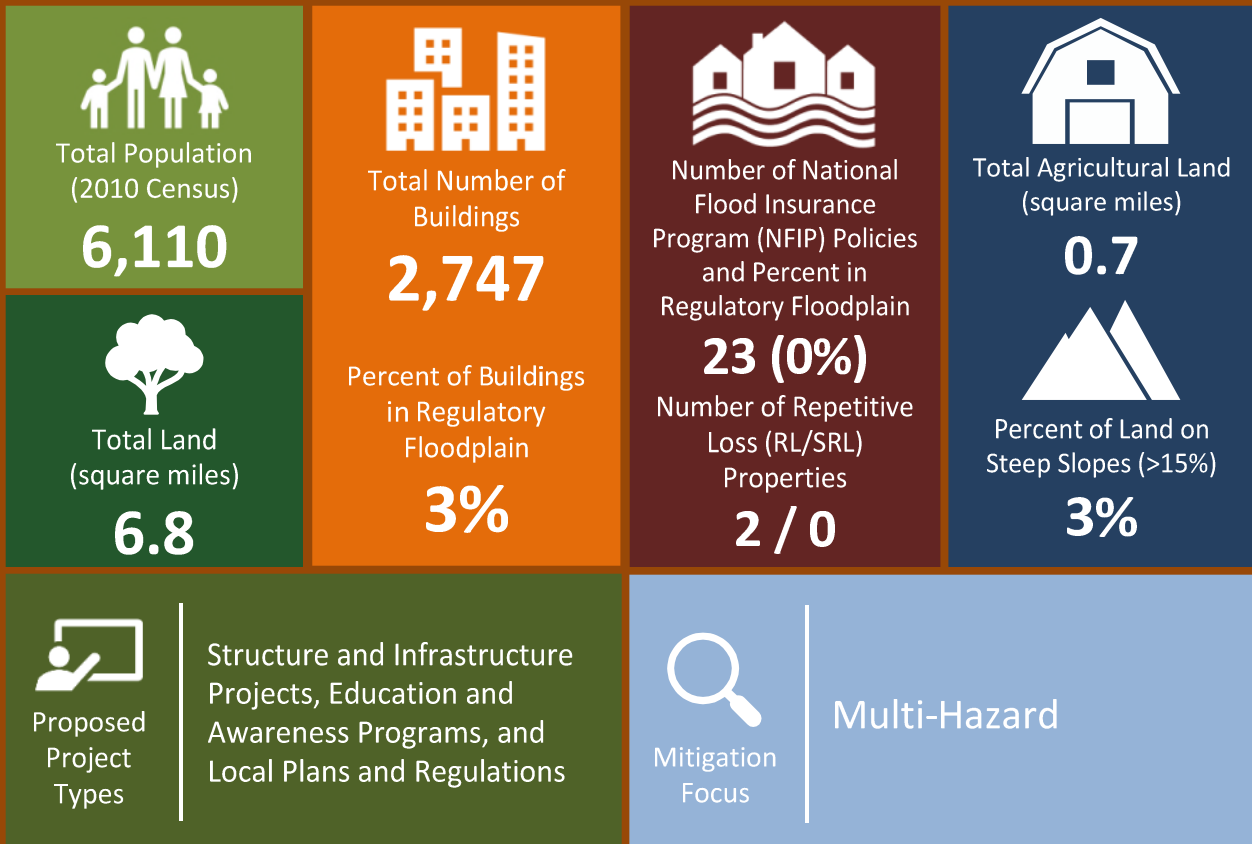
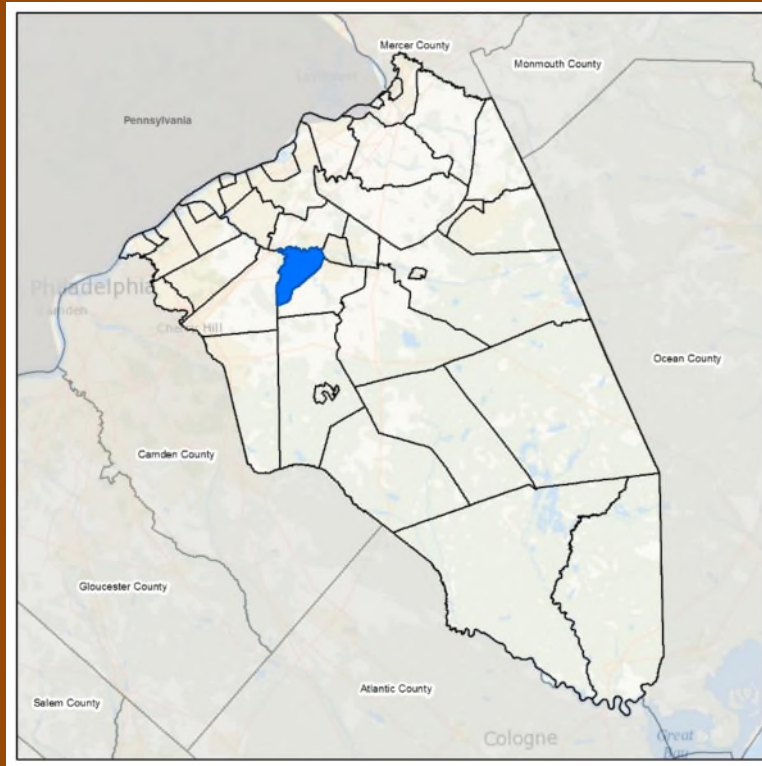




MUNICIPAL ANNEX | Hainesport Township





9.17 Township of Hainesport

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

9.17.1 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
William Boettcher, OEM Coordinator One Hainesport Centre, Hainesport, NJ 08036 609.784.5173 pkosko@hainesporttownship.com	William Challenger, Deputy OEM Coordinator One Hainesport Centre, Hainesport, NJ 08036 609.209.2322 wec23@verizon.net

9.17.2 Municipal Profile

Richard and Margaret Haines of Northamptonshire, England immigrated to the American colonies in 1682. The land grant for which the Haines family emigrated covered approximately 1700 acres, including a portion of the present Mount Laurel Township. Their son, Joseph Haines, who was born in mid-ocean, purchased a tract of land beyond Lumberton covering several hundred acres, including the Village of Long Bridge which was the original name of Hainesport.

