

## 9.25 TOWNSHIP OF WANTAGE

This section presents the jurisdictional annex for the Township of Wantage.

#### 9.25.1 HAZARD MITIGATION PLAN POINT OF CONTACT

The following individuals have been identified as the hazard mitigation plan's primary and alternate points of contact.

Primary Point of Contact	Alternate Point of Contact
Jim Doherty, Clerk/Administrator	Joseph Konopinski, OEM Coordinator
888 State Route 23, Wantage, NJ 07461	888 State Route 23, Wantage, NJ 07461
Phone: (973) 875-7192	Phone: (973) 222-7269
Email: administrator@wantagetwp-nj.org	Email: jkonopin@embarqmail.com

#### 9.25.2 MUNICIPAL PROFILE

Wantage Township is located in northern Sussex County. The Township fully surrounds the Borough of Sussex. New York State is located to the north, the Townships of Lafayette and Hardyston are located to the south, Vernon Township is located to the east and Montague and Frankford Townships are located to the west. It has a total area of 67.5 square miles and according to the U.S. Census, the 2010 population for the Township of Wantage was 11,358. The following unincorporated communities are located within the Township: Mount Salem, Rockport, Hanford, Colesville, Van Syckles, Quarryville, Libertyville, Plumbsock, Beemerville, Woodbourne, McCoys Corner, Lewisburg, Martins, Papakating, and Roys. The Wallkill River forms the eastern border of the Township and its tributaries flow through the Township as well. Other streams, ponds and lakes in the Township include, but not limited to: Hanfrod Brook, Clove Brook, West Branch Papakating Creek and its tributaries, Papakating Creek, Clove Acres Lake, Lake Windsor, Lake Neepaulin, Herzenberg Lake, and Lake Rutherford.

#### **Growth/Development Trends**

The following table summarizes recent residential/commercial development since 2010 to present and any known or anticipated major residential/commercial development and major infrastructure development that has been identified in the next five years within the municipality. Refer to the maps later in this annex which illustrate the hazard areas along with the location of potential new development.

Table 9.25-1. Growth and Development

Property or Development Name	Type (e.g. Res., Comm.)	# of Units / Structures	Address	Block / Lot	Known Hazard Zone(s)	Description/Status of Development
		Recen	t Development from	n 2010 to Present		
Jared Builders	Res	40	Libertyville Road	Bl 132 L 3.20	Could not locate	Approved; partially developed
Bicsak Site	Mixed		Blair Road	Bl 11 L 5	Carbonate Hazard	conceptual
Lang	Res	4	Ramsey Road	Bl 152 L 9	None at this time	approved
LGR Enterprises	Res	11	Sherman Ridge Rd	Bl 135 L 6.01	Flood: 1% Chance	approved
Toll	Res	38	Sterling Drive; Flagstone Hill Road	Bl 21 L 33-34	Wildfire: Very High	Developed



Property or Development Name	Type (e.g. Res., Comm.)	# of Units / Structures	Address	Block / Lot	Known Hazard Zone(s)	Description/Status of Development
Christian Leone	Res	15		Bl 117 L 32.01	None at this time	approved
Known or Anticipated Development in the Next Five (5) Years						
Town Center At Wantage	Mixed	43	Route 23	Bl 4 L 1.05	Carbonate Hazard	Approved; phased development

<sup>\*</sup> Only location-specific hazard zones or vulnerabilities identified.

#### 9.25.3 NATURAL HAZARD EVENT HISTORY SPECIFIC TO THE MUNICIPALITY

Sussex County has a history of natural and non-natural hazard events as detailed in Volume I, 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. For the purpose of this plan update, events that have occurred in the county from 2008 to present were summarized to indicate the range and impact of hazard events in the community. Information regarding specific damages is included, if available, based on reference material or local sources. This information is presented in the table below. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.

Table 9.25-2. Hazard Event History

Date(s) of Event	Event Type	FEMA Declaration # (If Applicable)	County Designated?	Summary of Damages/Losses
August 26 – September 5, 2011	Hurricane Irene	DR-4021	Yes	Hurricane Irene caused power outages and flooding within the Township. There was major debris cleanup and many roads washed out.  Infrastructure damage included Brink, Central school, File, Gorge, Layton, Lewisburg, Lowe, Nielson, Old Clove, and Quarry Roads. Public assistance was requested and handled directly by FEMA. Total costs/damages to the Township was over \$331,000.
September 28 – October 6, 2011	Remnants of Tropical Storm Lee	DR-4039	Yes	The remnants of Tropical Storm Lee led to moderate debris cleanup in the Township. There were utility outages and debris blocked road access. Public assistance was requested and handled by FEMA directly. Total costs/damages to the Township was over \$44,000.
October 29, 2011	Severe Storm	DR-4048	Yes	This storm led to utility outages and excessive use of materials and overtime to clear roadways.  Total cleanup, overtime and salt/sand costs to the Township was over \$45,000.
October 26 – November 8, 2012	Hurricane Sandy	DR-4086	Yes	Hurricane led to extensive debris cleanup in the Township. There were utility outages and debris blocked road access. Public assistance was requested and handled by FEMA directly. Total costs/damages to the Township was over \$66,000.

