



## Appendix 11: Borough of Milltown

The Borough of Milltown participated in the 2015 Middlesex County Hazard Mitigation Plan (HMP) update. This appendix includes the locally-specific information about the Borough. The following sections detail the planning process and participants; the current population, building stock, and land development trends; hazards that specific to the Borough and corresponding risk assessments; the Borough’s mitigation strategy, and a local capability assessment.

### 1. Plan Development

On January 10, 2015 date, the Mayor signed an “Intent to Participate” letter and assigned a point of contact for the HMP update. The Mayor designated the Police Chief as the plan update Point of Contact worked with other municipal employees, consultants, volunteers, and other stakeholders through the formation of a Local Planning Committee, as listed below. The local planning committee worked to gather the necessary information to support the plan update and reviewed all drafts.

**Table 11-1: Borough of Milltown Local Planning Committee Members**

Name	Title	Organization
Raymond Geipel	OEM Coordinator	OEM
Michael Marcinczyk	Deputy Coordinator	OEM
Denise Biancamano	Administrator/CFO	Borough
Michael McCellen	Municipal Engineer/Floodplain Administrator	Borough
Eric Steeber	Mayor	Borough
Michael Januszka	Municipal Clerk	Borough



## 2. Community Profile

### 2.1 Physical Location

The Borough of Milltown has a total area of 1.596 square miles and is located in the central region of Middlesex County, New Jersey. It is bordered by North Brunswick on the west and East Brunswick on the east. Primary transportation routes include County Route 617, and there are not major highways through the Borough. New Jersey Transit provides bus service and there is no commuter rail.

#### 2.1.1 Hydrography and Hydrology

Milltown is situated within the Lawrence Brook subwatershed in the Raritan Basin. The Lawrence Brook flows through the center of the Borough, down from Farrington Lake and into Weston's Mill Pond at the northern border of the Borough. Tributaries to the Lawrence Brook, including the Sucker Brook and Bog Brook define the majority of the Borough's southwestern border.

### 2.2 History and Governance

The Borough of Milltown was formally incorporated on January 29, 1889 from portions of North Brunswick. The Borough is governed under the Borough form of government, and has an elected Mayor and six Council members. The Mayor is elected directly to a four-year term of office. Town Council members are elected to serve three-year terms on a staggered basis, with two seats coming up for election every year. The Borough Council holds monthly meetings open to the public where it discusses legislation under consideration.

### 2.3 Demographics

#### 2.3.1 Population Trends

According to the U.S. Census Bureau, the population in 2010 was 6,893.<sup>1</sup> This is a 1.5% decrease from 2000. The Borough of Milltown has a population density of 4,443 persons per square mile. It is the 10th densest municipality within the County. A summary of major population and household characteristics may be found in the following tables.

**Table 11-2: Borough of Milltown Population Summary Estimates (2010 Census)<sup>2</sup>**

Population	Quantity	Percent of Municipal Population
Total Population	6,893	100
Median Age	41.6	N/A
17 years and under	1,502	21.8
65 years and over	1,023	14.8
Race		
White	6,372	92.4

<sup>1</sup> U.S. Bureau of the Census. American Fact Finder "Milltown Borough, NJ". <http://factfinder.census.gov/>. Retrieved 9/8/15.

<sup>2</sup> Ibid.



Population	Quantity	Percent of Municipal Population
Black/African-American	85	1.2
Native American/Alaskan Native	9	0.1
Asian	232	3.4
Native Hawaiian/Pacific Islander	0	0
Other Race (unspecified)	109	1.6
Two or More Races	86	1.2
Hispanic or Latino	445	6.5

Population statistics may further reveal potential vulnerabilities in the community. The following table details the distribution of two groups included in vulnerable population analyses (children and the elderly) according to household description. Residents living alone, particularly the elderly, may have fewer coping mechanisms and resource than those in household groups, therefore may constitute a demographic that could require assistance in mitigating their vulnerability.

**Table 11-3: Borough of Milltown Household Characteristics Summary Estimates (2010 Census) <sup>3</sup>**

Households	Quantity	Percent of Total
Total Households	2,599	100
Family Households (related)	1,916	73.7
Family Households w children under 18	807	31.1
Non-Family Households (unrelated)	682	26.2
Non-Family Households, living alone	538	20.7
Non-Family Households, living alone Male over 65 years	59	2.3
Non-Family Households, living alone Female over 65 years	165	6.3

### 2.3.2 Vulnerable Populations

Vulnerable populations include those groups that may require special assistance, considerations, accommodation or other needs during emergency events to facilitate their effective and safe compliance with emergency instructions. This includes, but is not limited to, those individuals needing mobility assistance (strollers, wheelchairs, etc.), those with financial needs (cannot afford hotel rooms, food, necessities, during evacuation periods, etc.), those requiring translation or interpretation services to understand emergency information (non-English-speaking populations, Deaf and hard of hearing), persons considered legal minors, those persons with cognitive impairments, persons with specialized medical needs (electric dependent equipment, refrigerated medications, use of Personal Assistants for routine and basic care, medical transportation needs, etc.), and populations with social disadvantages other needs that may require unique considerations during emergency events.

Identifiable vulnerable populations in Milltown include (but may not be limited to) the following:

<sup>3</sup> Ibid.



**Table 11-4: Borough of Milltown Vulnerable Population Estimates (2010)**

Population Type	Population Estimate (2010 Census) <sup>4</sup>
Under 5 years of age	397
Under 18 years of age	1,502
Over 65 years of age	1,023
Limited English Proficiency (LEP)	455 (equals 6.8% of population over 5 years old)
Institutionalized	0
Living in Group Quarters	1

In addition to these statistics, approximately 6.6% of the population lives below the poverty line. The mean household income is \$104,437, with the per capita income at approximately \$39,647 (2013 estimates).<sup>5</sup>

## 2.4 Land Use and Development

The Borough of Milltown is an older community with established land use patterns. It is largely developed residential community, with over 91 percent of the assessed parcels classified as residential use. There has been very little development in the Town in the past several years. The Land Use/Land Cover classification by NJDEP shows that the urbanized area in the town may not have changed between 2002 and 2012.

