



Flood Risk Report

Lower Susquehanna Watershed, 02050306

Adams County, Berks County*, Cecil County*, Chester County*, Lancaster County*,
Lebanon County*, York County**

(continued on next page)

Maryland and Pennsylvania

**Spans more than one watershed. This report covers only the area within the studied watershed.*

Report Number 01

12/05/2014

Final



FEMA

RiskMAP
Increasing Resilience Together

Project Area Community List

Community Name
Borough of Abbottstown
Borough of Adamstown
Borough of Akron
Borough of Arendtsville
Borough of Atglen*
Township of Bart
Borough of Bendersville
Township of Berwick
Borough of Biglerville
Township of Brecknock (Berks County)*
Township of Brecknock (Lancaster County)
Township of Butler*
Township of Caernarvon (Berks County)*
Township of Caernarvon (Lancaster County)*
Township of Carroll*
Cecil County Unincorporated Areas*
Township of Chanceford
Borough of Christiana
Township of Clay
Township of Codorus*
Township of Colerain
Borough of Columbia
Township of Conestoga
Township of Conewago (Adams County)
Township of Conewago (York County)
Township of Conoy*
Borough of Cornwall*
Borough of Cross Roads
Township of Cumberland*
Borough of Dallastown

Community Name
Borough of Delta
Borough of Denver
Borough of Dillsburg
Borough of Dover
Township of Dover
Township of Drumore
Township of Earl
Borough of East Berlin
Township of East Cocalico
Township of East Donegal
Township of East Drumore
Township of East Earl
Township of East Hempfield
Township of East Hopewell
Township of East Lampeter
Township of East Manchester
Township of East Nottingham*
Borough of East Petersburg
Borough of East Prospect
Township of Eden
Township of Elizabeth
Borough of Elizabethtown*
Borough of Elverson*
Borough of Ephrata
Township of Ephrata
Township of Fairview*
Township of Fawn
Borough of Fawn Grove
Borough of Felton
Township of Franklin (York County)*

*Spans more than one watershed. This report only covers area within the studied watershed.

Project Area Community List *(continued)*

Community Name
Township of Franklin (Adams County)*
Borough of Franklintown
Township of Fulton
Borough of Glen Rock
Borough of Hallam
Township of Hamilton
Borough of Hanover
Township of Heidelberg (Lebanon County)*
Township of Heidelberg (York County)
Township of Hellam
Township of Highland*
Township of Honey Brook*
Township of Hopewell
Township of Huntington*
Township of Jackson
Borough of Jacobus
Borough of Jefferson
City of Lancaster
Township of Lancaster
Township of Latimore*
Township of Leacock
Borough of Lewisberry
Borough of Lititz
Township of Little Britain
Borough of Loganville
Township of Lower Chanceford
Township of Lower Oxford*
Township of Lower Windsor
Borough of Manchester
Township of Manchester

Community Name
Borough of Manheim
Township of Manheim (Lancaster County)
Township of Manheim (York County)*
Township of Manor
Borough of Marietta
Township of Martic
Borough of McSherrystown
Township of Menallen*
Township of Millcreek*
Borough of Millersville
Township of Monaghan*
Borough of Mount Joy
Township of Mount Joy*
Township of Mount Pleasant*
Borough of Mount Wolf
Borough of Mountville
Borough of New Freedom*
Borough of New Holland
Borough of New Morgan*
Borough of New Oxford
Borough of New Salem
Township of Newberry*
Township of North Codorus
Township of North Hopewell
Borough of North York
Borough of Oxford*
Township of Oxford
Township of Paradise (Lancaster County)
Township of Paradise (York County)
Borough of Parkesburg*

*Spans more than one watershed. This report only covers area within the studied watershed.

Project Area Community List *(continued)*

Community Name
Township of Peach Bottom
Township of Penn (Lancaster County)
Township of Penn (York County)
Township of Pequea
Town of Perryville*
Town of Port Deposit*
Township of Providence
Borough of Quarryville
Borough of Railroad
Township of Rapho
Township of Reading
Borough of Red Lion
Town of Rising Sun*
Township of Robeson*
Township of Sadsbury (Chester County)*
Township of Sadsbury (Lancaster County)
Township of Salisbury*
Borough of Seven Valleys
Borough of Shrewsbury
Township of Shrewsbury*
Township of South Heidelberg*
Township of South Lebanon*
Township of South Londonderry*
Township of Spring*
Township of Spring Garden
Borough of Spring Grove
Township of Springettsbury
Township of Springfield
Borough of Stewartstown
Township of Straban*

Community Name
Borough of Strasburg
Township of Strasburg
Borough of Terre Hill
Township of Tyrone*
Township of Union*
Township of Upper Leacock
Township of Upper Oxford*
Township of Warrington*
Township of Warwick
Township of Washington
Borough of Wellsville
Township of West Caln*
Township of West Cocalico*
Township of West Cornwall
Township of West Donegal*
Township of West Earl
Township of West Fallowfield*
Township of West Hempfield
Township of West Lampeter
Township of West Manchester
Township of West Manheim*
Township of West Nantmeal*
Township of West Nottingham*
Township of West Sadsbury*
Borough of West York
Borough of Windsor
Township of Windsor
Borough of Winterstown
Borough of Wrightsville
Borough of Yoe

*Spans more than one watershed. This report only covers area within the studied watershed.

Project Area Community List *(continued)*

Community Name
City of York
Township of York
Borough of York Haven*
Borough of York Springs
Borough of Yorkana

*Spans more than one watershed. This report only covers area within the studied watershed.

Preface

The Department of Homeland Security (DHS), Federal Emergency Management Agency's (FEMA) Risk Mapping, Assessment, and Planning (Risk MAP) program provides states, tribes, and local communities with flood risk information and tools that they can use to increase their resilience to flooding and better protect their citizens. By pairing accurate floodplain maps with risk assessment tools and planning and outreach support, Risk MAP has transformed traditional flood mapping efforts into an integrated process of identifying, assessing, communicating, planning for, and mitigating flood-related risks.

This Flood Risk Report (FRR) provides non-regulatory information to help local or tribal officials, floodplain managers, planners, emergency managers, and others better understand their flood risk, take steps to mitigate those risks, and communicate those risks to their citizens and local businesses.

Because flood risk often extends beyond community limits, the FRR provides flood risk data for the entire Flood Risk Project as well as for each individual community. This also emphasizes that flood risk reduction activities may impact areas beyond jurisdictional boundaries.

Flood risk is always changing, and there may be other studies, reports, or sources of information available that provide more comprehensive information. The FRR is not intended to be regulatory or the final authoritative source of all flood risk data in the project area. Rather, it should be used in conjunction with other data sources to provide a comprehensive picture of flood risk within the project area.

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FLOOD RISK REPORT

1 Introduction

1.1 About Flood Risk

Floods are naturally occurring phenomena that can and do happen almost anywhere. In its most basic form, a flood is an accumulation of water over normally dry areas. Floods become hazardous to people and property when they inundate an area where development has occurred, causing losses. Mild flood losses may have little impact on people or property, such as damage to landscaping or the generation of unwanted debris. Severe flooding can destroy buildings, ruin crops, and cause critical injuries or death.

1.1.1 Calculating Flood Risk

It is not enough to simply identify where flooding may occur. Just because one knows where a flood occurs does not mean they know the **risk** of flooding. The most common method for determining flood risk, also referred to as vulnerability, is to identify the probability of flooding and the consequences of flooding. In other words:

- **Flood Risk** (or Vulnerability) = **Probability x Consequences**; where
- **Probability** = the likelihood of occurrence
- **Consequences** = the estimated impacts associated with the occurrence

The probability of a flood is the likelihood that a flood will occur. The probability of flooding can change based on physical, environmental, and/or contributing engineering factors. Factors affecting the probability that a flood will impact an area range from changing weather patterns to the existence of mitigation projects. The ability to assess the probability of a flood and the level of accuracy for that assessment are also influenced by modeling methodology advancements, better knowledge, and longer periods of record for the water body in question.

