



Appendix 8: Borough of Jamesburg

The Borough of Jamesburg 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 July 22, 2014, the Borough Administrator signed an “Intent to Participate” letter and assigned a point of contact for the HMP update. This individual 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 filled out the municipal worksheets included in Appendix E and worked to gather the necessary information to support the plan update.

Table 8-1: Borough of Jamesburg Local Planning Committee Members

Name	Title	Organization
Denise Jawidzik	Administrator	Jamesburg Borough
Brian Wright	OEM Coordinator	Jamesburg OEM



2. Community Profile

2.1 Physical Location

The Borough of Jamesburg has a total area of 0.883 square miles and is located in the south-central region of Middlesex County, New Jersey. It is completely surrounded by Monroe Township.

2.1.1 Hydrography and Hydrology

The Borough of Jamesburg is located within the Manalapan Watershed, within the Raritan Basin. The Borough borders Manalapan Lake and there are a few tributaries to the Manalapan Brook that flow through and adjacent to the Borough. One of these tributaries is the Wigwam Brook, the others have not been named by the New Jersey Department of Environmental Protection.

2.2 History and Governance

The Borough of Jamesburg was formally incorporated on March 19, 1887 from portions of Monroe Township. 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 5,915.¹ This is a 1.8% decrease from 2000. The Borough of Jamesburg has a population density of 6, 741.8 persons per square mile. It is the 5th densest municipality within the County. A summary of major population and household characteristics may be found in the following tables.

Table 8-2: Borough of Jamesburg Population Summary Estimates (2010 Census)²

Population	Quantity	Percent of Municipal Population
Total Population	5,915	100
Median Age	35.9	N/A
17 years and under	1,497	25.3
65 years and over	501	8.5
Race		
White	4,371	71.9
Black/African-American	523	8.8
Native American/Alaskan Native	50	0.8
Asian	268	4.5

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

² Ibid.



Population	Quantity	Percent of Municipal Population
Native Hawaiian/Pacific Islander	0	0
Other Race (unspecified)	557	9.4
Two or More Races	146	2.5
Hispanic or Latino	1,324	22.4

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 8-3: Borough of Jamesburg Household Characteristics Summary Estimates (2010 Census)³

Households	Quantity	Percent of Total
Total Households	2,172	100
Family Households (related)	1,492	68.7
Family Households w children under 18	781	36.0
Non-Family Households (unrelated)	680	31.3
Non-Family Households, living alone	560	25.8
Non-Family Households, living alone Male over 65 years	45	2.1
Non-Family Households, living alone Female over 65 years	110	5.1

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.

³ Ibid.



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

Table 8-4: Borough of Jamesburg Vulnerable Population Estimates (2010)

Population Type	Population Estimate (2010 Census) ⁴
Under 5 years of age	505
Under 18 years of age	1,497
Over 65 years of age	501
Limited English Proficiency (LEP)	636 (equals 12.3% of population over 5 years old)
Institutionalized	0
Living in Group Quarters	14

In addition to these statistics, approximately 10.8% of the population lives below the poverty line. The mean household income is \$71,400, with the per capita income at approximately \$27,550 (2013 estimates).⁵

2.4 Land Use and Development

The Borough of Jamesburg is an established community with nearly 90 percent of its land considered to be “urban”. It has experienced very little growth in the past twenty years, compared to the significant growth seen in the surrounding community of Monroe. Since 2010, the town has reported one major development of 45 residential units. Residential units account for approximately 84 percent of the assessed parcels within the Borough. Commercial properties are estimated to be about 5 percent of the parcels within the town. There are no agricultural properties in the Borough.

Table 8-5: Borough of Jamesburg Land Cover Summary

Land Cover Class	Percent of Total Land ⁶	2002 (acres)	2007 (acres)	2012 (acres)	Percent Change ⁷
Agriculture	0	0	0	0	0
Barren Land	0.01%	0.13	0.07	0.07	-44.81%
Forest	7.57%	51.84	43.87	43.18	-16.71%
Urban	89.34%	460.74	508.83	509.52	10.59%
Water	1.15%	6.45	5.80	6.55	1.56%
Wetlands	1.93%	51.15	11.74	10.99	-78.51%

⁴ Ibid.

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

⁶ Percent based on acres of land in 2012

⁷ Change is calculated between 2002 and 2012



2.4.1 Open Space

The Borough borders Thompson Park, but has very little preserved land outside of the park. The Borough has an estimated X acres of open space, X percent of which is within the Special Flood Hazard Area. There is Buckelew Park, which houses the historic Lakeview Mansion. There is also a small municipal park in town. The area adjacent to the streams remains undeveloped, but it is not preserved and is therefore not included in this calculation.

