



## 9.19 TOWNSHIP OF SPARTA

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

### 9.19.1 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
Ernest Reigstad, Police Chief 65 Main Street, Sparta, NJ 07871 Phone: (973) 726-4010 Email: <a href="mailto:ereigstad@spartapd.org">ereigstad@spartapd.org</a>	Eric Powell, Municipal Engineer 65 Main Street, Sparta, NJ 07871 Phone: (973) 726-3607 Email: <a href="mailto:eric.powell@spartanj.org">eric.powell@spartanj.org</a>

### 9.19.2 MUNICIPAL PROFILE

Sparta Township is located in southwestern Sussex County and has a total area of 38.9 square miles. According to the U.S. Census, the 2010 population for the Township of Sparta was 19,722. The Township is bordered to the north by Lafayette and Hardyston Townships, to the south by Byram Township and Hopatcong Borough, to the east by Morris County and to the west by Andover and Lafayette Townships. Streams that flow through Sparta Township include: Wallkill River and its tributaries, Russia Brook tributaries, Sparta Junction Brook, Wildcat Branch, Sparta Glen Brook, Tar Hill Brook tributaries, and Lubbers Run tributaries. Lake Mohawk is a large lake located in the southwest corner of the Township. Other lakes and ponds are located throughout the Township as well. The following unincorporated communities are located within the Township: Ackerson, Woodruffs Gap, Houses Corner, Sparta Junction, Sussex Mills, Upper Mohawk, and Lake Mohawk.

#### 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 9.19-1. 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
<b>Recent Development from 2010 to present</b>					
Roundtop at Sparta	Residence	124	Woodport Road	Could not locate	100% complete
Chapel Hill	Residence	30	Father John’s Lane	Could not locate	90% complete
Jersey Investors	Commercial	4	Town Center Drive	Could not locate	75% complete
Windsor Lake	Residence	18 – 20 homes	Fox Run Road	None	~50-60% complete
<b>Known or Anticipated Development in the Next Five (5) Years</b>					
North Village	Residence/Commercial	100+ Residence/8 Commercial	Rt. 15 North	Could not locate	Site Plan Approval
Millrace Village	Residential	54 Units	Glen Road	Could not locate	Site Plan Prelim

\* Only location-specific hazard zones or vulnerabilities identified.





**9.19.3 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 9.19-2. Hazard Event History**

Date(s) of Event	Event Type	FEMA Declaration # (If Applicable)	County Designated?	Summary of Damages/Losses
June 14, 2008	Lightning	N/A	N/A	Germany Flats. Damage to pumps, controls & water supply facility.
March 11-12, 2011	Heavy Rain and Flooding	N/A	N/A	A mudslide in the Township forced the closure of County Route 620 for two to three days.
August 26 – September 5, 2011	Hurricane Irene	DR-4021	Yes	Sussex Mills Road was closed for two to three days due to a mudslide. Stateion Road was closed for three days due to slope failure and subsequent restoration work. Route 15, near the Bagel Station, was flooded. Sewer lines from Lions Gate were exposed due to high flows in the river. There was basement flooding on Valley Manor Drive. Public Assistance was requested by the Township.
September 28 – October 6, 2011	Remnants of Tropical Storm Lee	DR-4039	Yes	Sussex Mills Road was closed for two to three days due to a mudslide. Stateion Road was closed for three days due to slope failure and subsequent restoration work. Route 15, near the Bagel Station, was flooded. Sewer lines from Lions Gate were exposed due to high flows in the river. There was basement flooding on Valley Manor Drive. Public Assistance was requested by the Township.
October 26 – November 8, 2012	Hurricane Sandy	DR-4086	Yes	Hurricane Sandy resulted in widespread power outages for up to 14 days in the Township. There were numerous road closures due to downed trees and power lines. The Buttonwood well house was damaged from fallen trees. There was damage to Ungerman Field – broken light poles and damage to fencing. The Town Hall lost roof shingles and there was damage to the DPW salt dome. Alpine School lost power due to damaged service lines. The bleachers and press box at Sparta High School were also damaged. There were numerous private homes that suffered damage due to fallen trees. Public Assistance was requested by the Township.

**9.19.4 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 Sparta. 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 Sparta.

**Table 9.19-3. Hazard Risk/Vulnerability Risk Ranking**

Hazard type	Estimate of Potential Dollar Losses to Structures Vulnerable to the Hazard <sup>a, c</sup>	Probability of Occurrence	Risk Ranking Score (Probability x Impact)	Hazard Ranking <sup>b</sup>
Dam Failure	Damage estimate not available	Occasional	24	High*
Drought	Damage estimate not available	Frequent	30	Medium
Earthquake	100-Year GBS: \$0 500-Year GBS: \$2,296,088 2,500-Year GBS: \$37,195,525	Occasional	28	Medium
Flood	1% Annual Chance: \$12,217,391	Frequent	18	Medium
Geologic	GBS Exposed to Carbonate Rock Areas: \$809,670,046	Frequent	36	Medium**
Hurricane	100-year MRP: \$1,298,365 500-year MRP: \$7,146,354 Annualized: \$66,034	Frequent	48	High
Nor'Easter	Damage estimate not available	Frequent	48	High
Severe Weather	100-Year MRP: \$1,298,365 500-year MRP: \$7,146,354 Annualized: \$66,034	Frequent	48	High
Severe Winter Weather	1% GBS: \$30,839,931 5% GBS: \$154,199,657	Frequent	51	High
Wildfire	Estimated Value in the Extreme, Very High, and High Hazard Areas: \$109,041,519	Frequent	24	Medium
Hazardous Materials	Damage estimate not available	Frequent	36	High

Notes:

- \* The hazard ranking was changed due to the location of high hazard dams in the municipality
  - \*\* The hazard ranking was changed for this hazard based on input from the municipality, population exposed, and/or event history.
- 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 Sparta.