The consequences of a flood are the estimated impacts associated with the flood occurrence. Consequences relate to humans activities within an area and how a flood impacts the natural and built environments.

1.1.2 Risk MAP Flood Risk Products

Through Risk MAP, FEMA provides communities with updated Flood Insurance Rate Maps (FIRMs) and Flood Insurance Studies (FISs) that focus on the probability of floods and that show where flooding may occur as well as the calculated 1% annual chance flood elevation. The 1% annual chance flood, also known as the base flood, has a 1% chance



Flooding is a natural part of our world and our communities. Flooding becomes a significant hazard, however, when it intersects with the built environment.

Which picture below shows more flood risk?



Even if you assume that the flood in both pictures was the same probability—let's say a 10-percent-annual-chance flood—the consequences in terms of property damage and potential injury as a result of the flood in the bottom picture are much more severe. Therefore, the flood risk in the area shown in the bottom picture is higher.

of being equaled or exceeded in any given year. FEMA understands that flood risk is dynamic—that flooding does not stop at a line on a map—and as such, provides the following flood risk products:

- **Flood Risk Report (FRR):** The FRR presents key risk analysis data for the Flood Risk Project.
- **Flood Risk Map (FRM):** Like the example found in Section 3.1 of this document, the FRM shows a variety of flood risk information in the project area. More information about the data shown on the FRM may be found in Section 2 of this report.
- **Flood Risk Database (FRD):** The FRD is in GIS format and houses the flood risk data developed during the course of the flood risk analysis that can be used and updated by the community. After the Flood Risk Project is complete, this data can be used in many ways to visualize and communicate flood risk within the Flood Risk Project.

These Flood Risk Products provide flood risk information at both the Flood Risk Project level and community level (for those portions of each community within the Flood Risk Project). They demonstrate how decisions made within a Flood Risk Project can impact properties downstream, upstream, or both. Community-level information is particularly useful for mitigation planning and emergency management activities, which often occur at a jurisdictional level.



Whether or not an area might flood is one consideration. The extent to which it might flood adds a necessary dimension to that understanding.

1.2 Uses of this Report

The goal of this report is to help inform and enable communities and tribes to take action to reduce flood risk. Possible users of this report include:

- Local elected officials
- Floodplain managers
- Community planners
- Emergency managers
- Public works officials
- Other special interests (e.g., watershed conservation groups, environmental awareness organizations, etc.)

State, local, and tribal officials can use the summary information provided in this report, in conjunction with the data in the FRD, to:

- **Update local hazard mitigation plans.** As required by the 2000 Federal Stafford Act, local hazard mitigation plans must be updated at least every five (5) years. Summary information presented in Section 3 of this report and the FRM can be used to identify areas that may need additional focus when updating the risk assessment section of a local hazard mitigation plan. Information found in

Section 4 pertains to the different mitigation techniques and programs and can be used to inform decisions related to the mitigation strategy of local plans.

- **Update community comprehensive plans.** Planners can use flood risk information in the development and/or update of comprehensive plans, future land use maps, and zoning regulations. For example, zoning codes may be changed to better provide for appropriate land uses in high-hazard areas.
- **Update emergency operations and response plans.** Emergency managers can identify low-risk areas for potential evacuation and sheltering and can help first responders avoid areas of high-depth flood water. Risk assessment results may reveal vulnerable areas, facilities, and infrastructure for which planning for continuity of operations plans (COOP), continuity of government (COG) plans, and emergency operations plans (EOP) would be essential.
- **Develop hazard mitigation projects.** Local officials (e.g., planners and public works officials) can use flood risk information to re-evaluate and prioritize mitigation actions in local hazard mitigation plans.
- **Communicate flood risk.** Local officials can use the information in this report to communicate with property owners, business owners, and other citizens about flood risks, changes since the last FIRM, and areas of mitigation interest. The report layout allows community information to be extracted in a fact sheet format.
- **Inform the modification of development standards.** Floodplain managers, planners, and public works officials can use information in this report to support the adjustment of development standards for certain locations. For example, heavily developed areas tend to increase floodwater runoff because paved surfaces cannot absorb water, indicating a need to adopt or revise standards that provide for appropriate stormwater retention.

The Flood Risk Database, Flood Risk Map, and Flood Risk Report are “non-regulatory” products. They are available and intended for community use but are neither mandatory nor tied to the regulatory development and insurance requirements of the National Flood Insurance Program (NFIP). They may be used as regulatory products by communities if authorized by state and local enabling authorities.

1.3 Sources of Flood Risk Assessment Data Used

To assess potential community losses, or the consequences portion of the “risk” equation, the following data is typically collected for analysis and inclusion in a Flood Risk Project:

- Information about local assets or resources at risk of flooding



Vulnerability of infrastructure is another important consideration.



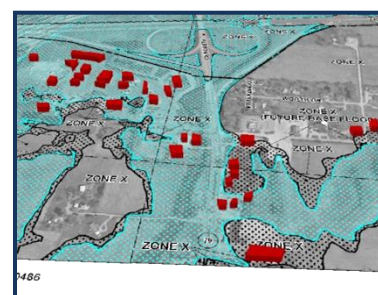
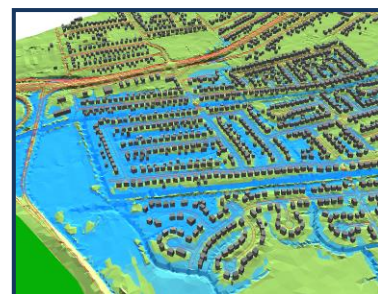
Flooding along the Wabash River in Clark County, Illinois, contributed to a federal disaster declaration on June 24, 2008.

- Information about the physical features and human activities that contribute to that risk
- Information about where the risk is most severe
- For most Flood Risk Projects, FEMA uses the following sources of flood risk information to develop this report:
 - Hazus estimated flood loss information
 - New engineering analyses (e.g., hydrology and hydraulic modeling) to develop new flood boundaries
 - Locally supplied data (see Section 7 for a description)
 - Sources identified during the Discovery process

1.4 Related Resources

For a more comprehensive picture of flood risk, FEMA recommends that state and local officials use the information provided in this report in conjunction with other sources of flood risk data, such as those listed below.

- **FIRMs and FISs.** This information indicates areas with specific flood hazards by identifying the limit and extent of the 1-percent-annual-chance floodplain and the 0.2-percent-annual-chance floodplain. FIRMs and FIS Reports do not identify all floodplains in a Flood Risk Project. The FIS Report includes summary information regarding other frequencies of flooding, as well as flood profiles for riverine sources of flooding. In rural areas and areas for which flood hazard data are not available, the 1-percent-annual-chance floodplain may not be identified. In addition, the 1-percent-annual-chance floodplain may not be identified for flooding sources with very small drainage areas (less than 1 square mile).
- **Hazus Flood Loss Estimation Reports.** Hazus can be used to generate reports, maps and tables on potential flood damage that can occur based on new/proposed mitigation projects or future development patterns and practices. Hazus can also run specialized risk assessments, such as what happens when a dam or levee fails. Flood risk assessment tools are available through other agencies as well, including the National Oceanic and Atmospheric Administration (NOAA) and the U.S. Army Corps of Engineers (USACE). Other existing watershed reports may have a different focus, such as water quality, but may also contain flood risk and risk assessment information. See Section 6 for additional resources.
- **Flood or multi-hazard mitigation plans.** Local hazard mitigation plans include risk assessments that contain flood risk information and mitigation strategies that identify community priorities and actions to reduce flood risk. This report was informed by any existing mitigation plans in the Flood Risk Project.