2.4.2 Buildings and Development

The Borough of Jamesburg has an older housing stock, consistent with its character of a rural hamlet community. Approximately 76 percent of the homes in the Borough were built before 1979. The ratio of renter-occupied to owner-occupied homes is higher than average within the County. Approximately 41 percent of the units within the Borough are renter-occupied, compared to the median of 30.3 percent in the County.

Table 8-6: Borough of Jamesburg Housing Statistics

Housing Characteristics	Estimate
Total Occupied Housing Units	2,260
Percent Owner-occupied	58.6
Percent Renter-occupied	41.4
Percent built after 2000	3.6
Percent built before 1979	76.4

2.4.3 Recent and Expected Development

Project Name	Type	Number of Structures	Locations	Known Hazards	Description/Status
Brookside Village	Residential	42	Lake Street	Unknown	80% complete



2.5 Critical Facilities and Infrastructure

2.5.1 Essential Facilities

The Borough of Jamesburg operates a municipal building, police department – generator and w/c and EOC, addressed flooding with drainage project, volunteer fire department with a fire headquarters used as EOC, has generator, library, senior citizens center, flooding issues in basement, drainage, and rescue squad has generator. The Borough did not experience damage to any public facilities in the last five years and none of the facilities are located in a known hazard area. The Borough did file for public assistance for Buckelew Mansion, which is a historic building within the Buckelew Park. It is adjacent to Lake Manalapan and may be at risk for future flood events.

2.5.2 Transportation

Primary transportation routes include County Routes 522, 612, 615, and 625. There are no commuter rails in Jamesburg.

2.5.3 Critical Utilities and Infrastructure

The Borough is serviced by JCP&L for electricity. The town reports that service is reliable and only experiences outages during major storm events. New Jersey American Water provides the water service, and wastewater is managed by the Borough. The Borough is responsible for the sewer infrastructure.



3. Hazard Identification and Risk Assessment

This section describes the natural hazards and risks that can affect the Borough of Jamesburg. Like all the other municipalities in Middlesex County, Jamesburg 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 I (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.

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 8-7 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.

Table 8-7
Borough of Jamesburg
Hazard Identification and Prioritization

Hazard	Priority
Coastal Erosion	Low
Dam/Levee Failure*	Low
Drought	High
Earthquakes	Low
Extremely High Temps	Medium
Extremely Low Temps	Low
Floods*	High
Hurricanes/Tropical Storms*	High
Nor’easters	High
Power Outages	High
Severe Weather	High
Hazardous Substances	Medium
Wildfire*	Low
Winter Storm	High

3.2 Flood Hazard

3.2.1 Type, Location, and Extent

The Borough of Jamesburg is located in south-central Middlesex County, and is entirely surrounded by the Township of Monroe.



As shown in Table 8-8 below, a major contributing factor is that a relatively large percentage of the jurisdiction is within the floodplain, and there is development in a significant part of those areas. The only flood source of any significant in the community is the Manalapan Brook, which enters the community at its northern border, slightly east of center, and winds in a generally southwest direction.

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 Jamesburg 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 8-1. Nearly all the floodplain in the community is related to Manalapan Brook and an eastern tributary.

As shown in Table 8-8, Jamesburg comprises less than one square mile, and has relatively little area in the floodplain. Only slightly more than five percent of parcels in the jurisdiction have centroids in the floodplain, suggesting limited flood risk.

Table 8-8
Floodplain and Parcel Data for the Borough of Jamesburg
(Source: FEMA Region II, Coastal Analysis and Mapping, Preliminary FIRM, January 2015)

