

SOMERSET COUNTY



SOMERSET COUNTY MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

FINAL PLAN UPDATE JULY 2019

www.co.somerset.nj.us/hmp

Section 9.21: Township of Warren Annex

Prepared by the Somerset County Mitigation Planning Committee



9.21 Township of Warren

This section presents the jurisdictional annex for the Township of Warren (hereinafter referred to as Warren Township or Warren).

9.21.1 HAZARD MITIGATION PLAN POINTS OF CONTACT

Hazard Mitigation Plan Points of Contact				
Primary Point of Contact	Alternate Point of Contact			
Name: Jane Asch, OEM Coordinator Address: 44 Mountain Boulevard Warren, New Jersey 07059 Phone Number: 732-469-2835; Cell 908-295-5531 Fax Number: 908-757-7915 E-mail Address: jane.k.asch@gmail.com	Name: Christian Kastrud, P.E., C.M.E, Township Engineer Address: 46 Mountain Boulevard Warren, New Jersey 07059 Phone Number: Cell 732-496-2625 Fax Number: 372-667-7741 E-mail Address: ckastrud@kastrudengineering.com			

Municipal HMP Committee Members

Local Jurisdiction Role/Position	Name	Email	Phone	About Mitigation Plan Development	Agreed to participate? (Yes/No)
Community Planner	Mark Krane John T. Chadwick, IV P.P.	mkrane@warrennj.org jtcivplan@comcast.net	(908) 753-8000 x250 x243	9/7/2017	Y
Emergency Manager	Jane Asch, OEM Coordinator	jane.k.asch@gmail.com	(908) 753-8000 x262	9/7/2017	Y
odplain Manager/ Floodplain Administrator	John T. Chadwick, IV P.P. Christian M. Kastrud, P.E.	jtcivplan@comcast.net ckastrud@warrennj.org	(908) 753-8000 x243 x245	9/7/2017	Y
Public Works Director / City Engineer	Doug Buro Christian M. Kastrud, P.E.	dburo@warrennj.org ckastrud@warrennj.org	(908) 753-1223 (908) 753-8000 x 245	9/7/2017	Y
Building Code Official	Jeff Heiss	jheiss@warrennj.org	(908) 753-8000 x256	9/7/2017	Y
Fiscal/Budget Officer	Mark Krane	mkrane@warrennj.org	(908) 753-8000 x250	9/7/2017	Y
Manager/Administrator	Mark Krane	mkrane@warrennj.org	(908) 753-8000 x250	9/7/2017	Y
Elected Officials	Vic Sordillo	vjsordillo@warrennj.org	(908) 753-8000	9/7/2017	Y
Other 1:	Lt. Herb Hentschel	hhentschel@warrenpolice.com	(908) 753-1000 x307	9/7/2017	Y
Other 2:	Mike Losapio	mike.losapio@gmail.com		9/7/2017	Y

9.21.2 PROFILE

9.21.2.1 Population

The population of Warren Township is estimated to be 15,311, based on information gathered during the 2010 U.S. Census. Census population estimates of July 2017 indicated a total population of 16,029.

9.21.2.2 Location

Warren Township is located in northeastern Somerset County, approximately 35 miles west of New York City. The Township is bordered by Morris County, Union County and Bernards Township to the north, Bridgewater to the south, and Green Brook and Watchung to the East. Interstate 78 passes through the northern region of Warren Township.

9.21.2.3 Brief History

Originally, Warren Township was inhabited by the Lenape Indians. European farmers settled the territory in the early 1700's; and in 1806 Warren was carved from part of surrounding towns and incorporated. The town was named after General Joseph Warren who was a hero of the Battle of Bunker Hill during the American Revolution. During the past thirty years Warren has gone from an agricultural/rural community

with a sparse population to a residential community with a significant population growth. The opening of route 78 from PA to the NJ Turnpike greatly enhanced the Township's growth.

9.21.2.4 Governing Body Format

Warren has a township form of government with five elected committeepersons, one of whom serves as mayor. Terms are for a three year period with elections staggered two, two and one.

9.21.2.5 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 Township (updated in 2018).

New Development/Potential Development in Municipality							
Property Name	Type (Residential or Commercial)	No. of Structures	Address	Block and Lot	Known Hazard Zone	Description /Status	
Sleepy Hollow Subdivision	Residential	20	Hillcrest Boulevard		Local Flooding	Under Construction	
The Hollows Subdivision	Residential	10	Hillcrest Boulevard		Local Flooding	Planning Board	
Amenities Building at WCC	Commercial	1	Warren Corporate Center Drive		None	Under Construction	
Lindbergh Affordable Housing	Residential	4?	Lindbergh Avenue		Local Flooding	Planning Board	
King George Inn 2	Residential	13	King George Road		None	Planning Board	
American Properties	Residential	100?	Mount Bethel Road		None	Planning Board	
Flag Plaza	Residential	1	Mount Bethel Road		None	Planning Board	

9.21.3 NATURAL HAZARD EVENT HISTORY SINCE 2014

Somerset County has a history of natural hazard events as detailed in Section 5.0 of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The table below presents a summary of events that have occurred since the 2014 HMP to indicate the range and impact of natural hazard events in the community. Information regarding specific damages is included if available based on reference material or local sources. For details of events prior to 2014, refer to Section 5.0 of this plan.

	Natural Hazard Event History (2014 to present)					
Type of Event	FEMA Disaster # (if applicable)	County Designated?	Date	Approximate Damage Assessment		
Cold/Wind Chill	N/A	N/A	January 4, 2014	No local damage reported		
Strong Wind	N/A	N/A	January 6, 2014	No local damage reported		
Flood	N/A	N/A	January 6, 2014	No local damage reported		
Cold/Wind Chill	N/A	N/A	January 7, 2014	No local damage reported		
Cold/Wind Chill	N/A	N/A	January 22, 2014	No local damage reported		
Winter Storm	N/A	N/A	February 12, 2014	No local damage reported		
Flood	N/A	N/A	February 22, 2014	No local damage reported		
Strong Wind	N/A	N/A	March 12, 2014	No local damage reported		
Flood	N/A	N/A	March 30, 2014	No local damage reported		
Flood	N/A	N/A	April 1, 2014	No local damage reported		
Thunderstorm Wind	N/A	N/A	April 15, 2014	No local damage reported		
Flood	N/A	N/A	April 15, 2014	No local damage reported		
Flood	N/A	N/A	April 30, 2014 to May 1, 2014	Event precipitation totals included 5.29 inches in Greenbrook Township, 5.02 inches in Warren Township.		
Thunderstorm Wind	N/A	N/A	May 10, 2014	No local damage reported		
Earthquake, Magnitude 1.9, 6 km N of Boonton (Montville Twp.)	N/A	N/A	May 31, 2014	No local damage reported		
Earthquake, Magnitude 1.0, 13 km SW of Ramblewood, NJ (Laurel Springs Boro.)	N/A	N/A	June 19, 2014	No local damage reported		
Thunderstorm Wind	N/A	N/A	July 2, 2014	No local damage reported		
Heat	N/A	N/A	July 2, 2014	No local damage reported		
Thunderstorm Wind	N/A	N/A	July 3, 2014	No local damage reported		
Flash Flood	N/A	N/A	July 3, 2014	No local damage reported		
Thunderstorm Wind	N/A	N/A	July 8, 2014	No local damage reported		
Earthquake, Magnitude 1.6, 3 km W of Jersey City, NJ (Kearny Town)	N/A	N/A	July 8, 2014	No local damage reported		
Flood	N/A	N/A	July 16, 2014	No local damage reported		

