

# 9.18 TOWNSHIP OF SANDYSTON

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

### 9.18.1 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         |
|--|------------------------------------|
| Stanley J. Dukus, Deputy OEM Coordinator | Amanda F. Lobban, Municipal Clerk  |
| 133 Route 645, Sandyston, NJ 07826       | 133 Route 645, Sandyston, NJ 07826 |
| Phone: (973) 293-3003                    | Phone: (973) 948-3520, x200        |
| Email: standsr@optonline.net             | Email: clerk@sandystontownship.com |

### 9.18.2 MUNICIPAL PROFILE

Sandyston Township is a small rural township located in the northwestern portion of Sussex County. It has a total area of 43.3 square miles. According to the U.S. Census, the 2010 population for the Township of Sandyston was 1,998. The Township is bordered to the north by Montague Township, to the south by Frankford and Hampton Townships, to the east by Wantage and Frankford Townships, and to the west by Pennsylvania. The Delaware River makes up the entire western border of the Township. Big Flat Brook, Little Flat Brook, and Tuttles Corner Brook are all streams located within the Township. The following unincorporated communities are located within the Township: Shaytown, Hainesville, Abertown, Layton, Bevans, Tuttles Corner, and Normanook.

### **Growth/Development Trends**

The Township of Sandyston did not note any recent residential/commercial development since 2010 or any major residential or commercial development, or major infrastructure development planned for the next five years in the municipality.

### 9.18.3 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 9.18-1. Hazard Event History

| Date(s) of Event                  | Event Type                        | FEMA<br>Declaration #<br>(If Applicable) | County<br>Designated? | Summary of Damages/Losses   |
|-----------------------------------|-----------------------------------|--|-----------------------|---|
| August 26 –<br>September 5, 2011  | Hurricane Irene                   | DR-4021                                  | Yes                   | Loss of services: between one day and one year. Infrastructure damage: roads, bridges and culverts only. Minor facility and structure damage. |
| September 28 –<br>October 6, 2011 | Remnants of Tropical<br>Storm Lee | DR-4039                                  | Yes                   | Minimal road closures.  |
| October 29, 2011                  | Severe Storm                      | DR-4048                                  | Yes                   | Roads were restricted due to heavy snow fall.   |



| Date(s) of Event                 | Event Type      | FEMA Declaration # (If Applicable) | County<br>Designated? | Summary of Damages/Losses  |
|----------------------------------|-----------------|------------------------------------|-----------------------|--|
| October 26 –<br>November 8, 2012 | Hurricane Sandy | DR-4086                            | Yes                   | Minimal loss of services. Generator at municipal building and EOC sustained damages. |

### 9.18.4 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 Sandyston. 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 Sandyston.

Table 9.18-2. Hazard Risk/Vulnerability Risk Ranking

| Hazard type            | Estimate of Potential Dollar Losses to<br>Structures Vulnerable to the Hazard <sup>a, c</sup> |               | Probability of<br>Occurrence | Risk Ranking Score<br>(Probability x<br>Impact) | Hazard<br>Ranking <sup>b</sup> |
|------------------------|---|---------------|------------------------------|---|--------------------------------|
| Dam Failure            | Damage estimate not a   | available     | Occasional                   | 24  | High*                          |
| Drought                | Damage estimate not a   | available     | Frequent                     | 30  | Medium                         |
|                        | 100-Year GBS:   | \$0           |                              |   |                                |
| Earthquake             | 500-Year GBS:   | \$235,819     | Occasional                   | 28  | Medium                         |
|                        | 2,500-Year GBS:   | \$3,436,620   |                              |   |                                |
| Flood                  | 1% Annual Chance:   | \$25,738,467  | Frequent                     | 18  | Medium                         |
| Geologic               | GBS Exposed to Carbonate<br>Rock Areas:   | \$230,730,635 | Frequent                     | 42  | High                           |
|                        | 100-year MRP:   | \$27,921      |                              |   |                                |
| Hurricane              | 500-year MRP:   | \$846,807     | Frequent                     | 48  | High                           |
|                        | Annualized:   | \$4,502       |                              |   |                                |
| Nor'Easter             | Damage estimate not a   | available     | Frequent                     | 48  | High                           |
|                        | 100-Year MRP:   | \$27,921      |                              |   |                                |
| Severe<br>Weather      | 500-year MRP:   | \$846,807     | Frequent                     | 48  | High                           |
|                        | Annualized:   | \$4,502       |                              |   |                                |
| Severe Winter          | 1% GBS:   | \$3,596,430   | Frequent                     | 51  | High                           |
| Weather                | 5% GBS:   | \$17,982,152  | Prequent                     | 31  | Tiigii                         |
| Wildfire               | Estimated Value in the Extreme, Very High, and High Hazard Areas:                             | \$62,747,631  | Frequent                     | 36  | High                           |
| Hazardous<br>Materials | Damage estimate not a   | available     | Frequent                     | 36  | High                           |

Notes:

<sup>\*</sup> The hazard ranking was changed due to the location of high hazard dams in the municipality GBS = General building stock; MRP = Mean return period.





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

### Table 9.18-3. NFIP Summary

| Municipality          | # Policies (1) | # Claims<br>(Losses) (1) | Total Loss<br>Payments (2) | # Rep. Loss<br>Prop. (1) | # Severe<br>Rep. Loss<br>Prop.<br>(1) | # Policies in<br>1% Flood<br>Boundary<br>(3) |
|-----------------------|----------------|--------------------------|----------------------------|--------------------------|---------------------------------------|--|
| Township of Sandyston | 12             | 3                        | \$209,806                  | 0                        | 0                                     | 4  |

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 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.

