in construction practices related to buildings and/or infrastructure	Y	Ed Pebler, Code Officer
3) Planners or engineers with an understanding of natural hazards	Y	Ed Pebler, Code Officer
4) NFIP Floodplain Administrator (if you are in the NFIP, you **must** have one.)	Y	Ed Pebler, Code Officer
5) Surveyor(s)	Y	Delaware Engineering (by contract)
6) Personnel skilled or trained in "GIS" applications	Y	Rene Van Schaack, Greene Co. IDA
7) Scientist familiar with natural hazards in the Town of Coxsackie.	Y	Rene Van Schaack, Greene Co. IDA
8) Emergency Manager	Y	Donald Daoust, Coxsackie Town Council
9) Grant Writer(s)	Y	Victor Cornelius, (by contract)
10) Staff with expertise or training in benefit/cost analysis	N	

E.3) Fiscal Capability

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

E.4) Community Classifications

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

- N/A = Not applicable. - = 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.) PROPOSED HAZARD MITIGATION INITIATIVES

Initiative	Mitigation Initiative	Applies to new or existing assets	Hazard(s) Mitigated	Objectives Met	Lead Agency	Support agencies	Estimated Cost	Sources of Funding	Timeline
TCX-1A	Where appropriate, support retrofitting of structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority. Identify facilities that are viable candidates for retrofitting based on cost-effectiveness versus relocation. Where retrofitting is determined to be a viable option, consider implementation of that action based on available funding.	Existing	Flood, Severe Storm	2, 4, 11	Municipality (likely through NFIP Floodplain Administrator)	SEMO, FEMA	High	FEMA Mitigation Grant Programs and local budget (or property owner) for cost share	Long-term DOF
TCX-1B	Where appropriate, support purchase, or relocation of structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority. Identify facilities that are viable candidates for relocation based on cost-effectiveness versus retrofitting. Where relocation is determined to be a viable option, consider implementation of that action based on available funding.	Existing	Flood, Severe Storm	2, 4, 11	Municipality (likely through NFIP Floodplain Administrator)	SEMO, FEMA	High	FEMA Mitigation Grant Programs and local budget (or property owner) for cost share	Long-term DOF
TCX-2	As appropriate, support participation in incentive-	New & Existing	Flood	2, 3, 4, 5, 6, 8, 9, 10, 11	Municipality (likely through	SEMO, ISO, FEMA	Low - Medium	Local Budget	Short

Initiative	Mitigation Initiative	Applies to new or existing assets	Hazard(s) Mitigated	Objectives Met	Lead Agency	Support agencies	Estimated Cost	Sources of Funding	Timeline
	based programs such as CRS.				NFIP Floodplain Administrator)				
TCX-3	Continue to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Section 7.0	New & Existing	All Hazards	All Objectives	Municipality (through mitigation planning point of contacts)	County (through Mitigation Planning Coordinator), SEMO	Low – High (for 5-year update)	Local Budget, possibly FEMA Mitigation Grant Funding for 5-year update	Ongoing
TCX-4	Strive to maintain compliance with, and good-standing in the National Flood Insurance program.	New & Existing	Flood	2, 3, 4, 5, 6, 8, 9, 10, 11	Municipality (likely through NFIP Floodplain Administrator)	SEMO, ISO, FEMA	Low - Medium	Local Budget	Ongoing
TCX-5	Continue to develop, enhance, and implement existing emergency plans.	New & Existing	All Hazards	1, 7, 8, 9	Municipal Emergency Manager with support from County OEM and SEMO	County Emergency Management, SEMO	Low - Medium	Local Budget	Ongoing
TCX-6	Create/enhance/ maintain mutual aid agreements with neighboring communities.	New & Existing	All Hazards	1,7,8, 9	Local Emergency Management, DPW and Roads	Surrounding municipalities and County	Low - Medium	Local Budget	Ongoing
TCX-7	Support County-wide initiatives identified in Section 9.1 of the County Annex.	New & Existing	All Hazards	All objectives	Local departments (as applicable for specific initiative)	County and Regional agencies (as appropriate for initiative)	Low - High	Existing programs and grant funding where applicable	Ongoing – Long-term depending on initiative
TCX-8	Retrofit Mountain road in Earlton, to avoid possible landslide and flooding. Road is twisty, steep, and bumpy	Existing	Flood, Severe Storm, Severe Winter Storm, Ground Failure	2, 6, 10, 11	Town Dept of Public Works	County, GCSWCD SEMO	High	Capital Improvements Budget, HMA	Short
TCX-9	Enlarge culvert on Adams Road near Apple Hotaling, install bridge, flooding	Existing	Flood, Severe Storm, Severe Winter Storm	2, 6, 10, 11	Town Dept of Public Works	County, GCSWCD SEMO	HIgh	Capital Improvements HMA	Short