**Table 11-5: Borough of Milltown Land Cover Summary**

Land Cover Class	Percent of Total Land <sup>6</sup>	2002 (acres)	2007 (acres)	2012 (acres)	Percent Change <sup>7</sup>
Agriculture	0	0	0	0	0
Barren Land	0	0	0	0	0
Forest	5.55%	62.43	57.90	56.68	-9.22%
Urban	88.25%	896.70	900.11	901.21	0.50%
Water	2.64%	23.91	26.33	26.91	12.58%
Wetlands	3.57%	38.19	36.89	36.43	-4.61%

<sup>4</sup> Ibid.

<sup>5</sup> U.S. Bureau of the Census. American Fact Finder "Milltown Borough, NJ". <http://factfinder.census.gov/>. Retrieved 9/8/15.

<sup>6</sup> Percent based on acres of land in 2012

<sup>7</sup> Change is calculated between 2002 and 2012



### 2.4.1 Open Space

The Borough of Milltown is a small community with 61 acres of open space. Nearly 30 percent of this land is located within the Special Flood Hazard Area.

### 2.4.2 Buildings and Development

According to the American Community Survey 2009-2013, 5-year estimate, the Borough of Milltown has experienced the least residential development in the County since 2000. Nearly 90 percent of the homes in the town were built before 1979, and are therefore likely to be pre-FIRM.

**Table 11-6: Borough of Milltown Housing Statistics**

Housing Characteristics	Estimate
Total Occupied Housing Units	2,579
Percent Owner-occupied	1,996
Percent Renter-occupied	583
Percent built after 2000	.006%
Percent built before 1979	89.4%

### 2.4.3 Recent and Expected Development

Project Name	Type	Number of Structures	Locations	Known Hazards	Description/Status
Milltown Electric Utility	Utility	1	Washington Ave	None	Relocation of electric utility outside of Special Flood Hazard Area
Ford Avenue Development	Mixed Use	Unknown	Ford Avenue	None	
Milltown Department of Public Works	Garage	1	Washington Ave	None	Relocation of Public Works garage and facilities outside of Special Flood Hazard Area



## **2.5 Critical Facilities and Infrastructure**

### **2.5.1 Essential Facilities**

The Borough of Milltown has

### **2.5.2 Transportation**

The Borough of Milltown sits between Route 1, Route 130, and the New Jersey Turnpike. There is no direct access to any of these roads within the Borough, only local and collector roads. The nearest exit to the Turnpike is at the Route 18 junction, north of the Borough. There is a freight railroad line through Town. Also, NJ Transit operates a bus route in Town. Main Street crosses the Lawrence Brook in the center of the municipality. This is the only road that connects the north and south sections of Town. If this floods, the Town is effectively bisected.

### **2.5.3 Critical Utilities and Infrastructure**

The Borough of Milltown owns and operates its own electric utility. The Borough is currently in the process of relocating the utility out of the floodprone area to minimize future risk. The Borough



### 3. Hazard Identification and Risk Assessment

This section describes the natural hazards and risks that can affect the Borough of Milltown. Like all the other municipalities in Middlesex County, the Borough of Milltown is potentially subject to the effects of all the hazards that are considered in this mitigation plan. However, only a few of these hazards have significant impacts that are unique to the community. The remaining hazards are discussed in detail in the County part of this mitigation plan. FEMA mitigation planning guidance requires that County mitigation plans include a risk assessment section that “assess[es] each jurisdiction’s risks where there vary from the risks facing the entire planning area” (44CFR 201.6 (c) (2) (iii)). Because the Middlesex County HMP update includes separate appendices for each municipality, this requirement is met in the appendices, while risks that affect the entire County uniformly are discussed in the County part of the HMP.

**Table 11-7**  
**Borough of Milltown**  
**Hazard Identification and Prioritization**

<b>Hazard</b>	<b>Priority</b>
Coastal Erosion	L
Dam/Levee Failure	M
Drought	L
Earthquakes	L
Extremely High Temps	L
Extremely Low Temps	L
Floods	H
Hurricanes/Tropical Storms	H
Nor’easters	H
Power Outages	H
Severe Weather	M
Hazardous Substances	L
Wildfire	L
Winter Storm	H

#### 3.1 Background and Hazard Rankings

One of the first steps in developing jurisdictional appendices was for participating municipalities to review and prioritize the hazards that can affect them. This was done based on how often a hazard has occurred, how significant effects have been in the past, the difficulty and cost of recovering from such events. Municipalities ranked the list of hazards as high, medium, low, or no concern.

Table 11-7 shows community hazard rankings. To the extent possible, the level of discussion and detail about specific hazards in this section are based on these rankings. However, in many cases there is insufficient hazard information available at the level of the jurisdiction to allow detailed discussion or risk estimates. For some hazards there is limited jurisdiction-level tabular data included in the County portion of the HMP, and users should refer to those subsections for more detail. The hazards marked with asterisks in the table above are included in this appendix; the others are included in the County portion of this HMP, but not discussed in detail here.



## 3.2 Flood Hazard

### 3.2.1 Type, Location, and Extent

The Borough of Milltown is located in central Middlesex County. As shown in Figure 11-1 below, nearly all the floodplain in this jurisdiction is related to Lawrence Brook, which approximately bisects Milltown in a generally southwest to north direction, eventually emptying into the Raritan River, well north of the municipal boundary. There is another small area of floodplain on Milltown’s southern border – this is called Bog Brook.

One of the best resources for determining flood risk in a jurisdiction is Flood Insurance Rate Maps (FIRMs), which are produced by FEMA. The FIRM is the official map of a community on which FEMA has delineated both the special flood hazard areas (1% annual chance of flooding) and the risk premium zones applicable to the jurisdiction. At the time the Middlesex County HMP was being updated, the effective FIRM for the Borough of Milltown is dated July 6, 2010. While the effective FIRM is the approved map and is used for regulatory purposes, the Middlesex County hazard mitigation plan update was developed in 2015, and the best available flood mapping at that time was the FEMA revised Preliminary Flood Map (released on January 30, 2015). This map is shown below in Figure 11-1.