### 9.18.5 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 Sandyston.

**Table 9.18-4. Planning and Regulatory Tools** 

| Tool/Program<br>(code, ordinance, plan)        | Do you have<br>this?<br>(Yes/No)<br>If Yes, date of<br>adoption or<br>update | Authority<br>(local, county,<br>state, federal) | Dept./Agency<br>Responsible | Code Citation and Comments<br>(Code Chapter, name of plan,<br>explanation of authority, etc.) |
|--|--|---|-----------------------------|---|
| Planning Capability                            |  |   |                             |   |
| Master Plan                                    | Yes  | Local   | Twsp. Comm.                 | Master Plan 2008  |
| Capital Improvements Plan                      | No   | Local   | Twsp. Comm.                 | In progress.  |
| Floodplain Management/Basin<br>Plan            | No   |   |                             |   |
| Stormwater Management Plan                     | Yes  | Local   | DPW                         | Storm Water 2005  |
| Open Space Plan                                | Yes  | Local   | Twsp. Comm.                 | Master Plan 2008  |
| Stream Corridor Management<br>Plan             | No   |   |                             |   |
| Watershed Management or<br>Protection Plan     | No   |   |                             |   |
| Economic Development Plan                      | Yes  | Local   | Twsp. Comm.                 | Master Plan 2008  |
| Comprehensive Emergency<br>Management Plan     | Yes  | Local   | OEM                         | E.O.P. 8/2013   |
| Emergency Response Plan                        | Yes  | Local   | OEM                         | E.O.P. 8/2013   |
| Post-Disaster Recovery Plan                    | No   |   |                             |   |
| Transportation Plan                            | No   |   |                             |   |
| Strategic Recovery Planning<br>Report          | No   |   |                             |   |
| Other Plans:                                   | No   |   |                             |   |
| Regulatory Capability                          |  |   |                             |   |
| Building Code                                  | Yes  | State & Local                                   | Building<br>Department      | State Uniform Construction Code Act (N.J.S. 52:27D-119 et seq.)                               |
| Zoning Ordinance                               | Yes  | Local   | Zoning                      | Chapter 150 - Zoning  |
| Subdivision Ordinance                          | Yes  | Local   | Building<br>Department      | Chapter 137 – Subdivision and Site<br>Plan Review   |
| NFIP Flood Damage<br>Prevention Ordinance      | Yes  | Federal, State,<br>Local                        | Construction<br>Official    | Chapter 75 – Flood Damage<br>Prevention   |
| NFIP: Cumulative Substantial Damages           | No   |   |                             |   |
| NFIP: Freeboard                                | No   |   |                             |   |
| Growth Management<br>Ordinances                | No   |   |                             |   |
| Site Plan Review<br>Requirements               | Yes  | Local   | Bldg. Dept.                 | Chapter 137 – Subdivision and Site<br>Plan Review   |
| Stormwater Management<br>Ordinance             | Yes  | Local   | DPW                         | Chapter 138 – Stormwater Control  |
| Municipal Separate Storm<br>Sewer System (MS4) | No   |   |                             |   |
| Natural Hazard Ordinance                       | No   |   |                             |   |



**Table 9.18-4. Planning and Regulatory Tools** 

| Tool/Program<br>(code, ordinance, plan)                                       | Do you have<br>this?<br>(Yes/No)<br>If Yes, date of<br>adoption or<br>update | Authority<br>(local, county,<br>state, federal) | Dept./Agency<br>Responsible     | Code Citation and Comments<br>(Code Chapter, name of plan,<br>explanation of authority, etc.) |
|---|--|---|---------------------------------|---|
| Post-Disaster Recovery<br>Ordinance   | No   |   |                                 |   |
| Real Estate Disclosure<br>Requirement   | No   | State   | Division of<br>Consumer Affairs | N.J.A.C. 13:45A-29.1  |
| Other [Special Purpose<br>Ordinances (i.e., sensitive<br>areas, steep slope)] | No   |   |                                 |   |

# **Administrative and Technical Capability**

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

Table 9.18-5. Administrative and Technical Capabilities

| Resources   | Is this in place?<br>(Yes or No) | Department/Agency/Position                      |
|---|----------------------------------|---|
| Administrative Capability   |                                  |   |
| Planning Board  | Yes                              | Land Use/Zoning Board                           |
| Mitigation Planning Committee   | No                               |   |
| Environmental Board/Commission  | No                               |   |
| Open Space Board/Committee  | No                               |   |
| Economic Development Commission/Committee   | No                               |   |
| Maintenance Programs to Reduce Risk   | No                               |   |
| Mutual Aid Agreements   | Yes                              | Sussex County                                   |
| Technical/Staffing Capability   |                                  |   |
| Planner(s) or Engineer(s) with knowledge of land development and land management practices                  | Yes                              | Harold Pellow Assoc. J. Caldwell and Associates |
| Engineer(s) or Professional(s) trained in construction practices related to buildings and/or infrastructure | Yes                              | Harold Pellow Assoc.                            |
| Planners or engineers with an understanding of natural hazards  | Yes                              | As per need, Bids for Prof. Services.           |
| NFIP Floodplain Administrator   | Yes                              | Construction Official                           |
| Surveyor(s)   | Yes                              | Daniel Kent Inc.                                |
| Personnel skilled or trained in GIS and/or Hazus-MH applications  | No                               |   |
| Scientist familiar with natural hazards   | No                               |   |
| Emergency Manager   | Yes                              | Twsp. EMC                                       |
| Grant Writer(s)   | No                               |   |
| Staff with expertise or training in benefit/cost analysis   | No                               |   |
| Professionals trained in conducting damage assessments  | Yes                              | As per need, Bids for Prof. Services.           |

# **Fiscal Capability**

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





Table 9.18-6. Fiscal Capabilities

| Financial Resources   | Accessible or Eligible to Use<br>(Yes/No/Don't Know) |
|---|--|
| Community Development Block Grants (CDBG, CDBG-DR)                | Don't know   |
| Capital Improvements Project Funding                              | CFO & Twsp. Comm.                                    |
| Authority to levy taxes for specific purposes                     | Tax Asser  |
| User fees for water, sewer, gas, or electric service              | No   |
| Impact Fees for homebuyers or developers of new development/homes | Twsp. Comm.  |
| Stormwater Utility Fee  | No   |
| Incur debt through general obligation bonds                       | CFO & Twsp. Comm.                                    |
| Incur debt through special tax bonds                              | CFO & Twsp. Comm.                                    |
| Incur debt through private activity bonds                         | Unknown  |
| Withhold public expenditures in hazard-prone areas                | Unknown  |
| Other Federal or State Funding Programs                           | CFO & Twsp. Comm.                                    |
| Open Space Acquisition Funding Programs                           | Unknown  |
| Other   |  |

# **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 Sandyston.

Table 9.18-7. Education/Outreach and Community Classifications

| Program  | Do you<br>have/participate in<br>this? (Yes/No) | Classification<br>(if applicable) | Date Classified<br>(if applicable) |
|--|---|-----------------------------------|------------------------------------|
| Community Rating System (CRS)  | No  | NP                                | NP                                 |
| Building Code Effectiveness Grading Schedule (BCEGS)                 | No  |                                   |                                    |
| Public Protection (ISO Fire Protection Classes 1 to 10)              | Yes   | Fire Department – 10              | 25 plus years ago.                 |
| Storm Ready  | No  | NP                                | NP                                 |
| Firewise   | No  | NP                                | NP                                 |
| Disaster/Safety Programs in/for Schools                              | Yes   | School Administration             |                                    |
| Organizations with Mitigation Focus (advocacy group, non-government) | No  |                                   |                                    |
| Public Education Program/Outreach (through website, social media)    | Yes   | Social Media                      |                                    |
| Public-Private Partnerships  | No  |                                   |                                    |

N/A = Not Applicable. NP = Not Participating. - = Unavailable. TBD = To Be Determined.