The nineteenth century brought about a marked change in the industrial growth of the area, including the change of the area name from Long Bridge to Hainesport. In 1852, an iron foundry was established under the name Columbian Iron Works, and in 1854, a steam saw mill was built. In 1867, the Pennsylvania Railroad built a station in Hainesport.

The Township of Hainesport was incorporated as a township by an Act of the New Jersey Legislature on March 12, 1924.¹

Under the township form, all legislative powers are concentrated in the committee. The committee also has all executive powers not placed in the mayor either by general law or the revised Township act. Additionally, all municipalities under the traditional form may appoint, including the township form, may appoint a municipal administration and “delegate to him all or a portion of the executive responsibilities of the municipality.”²

The Township of Hainesport is located in north-central Burlington County. The Township is bordered by Westampton to the north, Mount Holly to the east, Lumberton to the south, and Mount Laurel to the west. There are several unincorporated communities found within in the Township: Clermont, Creekview, Franklin Estates, The Glen at Mason's Creek, Hainesport Chase, Lakeside at Creekview, Mason's Woods, Oakdale, Rancocas Heights, Sage Run and Union Mills. According to the 2010 Census, the community's population was 6,110.

¹ <http://www.hainesporttownship.com/about/history.html>

² http://www.njslom.org/magart0307_p14.html





Growth/Development Trends

The Township of Hainesport did not note any recent residential/commercial development since 2013 or any major residential or commercial development, or major infrastructure development planned for the next five years in the municipality.

Table 9.17-1. Growth and Development

Property or Development Name	Type (e.g. Res., Comm.)	# of Units / Structures	Location (address and/or block/lot)	Known Hazard Zone(s)	Description/Status of Development
Recent Development from 2013 to present					
None identified.					
Known or Anticipated Development in the Next Five (5) Years					
None identified.					

* Only location-specific hazard zones or vulnerabilities identified.

9.17.3 Natural Hazard Event History Specific to the Municipality

Burlington 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 2013 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 9.17-2. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	Burlington County Designated?	Summary of Damages/Losses
April 30-May 1, 2014	Heavy Rain and Flooding		Downed trees and wires, power outages, road closures
June 23, 2015	Severe Storm (DR-4231)	Yes	Downed trees and wires, power outages, road closures
January 22-24, 2016	Severe Winter Storm (DR-4264)	Yes	Downed trees and wires, power outages, road closures

Notes:

- EM Emergency Declaration (FEMA)
- FEMA Federal Emergency Management Agency
- DR Major Disaster Declaration (FEMA)
- N/A Not applicable

9.17.4 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 following summarizes the hazard vulnerabilities and their ranking in the Township of Hainesport. 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 Hainesport.

Table 9.17-3. 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 ^b
Coastal Erosion	RCV Exposed to CE Hazard Area: \$41,984,132	Occasional	12	Low
Drought	Damage estimate not available.	Frequent	30	Medium
Earthquake	100-Year GBS: \$0 500-Year GBS: \$1,980,376 2,500-Year GBS: \$29,503,406	Occasional	28	Medium
Flood	1% Annual Chance: \$117,068,572	Frequent	18	Medium
Landslide	RCV Exposed to Landslide Hazard Area \$0	Rare	6	Low
Severe Storm	100-year MRP: \$2,095,234 500-year MRP: \$10,689,794 Annualized: \$102,159	Frequent	48	High
Severe Winter Weather	1% GBS: \$20,802,072 5% GBS: \$104,010,359	Frequent	51	High
Wildfire	Estimated Value in the Extreme, Very High, and High Hazard Areas: \$125,318,585	Occasional	12	Low

Notes:

- 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 the municipality.
High = Total hazard priority risk ranking score of 31 and above
Medium = Total hazard priority risk ranking of 20-30+
Low = Total hazard risk ranking below 20
- c. Loss estimates for the severe storm and severe winter storm hazards are structural values only and do not include the value of contents.
- d. Loss estimates for the flood and earthquake hazards represent both structure and contents.
- e. The HAZUS-MH earthquake model results are reported by Census Tract.

National Flood Insurance Program (NFIP) Summary

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

Table 9.17-4. NFIP Summary

Municipality	# Policies (1)	# Claims (Losses) (1)	Total Loss Payments (2)	# Rep. Loss Prop. (1)	# Severe Rep. Loss Prop. (1)	# Policies in 100-year Boundary (3)
Township of Hainesport	31	6	\$32,269.89	2	0	0

Source: FEMA Region 2 2017, 2018

- (1) Repetitive loss and severe repetitive loss statistics provided by FEMA Region 2 and are current as of 10/31/2017. Policy and claims statistics current as of 9/30/2018
Please note the total number of repetitive loss properties does not include the severe repetitive loss properties. The number of claims represents claims closed by 9/30/2018.
- (2) Total building and content losses from the claims file provided by FEMA Region 2.





(3) The policies inside and outside of the flood zones are based on the addresses geocoded from the FEMA Region 2 policy file – 10/31/2017.

Notes: 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.
A zero percentage denotes less than 1/100th percentage and not zero damages or vulnerability as may be the case.

Critical Facilities

The table below presents Hazards United States (HAZUS) – Multi-Hazards (MH) estimates of the damage and loss of use to critical facilities in the community as a result of a 1-percent annual chance flood event.

Table 9.17-6. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Potential Loss from 1% Flood Event	
		1% Event	0.2% Event	Percent Structure Damage	Percent Content Damage
None identified.					

Source: FEMA 2017, Burlington County

Note: - = Damages not calculated by HAZUS-MH v4.0

Other Vulnerabilities Identified

The municipality has identified the following vulnerabilities within their community:

- Delaware River - Subject to flooding from intense rainfall runoff and is also subject to tidal flooding caused by extremely high tides, hurricane activity, or tropical storms.
- Masons Creek - – flooding source impacted by high tides caused on the Delaware River due to passing hurricanes and other large storms.
- Rancocas Creek North Branch - flooding source impacted by high tides caused on the Delaware River due to passing hurricanes and other large storms.
- Rancocas Creek South Branch - flooding source impacted by high tides caused on the Delaware River due to passing hurricanes and other large storms.