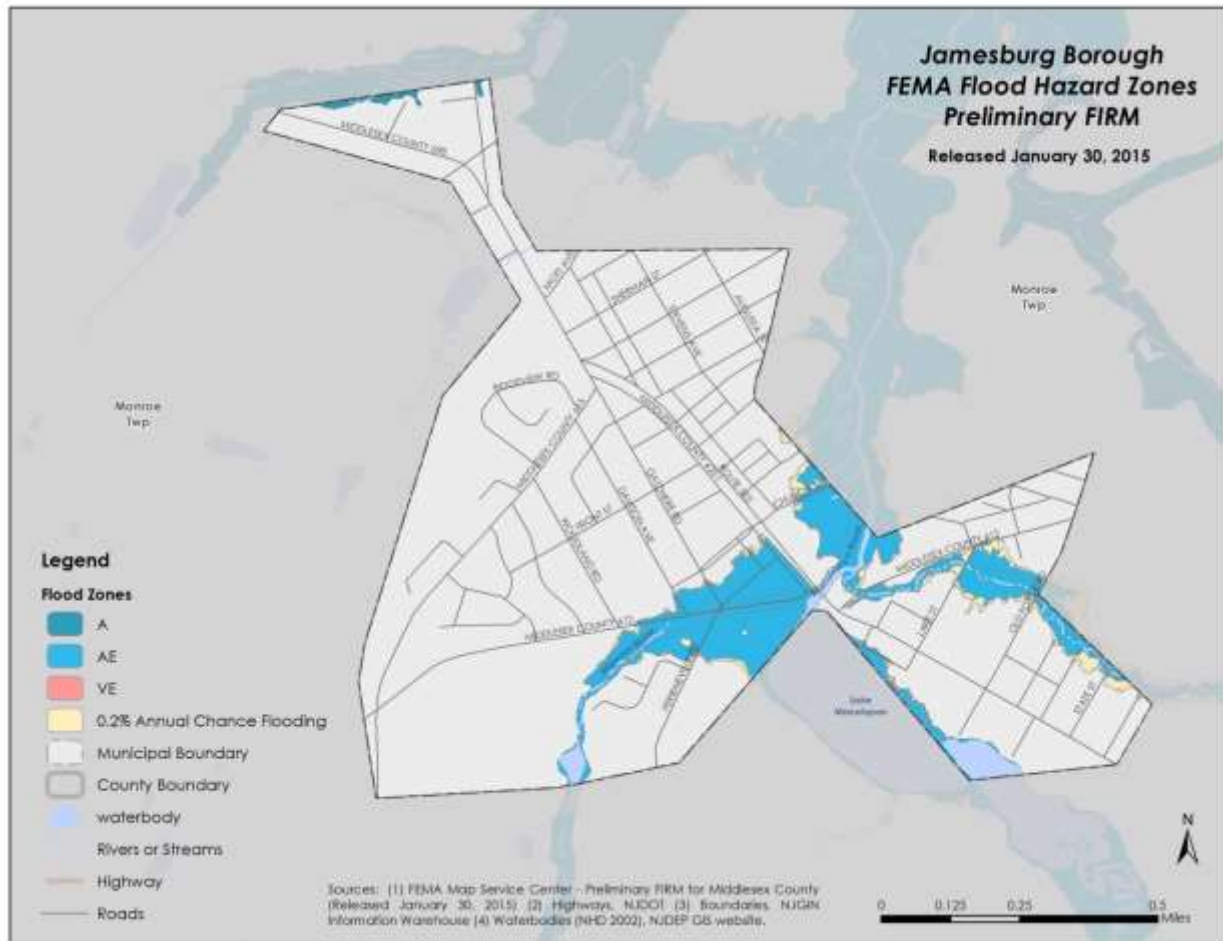
Data Type	Value
Jurisdiction area in square miles	0.89
Square miles within 100-year floodplain	0.10
Jurisdiction area within 100-year floodplain	11.14%
Number of parcels in jurisdiction	2,013
Number of parcels with centroids within 100-year floodplain	107
Parcels with centroids within 100-year floodplain	5.32%

[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 the flood hazard in Jamesburg is moderate. NFIP claims records show that the average claim amount in Jamesburg is slightly below the County average. As noted elsewhere, many of the claims in this community were related to Tropical Storm Irene, in 2011. Presumably, flood depths of several feet were experienced in certain parts of the community near Manalapan Brook, and this characterizes the extent of flooding.



Figure 8-1
Jamesburg portion of FEMA Revised Preliminary Flood Insurance Rate Map
(Source: FEMA Region II, Coastal Analysis and Mapping, Preliminary FIRM, January 2015)



3.2.2 Previous Occurrences and the Probability of Future Floods

As noted above, most of the flooding in this jurisdiction appears to be related to Tropical Storm Irene, - although there are a few isolated insurance claims from other and presumably smaller events. The probability of significant future floods in the community is relatively low. Analysis of floodplain maps and insurance claims suggests very little history of flooding from any sources other than the river.

3.2.3 Flood Impacts and Vulnerabilities to Flooding

With the exception of Tropical Storm Irene, the impacts from past floods in this jurisdiction have been relatively minor, with only a few specific areas having any significant exposure. While impacts to specific properties were significant in Irene, the effects were not widespread. There appears to be some flood vulnerability in the community, but it is localized, and not especially severe compared to many other areas of the County.



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 Jamesburg has been a member of the NFIP since 1984.

**Table 8-9
NFIP Policies and Claims**

Number of Parcels:	
Jamesburg:	2,013
Middlesex County:	283,276
Number of Policies In-Force:	
Jamesburg:	39
Middlesex County:	4,489
Number of Claims:	
Jamesburg:	29
Middlesex County:	3,478
Total Paid Claims	
Jamesburg:	\$756,064
Middlesex County:	\$109,727,837
Repetitive Loss (RL) Properties:	
Jamesburg:	4
Middlesex County:	429
Total Building (RL)	
Jamesburg:	\$160,157
Middlesex County:	\$44,015,885
Total Contents (RL)	
Jamesburg:	\$2,376
Middlesex County:	\$5,106,609
Number of Claims (RL)	
Jamesburg:	9
Middlesex County:	1,322
Average Claim (RL)	
Jamesburg:	\$18,059
Middlesex County:	\$37,158

FEMA NFIP statistics indicate that as of February 2014, federal flood insurance policies were in-force on 39 properties in Jamesburg. Between 1978 and 2015, there have been a total of 29 NFIP insurance claims in the Borough, with a total claims value of \$756,064.⁸ Table 8-9 compares the number of policies in-force and paid claims in the jurisdiction. The Table shows that Jamesburg comprises less than one percent of the NFIP policies in-force in Middlesex County. The amount of the average claim in Jamesburg is about half that of the overall County, which is \$31,549.