The classifications listed above relate to the community's ability to provide effective services to lessen its vulnerability to the hazards identified. These classifications can be viewed as a gauge of the community's capabilities in all phases of emergency management (preparedness, response, recovery, and mitigation) and are used as an underwriting parameter for determining the costs of various forms of insurance. The Community Rating System (CRS) class applies to flood insurance while the Building Code Effectiveness Grading Schedule (BCEGS) and Public Protection classifications apply to standard property insurance. CRS classifications range on a scale of 1 to 10 with class 1 being the best possible classification, and class 10 representing no



classification benefit. Firewise classifications include a higher classification when the subject property is located beyond 1,000 feet of a creditable fire hydrant and is within five road miles of a recognized fire station.

Criteria for classification credits are outlined in the following documents:

- The Community Rating System Coordinators Manual
- The Building Code Effectiveness Grading Schedule
- The ISO Mitigation online ISO's Public Protection website at <a href="http://www.isomitigation.com/ppc/0000/ppc0001.html">http://www.isomitigation.com/ppc/0000/ppc0001.html</a>
- The National Weather Service Storm Ready website at http://www.weather.gov/stormready/howto.htm
- The National Firewise Communities website at <a href="http://firewise.org/">http://firewise.org/</a>

# **Self-Assessment of Capability**

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

Table 9.18-8. Self-Assessment of Capability

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

# **National Flood Insurance Program**

# NFIP Floodplain Administrator (FPA)

Robert W. Huber, Construction Official

## Flood Vulnerability Summary

The Township does not maintain lists or inventories of properties damaged by flooding. During Sandy, two homes were damaged. The FPA did not make Substantial Damage estimates during Sandy or other recent events. There is currently one property in the process of mitigation in the Township and this is being funded by private sources.

#### Resources

The FPA is the sole person assuming the responsibilities of floodplain administration within the Township. There is a part time administration assistant that will assist the FPA. NFIP administration services and functions provided by the FPA include permit review, inspections, damage assessments, record keeping, GIS, education and outreach. Outreach provided to the community includes advising the public at large and





handing out pamphlets on flood hazards/risk and flood risk reduction. The FPA indicated that there are barriers to running an effective program which includes money and time; however, he feels adequately supported as the municipal floodplain administrator. Additionally, the FPA would welcome continuing education and certification training on floodplain management.

### **Compliance History**

The Township is in good standing with the NFIP; however, the Township has never had a compliance audit conducted.

### Regulatory

The Township's flood damage prevention ordinance exceeds the minimum set by FEMA and the State and the Township has other ordinances and program that support floodplain management.

# **Community Rating System**

The Township of Sandyston does not participate in the Community Rating System (CRS) program; however, the Township has considered joining and would attend a CRS seminar if offered.

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

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

### Planning

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

**Sandyston Township Vision Plan 2010:** This report, or Vision Statement, summarizes the results of three public sessions and provides an account of the myriad of issues and ideas that were discussed and put forward as part of the Sandyston Township Vision Sessions. The Vision Statement was submitted to the State Planning Commission as part of Sandyston Township's petition for Plan Endorsement. This document identified critical issues, challenges and opportunities for the Township.

### 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 75: 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 138: Stormwater Management**

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.

### Chapter 138-17C.(2): Environmental Site Analysis

A written and graphic description of the natural and man-made features of the site and its environs. This description should include a discussion of soil conditions, slopes, wetlands, waterways and vegetation on the site. Particular attention should be given to unique, unusual, or environmentally sensitive features and to those that provide particular opportunities or constraints for development

# 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 or drainage and roadway improvements.

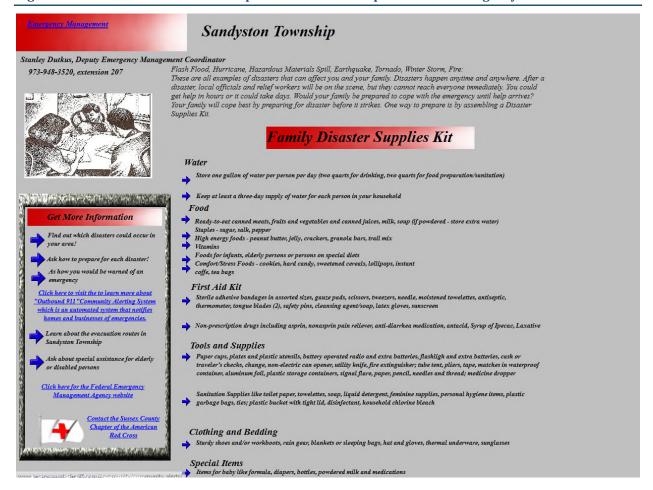
## **Education and Outreach**

The Township's website posts information regarding upcoming community events and important municipal decisions on the home page. The Township has disaster and emergency mitigation and management information on the emergency management web page.

The Township identified new mitigation initiatives to implement FireWise as well as conduct a public outreach and education program on hazard mitigation and preparedness. Refer to Table 9.18-11 for more information.



Figure 9.18-1. Screenshot of Township Website with Examples of their Emergency Information



### 9.18.6 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 9.18-9. Past Mitigation Initiative Status**

| <u>Initiative</u><br>Number | 2011 Mitigation Action  | <u>Responsible</u><br><u>Party</u>                   | Status<br>(In progress,<br>No progress,<br>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<br>(Include in<br>2016 HMP?<br>or<br>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. |
|-----------------------------|---|--|--|--|---|--|
| Sandyston<br>Township<br>1  | Implement Fire Wise Program throughout the Township.  | OEM<br>Coordinator                                   | In Progress  | Due to lack of funding, this project has not been completed.   | Include in<br>2016 HMP                                      | Continue to implement the FireWise program within the Township.  |
| Sandyston<br>Township<br>2  | Conduct all-hazards public education and outreach program for hazard mitigation and preparedness. | OEM<br>Coordinator, in<br>coordination<br>with SCDEM | In Progress  | Due to personnel and budget constraints, this project has not been completed.  | Include in<br>2016 HMP                                      | Include in the 2016 HMP update.  |



# **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 9.18-10 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 9.18-11 provides a summary of the prioritization of all proposed mitigation initiatives for the HMP update.