9.17.5 Capability Assessment

This section identifies the following capabilities of the local jurisdiction:

- Planning and regulatory capability
- Administrative and technical capability
- Fiscal capability
- Community classification
- National Flood Insurance Program
- 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 Hainesport.



Table 9.17-7. Planning and Regulatory Tools

Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	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	8/24/99 update	Local	Planning / Zoning	Twp. Code Chapter 104
Capital Improvements Plan	4/12/1994	Local	Planning	Twp. Code Chapter 104
Floodplain Management / Basin Plan	No		Construction	Twp. Code Chapter 104
Stormwater Management Plan	1/24/2006	Local	Twp. Officials	Twp. Code Chapter 161
Open Space Plan	8/25/1987	Local	Planning	Twp. Code Chapter 104
Stream Corridor Management Plan	5/27/2003	Local	Planning	Twp. Code Chapter 104
Watershed Management or Protection Plan	5/27/2003	Local	Planning	Twp. Code Chapter 104
Economic Development Plan	12/10/1996	Local	Administration	Twp. Code Chapter 13
Comprehensive Emergency Management Plan	7/2009	Local	OEM	Comprehensive Emergency Management Plan
Emergency Operation Plan	No			
Post-Disaster Recovery Plan	7/2009	Local	OEM	Post-Disaster Recovery Plan
Transportation Plan	No			
Strategic Recovery Planning Report	No			
Other Plans:				
Regulatory Capability				
Building Code	Yes	State & Local	Construction	Twp. Code – Chapter 71 & NJAC 5:23
Zoning Ordinance	6/8/1978	Local	Zoning	Twp. Code Chapter 104
Subdivision Ordinance	6/8/1978	Local	Zoning	Twp. Code Chapter 104
NFIP Flood Damage Prevention Ordinance	Yes	Federal, State, Local	Construction	Twp. Code Chapter 89
NFIP: Cumulative Substantial Damages	No	Local		
NFIP: Freeboard	Yes	State, Local		
Growth Management Ordinances	8/24/1999	Local	Zoning / Land Use	Twp. Code chapter 104
Site Plan Review Requirements	4/12/2011	Local	Planning	Twp. Code Chapter 104
Stormwater Management Ordinance	1/24/2006	Local	Twp. Officials	Twp. Code Chapter 161
Municipal Separate Storm Sewer System (MS4)	Yes	Local		
Natural Hazard Ordinance	No			
Post-Disaster Recovery Ordinance	No			





Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Real Estate Disclosure Requirement	Yes	State		
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 Hainesport.

Table 9.17-8. Administrative and Technical Capabilities

Resources	Is this in place? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	Y	Joint Land Use Board
Mitigation Planning Committee	N	
Environmental Board/Commission	Y	Environmental Commission
Open Space Board/Committee	N	
Economic Development Commission/Committee	Y	Economic Development
Maintenance programs to reduce risk	N	
Mutual aid agreements	Y	
Technical/Staffing Capability		
Planner(s) or engineer(s) with knowledge of land development and land management practices	Y	Alaimo Associates
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	Y	Construction Official and Staff
Planners or engineers with an understanding of natural hazards	Y	Alaimo Associates
NFIP Floodplain Administrator (FPA)	Y	Construction Official
Surveyor(s)	Y	Alaimo Associates
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Y	Alaimo Associates
Scientist familiar with natural hazards	N	
Emergency Manager	Y	Township OEM
Grant writer(s)	Y	
Staff with expertise or training in benefit/cost analysis	Y	Finance Department
Professionals trained in conducting damage assessments	N	

Fiscal Capability

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





Table 9.17-9. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvements project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas or electric service	No
Impact fees for homebuyers or developers of new development/homes	Yes
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	Yes
Open Space Acquisition funding programs	No
Other	

Community Classifications

The table below summarizes classifications for community program available to the Township of Hainesport.

Table 9.17-10. Community Classifications

Program	Do you have this? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	N/A	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	No		
Public Protection (ISO Fire Protection Classes 1 to 10)	No		
Storm Ready Certification	No	N/A	N/A
Firewise Communities classification	No	N/A	N/A
Natural disaster/safety programs in/for schools	No		
Organizations with mitigation focus (advocacy group, non-government)	No		
Public education program/outreach (through website, social media)	No		
Public-private partnership initiatives addressing disaster-related issues	No		

Note:

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

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 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 1000 feet of a creditable fire hydrant and is within 5 road miles of a recognized Fire Station.

Criteria for classification credits are outlined in the following documents:

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

Self-Assessment of Capability

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

Table 9.17-11. Self-Assessment Capability for the Municipality

Area	Degree of Hazard Mitigation Capability		
	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		X	
Community resiliency capability		X	
Capability to integrate mitigation into municipal processes and activities		X	

National Flood Insurance Program

NFIP Floodplain Administrator (FPA)

Gene Blair, Construction Official

Flood Vulnerability Summary

At this time, the municipality does not maintain a list or inventory of properties that have been flood damaged, and does not have a record of the number of homes that may have been damaged during Hurricane Sandy or other storm events. The municipality does not make sustainable damage estimates and does not have a count for a given storm event. Funding sources for potential mitigated properties can include local budget or grant funding with aid from the property owner.

Resources

The FPA is the sole person assuming the responsibilities of floodplain administration for the Township. NFIP administration services and functions provided by the FPA include, permit review, inspections, and education and outreach. The Township provides education and outreach to the community regarding the flood hazard; information and links to flood maps and insurance information is available on the website. The FPA is





adequately supported and retained to fulfill the responsibilities as the FPA, but would consider attending continuing education and/or certification training on floodplain management if it were offered in the County.

Compliance History

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

Regulatory

The Township's floodplain management regulations/ordinances meet the FEMA and State minimum requirements. The planning board and zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions. The Township has considered joining the Community Rating System (CRS) and would attend a CRS seminar if offered locally.