## 9.25.4 HAZARD VULNERABILITIES AND RANKING

The hazard profiles in Section 5.0 of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The risk ranking methodology is presented in Section 5.3. However, each municipality had the opportunity to adjust the final ranking based on municipal feedback. The following summarizes the hazard vulnerabilities and their ranking in the Township of Wantage. For additional vulnerability information relevant to this jurisdiction, refer to Section 5.0.



#### Hazard Risk/Vulnerability Risk Ranking

The table below summarizes the hazard risk/vulnerability rankings of potential hazards for the Township of Wantage.

Table 9.25-3. 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 <sup>b</sup>
Dam Failure	Damage estimate not a	vailable	Occasional	24	Medium
Drought	Damage estimate not a	vailable	Frequent	30	Medium
Earthquake	100-Year GBS: 500-Year GBS: 2,500-Year GBS:	\$0 \$235,819 \$3,436,620	Occasional	28	Medium
Flood	1% Annual Chance:	\$51,682,498	Frequent	18	Medium
Geologic	GBS Exposed to Carbonate Rock Areas:	\$118,027,239	Occasional	12	Low
Hurricane	100-year MRP: 500-year MRP: Annualized:	\$368,225 \$3,780,791 \$25,409	Frequent	48	High
Nor'Easter	Damage estimate not a	vailable	Frequent	48	High
Severe Weather	100-Year MRP: 500-year MRP: Annualized:	\$368,225 \$3,780,791 \$25,409	Frequent	48	High
Severe Winter Weather	1% GBS: 5% GBS:	\$13,962,721 \$69,813,604	Frequent	51	High
Wildfire	Estimated Value in the Extreme, Very High, and High Hazard Areas:	\$143,771,815	Frequent	24	Medium
Hazardous Materials	Damage estimate not a	vailable	Frequent	36	High

#### Notes:

 $GBS = General\ building\ stock;\ MRP = Mean\ return\ period.$ 

- a. The general building stock valuation is based on the custom inventory generated for the municipality and based on improved value.
- b. 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

c. Loss estimates for the severe storm and severe winter storm hazards are structural values only and do not include the estimated value of contents. Loss estimates for the flood and earthquake hazards represent both structure and contents. Potential flood loss estimates were generated using Hazus-MH 3.0 and the 2011 FEMA DFIRM for the 1-percent annual chance event. For the geologic and wildfire hazards, the improved value and estimated contents of buildings located within the identified hazard zones is provided.

## **National Flood Insurance Program (NFIP) Summary**

The following table summarizes the NFIP statistics for the Township of Wantage.



Table 9.25-4. NFIP Summary

Municipality	# Policies (1)	# Claims (Losses) (1)	Total Loss Payments (2)	# Rep. Loss Prop. (1)	# Severe Rep. Loss Prop. (1)	# Policies in 1% Flood Boundary (3)
Township of Wantage	32	7	\$182,463	0	0	13

Source: FEMA, 2014

Note (1) Policies, claims, repetitive loss and severe repetitive loss statistics provided by FEMA and are current as of November 31, 2014 and are summarized by Community Name. Please note the total number of repetitive loss properties excludes the severe repetitive loss properties. The number of claims represents claims closed by 11/31/2014.

Note (2) Total building and content losses from the claims file provided by FEMA Region 2.

Note (3) The policies inside and outside of the flood zones is based on the latitude and longitude provided by FEMA Region 2 in the policy file.

Note (4) FEMA noted that where there is more than one entry for a property, there may be more than one policy in force or more than one GIS possibility.

#### **Critical Facilities**

There are no critical facilities located in the FEMA 1% or 0.2% annual chance flood boundary.

### Other Vulnerabilities Identified by Municipality

The hazard profiles in Section 5.0 have detailed information regarding each plan participant's vulnerability to the identified hazards. Further, mitigation projects have been identified that may more specifically detail vulnerabilities in the community. There are no additional vulnerabilities identified at this time.