FEMA data can be leveraged to identify and measure vulnerability by including local building information (i.e. building type). The examples above show various ways to display flooding intersecting with buildings.

- **FEMA Map Service Center (MSC).** The MSC has useful information, including fly sheets, phone numbers, data, etc. Letters of Map Change are also available through the MSC. The user can view DFIRM databases and the National Flood Hazard Layer (NFHL) Database.

2 Flood Risk Analysis

2.1 Overview

Flood hazard identification uses FIRMs, and FIS Reports identify where flooding can occur along with the probability and depth of that flooding. Flood risk assessment is the systematic approach to identifying how flooding impacts the environment. In hazard mitigation planning, flood risk assessments serve as the basis for mitigation strategies and actions by defining the hazard and enabling informed decision making. Fully assessing flood risk requires the following:

- Identifying the flooding source and determining the flood hazard occurrence probability
- Developing a complete profile of the flood hazard including historical occurrence and previous impacts
- Inventorying assets located in the identified flood hazard area
- Estimating potential future flood losses caused by exposure to the flood hazard area

Flood risk analyses are different methods used in flood risk assessment to help quantify and communicate flood risk. Flood risk analysis can be performed on a large scale (state, community) level and on a very small scale (parcel, census block). Advantages of large-scale flood risk analysis, especially at the watershed level, include identifying how actions and development in one community can affect areas up- and downstream. On the parcel or census block level, flood risk analysis can provide actionable data to individual property owners so they can take appropriate mitigation steps.

2.2 Analysis of Risk

The FRR, FRM, and FRD contain a variety of flood risk analysis information to help describe and visualize flood risk within the project area. Depending on the scope of the Flood Risk Project for this project area, this information may include some or all of the following elements:

- Changes Since Last FIRM
- Water Surface, Flood Depth, and Analysis Grids
- Flood Risk Assessment Information
- Areas of Mitigation Interest

2.2.1 Changes Since Last FIRM

The Changes Since Last FIRM (CSLF) dataset, stored in the FRD and shown in Section 3 of this report, illustrates where changes to flood risk



Flooding impacts non-populated areas too, such as agricultural lands and wildlife habitats.

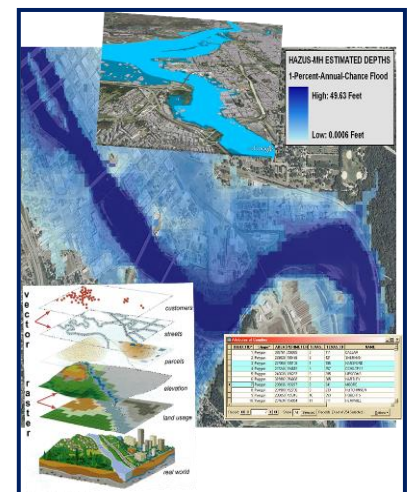
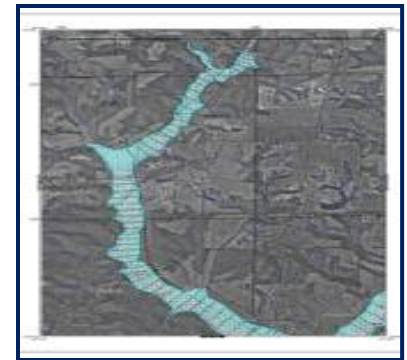
State and Local Hazard Mitigation Plans are required to have a comprehensive all-hazard risk assessment. The flood risk analyses in the FRR, FRM, and FRD can inform the flood hazard portion of a community's or state's risk assessment. Further, data in the FRD can be used to develop information that meets the requirements for risk assessments as it relates to the hazard of flood in hazard mitigation plans.

The CSLF dataset identifies changes in the Special Flood Hazard Area (SFHA) and floodway boundary changes since the previous FIRM was developed. These datasets quantify land area increases and decreases to the SFHA and floodway, as well as areas where the flood zone designation has changed (e.g., Zone A to AE, AE to VE, shaded Zone X protected by levee to AE for de-accredited levees).

- Floodplain and/or Floodway Boundary Changes: Any changes to the existing floodplain or floodway boundaries are depicted in this dataset
- Floodplain Designation Changes: This includes changed floodplain designations (e.g., Zone A to Zone AE).
- CSLF Information: Within this dataset additional information is provided to help explain the floodplain and floodway boundary changes shown on the FIRM. This information is stored as digital attributes within the CSLF polygons and may include some or all of the following:

- Floodplain and/or Floodway Boundary Changes: Any changes to the existing floodplain or floodway boundaries are depicted in this dataset
- Floodplain Designation Changes: This includes changed floodplain designations (e.g., Zone A to Zone AE).
- CSLF Information: Within this dataset additional information is provided to help explain the floodplain and floodway boundary changes shown on the FIRM. This information is stored as digital attributes within the CSLF polygons and may include some or all of the following:
 - Changes in peak discharges
 - Changes to the modeling methodology (e.g., tide gage analysis)
 - New flood control structures (e.g., dams, levees, etc.)
 - Changes to hydraulic structures (e.g., bridges, culverts, etc.)
 - Sedimentation and/or Erosion
 - Man-made changes to a watercourse (e.g., realignment or improvement)

- Count of Affected Structures:** The total estimated count of affected buildings within the area of change. The data is only made available because the local jurisdiction was able to provide accurate building footprint data indicating the location of structures in and adjacent to the identified floodplains).



Floodplain maps have evolved considerably from the older paper-based FIRMs to the latest digital products and datasets.

CSLF data can be used to communicate changes in the physical flood hazard area (size, location) as part of the release of new FIRMS. It can also be used in the development or update of hazard mitigation plans to describe changes in hazard as part of the hazard profile.

CSLF data is shown in the FRR,
and underlying data is stored in
the FRD.

- **Count of Affected Population:** The total estimated affected population within the area of change. The data is only made available because the local jurisdiction was able to provide population data that accompanied the structure data noted above.

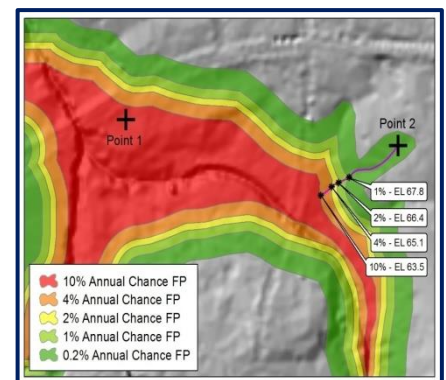
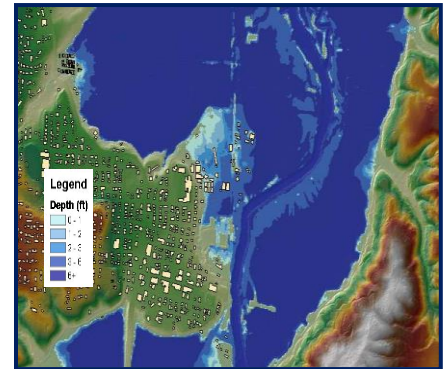
2.2.2 Flood Depth and Analysis Grids

Grids are FEMA datasets provided in the FRD to better describe the risk of the flood hazard. While the FIRM and FIS Report describe “what” is at risk by identifying the hazard areas, water surface, flood depth, and analysis grids can help define “how bad” the risk is within those identified areas. These grids are intended to be used by communities for additional analysis, enhanced visualization, and communication of flood risks for hazard mitigation planning and emergency management. Grids provided in the FRD for this project area include the following:

- **Flood Depth Grids: (for the calculated flood frequencies included in the FIS Report):** Flood Depth Grids are created for each flood frequency calculated during the course of a Flood Risk Project. These grids communicate flood depth as a function of the difference between the calculated water surface elevation and the ground. Five grids will normally be delivered for riverine areas for the standard flood frequencies (10-, 4-, 2-, 1-, and 0.2-percent-annual-chance). Coastal areas only receive the 1-percent-annual-chance grid.