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

Master Plan: The Reexamination of Master Plan and Development Regulations for Hainesport Township was adopted December 3rd, 2008. This was the second Reexamination Report of Hainesport's 1996 Master Plan. In 2004 the Land Use, Open Space and Conservation elements of the Master Plan were amended, and in 2006 the Housing and Fair Share Plan elements were amended. The Housing Plan Element and Fair Share Plan were amended again in 2008.

Regulatory and Enforcement (Ordinances)

NJDEP Municipal Stormwater Regulation Program: New Jersey Department of Environmental Protection issued the statewide municipal stormwater permits that became effective January 1, 2018 and authorizes stormwater discharges from municipal separate storm sewer systems (MS4s) to the waters of the state. Municipalities that have been issued a Notice of Authorization (NOA) to discharge under the Tier A (urban and coastal municipalities) or Tier B (more rural municipalities) master general permit must develop and implement a stormwater program. The first New Jersey Pollutant Discharge Elimination System (NJPDES) permit authorizing discharges from MS4 municipalities became effective in 2004 (subsequently renewed in 2009 and now in 2018), so most municipalities have developed stormwater programs; however, the 2018 permit requires the municipalities to maintain a stormwater management plan and enforce stormwater ordinances to address development and redevelopment consistent with the Stormwater Management rules at N.J.A.C 7:8, as well as implementation of additional requirements. For more information on the municipal stormwater regulation program, see www.nj.gov/dep/dwq/msrp_home.htm. Hainesport is a Tier A municipality.

Stormwater Management: Chapter 161 of the municipal code discussed stormwater management. The chapter is intended to establish a yard waste collection and disposal program; to prohibit feeding of unconfined wildlife in any public park or other property owned or operated by Hainesport Township; prohibit spilling, dumping, or disposal of materials other than stormwater to the municipal separate storm sewer system operated by Hainesport Township; prohibit illicit connections to the municipal storm sewer system(s); to establish requirements for the



proper handling of yard waste; as to protect public health, safety and welfare, and to prescribe penalties for the failure to comply.

Flood Damage Prevention: The purpose of the flood damage prevention ordinance (Chapter 89 of the municipal code) is 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 designated to:

- Protect human life and health.
- Minimize expenditure of public money for costly flood control projects.
- Minimize the need for rescue and relief effort associated with flooding and generally undertaken at the expense of the general public.
- Minimize prolonged business interruptions.
- 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.
- Help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas.
- Ensure that potential buyers are notified that property is in an area of special flood hazard.
- Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

Operational and Administration

Hainesport Township has the following boards and commissions:

- Environmental Commission
- Joint Land Use Board
- The Joint Land Use Board fulfills the responsibilities of both the planning board and zoning board.
- Recreation Commission

Funding

The Township has access to Capital Improvements project funding and is eligible to apply for Community Development Block Grants, FEMA Pre-Disaster Mitigation or Flood Mitigation Assistance grant funding, or other state/federal grants to fund mitigation projects.

Education and Outreach

Hainesport Township has a website where one can access information about Township departments, government, community, business, affordable housing, minutes and agendas, ordinances, forms and documents, and see news and announcements and the Township calendar with upcoming meetings. When using the search bar on the municipal websites for the word “flood” links for the flood zone, floodplain mapping, and flood insurance are available.

9.17.6 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 2013 Plan. 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.

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Table 9.17-12. Status of Previous Mitigation Actions

Action Number	2013 Mitigation Action	Responsible Party	Status (In progress, No progress, Complete)	Describe Status 1. Please describe what was accomplished and indicate % complete. 2. If there was no progress, indicate what obstacles/delays encountered? 3. If there was progress, how is/was the action being funded (e.g., FEMA HMGP grant, local budget)?	Next Steps 1. Project to be included in 2019 HMP or Discontinue 2. If including action in the 2019 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
HP-1	<p>Conduct and facilitate community and public education and outreach for residents and businesses to include, but not be limited to, the following to promote and effect natural hazard risk reduction:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Provide and maintain links to the HMP website, and regularly post notices on the County/municipal homepage(s) referencing the HMP webpages. <input type="checkbox"/> 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. <input type="checkbox"/> Use newsletters to better educate the public on flood insurance, the availability of mitigation grant funding, and personal natural hazard risk reduction measures 	Municipality with support from Planning Partners, County Planning, NJOEM, FEMA	In Progress	Budget constraints	<ol style="list-style-type: none"> 1. Include in 2019 HMP 2. Seek funding





Action Number	2013 Mitigation Action	Responsible Party	Status (In progress, No progress, Complete)	Describe Status 1. Please describe what was accomplished and indicate % complete. 2. If there was no progress, indicate what obstacles/delays encountered? 3. If there was progress, how is/was the action being funded (e.g., FEMA HMGP grant, local budget)?	Next Steps 1. Project to be included in 2019 HMP or Discontinue 2. If including action in the 2019 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
HP-2	Incorporate ordinances and/or zoning restrictions to control and mitigate future development in hazard areas, specifically as identified in Section 104 of Hainesport Township Code	Municipality with support from County, NJOEM and FEMA	No Progress	Ordinances and/or restrictions not integrate yet	<ol style="list-style-type: none"> 1. Include in 2019 HMP 2. Integrate hazard mitigation elements into zoning requirements
HP-3	Obtain and install backup power sources at critical facilities	Municipality with support from County, NJOEM and FEMA	In Progress	Budget Constraints	<ol style="list-style-type: none"> 1. Include in 2019 HMP 2. Secure funding
HP-4	Create/Enhance/Maintain Mutual Aid agreements with neighboring communities for continuity of operations	Municipality with support from County, NJOEM, FEMA and surrounding communities	Complete	Complete	<ol style="list-style-type: none"> 1. Discontinue 2. Ongoing capability
HP-5	Work with regional agencies (i.e. County and NJOEM) to help develop damage assessment capabilities at the local level to include training and certification programs (e.g. code officials, floodplain managers, engineers)	Municipality with support from County, NJOEM and FEMA	In progress	Budget constraints	<ol style="list-style-type: none"> 1. Include in 2019 HMP 2. Secure funding and determine programs to educate and train local staff
HP-6	Continue to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Section 7.0	Municipality with support from Planning Partners, County Planning, NJOEM, FEMA	Complete	Complete	<ol style="list-style-type: none"> 1. Discontinue 2. Ongoing capability
HP-7	Maintain compliance with and good-standing in the NFIP including adoption and enforcement of floodplain management requirements (e.g.	Municipality (via Municipal Engineer/NFIP Floodplain Administrator)	Complete	Township has maintained good-standing in the NFIP	<ol style="list-style-type: none"> 1. Discontinue 2. Ongoing capability