The Borough of Jamesburg 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.⁹ 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.

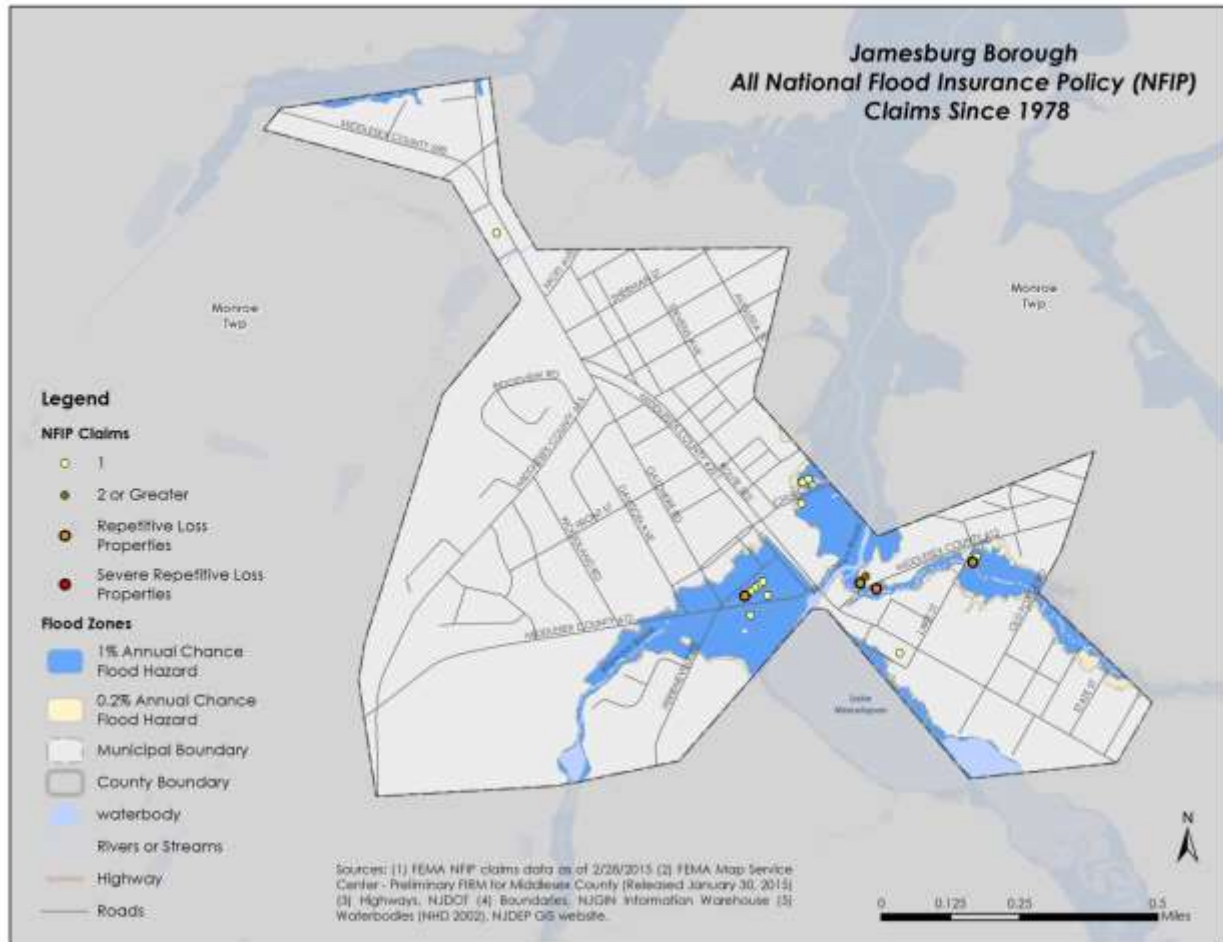
⁸ FEMA – Policy and Claim Statistics for Flood Insurance

⁹ FEMA – Community Rating System (CRS).



Figure 8-2 shows all NFIP claims in Jamesburg between 1978 and 2015. Claims are concentrated in a few small areas near the Manalapan Brook and its eastern tributary.