Depth grids form the basis for refined Hazus loss estimates (as presented in a table in Section 3 of this report) and are used to calculate potential flood losses for display on the FRM and for tabular presentation in this report. Depth grids may also be used for a variety of ad-hoc risk visualization and mitigation initiatives.

- **Percent Annual Chance of Flooding Grid:** This is a grid dataset that represents the percent annual chance of flooding for locations along a flooding source. This grid uses the five standard flood frequencies.
- **Percent 30-Year Chance of Flooding Grid:** This is a grid dataset that represents the estimated likelihood of flooding at least once within a 30-year period, which is the average lifespan for a home mortgage, for all locations within the extent of the 1-percent-annual-chance and 0.2-percent-annual-chance floodplain.
- **Water Surface Elevation Change Grid:** This dataset provides the ability to see vertical changes in the water surface elevation between the existing FIRM and the revised FIRM. This dataset would be the equivalent of the CSLF dataset, but as a vertical analysis as opposed to a horizontal analysis since last FIRM.



Grid data can make flood mapping more informative. The top image is a flood depth grid showing relative depths of water in a scenario flood event. The bottom image is a percent annual chance of flooding grid, which shows inundation areas of various frequency floods.

- **Water Surface Elevation Grids:** This dataset represents the raw results of the hydrologic and hydraulic analysis before adjustments are made to account for influences associated with other flooding sources.
- **1-Percent Plus Flood Depth Grid:** This riverine-only dataset communicates the inherent uncertainty associated with the 1-percent-annual-chance flood elevation band by highlighting the areas subject to inundation by the upper limit of the 1-percent-annual-chance flood discharge confidence interval.
- **Velocity Grid:** This dataset describes the average flood velocity that occurs within the floodplain. Velocity grids can be used to increase public awareness of flood hazards associated with rapidly moving floodwaters.
- **Water Surface and/or Depth Grids Based on Additional Flood Frequencies:** In addition to the standard flood frequencies referenced above, this dataset is provided when additional flood frequencies are calculated, such as a 20-percent-annual-chance (5-year) or 0.5-percent-annual-chance (200-year) event.

2.2.3 Estimated Flood Loss Information

Flood loss estimates provided in the FRR were developed using a FEMA flood loss estimation tool, Hazus. Originally developed for earthquake risk assessment, Hazus has evolved into a multi-hazard tool developed and distributed by FEMA that can provide loss estimates for floods, earthquakes, and hurricane winds. Hazus is a nationally accepted, consistent flood risk assessment tool to assist individuals and communities to create a more accurate picture of flood risk. Some benefits of using Hazus include the following:

- Outputs that can enhance state and local mitigation plans and help screen for cost-effectiveness in FEMA mitigation grant programs
- Analysis refinement through updating inventory data and integrating data produced using other flood models
- Widely available support documents and networks (Hazus Users Groups)

Files from the FRD can be imported into Hazus to develop other risk assessment information including:

- Debris generated after a flood event
- Dollar loss of the agricultural products in a study region
- Utility system damages in the region
- Vehicle loss in the study region

Grid data can be used to communicate the variability of floodplains, such as where floodplains are particularly deep or hazardous, where residual risks lie behind levees, and where losses may be great after a flood event. For mitigation planning, grid data can inform the hazard profile and vulnerability analysis (what is at risk for different frequencies) and can be used for preliminary benefit-cost analysis screening. For floodplain management, higher regulatory standards can be developed in higher hazard flood prone areas (i.e., 10-percent-chance floodplains or deep floodplains).

Grid data is stored in the FRD, and a list of available grid data is provided in the FRR. Visualizations of grids (maps) are not provided.

- Damages and functionality of lifelines such as highway and rail bridges, potable water, and wastewater facilities

Scenario-Based Flood Loss Estimates:

Scenario-based flood losses have been calculated using Hazus for the 10-, 4-, 2-, 1-, and 0.2-percent-annual-chance flood events. In this report, these losses are expressed in dollar amounts and are provided for the Flood Risk Project area only, even though results are shown for the entire watershed and at the local jurisdiction level.

Loss estimates are based on best available data, and the methodologies applied result in an approximation of risk. These estimates should be used to understand relative risk from flood and potential losses.

Uncertainties are inherent in any loss estimation methodology, arising in part from approximations and simplifications that are necessary for a comprehensive analysis (e.g., incomplete inventories, demographics, or economic parameters).

Flood loss estimates are being provided at the project and community levels for multiple flood frequencies including:

- **Residential Asset Loss:** These include direct building losses (estimated costs to repair or replace the damage caused to the building) for all classes of residential structures including single family, multi-family, manufactured housing, group housing, and nursing homes. This value also includes content losses.
- **Commercial Asset Loss:** These include direct building losses for all classes of commercial buildings including retail, wholesale, repair, professional services, banks, hospitals, entertainment, and parking facilities. This value also includes content and inventory losses.
- **Other Asset Loss:** This includes losses for facilities categorized as industrial, agricultural, religious, government, and educational. This value also includes content and inventory losses.
- **Essential Facility Losses:** Essential facilities are defined in Hazus as facilities which provide services to the community and should be functional after a flood, including schools, police stations, fire stations, medical facilities, and emergency operation centers. These facilities would otherwise be considered critical facilities for mitigation planning purposes. Estimated damages (in terms of loss of function) for essential facilities are determined on a site-specific basis according to latitude and longitude. For this report, Hazus calculates the types and numbers of essential facilities impacted.



Hazus is a loss estimation methodology developed by FEMA for flood, wind, and earthquake hazards. The methodology and data established by Hazus can also be used to study other hazards.

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- **Infrastructure:** For analysis of infrastructure, Hazus supports the analysis of transportation systems and lifeline utility systems. Transportation systems include highways, railways, light railways, busses, ports and harbors, ferries, and airport systems. Utility systems include potable water systems, wastewater, oil, natural gas, electric power, and communication systems. For this report, Hazus calculates the types of infrastructure impacted.
- **Business Disruption:** This includes the losses associated with the inability to operate a business due to the damage sustained during the flood. Losses include inventory, income, rental income, wage, and direct output losses, as well as relocation costs.
- **Annualized Losses:** Annualized losses are calculated using Hazus by taking losses from multiple events over different frequencies and expressing the long-term average by year. This factors in historic patterns of frequent smaller floods with infrequent but larger events to provide a balanced presentation of flood damage.
- **Loss Ratio:** The loss ratio expresses the scenario losses divided by the total building value for a local jurisdiction and can be a gage to determine overall community resilience as a result of a scenario event. For example, a loss ratio of 5 percent for a given scenario would indicate that a local jurisdiction would be more resilient and recover more easily from a given event, versus a loss ratio of 75 percent which would indicate widespread losses. An annualized loss ratio uses the annualized loss data as a basis for computing the ratio. Loss ratios are not computed for business disruption. These data are presented in the FRR.
- **Hazus Flood Risk Value:** On the FRM, flood risk is expressed in the following five categories: very low, low, medium, high, and very high for census blocks that have flood risk. It is based on the 1-percent-annual-chance total asset loss by census block.

Hazus-estimated loss data can be used in many ways to support local decision making and explanation of flood risk. For mitigation planning purposes, loss data can be used to help meet requirements to develop loss information for the hazard of flood. Also, the FRM can show where flood risk varies by geographic location. For emergency management, Hazus data can help forecast losses based on predicted events, and resources can be assigned accordingly. Loss information can support floodplain management efforts, including those to adopt higher regulatory standards. *Also, awareness of exposed essential facilities and infrastructure encourages mitigation actions to protect citizens from service disruption should flooding occur.*

Hazus estimated loss data is summarized in the FRR and on the FRM and stored in the FRD.