As shown in Table 11-8 below, a very small percentage of Milltown is comprised of floodplain, and there are few parcels in floodplain areas.

**Table 11-8**  
**Floodplain and Parcel Data for the Borough of Milltown**  
(Source: FEMA Region II, Coastal Analysis and Mapping, Preliminary FIRM, January 2014)

Data Type	Value
Jurisdiction area in square miles	1.59
Square miles within 100-year floodplain	0.12
Jurisdiction area within 100-year floodplain	7.78%
Number of parcels in jurisdiction	3,316
Number of parcels with centroids within 100-year floodplain	21
Parcels with centroids within 100-year floodplain	0.63%

[Note: the table refers to centroids, which are the geographic center of a parcel. This is a better indicator of flood exposure than simple intersection with the floodplain, although it does not necessarily mean that any structures or infrastructure are within the boundaries of the Special Flood Hazard Area].

Current FEMA guidance uses the term *extent* as analogous to potential severity. The extent of flooding in this jurisdiction is minor, on the order of one or two feet in very significant events.

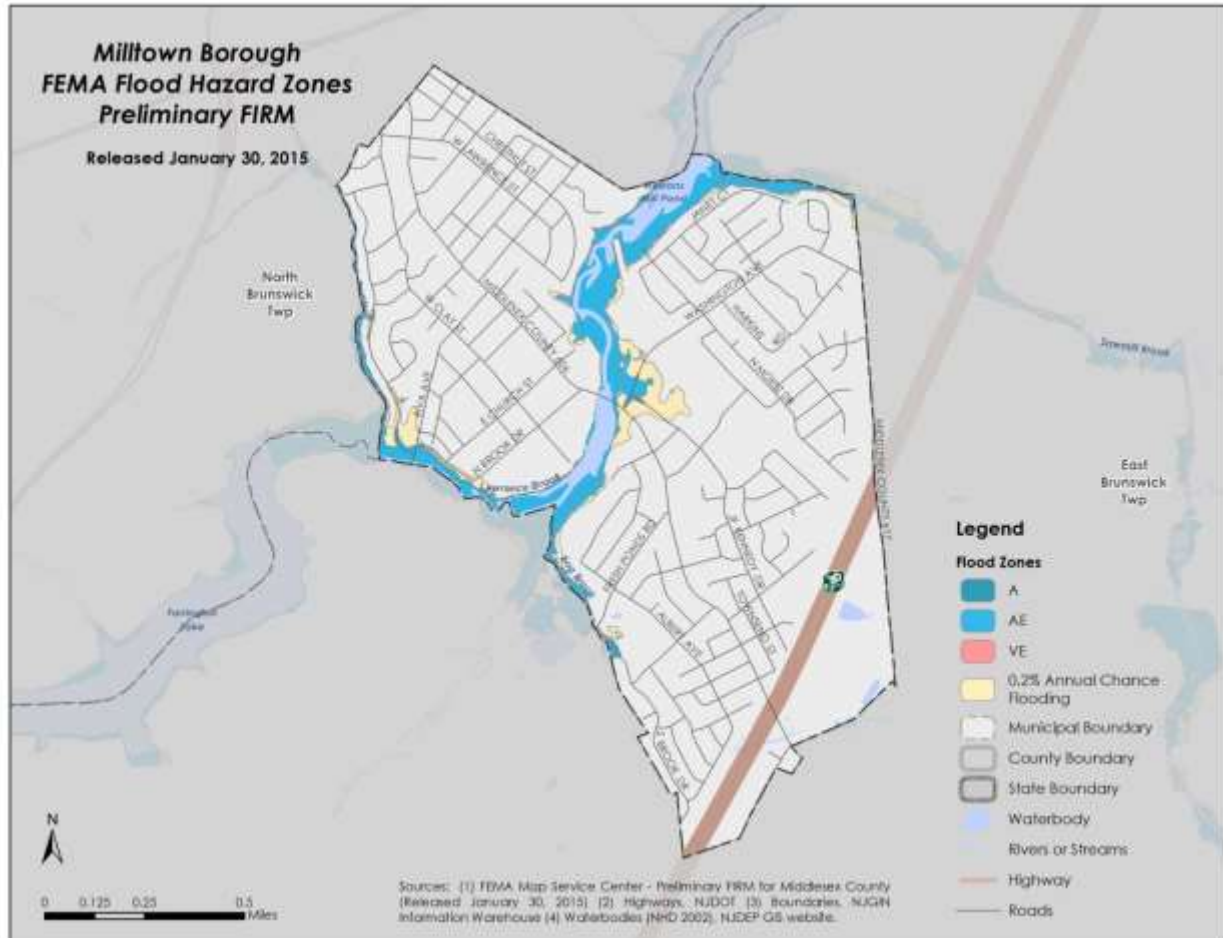
### 3.2.2 Previous Occurrences and the Probability of Future Floods

There have been only a few floods in Milltown in the past. The most significant of these was caused by Tropical Storm Irene (2011) but event that event caused relatively little damage. The probability of future flooding in this jurisdiction is thus presumed to be very small.





**Figure 11-1**  
**Milltown portion of FEMA Revised Preliminary Flood Insurance Rate Map**



(Source: FEMA Region II, Coastal Analysis and Mapping, Preliminary FIRM, January 2014)

### 3.2.3 Flood Impacts and Vulnerabilities to Flooding

Overall, the impacts from past floods in this jurisdiction have been minor. However, as discussed below, a property on Washington Street, north of Lawrence Brook, has generated more than \$6 million in flood insurance claims in the past. Although there are a few other properties that may be at some risk from flooding, for the most part structures in the community are well outside the floodplain and not especially vulnerable to this hazard. The property on Washington Street remains very vulnerable to flooding.