#### 9.25.5 CAPABILITY ASSESSMENT

This section identifies the following capabilities of the local jurisdiction:

- Planning and regulatory capability
- Administrative and technical capability
- Fiscal capability
- Education/Outreach and Community classification
- Self-Assessment of Capability
- National Flood Insurance Program
- Community Rating System
- Integration of Mitigation Planning into Existing and Future Planning Mechanisms

#### **Planning and Regulatory Capability**

The table below summarizes the regulatory tools that are available to the Township of Wantage.

**Table 9.25-5. Planning and Regulatory Tools** 

Tool/Program (code, ordinance, plan)	Do you have this? (Yes/No)	Authority (local, county, state, federal)	Dept./Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Planning Capability				
Master Plan	Yes 8/25/14	Local	Land Use Board	Wantage Township Master Plan
Capital Improvements Plan	Yes 4/30/15	Local	Governing Body	2015 Municipal Budget
Floodplain Management/Basin Plan	Yes 9/8/11	Local	Governing Body	Ordinance 2011-08



**Table 9.25-5. Planning and Regulatory Tools** 

Tool/Program (code, ordinance, plan)	Do you have this? (Yes/No)	Authority (local, county, state, federal)	Dept./Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Stormwater Management Plan	Yes 3/8/05	Local	Governing Body	Stormwater Management Plan
Open Space Plan	Yes 3/2008	Local	Governing Body	Open Space Plan
Stream Corridor Management Plan	No			
Watershed Management or Protection Plan	No			
Economic Development Plan	No			
Comprehensive Emergency Management Plan	Yes 2014	Local	Emergency Management	Emergency Management Plan
Emergency Response Plan	Yes 2014	Local	Emergency Management	Emergency Management Plan
Post-Disaster Recovery Plan	Yes 2014	Local	Emergency Management	Emergency Management Plan
Transportation Plan	Yes 2014	Local	Land Use Board	Master Plan
Strategic Recovery Planning Report	No			
Other Plans:	No			
Regulatory Capability				
Building Code	Yes	State & Local		State Uniform Construction Code Act (N.J.S. 52:27D-119 Et Seq.)
Zoning Ordinance	Yes 1979	Local	Governing Body	Chapter 8 – Zoning
Subdivision Ordinance	Yes 1977	Local	Governing Body	Chapter 7 – Land Subdivision
NFIP Flood Damage Prevention Ordinance	Yes	Federal, State, Local	Township Engineer	Chapter 18 – Flood Damage Prevention
NFIP: Cumulative Substantial Damages	No			
NFIP: Freeboard	Yes	State, Local		
Growth Management Ordinances	Yes 1979	Local	Governing Body	Zoning Ordinance
Site Plan Review Requirements	Yes	Local	Land Use Board	
Stormwater Management Ordinance	Yes 3/30/06	Local	Governing Body	Ordinance 2008-08
Municipal Separate Storm Sewer System (MS4)	No			
Natural Hazard Ordinance	No			
Post-Disaster Recovery Ordinance	No			
Real Estate Disclosure Requirement	No	State	Division Of Consumer Affairs	N.J.A.C. 13:45A-29.1
Other [Special Purpose Ordinances (i.e., sensitive areas, steep slope)]	No			



## **Administrative and Technical Capability**

The table below summarizes potential staff and personnel resources available to the Township of Wantage.

Table 9.25-6. Administrative and Technical Capabilities

Resources	Is this in place? (Yes or No)	Department/Agency/Position
Administrative Capability		
Planning Board	Yes	Planner
Mitigation Planning Committee	No	
Environmental Board/Commission	No	
Open Space Board/Committee	Yes	Administration
Economic Development Commission/Committee	No	
Maintenance Programs to Reduce Risk	No	
Mutual Aid Agreements	Yes	Public Safety
Technical/Staffing Capability		
Planner(s) or Engineer(s) with knowledge of land development and land management practices	Yes	Planning Board
Engineer(s) or Professional(s) trained in construction practices related to buildings and/or infrastructure	Yes	Planning Board
Planners or engineers with an understanding of natural hazards	Yes	Planning Board
NFIP Floodplain Administrator	Yes	Planning Board
Surveyor(s)	No	
Personnel skilled or trained in GIS and/or Hazus-MH applications	No	
Scientist familiar with natural hazards	No	
Emergency Manager	Yes	Emergency Management
Grant Writer(s)	No	
Staff with expertise or training in benefit/cost analysis	Yes	Finance
Professionals trained in conducting damage assessments	Yes	Administration

## **Fiscal Capability**

The table below summarizes financial resources available to the Township of Wantage.