**Table 9.19-4. 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 Sparta	61	6	\$32,999	0	0	1

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.

**9.19.5 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 Sparta.

**Table 9.19-5. 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.)
<b>Planning Capability</b>				
Master Plan	Yes 1984	Local	Planning	Master Plan
Capital Improvements Plan	Yes	Local	Engineering/ DPW	
Floodplain Management/Basin Plan	No			





Table 9.19-5. 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.)
Stormwater Management Plan	Yes	Local	Engineering	Element of Master Plan
Open Space Plan	Yes	Local	Planning	Element of Master Plan
Stream Corridor Management Plan	No			
Watershed Management or Protection Plan	Yes	Local	Planning	Element of Master Plan
Economic Development Plan	No			
Comprehensive Emergency Management Plan	Yes	Local	Police	OEM
Emergency Response Plan	Yes	Local	Police	OEM
Post-Disaster Recovery Plan	No			
Transportation Plan	Yes	Local	Planning	Element of Master Plan
Strategic Recovery Planning Report	No			
Other Plans:	No			
<b>Regulatory Capability</b>				
Building Code	Yes	State & Local		State Uniform Construction Code Act (N.J.S. 52:27D-119 et seq.)
Zoning Ordinance	Yes	Local		Chapter 18
Subdivision Ordinance	Yes	Local		Chapter 18
NFIP Flood Damage Prevention Ordinance	Yes	Federal, State, Local	Construction Official	Chapter 28
NFIP: Cumulative Substantial Damages				
NFIP: Freeboard	Yes	State, Local		
Growth Management Ordinances	Yes	Local		Chapter 18
Site Plan Review Requirements	Yes	Local	Planning	Chapter 18
Stormwater Management Ordinance	Yes	Local	Engineering	Chapter 18
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 Sparta.

**Table 9.19-6. Administrative and Technical Capabilities**

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

### Fiscal Capability

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

**Table 9.19-7. Fiscal Capabilities**

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



**Table 9.19-7. Fiscal Capabilities**

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

**Table 9.19-8. 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)	Yes		
Building Code Effectiveness Grading Schedule (BCEGS)	Yes	Class 3	2014
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	Website/Facebook	
Public-Private Partnerships	TBD		

N/A = Not Applicable. NP = Not Participating.

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 <http://www.isomitigation.com/ppc/0000/ppc0001.html>
- The National Weather Service Storm Ready website at <http://www.weather.gov/stormready/howto.htm>





- The National Firewise Communities website at <http://firewise.org/>

### Self-Assessment of Capability

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

Table 9.19-9. Self-Assessment of Capability

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)

Jan Opt Hof, Construction Official

#### Flood Vulnerability Summary

The Township does not maintain lists or inventories of properties that have been damaged by floods. During Irene, Lee and Sandy, the Township only experienced damage from wind/trees, not flooding. Substantial Damage estimates were not declared for any of these events. It is unknown if any residents are interested in mitigation.

#### Resources

The construction official is the sole person assuming the role and responsibilities of the Township's FPA. The FPA does not provide any NFIP administrative services/functions or outreach/education regarding flooding to the community. The FPA indicated that they do not feel adequately supported or trained to fulfill the role as the FPA. Continuing education and/or certification training on floodplain management would be welcomed.

#### Compliance History

The Township entered the NFIP on October 16, 1984 and is currently in good standing with the program. It is unknown as to when the most recent compliance audit was conducted.

#### Regulatory

The FPA is unsure if the Township's flood damage prevention ordinance exceeds the FEMA and state minimum requirements. There are other local ordinances, plans and programs that support floodplain management within the Township. The Township does not participate in CRS and is currently not interested in joining or attending a CRS seminar.







## Community Rating System

The Township of Sparta 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 Planning Board and Zoning Board of Adjustments which review all applications for development and consider natural hazard risk areas in their review.

**Sparta Township Highlands Plan Element 2011:** This Plan articulates the goals and objectives for the Township as they relate to the Highlands and includes the following applicable goals and objectives:

1. To require protective buffers adjacent to Highlands Open Waters of sufficient width and composition to protect the integrity of the water resource from impairment due to proximate land uses and/or development activities.
2. Minimum standards for such buffers should be consistent with those of the NJDEP and the RMP.
3. To require use of Low Impact Development Best Management Practices (see Section K) for any development activity proposed within a Riparian Area to minimize both alteration of natural vegetation and increase in impervious area and to provide for mitigation through restoration of impaired Riparian Areas in the same HUC14 subwatershed.
4. Land disturbance within all Steep Slope Protection Areas should incorporate Low Impact Development (see Section K) techniques to minimize the extent of such disturbance and the potential negative impacts resulting from it.
5. To carefully examine land development applications for potential impacts to Carbonate Rock Areas, whether by direct disturbance, or by indirect means such as introduction of additional stormwater runoff. Stormwater management LID standards that preserve or mimic the natural hydrologic features and characteristics of the land.
6. LID practices that minimize land disturbance during construction activities.
7. LID best management practices where any development application proposes disturbance of a Highlands resource, including but not limited to Steep Slope Protection Areas, Forest Areas, Critical Habitat Areas, Highlands Open Waters and Riparian Areas, and Prime Ground Water Recharge Areas.
8. To require submission of any and all information, technical data, geotechnical studies and/or analyses that may be necessary to locate and determine the extent of affected carbonate rock features during the course of development reviews.