**Table 9.18-10. Proposed Hazard Mitigation Initiatives** 

| Initiative               | Mitigation Initiative  | Applies to<br>New<br>and/or<br>Existing<br>Structures* | Hazard(s)<br>Mitigated | Goals<br>Met | Lead and<br>Support<br>Agencies          | Estimated<br>Benefits | Estimated<br>Cost | Sources of<br>Funding                                 | Timeline               | Priority | Mitigation<br>Category | CRS Category |
|--------------------------|--|--|------------------------|--------------|--|-----------------------|-------------------|---|------------------------|----------|------------------------|--------------|
| Sandyston-<br>1 (new)    | Sandyston Township Sunrise<br>Communications Tower<br>Generator  | Existing   | All                    | 1, 2, 6      | Township OEM                             | Medium                | Medium to<br>High | HMGP with local cost share                            | Short<br>Term /<br>DOF | High     | SIP                    | PP           |
| Sandyston-<br>2 (new)    | To ensure continuity of operations at critical facilities and municipal buildings, install generator Wiring at Municipal Complex | Existing   | All                    | 1, 2, 6      | Township OEM                             | Medium                | Medium to<br>High | HMGP with local cost share                            | Short<br>Term /<br>DOF | High     | SIP                    | PP           |
| Sandyston-<br>3 (new)    | Emergency Generator for DPW<br>Garage & Fire Station #2  | Existing   | All                    | 1, 2, 6      | Township OEM                             | Medium                | Medium to<br>High | HMGP with local cost share                            | Short<br>Term /<br>DOF | High     | SIP                    | PP           |
| Sandyston-<br>4 (old #1) | Implement Fire Wise Program throughout the Township.   | New and<br>Existing                                    | Wildfire               | 1, 2, 3      | Fire Department, OEM                     | Medium                | Low               | Municipal<br>Budget                                   | Ongoing                | Medium   | LPR,<br>EAP            | PR,<br>PI    |
| Sandyston-<br>5 (old #2) | Conduct all-hazards public education and outreach program for hazard mitigation and preparedness.                                | New and<br>Existing                                    | All                    | All          | Township OEM                             | Medium                | Low               | Municipal<br>Budget                                   | Ongoing                | Medium   | LPR,<br>EAP            | PR,<br>PI    |
| Sandyston-<br>6 (new)    | Install early warning devices in the Township.   | New  | All                    | 1, 2, 3      | Fire Department                          | Medium                | Medium            | HMGP with local cost share                            | Short<br>Term /<br>DOF | High     | SIP                    | PP           |
| Sandyston-<br>7 (new)    | Protect school building from<br>severe weather related<br>incidents  | Existing   | Severe<br>Weather      | 1, 2         | Board of<br>Education                    | Medium                | Medium            | HMGP with<br>local cost share;<br>School Budget       | Short<br>Term /<br>DOF | Medium   | SIP                    | PP           |
| Sandyston-<br>8 (new)    | Purchase a mini pumper four-<br>wheel drive unit with extended<br>crew cab to support wildland<br>and structural fires.          | N/A  | Wildfire               | 1, 2, 3,     | Fire Department                          | Medium                | High              | Grants,<br>Municipal<br>Budget                        | Short<br>Term /<br>DOF | High     | SIP                    | PP           |
| Sandyston-<br>9 (new)    | Work with the PUC and FCC for regulations requiring phone providers to maintain phone service during loss of power.              | Existing   | All                    | All          | Township                                 | Medium                | Low               | Municipal<br>Budget                                   | Ongoing                | High     | LPR                    | PR           |
| Sandyston-<br>10 (new)   | Protect roadway crossing the<br>Delaware River from damages<br>and debris during hazard<br>events.                               | Existing   | All                    | All          | Private Toll<br>Bridge<br>Owner/Operator | Medium                | TBD               | Toll Bridge<br>Owner/Operator,<br>Municipal<br>Budget | Short<br>Term          | High     | SIP                    | PP           |
| Sandyston-<br>11 (new)   | Initiate a program to verify that all dams in the community meet the state safety requirements.                                  | Existing   | Dam<br>Failure         | All          | NJDEP, Dam<br>Owners,<br>Township        | Medium                | High              | Grants,<br>Municipal<br>Budget                        | Short<br>Term          | High     | LPR                    | PR           |

Notes:





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

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

| <u>Acronyms and Abbreviations:</u> |                                     | <u>Potentio</u> | al FEMA HMA Funding Sources:                         | <u>Timeline:</u> |                      |  |
|------------------------------------|-------------------------------------|-----------------|--|------------------|----------------------|--|
| CRS                                | Community Rating System             | FMA             | Flood Mitigation Assistance Grant Program            | Short            | 1 to 5 years         |  |
| DPW                                | Department of Public Works          | HMGP            | Hazard Mitigation Grant Program                      | Long Term        | 5 years or greater   |  |
| FEMA                               | Federal Emergency Management Agency | PDM             | Pre-Disaster Mitigation Grant Program                | OG               | On-going program     |  |
| FPA                                | Floodplain Administrator            | RFC             | Repetitive Flood Claims Grant Program (discontinued) | DOF              | Depending on funding |  |
| HMA                                | Hazard Mitigation Assistance        | SRL             | Severe Repetitive Loss Grant Program (discontinued)  |                  |                      |  |
| N/A                                | Not applicable                      |                 |  |                  |                      |  |

Costs:

NFIP

**NIDEP** 

NJOEM

OEM

Where actual project costs have been reasonably estimated:

National Flood Insurance Program

Office of Emergency Management

Low < \$10,000

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

*High* > \$100,000

Where actual project costs cannot reasonably be established at this time:

New Jersey Department of Environmental Protection

New Jersey Office of Emergency Management

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

 $\label{life} \textit{life and property, or project will provide an immediate reduction in the risk}$ 

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 9.18-11. Summary of Prioritization of Actions