**Table 9.25-7. Fiscal Capabilities** 

Financial Resources	Accessible or Eligible to Use (Yes/No/Don't Know)
Community Development Block Grants (CDBG, CDBG-DR)	Yes Administrator
Capital Improvements Project Funding	Yes, Engineer, CFO
Authority to levy taxes for specific purposes	No
User fees for water, sewer, gas, or electric service	No
Impact Fees for homebuyers or developers of new development/homes	No
Stormwater Utility Fee	No
Incur debt through general obligation bonds	Yes, Governing Body
Incur debt through special tax bonds	Yes, Governing Body
Incur debt through private activity bonds	No



Table 9.25-7. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No/Don't Know)
Withhold public expenditures in hazard-prone areas	No
Other Federal or State Funding Programs	Don't Know
Open Space Acquisition Funding Programs	Yes, Governing Body
Other	No

## **Education/Outreach and Community Classifications**

The table below summarizes education/outreach programs the community participates in and the classifications for community program available to the Township of Wantage.

Table 9.25-8. Education/Outreach and Community Classifications

Program	Do you have/participate in this? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No		
Building Code Effectiveness Grading Schedule (BCEGS)	No		
Public Protection (ISO Fire Protection Classes 1 to 10)	No		
Storm Ready	No		
Firewise	No		
Disaster/Safety Programs in/for Schools	No		
Organizations with Mitigation Focus (advocacy group, non-government)	No		
Public Education Program/Outreach (through website, social media)	Yes		
Public-Private Partnerships	No		

The classifications listed above relate to the community's ability to provide effective services to lessen its vulnerability to the 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 Community Rating System (CRS) class applies to flood insurance while the Building Code Effectiveness Grading Schedule (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 five 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 <a href="http://www.isomitigation.com/ppc/0000/ppc0001.html">http://www.isomitigation.com/ppc/0000/ppc0001.html</a>
- The National Weather Service Storm Ready website at <a href="http://www.weather.gov/stormready/howto.htm">http://www.weather.gov/stormready/howto.htm</a>





• The National Firewise Communities website at <a href="http://firewise.org/">http://firewise.org/</a>

## **Self-Assessment of Capability**

The table below provides an approximate measure of the Township of Wantage's capability to work in a hazard-mitigation capacity and/or effectively implement hazard mitigation strategies to reduce hazard vulnerabilities.

Table 9.25-9. Self-Assessment of Capability

	Degree of Hazard Mitigation Capability							
Area	Limited (If limited, what are your obstacles?)	Moderate	High					
Planning and Regulatory Capability		X						
Administrative and Technical Capability		X						
Fiscal Capability	X							
Community Political Capability								
Community Resiliency Capability		X						
Capability to Integrate Mitigation into Municipal Processes and Activities		X						

#### **National Flood Insurance Program**

#### NFIP Floodplain Administrator (FPA)

Harold Pellow, Engineer

#### Flood Vulnerability Summary

The municipality has not had flood damages in the past; therefore, they do not keep records of damaged properties. However, the FPA stated that if any flood damages occur, they would maintain lists/inventories. The FPA makes Substantial Damage estimates; however, none were declared for the recent events that impacted the Township. There is currently no interest in mitigation (acquisition/elevation) within the community.

#### Resources

When needed, the FPA can request the assistance of other staff to assist with the responsibilities of floodplain administration. NFIP administration services and functions the FPA provides include permit review, inspections and damage assessments. The Township provides education and outreach to the community regarding flood hazards/risk and flood risk reduction through Township newsletters and the municipal calendar. The FPA indicated that there are currently no barriers to running an effective floodplain program within the Township and that he feels adequately supports and trained to fulfill his role as the FPA. He would consider attending continuing education and/or certification trainings on floodplain management if it were offered in the County.

#### **Compliance History**

The Township is currently in good standing with the NFIP; however, it is unknown of the most recent compliance audit.



#### Regulatory

The Township's floodplain management regulations meet the minimum FEMA and state requirements. Additionally, the Land Use Board consider efforts to reduce risk when reviewing variances and height restrictions within the Township. The Township has not considered joining the CRS program.

#### **Community Rating System**

The Township of Wantage does not participate in the Community Rating System (CRS) program.

#### **Integration of Hazard Mitigation into Existing and Future Planning Mechanisms**

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, each community was surveyed to obtain a better understanding of their community's progress in plan integration. A summary is provided below. In addition, the community identified specific integration activities that will be incorporated into municipal procedures.