### 3.2.4 National Flood Insurance Program and Repetitive Loss Properties

To provide a sense of the flood risk in a community it is also beneficial to summarize the policies in force and claims statistics from the National Flood Insurance Program (NFIP). There is a discussion of



the NFIP in the County section of this hazard mitigation plan. The Borough of Milltown has been a member of the NFIP since 1981.

**Table 11-9  
NFIP Policies and Claims**

**Number of Parcels:**

Milltown:	3,316
Middlesex County:	283,276

**Number of Policies In-Force:**

Milltown:	52
Middlesex County:	4,489

**Number of Claims:**

Milltown:	20
Middlesex County:	3,478

**Total Paid Claims**

Milltown	\$1,427,840
Middlesex County:	\$109,727,837

**NFIP Repetitive Loss  
(RL) Policies and Claims**

**Repetitive Loss (RL) Properties:**

Milltown:	5
Middlesex County:	429

**Total Building (RL)**

Milltown:	\$6,321,993
Middlesex County:	\$44,015,885

**Total Contents (RL)**

Milltown:	\$0
Middlesex County:	\$5,106,609

**Number of Claims (RL)**

Milltown:	10
Middlesex County:	1,322

**Average Claim (RL)**

Milltown:	\$632,199
Middlesex County:	\$37,158

FEMA NFIP statistics indicate that as of February 2015, federal flood insurance policies were in-force on 52 properties in Milltown. Between 1978 and 2014, there have been a total of 20 NFIP insurance claims in the jurisdiction, with a total claims value of \$1,427,840.<sup>8</sup> Table 11-9 compares the number of policies in-force and paid claims in the jurisdiction. The Table shows that Milltown comprises 1.16% of the NFIP policies in-force in Middlesex County. The average non-repetitive loss insurance claim in Milltown is \$71,392. However, this average is highly skewed by a single insurance claim from Tropical Storm Irene related to flooding on a site on Washington Street. This claim was in excess of \$1.2M.

The Borough of Milltown is not presently a member of the Community Rating System (CRS), a voluntary program for communities participating in the NFIP. The CRS is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements. For CRS participating communities, flood insurance premium rates are discounted in increments of 5% based on creditable activities.<sup>9</sup> CRS communities are ranked between 1 and 10, with Class 1 communities receiving a 45% premium discount.

It should be noted that NFIP claims are not a direct or completely accurate proxy for flood risk in a community. The data does not include flood damages to structures that had no flood insurance. Also, in some cases, structures or contents may have been underinsured. The NFIP claims data also does not include any damages to public facilities, which may be insured via other means (such as self-

insurance or non-FEMA policies); such damages may also be addressed through other federal programs such as FEMA’s Public Assistance Program.

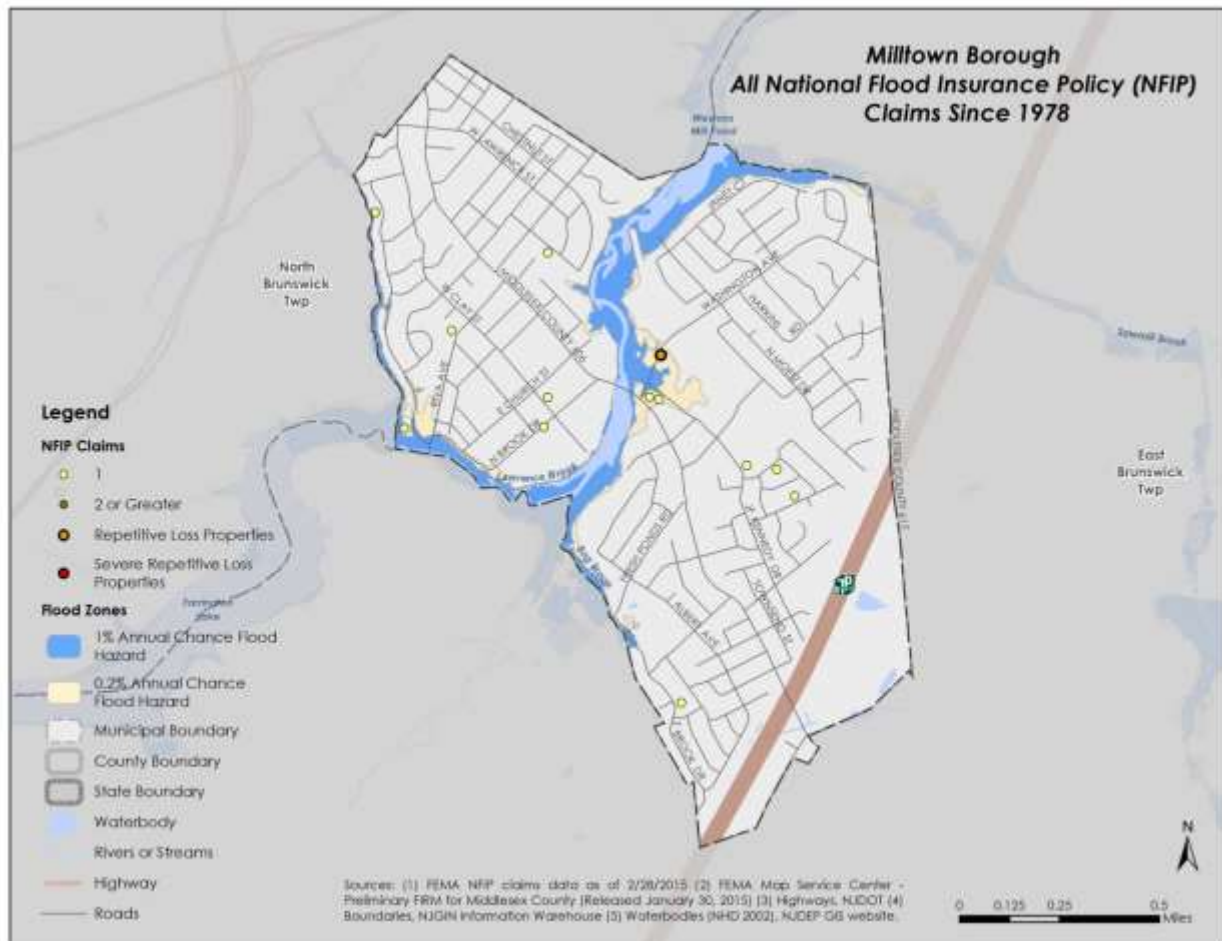
<sup>8</sup> FEMA – Policy and Claim Statistics for Flood Insurance

<sup>9</sup> FEMA – Community Rating System (CRS).