Natural Hazard Event History (2014 to present)					
Type of Event	FEMA Disaster # (if applicable)	County Designated?	Date	Approximate Damage Assessment	
Earthquake, Magnitude 1.2, 4 km SW of Ringwood, NJ (Ringwood Boro.)	N/A	N/A	July 28, 2014	No local damage reported	
Flash Flood	N/A	N/A	August 21, 2014	Thunderstorms with very heavy rain caused small stream and poor drainage flash flooding in northern Somerset County mainly in Bernards, Bridgewater and Warren Townships.	
Earthquake, Magnitude 1.3, 2 km S of Park Ridge, NJ (Woodcliff Lake Boro.)	N/A	N/A	September 3, 2014	No local damage reported	
Flood	N/A	N/A	December 9, 2014	No local damage reported	
Earthquake, Magnitude 1.9, 13 km SE of Twin Rivers, NJ (Millstone Twp.)	N/A	N/A	December 13, 2014	No local damage reported	
Earthquake, Magnitude 1.5, 2 km SW of Clifton, NJ (Bloomfield Twp.)	N/A	N/A	December 28, 2014	No local damage reported	
Cold/Wind Chill	N/A	N/A	January 7, 2015	No local damage reported	
Flood	N/A	N/A	January 18, 2015	No local damage reported	
Strong Wind	N/A	N/A	February 2, 2015	No local damage reported	
Cold/Wind Chill	N/A	N/A	February 13, 2015	No local damage reported	
Strong Wind	N/A	N/A	February 15, 2015	No local damage reported	
Cold/Wind Chill	N/A	N/A	February 15, 2015	No local damage reported	
Cold/Wind Chill	N/A	N/A	February 16, 2015	No local damage reported	
Cold/Wind Chill	N/A	N/A	February 20, 2015	No local damage reported	
Cold/Wind Chill	N/A	N/A	February 24, 2015	No local damage reported	
Flood	N/A	N/A	March 11, 2015	No local damage reported	
Flood	N/A	N/A	March 14, 2015	No local damage reported	
Earthquake, Magnitude 1.2, 2 km SW of Clifton, NJ (Bloomfield Twp.)	N/A	N/A	March 27, 2015	No local damage reported	
Strong Wind	N/A	N/A	April 4, 2015	No local damage reported	
Flash Flood	N/A	N/A	May 31, 2015	No local damage reported	
Earthquake, Magnitude 1.2, 2 km N of Wanaque, NJ (Ringwood Boro.)	N/A	N/A	July 12, 2015	No local damage reported	
Heat	N/A	N/A	July 19, 2015	No local damage reported	
Earthquake, Magnitude 2.7, 3.5 km N of Bernardsville, NJ (Bernardsville Boro.)	N/A	N/A	August 14, 2015	No local damage reported	

Natural Hazard Event History (2014 to present)					
Type of Event	FEMA Disaster # (if applicable)	County Designated?	Date	Approximate Damage Assessment	
Flash Flood	N/A	N/A	August 19, 2015	No local damage reported	
Flood	N/A	N/A	August 19, 2015	No local damage reported	
Earthquake, Magnitude 1.4, 5 km WNW of Fairfield, NJ (Fairfield Twp.)	N/A	N/A	August 22, 2015	No local damage reported	
Drought and Excessive Heat	N/A	N/A	April 2015 – September 2015	No local damage reported	
Combined effects of freeze, excessive heat, and drought	N/A	N/A	April 2016 – September 2016	No local damage reported	
Earthquake, Magnitude 2.1, 2.4 km NW of Ringwood, NJ (Ringwood Boro.)	N/A	N/A	January 2, 2016	No local damage reported	
Severe Winter Storm and Snowstorm (Blizzard)	DR-4264	Yes	January 22-24, 2016	All but four of NJ's 21 counties were declared during this event. Over \$73 million of FEMA Public Assistance grant dollars were obligated. Record snowfall occurred across most of the state. During this event, 23.0 inches of snow was reported in Warren Township.	
Earthquake, Magnitude 1.1, 1.1 km NW of Butler, NJ (Bloomingdale Boro.)	N/A	N/A	February 19, 2016	No local damage reported	
Flash Flood	N/A	N/A	February 24, 2016	No local damage reported	
Thunderstorm Wind	N/A	N/A	April 2, 2016	No local damage reported	
Earthquake, Magnitude 0.8, 4.4 km N of Butler, NJ (Bloomingdale Boro.)	N/A	N/A	May 27, 2016	No local damage reported	
Lightning	N/A	N/A	June 8, 2016	No local damage reported	
Thunderstorm Wind	N/A	N/A	June 8, 2016	No local damage reported	
Lightning	N/A	N/A	June 28, 2016	No local damage reported	
Thunderstorm Wind	N/A	N/A	June 28, 2016	No local damage reported	
Earthquake, Magnitude 1.1, 1 km NW of Butler, NJ (Butler Boro.)	N/A	N/A	July 4, 2016	No local damage reported	
Heavy Rain	N/A	N/A	July 8, 2016	No local damage reported	
Flood	N/A	N/A	July 8, 2016	No local damage reported	
Thunderstorm Wind	N/A	N/A	July 18, 2016	No local damage reported	
Thunderstorm Wind	N/A	N/A	July 25, 2016	No local damage reported	
Thunderstorm Wind	N/A	N/A	July 25, 2016	No local damage reported	

	Natural Hazard Event History (2014 to present)					
Type of Event	FEMA Disaster # (if applicable)	County Designated?	Date	Approximate Damage Assessment		
Thunderstorm Wind	N/A	N/A	July 25, 2016	No local damage reported		
Flood	N/A	N/A	July 25, 2016	No local damage reported		
Heavy Rain	N/A	N/A	July 30, 2016	No local damage reported		
Heavy Rain	N/A	N/A	July 31, 2016	No local damage reported		
Heavy Rain	N/A	N/A	July 31, 2016	No local damage reported		
Heavy Rain	N/A	N/A	July 31, 2016	No local damage reported		
Heavy Rain	N/A	N/A	July 31, 2016	No local damage reported		
Heavy Rain	N/A	N/A	July 31, 2016	No local damage reported		
Heavy Rain	N/A	N/A	July 31, 2016	No local damage reported		
Flash Flood	N/A	N/A	July 31, 2016	No local damage reported		
Earthquake, Magnitude 0.8, 2.2 km SW of Clifton, NJ (Bloomfield Twp.)	N/A	N/A	July 31, 2016	No local damage reported		
Earthquake, Magnitude 1.0, 2 km N of Wanaque, NJ (Wanaque Boro.)	N/A	N/A	August 9, 2016	No local damage reported		
Earthquake, Magnitude 0.5, 1 km N of Butler, NJ (Bloomingdale Boro.)	N/A	N/A	August 9, 2016	No local damage reported		
Earthquake, Magnitude 0.6, 5 km NE of Wanaque, NJ (Ringwood Boro.)	N/A	N/A	September 20, 2016	No local damage reported		
Earthquake, Magnitude 1.5, 2.6 km W of Bellmar, NJ (Westville Boro.)	N/A	N/A	November 6, 2016	No local damage reported		
Earthquake, Magnitude 2.0, 16.3 km E of Highlands, NJ (Middletown Twp.)	N/A	N/A	November 6, 2016	No local damage reported		
Earthquake, Magnitude 1.31, 1.4 km S Morris Plains, NJ (Morris Plains Boro.)	N/A	N/A	March 25, 2017	No local damage reported		
Flood	N/A	N/A	March 31, 2017	No local damage reported		
Hail	N/A	N/A	May 14, 2017	No local damage reported		
Hail	N/A	N/A	May 31, 2017	No local damage reported		
Flood	N/A	N/A	June 24, 2017	No local damage reported		
Flood	N/A	N/A	July 22, 2017	No local damage reported		
Flood	N/A	N/A	August 22, 2017	No local damage reported		
Flood	N/A	N/A	August 22, 2017	No local damage reported		
Heavy Rain	N/A	N/A	August 23, 2017	No local damage reported		

Natural Hazard Event History (2014 to present)					
Type of Event	FEMA Disaster # (if applicable)	County Designated?	Date	Approximate Damage Assessment	
Earthquake, Magnitude 1.71, 3.7 km SW of Morris Plains, NJ (Morris Twp.)	N/A	N/A	September 25, 2017	No local damage reported	
Earthquake, Magnitude 0.98, 2.7 km SW of Morris Plains, NJ (Morris Twp.)	N/A	N/A	September 30, 2017	No local damage reported	
Flood	N/A	N/A	October 29, 2017	No local damage reported	
Earthquake, Magnitude 1.38, 3.5 km NW of Keansburg, NJ (Keansburg Boro.)	N/A	N/A	November 8, 2017	No local damage reported	
Severe Winter Storm and Snowstorm (Blizzard)	DR-4368	Yes	March 6, 2018	Although all portions of the county experienced significant snowfall from this event, the higher amounts (around one and one half feet) occurred in the eastern sections of the county closer to the off shore low pressure system. Thundersnow also occurred in a few locations. In Warren Township, 16.0 inches of snow was reported.	
Cold/Wind Chill	N/A	N/A	January 4, 2014	No local damage reported	
Strong Wind	N/A	N/A	January 6, 2014	No local damage reported	
Flood	N/A	N/A	January 6, 2014	No local damage reported	
Cold/Wind Chill	N/A	N/A	January 7, 2014	No local damage reported	
Cold/Wind Chill	N/A	N/A	January 22, 2014	No local damage reported	
Winter Storm	N/A	N/A	February 12, 2014	No local damage reported	
Flood	N/A	N/A	February 22, 2014	No local damage reported	
Strong Wind	N/A	N/A	March 12, 2014	No local damage reported	
Flood	N/A	N/A	March 30, 2014	No local damage reported	
Flood	N/A	N/A	April 1, 2014	No local damage reported	
Thunderstorm Wind	N/A	N/A	April 15, 2014	No local damage reported	
Flood	N/A	N/A	April 15, 2014	No local damage reported	
Flood	N/A	N/A	April 30, 2014 to May 1, 2014	Event precipitation totals included 5.29 inches in Greenbrook Township, 5.02 inches in Warren Township.	
Thunderstorm Wind	N/A	N/A	May 10, 2014	No local damage reported	
Earthquake, Magnitude 1.9, 6 km N of Boonton (Montville Twp.)	N/A	N/A	May 31, 2014	No local damage reported	