#### Planning

**Land Use Planning:** The Township has a Joint Land Use Board which reviews all applications for development and consider natural hazard risk areas in their review.

Wantage Township Master Plan Reexamination 2009: This plan included the reevaluation of the goals and objectives outlined in the 2003 Master Plan. It included the following applicable recommendation.

Update the Conservation/Environmental Element concerning Category One Waters, wildlife habitat, endangered species, forest management and wetlands and other environmental issues as required.

Prior to land use, zoning changes, or development permitting, the Township reviews the current hazard mitigation plan and other hazard analysis to ensure consistent and compatible land use within the community. The Township encourages consideration of low occupancy, low-density zoning in hazard areas, where practical.

The Township has identified several integration actions (refer to Table 9.25-12). For example, the Township will review the HMP update during the next Master Plan update.

#### Regulatory and Enforcement (Ordinances)

The Township has multiple chapters pertaining to the mitigation of hazards. These ordinances include the Flood Damage Prevention Chapter, Stormwater Control Chapter, and an Environmental Impact Statement requirement. When updating ordinances, the Township makes hazard mitigation a priority.

## **Chapter XVII: Flood Damage Prevention**

The purpose of this chapter to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed:

- To protect human life and health;
- To minimize expenditure of public money for costly flood control projects;
- To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- To minimize prolonged business interruptions;





- To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard;
- To help maintain a stable tax base by providing for the alternate use and development of areas of special flood hazard so as to minimize future flood blight areas;
- To ensure that potential buyers are notified that property is in an area of special flood hazard; and
- To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

#### **Chapter XIV-A: Stormwater Control**

The purposed of the Stormwater Control Chapter is to implement best management practices for stormwater management designed to promote the public health, safety and general welfare of the Townships' citizens and businesses.

#### Operational and Administration

The Township has established a Joint Land Use Board and an Environmental Committee, that aid in planning decisions to support the conservation and preservation of the Township's critical environmental features. Beyond that the Township employs and Planning Board Secretary and contracts out for professional legal, planning, and engineering services for development review.

#### Funding

**Operating Budget:** The Township's operating budget contains minimal provisions for expected repairs like snow removal and infrastructure repair after a storm or natural disaster.

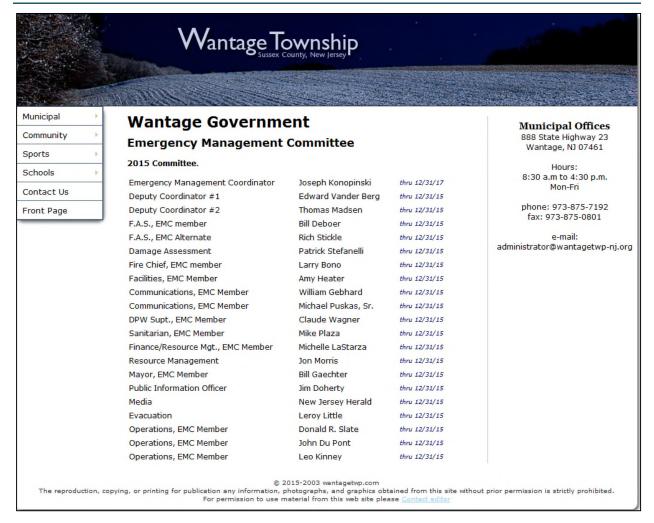
**Grants**: The Township has received funding from the NJDOT and The Garden State Preservation Trust Fund grant programs. The Township's 2014 Capital Budget includes line items for improvements to the Municipal Building, as well as a number or drainage and roadway improvements.

#### **Education and Outreach**

The Township's website posts information regarding upcoming community events and important municipal decisions on the home page.



Figure 9.25-1. Screenshot of Township Website with Examples of their Emergency Information



#### 9.25.6 MITIGATION STRATEGY AND PRIORITIZATION

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

#### **Past Mitigation Initiative Status**

The following table indicates progress on the community's mitigation strategy identified in the 2011 HMP. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under 'Capability Assessment' presented previously in this annex.