Initiative	Mitigation Initiative	Applies to new or existing assets	Hazard(s) Mitigated	Objectives Met	Lead Agency	Support agencies	Estimated Cost	Sources of Funding	Timeline
TCX-10	Improve drainage on Johnny Cake Lane near Dawn Smith's, flooding	Existing	Flood, Severe Storm, Severe Winter Storm	2, 6, 10, 11	Town Dept of Public Works	County, GCSWCD SEMO	High	Capital Improvements HMA	Short
TCX-11	Replace inadequate culvert system on Vandenburgh Road by Haines Farm with box culvert, floods in spring.	Existing	Flood, Severe Storm, Severe Winter Storm	2, 6, 10, 11	Town Dept of Public Works	County, GCSWCD SEMO	High	Capital Improvements Budget, HMA	Short
TCX-12	Replace culvert on Honey Hollow Road near Marvin Chudnoff, needs larger culvert to mitigate flooding	Existing	Flood, Severe Storm, Severe Winter Storm	2, 6, 10, 11	Town Dept of Public Works	County, GCSWCD SEMO	High	Capital Improvements HMA	Short
TCX-13	Design and implement improvements to drainage conveyance systems to remediate drainage problems along Greene-Bedell Road near Schlenker/Francis due to possible landslide or flooding. In the event that the road floods it could be made impassable due to bad flood or extraordinary Hudson River high tide, impeding Fire/Rescue vehicles. There are 4 homes (two families are seniors over 70 years of age) in the flood-prone section of this road which would be in danger if fire/rescue/ambulance vehicles could not get in to them because of a flood or landslide. There is no alternate road in or out. Improvements would include upsizing culverts, new outfall lines to the	Existing	Flood, Severe Storm, Severe Winter Storm, Ground Failure	2, 3, 6, 10, 11	Town Dept of Public Works	County, GCSWCD SEMO	Medium	Local Funds, HMGP, other grants, potentially NYSDEC Hudson River Estuary programs funds for wetland restoration	Short

Initiative	Mitigation Initiative	Applies to new or existing assets	Hazard(s) Mitigated	Objectives Met	Lead Agency	Support agencies	Estimated Cost	Sources of Funding	Timeline
	Hudson River, stabilization of drainage ditches, stabilization and appropriate armoring of drainageways on steep grades and the use of grade control structures to facilitate drainage on steep slopes								
TCX-14	Implement measures to elevate flood prone sections of Four mile point Road. Same as above, road along river floods at very high tides, could be made impassable due to bad flood or extraordinary Hudson River tide, leading to impedance of Fire/Rescue vehicles. There are 8 homes in the flood-prone section of this road, which would be in grave danger if fire/rescue/ambulance vehicles could not get in to them because of a flood or landslide. There is no alternate road in or out. Specific measures would include elevation by 2-3 feet of approximately ½ miles of road including multiple culvert structures that would be used as floodplain drains and allow for movement of high tides into adjacent freshwater wetlands.	Existing	Flood, Severe Storm, Severe Winter Storm	2, 3, 6, 10, 11	Town Dept of Public Works	County, GCSWCD SEMO	Medium	HMA	Short

Initiative	Mitigation Initiative	Applies to new or existing assets	Hazard(s) Mitigated	Objectives Met	Lead Agency	Support agencies	Estimated Cost	Sources of Funding	Timeline
TCX-15	Work cooperatively with the Village of Coxsackie to design and implement flood attenuation basins in the Coxsackie Creek watershed. Flood attenuation basins will benefit town as well as village properties. Preliminary analysis indicates that 5-6 basins located in the town just outside the village would be effective and have immediate benefits. Basins would be similar to recent one built by Greene IDA on a small unnamed tributary to the Coxsackie Creek that is west of NYS route 81. Basins would be constructed such that they would have added benefit of wetland creation as well as habitat creation.	Existing	Flooding	2, 3, 6, 10, 11	Village of Coxsackie	Town of Coxsackie, Greene County Highway, NYSDOT, NYS DOC, NYSDEC., NYSOGC Army Corp of Engineers	$1,000,000 to $1,500,000	Village of Coxsackie, Grants, potentially mitigation funds from developers	Short-term

Notes: Short term = 1 to 5 years. Long Term= 5 years or greater. OG = On going program. DOF = Depending on funding. PDM = Pre-Disaster Mitigation Grant Program.

G.) ANALYSIS OF MITIGATION ACTIONS

This table summarizes the participant's mitigation actions by hazard of concern and the six mitigation types to illustrate that the Town has selected a comprehensive range of actions/projects.