Natural Hazard Event History (2014 to present)					
Type of Event	FEMA Disaster # (if applicable)	County Designated?	Date	Approximate Damage Assessment	
Earthquake, Magnitude 1.0, 13 km SW of Ramblewood, NJ (Laurel Springs Boro.)	N/A	N/A	June 19, 2014	No local damage reported	
Thunderstorm Wind	N/A	N/A	July 2, 2014	No local damage reported	
Heat	N/A	N/A	July 2, 2014	No local damage reported	
Thunderstorm Wind	N/A	N/A	July 3, 2014	No local damage reported	
Flash Flood	N/A	N/A	July 3, 2014	No local damage reported	
Thunderstorm Wind	N/A	N/A	July 8, 2014	No local damage reported	
Earthquake, Magnitude 1.6, 3 km W of Jersey City, NJ (Kearny Town)	N/A	N/A	July 8, 2014	No local damage reported	
Flood	N/A	N/A	July 16, 2014	No local damage reported	

Note:

DR = Major Disaster Declaration
EM = Emergency Declaration
N/A = Not applicable
Boro. = Borough
Twp. = Township

9.21.4 NATURAL HAZARD RISK/VULNERABILITY RISK RANKING

The table below summarizes the vulnerability risk rankings of potential hazards of the Township of Warren (updated in 2018).

Natural Hazard Risk/Vulnerability Risk Ranking						
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	
Flood	1% Annual Chance:	\$11,300,000	Frequent	18	Medium	
1 1000	0.2% Annual Chance:	\$22,300,000	rrequent	10	Wicalam	
	100-Year MRP:	\$1,314,640				
Severe Storm	500-Year MRP:	\$10,425,233	Frequent	30	High	
3. 3	Annualized Loss:	\$84,905				
Severe	1% of GBS:	\$25,622,810	Fraguent	27	∐iab	
Winter Storm	5% of GBS:	\$128,114,050	Frequent	21	High	
	500-Year MRP:	\$4,688,822				
Earthquake	2,500-Year MRP:	\$69,477,027	Occasional	12	Low	
	Annualized Loss:	\$71,477				
Drought	Not available		Occasional	20	Medium	
Extreme Temperature	Not available		Frequent	18	Medium	
Wildfire	Not a	available	Occasional	32	Medium	

Note

- a. Building damage ratio estimates based on FEMA 386-2 (August 2001)
- b. The valuation of general building stock and loss estimates was based on custom inventory for Somerset County.
- High = Total hazard priority risk ranking score of 31 and above
 Medium = Total hazard priority risk ranking of 15-30
 Low = Total hazard risk ranking below 15
- d. Loss estimates for the severe storm and severe winter storm hazards are structural values only and do not include the value of contents.
- e. Loss estimates for the flood and earthquake hazards represent both structure and contents.
- f. The HAZUS-MH earthquake model results are reported by Census Tract.

9.21.5 CAPABILITY ASSESSMENT

This section describes the following capabilities of the local jurisdiction:

- Legal and regulatory capability;
- Administrative and technical capability;
- Fiscal capability;
- Community resiliency;
- Community political capability; and
- Community classification.

9.21.5.1 Legal and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Warren Township. The Township reviewed its responses from the 2014 HMP and has updated any information that has changed since that time.

Legal and Regulatory Capability						
Regulatory Tools (Codes, Ordinances, Plans)	Do you have this? (Y or N)	Enforcement Authority	Code Citation (Section, Paragraph, Page Number, Date of Adoption)			
1) Building Code	Υ	Warren Township Construction Department	International Building Code – New Jersey Edition, NJAC 5:24-3.14; 2/20/07			
2) Zoning Ordinance	Y	Warren Township Zoning Officer and Twp. Engineer	Township Ordinance (T.O.) 15-2.2; T.O. 16-1; et seq.			
3) Subdivision Ordinance	Y	Warren Township Zoning Officer and Twp. Engineer	T.O. 15-1; et seq.			
4) NFIP Flood Damage Prevention Ordinance	Y	Warren Township Zoning Officer	T.O. 07-65 Flood Prevention; 10/18/07			
4a) Cumulative Substantial Damages	Y	Warren Township Zoning Officer	T.O. 15-10A-1; et seq.			
4b) Freeboard	Y	Warren Township Zoning Officer	T.O. 15-10e 1-2			
5) Growth Management	Y	Warren Township Planning Board	Master Plan; 10/2006; 2007 JTC/MV			
6) Floodplain Management / Basin Plan	Y	Warren Township Zoning Officer	T.O. 15-10 & FEMA Regulations; 2007			
7) Stormwater Management Plan/Ordinance	Υ	Warren Township Engineering	T.O. 15-10B; 2005			
8) Comprehensive Plan / Master Plan/ General Plan	Υ	Warren Township Planning Board	7/2008 JTC/MV			
9) Capital Improvements Plan	Y	Warren Township Committee Township Administration	Annual; 2013			
10) Site Plan Review Requirements	Y	Warren Township Administration	T.O. 15-1; et seq.			
11) Open Space Plan	Υ	Warren Township Planning Board	T.O. 2-35.1; et seq.			

Legal and Regulatory Capability						
Regulatory Tools (Codes, Ordinances, Plans)	Do you have this? (Y or N)	Enforcement Authority	Code Citation (Section, Paragraph, Page Number, Date of Adoption)			
12) Stream Corridor Management Plan	Y	Warren Township Engineering	T.O. 15-10C			
13) Watershed Management or Protection Plan	Y	Warren Township Engineering	International Building Code – New Jersey Edition, NJAC 5:24-3.14; 2/20/07			
14) Economic Development Plan	Y	Warren Township Master Plan	July, 2008 JTC/MV			
15) Comprehensive Emergency Management Plan	Y	Warren Township OEM	T.O. 3-16			
16) Emergency Response Plan	Y	Warren Township OEM, Jane Asch	T.O. 3-16; 6/1/2012			
17) Post-Disaster Recovery Plan	Υ	Warren Township OEM, Jane Asch	Emergency Operating Plan; 2011			
18) Post-Disaster Recovery Ordinance	Υ	Warren Township OEM, Jane Asch	T.O. 3-16; 6/1/2012			
19) Real Estate Disclosure Requirement	Υ	NJ State	per NJ State Law			
20) Other (Special Purpose Ordinances such as critical or sensitive areas)	Y	Warren Township Zoning Officer	T.O. 15-1			

9.21.5.2 Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to Warren Township. The Township reviewed its responses from the 2014 HMP and has updated any information that has changed since that time.

Administrative and Technical Capability												
Staff / Personnel Resources	Available (Y or N)	Department / Agency / Position										
Planner(s) or Engineer(s) with knowledge of land development and land management practices	Y	Warren Township Engineering, Zoning Office										
Engineer(s) or Professional(s) trained in construction practices related to buildings and/or infrastructure	Y	Warren Township Engineering Construction Official										
Planners or engineers with an understanding of natural hazards	Y	Warren Township Engineering										
4) NFIP Floodplain Administrator	Υ	Warren Township Zoning Officer										
5) Surveyor(s)	Υ	Warren Township Engineering										
6) Personnel skilled or trained in GIS applications	Υ	Warren Township Engineering										
7) Scientist familiar with natural hazards	N											
8) Emergency Manager	Υ	Warren Township OEM										
9) Grant Writer(s)	Υ	Township Personnel										
10) Staff with expertise or training in benefit/cost analysis	Y	Warren Township Administrator										

9.21.5.3 Fiscal Capability

The table below summarizes financial resources available to the Township of Warren. The Township reviewed its responses from the 2014 HMP and has updated any information that has changed since that time.