## **Table 9.25-10. Past Mitigation Initiative Status**

<u>Initiative</u> <u>Number</u>	2011 Mitigation Action	<u>Responsible</u> <u>Party</u>	<u>Status</u> (In progress, No progress, Complete)	<ol> <li>Describe Status</li> <li>Please describe what was accomplished and indicate % complete.</li> <li>If there was no progress, indicate what obstacles/delays encountered?</li> <li>If there was progress, how is/was the action being funded (e.g., FEMA HMGP grant, local budget)?</li> </ol>	Next Step (Include in 2016 HMP? or Discontinue)	Describe Next Step  1. If including action in the 2015 HMP, revise/reword to be more specific (as appropriate).  2. If discontinue, explain why.
Wantage Township 1	Storm-water drainage improvement and road elevation on Mudtown Road between Route 23 and Skytop Road.	Municipal Engineer	In Progress	This project is 90% completed and funded by the local budget.	Discontinue	This project is almost complete and there is nothing more to be done; therefore, this action will not be included in the Township's mitigation initiatives.
Wantage Township 2	Implement Fire Wise Program throughout the Township.	OEM Coordinator	In Progress	This project is 10% completed and funded by the local budget.	Include in 2016 HMP	The Township wishes to continue this process and will include this action in the Township's mitigation initiatives.
Wantage Township 3	Conduct all-hazards public education and outreach program for hazard mitigation and preparedness.	OEM Coordinator, in coordination with SCDEM	In Progress	This project is 10% completed and funded by the local budget.	Include in 2016 HMP	The Township wishes to continue this planning process and will include this action in the Township's mitigation initiatives.



# **Completed Mitigation Initiatives not Identified in the Previous Mitigation Strategy**

The Township has not identified any additional mitigation projects/activities that have been completed since approval of the 2011 HMP.

#### **Proposed Hazard Mitigation Initiatives for the Plan Update**

Sussex County held a mitigation action workshop in April 2015 and municipalities were provided the following FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards: FEMA 551 'Selecting Appropriate Mitigation Measures for Floodprone Structures' (March 2007) and FEMA 'Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards' (January 2013). In May 2015, a second workshop was held and led by FEMA Region 2 and NJOEM where municipalities were provided the results to the risk assessment to further assist with the identification of mitigation actions. In addition, the Township attended a meeting in September 2015 to discuss mitigation strategies for their community.

Table 9.25-11 summarizes the comprehensive-range of specific mitigation initiatives the Township would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives 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. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as 'High,' 'Medium,' or 'Low.' Table 9.25-12 provides a summary of the prioritization of all proposed mitigation initiatives for the HMP update.



**Table 9.25-11. Proposed Hazard Mitigation Initiatives** 

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
Wantage- 1 (new)	Ensure continuity of operations through back up power at critical facilities: purchase and install generators.	Existing	All	1, 2, 3, 6	Township OEM	High	Medium	HMGP with local cost share	Short Term / DOF	High	SIP	PP
Wantage- 2 (old #2)	Implement Fire Wise Program throughout the Township.	New and Existing	Wildfire	All	Township OEM	Medium	Low to Medium	Municipal Budget	Ongoing	Medium	LPR, EAP	PR, PI
Wantage- 3 (old #3)	Conduct all-hazards public education and outreach program for hazard mitigation and preparedness. Place an article in the Municipal newsletter and update the municipal website linking to the County HMP page	New and Existing	All	All	Township OEM with support from County OEM	High	Low	Municipal Budget	Short Term	High	EAP	PI
Wantage- 4 (new)	Develop specific design guidelines and development review procedures for new construction, replacement, relocation and substantial improvement in hazard areas within the Township.	New and Existing	All	All	Township Administrator	High	Low	Municipal Budget	Ongoing	High	LPR	PR
Wantage- 5 (new)	When updating the Zoning Ordinance, the Township will recognize hazard areas as limits on changes to zoning within the municipality.	N/A	All	All	Township Administrator	High	Low	Municipal Budget	Ongoing	High	LPR	PR
Wantage- 6 (new)	Review the county HMP during the next update of the Township Master Plan.	N/A	All	All	Township Administrator	High	Low	Municipal Budget	Ongoing	High	LPR	PR
Wantage- 7 (new)	Incorporate risk assessment and hazard mitigation principles into comprehensive planning efforts and day-to-day operations of the Township.	N/A	All	All	Township Administrator	High	Low	Municipal Budget	Ongoing	High	LPR	PR

Notes:

Not all acronyms and abbreviations defined below are included in the table.

\*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:

Potential FEMA HMA Funding Sources:

Timeline:





FMACommunity Rating System Flood Mitigation Assistance Grant Program Short 1 to 5 years DPWDepartment of Public Works HMGPHazard Mitigation Grant Program Long Term 5 years or greater **FEMA** Federal Emergency Management Agency PDMPre-Disaster Mitiaation Grant Program OGOn-aoina proaram FPARFC DOFFloodplain Administrator Repetitive Flood Claims Grant Program (discontinued) Depending on funding HMAHazard Mitigation Assistance SRL Severe Repetitive Loss Grant Program (discontinued)

*N/A* Not applicable

NFIP National Flood Insurance Program

NJDEP New Jersey Department of Environmental Protection NJOEM New Jersey Office of Emergency Management

OEM Office of Emergency Management

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 ongoing program.