Figure 11-2 shows all NFIP claims in Milltown between 1978 and 2015. The few claims that are evident are all on the east side of Lawrence Brook near the center of the jurisdiction.

**Figure 11-2**  
**Map of NFIP Claims in the Borough of Milltown (1978 to 2015),**  
**Including Repetitive Loss and Severe Repetitive Loss Properties**  
(Source: FEMA National Flood Insurance Program, February 2015)



### 3.2.5 Flood Risk to Repetitive Loss Properties in Milltown

FEMA requires a discussion of NFIP Repetitive Loss and Severe Repetitive flood loss statistics in hazard mitigation plans. In 2012, the Biggert Waters act redefined repetitive loss property as a structure covered by a contract for flood insurance made available under the NFIP that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25% of market value of the structure at the time of each such flood event. This definition is being used to prioritize properties for mitigation funding. The data about Repetitive Loss properties in this subsection are based on the previous definition. Under the revised definition above, Milltown has no RL properties. See Section 4 of the County portion of this HMP for more details on repetitive loss properties in the



County.

The flood risk assessment in this section is based in part on analysis of NFIP data on repetitive flood loss properties. As of February 2014, Middlesex County had 429 such properties based on a query of the FEMA BureauNet NFIP interface. Of this total, five properties were located within Milltown. This comprises 1.2 percent of the County total. Table 11-10 provides a comparison of the residential repetitive loss claims for Middlesex County and Milltown. The tables below include the number of repetitive loss properties, building and contents damages, the total number of claims, and the average claim amounts.

The five repetitive loss properties in Milltown were responsible for a total of ten insurance claims, totaling \$6,321,993. Table 11-10 provides summary repetitive loss statistics for the community. While these few repetitive loss properties comprise a very small percentage of those Countywide (1.2%), the average claim is more than 17 times higher than the average for the rest of the County.

**Table 11-10**  
**Repetitive Loss Statistics in the Borough of Milltown and Middlesex County**  
(Source: FEMA National Flood Insurance Program, February 2015)

City/County Name	Properties	Total Building	Total Contents	Total Losses	# of Claims	Average Claim
Borough of Milltown	5	\$6,321,993	\$0	\$6,321,993	10	\$632,199
Middlesex County	429	\$44,015,885	\$5,106,609	\$49,122,494	1,322	\$37,158

### 3.2.6 Flood Risk to Severe Repetitive Loss Properties in Milltown

Severe Repetitive Flood Loss was also redefined in the Biggert Waters Act as properties that have “incurred flood-related damage for which four or more separate claims payments have been made under flood insurance coverage under this title, with the amount of each claim exceeding \$5,000, and with the cumulative amount of such claims payments exceeding \$20,000; or for which at least two separate claims payments have been made under such coverage, with the cumulative amount of such claims exceeding the value of the insured structure.” The data about Severe Repetitive Loss properties in this subsection are based on the previous definition. Under the revised definition above, Milltown has no SRL properties.