Figure 8-2
Map of NFIP Claims in the Borough of Jamesburg (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 Jamesburg

FEMA requires a discussion of NFIP Repetitive Loss and Severe Repetitive flood loss statistics in hazard mitigation plans. A repetitive loss property is 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.

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, four properties were located within Jamesburg; this comprises less than one percent of the County total. (Note that the data about Repetitive Loss



properties in this subsection are based on the previous definition. Under the revised definition, Middlesex County has 47 RL properties, and Jamesburg no RL properties.)

Table 8-10 provides a comparison of the residential repetitive loss claims for Middlesex County and Jamesburg. 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 four repetitive loss properties in Jamesburg were responsible for a total of nine insurance claims, totaling \$18,059. Table 8-9 provides summary repetitive loss statistics for the community. Not only does Jamesburg comprise a disproportionate number of insurance claims, but as the table shows, the average amounts of claims are above the County average.

Table 8-10
Repetitive Loss Statistics in the Borough of Jamesburg 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 Jamesburg	4	\$160,157	\$2,376	\$162,533	9	\$18,059
Middlesex County	429	\$44,015,885	\$5,106,609	\$49,122,494	1,322	\$37,158

The next table provides the results of a simple risk projection for repetitive loss properties. This is done by annualizing past insurance claims and using this as the basis for estimating future losses. This method employs standard FEMA statistical techniques, and may be used for developing a sense of flood risk, i.e. total future losses over the 100-year planning horizon. The results below should be considered general and preliminary. It is possible to complete more accurate risk assessments for specific projects using FEMA software and methodologies, combined with information about sites and facilities.

Table 8-11
100-Year Risk Projection for NFIP Repetitive Loss Properties in the Borough of Jamesburg

Data	Value
Period in years	32
Number of claims	9
Average claims per year	0.28
Total value of claims	\$162,533
Average value of claims per year	\$5,079
Projected risk, 100-year horizon	\$72,479

3.2.6 Flood Risk to Severe Repetitive Loss Properties in Jamesburg

The definition of Severe Repetitive Flood Loss (SRL) is included in the County portion of this mitigation plan. As of February 2015, there were no SRL properties in Jamesburg.