Action Number	2013 Mitigation Action	Responsible Party	Status (In progress, No progress, Complete)	Describe Status 1. Please describe what was accomplished and indicate % complete. 2. If there was no progress, indicate what obstacles/delays encountered? 3. If there was progress, how is/was the action being funded (e.g., FEMA HMGP grant, local budget)?	Next Steps 1. Project to be included in 2019 HMP or Discontinue 2. If including action in the 2019 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
	regulating all new and substantially improved construction in Special Hazard Flood Areas), floodplain identification and mapping, and flood insurance outreach to the community.	with support from NJOEM, FEMA			
HP-8	Promote the participation of Floodplain Administrators within the planning process and other activities	Municipality with support from County, NJOEM and FEMA	No Progress	No progress made on pursuing the action	1. Include in 2019 HMP 2. Pursue action
HP-9	Implement, review, and enforce municipal policies and programs to prevent trees from threatening lives and impacting power availability/interruption	Municipal Code Enforcement	Complete	Complete	1. Discontinue 2. Ongoing capability
HP-10	Evaluate benefits of participating in CRS program	Twp. Committee; Planning	In Progress	Ongoing.	1. Include in 2019 HMP 1. Continue evaluating the efficacy of joining CRS and securing funding to do so
HP-11	Conduct and facilitate community and public education and outreach for residents and businesses to promote natural hazard risk reduction to include: <ul style="list-style-type: none"> Disaster preparedness Hazard mitigation 	Municipality with support from Planning Partners, County Planning, NJOEM, FEMA	In Progress	Budget constraints	3. Include in 2019 HMP Seek funding
HP-12	Improve municipal communications systems to include information sharing with county and surrounding municipalities	Municipality with support from County, NJOEM and FEMA	In Progress	Budget constraints	1. Include in 2019 HMP 2. Seek funding
HP-13	Enhance resilience to severe storms by joining the NOAA "Storm Ready" program	Municipality with support from County,	No Progress	Budget constraints	1. Include in 2019 HMP 2. Determine benefit of joining the program





Action Number	2013 Mitigation Action	Responsible Party	Status (In progress, No progress, Complete)	Describe Status 1. Please describe what was accomplished and indicate % complete. 2. If there was no progress, indicate what obstacles/delays encountered? 3. If there was progress, how is/was the action being funded (e.g., FEMA HMGP grant, local budget)?	Next Steps 1. Project to be included in 2019 HMP or Discontinue 2. If including action in the 2019 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
		NJOEM and FEMA			
HP-14	Provide public education and outreach on proper installation and/or use of backup power	Municipal Clerk	In Progress	Budget constraints	1. Include in 2019 HMP 2. Seek funding
HP-15	Address dangerous trees threatening people and property through proactive tree-trimming (vegetation management) programs in conjunction with property owners and utility companies	Municipal DPW	Complete	Complete	3. Discontinue 4. Ongoing capability

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Completed Mitigation Initiatives not Identified in the Previous Mitigation Strategy

The Township of Hainesport has identified the following mitigation projects/activities that have also been completed but were not identified in the previous mitigation strategy in the 2013 Plan:

- None have been identified by the municipality.

Proposed Hazard Mitigation Initiatives for the Plan Update

The municipality participated in a mitigation action workshop in March 2018 and was 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).

Table 9.17-13 summarizes the comprehensive-range of specific mitigation initiatives the Township of Hainesport 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.’ The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.17-14 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.17-13. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Critical Facility (Yes / No)	Hazard(s) Mitigated	Goals and Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
HP-1 (Former HP-1)	<p>Conduct and facilitate community and public education and outreach for residents and businesses to include, but not be limited to, the following to promote and effect natural hazard risk reduction:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Provide and maintain links to the HMP website, and regularly post notices on the County/municipal homepage(s) referencing the HMP webpages. <input type="checkbox"/> 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. <input type="checkbox"/> Use newsletters to better educate the public on flood insurance, the availability of mitigation grant funding, and personal natural hazard risk reduction measures 	No	All Hazards	1, 5	Municipality with support from Planning Partners, County Planning, NJOEM, FEMA	Medium	Medium	Municipal Budget, HMA programs with local or county match	Short Term	High	EAP	PE
HP-2 (Former HP2)	Incorporate ordinances and/or zoning restrictions to control and mitigate future development in hazard areas, specifically as identified in Section 104 of Hainesport Township Code	N/A	All Hazards	1, 6	Municipality with support from County, NJOEM and FEMA	Medium	Medium	Municipal Budget	Short	Medium	LPR	PR
HP-3 (Former HP-4)	Obtain and install backup power sources at critical facilities	N/A	All Hazards	1, 2, 6	Municipality with support from County,	Medium	Medium	Municipal Budget	Short	Medium	SIP	ES