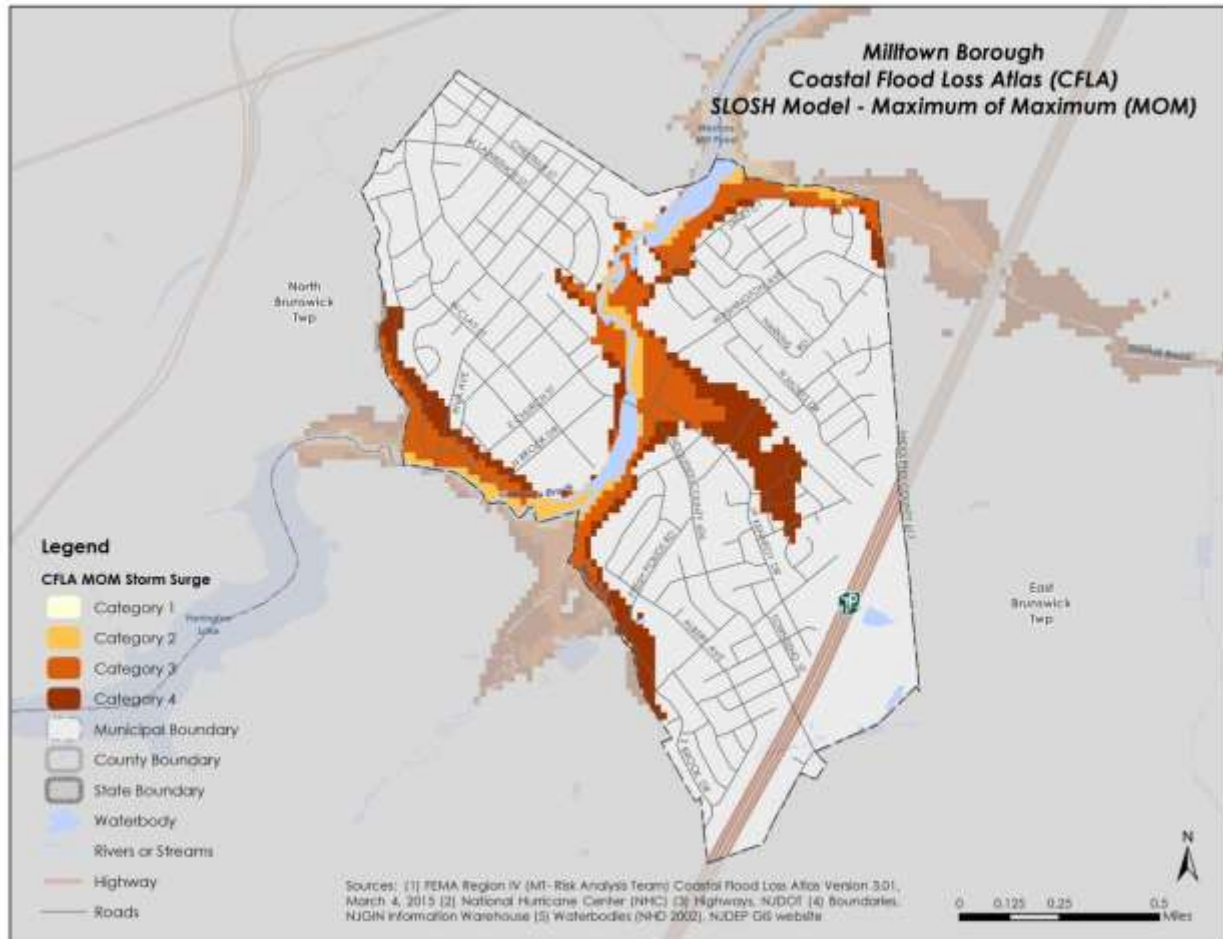
### 3.2.7 Storm Surge

Of the 25 jurisdictions in Middlesex County, 13 have some risk from storm surge. Potential surge in Milltown is related to Lawrence Brook, which drains north to the Raritan River. However, it is useful to discuss statistics that are clearly related to surge. Various studies and GIS analysis provide information about the jurisdiction’s exposure to various levels of storm surge.

Figure 11-3 is a map of storm surge zones 1 through 4 in Milltown. Category 1 events impact an area substantially similar to the Special Flood Hazard Areas. Even in events up to Category 4, only a relatively limited area of the jurisdiction is impacted by surge.



**Figure 11-3**  
**Map of Storm Surge Zones, Categories 1-4, Borough of Milltown**



SLOSH inundation zones from the FEMA Coastal Flood Loss Atlas (CFLA) were used to complete the storm surge vulnerability assessment for Milltown. The initial analysis included calculating the land area and parcels within Categories 1 - 4 for the jurisdiction. This portion of the risk assessment approach matches the vulnerability assessment completed for the State of New Jersey 2014 Hazard Mitigation Plan. Knowing the land area within each zone can help determine the overall impact to buildings and other infrastructure in the region a result of storm surge. Table 11-11 provides basic exposure information.



**Table 11-11**  
**Storm Surge Exposure Statistics for the Borough of Milltown**

Storm Surge Category	Square Miles Impacted	Parcels Exposed
1	0.00	0
2	0.065	12
3	0.183	155
4	0.295	289

There is no reliable open-source information that allows assignment of specific probabilities to surge categories, so certain assumptions must be made in order to complete a risk assessment. The next table shows the assumptions used in a simple risk calculation for storm surge.

**Table 11-12**  
**Assumptions for Storm Surge Risk Assessment, Borough of Milltown**

Data Type	Value
Structures per parcel	1
Structure replacement value/s.f.	\$150
Contents replacement value/s.f.	\$75
Assumed square footage of average structure	2,000

The risk assessment is then based on FEMA depth-damage functions, i.e. indications of the percentage damage at a given flood depth for structure and contents. The main section of the mitigation plan includes a detailed description of the methodology. The results are intended only to provide a general sense of potential losses.

**Table 11-13**  
**Flood Risk in Storm Surge Scenarios, Borough of Milltown**

	Category 1	Category 2	Category 3	Category 4
Assumed annual probability	2%	1%	0.5%	0.01%
Assumed flood depth (feet)	1	2	3	4
Number of parcels impacted	0	12	155	289
Scenario risk	\$0	\$1,566,000	\$20,227,500	\$37,714,500
Annual risk	\$0	\$15,660	\$101,138	\$37,715
100-year risk	\$0	\$223,468	\$1,443,232	\$538,186



### 3.3 Hurricanes and Tropical Storms

Based on input from the hazard ranking process, Milltown considers hurricanes and tropical storms significant hazards, and thus there is a short discussion in the present subsection.

#### 3.1 Wind Risk Estimates

There are three significant hazards related to hurricanes, tropical storms, and to a lesser extent, nor'easters. These are: floods, storm surge, and high winds. Both floods and storm surge are addressed in the flood section of the present municipal appendix, as well as the County section of the hazard mitigation plan update. This subsection provides a preliminary quantification of hurricane wind risk based that was generated by FEMA's HAZUS-MH software (version 2.1, 2014). The calculations in Table 11-14 show a range of loss categories across the top row versus "occupancy classes" on the first column. The occupancy classes are various land uses that are represented in HAZUS. The last two columns indicate the projected 50-year and 100-year risks, i.e. the total amount of damage over those planning horizons. The figures are based on annualizing losses, then discounting them to present value using the software. There is more detailed information about the calculations and Countywide results in the main section of this HMP update.

#### 3.2 FEMA Project Worksheets from Tropical Storm Irene and Hurricane Sandy

Following many natural disasters, FEMA engineers and field teams complete formal assessments of damage to community assets, and document these in project worksheets (PWs). The PWs are the basis of FEMA Public Assistance grants for repairs. There are seven categories of damage, indicated by the letters A through G. These are: A – debris removal; B – emergency protective measures; C – roads and bridges; D – water control facilities; E – public buildings; F – utilities, and; G – recreational facilities/other. The categories and amounts of the PWs are listed in Table 11-15 below for Tropical Storm Irene and Hurricane Sandy. Note that in some cases there are multiple different organizations in a community that are applicants for FEMA Public Assistance. In order to simplify the table, the PW amounts for all applicants in a community are combined.