Fiscal Capability											
Financial Resources	Accessible or Eligible to use (Yes/No/Don't know)										
1) Community Development Block Grants (CDBG)	Y - Township Committee; Except categorically eligible projects										
2) Capital Improvements Project Funding	Y - Township Committee										
3) Authority to levy taxes for specific purposes	Y - Township Committee										
4) User fees for water, sewer, gas or electric service	N										
5) Impact fees for homebuyers or developers of new development/homes	Y - Township Committee; Pursuant to limitations of MLUL										
6) Incur debt through general obligation bonds	Y - Township Committee; Pursuant to local bond law and IRS regulations										
7) Incur debt through special tax bonds	Y - Township Committee; Pursuant to local bond law and IRS regulations										
8) Incur debt through private activity bonds	N										
9) Withhold public expenditures in hazard-prone areas	Y - Township Committee; Subject to public safety concerns										
10) State mitigation grant programs	Y - New Jersey State; Subject to available funds										
11) Other											

9.21.5.4 Overall Capabilities

The Township of Warren's 2018 assessment of its overall capabilities to implement hazard mitigation strategies in each of the above categories, in addition to their local assessment of how these capabilities could be expanded and/or improved to reduce risk, is presented in the table below*.

Overall legal and regulatory capability to implement hazard mitigation strategies	Overall technical capability to implement hazard mitigation strategies	Overall fiscal capability to implement hazard mitigation strategies	Overall administrative capability to implement hazard mitigation strategies	Community's willingness to enact policies and programs that reduce hazard vulnerabilities
How these capabi	lities can be expan	d and/or improved	to reduce risk	

^{*} Awaiting municipal responses as of drafting of this section.



9.21.5.5 Community Classifications

The table below summarizes classifications for community program available to the Township of Warren. The Township reviewed its responses from the 2014 HMP and has updated any information that has changed since that time.

Community Classifications											
Program	Classification	Date Classified									
Community Rating System (CRS)	8	2016									
Building Code Effectiveness Grading Schedule (BCEGS)	-	-									
Public Protection	-	-									
Storm Ready	•	-									
Firewise	-	-									

Notes:

- = Unavailable

N/A = Not applicable

NP = Not participating

The classifications listed above relate to Warren's ability to provide effective services to lessen its 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 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 1,000 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/

^{*} CRS Ranking as of October 2017

9.21.6 MITIGATION STRATEGY

This section discusses past mitigations actions and status, identifies hazard vulnerabilities, and describes proposed hazard mitigation initiatives.

9.21.6.1 Past Mitigation Actions/Status

The status of all 2014 HMP initiatives was evaluated by the Township of Warren in 2018 and is presented in the following table. The community has indicated that local priorities have not changed since the last version of the plan.

						Sta	tus			Rele	vance	
2014 HMP Initiative #	Mitigation Initiative	Previous Priority	Hazard(s) Mitigated	Lead and Support Agencies	Completed	Initiated but Not Completed	Ongoing Type of Activity	Not Initiated	Status Details	Still Relevant - Carry Forward to Updated Mitigation Strategy	No Longer Relevant - Omit from Updated Mitigation Strategy	Relevance Details
WR1	Pursue Passaic River Stream clearing.	Medium	Flood	Township Engineer, Planning	х						х	Project is complete
WR2 (WR2)	Tree trimming along Township roadways within 50 feet of primary power lines.	High	Extreme Temperature, Severe Storm, Severe Winter Storm	DPW; Power Utility Contractor			х		Ongoing		X	JCP&L continues to provide ongoing tree trimming around power lines in the Township.
WR3 (WR3)	Provide backup power via Generators for Critical Facilities identified as vulnerable to impact from natural hazards. This action should be prioritized at the following locations: Warren township Police Department, Warren Township Municipal Building, and Stonecrest Community Church (Municipal overnight shelter). Future potential locations include, but are not limited to, the Warren Twp. Pump Station, and Water Treatment Plants 1, 2, and 4.	High	All	Township Emergency Management with support from County, NJOEM and FEMA		х			All facilities have a generator except Stonecrest Church, our shelter facility, because it is privately owned. The church does not have the funds to buy a generator.	Х		We will continue to look for funds for a generator for the church.

						Sta	tus			Rele	vance	
2014 HMP Initiative #	Mitigation Initiative	Previous Priority	Hazard(s) Mitigated	Lead and Support Agencies	Completed	Initiated but Not Completed	Ongoing Type of Activity	Not Initiated	Status Details	Still Relevant - Carry Forward to Updated Mitigation Strategy	No Longer Relevant - Omit from Updated Mitigation Strategy	Relevance Details
WR4 (WR4)	Participation in CRS (Community Rating Service), requiring maintaining compliance and good standing in the National Flood Insurance Program.	Medium	Flood	Municipality (via Municipal Engineer/NFIP Floodplain Administrator) with support from NJOEM, FEMA			х		Ongoing	х		Unchanged
WR5 (WR5)	Participate in multi-jurisdictional update of Somerset County All Hazards Mitigation Plan.	Medium	All	Township Emergency Management; Planning			Х		Ongoing	Х		Updating in process
WR6 (WR6)	Inspect and repair Township owned drainage facilities.	Medium	Flood	Township Engineer			Х		Ongoing	Х		Continued Maintenance

						Sto	tus			Polo	vance	
2014 HMP Initiative #	Mitigation Initiative	Previous Priority	Hazard(s) Mitigated	Lead and Support Agencies	Completed	Initiated but Not Completed	Ongoing Type of Activity	Not Initiated	Status Details	Still Relevant - Carry Forward to Updated Mitigation Strategy	No Longer Relevant - Omit from Updated Mitigation Strategy	Relevance Details
WR7	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: 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.	High	All Hazards	Municipality with support from Planning Partners, County Planning, NJOEM, FEMA			x		Ongoing	х		Since Superstorm Sandy, Warren Township has greatly expanded its public outreach through various media outlets including multiple Facebook and Twitter social media sites, websites, Constant Contact, Nixle text and R911 and a new AM Alert Radio System, plus we cooperate with a neighborhood social media forum to further release important emergency information.
WR8	Incorporate ordinances and/or zoning restrictions to control and mitigate future development in hazard areas, specifically as identified in Section 9.21.11.	Medium	All Hazards	Municipality with support from County, NJOEM and FEMA			Х		Ongoing	Х		Warren Township incorporates all of the planning mechanisms in 9.21.11.



						Sta	tus			Rele	vance	
2014 HMP Initiative #	Mitigation Initiative	Previous Priority	Hazard(s) Mitigated	Lead and Support Agencies	Completed	Initiated but Not Completed	Ongoing Type of Activity	Not Initiated	Status Details	Still Relevant - Carry Forward to Updated Mitigation Strategy	No Longer Relevant - Omit from Updated Mitigation Strategy	Relevance Details
WR9	Improve communication systems.	Medium	All Hazards	Municipality with support from County, NJOEM and FEMA			Х		Ongoing	х		Warren Township works continuously to improve and update our communication systems researching and using the most current technology.
WR10	Develop programs/procedures to capture and archive loss data from events. Examples include: Record location and length of roadway closures; Develop a database of residential and commercial property damage, including permit history for such repairs; High water marks, perhaps painting phone poles with high water marks and or regulatory Base Flood Elevations (BFEs).	Medium	All Hazards	Municipality with support from County, NJOEM and FEMA			Х		Ongoing	X		Police capture information about length and location of road closures and property damage in the CAD system. Warren Township is usually not affected by inundation flooding due to its location in the Watchung Hills.

						Cto	tus			Dolo	vance	
2014 HMP Initiative #	Mitigation Initiative	Previous Priority	Hazard(s) Mitigated	Lead and Support Agencies	Completed	Initiated but Not Completed	Ongoing Type of Activity	Not Initiated	Status Details	Still Relevant - Carry Forward to Updated Mitigation Strategy	No Longer Relevant - Omit from Updated Mitigation Strategy	Relevance Details
WR11	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: 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, and land use. 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.	Medium	All Hazards	Hazard Mitigation Plan Coordinator			×		Ongoing	X		Warren Township continues to participate in local county, and state projects and programs to improve emergency management initiatives.