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

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

Benefits:

Where possible, an estimate of project benefits (per FEMA's benefit calculation methodology)

has been evaluated against the project costs, and is presented as:

Low= < \$10,000

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

*High* > \$100,000

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

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

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

property.

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

property.

#### Mitigation Category:

- Local Plans and Regulations (LPR) These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.
- Structure and Infrastructure Project (SIP)-These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct manmade structures to reduce the impact of hazards.
- Natural Systems Protection (NSP) These are actions that minimize damage and losses, and also preserve or restore the functions of natural systems.
- Education and Awareness Programs (EAP) These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them.

  These actions may also include participation in national programs, such as StormReady and Firewise Communities

#### CRS Category:

- Preventative Measures (PR)-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.
- Property Protection (PP)-These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.
- Public Information (PI)-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.
- Natural Resource Protection (NR)-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.
- Structural Flood Control Projects (SP)-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.



• Emergency Services (ES)-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



Table 9.25-12. Summary of Prioritization of Actions

Mitigation Action / Project Number	Mitigation Action/Initiative	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community Objectives	Total	High / Medium / Low
Wantage-1 (new)	For continuity of operations through back up power - Generator	1	1	1	1	1	1	0	1	1	1	1	0	1	1	12	High
Wantage-2 (old #2)	Implement Fire Wise Program throughout the Township.	1	1	1	1	1	0	0	1	0	1	0	0	0	0	7	Medium
Wantage-3 (old #3)	Conduct all-hazards public education and outreach program for hazard mitigation and preparedness. Place an article in the Municipal newsletter and update the municipal website linking to the County HMP page	1	1	1	1	1	1	1	0	1	1	1	1	0	0	11	High
Wantage-4 (new)	Develop specific design guidelines and development review procedures for new construction, replacement, relocation and substantial improvement in hazard areas within the Township.	1	1	1	1	1	1	1	0	0	1	1	0	0	0	9	High
Wantage-5 (new)	When updating the Zoning Ordinance, the Township will recognize hazard areas as limits on changes to zoning within the municipality.	1	1	1	1	1	1	1	0	0	1	1	0	0	0	9	High
Wantage-6 (new)	Review the county HMP during the next update of the Township Master Plan.	1	1	1	1	1	1	1	0	0	1	1	0	0	0	9	High
Wantage-7 (new)	Incorporate risk assessment and hazard mitigation principles into comprehensive planning efforts and day-to-day operations of the Township.	1	1	1	1	1	1	1	0	0	1	1	0	0	0	9	High

Note: Refer to Section 6 which contains the guidance on conducting the prioritization of mitigation actions.



# 9.25.7 FUTURE NEEDS TO BETTER UNDERSTAND RISK/VULNERABILITY

None at this time.

#### 9.25.8 HAZARD AREA EXTENT AND LOCATION

Hazard area extent and location maps have been generated for the Township of Wantage that illustrate the probable areas impacted within the municipality. These maps are based on the best available data at the time of the preparation of this plan, and are 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 of Wantage has significant exposure. These maps are illustrated in the hazard profiles within Section 5.4, Volume I of this Plan.

## 9.25.9 ADDITIONAL COMMENTS

None at this time.