| Mitigation<br>Action /<br>Project<br>Number | Mitigation Action/Initiative  | Life Safety | Property<br>Protection | Cost-Effectiveness | Technical | Political | Legal | Fiscal | Environmental | Social | Administrative | Multi-Hazard | Timeline | Agency Champion | Other Community<br>Objectives | Total | High /<br>Medium /<br>Low |
|---|---|-------------|------------------------|--------------------|-----------|-----------|-------|--------|---------------|--------|----------------|--------------|----------|-----------------|-------------------------------|-------|---------------------------|
| Sandyston-1<br>(new)                        | Sandyston Township Sunrise Communications Tower<br>Generator  | 1           | 1                      | 1                  | 1         | 0         | 0     | 0      | 0             | 0      | 1              | 1            | 1        | 1               | 0                             | 8     | High                      |
| Sandyston-2<br>(new)                        | Generator Wiring at Municipal Complex   | 1           | 1                      | 1                  | 1         | 0         | 0     | 0      | 0             | 0      | 1              | 1            | 1        | 1               | 0                             | 8     | High                      |
| Sandyston-3<br>(new)                        | Emergency Generator for DPW Garage & Fire Station #2  | 1           | 1                      | 1                  | 1         | 0         | 0     | 0      | 0             | 0      | 1              | 1            | 1        | 1               | 0                             | 8     | High                      |
| Sandyston-4 (old<br>#1)                     | Implement Fire Wise Program throughout the Township.  | 1           | 1                      | 1                  | 1         | 0         | 0     | 0      | 1             | 0      | 1              | 0            | 1        | 0               | 0                             | 7     | Medium                    |
| Sandyston-5 (old<br>#2)                     | Conduct all-hazards public education and outreach program for hazard mitigation and preparedness.                   | 1           | 1                      | 1                  | 1         | 0         | 0     | 0      | 1             | 0      | 1              | 1            | 1        | 0               | 0                             | 8     | Medium                    |
| Sandyston-6<br>(new)                        | Install early warning devices in the Township.  | 1           | 1                      | 0                  | 1         | 1         | 0     | 0      | 0             | 1      | 0              | 1            | 0        | 0               | 0                             | 6     | High                      |
| Sandyston-7 (new)                           | Protect school building from severe weather related incidents   | 1           | 1                      | 0                  | 0         | 1         | 0     | 0      | 1             | 1      | 0              | 1            | 0        | 1               | 0                             | 7     | High                      |
| Sandyston-8 (new)                           | Purchase a mini pumper four-wheel drive unit with extended crew cab to support wildland and structural fires.       | 1           | 1                      | 1                  | 1         | 1         | 0     | 0      | 1             | 1      | 0              | 1            | 0        | 1               | 0                             | 9     | High                      |
| Sandyston-9<br>(new)                        | Work with the PUC and FCC for regulations requiring phone providers to maintain phone service during loss of power. | 1           | 1                      | 1                  | 1         | 1         | 1     | 0      | 1             | 1      | 0              | 1            | 0        | 1               | 0                             | 10    | High                      |
| Sandyston-10 (new)                          | Protect roadway crossing the Delaware River from damages and debris during hazard events.                           | 1           | 1                      | 1                  | 1         | 1         | 1     | 0      | 1             | 1      | 0              | 1            | 0        | 0               | 0                             | 9     | High                      |
| Sandyston-11 (new)                          | Initiate a program to verify that all dams in the community meet the state safety requirements.                     | 1           | 1                      | 0                  | 1         | 1         | 1     | 0      | 1             | 1      | 0              | 1            | 0        | 0               | 0                             | 8     | High                      |

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



# 9.18.7 FUTURE NEEDS TO BETTER UNDERSTAND RISK/VULNERABILITY

None at this time.

### 9.18.8 HAZARD AREA EXTENT AND LOCATION

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

# 9.18.9 ADDITIONAL COMMENTS

None at this time.



Figure 9.18-2. Township of Sandyston Hazard Area Extent and Location Map 1

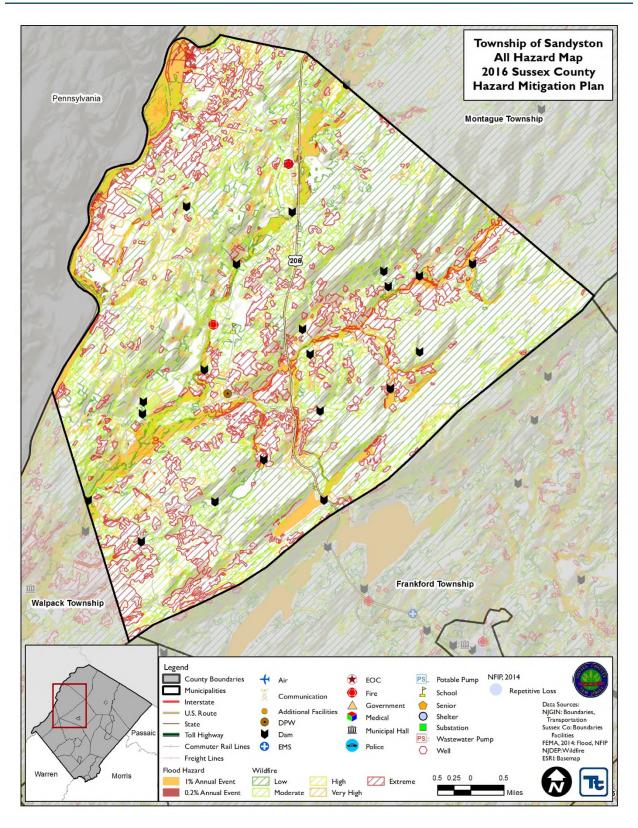
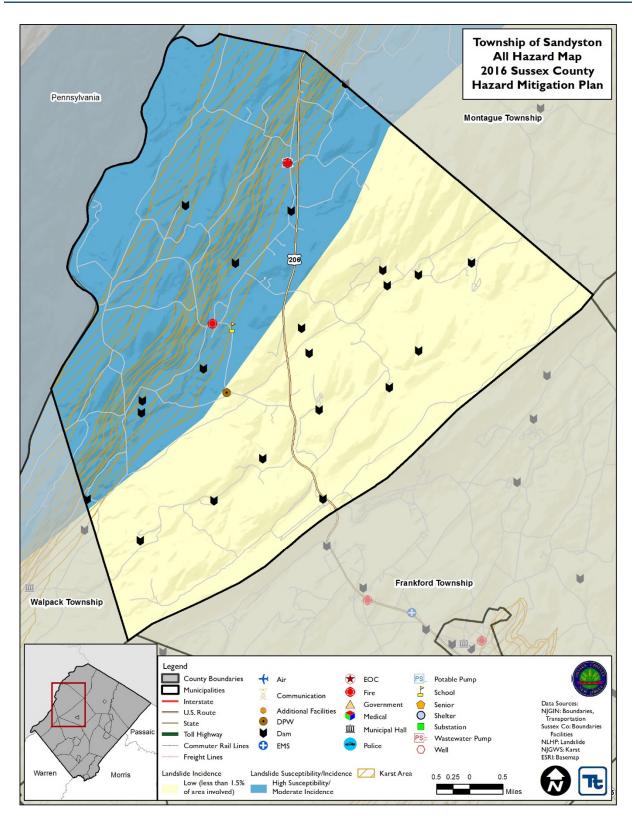