						Sta	tus			Rele	vance	
2014 HMP Initiative #	Mitigation Initiative	Previous Priority	Hazard(s) Mitigated	Lead and Support Agencies	Completed	Initiated but Not Completed	Ongoing Type of Activity	Not Initiated	Status Details	Still Relevant - Carry Forward to Updated Mitigation Strategy	No Longer Relevant - Omit from Updated Mitigation Strategy	Relevance Details
WR12	Support ongoing updates of Comprehensive Emergency Management Plans.	High	All Hazards	Municipality with support from County Emergency Management			X		Ongoing	х		The Warren Township Emergency Manager continually updates the Emergency Operating Plan as needed.
WR13	Create/Enhance/Maintain Mutual Aid agreements with neighboring communities for continuity of operations.	High	All Hazards	Municipality with support from County, NJOEM, FEMA and surrounding communities			X		Ongoing	х		Warrant Township has verbal or written mutual aid agreements with neighboring municipalities.
WR14	Identify and develop agreements with entities that can provide support with FEMA/NJOEM paperwork after disasters; qualified damage assessment personnel – Improve post-disaster capabilities – damage assessment; FEMA/NJOEM paperwork compilation, submissions, record-keeping.	Medium	All Hazards	Municipality with support from County, NJOEM and FEMA			X		Ongoing	X		Members of Warren Township Command staff of all First Responder Agencies have been trained and are familiar with FEMA paperwork and recordkeeping requirements after a disaster.
WR15	Work with regional agencies (i.e. County and NJOEM) 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).	Medium	All Hazards	Municipality with support from County, NJOEM and FEMA			Х		Ongoing	Х		Some members of Warren Township First Responder agencies have been trained in damage assessment Qualified officials are trained and certified.



						Sta	itus			Rele	vance	
2014 HMP Initiative #	Mitigation Initiative	Previous Priority	Hazard(s) Mitigated	Lead and Support Agencies	Completed	Initiated but Not Completed	Ongoing Type of Activity	Not Initiated	Status Details	Still Relevant - Carry Forward to Updated Mitigation Strategy	No Longer Relevant - Omit from Updated Mitigation Strategy	Relevance Details
WR16	Purchase, relocate, or elevate structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss property as priority. Phase 1: Identify appropriate candidates based on costeffectiveness, for example one of the two repetitive loss properties within the Township. Phase 2: Where determined to be a viable option, work with property owners toward implementation of the determined action based on available funding from FEMA and local match availability.	Medium	Flood, Severe Storm	Municipality (via Municipal Engineer/NFIP Floodplain Administrator) with support from County Planning, NJOEM, FEMA			x		Ongoing	x		Flooding is not a major issue for Warren Township due to its location. There is no formal program for purchasing, elevating, or relocating structures, but the issue would be addressed if the need arouse.
WR17	Obtain and archive elevation certificates.	High	Flood, Severe Storm	NFIP Floodplain Administrator			х		Ongoing	х		Warren Township continues to require elevation certificates for all new and substantial improvements located within the floodplain and flood hazard area.
WR18	Promote the participation of Floodplain Administrators within the planning process and other activities.	Medium	Flood	Municipality with support from County, NJOEM and FEMA			х		Ongoing	х		Warren Township floodplain manager is involved in review of all development proposals put before the planning and zoning boards and construction office.



						Sta	tus			Rele	vance	
2014 HMP Initiative #	Mitigation Initiative	Previous Priority	Hazard(s) Mitigated	Lead and Support Agencies	Completed	Initiated but Not Completed	Ongoing Type of Activity	Not Initiated	Status Details	Still Relevant - Carry Forward to Updated Mitigation Strategy	No Longer Relevant - Omit from Updated Mitigation Strategy	Relevance Details
WR19	Enhance the County/community resilience to severe storms (incl. severe winter storms) by joining the NOAA "Storm Ready" program and supporting communities in joining the program. "	Medium	Severe Storm	Municipality with support from County, NJOEM and FEMA			x		Ongoing	х		Warren Township Emergency Management continues to educate and give information to the public on how to prepare and be more resilient to severe storms through use of multiple communications sources such as Warren and Police websites, Constant Contact, social media sites, and Nixle.
WR20	Adopt regulations for undergrounding utilities in new developments.	High	Severe Storm	Municipal Council	х				Ongoing	х		The Residential Site Improvement Standards require that all new utilities be constructed underground.
WR21	Implement permit fee waivers for installation of backup power for private property.	High	Severe Storm	Municipal Council			X		Ongoing	х		After Superstorm Sandy permit fee waivers for backup power installation was initiated.
WR22	Provide public education and outreach on proper installation and/or use of backup power.	High	Severe Storm	Municipal Clerk			х		Ongoing	х		Warren Township continues to educate the public on proper installation of backup generators through multiple communication sources, such as police and Warren websites, social media, and Nixle.



						Sta	tus			Rele	vance	
2014 HMP Initiative #	Mitigation Initiative	Previous Priority	Hazard(s) Mitigated	Lead and Support Agencies	Completed	Initiated but Not Completed	Ongoing Type of Activity	Not Initiated	Status Details	Still Relevant - Carry Forward to Updated Mitigation Strategy	No Longer Relevant - Omit from Updated Mitigation Strategy	Relevance Details
WR23	Implement, review, and enforce municipal policies and programs to prevent trees from threatening lives and impacting power availability/interruption.	High	Severe Storm	Municipal Code Enforcement			Х		Ongoing	x		Warren Township has improved its communication with both PSE&G and JCP&L with respect to hazards that are found and reported to township administrator, township engineer, and/or department of public works superintendent.

9.21.6.2 Hazard Vulnerabilities Identified

The Township has identified that downed trees and debris from winter storms and severe storms severely affect power lines. Furthermore, multiple municipal properties have been damaged by flooding caused by blockages along the Middlebrook and Passaic Rivers. Recently, the Township has been seriously impacted by severe storms (Hurricane Irene 2011, Halloween Nor'easter 2011 and Superstorm Sandy 2012) over a short period of time, resulting in wide spread power failures over the entire municipality for two weeks and longer. Township officials note that generators would alleviate the chaos and expedite the cleanup efforts for future events.

It is estimated that in the Warren Township, 200 residents live within the 1% annual chance flood area (NFIP Special Flood Hazard Area). \$1,340,618,000 (31.6%) of the municipality's general building stock replacement cost value (structure and contents) is located within the 1% annual chance flood area.

There are 84 NFIP policies in the community and there are 29 policies located within the 1% annual chance flood area. FEMA has identified 5 Repetitive Loss (RL) properties including 0 Severe Repetitive Loss (SRL) properties in the municipality.

HAZUS-MH estimates that for a 1% annual chance flood, \$11,300,000 (0.27%) of the municipality's general building stock replacement cost value (structure and contents) will be damaged, 790 households may be displaced, 594 people may seek short-term sheltering, and an estimated 236 tons of debris could be generated.

Further information regarding the summary of the community's participation in the NFIP is provided in the table below.

			NFIP Sum	nmary				
Municipality	# Policies (1)	# Claims (Losses) (1)	Total Loss Payments (2)	# Rep. Loss Prop. (1)	# Severe Rep. Loss Prop. (1)	# Polices in 1% Boundary (3)	# Polices in 0.2% - Boundary (3)	# Policies Outside the 0.2% Flood Hazard (3)
Warren (T)	84	48	\$276,211	5	-	29	7	48

Source:

- (1) Policies, claims, repetitive loss and severe repetitive loss statistics provided by FEMA Region 2 via NJDEP in August 2017 and are current as of March 31, 2017. Please note the total number of repetitive loss properties includes the severe repetitive loss properties.
- (2) Information regarding total building and content losses was gathered from the claims file provided by FEMA Region 2 (current as of Township of Warren).
- (3) The policy locations used are based on the latitude and longitude provided by FEMA Region 2.



HAZUS-MH critical facility damage estimates for Warren Township are provided below.

			Critical	Facility D	amage Est	imate					
			Expo	sure		ntial Loss f Flood Eve		Potential Loss from 0.2% Flood Event			
Name	Municipality	Type	1% Event	0.2% Event	Percent Structure Damage	Percent Content Damage	Days to 100- Percent	Percent Structure Damage	Percent Content Damage	Days to 100- Percent	
Pump Station	Warren (T)	ww	x	x	-	-	-	-	-	-	
Pump Station	Warren (T)	ww	х	х	-	-	-	-	-	-	
Warren Stage 1 & 2 WTP	Warren (T)	WW	х	х	-	-	-	-	-	-	
Warren Stage 4 WTP	Warren (T)	WW	х	х	-	-	-	-	-	-	

Source: HAZUS-MH 4.0

Notes:

- = No loss (calculated by HAZUS-MH 4.0) X = Facility located within the DFIRM boundary.

DFIRM = Digital Flood Insurance Rate Map

NA = Not applicable T = Township

WTP = Wastewater Treatment Plant

WW = Wastewater

(1) HAZUS-MH 4.0 provides a general indication of the maximum restoration time for 100% operations. Clearly, a great deal of effort is needed to quickly restore essential facilities to full functionality; therefore, this will be an indication of the maximum downtime (HAZUS-MH 4.0 User Manual).

(2) Please note in some cases, a facility may be located in the DFIRM flood hazard boundary; however HAZUS did not calculate potential loss. This may be because the depth of flooding does not amount to any damages to the structure according to the depth damage function used in HAZUS for that facility type.

Please refer to the Hazard Profiles in Section 5.0 of this plan for additional vulnerability information relevant to this jurisdiction.