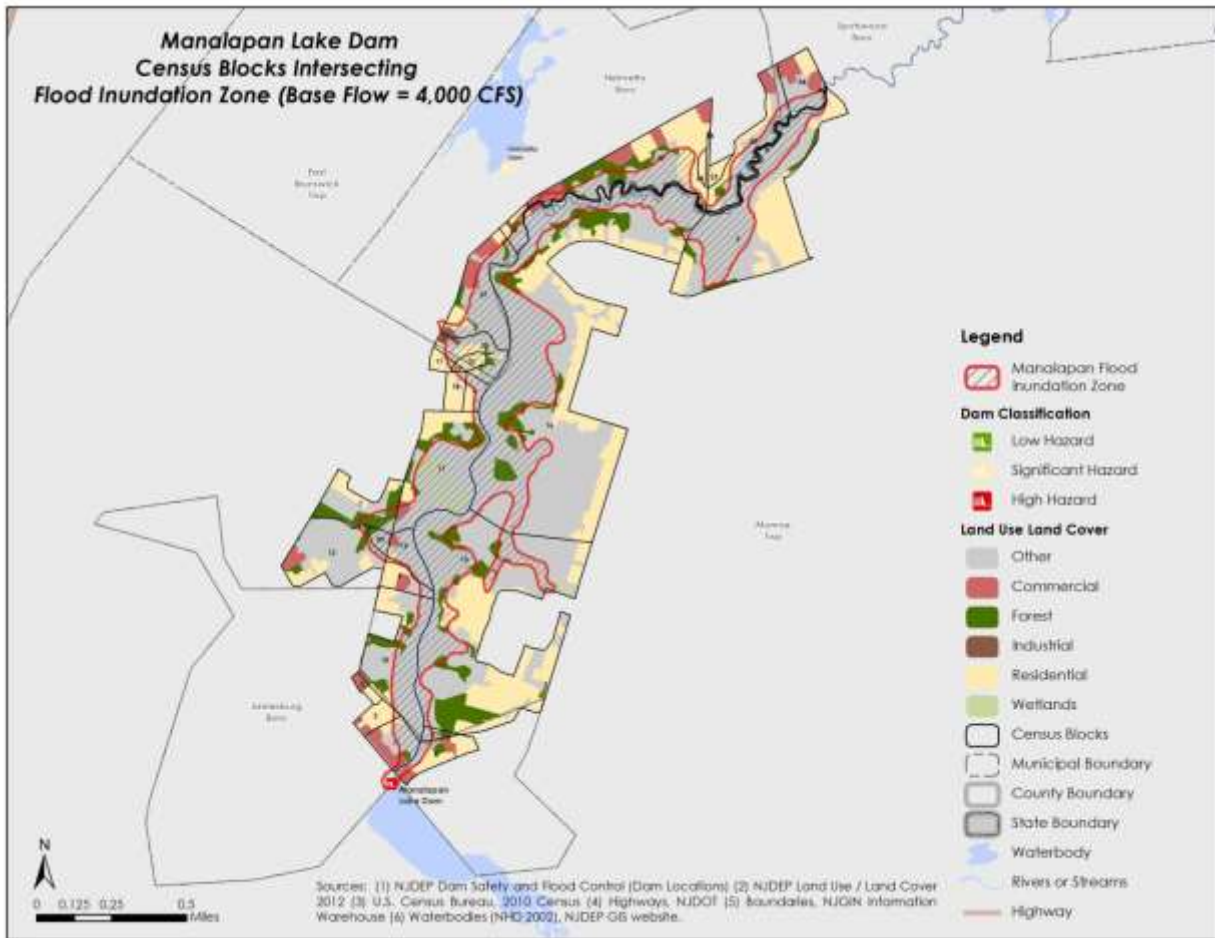
3.3 Dam and Levee Failure Hazards

This subsection briefly discusses dam failure hazards in the Borough of Jamesburg. This appendix to the Middlesex County HMP includes this information because one of the State-designated high-hazard damages is located within the jurisdictional boundaries of Monroe. There is more detailed information about the overall dam and levee failure risk in Middlesex County in the main portion of this document. There is also additional information on dam designations on the [NJDEP Bureau of Dam Safety and Flood Control](#) website. The present subsection provides some additional detail about the Manalapan Lake Dam.

High-hazard (potential) dams are defined by the State as those where failure or operational failure will probably cause loss of life and/or significant infrastructure losses. Dam failure risks have several components, including the age and condition of the dam, antecedent conditions (extreme rainfall, seismic events), downstream topography, and the type and extent of populations and infrastructure downstream. Given the number of variables involved, it is never possible to state definitively the probability of dam failure, or the consequences. However, it is possible to develop a general sense of downstream extent and populations potential affected using census block information merged with GIS-based inundation limits. For the Manalapan Lake Dam, this process indicated that the expected dam failure flood inundation limit intersects 34 census blocks, with a total population of 1,625 and total housing units of 551. This does not suggest that any possible dam failure would necessarily impact those numbers of people and housing units, only that this is the total expected exposure. Figure 8-3 graphically shows the inundation limits and the census blocks with which the flood waters intersect.



Figure 8-3
Intersection of Census Blocks with Potential Downstream Inundation Limits, Manalapan Lake Dam



3.4 Hurricanes and Tropical Storms

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

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 8-12 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 County-wide results in the main section of this HMP update.

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 8-14 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 8-12
Probabilistic Wind Risk in Jamesburg, 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	3,131,013	\$75,386	\$18,543	\$0	\$5,176	\$21	\$2,514	\$50
Commercial	536,852	\$5,051	\$2,231	\$57	\$872	\$630	\$524	\$651
Industrial	145,799	\$1,006	\$662	\$80	\$79	\$10	\$9	\$17
Agricultural	22,252	\$208	\$108	\$13	\$32	\$2	\$1	\$1
Religious	59,148	\$671	\$256	\$0	\$94	\$45	\$8	\$106
Government	22,395	\$247	\$160	\$0	\$50	\$1	\$5	\$402
Education	88,700	\$799	\$353	\$0	\$143	\$31	\$6	\$74
Totals	4,006,159	\$83,368	\$22,312	\$149	\$6,445	\$741	\$3,068	\$1,301

Table 8-13
Probabilistic Wind Risk in Jamesburg, 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	\$101,690	\$1,403,422	\$1,451,012
Commercial	\$10,014	\$138,207	\$142,894
Industrial	\$1,863	\$25,709	\$26,581
Agricultural	\$365	\$5,043	\$5,214
Religious	\$1,181	\$16,298	\$16,851
Government	\$865	\$11,932	\$12,337
Education	\$1,406	\$19,405	\$20,063
Totals	\$117,384	\$1,620,017	\$1,674,952

Table 8-14
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	\$12,097	\$28,714	\$0	\$0	\$16,787	\$0	\$0	\$57,598
Hurricane Sandy	\$63,743	\$110,862	\$0	\$0	\$12,450	\$0	\$0	\$187,055
Total	\$75,840	\$139,576	\$0	\$0	\$29,237	\$0	\$0	\$244,653



3.5 Wildfire Hazards

3.5.1 Type, Location and Extent

Compared to many other states (particularly in the west and southwest), New Jersey has a relatively low level of wildfire risk. However, the Borough of Jamesburg is one of several jurisdictions in the County that has an elevated risk of wildfire compared to most other jurisdictions. As explained in the County portion of this plan, wildfire risk is a more dynamic phenomenon than other hazards. This is because risk is created by both static conditions such as the amount of burnable vegetation and the degree of wildland-urban interface, as well as changeable factors like the weather and presence of fuel load. Any truly accurate risk assessment for this hazard must consider real-time conditions. See the Wildfire section in the main plan for more details.