Table 9.17-13. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Critical Facility (Yes / No)	Hazard(s) Mitigated	Goals and Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
					NJOEM and FEMA							
HP-4 (Former HP-5)	Work with regional agencies (i.e. County and NJOEM) to help develop damage assessment capabilities at the local level to include training and certification programs (e.g. code officials, floodplain managers, engineers)	N/A	All Hazards	All	Municipality with support from County, NJOEM and FEMA	Medium	Medium	Municipal Budget, FEMA HMA and HLS grant programs	Short-Long Term DOF	Medium	LPR	PR
HP-5 (Former HP-8)	Promote the participation of Floodplain Administrators within the planning process and other activities	N/A	Flood	6	Municipality with support from County, NJOEM and FEMA	Medium	Medium	Municipal Budget	Short	Medium	LPR	PR
HP-6 (Former HP-10)	Evaluate benefits of participating in CRS program	Existing	All	All	Twp. Committee; Planning	Medium	Low	Twp./Public	On-going	Medium	LPR	PR
HP-7 (Former HP-11)	Conduct and facilitate community and public education and outreach for residents and businesses to promote natural hazard risk reduction to include: • Disaster preparedness Hazard mitigation	N/A	All Hazards	1, 5	Municipality with support from Planning Partners, County Planning, NJOEM, FEMA	Medium	Medium	Municipal Budget, HMA programs with local or county match	Short Term	High	EAP	PE
HP-8 (Former HP-12)	Improve municipal communications systems to include information sharing with county and surrounding municipalities	N/A	All Hazards	6	Municipality with support from County, NJOEM and FEMA	Medium	Medium	Municipal Budget	Short	Medium	LPR	ES, PR
HP-9 (Former HP-13)	Enhance resilience to severe storms by joining the NOAA “Storm Ready” program	N/A	Severe Storm	All	Municipality with support from County, NJOEM and FEMA	Medium	Low	Municipal Budget	Short Term DOF	Medium	EAP, LPR	PR, PE
HP-10 (Former HP-14)	Provide public education and outreach on proper installation and/or use of backup power	N/A	Severe Storm	1, 2, 5	Municipal Clerk	Medium	Low	Municipal Budget	Short	High	EAP, LPR	PR, PE





Table 9.17-13. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Critical Facility (Yes / No)	Hazard(s) Mitigated	Goals and Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
HP-11	During future updates of the Master Plan, Floodplain Management Plan, or the Emergency Operation Plan, work to integrate hazard mitigation principles and recommendations into the plans. Additionally, use these hazard mitigation principles and plan recommendations to update local building and zoning codes to create a more resilient community.	No	All Hazards	All	Municipality	High	Low	Municipal Budget	Short Term, Depending on update schedule	High	LPR	PR, PI
HP-12	The Township will promote and support non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, specifically those that have been identified as Repetitive Loss (RL) and Severe Repetitive Loss (SRL). At risk areas include: <ul style="list-style-type: none"> Creek Road Alternatives would include acquisition/relocation or elevation depending on feasibility, and the completion of initiative is dependent on funding, benefits versus cost, and willing participation of property owners.	No	Flood	1, 2	Municipality with support from County	High	High	Grant funding; Municipal budget	Short	High	SIP	PP

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:

CAV Community Assistance Visit
 CRS Community Rating System
 DPW Department of Public Works

Potential FEMA HMA Funding Sources:

FMA Flood Mitigation Assistance Grant Program
 HMGP Hazard Mitigation Grant Program
 PDM Pre-Disaster Mitigation Grant Program

Timeline:

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





FEMA	Federal Emergency Management Agency	RFC	Repetitive Flood Claims Grant Program (discontinued in 2015)	DOF	Depending on funding
FPA	Floodplain Administrator				
HMA	Hazard Mitigation Assistance	SRL	Severe Repetitive Loss Grant Program (discontinued in 2015)		
N/A	Not applicable				
NFIP	National Flood Insurance Program				
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 on-going program.
Medium	Could budget for under existing work plan, but would require a reapportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.
High	Would require an increase in revenue via an alternative source (i.e., bonds, grants, fee increases) to implement. Existing funding levels are not adequate to cover the costs of the proposed project.

Benefits:

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

Low=	< \$10,000
Medium	\$10,000 to \$100,000
High	> \$100,000

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

Low	Long-term benefits of the project are difficult to quantify in the short term.
Medium	Project will have a long-term impact on the reduction of risk exposure to life and property, or project will provide an immediate reduction in the risk exposure to property.
High	Project will have an immediate impact on the reduction of risk exposure to life and property.

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*

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Table 9.17-14. 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	Total	High / Medium / Low
HP-1 (Former HP-1)	<p>Conduct and facilitate community and public education and outreach for residents and businesses to include, but not be limited to, the following to promote and effect natural hazard risk reduction:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Provide and maintain links to the HMP website, and regularly post notices on the County/municipal homepage(s) referencing the HMP webpages. <input type="checkbox"/> 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 	1	1	1	1	1	1	1	1	1	1	1	1	1	0	13	High





Table 9.17-14. 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	Total	High / Medium / Low
	more and implement mitigation. □ Use newsletters to better educate the public on flood insurance, the availability of mitigation grant funding, and personal natural hazard risk reduction measures																
HP-2 (Former HP2)	Incorporate ordinances and/or zoning restrictions to control and mitigate future development in hazard areas, specifically as identified in Section 104 of Hainesport Township Code	1	1	1	1	1	1	0	0	0	1	1	1	1	0	10	Medium
HP-3 (Former HP-4)	Obtain and install backup power sources at critical facilities	1	1	1	1	1	1	0	-1	0	1	1	1	1	0	9	Medium
HP-4 (Former HP-5)	Work with regional agencies (i.e. County and NJOEM) to help develop damage assessment capabilities at the local level to include training and certification programs (e.g. code officials, floodplain managers, engineers)	0	0	1	0	1	1	0	0	0	1	1	1	1	0	7	Medium
HP-5 (Former HP-8)	Promote the participation of Floodplain Administrators within the planning process and other activities	0	0	1	1	1	0	0	0	0	1	0	1	1	0	6	Medium
HP-6 (Former HP-10)	Evaluate benefits of participating in CRS program	1	1	1	0	1	1	0	0	0	1	1	1	1	0	9	Medium





Table 9.17-14. 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	Total	High / Medium / Low
HP-7 (Former HP-11)	Conduct and facilitate community and public education and outreach for residents and businesses to promote natural hazard risk reduction to include: <ul style="list-style-type: none"> Disaster preparedness Hazard mitigation 	1	1	1	1	1	1	1	1	1	1	1	1	1	0	13	High
HP-8 (Former HP-12)	Improve municipal communications systems to include information sharing with county and surrounding municipalities	0	0	1	1	1	1	1	0	0	1	1	1	1	0	9	Medium
HP-9 (Former HP-13)	Enhance resilience to severe storms by joining the NOAA “Storm Ready” program	1	0	0	1	1	1	0	0	1	1	1	0	1	0	8	Medium
HP-10 (Former HP-14)	Provide public education and outreach on proper installation and/or use of backup power	1	1	1	1	1	0	0	0	1	1	1	0	1	0	9	High
HP-11	During future updates of the Master Plan, Floodplain Management Plan, or the Emergency Operation Plan, work to integrate hazard mitigation principles and recommendations into the plans. Additionally, use these hazard mitigation principles and plan recommendations to update local building and zoning codes to create a more resilient community.	1	1	1	1	1	1	1	0	0	1	1	0	1	0	10	High