9.21.7 PROPOSED HAZARD MITIGATION INITIATIVES

The list below represents a summary of community mitigation initiatives developed in 2018 as part of the most recent plan update. The Township of Warren has identified no changes in local priorities since the last version of the plan in 2014. Detailed Action Worksheets are included only for NEW Mitigation Actions/Projects. Some of the identified mitigation initiatives in the table below 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. Please note that the Township has opted to carry forward legacy initiative numbers from the 2014 and 2009 plans, respectively, for internal municipal tracking purposes, formatted as: "2019# [2014# (2009#)]".

					1	Proposed F	lazard Mitigatio	n Initiatives						
2019 Initiative Number	Initiative Name	Initiative Description	New Initiative Or Carried Forward	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	2018 Action Status
WR1 [WR3 (WR3)]	Backup Power Generators	Provide backup power via Generators for Critical Facilities identified as vulnerable to impact from natural hazards. This action should be prioritized at the following locations: Warren township Police Department, Warren Township Municipal Building, and Stonecrest Community Church (Municipal overnight shelter). Future potential locations include, but are not limited to, the Warren Twp. Pump Station, and Water Treatment Plants 1, 2, and 4.	Carried Forward	Existing	All	6,7	Township Emergency Management with support from County, NJOEM and FEMA	Medium - Greatly assist in providing shelter, reduce unnecessary movement of disabled residents, and provide key emergency employees better communication amongst themselves and with outreach to the residents.	Medium	Capital Budget	Long	High	Action/ Project, PR ES	All facilities have a generator except Stonecrest Church, our shelter facility, because it is privately owned. The church does not have the funds to buy a generator. We will continue to look for funds for a generator for the church.
WR2 [WR4 (WR4)]	CRS Participation	Participation in CRS (Community Rating Service), requiring maintaining compliance and good standing in the National Flood Insurance Program.	Carried Forward	N/A	Flood	12	Municipality (via Municipal Engineer/NFIP Floodplain Administrator) with support from NJOEM, FEMA	Medium	2,500/year	Twp./Public	Ongoing	Medium	Capability, PR	Ongoing
WR3 [WR5 (WR5)]	Somerset County HMP	Participate in multi-jurisdictional update of Somerset County All Hazards Mitigation Plan.	Carried Forward	Existing	All	All	Township Emergency Management; Planning	Medium	Medium	Operating Budget	Long	Medium	Capability, PR	Updating in process
WR4 [WR6 (WR6)]	Drainage Structures	Inspect and repair Township owned drainage facilities.	Carried Forward	Both	Flood	10	Township Engineer	Medium	Low	Operating Budget	Short	Medium	Capability, PP	Continued Maintenance

					ı	Proposed H	lazard Mitigation	ı Initiatives						
2019 Initiative Number	Initiative Name	Initiative	New Initiative Or Carried Forward	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	2018 Action Status
WR5 [(WR7)]	Outreach	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: 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, 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.	Carried Forward	N/A	All Hazards	5,13	Municipality with support from Planning Partners, County Planning, NJOEM, FEMA	Medium	Medium	Municipal Budget, HMA programs with local or county match	Short Term	High	Capability, PE	Since Superstorm Sandy, Warren Township has greatly expanded its public outreach through various media outlets including multiple Facebook and Twitter social media sites, websites, Constant Contact, Nixle text and R911 and a new AM Alert Radio System, plus we cooperate with a neighborhood social media forum to further release important emergency information.
WR6 [(WR8)]	Flood Hazard Regulations	Incorporate ordinances and/or zoning restrictions to control and mitigate future development in hazard areas, specifically as identified in Section 9.21.11.	Carried Forward	N/A	All Hazards	8,9,10	Municipality with support from County, NJOEM and FEMA	Medium	Medium	Municipal Budget	Short Term	Medium	Capability, PR	Warren Township incorporates all of the planning mechanisms in 9.21.11.
WR7 [(WR9)]	Radio Communication Upgrade	Improve communication systems.	Carried Forward	N/A	All Hazards	6,7	Municipality with support from County, NJOEM and FEMA	Medium	Medium	Municipal Budget	Short Term	Medium	Action/Project, ES PR	Warren Township works continuously to improve and update our communication systems researching and using the most current technology.



						Proposed F	Hazard Mitigatio	n Initiatives						
2019 Initiative Number	Initiative Name	Initiative	New Initiative Or Carried Forward	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	2018 Action Status
WR8 [(WR10)]	Record / Log Closures, Damages, etc.	Develop programs/procedures to capture and archive loss data from events. Examples include: Record location and length of roadway closures; Develop a database of residential and commercial property damage, including permit history for such repairs; High water marks, perhaps painting phone poles with high water marks and or regulatory Base Flood Elevations (BFEs).	Carried Forward	N/A	All Hazards	1	Municipality with support from County, NJOEM and FEMA	Medium	Medium	Municipal Budget	Short Term	Medium	Capability, PR	Police capture information about length and location of road closures and property damage in the CAD system. Warren Township is usually not affected by inundation flooding due to its location in the Watchung Hills.
WR9 [(WR11)]	Government Programs	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: 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. 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.	Carried Forward	N/A	All Hazards	1,3	Hazard Mitigation Plan Coordinator	Medium-High	Medium-High	FEMA Mitigation Grant Programs with local match	Long Term DOF	Medium	Capability, PR	Warren Township continues to participate in local county, and state projects and programs to improve emergency management initiatives.



					F	Proposed H	lazard Mitigation	n Initiatives						
2019 Initiative Number	Initiative Name	Initiative Description	New Initiative Or Carried Forward	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	2018 Action Status
WR10 [(WR12)]	Comprehensive Emergency Management Plans	Support ongoing updates of Comprehensive Emergency Management Plans	Carried Forward	New and Existing	All Hazards	8,9	Municipality with support from County Emergency Management	Low	Low	Municipal Budget	Ongoing	High	Capability, PR	The Warren Township Emergency Manager continually updates the Emergency Operating Plan as needed.
WR11 [(WR13)]	Shared Service – Municipal	Create/Enhance/Maintain Mutual Aid agreements with neighboring communities for continuity of operations	Carried Forward	N/A	All Hazards	3,7	Municipality with support from County, NJOEM, FEMA and surrounding communities	Medium	Low	Municipal Budget	Short Term	High	Capability, PR, ES	Warrant Township has verbal or written mutual aid agreements with neighboring municipalities.
WR12 [(WR14)]	FEMA/NJOEM Paperwork	Identify and develop agreements with entities that can provide support with FEMA/NJOEM paperwork after disasters; qualified damage assessment personnel – Improve post-disaster capabilities – damage assessment; FEMA/NJOEM paperwork compilation, submissions, record-keeping	Carried Forward	N/A	All Hazards	3	Municipality with support from County, NJOEM and FEMA	Medium	Medium	Municipal Budget	Short Term	Medium	Capability, PR, ES	Members of Warren Township Command staff of all First Responder Agencies have been trained and are familiar with FEMA paperwork and recordkeeping requirements after a disaster.
WR13 [(WR15)]	Shared Service – County, State, Federal	Work with regional agencies (i.e. County and NJOEM) 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).	Carried Forward	N/A	All Hazards	3	Municipality with support from County, NJOEM and FEMA	Medium	Medium	Municipal Budget, FEMA HMA and HLS grant programs	Short- Long Term DOF	Medium	Capability, PR	Some members of Warren Township First Responder agencies have been trained in damage assessment Qualified officials are trained and certified.
WR14 [(WR16)]	FEMA – Flood for Property Owners and Structures	Purchase, relocate, or elevate structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss property as priority. Phase 1: Identify appropriate candidates based on cost-effectiveness, for example one of the two repetitive loss properties within the Township. Phase 2: Where determined to be a viable option, work with property owners toward implementation of the determined action based on available funding from FEMA and local match availability	Carried Forward	Existing	Flood, Severe Storm	4	Municipality (via Municipal Engineer/NFIP Floodplain Administrator) with support from County Planning, NJOEM, FEMA	High	High	FEMA Mitigation Grants	Long Term DOF	Medium	Capability, PP	Flooding is not a major issue for Warren Township due to its location. There is no formal program for purchasing, elevating, or relocating structures, but the issue would be addressed if the need arouse.
WR15 [(WR17)]	Elevation Certificates	Obtain and archive elevation certificates	Carried Forward	N/A	Flood, Severe Storm	1,3	NFIP Floodplain Administrator	Medium	Low	Municipal Budget	Ongoing	High	Capability, PR	Warren Township continues to require elevation certificates for all new and substantial improvements located within the floodplain and flood hazard area.