3.5.2 Previous Occurrences and the Probability of Future Occurrences

Previous occurrences of the wildfire hazards at the County level are discussed in detail in the main portion of this hazard mitigation plan (see Section 4), and for reasons of brevity are not repeated here.

3.5.3 Wildfire Impacts and Vulnerabilities to the Hazard

The present subsection considers two of the static factors as the basis for a risk discussion. The first of these is the presence of fuel hazard in the community. In this respect, Jamesburg is below average with respect to other jurisdictions with wildfire risks. The community has no areas of extreme or very high fuel hazard; 0.13% of the very high fuel hazard area in the County (0.015 square miles); 0.15% of the high hazard area (0.015 square miles); 0.16% of the moderate hazard area (0.04 square miles); and 0.2% of the low hazard area (0.168 square miles).

The second wildfire risk factor is the amount of wildland-urban *interface* and *intermix* in the community (see main plan for definitions). Interface areas are those where the built environment is immediately adjacent to potential wildfire fuel sources, and intermix areas are those where potential fuel sources are spread throughout. As indicated in Table 8-15, Jamesburg is below the County jurisdictional average in these categories, and thus may be considered at relatively lower risk based on these measures (among jurisdictions that are at any risk). Data in the table is based on the 2010 census.

Table 8-15
Summary of Wildland-Urban Interface and Intermix Data, Borough of Jamesburg

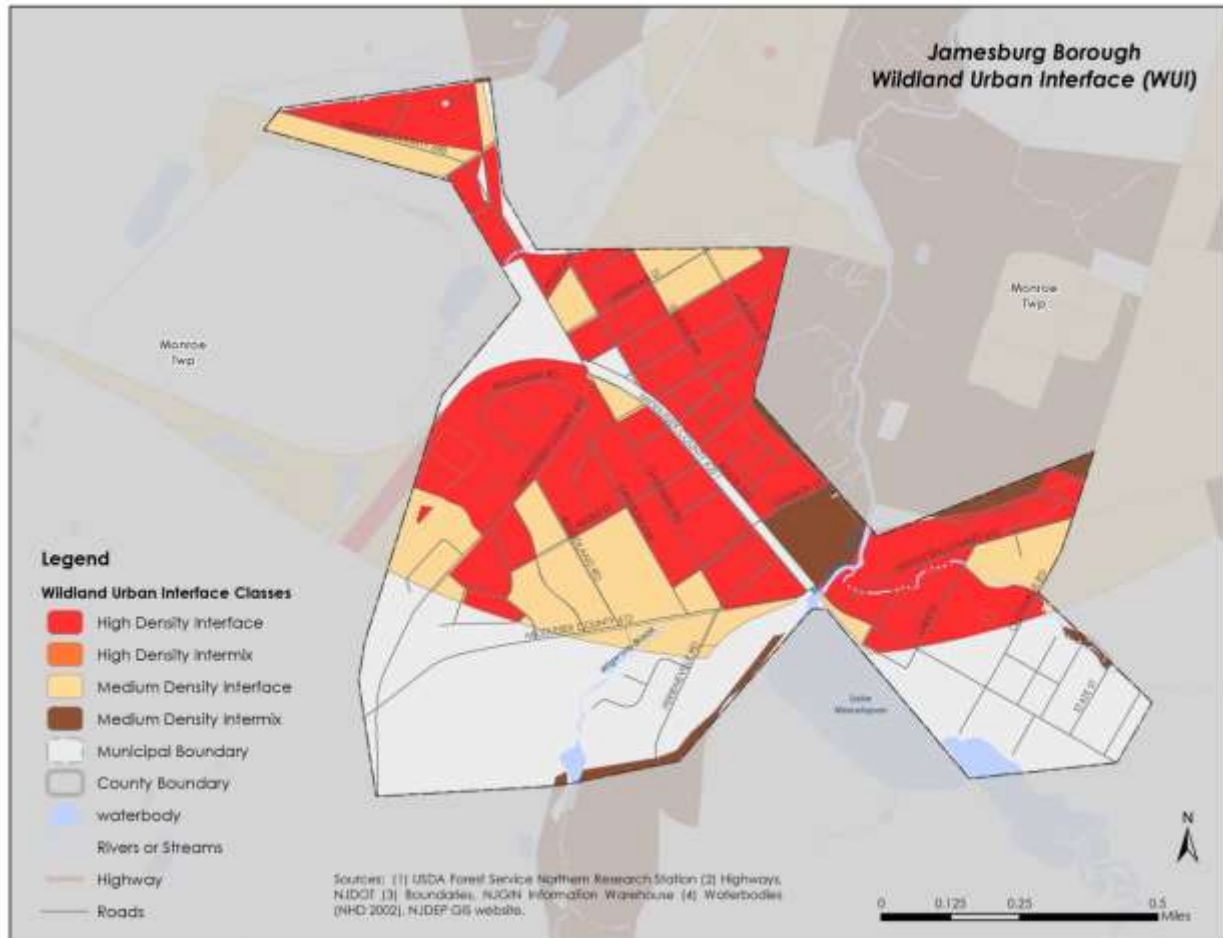
	Housing Units	Population
High-density interface	1,305	3,329
High-density intermix	0	0
Medium-density interface	264	740
Medium-density intermix	239	605