Table 9.17-14. 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	Total	High / Medium / Low
HP-12	<p>The Township will promote and support non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, specifically those that have been identified as Repetitive Loss (RL) and Severe Repetitive Loss (SRL). At risk areas include:</p> <ul style="list-style-type: none"> Creek Road Alternatives would include acquisition/relocation or elevation depending on feasibility, and the completion of initiative is dependent on funding, benefits versus cost, and willing participation of property owners. 	1	1	0	1	1	1	-1	0	0	1	0	1	1	0	8	High

Note: Refer to Section 6, which conveys guidance on prioritizing mitigation actions.





9.17.7 Future Needs To Better Understand Risk/Vulnerability

None at this time.

9.17.8 Hazard Area Extent and Location

Hazard area extent and location maps have been generated for the Township of Hainesport 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 Hainesport has significant exposure. These maps are illustrated in the hazard profiles within Section 5.4, Volume I of this Plan.

9.17.9 Additional Comments

None at this time.

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Figure 9.17-1. Township of Hainesport Hazard Area Extent and Location Map 1

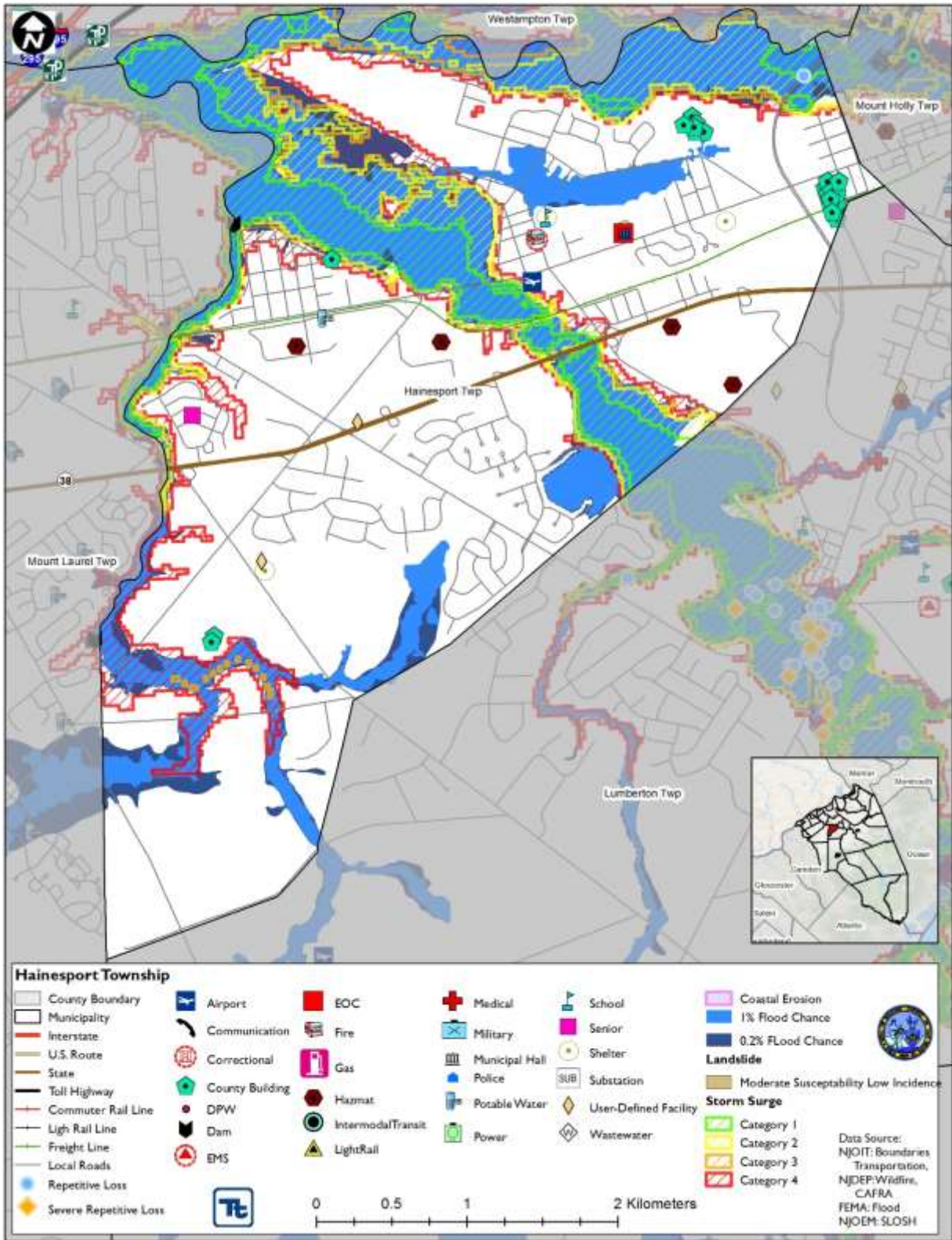
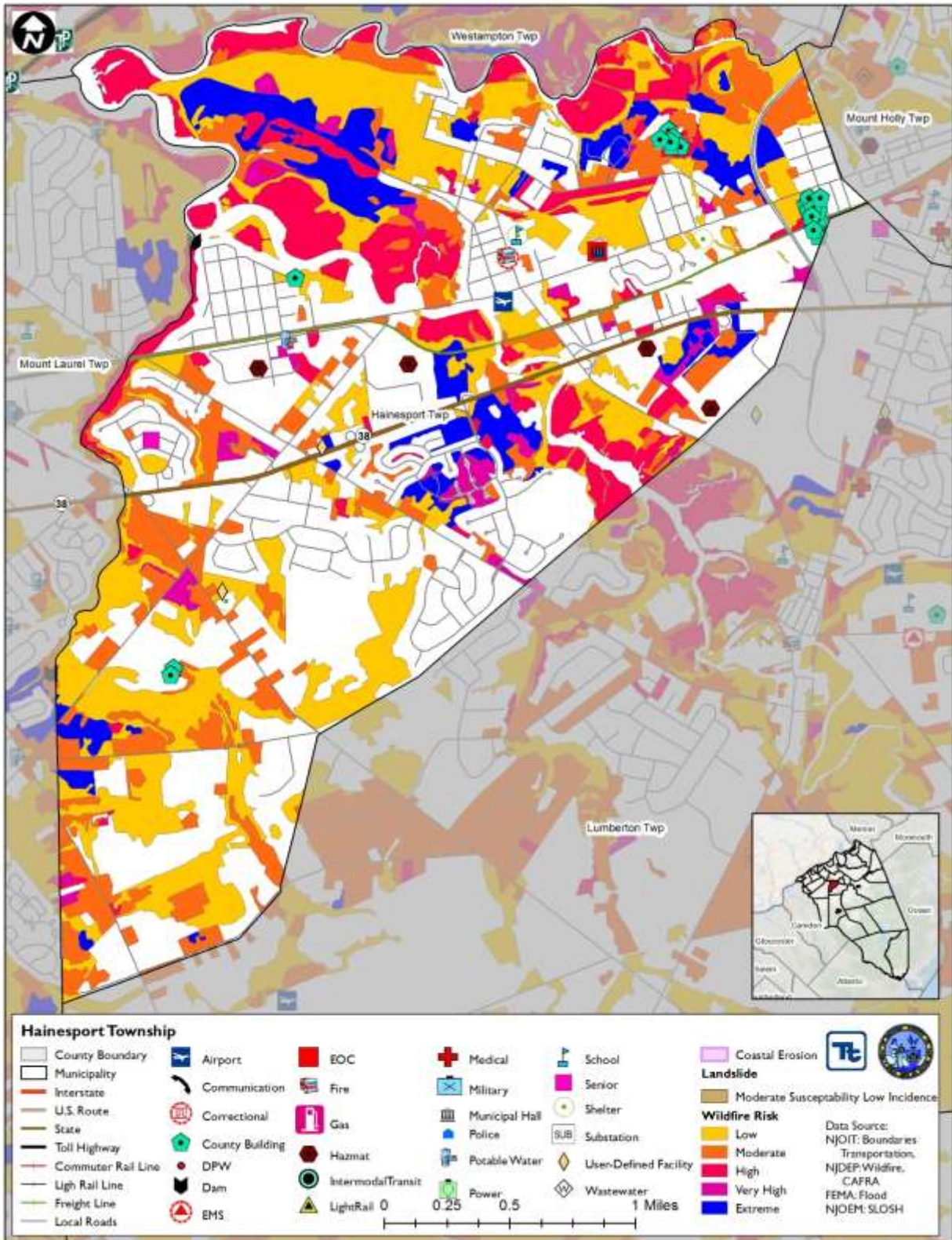