Figure 9.25-2. Township of Wantage Hazard Area Extent and Location Map 1

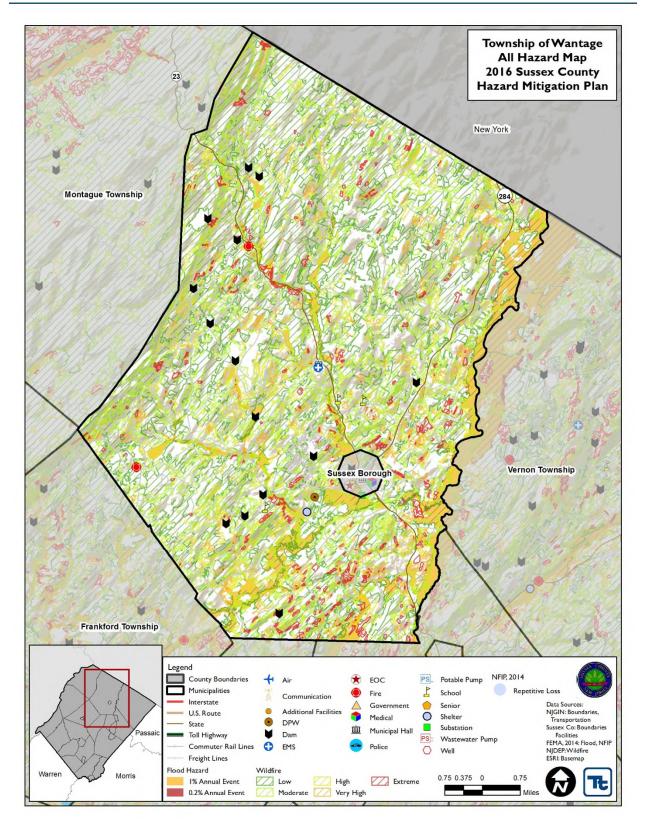
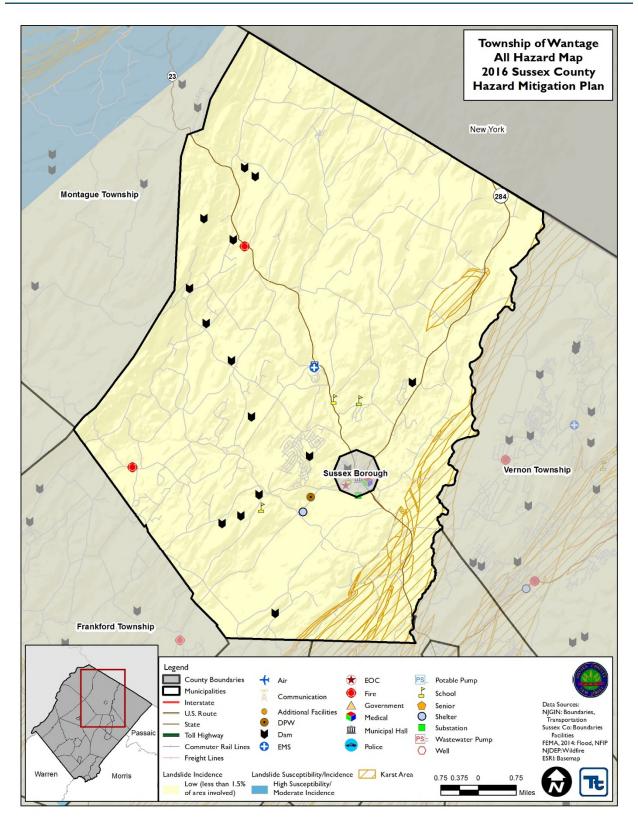




Figure 9.25-3. Township of Wantage Hazard Area Extent and Location Map 2





**Action Number:** Wantage-1

Mitigation Action/Initiative: For continuity of operations through back up power - Generator

	Assessing the Risk							
Hazard(s) addressed:	All hazards							
Specific problem being mitigated:	No back up power at Fire house which serves as a shelter in time of emergency							
Eval	uation of Potential Actions/Projects							
Actions/Projects Considered	Purchase and install Generator							
(name of project and reason for	2. Build a new EOC							
not selecting):	Build a Co-generation facility							
Action	Project Intended for Implementation							
Description of Selected Action/Project	Purchase and install a new generator at firehouse							
Action/Project Category	Structure and Infrastructure Project (SIP)							
Goals Met	Protect Life     Protect Property     Support continuity of operations pre-, during, and post-hazard events							
Applies to existing and or new development, or not applicable	Existing							
Benefits (losses avoided)	High							
Estimated Cost	medium							
Priority	high							
	Plan for Implementation							
Responsible Organization	Wantage Township Fire Department Chief							
Local Planning Mechanism	Budget planning							
Potential Funding Sources	FEMA HMGP with local cost share							
Timeline for Completion	short							
	Reporting on Progress							
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:							



Action Number: Wantage-1

Mitigation Action/Initiative: For continuity of operations through back up power - Generator

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Police/fire/emc/public information dissemination
Property Protection	1	Will keep firehouse running and operational
Cost-Effectiveness	1	Funding through hmgp program and matching funds
Technical	1	In house staff
Political	1	Supported by governing body
Legal	1	Legal authority to install a generator
Fiscal	0	Without grant, funds do not exist to complete the project
Environmental	1	Supports environment
Social	1	Supported by general public
Administrative	1	Administration supports the project
Multi-Hazard	1	Addresses any and all hazards that could occur
Timeline	0	Estimated short term
Agency Champion	1	Fire Department Chief
Other Community Objectives	1	Continuity of operations
Total	12	
Priority (High/Med/Low)	High	