						Proposed H	Hazard Mitigation	ı Initiatives						
2019 Initiative Number	Initiative Name	Initiative Description	New Initiative Or Carried Forward	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	2018 Action Status
WR16 [(WR18)]	Floodplain Administrators	Promote the participation of Floodplain Administrators within the planning process and other activities.	Carried Forward	N/A	Flood	All	Municipality with support from County, NJOEM and FEMA	Medium	Medium	Municipal Budget	Short Term	Medium	Capability, PR	Warren Township floodplain manager is involved in review of all development proposals put before the planning and zoning boards and construction office.
WR17 [(WR19)]	Residents to Join NOAA Storm Ready, etc.	Enhance the County/community resilience to severe storms (incl. severe winter storms) by joining the NOAA "Storm Ready" program and supporting communities in joining the program. "	Carried Forward	N/A	Severe Storm	12	Municipality with support from County, NJOEM and FEMA	Medium	Low	Municipal Budget	Short Term DOF	Medium	Capability, PE	Warren Township Emergency Management continues to educate and give information to the public on how to prepare and be more resilient to severe stoms through use of multiple communications sources such as Warren and Police websites, Constant Contact, social media sites, and Nixle.
WR18 [(WR20)]	Underground Utilities	Adopt regulations for undergrounding utilities in new developments.	Carried Forward	N/A	Severe Storm	6,7	Municipal Council	Medium	Low	Municipal Budget	Short Term	High	Capability, PR	The Residential Site Improvement Standards require that all new utilities be constructed underground.
WR19 [(WR21)]	Permit Fee Waiver for Generators	Implement permit fee waivers for installation of backup power for private property.	Carried Forward	N/A	Severe Storm	12	Municipal Council	Medium	Low	Municipal Budget	Short Term	High	Capability, PR	After Superstorm Sandy permit fee waivers for backup power installation was initiated.
WR20 [(WR22)]	Public Education – Generators	Provide public education and outreach on proper installation and/or use of backup power	Carried Forward	N/A	Severe Storm	5,13	Municipal Clerk	Medium	Low	Municipal Budget	Short Term	High	Capability, PR	Warren Township continues to educate the public on proper installation of backup generators through multiple communication sources, such as police and Warren websites, social media, and Nixle.
WR21 [(WR23)]	Tree Trimming	Implement, review, and enforce municipal policies and programs to prevent trees from threatening lives and impacting power availability/interruption.	Carried Forward	N/A	Severe Storm	2,3,5,8	Municipal Code Enforcement	Medium	Low	Municipal Budget	Short Term	High	Capability, PR	Warren Township has improved its communication with both PSE&G and JCP&L with respect to hazards that are found and reported to township administrator, township engineer, and/or department of public works superintendent.



Notes:

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

Acronyms and Abbreviations:

ARC American Red Cross

DPW Department of Public Works

FEMA Federal Emergency Management Agency

HMA Hazard Mitigation Assistance

HMP Hazard Mitigation Proposal

N/A Not applicable

NFIP National Flood Insurance Program

NJOEM New Jersey Office of Emergency Management NOAA National Oceanic and Atmospheric Administration

SCPD Somerset County Planning Department

USACE U.S Army Corp of Engineers USGS U.S. Geological Survey

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.

Potential FEMA HMA Funding Sources:

FMA = Flood Mitigation Assistance Grant Program

HMGP = Hazard Mitigation Grant Program
PDM = Pre-Disaster Mitigation Grant Program
RFC = Repetitive Flood Claims Grant Program
SRL = Severe Repetitive Loss Grant Program

Timeline:

Short Term= 1 to 5 years

Long Term = 5 years or greater

OG = On-going program

DOF = Depending on funding

Notes (for Mitigation Type):

1. PR =	Prevention: Government, administrative or regulatory actions, or
	processes that influence the way land and buildings are developed
	and built. Examples include planning and zoning, floodplain local
	laws, capital improvement programs, open space preservation, and

storm water management regulations.

2. PP = Property Protection: These actions include public activities to reduce hazard losses or actions that involve (1) modification of

resisting 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. 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 educational programs for school age children and adults.

educational programs for school-age children and adults.

4 NR = Natural Resource Protection: Actions that minimize hazard

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. 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.



- 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.

6. 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.

7. Initiative= Initiatives are comprised of EVERYTHING your community

wants to do or is doing in order to meet its mitigation goals.

Initiatives include Capabilities, Actions and Projects.

8. Capability= Regulatory, administrative, technical, and fiscal staffing, tools

and/or resources. Capabilities can be existing, or in need of further

development/expansion.

8. Action/Project= Specific activities or projects that your community plans to

undertake or is currently completing in order to achieve its long term mitigation goals. Actions/Projects can include, but are not limited to: structural projects, infrastructure projects, natural systems protection projects, or education and awareness programs.

9.21.8 PRIORITIZATION OF MITIGATION INITIATIVES

The table below summarizes the priority levels for each mitigation initiative, listed by number. Please note that the Township has opted to carry forward legacy initiative numbers from the 2014 and 2009 plans, respectively, for internal municipal tracking purposes, formatted as: "2019# [2014# (2009#)]".

		Prioritiz	ation c	of Mitigation I	nitiatives		
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)
WR1 [WR3 (WR3)]	2	М	М	Υ	Υ	Υ	Н
WR2 [WR4 (WR4)]	1	М	L	Υ	N	Υ	M
WR3 [WR5 (WR5)]	13	М	М	Y	N	Y	M
WR4 [WR6 (WR6)]	1	М	L	Y	N	Y	M
WR5 [(WR7)]	2	М	М	Y	Y	Y	Н
WR6 [(WR8)]	3	М	М	Υ	N	Y	M
WR7 [(WR9)]	2	М	М	Υ	N	Y	M
WR8 [(WR10)]	1	М	М	Y	N	Υ	М
WR9 [(WR11)]	2	М	М	Y	N	Υ	M
WR10 [(WR12)]	2	L	L	Y	N	Υ	Н
WR11 [(WR13)]	2	М	L	Υ	N	Υ	Н
WR12 [(WR14)]	1	М	М	Υ	N	Υ	M
WR13 [(WR15)]	1	М	М	Y	N	Y	M
WR14 [(WR16)]	1	Н	Н	Y	Y	N	Н
WR15 [(WR17)]	2	Н	L-M	Υ	N	Υ	Н
WR16 [(WR18)]	13	М	М	Y	N	Y	М
WR17 [(WR19)]	1	М	L	Y	N	Υ	M
WR18 [(WR20)]	2	М	L	Y	N	Υ	Н
WR19 [(WR21)]	1	М	L	Y	N	Υ	Н
WR20 [(WR22)]	2	М	L	Y	N	Υ	Н
WR21 [(WR23)]	4	М	L	Y	N	Υ	Н

Notes:

H = High

L = Low

M = Medium

N = No

Y = Yes



9.21.8.1 Explanation of Priorities

Explanations of priority classifications used to assess the mitigation initiatives described in this annex are presented below:

High Priority = A project that meets multiple objectives (i.e., multiple hazards), where potential benefits exceed the costs. High-priority projects have funding secured or are on-going projects that meet eligibility requirements for the Hazard Mitigation Grant Program (HMGP) or Pre-Disaster Mitigation (PDM) Grant Program. High-priority projects can be completed in the short term (1 to 5 years).

Medium Priority = A project that meets goals and objectives, where the potential benefits outweigh the costs. Funding for medium-priority projects has not been secured but these projects are eligible for grants under HMGP, PDM, or other grant programs. These projects 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 = A project that will mitigate the risk of a hazard, where the potential benefits do not exceed the costs or have benefits that are difficult to quantify. Funding for low-priority projects has not been secured and these projects are not eligible for HMGP or PDM grant funding. The timeline 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.