Hazard of Concern	Mitigation Type					
	1. Prevention	2. Property Protection	3. Public Education and Awareness	4. Natural Resource Protection	5. Emergency Services	6. Structural Projects
Earthquake	TCX-3, TCX-7	TCX-3, TCX-7	TCX-3, TCX-7	TCX-3, TCX-7,	TCX-3, TCX-5, TCX-6, TCX-7	TCX-3, TCX-7
Flooding (riverine, flash, coastal and urban flooding)	TCX-2, TCX-3, TCX-4, TCX-7	TCX-1, TCX-2, TCX-3, TCX-4, TCX-7	TCX-1, TCX-2, TCX-3, TCX-4, TCX-7, TCX-13, TCX-14	TCX-3, TCX-7, TCX-8. TCX-9, TCX-10, TCX-11, TCX-12	TCX-2, TCX-3, TCX-5, TCX-6, TCX-7	TCX-3, TCX-7, TCX-8. TCX-9, TCX-10, TCX-11, TCX-12
Ground Failure	TCX-3, TCX-7	TCX-3, TCX-7	TCX-3, TCX-7, TCX-13, TCX-14	TCX-3, TCX-7	TCX-3, TCX-5, TCX-6, TCX-7	TCX-3, TCX-7, TCX-15
Severe Storms (windstorms, thunderstorms, hail, lightning and tornados)	TCX-2, TCX-3, TCX-4, TCX-7	TCX-1, TCX-2, TCX-3, TCX-4, TCX-7	TCX-1, TCX-2, TCX-3, TCX-4, TCX-7, TCX-13, TCX-14	TCX-3, TCX-7, TCX-8. TCX-9, TCX-10, TCX-11, TCX-12	TCX-2, TCX-3, TCX-5, TCX-6, TCX-7	TCX-3, TCX-7, TCX-8. TCX-9, TCX-10, TCX-11, TCX-12
Severe Winter Storm (heavy snow, blizzards, ice storms)	TCX-3, TCX-7	TCX-3, TCX-7	TCX-3, TCX-7, TCX-13, TCX-14	TCX-3, TCX-7, TCX-8. TCX-9, TCX-10, TCX-11, TCX-12	TCX-3, TCX-5, TCX-6, TCX-7	TCX-3, TCX-7, TCX-8. TCX-9, TCX-10, TCX-11, TCX-12

Notes:

1. **Prevention:** 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. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.
2. **Property Protection:** 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 acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.
3. **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.
4. **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.
5. **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.
6. **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.

H.) 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)
TCX-1A	3	H	H	Y	Y	N	M-H*
TCX-1B	3	H	H	Y	Y	N	M-H*
TCX-2	9	M	L	Y	N	Y	H
TCX-3	11	M	M	Y	N (Yes for 5 year update)	Y	H
TCX-4	9	H	L	Y	N	Y	H
TCX-5	4	M	L	Y	N	Y	H
TCX-6	4	M	L	Y	N	Y	H
TCX-7	11	M-H	L-M	Y	Dependant on specific initiative	Dependant on specific initiative	M-H (dependant)
TCX-8	4	M	M	Y	Y	N	M
TCX-9	4	M	M	Y	Y	N	M
TCX-10	4	M	M	Y	Y	N	M
TCX-11	4	M	M	Y	Y	N	M
TCX-12	4	M	M	Y	Y	N	M
TCX-13	5	M	L	Y	Y	Y	H
TCX-14	5	M	L	Y	Y	Y	H
TCX-15	5	M	M	Y	Y	Y	M

Notes: H = High. L = Low. M = Medium. N = No. N/A = Not applicable. Y = Yes.
* This initiative has a "Medium" priority based on the prioritization scheme used in this planning process (implementation dependent on grant funding), however it is recognized that addressing repetitive and severe repetitive loss properties is considered a high priority by FEMA and SEMO (as expressed in the State HMP), and thus shall be considered a "High" priority for all participants in this planning process.

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:

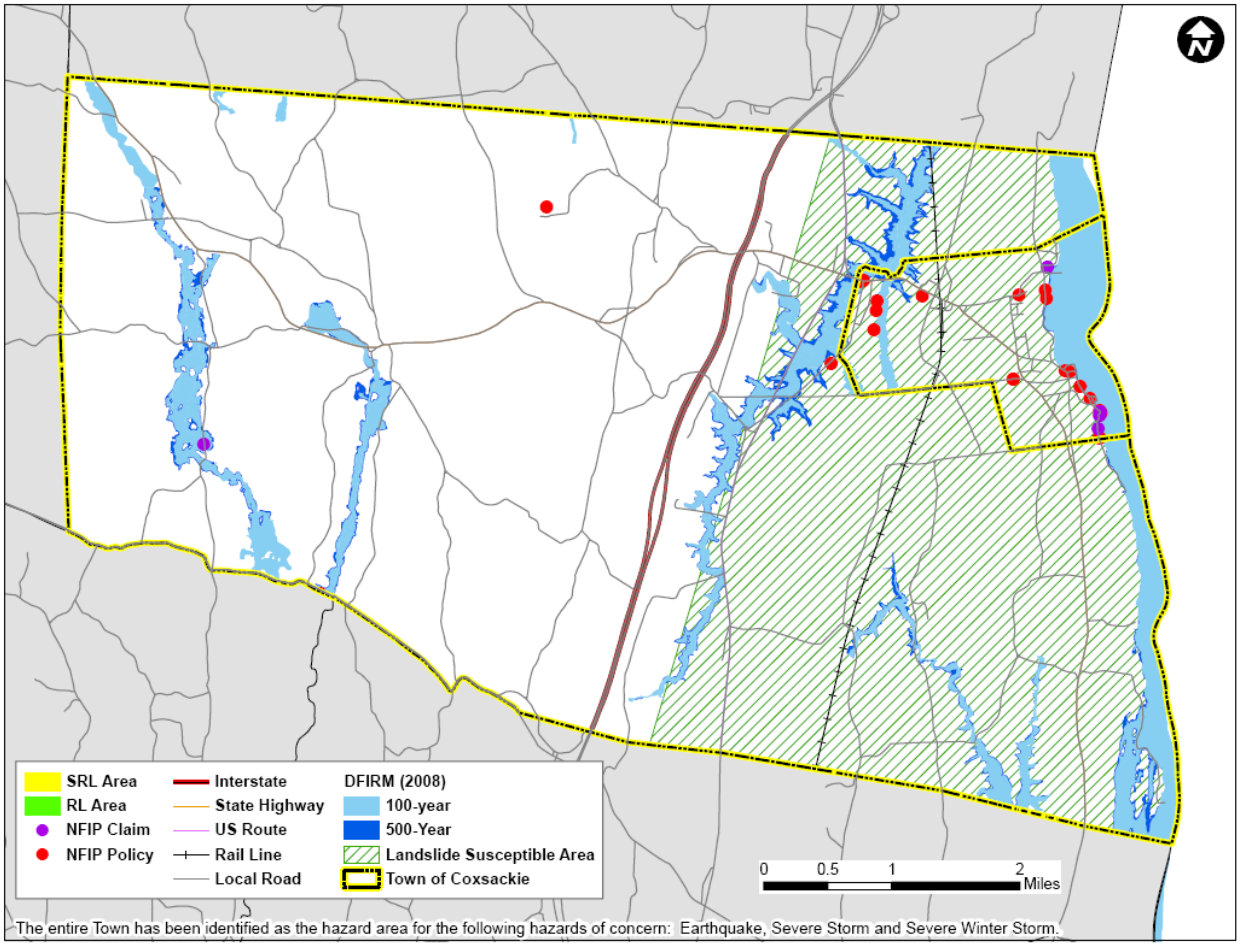
  Prioritization of initiatives was based on parameters other than stated above:

I.) FUTURE NEEDS TO BETTER UNDERSTAND RISK/VULNERABILITY

None at this time.

J.) HAZARD AREA EXTENT AND LOCATION

A hazard area extent and location map has been generated and is provided below for the Town of Coxsackie to illustrate the probable areas impacted within the Town. 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 Coxsackie has significant exposure. The county maps are provided in the hazard profiles within Section 5.4, Volume I of this Plan.



Sources: FEMA DFIRM, 2008; FEMA Region II, 2008; Greene County Planning and Economic Development, 2008; NYSDPC, 2008

Notes: DFIRM = Digital Flood Insurance Rate Map. NFIP = National Flood Insurance Program; RL = Repetitive Loss; SRL = Severe Repetitive Loss

K.) ADDITIONAL COMMENTS

1. An unresolved mitigation action includes the Greene-Bedell Road project. The hill opposite the road along the Hudson River was unstable, drained poorly, sand removed over the years led to instability and erosion. Drains filled with silt and debris. An engineering firm was hired, a study was done, plans and drawings were made for catch basins, but no construction took place.

2. Potential hazard areas have been identified as follows:

The Iroquois natural gas pipeline runs through the western part of the town. It could represent a hazard to life and property if eroded or damaged.

There are three dams in the town: the prison reservoir dam, the Bronk Lake dam, and a dam near Boehm's apple orchard.

There are two large water towers in the town: one on the grounds of Greene Correctional Facility, and one in the Village of Coxsackie on Mansion Street near the old cemetery.

Local old-timers recalled a serious drought that had a profound effect on the Town of Coxsackie, believed to be in the 1960's.