Figure 8-4 shows areas of wildland-urban intermix and interface in Jamesburg. Most of the intermix and



interface areas are dispersed around the northern and central parts of the jurisdiction. Based on analysis of aerial photography, the areas of potential wildfire appear to be simply areas where development is interspersed with mature trees.

Figure 8-4
Wildland-Urban Wildfire High- and Medium-Density Interface and Intermix Zones, Borough of Jamesburg



Absent a more detailed evaluation of fuel loads and characteristics of the structures that are near burnable areas it is not possible to complete a quantitative risk assessment of the wildfire hazard. The areas of highest vulnerability are clearly those nearest to vegetation, but, generally speaking, fire detection and suppression capabilities are very good in this area of the country, and this significantly reduces wildfire risk.



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 Borough of Jamesburg during this plan update.

4.1.1 Planning and Regulatory

Tool / Program (code, ordinance, plan)	(Yes/No)	Code Citation and Comments
Master Plan	Y	1/2010 Re-examination Plan
Capital Improvements Plan	Y	1/2015
Floodplain Management / Basin Plan	N	
Stormwater Management Plan	Y	9/28/2005
Open Space Plan	N	
Stream Corridor Management Plan	N	
Watershed Management or Protection Plan	N	
Economic Development Plan	N	
Comprehensive Emergency Management Plan	N	
Emergency Operation Plan	Y	2012
Post-Disaster Recovery Plan	N	
Transportation Plan	N	
Strategic Recovery Planning Report	N	
Zoning Ordinance	Y	2010
Subdivision Ordinance	N	
NFIP: Cumulative Substantial Damages	N	
Growth Management Ordinances	N	
Site Plan Review Requirements	Y	
Stormwater Management Ordinance	Y	9/28/2005
Municipal Separate Storm Sewer System (MS4)	Y	9/28/2005
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)]	Y	4/13/11

4.1.2 Staff/Personnel

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



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

4.1.3 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)	N		
Building Code Effectiveness Grading Schedule (BCEGS)	N		
Public Protection (ISO Fire Protection Classes 1 to 10)	N		
Storm Ready	N		
Firewise	N		
Disaster/Safety Programs in/for Schools	N		
Organizations with Mitigation Focus (advocacy group, non-government)	N		
Public Education Program/Outreach (through website, social media)	N		
Public-Private Partnerships	N		

4.1.4 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?	N
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?	N
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)	N



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
Jamesburg 1: Install rip-rap along Manalapan Brook near William Street	Municipal Administrator	No Progress	Include in 2015 Update Lack of funding
Jamesburg 2: Storm sewer improvements along West Railroad Avenue, Hillside Avenue, and surrounding areas	Municipal Administrator	Complete	
Jamesburg 3: Engineering/drainage study to assess options for reducing flooding along Manalapan Brook near Church Street and area surrounding Gatzmer Avenue	Municipal Administrator	No Progress	Include in 2015 Update Lack of Funding
Jamesburg 4: Construct dam on Wigwam Lake near Prospect Street	Municipal Administrator	No progress	Include in 2015 Update Lack of funding

5.2 Proposed Mitigation Actions

The table below details the mitigation initiatives the Borough of Jamesburg 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
Pursue CRS application	Reduction in flood insurance premiums for policyholders	Administration	County Resources	1-3 years	High
Elevation/acquisition of repetitive loss properties	Reduction in risk to property	OEM/Engineering	Grants	As available	High
Continued participation in South Central Middlesex County Flood Commission.	Implementation of recommendations to reduce flooding in region	Administration	Staff time	Ongoing	High
Ensure power duplicity at critical facilities and utilities	Allow for continued operation of critical municipal services	OEM	Grants	2-5 years	Medium



6. Plan Implementation

The LPC shall document, as needed and appropriate:

- Hazard events and losses in Jamesburg 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 Jamesburg 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 Jamesburg'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 Jamesburg 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 Jamesburg 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 Borough Administrator 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 Borough Administrator 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 Jamesburg 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.