2.2.4 Areas of Mitigation Interest

Many factors contribute to flooding and flood losses. Some are natural, and some are not. In response to these risks, there has been a focus by the federal government, state agencies, and local jurisdictions to mitigate properties against the impacts of flood hazards so that future losses and impacts can be reduced. An area identified as an Area of Mitigation Interest (AoMI) is an important element of defining a more comprehensive picture of flood risk and mitigation activity in a watershed, identifying target areas and potential projects for flood hazard mitigation, encouraging local collaboration, and communicating how various mitigation activities can successfully reduce flood risk.

This report and the FRM may include information that focuses on identifying Areas of Mitigation Interest that may be contributing (positively or negatively) to flooding and flood losses in the Flood Risk Project. AoMIs are identified through coordination with local stakeholders; through revised hydrologic and hydraulic and/or coastal analyses; by leveraging other studies or previous flood studies; from community mitigation plans, floodplain management plans, and local surveys; and from the mining of federal government databases (e.g., flood claims, disaster grants, and data from other agencies). Below is a list of the types of Areas of Mitigation Interest that may be identified in this Flood Risk Report, shown on the Flood Risk Map, and stored in the Flood Risk Database:

- **Dams**

A dam is a barrier built across a waterway for impounding water. Dams vary from impoundments that are hundreds of feet tall and contain thousands of acre-feet of water (e.g., Hoover Dam) to small dams that are a few feet high and contain only a few acre-feet of water (e.g., small residential pond). “Dry dams,” which are designed to contain water only during floods and do not impound water except for the purposes of flood control, include otherwise dry land behind the dam.

While most modern, large dams are highly engineered structures with components such as impervious cores and emergency spillways, most smaller and older dams are not. State dam safety programs emerged in the 1960s, and the first Federal Guidelines for Dam Safety were not prepared until 1979. By this time, the vast majority of dams in the United States had already been constructed.

- **Reasons dams are considered AoMIs:**

- Many older dams were not built to any particular standard and thus may not withstand extreme rainfall events. Older dams in some parts of the country are made out of an assortment of materials. These structures may not have any capacity to release water and could be overtopped, which could result in catastrophic failure.
- Even dams that follow current dam safety programs may not be regulated, as downstream risk may have changed since the dam was constructed. Years after a dam is built, a house, subdivision, or other development may be constructed in the area downstream of the dam. Thus, a subsequent dam failure could result in damage. Since these dams are not regulated, it is impossible to predict how safe they are.



Dams vary in size and shape, the amount of water they impound, and their assigned hazard classification.



This dam failure caused flooding that damaged several homes and vehicles.

- A significant dam failure risk is structural deficiencies associated with older dams that are not being adequately addressed today through needed inspection/maintenance practices.
- For larger dams a flood easement may have been obtained on a property. However, there may have been buildings constructed in violation of the flood easement.
- When a new dam is constructed, the placement of such a large volume of material in a floodplain area (if that is the dam location) will displace flood waters and can alter how the watercourse flows. This can result in flooding upstream, downstream, or both.
- For many dams, the dam failure inundation zone is not known. Not having knowledge of these risk areas could lead to unprotected development in these zones.

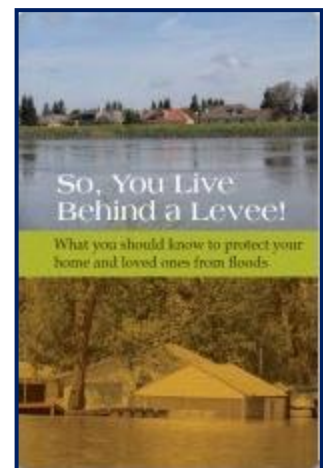
- **Levees and Major Embankments**

FEMA defines a levee as “a man-made structure, usually an earthen embankment, designed and constructed in accordance with sound engineering practices to contain, control, or divert the flow of water so as to provide protection from temporary flooding.” Levees are sometimes referred to as dikes. Soil used to construct a levee is compacted to make the levee as strong and stable as possible. To protect against erosion and scouring, levees can be covered with everything from grass and gravel to harder surfaces like stone (riprap), asphalt, or concrete.

Similar to dams, levees have not been regulated in terms of safety and design standards until relatively recently. Many older levees were constructed in a variety of ways, from a farmer piling dirt along a stream to prevent nuisance flooding to levees made out of old mining spoil material. As engineered structures, levees are designed to a certain height and can fail if a flood event is greater than anticipated.

A floodwall is a vertical wall that is built to provide protection from a flood in a similar manner as a levee. Typically made of concrete or steel, floodwalls often are erected in urban locations where there is not enough room for a levee. Floodwalls are sometimes constructed on a levee crown to increase the levee’s height.

Most new dams and levees are engineered to a certain design standard. If that design is exceeded, they could be overtopped and fail catastrophically, causing more damage than if the levee was not there in the first place. Few levees anywhere in the nation are built to more than a 1-percent-annual-chance flood protection rating, and the areas behind them are still at some risk for flooding. This threat is called residual risk. In some states, residual risk areas can



For more information about the risks associated with living behind levees, consult the publication “So, You Live Behind a Levee!” published by the American Society of Civil Engineers at

<http://content.asce.org/ASCELeveeGuide.html>.

extend up to 15 miles from a riverbank. Although the probability of flooding may be lower because a levee exists, risk is nonetheless still present. The American Society of Civil Engineers' publication "So, You Live Behind a Levee!" provides an in-depth explanation of levee and residual risk.

Major embankments, on the other hand, are rarely designed with any flood protection level in mind. Railroads, road abutments, and canals—especially in the Western United States—are not considered levees or dams and have issues such as unknown construction materials/methods. These embankments are not regulated from a flood risk standpoint.

- **Reasons levees and major embankments are considered AoMIs:**

- Like dams, many levees in the United States were constructed using unknown techniques and materials. These levees have a higher failure rate than those that have been designed to today's standards.
- A levee might not provide the flood risk reduction it once did as a result of flood risk changes over time. Flood risk can change due to a number of factors, including increased flood levels due to climate change or better estimates of flooding, development in the watershed increasing flood levels and settlement of the levee or floodwall, and sedimentation in the levee channel. Increased flood levels mean decreased flood protection. The lack of adequate maintenance over time will also reduce the capability of a levee to contain the flood levels for which it was originally designed.
- Given enough time, any levee will eventually be overtopped or damaged by a flood that exceeds the levee's capacity. Still, a widespread public perception of levees is that they will always provide protection. This perception may lead to not taking mitigation actions such as purchasing flood insurance.
- A levee is a system that can fail due to its weakest point, and therefore maintenance is critical. Many levees in the United States are poorly maintained or not maintained at all. Maintenance also includes maintaining the drainage systems behind the levees so they can keep the protected area dry.

- **Coastal Structures**

Coastal structures are used to "harden" the shoreline for a variety of purposes and include:



Canal levee breaches as a result of Hurricane Katrina in New Orleans in 2005. Note damages can be more extensive due to high velocity flood flows than if the levee was not there.