Was prioritization of initiatives based on the above definitions? Yes

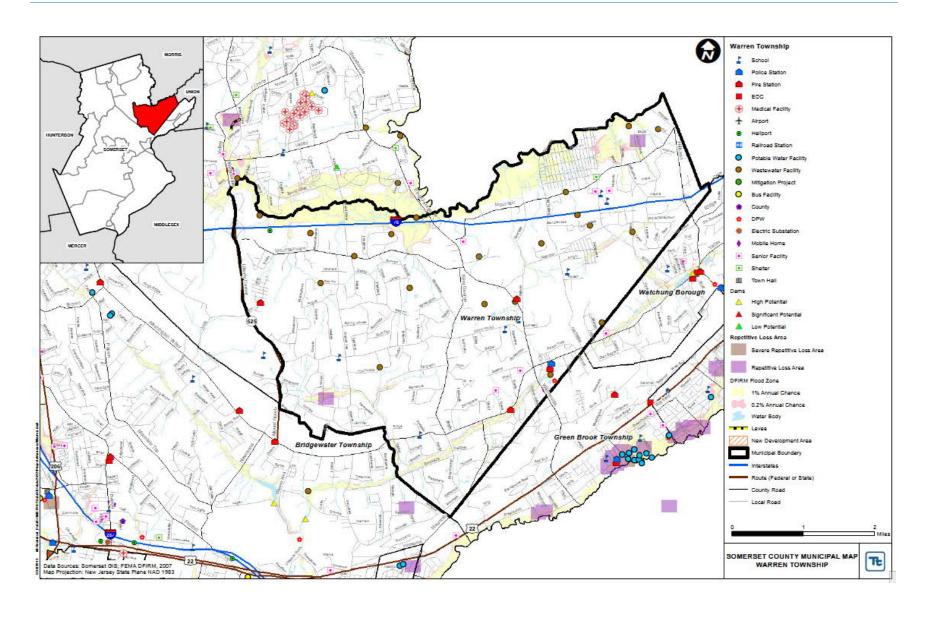
Was prioritization of initiatives based on parameters other than those stated above? Not applicable

9.21.9 FUTURE NEEDS TO BETTER UNDERSTAND RISK/VULNERABILITY

The Township of Warren has no additional risk vulnerabilities that need to be addressed at this time.

9.21.10 HAZARD AREA EXTENT AND LOCATION

A hazard area extent and location map illustrating the probable areas impacted within Warren Township is provided on the following page. This map is based on the best data available 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 Township has significant exposure. The planning area maps are provided in the hazard profiles within Section 5.4 of this plan.





9.21.11 STATUS OF INCORPORATION OF MITIGATION PLANNING INTO EXISTING AND FUTURE PLANNING MECHANISMS

It is the intention of the Township of Warren to incorporate mitigation planning as an integral component of daily municipal operations. The following table contains a list of planning mechanisms that have been utilized during prior plan maintenance cycles, and those that will be incorporated into municipal procedures during the upcoming plan maintenance cycle (2019-2024).

Status of Incorporation of Mitigation Plannin	g into Existing ar	nd Future Plann	ing Mechanisms	5
Planning Mechanisms	Reported Utilization (2009-2014)	Planned Utilization (2014-2019)	Reported Utilization (2014-2019)	Planned Utilization (2019-2024)
Operating Budget When constructing upcoming budgets, hazard mitigation actions will be funded as budget allows. Construction projects will be evaluated to see if they meet the hazard mitigation goals and objectives.	х	х	х	х
Capital Improvement Budget When constructing upcoming budgets, hazard mitigation actions will be funded as budget allows. Construction projects will be evaluated to see if they meet the hazard mitigation goals and objectives.	X	Х	Х	X
Human Resource Manual Employee job descriptions may contain hazard mitigation actions.	-	-	-	-
Building and Zoning Ordinances Prior to land use, zoning changes, or development permitting, the municipality will review the hazard mitigation plan and other hazard analyses to ensure consistent and compatible land use.	-	-	-	-
Comprehensive Land Use Plan When applicable, the municipality will incorporate hazard mitigation actions in the development and extent of the regulations.	х	Х	х	х
Grant Applications Data and maps will be used as supporting documentation in grant applications.	Х	Х	Х	х
Municipal Ordinances When updating municipal ordinances, hazard mitigation will be a priority.	Х	Х	Х	х
Fire Plan The Hazard Mitigation Plan will be used as a resource for the development of future Fire Plans.	-	-	Х	х
Capital Improvement Planning The municipality will establish a protocol to review current and future projects for hazard vulnerability. The municipality will incorporate hazard-resistant construction standards into the design and location of projects.	Х	X	X	Х
Day-to-Day Operations The municipality will incorporate hazard mitigation actions in daily operations and all projects.	-	х	Х	х

Status of Incorporation of Mitigation Plannin	g into Existing ar	nd Future Plann	ing Mechanisms	5
Planning Mechanisms	Reported Utilization (2009-2014)	Planned Utilization (2014-2019)	Reported Utilization (2014-2019)	Planned Utilization (2019-2024)
Local School Service Projects The municipality will work closely with the local school district and assist with community service projects for the service organizations. Several of the municipality's hazard mitigation actions can be implemented as a joint project with the school district.	-	-	-	-
Municipal Budget Adopted annually, the municipality will look at mitigation actions when allocating funding.	-	Х	Х	Х
Economic Development The local economic development group will take into account information regarding identified hazard areas when assisting new businesses in finding a location.	-	×	X	Х

9.21.12 ADDITIONAL COMMENTS

There are no additional comments at this time.

9.21.12 NFIP ADMINISTRATOR INPUT

Adoption Date of your Current Floodplain Management Ordinance	Date of Entry into NFIP ¹	Position or Title of Your Jurisdiction's Designated Floodplain Manager/Administrator (may also be called NFIP Coordinator)			Is this person is a Certified Floodplain Manager?	ertified Floodplain management an							
2007	1/5/1978	Township Zoning Officer		licer	[]Yes [X]No	[X] Yes [] N	[X] Yes [] No						
Provide an explanation of NFIP administration services (i.e., permit review, GIS, education or outreach, inspections, engineering capability, etc.): Warren Township currently offers the public service of reading and explaining the flood maps. We have the flood lines in our GIS software. The FIRMs are reviewed													
for all applications to the planning board and board of adjustment. We participate in CRS and a list of all active activities is available upon request.													
Describe barriers to running an effective NFIP program in the community (if applicable):													
N/A													
When was most recent FEMA Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?*	Is a CAV or CAC scheduled or needed?	Does the current floodplain management ordinance exceed FEMA or State minimum requirements? If so, describe how.	Is training of staff regarding NFIP issues planned?	Does your community intend to continue to enforce the floodplain management requirements including regulating new construction in Special Flood Hazard Areas (SFHAs)?	Does your community participate in the CRS? If so, state your Class.	Does your community intend to continue its participation in the CRS program?	If your community is not currently participating in the CRS program, are you intending to initiate the process during the next planning cycle?						
2012 during Hurricane Sandy	[] Yes [X] No	[] Yes [X] No	[] Yes [X] No	[X] Yes [] No	[X] Yes* [] No * Class_8	[X] Yes [] No	[] Yes [] No N/A						
*Describe any outstanding compliance issues (i.e., current violations):													
NONE													

Provide an expla	nation of your local	floodplain permittin	g process:							
Every application	n submitted to engin	eering or planning i	s reviewed with resp	ect to wetlands, st	reams, waterbodies	, buffer areas, ripa	arian zones, flood	l hazard areas.		
Does your community intend to continue floodplain identification and mapping services including any local requests for map updates?	Does your community intend to initiate/continue the buyouts of repetitive loss properties?	Does your community intend to commit staff or resources to improve local mapping or code administration in the future?	Does your community intend to provide local outreach to promote the sale of flood insurance?	Does your community intend to participate in RiskMAP meetings and planning initiatives?	Does your community intend to continue to implement structural improvements to mitigate against flooding - culverts, drainage basins, etc.?	Does your community intend to continue to implement home improvement programs designed to minimize basement flooding?	Does your community intend to continue to implement roadway improvement s to reduce damage from future flooding events?	Does your community intend to implement plans and programs in coordination with a local or regional drainage/sewer authority?		
[X]Yes [] No	[] Yes [X] No	[X] Yes [] No	[X] Yes [] No	[] Yes [] No	[X] Yes [] No	[] Yes [] No N/A	[X] Yes [] No	[X] Yes [] No		
Does your community intend to adopt the new FEMA Advisory Base Flood Elevations?		As Floodplain Manager, did you (or your predecessor at the time) actively participate in the development of the initial Hazard Mitigation Plan?		As Floodplain Manager, are you actively participating in the development of this Hazard Mitigation Plan Update?		Have there been any changes to your community's local floodplain management program since the last version of the plan in 2009?				
[X] Yes [] No		[X] Yes [] No		[X] Yes [] No		[] Yes * [X] No				
* If you answered	d "yes", that there h	ave been changes to	your local program	since 2009, please	describe:					
Provide a descrip	otion of your commu	ınity assistance and	monitoring activities	:						
		Planning department ineer will sign LOM			EMA FIRMs and R	iparian Buffers. \	We are available	to assist the		
management ord	inance to ensure tha	required to update/1 at it complies with th ontinue to commit to	e latest FEMA	floodplain	NFIP participating communities are also required to update/revise their floodplain management ordinance to be consistent with the latest <u>FIRMs</u> . Will your community continue to commit to this program requirement?					
	[X] Yes [] No			[X] Yes [] No					

