



Town of Shandaken - Flood Mitigation Plan



ESTIMATED POPULATION VULNERABLE TO THE 1% AND 0.2% FLOOD EVENTS

Zip Code	Total Population (U.S. Census 2010)	Population in 1% Hazard Area	Percent Population	Population in 0.2% Hazard Area	Percent Population
Big Indian	457	69	15.1	69	15.1
Chichester	345	8	2.3	8	2.3
Mt Tremper	478	41	8.6	98	20.5
Phoenicia	1,021	140	13.7	163	16.0
Pine Hill	242	4	1.7	4	1.7
Shandaken	542	62	11.4	73	13.5
Town of Shandaken	3,085	324	10.5	415	13.5

Source: Census, 2010

Note: Census Block 361119553001065, located entirely in the Town of Shandaken, has two zip codes: Phoenicia and Boiceville. For the purposes of this analysis, the entire block is considered within the Phoenicia zip code.



Town of Shandaken - Flood Mitigation Plan



AREA LOCATED IN THE 1-PERCENT AND 0.2-PERCENT ANNUAL CHANCE FLOOD BOUNDARIES

Zip Code	Total Area (sq. mi.)	1% Annual Chance Event		0.2% Annual Chance Event	
		Area Exposed (sq. mi.)	% of Total	Area Exposed (sq. mi.)	% of Total
Big Indian	42.7	0.72	1.7	0.84	2.0
Chichester	4.9	0.18	3.7	0.23	4.7
Mt Tremper	4.2	0.94	22.4	1.02	24.3
Phoenicia	51.3	1.41	2.7	1.64	3.2
Pine Hill	2	0.03	1.5	0.04	2.0
Shandaken	13.8	0.48	3.5	0.58	4.2
Town of Shandaken	118.9	3.76	3.2	4.35	3.7

Source: Tetra Tech, 2012

Note: sq.mi. = Square miles; % = Percent



Town of Shandaken - Flood Mitigation Plan



ESTIMATED GENERAL BUILDING STOCK REPLACEMENT VALUE (STRUCTURE AND CONTENTS) LOCATED IN THE 1-PERCENT ANNUAL CHANCE FLOOD BOUNDARY

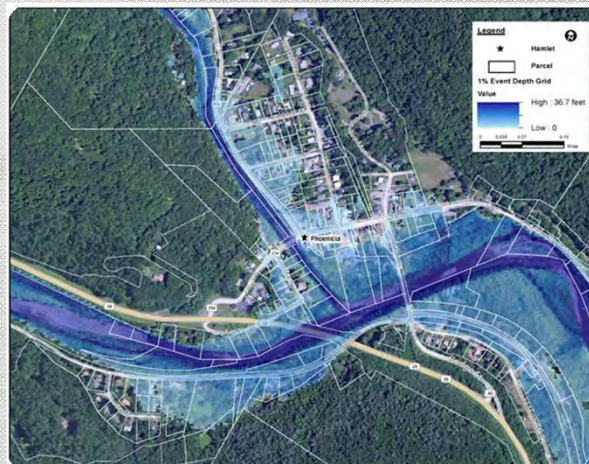
Zip Code	Total Buildings (All Occupancy Classes)			
	1% Event	% Total	0.2% Event	% Total
Big Indian	\$15,385,739	10.2	\$19,436,674	12.9
				13.1
Mt Tremper	\$24,432,339	26.9	\$29,039,894	32.0
				32.4
Pine Hill	\$2,887,916	3.0	\$3,808,642	3.9
				17.8
Town of Shandaken	\$131,197,887	16.1	\$176,341,005	21.6



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FLOOD DEPTH GRID-PHOENICIA (FOR PLANNING PURPOSES ONLY)





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CAPABILITY ASSESSMENTS

- **What resources do we have at our disposal to Mitigate Risk?**

“Proposed mitigation actions will be evaluated against the backdrop of what is feasible in terms of your government’s legal, administrative, fiscal and technical capacities” (FEMA 386-3)

- Serve to identify legal authority and administrative, technical and fiscal capabilities in the state, county and jurisdictions that will facilitate or hinder hazard mitigation goals and objectives.



Town of Shandaken - Flood Mitigation Plan



IDENTIFICATION AND ANALYSIS OF MITIGATION ACTIONS

- Mitigation actions need to be realistic, achievable and action-oriented.
- Will include both regional actions, as well as jurisdiction-specific.
- Will address both public and private property.
- For each proposed mitigation strategy, the following will be identified:
 - Implementation timeline
 - Estimated cost
 - Estimated benefits (avoided losses)
 - Potential funding sources
 - Lead agency or department
 - Supporting agencies



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MITIGATION ACTIONS? LIKE WHAT?

- **Prevention.** Measures such as planning and zoning, open space preservation, land development regulations, building codes, storm water management.
- **Property Protection.** Measures such as acquisition, relocation, storm shutters, rebuilding, barriers, floodproofing, insurance, and structural retrofits for high winds.
- **Public Education and Awareness.** Measures such as outreach projects, real estate disclosure, hazard information centers, technical assistance.
- **Natural Resource Protection.** Measures such as erosion and sediment control, stream corridor protection, vegetative management, and wetlands preservation.
- **Emergency Services.** Measures such as hazard threat recognition, hazard warning systems, emergency response, protection of critical facilities, and health and safety maintenance.
- **Structural Projects.** Measures such as dams, levees, seawalls, bulkheads, retaining walls, channel modifications, storm sewers, and retrofitted buildings and elevated roadways.



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GENERAL QUESTIONS, ISSUES AND CONCERNS



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How Does CRS Work?

- Has Application Pre-Requisites
 - Must be in NFIP Compliance
 - Elevation Certificates
 - Address Repetitive Loss Properties
- Community activities are scored
- Performance of activities is verified
- Classification assigned (1 - 10)
- 5% reduction of insurance per class



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PLAN UPDATE PROCESS STEPS

- Organize Resources
 - Re-Assess the Risk
 - Review and Update the Mitigation Plan
 - Develop Procedures for Plan Implementation, Monitoring and Update
 - NYSEMO / FEMA Approval
 - Adopt the Plan
- Engage a Wide Range of "Stakeholders"***
- Federal, State, Regional and Local Agencies
 - Business and Civic Groups
 - Academic Institutions
 - Other "local governments"
 - The Public



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OTHER PLANNING TASKS

- **Public Participation**
 - Notices on planning effort
 - FMP Webpage detailing effort, providing downloadable drafts of the plan, and providing a way for public input (local contact information and email link)
 - Public presentations and meetings
 - Public access to draft and final plan documents (incl. libraries, town halls)
 - Questionnaire (on-line and/or hard copy)
- **Documentation of the Planning Process**
- **Plan implementation and maintenance procedures**
- **Adoption by local government**



Town of Shandaken - Flood Mitigation Plan



PLAN IMPLEMENTATION

- Your mitigation strategy section provides a “blueprint” to follow for progressively reducing your community’s natural hazard risk.
- It includes two types of initiatives/projects – those that your community can “self fund”, and those that will require outside (e.g. grant) funding.
- Mitigation grant opportunities open regularly:
 - The annual HMA grant window opens in June of each year.
 - HMGP funding comes in the wake of Declared Disasters in the State.
 - EWP grants
 - Watershed grants