- Jetties: Structures constructed to direct currents or accommodate vessels.
- Groynes: Protective structures of stone or concrete that extend from shore into the water to prevent a beach from washing away.
- Sea walls: A form of hard and strong coastal defense constructed on the inland part of a coast to reduce the effects of strong waves.
- As the rate of sea level rise accelerates, an increase in coastal erosion is likely. We are now facing rapid sea level changes on a scale of decades. Higher sea levels could affect the coastal zone and accelerate coastal erosion and flooding in a variety of ways, including greater shoreline retreat; increased coastal erosion rates; property destruction; and saltwater intrusion into bays, rivers, and underground water resources. In addition, a general elevation in the water table due to sea level rise will result.
- **Reasons coastal structures are considered AoMIs:**
 - While coastal structures or “hardening of the shoreline” may provide a temporary level of flood reduction for a very specific site, it also interrupts the dynamic processes of the littoral flow (flow along the coastline) which results in accelerated coastal erosion.
 - Erosion often occurs along beaches during storms, especially severe storms that stay offshore for days and result in ongoing battering of the shoreline through high wind and waves. As the beach erodes, vulnerable properties are placed at even greater risk to coastal flooding, storm surge, wave heights, wave run up, and coastal erosion.
 - Higher water tables associated with sea level rise could lead to the failure of septic systems and other drainage systems, such as storm drains, which need to be located at a certain elevation above the water table. Elevation of the water table would also affect the river drainage systems by affecting the rate of infiltration and increasing the amount of runoff which would, in turn, increase the risk of flooding.



Severe beach erosion and damage resulting from a nor'easter.

- **Stream Flow Constrictions**

A stream flow constriction occurs when a human-made structure, such as a culvert or bridge, constricts the flow of a river or stream. The results of this constriction can be increased damage potential to the structure, an increase in velocity of flow through the structure, and the creation of significant ponding or backwater upstream of the structure. Regulatory standards regarding the proper opening size for a structure spanning a river or stream are not consistent and may be non-existent. Some local regulations require structures to

pass a volume of water that corresponds to a certain size rain event; however, under sizing, these openings can result in flood damage to the structure itself. After a large flood event, it is not uncommon to have numerous bridges and culverts “washed out.”

- **Reasons stream flow constrictions are considered AoMIs:**

- Stream flow constrictions can back water up on property upstream of the structure if not designed properly.
- These structures can accelerate the flow through the structure causing downstream erosion if not properly mitigated. This erosion can affect the structure itself, causing undermining and failure.
- If the constriction is a bridge or culvert, it can get washed out causing an area to become isolated and potentially more difficult to evacuate.
- Washed-out culverts and associated debris can wash downstream and cause additional constrictions.

- **At-Risk Essential Facilities**

Essential facilities, sometimes called “critical facilities,” are those whose impairment during a flood could cause significant problems to individuals or communities. For example, when a community’s wastewater treatment is flooded and shut down, not only do contaminants escape and flow into the floodwaters, but backflows of sewage can contaminate basements or other areas of the community. Similarly, when a facility such as a hospital is flooded, it can result in a significant hardship on the community not only during the event but long afterwards as well.

- **Reasons at-risk essential facilities are considered AoMIs:**

- Costly and specialized equipment may be damaged and need to be replaced.
- Impairments to facilities such as fire stations may result in lengthy delays in responding and a focus on evacuating the facility itself.
- Critical records and information stored at these facilities may be lost.

- **Past Flood Insurance Claims and Individual Assistance/Public Assistance Hotspots**

Assistance provided after flood events (flood insurance in any event and Individual Assistance [IA] or Public Assistance [PA] after declared disasters) occurs in flood affected areas. Understanding geographically where this assistance is being provided may indicate unique flood problems.



Clusters of past flood insurance claims can show where there is a repetitive flood problem.

Flood insurance claims are not always equally distributed in a community. Although estimates indicate that 20 to 50 percent of structures in identified flood hazard areas have flood insurance, clusters of past claims may indicate where there is a flood problem. However, clusters of past claims and/or areas where there are high payments under FEMA's IA or PA Programs may indicate areas of significant flood hazard.

- **Reasons past claim hotspots are considered AoMIs:**

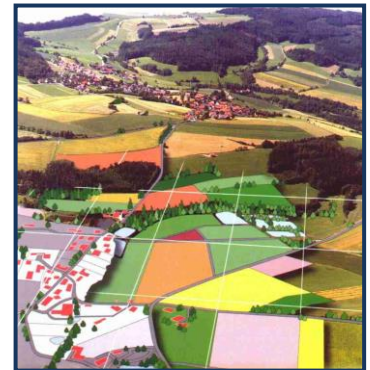
- A past claim hotspot may reflect an area of recent construction (large numbers of flood insurance policies as a result of a large number of mortgages) and an area where the as-built construction is not in accordance with local floodplain management regulations.
- Sometimes clusters of past claims occur in subdivisions that were constructed before flood protection standards were in place, places with inadequate stormwater management systems, or in areas that may not have been identified as SFHAs.
- Clusters of IA or PA claims may indicate areas where high flood insurance coverage or other mitigation actions are needed.

- **Areas of Significant Land Use Change**

Development, whether it is a 100-lot subdivision or a single lot big box commercial outlet, can result in large amounts of fill and other material being deposited in flood storage areas, thereby increasing flood hazards downstream.

Additionally, when development occurs, hard surfaces such as parking lots, buildings and driveways do not allow water to absorb into the ground, and more of the rainwater becomes runoff flowing directly into streams. As a result, the "peak flow" in a stream after a storm event will be higher and will occur faster. Without careful planning, major land use changes can affect the impervious area of a site and result in a significant increase in flood risk caused by streams that cannot handle the extra storm water runoff.

Sometimes a major land use change may be for planning purposes only. For example, a land use change that rezones land from a classification such as floodplain that restricts development to a zone such as industrial or high density residential could result in significant new infrastructure and structures in high flood risk areas.



Rooftops, pavements, patios, and driveways contribute to the impervious area in a watershed. This occurs in both urban areas and rural areas being developed.

- **Reasons Areas of Significant Land Use Change are considered AoMIs:**
 - Development in areas mapped SFHA reduces flood storage areas, which can make flooding worse at the development site and downstream of it.
 - Impervious surfaces speed up the water flowing in the streams, which can increase erosion and the danger that fast-flowing floodwaters pose to people and buildings.
 - Rezoning flood-prone areas to high densities and/or higher intensity uses can result in more people and property at risk of flooding and flood damage.
- **Key Emergency Routes Overtopped During Frequent Flooding Events**

Roads are not always elevated above estimated flood levels, and present a significant flood risk to motorists during flooding events. When alternate routes are available, risks may be reduced, including risks to life and economic loss.

- **Reasons overtopped roads are considered AoMIs:**
 - Such areas, when identified, can be accounted for and incorporated into Emergency Action Plans.
 - Roads may be elevated or reinforced to reduce the risk of overtopping during flood events.
- **Drainage or Stormwater-Based Flood Hazard Areas, or Areas Not Identified as Floodprone on the FIRM But Known to Be Inundated**

Flood hazard areas exist everywhere. While FEMA maps many of these, others are not identified. Many of these areas may be located in communities with existing, older, and often inadequate stormwater management systems or in very rural areas. Other similar areas could be a result of complex or unique drainage characteristics. Even though they are not mapped, awareness of these areas is important so adequate planning and mitigation actions can be performed.

- **Reasons drainage or stormwater-based flood hazard areas or unidentified floodprone locations are considered AoMIs:**
 - So further investigation of such areas can occur and, based on scientific data, appropriate mitigation actions can result (i.e., land use and building standards).
 - To create viable mitigation project applications in order to reduce flood losses.



When large highways close due to flooding, traffic is detoured causing inconvenience and economic loss.

- **Areas of Mitigation Success**

Flood mitigation projects are powerful tools to communicate the concepts of mitigation and result in more resilient communities. Multiple agencies have undertaken flood hazard mitigation actions for decades. Both structural measures—those that result in flood control structures—and non-structural measures have been implemented in thousands of communities. An extensive list of mitigation actions can be found in Section 4.

- **Reasons areas of mitigation success are considered AoMIs:**

- Mitigation successes identify those areas within the community that have experienced a reduction or elimination of flood risk.
 - Such areas are essential in demonstrating successful loss reduction measures and in educating citizens and officials on available flood hazard mitigation techniques.
 - Avoided losses can be calculated and shown.