Figure 9.18-3. Township of Sandyston Hazard Area Extent and Location Map 2





Mitigation Action/Initiative: Sandyston Township Sunrise Communications Tower Generator

| Assessing the Risk  |   |  |  |  |  |  |
|---|---|--|--|--|--|--|
| Hazard(s) addressed:  | All   |  |  |  |  |  |
| Specific problem being mitigated:   | Loss of power to communications tower                     |  |  |  |  |  |
|   | Evaluation of Potential Actions/Projects                  |  |  |  |  |  |
| Agtions / Projects Considered   | Sandyston Township Sunrise Communications Tower Generator |  |  |  |  |  |
| Actions/Projects Considered (name of project and reason for not selecting): | 2. Do nothing – current problem continues                 |  |  |  |  |  |
| for not selecting).   | 3. No other feasible options were identified              |  |  |  |  |  |
|   | Action/Project Intended for Implementation                |  |  |  |  |  |
| Description of Selected<br>Action/Project                                   | Sandyston Township Sunrise Communications Tower Generator |  |  |  |  |  |
| Action/Project Category   | SIP   |  |  |  |  |  |
| Goals/Objectives Met  | 1, 2, 6   |  |  |  |  |  |
| Applies to existing and/or new development; or not applicable               | Existing  |  |  |  |  |  |
| Benefits (losses avoided)   | Medium  |  |  |  |  |  |
| Estimated Cost  | Medium to High  |  |  |  |  |  |
| Priority  | High  |  |  |  |  |  |
|   | Plan for Implementation                                   |  |  |  |  |  |
| Responsible/Lead<br>Agency/Department                                       | Township OEM  |  |  |  |  |  |
| Local Planning Mechanism  | Emergency Operations                                      |  |  |  |  |  |
| Potential Funding Sources   | HMGP with local cost share                                |  |  |  |  |  |
| Timeline for Completion   | pletion Short Term / DOF                                  |  |  |  |  |  |
|   | Reporting on Progress                                     |  |  |  |  |  |
| Date of Status Report/<br>Report of Progress                                | Date: Progress on Action/Project:                         |  |  |  |  |  |



Mitigation Action/Initiative: Sandyston Township Sunrise Communications Tower Generator

| Criteria                      | Numeric<br>Rank<br>(-1, 0, 1) | Provide brief rationale for numeric rank when appropriate               |
|-------------------------------|-------------------------------|---|
| Life Safety                   | 1                             |   |
| Property Protection           | 1                             | Provides communications tower with power in the event of a power outage |
| Cost-Effectiveness            | 1                             |   |
| Technical                     | 1                             |   |
| Political                     | 0                             |   |
| Legal                         | 0                             |   |
| Fiscal                        | 0                             |   |
| Environmental                 | 0                             |   |
| Social                        | 0                             |   |
| Administrative                | 1                             |   |
| Multi-Hazard                  | 1                             | All   |
| Timeline                      | 1                             | Short Term – less than five years; depends on funding                   |
| Local Champion                | 1                             |   |
| Other Community<br>Objectives | 0                             |   |
| Total                         | 8                             |   |
| Priority<br>(High/Med/Low)    | High                          |   |



Mitigation Action/Initiative: Generator Wiring at Municipal Complex

| Assessing the Risk  |  |  |  |  |  |  |
|---|--|--|--|--|--|--|
| Hazard(s) addressed:  | All  |  |  |  |  |  |
| Specific problem being mitigated:                             | Generator at municipal complex needs to be wired |  |  |  |  |  |
|   | Evaluation of Potential Actions/Projects         |  |  |  |  |  |
| Actions/Projects Considered                                   | Generator Wiring at Municipal Complex            |  |  |  |  |  |
| (name of project and reason<br>for not selecting):            | 2. Do nothing – current problem continues        |  |  |  |  |  |
| ior not selecting).   | 3. No other feasible options were identified     |  |  |  |  |  |
|   | Action/Project Intended for Implementation       |  |  |  |  |  |
| Description of Selected<br>Action/Project                     | Generator Wiring at Municipal Complex            |  |  |  |  |  |
| Action/Project Category                                       | SIP  |  |  |  |  |  |
| Goals/Objectives Met  | 1, 2, 6  |  |  |  |  |  |
| Applies to existing and/or new development; or not applicable | Existing   |  |  |  |  |  |
| Benefits (losses avoided)                                     | Medium   |  |  |  |  |  |
| Estimated Cost  | Medium to High                                   |  |  |  |  |  |
| Priority  | High   |  |  |  |  |  |
|   | Plan for Implementation                          |  |  |  |  |  |
| Responsible/Lead<br>Agency/Department                         | Township OEM                                     |  |  |  |  |  |
| Local Planning Mechanism                                      | Emergency Operations                             |  |  |  |  |  |
| Potential Funding Sources                                     | HMGP with local cost share                       |  |  |  |  |  |
| Timeline for Completion                                       | Short Term / DOF                                 |  |  |  |  |  |
|   | Reporting on Progress                            |  |  |  |  |  |
| Date of Status Report/<br>Report of Progress                  | Date: Progress on Action/Project:                |  |  |  |  |  |



Mitigation Action/Initiative: Generator Wiring at Municipal Complex

| Criteria                      | Numeric<br>Rank<br>(-1, 0, 1) | Provide brief rationale for numeric rank when appropriate |
|-------------------------------|-------------------------------|---|
| Life Safety                   | 1                             |   |
| Property Protection           | 1                             |   |
| Cost-Effectiveness            | 1                             |   |
| Technical                     | 1                             |   |
| Political                     | 0                             |   |
| Legal                         | 0                             |   |
| Fiscal                        | 0                             |   |
| Environmental                 | 0                             |   |
| Social                        | 0                             |   |
| Administrative                | 1                             |   |
| Multi-Hazard                  | 1                             | All   |
| Timeline                      | 1                             | Short Term – less than five years; depends on funding     |
| Local Champion                | 1                             |   |
| Other Community<br>Objectives | 0                             |   |
| Total                         | 8                             |   |
| Priority<br>(High/Med/Low)    | High                          |   |