**Table 11-14**  
**Probabilistic Wind Risk in Milltown, 50- and 100-year Planning Horizons**  
(Source: FEMA, HAZUS-MH version 2.1)

Occupancy Class	Total SF	Building Damages	Contents Damages	Inventory Loss	Relocation Cost	Business Income Loss	Rental Loss	Lost Wages
Residential	3,837,767	\$86,436	\$29,890	\$0	\$5,199	\$1	\$2,111	\$3
Commercial	878,010	\$6,939	\$2,967	\$73	\$1,115	\$985	\$653	\$984
Industrial	219,033	\$1,581	\$1,149	\$209	\$88	\$25	\$18	\$42
Agricultural	8,910	\$66	\$33	\$4	\$10	\$1	\$0	\$0
Religious	87,498	\$781	\$269	\$0	\$109	\$59	\$10	\$138
Government	19,700	\$142	\$74	\$0	\$31	\$1	\$7	\$166
Education	36,300	\$253	\$103	\$0	\$46	\$11	\$2	\$26
<b>Totals</b>	<b>5,087,218</b>	<b>\$96,197</b>	<b>\$34,484</b>	<b>\$286</b>	<b>\$6,599</b>	<b>\$1,083</b>	<b>\$2,801</b>	<b>\$1,360</b>

**Table 11-14**  
**Probabilistic Wind Risk in Milltown, 50- and 100-year Planning Horizons**  
(Source: FEMA, HAZUS-MH version 2.1)

Occupancy Class	Total Annualized Loss	50-year Risk	100-year Risk
Residential	\$123,641	\$1,706,368	\$1,764,232
Commercial	\$13,716	\$189,301	\$195,721
Industrial	\$3,111	\$42,941	\$44,397
Agricultural	\$115	\$1,581	\$1,635
Religious	\$1,366	\$18,853	\$19,492
Government	\$421	\$5,807	\$6,004
Education	\$440	\$6,071	\$6,277
<b>Totals</b>	<b>\$142,810</b>	<b>\$1,970,922</b>	<b>\$2,037,758</b>

**Table 11-15**  
**FEMA Public Assistance Expenditures in Tropical Storm Irene and Hurricane Sandy, by Category**  
(Source: FEMA Region II, Public Assistance)

Event Name/Public Assistance Category	A	B	C	D	E	F	G	Total
Tropical Storm Irene	\$47,541	\$105,866	\$0	\$0	\$256,633	\$219,658	\$2,500	\$632,198
Hurricane Sandy	\$95,082	\$211,733	\$0	\$0	\$513,267	\$439,316	\$0	\$1,264,397
<b>Total</b>	<b>\$142,623</b>	<b>\$317,599</b>	<b>\$0</b>	<b>\$0</b>	<b>\$769,900</b>	<b>\$658,973</b>	<b>\$2,500</b>	<b>\$1,896,595</b>





## 4. Capability Assessment

Each community within the planning area has a unique set of capabilities and priorities that affect its mitigation strategy. The following tables detail the capabilities assessed for the Township of Cranbury during this plan update.

### 4.1 Planning and Regulatory

Tool / Program (code, ordinance, plan)	Yes/No	Code Citation and Comments
Master Plan	Y	
Capital Improvements Plan	Y	
Floodplain Management / Basin Plan	Y	
Stormwater Management Plan	Y	
Open Space Plan	N	
Stream Corridor Management Plan	N	
Watershed Management or Protection Plan	Y	
Economic Development Plan	N	
Comprehensive Emergency Management Plan	N	
Emergency Operation Plan	Y	
Post-Disaster Recovery Plan	N	
Transportation Plan	N	
Strategic Recovery Planning Report	N	
Zoning Ordinance	Y	
Subdivision Ordinance	Y	
NFIP: Cumulative Substantial Damages	N	
Growth Management Ordinances	N	
Site Plan Review Requirements	Y	
Stormwater Management Ordinance	Y	
Municipal Separate Storm Sewer System (MS4)	Y	
Combined Sewer Overflows (CSO)	N	
Natural Hazard Ordinance	N	
Post-Disaster Recovery Ordinance	N	
Real Estate Disclosure Requirement	N	
Other [Special Purpose Ordinances (i.e., sensitive areas, steep slope)]		

### 4.2 Staff/Personnel

Resources	Is this in place? (Y/N)	Department/ Agency/Position
Planning Board	Y	
Mitigation Planning Committee	N	
Environmental Board/Commission	Y	
Open Space Board/Committee	N	
Economic Development Commission/Committee	N	
Maintenance Programs to Reduce Risk	N	
Mutual Aid Agreements	Y	
Planner(s) or Engineer(s) with knowledge of land development and land management practices	Y	
Engineer(s) or Professional(s) trained in construction practices related to buildings and/or infrastructure	Y	



Resources	Is this in place? (Y/N)	Department/ Agency/Position
Planners or engineers on staff with a strong understanding of natural hazards	Y	
NFIP Floodplain Administrator	Y	
Surveyors	Y	
GIS layers and maps	N	
Personnel trained in GIS	N	
Personnel trained in HAZUS	N	
Emergency Manager	Y	
Grant Writer	N	
Staff with expertise in cost/benefit analysis	Y	
Professionals trained in conducting damage assessments	Y	

### 4.3 Education/Outreach and Community Classifications

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

### 4.4 Fiscal Capabilities

	Yes/No
Do you have a line item in your operating budget for mitigation project funding?	N
If no, will you look at mitigation actions when allocating funding in the future?	Y
Do you have a line item in the Capital Improvement Budget for mitigation project funding?	N
Have you provided funding for mitigation projects identified in the hazard mitigation plan?	Y
Does your town have the authority to Levy Taxes for specific purposes?	Y
Does your town have user fees for water, sewer, gas or electric service?	Y
Do you impose impact Fees for homebuyers or developers of new development/homes?	N
Does your community have an open space acquisition fund?	N
Do you use bonds to finance projects (general obligation bonds, special tax bonds, private activity bonds)	Y



## 5. Mitigation Strategy

This section describes what projects, initiatives, and other actions the Borough has undertaken or plans to implement to reduce risk and loss within its jurisdiction. This includes the status of previously identified actions and any other projects that have been completed since the 2010 Plan was adopted. The additional actions were determined by the LPC based on self-determined priorities and experience.