- **Areas of Significant Riverine or Coastal Erosion**

Stream channels and coastlines are constantly subject to the forces of erosion. Areas of erosion (stream or coastal) threaten infrastructure, general building stock, and businesses, and also pose a threat to human life.

- **Reasons why areas of significant riverine or coastal erosion are considered AoMIs:**

- A community may wish to avoid development in areas identified as subject to erosion hazards.
 - Riverine flood damage assessments generally consider inundation alone.
 - Landslides and mudslides are a result of erosion.
 - Bank erosion caused by within channel flows is not recognized as a significant hazard in Federal floodplain management regulations.
 - Riverine and coastal erosion can undercut structures and roads, causing instability and possible collapse.
 - Approximately one-third of the nation's streams experience severe erosion problems.

- **Other**

Other types of flood risk areas include drainage or stormwater-based flood hazard areas, or areas known to be inundated during storm events.

3 Flood Risk Analysis Results

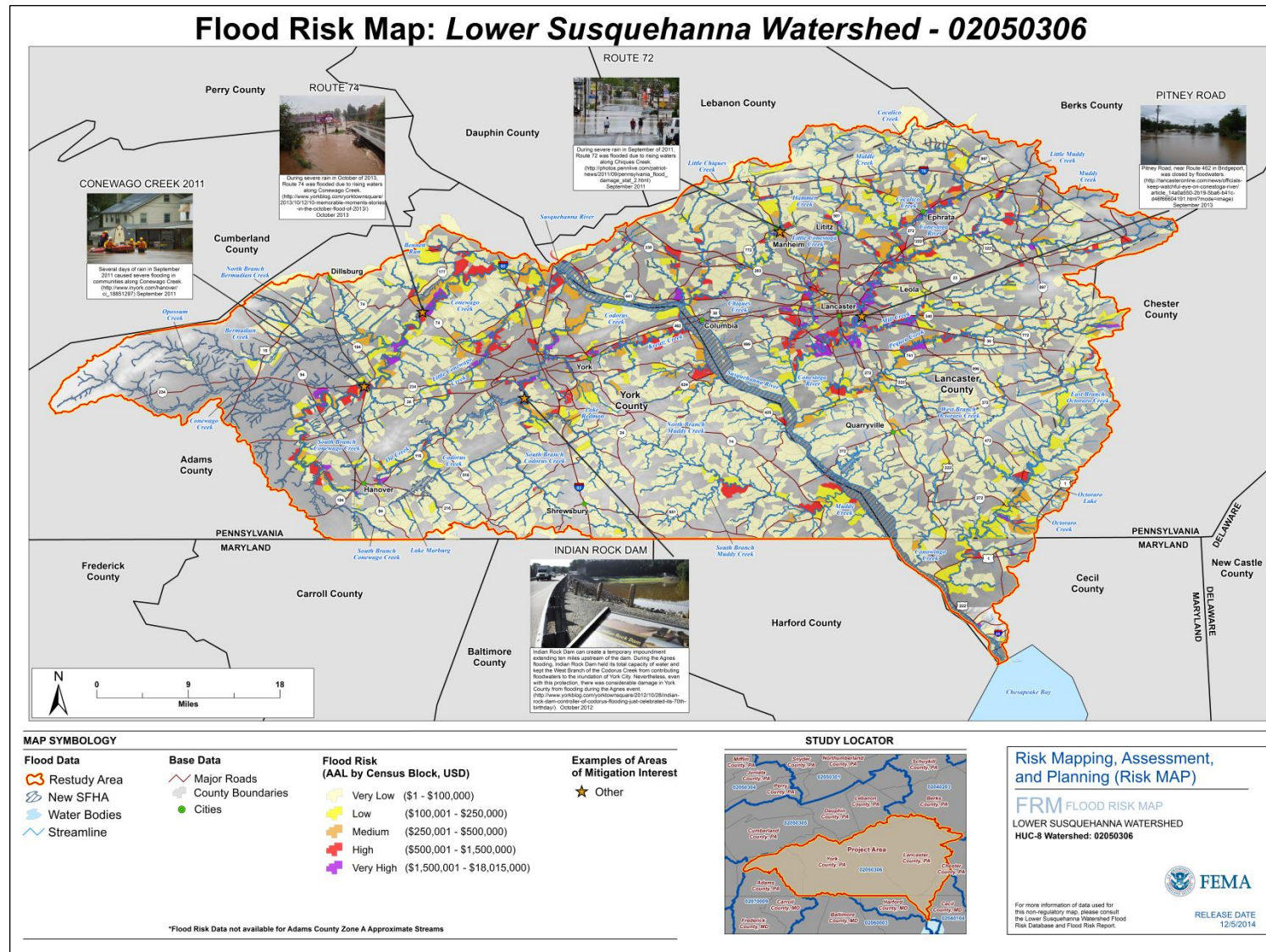
The following pages provide summary flood risk results for the Flood Risk Project as follows:

- **Flood Risk Map (FRM).** Within the Flood Risk Project the FRM displays base data reflecting community boundaries, major roads, and stream lines; potential losses that include both the 2010 Flood Average Annualized Loss (AAL) Study supplemented with new Hazus runs for areas with new or updated flood modeling; new Flood Risk Project areas; a bar chart summarizing community per capita loss; and graphics and text that promote access and usage of additional data available through the FRD, FIRM, and National Flood Hazard Layer and viewers (desktop or FEMA website, etc.). This information can be used to assist in Flood Risk Project-level planning as well as for developing mitigation actions within each jurisdiction located within the Flood Risk Project.
- **Flood Risk Project Summary.** Within the Flood Risk Project area, summary data for some or all of the following datasets are provided for the entire project area and also on a jurisdiction by jurisdiction basis:
 - **Changes Since Last FIRM (CSLF).** This is a summary of where the floodplain and flood zones have increased or decreased (only analyzed for areas that were previously mapped using digital FIRMs).
 - **Flood Depth and Analysis Grids.** A general discussion of the data provided in the FRD.
 - **Flood Risk Assessment Information.** A loss estimation of potential flood damages using different flood scenarios.

The FRM provides a graphical overview of the Flood Risk Project which highlights areas of risk that should be noted, based on potential losses, exposed facilities, etc., based on data found in the FRD. Refer to the data in the FRD to conduct additional analyses.

3.1 Flood Risk Map

The Flood Risk Map for this Flood Risk Project is shown below. In addition to this reduced version of the map, a full size version is available within the FRD.



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3.2 Lower Susquehanna Watershed Flood Risk Project Area Summary

The Lower Susquehanna Watershed encompasses 2,262 square miles and contains parts of ten counties in Pennsylvania and Maryland. Major communities include the Cities of York and Lancaster. The watershed is drained by the Susquehanna River, which empties into the Chesapeake Bay.

3.2.1 Overview

Lower Susquehanna Watershed, located in Maryland and Pennsylvania, includes the following communities:

Table 1: Overview of Communities in Lower Susquehanna Watershed.