Mitigation Action/Initiative: Emergency Generator for DPW Garage & Fire Station #2

| Assessing the Risk  |   |  |  |  |  |  |
|---|---|--|--|--|--|--|
| Hazard(s) addressed:  | All   |  |  |  |  |  |
| Specific problem being mitigated:   | DPW garage and Fire Station #2 are in need of backup power; cannot operate during an emergency if there is no power |  |  |  |  |  |
|   | Evaluation of Potential Actions/Projects  |  |  |  |  |  |
| Astions / Duois sta Considered  | 1. Emergency Generator for DPW Garage & Fire Station #2   |  |  |  |  |  |
| Actions/Projects Considered (name of project and reason for not selecting): | 2. Do nothing – current problem continues   |  |  |  |  |  |
| ior not selecting).   | 3. No other feasible options were identified  |  |  |  |  |  |
|   | Action/Project Intended for Implementation  |  |  |  |  |  |
| Description of Selected<br>Action/Project                                   | Emergency Generator for DPW Garage & Fire Station #2  |  |  |  |  |  |
| Action/Project Category   | SIP   |  |  |  |  |  |
| Goals/Objectives Met  | 1, 2, 6   |  |  |  |  |  |
| Applies to existing and/or new development; or not applicable               | Existing  |  |  |  |  |  |
| Benefits (losses avoided)   | Medium  |  |  |  |  |  |
| Estimated Cost  | Medium to High  |  |  |  |  |  |
| Priority  | High  |  |  |  |  |  |
|   | Plan for Implementation   |  |  |  |  |  |
| Responsible/Lead<br>Agency/Department                                       | Township OEM  |  |  |  |  |  |
| Local Planning Mechanism  | Emergency Operations  |  |  |  |  |  |
| Potential Funding Sources   | HMGP with local cost share  |  |  |  |  |  |
| Timeline for Completion   | Short Term / DOF  |  |  |  |  |  |
|   | Reporting on Progress   |  |  |  |  |  |
| Date of Status Report/<br>Report of Progress                                | Date: Progress on Action/Project:   |  |  |  |  |  |



Mitigation Action/Initiative: Emergency Generator for DPW Garage & Fire Station #2

| Criteria                      | Numeric<br>Rank<br>(-1, 0, 1) | Provide brief rationale for numeric rank when appropriate                 |
|-------------------------------|-------------------------------|---|
| Life Safety                   | 1                             | Provide emergency services to those in need during times of power outages |
| Property Protection           | 1                             | Allow these buildings to operate during power outages                     |
| Cost-Effectiveness            | 1                             |   |
| Technical                     | 1                             |   |
| Political                     | 0                             |   |
| Legal                         | 0                             |   |
| Fiscal                        | 0                             |   |
| Environmental                 | 0                             |   |
| Social                        | 0                             |   |
| Administrative                | 1                             |   |
| Multi-Hazard                  | 1                             | All   |
| Timeline                      | 1                             | Short Term – less than five years; depends on funding                     |
| Local Champion                | 1                             |   |
| Other Community<br>Objectives | 0                             |   |
| Total                         | 8                             |   |
| Priority<br>(High/Med/Low)    | High                          |   |



Mitigation Action/Initiative: Early warning devices in the Township

|   | Assessing the Risk                                       |  |  |  |  |
|---|--|--|--|--|--|
| Hazard(s) addressed:  | All  |  |  |  |  |
| Specific problem being mitigated:   | Lack of a public notification system within the Township |  |  |  |  |
|   | Evaluation of Potential Actions/Projects                 |  |  |  |  |
| Actions / Ducio eta Considerad  | 1. Install early warning devices throughout the Township |  |  |  |  |
| Actions/Projects Considered (name of project and reason for not selecting): | 2. Do nothing – current problem continues                |  |  |  |  |
| for not selecting):   | 3. No other feasible options were identified             |  |  |  |  |
|   | Action/Project Intended for Implementation               |  |  |  |  |
| Description of Selected<br>Action/Project                                   | Placement of Early Warning Devices throughout the Twsp.  |  |  |  |  |
| Action/Project Category   | SIP  |  |  |  |  |
| Goals/Objectives Met  | 1, 2, 3  |  |  |  |  |
| Applies to existing and/or new development; or not applicable               | New  |  |  |  |  |
| Benefits (losses avoided)   | Medium   |  |  |  |  |
| Estimated Cost  | Medium   |  |  |  |  |
| Priority  | High   |  |  |  |  |
|   | Plan for Implementation                                  |  |  |  |  |
| Responsible/Lead<br>Agency/Department                                       | Fire Department  |  |  |  |  |
| Local Planning Mechanism  | Emergency Operations                                     |  |  |  |  |
| Potential Funding Sources   | HMGP with local cost share                               |  |  |  |  |
| Timeline for Completion   | Short Term / DOF   |  |  |  |  |
|   | Reporting on Progress                                    |  |  |  |  |
| Date of Status Report/<br>Report of Progress                                | Date:<br>Progress on Action/Project:                     |  |  |  |  |



Mitigation Action/Initiative: Early warning devices in the Township

| Criteria                   | Numeric<br>Rank<br>(-1, 0, 1) | Provide brief rationale for numeric rank when appropriate |
|----------------------------|-------------------------------|---|
| Life Safety                | 1                             | Warning system for residents in the event of an emergency |
| Property Protection        | 1                             |   |
| Cost-Effectiveness         | 0                             |   |
| Technical                  | 1                             |   |
| Political                  | 1                             |   |
| Legal                      | 0                             |   |
| Fiscal                     | 0                             |   |
| Environmental              | 0                             |   |
| Social                     | 1                             |   |
| Administrative             | 0                             |   |
| Multi-Hazard               | 1                             | All   |
| Timeline                   | 0                             |   |
| Local Champion             | 0                             |   |
| Other Community Objectives | 0                             |   |
| Total                      | 6                             |   |
| Priority<br>(High/Med/Low) | High                          |   |



Mitigation Action/Initiative: Protect school building from severe weather related incidents

| Assessing the Risk  |  |  |  |  |  |  |
|---|--|--|--|--|--|--|
| Hazard(s) addressed:  | Severe Weather   |  |  |  |  |  |
| Specific problem being mitigated:                             | School building is not protected from severe weather related incidents |  |  |  |  |  |
|   | Evaluation of Potential Actions/Projects                               |  |  |  |  |  |
| Actions/Projects Considered                                   | Protect school during extreme weather related incidents                |  |  |  |  |  |
| (name of project and reason<br>for not selecting):            | 2. Do nothing – current problem continues                              |  |  |  |  |  |
| ior not selecting).   | 3. No other feasible options were identified                           |  |  |  |  |  |
|   | Action/Project Intended for Implementation                             |  |  |  |  |  |
| Description of Selected<br>Action/Project                     | Protect school building from severe weather related incidents          |  |  |  |  |  |
| Action/Project Category                                       | SIP  |  |  |  |  |  |
| Goals/Objectives Met  | 1, 2   |  |  |  |  |  |
| Applies to existing and/or new development; or not applicable | Existing   |  |  |  |  |  |
| Benefits (losses avoided)                                     | Medium   |  |  |  |  |  |
| Estimated Cost  | Medium   |  |  |  |  |  |
| Priority  | Medium   |  |  |  |  |  |
|   | Plan for Implementation  |  |  |  |  |  |
| Responsible/Lead<br>Agency/Department                         | Board of Education   |  |  |  |  |  |
| Local Planning Mechanism                                      | Emergency Operations   |  |  |  |  |  |
| Potential Funding Sources                                     | HMGP with local cost share; School Budget                              |  |  |  |  |  |
| Timeline for Completion                                       | Short Term / DOF   |  |  |  |  |  |
|   | Reporting on Progress  |  |  |  |  |  |
| Date of Status Report/<br>Report of Progress                  | Date: Progress on Action/Project:                                      |  |  |  |  |  |