### 5.1 Past Mitigation Actions

The table below lists the mitigation projects and actions that were included in the original 2010 Plan.

Mitigation Action	Responsible Party	Status	Review Comments
Milltown 1: Repair and retrofit of main Street Dam	Milltown Borough OEM	Main Street Dam is under private ownership and with the exception of alerting, evacuation, etc. The Borough has no ownership interest.	No project planned at this time.
Milltown 2: Relocation of Municipal Electrical Substation	Milltown Borough OEM	Construction of the new sub-station began in early 2015. Anticipated is set for September 2015.	
Milltown 3: Relocate Police/DPW Garage to out of Floodplain.	Milltown Borough OEM	Acquisition of property has been completed, building design is underway.	

### 5.2 Other Mitigation Activities

In addition to the above actions, the Borough put in a generator to back-up power in Municipal Building. There is also a generator project for the Senior Center in process, the funding is in place.

### 5.3 Proposed Mitigation Actions

The table below details the mitigation initiatives the Borough of Milltown would like to pursue to minimize future effects of hazard events. These actions have been determined through a local assessment of current risk and needs. The LPC met with the Plan Consultant to review all hazard and risk assessment data and evaluate the strategy. These initiatives are dependent upon funding and may change based on municipal priorities and future hazard events.

For each new mitigation action, the Borough has ranked as ‘High’, ‘Medium’, or ‘Low’, based on the evaluation criteria outlined in Section 5.



Proposed Action	Anticipated Benefits	Responsible Party	Funding or Implementation Mechanism	Timeline	Priority
Install generator in library as designated warming/cooling station	Allow for municipal operations during power outages.	Administration	Grants/Capital Funds	1-2 years	High
Replace generator in Main Street firehouse	Ensure emergency response capabilities during hazard events.	Administration	Grants/Capital Funds	1-2 years	Medium
Pursue I/I study to determine potential improvements	Reduce infiltration and inflow, minimize	Public Works	Grants/Capital Funds	1-2 years	Medium
Investigate options to remove impoundments and improve drainage under Main Street to mitigate repetitive loss properties.	Restore floodplain to FIRM limits and mitigate flooding for repetitive loss area.	Engineering	Grants/Capital Funds	1-3 years	Medium



## 6. Plan Implementation

The LPC shall document, as needed and appropriate:

- Hazard events and losses in Milltown and the effects that mitigation actions have had on impacts and losses,
- Progress on the implementation of mitigation actions, including efforts to obtain outside funding for projects,
- Any obstacles or impediments to the implementation of actions,
- Additional mitigation actions believed to be appropriate and feasible,
- All public and stakeholder input and comment on the Plan that has been received by the Borough.
- Copies of any grant applications filed on behalf of the Borough

### Continued Public Input

The Borough of Milltown is committed to incorporating public input into its ongoing hazard mitigation planning. The public will have an opportunity to comment on the Plan prior to any changes and during the 5-year plan update. The annual progress reports will be posted on the County mitigation website in addition to the adopted Plan.

All public comments and input on the plan will be recorded and addressed, as appropriate. Opportunity to comment on the plan will be provided directly through the County's website. Public comments can also be submitted in writing to the County's HMP Coordinator. All public comments shall be addressed to: Middlesex County Office of Emergency Management c/o All Hazards Pre-disaster Mitigation Plan Coordinator, 1001 Fire Academy Drive, Sayreville, NJ 08872.

The Borough of Milltown's LPC shall ensure that:

- Copies of the latest approved Plan are available for review at Borough Hall along with instructions to facilitate public input and comment on the Plan.
- Public notices are made as appropriate to inform the public of the availability of the Plan, particularly during Plan update cycles.
- For minor changes to this appendix, the Borough of Milltown will post a notice on the Borough's website and invite the public to review and comment.
- For major changes involving Borough Council approval, the Borough will use its standard public notice procedures inviting the public to review the document and provide feedback.

### Plan Adoption

On [insert date] Middlesex County submitted the initial draft of the 2015 Plan Update to NJOEM for review and comment. After addressing NJOEM comments in the document, the HMP was resubmitted



for final consideration and approval by NJOEM and FEMA. FEMA approved the plan on [insert date], and the Plan update was forwarded to the Middlesex County Board of Chosen Freeholders for adoption, which occurred on [insert date].

The Borough Council approved the plan on [insert date]. The Borough resolution for adoption is provided below, the County's adoption resolution is provided as Appendix F of the 2014 HMP update. Following adoption, the plan update was resubmitted to FEMA for final approval, which occurred on [insert date]. The FEMA approval letter is included as Appendix G.

## Plan Maintenance

The Borough of Milltown will review this Appendix of the County's hazard mitigation plan appendix each year and give the County's HMP Coordinator an annual progress report. The OEM Coordinator is responsible for convening the LPC, initiating the plan review, and submitting the annual progress report. The LPC may use worksheets #1 and #3 in the FEMA 386-4 guidance document, to facilitate the review and progress report. FEMA guidance worksheets are provided in Appendix H. Local progress reports shall be provided to the County HMP Coordinator at least two weeks prior to the annual plan review meeting.

Additionally, the LPC will convene and review the plan when major hazard events impact the jurisdiction, potentially yielding opportunities for mitigation grant funding, or when new information suggests that plan elements do not accurately reflect the community's risk or its mitigation priorities.

If necessary, the OEM Coordinator will convene a meeting of the LPC to review and approve all changes. The Borough retains the discretion to implement minor changes to the document without formal procedures involving the Borough Council subject to local policies and regulations.

In addition to the annual progress report, the Borough of Milltown will provide Middlesex County with a copy of the written notice of any changes to the jurisdictional appendix at the time such changes are implemented.