## 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 included in the Site Plan Review Chapter.

## Chapter XXVIII: 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:



- A. To protect human life and health;
- B. To minimize expenditure of public money for costly flood control projects;
- C. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- D. To minimize prolonged business interruptions;
- E. 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;
- F. 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;
- G. To ensure that potential buyers are notified that property is in an area of special flood hazard; and
- H. To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

### Chapter XVIII-138-18.53f.: 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.

**Highlands:** In addition, the Highlands Water Protection and Planning Act provides additional regulatory control over development within the Township. While Major Highlands Development projects, as defined by the Highlands Act, still require local approvals, they must first receive a Highlands Resource Applicability Determination and be evaluated for consistency with the provisions of the Highlands Act. Major Highlands Development projects include a variety of projects such as any non-residential development, any residential development that disturbs one or more acres of land, any development that disturbs ¼ acres of more of forest among others. This process identifies any potential Highlands Resources on the site and if found requires adherence to relevant development standards and restrictions.

### Operational and Administration

The Township has established a Planning Board, Zoning 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 of 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. The Township has disaster and emergency mitigation and management information on the emergency management web page.

The Township identified mitigation initiatives to implement Fire Wise as well as conduct an all-hazards public education and outreach program for hazard mitigation and preparedness. In addition, the Township would like to enhance STEP and CERT programs.





Figure 9.19-1. Screenshot of Township Website with Examples of their Emergency Information



### 9.19.6 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 9.19-10. Past Mitigation Initiative Status

Initiative Number	2011 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 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.
Sparta Township 1	Emergency generator for shelter located within Sparta Ambulance Service building located on Sparta Avenue	OEM Coordinator	In Progress	Currently in progress; researching vendors	Include in 2016 HMP	
Sparta Township 2	Harden Sparta DPW building located on Prices Lane to FEMA 361 Standards	DPW Administrator	In Progress	Due to budget constraints, this project has not been completed.	Include in 2016 HMP	Identify Funding Opportunities to harden Sparta DPW building located on Prices Lane to FEMA 361 Standards
Sparta Township 3	Retrofit impact resistant windows and shutters on Germany Flats Pump Facility located on Park Lake Drive.	Facility Administrator	In Progress	Due to budget constraints, this project has not been completed.	Include in 2016 HMP	Identify Funding Opportunities to harden Sparta DPW building located on Prices Lane to FEMA 361 Standards
Sparta Township 4	Stream bank stabilization along Sparta Glen Brook (3500 feet)	Township Engineer	In Progress	Due to budget constraints, this project is only 60% complete. It is being funded through the capital budget.	Include in 2016 HMP	Seek additional funding sources/partners
Sparta Township 5	Stream bank stabilization along Wallkill River at Station Park (1500 feet)	Township Engineer	In Progress	The Township planted Hipara along the stream bank. Additional vegetation planting is 40% complete. This is being funded through the capital budget.	Include in 2016 HMP	
Sparta Township 6	Stormwater management system upgrade and improvement along Hopkins Corner Road and Valley Manner Drive	OEM Coordinator	Complete	This project has been completed and was funded by the Township's operating budget.	Discontinue	
Sparta Township 7	Implement Fire Wise Program throughout the Township.	OEM Coordinator	No Progress	Due to budget and personnel constraints, this project has not been completed.	Include in 2016 HMP	
Sparta Township 8	Retrofit impact resistant windows and shutters on	School Administration	No Progress	County building	Discontinue	This facility is owned by the county and the township has no jurisdiction over it;



Initiative Number	2011 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 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.
	two buildings of the Sussex County Technical School.					therefore, it will not be included in the 2016 HMP
Sparta Township 9	Retrofit two buildings to meet current snow load standards at the Sussex County Technical School.	School Administration	No Progress	County building	Discontinue	This facility is owned by the county and the township has no jurisdiction over it; therefore, it will not be included in the 2016 HMP
Sparta Township 10	Flood-proofing of the Sparta High School.	School Board Administrator	No Progress	School owned by the Board of Education	Discontinue	This facility is owned the Sparta Board of Education and the township does have jurisdiction over it; therefore, it will not be included in the 2016 HMP.
Sparta Township 11	Conduct all-hazards public education and outreach program for hazard mitigation and preparedness.	OEM Coordinator, in coordination with SCDEM	In Progress	The Township has established STEP and CERT.	Include in 2016 HMP	Enhance STEP and CERT.



### **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**

The Township participated in a mitigation action workshop in April 2015 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). In May 2015, the Township participated in a second workshop led by FEMA Region 2 and NJOEM and was provided the results to the risk assessment to further assist with the identification of mitigation actions.

Table 9.19-11 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 9.19-12 provides a summary of the prioritization of all proposed mitigation initiatives for the HMP update.