Mitigation Action/Initiative: Protect school building from severe weather related incidents

| Criteria                   | Numeric<br>Rank<br>(-1, 0, 1) | Provide brief rationale for numeric rank when appropriate |
|----------------------------|-------------------------------|---|
| Life Safety                | 1                             | Protect students  |
| Property Protection        | 1                             | Protect building  |
| Cost-Effectiveness         | 0                             |   |
| Technical                  | 0                             |   |
| Political                  | 1                             |   |
| Legal                      | 0                             |   |
| Fiscal                     | 0                             |   |
| Environmental              | 1                             |   |
| Social                     | 1                             |   |
| Administrative             | 0                             |   |
| Multi-Hazard               | 1                             |   |
| Timeline                   | 0                             |   |
| Local Champion             | 1                             |   |
| Other Community Objectives | 0                             |   |
| Total                      | 7                             |   |
| Priority<br>(High/Med/Low) | High                          |   |



Mitigation Action/Initiative: Purchase equipment to support wildland and structural fire protection

| Assessing the Risk  |   |  |  |  |
|---|---|--|--|--|
| Hazard(s) addressed:  | Wildfire  |  |  |  |
| Specific problem being mitigated:   | Lack of equipment to support wildland and structure fires within the Township |  |  |  |
| Evaluation of Potential Actions/Projects                                    |   |  |  |  |
| Agtions / Projects Considered   | Purchase equipment to support wildland and structural fire protection         |  |  |  |
| Actions/Projects Considered (name of project and reason for not selecting): | 2. Do nothing – current problem continues                                     |  |  |  |
| ior not selecting):   | 3. No other feasible options were identified                                  |  |  |  |
| Action/Project Intended for Implementation                                  |   |  |  |  |
| Description of Selected<br>Action/Project                                   | Purchase equipment to support wildland and structural fire protection         |  |  |  |
| Action/Project Category   | SIP   |  |  |  |
| Goals/Objectives Met  | 1, 2, 6   |  |  |  |
| Applies to existing and/or new development; or not applicable               | New and Existing  |  |  |  |
| Benefits (losses avoided)   | Medium  |  |  |  |
| Estimated Cost  | High  |  |  |  |
| Priority  | High  |  |  |  |
|   | Plan for Implementation   |  |  |  |
| Responsible/Lead<br>Agency/Department                                       | Fire Department   |  |  |  |
| Local Planning Mechanism  | Emergency Operations  |  |  |  |
| Potential Funding Sources   | Grant funding; municipal budget   |  |  |  |
| Timeline for Completion   | Short Term / DOF  |  |  |  |
| Reporting on Progress   |   |  |  |  |
| Date of Status Report/<br>Report of Progress                                | Date: Progress on Action/Project:   |  |  |  |



Mitigation Action/Initiative: Purchase equipment to support wildland and structural fire protection

| Criteria                   | Numeric<br>Rank<br>(-1, 0, 1) | Provide brief rationale for numeric rank when appropriate            |
|----------------------------|-------------------------------|--|
| Life Safety                | 1                             | Allows fire department another means of transportation during a fire |
| Property Protection        | 1                             | Allows fire department another means of transportation during a fire |
| Cost-Effectiveness         | 1                             |  |
| Technical                  | 1                             |  |
| Political                  | 1                             |  |
| Legal                      | 0                             |  |
| Fiscal                     | 0                             |  |
| Environmental              | 1                             |  |
| Social                     | 1                             |  |
| Administrative             | 0                             |  |
| Multi-Hazard               | 1                             | Wildfire   |
| Timeline                   | 0                             |  |
| Local Champion             | 1                             |  |
| Other Community Objectives | 0                             |  |
| Total                      | 9                             |  |
| Priority<br>(High/Med/Low) | High                          |  |



**Action Number:** 

Sandyston-10

**Mitigation Action/Initiative:** 

Protect roadway crossing the Delaware River from damages and debris during hazard events.

|   | Assessing the Risk  |  |  |  |
|---|---|--|--|--|
| Hazard(s) addressed:  | All   |  |  |  |
| Specific problem being mitigated:   | This roadway is the only access in the Township that crosses the river. During hazard events, the bridge may close due to impassable roads, downed debris, etc. |  |  |  |
| Evaluation of Potential Actions/Projects                                    |   |  |  |  |
| Agtions / Duoingto Considered   | 1. Protect roadway crossing the Delaware River from damages and debris during hazard events.  |  |  |  |
| Actions/Projects Considered (name of project and reason for not selecting): | 2. Do nothing – current problem continues   |  |  |  |
| ioi not selecting).   | 3. No other feasible options were identified  |  |  |  |
| Action/Project Intended for Implementation                                  |   |  |  |  |
| Description of Selected<br>Action/Project                                   | Protect roadway crossing the Delaware River from damages and debris during hazard events.   |  |  |  |
| Action/Project Category   | SIP   |  |  |  |
| Goals/Objectives Met  | All   |  |  |  |
| Applies to existing and/or new development; or not applicable               | Existing  |  |  |  |
| Benefits (losses avoided)   | Medium  |  |  |  |
| Estimated Cost  | TBD   |  |  |  |
| Priority  | High  |  |  |  |
| Plan for Implementation   |   |  |  |  |
| Responsible/Lead<br>Agency/Department                                       | Private Toll Bridge Owner/Operator  |  |  |  |
| Local Planning Mechanism  | Emergency Operations, Transportation  |  |  |  |
| Potential Funding Sources   | Toll Bridge Owner/Operator, Municipal Budget  |  |  |  |
| Timeline for Completion   | Short Term  |  |  |  |
| Reporting on Progress   |   |  |  |  |
| Date of Status Report/<br>Report of Progress                                | Date: Progress on Action/Project:   |  |  |  |



Mitigation Action/Initiative: Protect roadway crossing the Delaware River from damages and debris during hazard

events.

| Criteria                   | Numeric<br>Rank<br>(-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                     | 1                             |   |
| Administrative             | 0                             |   |
| Multi-Hazard               | 1                             | All   |
| Timeline                   | 0                             |   |
| Local Champion             | 0                             |   |
| Other Community Objectives | 0                             |   |
| Total                      | 9                             |   |
| Priority<br>(High/Med/Low) | High                          |   |