Figure 9.17-2. Township of Hainesport Hazard Area Extent and Location Map 2





Action Number:

HP-3 (Former HP-3)

Mitigation Action Name:

Obtain and install backup power sources at critical facilities

Assessing the Risk	
Hazard(s) addressed:	All Hazards
Specific problem being mitigated:	Backup power to essential facilities is critical during an emergency event
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	No Action - current problem continues
Action/Project Intended for Implementation	
Description of Selected Action/Project	Installation of generators and backup power required to ensure the building's ability to remain functional during an event.
Mitigation Action Type	SIP
Goals Met	1, 2, 6
Critical Facility (Y/N)	N/A
Benefits (losses avoided)	Medium
Estimated Cost	Medium
Priority*	Medium
Plan for Implementation	
Responsible Organization	Municipality with support from County, NJOEM and FEMA
Local Planning Mechanism	ES
Potential Funding Sources	Municipal Budget
Timeline for Completion	Short
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: 1/31/18 Status: Budget constraints



Action Number:

HP-3 (Former HP-3)

Mitigation Action Name:

Obtain and install backup power sources at critical facilities

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	
Fiscal	0	
Environmental	-1	
Social	0	
Administrative	1	
Multi-Hazard	1	
Timeline	1	
Agency Champion	1	
Other Community Objectives	0	
Total	9	
Priority (H/M/L)	Medium	



Action Number:

HP-12

Mitigation Action Name:

The Township will promote and support non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, specifically those that have been identified as Repetitive Loss (RL) and Severe Repetitive Loss (SRL). At risk areas include:

- Creek Road

Alternatives would include acquisition/relocation or elevation depending on feasibility, and the completion of initiative is dependent on funding, benefits versus cost, and willing participation of property owners.

Assessing the Risk	
Hazard(s) addressed:	Flood
Specific problem being mitigated:	Repetitively flooded properties place an undue stress on the property owner and Township and efforts should be made to mitigate them.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	No Action - current problem continues
Action/Project Intended for Implementation	
Description of Selected Action/Project	Work with owners to explore mitigation opportunities for repetitively flooded properties, and if appropriate and feasible, carry out acquisition, relocation, elevation and floodproofing measures to protect these properties.
Mitigation Action Type	SIP
Goals Met	1, 2
Critical Facility (Y/N)	No
Benefits (losses avoided)	High
Estimated Cost	High
Priority*	High
Plan for Implementation	
Responsible Organization	Municipality with support from County
Local Planning Mechanism	PP
Potential Funding Sources	Grant funding; Municipal budget
Timeline for Completion	Short
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: 5/31/18 Status: New Action



Action Number:
Mitigation Action Name:

HP-12

The Township will promote and support non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, specifically those that have been identified as Repetitive Loss (RL) and Severe Repetitive Loss (SRL). At risk areas include:

- Creek Road

Alternatives would include acquisition/relocation or elevation depending on feasibility, and the completion of initiative is dependent on funding, benefits versus cost, and willing participation of property owners.

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	0	
Technical	1	
Political	1	
Legal	1	
Fiscal	-1	
Environmental	0	
Social	0	
Administrative	1	
Multi-Hazard	0	
Timeline	1	
Agency Champion	1	
Other Community Objectives	0	
Total	8	
Priority (H/M/L)	High	