Table 9.19-11. 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
Sparta-1 (revised old #1)	Ensure continuity of operations at critical facilities. At this time the following was identified: Emergency generator for shelter located within Sparta Ambulance Service building located on Sparta Avenue	Existing	All	1, 2, 6	Emergency Management	High	Medium	HMGP with local cost share	Short Term / DOF	Medium	SIP	PP
Sparta-2 (old #2)	Harden Sparta DPW building located on Prices Lane to FEMA 361 Standards	Existing	Flood, Severe Weather	1, 2, 6	Emergency Management	High	Medium	HMGP with local cost share	Short Term / DOF	Medium	SIP	PP
Sparta-3 (old #3)	Retrofit impact resistant windows and shutters on Germany Flats Pump Facility located on Park Lake Drive.	Existing	Severe Weather, Severe Winter Weather	1, 2, 6	Emergency Management	High	Medium	HMGP with local cost share	Short Term / DOF	Medium	SIP	PP
Sparta-4 (old #4)	Stream bank stabilization along Sparta Glen Brook (3500 feet)	Existing	Flood, Severe Weather	1, 2, 6	Emergency Management	High	Medium	HMGP with local cost share	Short Term / DOF	Medium	SIP	PP
Sparta-5 (old #5)	Stream bank stabilization along Walkill River at Station Park (1500 feet)	Existing	Flood, Severe Weather	1, 2	Township Engineer	High	High	Federal/State Grants, Local Budget	Short term	High	SIP	PP
Sparta-6 (old #7)	Implement Fire Wise Program throughout the Township.	New and Existing	Wildfire	All	Fire Department	High	Low to Medium	Local Budget	Short Term / DOF	Medium	LPR	PR
Sparta-7 (revised old #11)	Conduct all-hazards public education and outreach program for hazard mitigation and preparedness. Enhance STEP and CERT programs.	N/A	All	All	Township	High	Low	Local Budget	Ongoing	High	LPR, EAP	PR, PI
Sparta-8 (new)	Replace Culvert at West Mountain Road	Existing	Flood, Severe Weather	1, 2, 6	Township engineer	High	High	Federal/State Grants, Local Budget	Short Term	Medium to High	SIP	PP
Sparta-9 (new)	Lake Grinell Dam/ Spillway Reconstruction	Existing	Flood, Severe Weather	1, 2, 6	Township Engineer	High	High	Federal/State Grants, NJDEP Loan Program, Local budget	Short Term	Medium to High	SIP, NSP	PP, NR





**Table 9.19-11. 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
Sparta-10 (new)	Improve overall stability of Private Dams	Existing	Dam Failure	1, 2	Township Engineer	Medium	Medium	Federal and State Grants, NJDEP loan program	Long Term	Medium	SIP, NSP	PP, NR

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:

CRS	Community Rating System
DPW	Department of Public Works
FEMA	Federal Emergency Management Agency
FPA	Floodplain Administrator
HMA	Hazard Mitigation Assistance
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

Potential FEMA HMA Funding Sources:

FMA	Flood Mitigation Assistance Grant Program
HMGP	Hazard Mitigation Grant Program
PDM	Pre-Disaster Mitigation Grant Program
RFC	Repetitive Flood Claims Grant Program (discontinued)
SRL	Severe Repetitive Loss Grant Program (discontinued)

Timeline:

Short	1 to 5 years
Long Term	5 years or greater
OG	On-going program
DOF	Depending on funding

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*



Table 9.19-12. 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
Sparta-1 (revised old #1)	Emergency generator for shelter located within Sparta Ambulance Service building located on Sparta Avenue	1	1	1	1	0	0	0	0	1	1	1	1	0	0	8	Medium
Sparta-2 (old #2)	Harden Sparta DPW building located on Prices Lane to FEMA 361 Standards	1	1	1	1	1	1	0	0	0	1	1	1	0	0	9	Medium
Sparta-3 (old #3)	Retrofit impact resistant windows and shutters on Germany Flats Pump Facility located on Park Lake Drive.	1	1	1	1	1	1	0	0	0	1	1	1	0	0	9	Medium
Sparta-4 (old #4)	Stream bank stabilization along Sparta Glen Brook (3500 feet)	1	1	1	-1	0	1	-1	1	0	1	1	-1	1	1	6	Medium
Sparta-5 (old #5)	Stream bank stabilization along Walkkill River at Station Park (1500 feet)	1	1	1	-1	0	1	-1	1	0	1	1	-1	1	1	6	High
Sparta-6 (old #7)	Implement Fire Wise Program throughout the Township.	1	1	1	1	0	0	1	0	0	1	0	0	1	0	7	Medium
Sparta-7 (revised old #11)	Conduct all-hazards public education and outreach program for hazard mitigation and preparedness. Enhance STEP and CERT programs.	1	1	1	1	1	1	1	0	0	1	1	1	0	0	10	High
Sparta-8 (new)	Replace Culvert at West Mountain Road	1	-1	1	1	1	1	0	1	0	1	0	1	1	-1	7	Medium to High
Sparta-9 (new)	Lake Grinell Dam/ Spillway Reconstruction	1	1	1	0	0	1	0	1	1	1	1	1	1	1	11	Medium to High
Sparta-10 (new)	Improve overall stability of Private Dams	1	1	0	0	1	0	0	1	1	0	0	-1	0	0	4	Medium

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



### **9.19.7 FUTURE NEEDS TO BETTER UNDERSTAND RISK/VULNERABILITY**

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None at this time.

### **9.19.8 HAZARD AREA EXTENT AND LOCATION**

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

### **9.19.9 ADDITIONAL COMMENTS**

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None at this time.



Figure 9.19-2. Township of Sparta Hazard Area Extent and Location Map 1

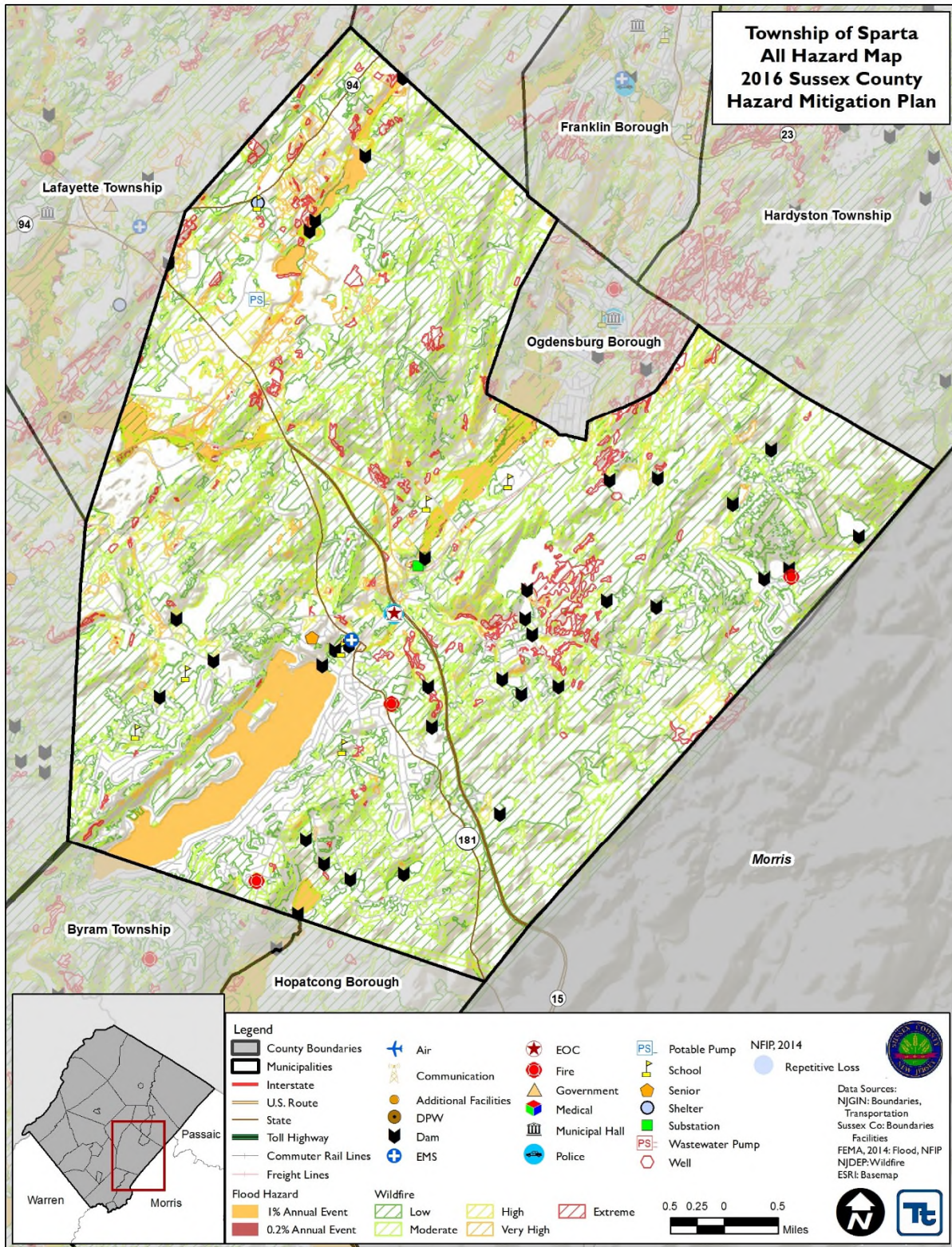
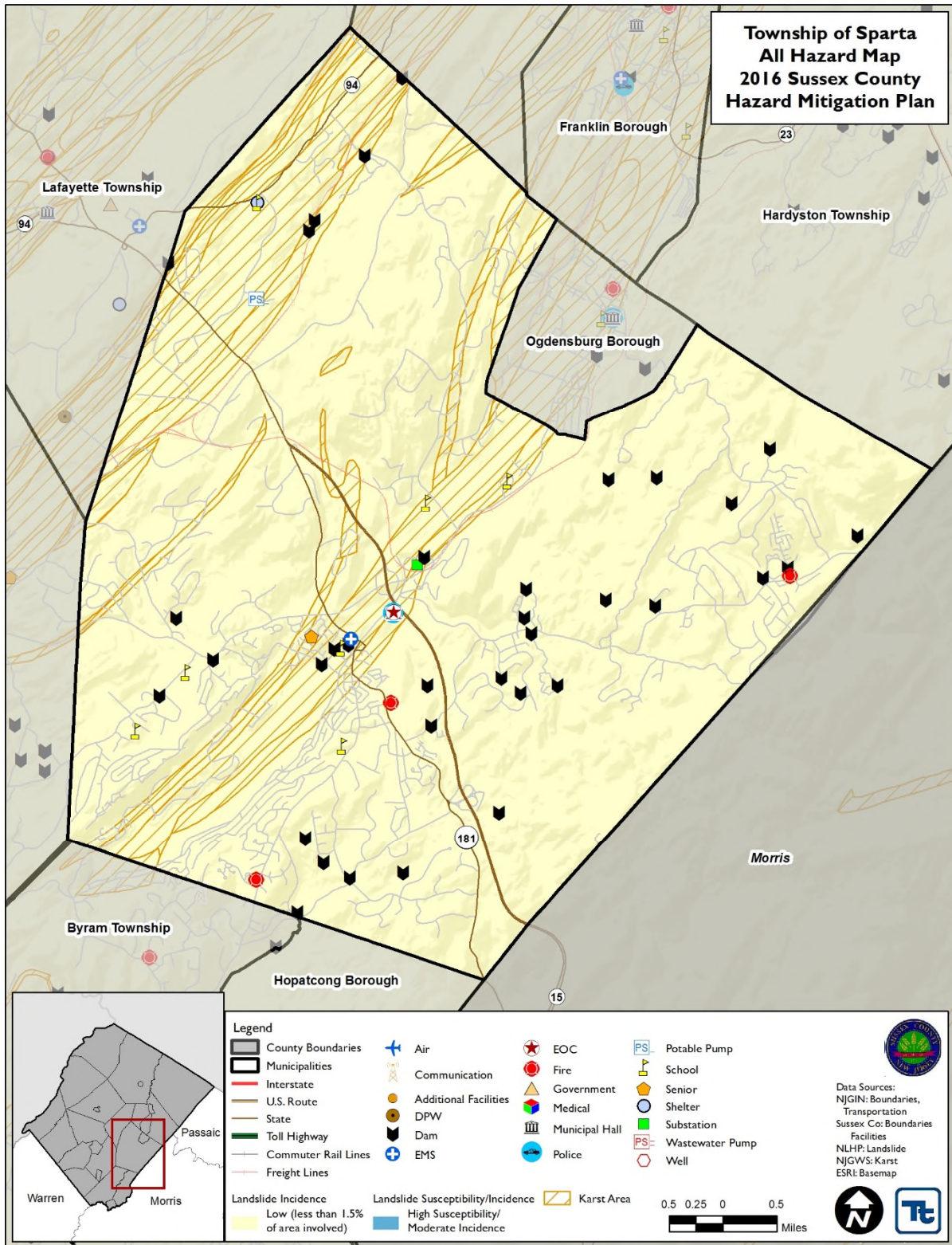




Figure 9.19-3. Township of Sparta Hazard Area Extent and Location Map 2





**Action Number:** Sparta-1

**Mitigation Action/Initiative:** Emergency generator for shelter at Sparta Ambulance Service building

Assessing the Risk	
<b>Hazard(s) addressed:</b>	All
<b>Specific problem being mitigated:</b>	Loss of power to the ambulance building impacts the emergency services provided by the Township EMS; this facility is also used a shelter for the Township
Evaluation of Potential Actions/Projects	
<b>Actions/Projects Considered (name of project and reason for not selecting):</b>	<ol style="list-style-type: none"> <li>1. Purchase and install a generator at the Sparta Ambulance Service building</li> <li>2. Use portable generators – not feasible for long-term power outages</li> <li>3. Do nothing – current problem continues</li> </ol>
Action/Project Intended for Implementation	
<b>Description of Selected Action/Project</b>	Emergency generator for shelter located within Sparta Ambulance Service building located on Sparta Avenue
<b>Action/Project Category</b>	SIP
<b>Goals/Objectives Met</b>	1, 2, 6
<b>Applies to existing and/or new development; or not applicable</b>	Existing
<b>Benefits (losses avoided)</b>	High
<b>Estimated Cost</b>	Medium
<b>Priority</b>	Medium
Plan for Implementation	
<b>Responsible/Lead Agency/Department</b>	Emergency management
<b>Local Planning Mechanism</b>	Emergency Management
<b>Potential Funding Sources</b>	HMGP with local cost share
<b>Timeline for Completion</b>	Short Term / DOF
Reporting on Progress	
<b>Date of Status Report/ Report of Progress</b>	Date: Progress on Action/Project:



**Action Number:** Sparta-1

**Mitigation Action/Initiative:** Emergency generator for shelter at Sparta Ambulance Service building

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Provide shelter for residents
Property Protection	1	Allow building to function properly during power outages
Cost-Effectiveness	1	
Technical	1	
Political	0	
Legal	0	
Fiscal	0	
Environmental	0	
Social	1	
Administrative	1	
Multi-Hazard	1	All
Timeline	1	Completed within five years
Local Champion	0	
Other Community Objectives	0	
Total	8	
<b>Priority (High/Med/Low)</b>	<b>Medium</b>	



Action Number: Sparta-2

Mitigation Action/Initiative: Harden Sparta DPW building located on Prices Lane

Assessing the Risk	
Hazard(s) addressed:	Severe Weather
Specific problem being mitigated:	DPW building cannot withstand winds of tornadoes or hurricanes if they were to impact the Township
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Harden Sparta DPW building located on Prices Lane to FEMA 361 Standards
	2. Construct new building – too costly
	3. Do nothing – current problem continues
Action/Project Intended for Implementation	
Description of Selected Action/Project	Harden Sparta DPW building located on Prices Lane to FEMA 361 Standards
Action/Project Category	SIP
Goals/Objectives Met	1, 2, 6
Applies to existing and/or new development; or not applicable	Existing
Benefits (losses avoided)	High
Estimated Cost	Medium
Priority	Medium
Plan for Implementation	
Responsible/Lead Agency/Department	Emergency Management
Local Planning Mechanism	Emergency Management
Potential Funding Sources	HMGP with local cost share
Timeline for Completion	Short Term / DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:





**Action Number:** Sparta-2

**Mitigation Action/Initiative:** Harden Sparta DPW building located on Prices Lane

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	Protect DPW building from wind damages
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	Building owned by Township
Fiscal	0	
Environmental	0	
Social	0	
Administrative	1	
Multi-Hazard	1	
Timeline	1	
Local Champion	0	
Other Community Objectives	0	
Total	9	
<b>Priority (High/Med/Low)</b>	<b>Medium</b>	



**Action Number:** Sparta-3

**Mitigation Action/Initiative:** Retrofit impact resistant windows and shutters on Germany Flats Pump Facility

Assessing the Risk	
<b>Hazard(s) addressed:</b>	Severe Weather, Severe Winter Weather
<b>Specific problem being mitigated:</b>	Windows of the pump facility are not impact resistant and pose a threat in the event of a high wind event
Evaluation of Potential Actions/Projects	
<b>Actions/Projects Considered (name of project and reason for not selecting):</b>	1. Retrofit impact resistant windows and shutters on Germany Flats Pump Facility
	2. Construct new building – too costly
	3. Do nothing – current problem continues
Action/Project Intended for Implementation	
<b>Description of Selected Action/Project</b>	Retrofit impact resistant windows and shutters on Germany Flats Pump Facility located on Park Lake Drive.
<b>Action/Project Category</b>	SIP
<b>Goals/Objectives Met</b>	1, 2, 6
<b>Applies to existing and/or new development; or not applicable</b>	Existing
<b>Benefits (losses avoided)</b>	High
<b>Estimated Cost</b>	Medium
<b>Priority</b>	Medium
Plan for Implementation	
<b>Responsible/Lead Agency/Department</b>	Emergency Management
<b>Local Planning Mechanism</b>	Emergency Management
<b>Potential Funding Sources</b>	HMGP with local cost share
<b>Timeline for Completion</b>	Short Term / DOF
Reporting on Progress	
<b>Date of Status Report/ Report of Progress</b>	Date: Progress on Action/Project:



**Action Number:** Sparta-3

**Mitigation Action/Initiative:** Retrofit impact resistant windows and shutters on Germany Flats Pump Facility

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	Protect pump facility building from wind damages
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	
Fiscal	0	
Environmental	0	
Social	0	
Administrative	1	
Multi-Hazard	1	Severe Weather, Severe Winter Weather
Timeline	1	
Local Champion	0	
Other Community Objectives	0	
Total	9	
<b>Priority (High/Med/Low)</b>	<b>Medium</b>	



**Action Number:** Sparta-4

**Mitigation Action/Initiative:** Stream bank stabilization along Sparta Glen Brook (3500 feet)

Assessing the Risk	
<b>Hazard(s) addressed:</b>	Flood, Severe Weather
<b>Specific problem being mitigated:</b>	The bank along Sparta Glen Brook is at risk of erosion and flood damage
Evaluation of Potential Actions/Projects	
<b>Actions/Projects Considered (name of project and reason for not selecting):</b>	1. Stream bank stabilization along Sparta Glen Brook (3500 feet)
	2. Do nothing – current problem continues
	3. No other feasible options were identified
Action/Project Intended for Implementation	
<b>Description of Selected Action/Project</b>	Stream bank stabilization along Sparta Glen Brook (3500 feet)
<b>Action/Project Category</b>	SIP
<b>Goals/Objectives Met</b>	1, 2, 6
<b>Applies to existing and/or new development; or not applicable</b>	Existing
<b>Benefits (losses avoided)</b>	High
<b>Estimated Cost</b>	Medium
<b>Priority</b>	Medium
Plan for Implementation	
<b>Responsible/Lead Agency/Department</b>	Emergency Management
<b>Local Planning Mechanism</b>	Emergency Management
<b>Potential Funding Sources</b>	HMGP with local cost share
<b>Timeline for Completion</b>	Short Term / DOF
Reporting on Progress	
<b>Date of Status Report/ Report of Progress</b>	Date: Progress on Action/Project:



**Action Number:** Sparta-4

**Mitigation Action/Initiative:** Stream bank stabilization along Sparta Glen Brook (3500 feet)

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Protect residents from impacts of flooding and erosion along Sparta Glen Brook
Property Protection	1	Protect properties from impacts of flooding and erosion along Sparta Glen Brook
Cost-Effectiveness	1	
Technical	-1	
Political	0	
Legal	1	
Fiscal	-1	
Environmental	1	
Social	0	
Administrative	1	
Multi-Hazard	1	
Timeline	-1	
Local Champion	1	
Other Community Objectives	1	
Total	6	
<b>Priority (High/Med/Low)</b>	<b>Medium</b>	



**Action Number:** Sparta-5

**Mitigation Action/Initiative:** Stream bank stabilization along Walkkill River at Station Park (1500 feet)

Assessing the Risk	
<b>Hazard(s) addressed:</b>	Flood, Severe Weather
<b>Specific problem being mitigated:</b>	Significant Bank Erosion/ pavement damage; loss/damage to roadway and utility piping
Evaluation of Potential Actions/Projects	
<b>Actions/Projects Considered (name of project and reason for not selecting):</b>	1. No Action – current problem continues
	2. Monitoring of Area/ adding additional stone or rip rap as needed
	3. Complete restoration of bank and river
Action/Project Intended for Implementation	
<b>Description of Selected Action/Project</b>	Restore & Stabilize roadway embankment along Walkkill River.
<b>Action/Project Category</b>	SIP
<b>Goals/Objectives Met</b>	Protect Public Property / Infrastructure
<b>Applies to existing and/or new development; or not applicable</b>	Existing Development
<b>Benefits (losses avoided)</b>	Road Damage / Existing Pipe Damage, JCP&L substation damage
<b>Estimated Cost</b>	\$1 million (High)
<b>Priority</b>	High
Plan for Implementation	
<b>Responsible/Lead Agency/Department</b>	Township of Sparta
<b>Local Planning Mechanism</b>	Township Engineering Office
<b>Potential Funding Sources</b>	Federal / State Grants/ Local Capital
<b>Timeline for Completion</b>	Within 5 years
Reporting on Progress	
<b>Date of Status Report/ Report of Progress</b>	Date: Progress on Action/Project:



**Action Number:** Sparta-5

**Mitigation Action/Initiative:** Stream bank stabilization along Walkill River at Station Park (1500 feet)

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	NYSW Tressel
Cost-Effectiveness	1	Loss of Utility Infrastructure in the area, affect town center commercial district, rendering it closed. (Millions)
Technical	-1	Beyond of scope of in house staff/ hiring of consultant for task
Political	0	
Legal	1	No property acquisition required
Fiscal	-1	Significant costs associated and budget strain
Environmental	1	If slope fails, potential sewage leak into Walkill River a C1 stream
Social	0	
Administrative	1	Full time Engineer/ DPW
Multi-Hazard	1	Water, Sewer, Natural Gas
Timeline	-1	Take multiple years to accomplish
Local Champion	1	Manager/ Township Engineer
Other Community Objectives	1	Protection of infrastructure, roadways, sewer lines
Total	6	
<b>Priority (High/Med/Low)</b>	High	



**Action Number:** Sparta-8

**Mitigation Action/Initiative:** Replace Culvert at West Mountain Road

Assessing the Risk	
<b>Hazard(s) addressed:</b>	Flood, Severe Weather
<b>Specific problem being mitigated:</b>	Road floods during significant rain preventing feasible access to Sparta High School. This is also leading to road flooding, shoulder erosion and culvert damage.
Evaluation of Potential Actions/Projects	
<b>Actions/Projects Considered (name of project and reason for not selecting):</b>	1. Replace Culvert at West Mountain Road
	2. Do nothing – current problem continues
	3. No other feasible options were identified
Action/Project Intended for Implementation	
<b>Description of Selected Action/Project</b>	Replace Existing Culvert with larger unit. Elevate Roadway to allow for larger storm events. This will alleviate flooding of properties and roadway in the area, including Sparta High School.
<b>Action/Project Category</b>	SIP
<b>Goals/Objectives Met</b>	Protect Public Property/ Continuity of Operations (Sparta High School)
<b>Applies to existing and/or new development; or not applicable</b>	Existing Development
<b>Benefits (losses avoided)</b>	Isolation of High School, eliminates damage to road.
<b>Estimated Cost</b>	\$600,000 (high)
<b>Priority</b>	Medium to High
Plan for Implementation	
<b>Responsible/Lead Agency/Department</b>	Township of Sparta
<b>Local Planning Mechanism</b>	Township Engineering Office
<b>Potential Funding Sources</b>	Federal / State Grants/ Local Capital
<b>Timeline for Completion</b>	Around 2 years
Reporting on Progress	
<b>Date of Status Report/ Report of Progress</b>	Date: Progress on Action/Project:





**Action Number:** Sparta-8

**Mitigation Action/Initiative:** Replace Culvert at West Mountain Road

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Potential for Flood Waters to Sweep Away Car
Property Protection	-1	
Cost-Effectiveness	1	Would eliminate need to close High School (Staff cost and everything associated)
Technical	1	
Political	1	
Legal	1	
Fiscal	0	Current capital funding is limited / need outside assistance.
Environmental	1	Would also provide wildlife crossing (turtles and any other protected species)
Social	0	
Administrative	1	Full time Engineer/ DPW
Multi-Hazard	0	
Timeline	1	
Local Champion	1	Township Council/ Manager/ Board of Education
Other Community Objectives	-1	
Total	7	
<b>Priority (High/Med/Low)</b>	Medium High	



Action Number: Sparta-9

Mitigation Action/Initiative: Lake Grinell Dam/ Spillway Reconstruction

Assessing the Risk	
Hazard(s) addressed:	Flood, Severe Weather
Specific problem being mitigated:	Loss of Municipal Roadway and significant loss to private property
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. No Action (NJDEP says we have to)
	2. Reconstruct spillway in accordance with NJDEP regulations
	3. No other feasible options were identified
Action/Project Intended for Implementation	
Description of Selected Action/Project	Replace Existing Spillway.
Action/Project Category	SIP/ NRP
Goals/Objectives Met	Protect Public/ Private Property/ Including Municipal Roadway)
Applies to existing and/or new development; or not applicable	N/A
Benefits (losses avoided)	No longer loose roadway if breeched and no damage to private property downstream.
Estimated Cost	\$250k (High)
Priority	Medium to High
Plan for Implementation	
Responsible/Lead Agency/Department	Township of Sparta/ Lake Grinell Association
Local Planning Mechanism	Township Engineering Office
Potential Funding Sources	Federal / State Grants/ Local Capital ( NJDEP Loan Program)
Timeline for Completion	Around 2 years
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:



**Action Number:** Sparta-9

**Mitigation Action/Initiative:** Lake Grinell Dam/ Spillway Reconstruction

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Protect Life and Property
Property Protection	1	
Cost-Effectiveness	1	
Technical	0	
Political	0	
Legal	1	
Fiscal	0	Current capital funding is limited / need outside assistance.
Environmental	1	
Social	1	
Administrative	1	Full time Engineer/ DPW
Multi-Hazard	1	
Timeline	1	Less than 2 years, (NJDEP requirements)
Local Champion	1	
Other Community Objectives	1	
<b>Total</b>	<b>11</b>	
<b>Priority (High/Med/Low)</b>	<b>High</b>	



Action Number: Sparta-10

Mitigation Action/Initiative: Improve overall stability of Private Dams

Assessing the Risk	
Hazard(s) addressed:	Dam Failure
Specific problem being mitigated:	Potential Breach of Privately Owned Dams
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. No Action (NJDEP says we have to)
	2. Improve overall stability of Private Dams
	3. No other feasible options were identified
Action/Project Intended for Implementation	
Description of Selected Action/Project	Improve overall stability of Private Dams
Action/Project Category	SIP/ NRP
Goals/Objectives Met	Protect Public/ Private Property/ Including Municipal Infrastructure
Applies to existing and/or new development; or not applicable	N/A
Benefits (losses avoided)	Medium
Estimated Cost	Medium
Priority*	Medium
Plan for Implementation	
Responsible/Lead Agency/Department	NJ DEP, Township Engineer
Local Planning Mechanism	Township Engineering Office
Potential Funding Sources	Federal / State Grants/ ( NJDEP Loan Program)
Timeline for Completion	10 Years
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:



**Action Number:** Sparta-10

**Mitigation Action/Initiative:** Improve overall stability of Private Dams

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Protect Life and Property
Property Protection	1	
Cost-Effectiveness	0	
Technical	0	
Political	1	
Legal	0	
Fiscal	0	
Environmental	1	
Social	1	
Administrative	0	Full time Engineer/ DPW
Multi-Hazard	0	
Timeline	-1	10 year potential
Local Champion	0	
Other Community Objectives	0	
Total	4	
<b>Priority (High/Med/Low)</b>	Medium	