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Abbottstown	421157	1,163	100	0.6	100	Y	N/A	Y
Borough of Adamstown	420541	1,772	100	1.4	100	Y	N/A	Y
Borough of Akron	422461	3,876	100	1.2	100	Y	N/A	Y
Borough of Arendtsville	422292	969	100	0.8	100	Y	N/A	Y
Borough of Atglen	420273	1,406	100	0.9	100	Y	N/A	Y
Township of Bart	421761	3,094	100	16.5	100	Y	N/A	Y
Borough of Bendersville	422293	968	100	0.5	100	Y	N/A	Y
Township of Berwick	421160	3,272	100	7.6	100	Y	N/A	Y
Borough of Biglerville	422649	1,243	100	0.7	100	Y	N/A	Y
Township of Brecknock	421762	7,199	100	24.8	100	Y	N/A	Y
Township of Brecknock	421053	4,585	25	9.1	18	Y	N/A	Y
Township of Butler	421247	3,621	59	24.0	88	Y	N/A	Y
Township of Caernarvon	421055	4,006	100	8.4	97	Y	N/A	Y
Township of Caernarvon	421763	4,748	100	23.0	100	Y	N/A	Y

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Carroll	422216	4,805	5	15.0	8	Y	N/A	Y
Township of Chanceford	422217	5,982	100	48.5	100	Y	N/A	Y
Borough of Christiana	420542	1,168	100	0.5	100	Y	N/A	Y
Township of Clay	421764	6,308	100	22.8	100	Y	N/A	Y
Township of Codorus	421142	3,644	93	33.5	95	Y	N/A	Y
Township of Colerain	421765	3,635	100	29.0	100	Y	N/A	Y
Borough of Columbia	420543	10,400	100	2.4	100	Y	N/A	Y
Township of Conestoga	420544	3,776	100	16.6	100	Y	N/A	Y
Township of Conewago	420918	5,263	100	24.7	100	Y	N/A	Y
Township of Conewago	421248	6,746	100	10.5	100	Y	N/A	Y
Township of Conoy	420545	3,194	71	18.4	60	Y	N/A	Y
Borough of Cornwall	420968	4,112	19	3.1	32	Y	N/A	Y
Borough of Cross Roads	422209	500	100	1.8	100	Y	N/A	Y
Township of Cumberland	421249	7,516	7	33.6	0	Y	N/A	Y
Borough of Dallastown	422739	4,161	100	0.8	100	Y	N/A	Y
Borough of Delta	422211	709	100	0.3	100	Y	N/A	Y
Borough of Denver	420546	3,861	100	1.3	100	Y	N/A	Y
Borough of Dillsburg	420919	1,997	100	0.8	100	Y	N/A	Y
Borough of Dover	422569	1,812	100	0.5	100	Y	N/A	Y

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Dover	420920	18,021	100	41.8	100	Y	N/A	Y
Township of Drumore	421766	3,691	100	29.2	100	Y	N/A	Y
Township of Earl	421767	7,024	100	22.1	100	Y	N/A	Y
Borough of East Berlin	420001	1,592	100	0.7	100	Y	N/A	Y
Township of East Cocalico	420547	10,310	100	20.6	100	Y	N/A	Y
Township of East Donegal	421768	7,755	100	23.8	100	Y	N/A	Y
Township of East Drumore	421769	3,691	100	23.2	100	Y	N/A	Y
Township of East Earl	421770	6,507	100	24.7	100	Y	N/A	Y
Township of East Hempfield	420548	23,552	100	21.2	100	Y	N/A	Y
Township of East Hopewell	422218	2,221	100	20.6	100	Y	N/A	Y
Township of East Lampeter	421771	16,424	100	19.9	100	Y	N/A	Y
Township of East Manchester	420921	5,169	100	17.3	100	Y	N/A	Y
Township of East Nottingham	421482	8,650	16	4.3	21	Y	N/A	Y
Borough of East Petersburg	420549	4,506	100	1.2	100	Y	N/A	Y
Borough of East Prospect	422740	646	100	0.3	100	N	N/A	Y
Township of Eden	421772	2,094	100	12.6	100	Y	N/A	Y
Township of Elizabeth	421773	3,886	100	17.8	100	Y	N/A	Y
Borough of Elizabethtown	420550	11,844	100	2.7	99	Y	N/A	Y
Borough of Elverson	422287	1,225	27	0.5	50	Y	N/A	Y

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Ephrata	420551	13,394	100	3.5	100	Y	N/A	Y
Township of Ephrata	421208	9,400	100	16.4	100	Y	N/A	Y
Township of Fairview	420923	14,030	12	34.5	23	Y	N/A	Y
Township of Fawn	422219	2,731	100	27.1	100	Y	N/A	Y
Borough of Fawn Grove	422570	469	100	1.7	100	Y	N/A	Y
Borough of Felton	420922	439	100	0.6	100	Y	N/A	Y
Borough of Franklintown	422741	534	100	0.3	100	N	N/A	Y
Township of Franklin	422220	4,479	98	19.2	85	Y	N/A	Y
Township of Franklin	421250	5,415	14	68.5	20	Y	N/A	Y
Township of Fulton	421774	3,074	100	29.4	100	Y	N/A	Y
Borough of Glen Rock	420924	1,794	100	0.8	100	Y	N/A	Y
Borough of Hallam	420926	1,459	100	0.7	100	Y	N/A	Y
Township of Hamilton	420002	3,624	100	13.6	100	Y	N/A	Y
Borough of Hanover	422212	14,564	100	3.7	100	Y	N/A	Y
Township of Heidelberg	420969	4,069	73	16.6	67	Y	N/A	Y
Township of Heidelberg	422221	2,920	100	14.6	100	Y	N/A	Y
Township of Hellam	420927	6,128	100	28.2	100	Y	N/A	Y
Township of Highland	422289	1,272	16	3.9	23	N	N/A	Y

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Honey Brook	422290	1,713	30	2.4	9	Y	N/A	Y
Township of Hopewell	422222	5,046	100	26.8	100	Y	N/A	Y
Township of Huntington	421143	3,263	100	25.1	99	Y	N/A	Y
Township of Jackson	422223	6,122	100	22.8	100	Y	N/A	Y
Borough of Jacobus	420928	1,150	100	0.9	100	Y	N/A	Y
Borough of Jefferson	422742	627	100	0.6	100	Y	N/A	Y
City of Lancaster	420552	59,322	100	7.3	100	Y	N/A	Y
Township of Lancaster	420553	16,149	100	6.1	100	Y	N/A	Y
Township of Latimore	421162	3,046	100	21.5	99	Y	N/A	Y
Township of Leacock	420958	5,220	100	20.6	100	Y	N/A	Y
Borough of Lewisberry	420929	379	100	0.1	100	Y	N/A	Y
Borough of Lititz	420554	9,369	100	2.3	100	Y	N/A	Y
Township of Little Britain	421775	4,106	100	27.6	100	Y	N/A	Y
Township of Lower Chanceford	420930	2,892	100	41.5	100	Y	N/A	Y
Township of Lower Oxford	421485	5,200	29	13.0	71	Y	N/A	Y
Township of Lower Windsor	421187	7,408	100	25.1	100	Y	N/A	Y
Borough of Loganville	422213	893	100	1.0	100	Y	N/A	Y
Borough of Manchester	422747	2,274	100	0.8	100	Y	N/A	Y
Township of Manchester	420931	12,803	100	15.8	100	Y	N/A	Y

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Manheim	420555	4,858	100	1.4	100	Y	N/A	Y
Township of Manheim	420556	38,133	100	24.1	100	Y	N/A	Y
Township of Manheim	422224	3,116	81	22.4	74	Y	N/A	Y
Township of Manor	420557	19,612	100	48.6	100	Y	N/A	Y
Borough of Marietta	420558	2,588	100	0.8	100	Y	N/A	Y
Township of Martic	421146	5,190	100	32.7	100	Y	N/A	Y
Borough of McSherrystown	421245	3,673	100	0.5	100	Y	N/A	Y
Township of Menallen	421256	3,856	73	42.8	83	Y	N/A	Y
Township of Millcreek	420574	3,892	3	1.9	9	Y	N/A	Y
Borough of Millersville	420559	8,168	100	1.9	100	Y	N/A	Y
Township of Monaghan	422225	2,124	4	12.9	11	Y	N/A	Y
Borough of Mount Joy	420561	7,410	100	2.4	100	Y	N/A	Y
Township of Mount Joy	421776	9,873	68	28.0	82	Y	N/A	Y
Township of Mount Pleasant	421258	6,106	45	30.6	66	Y	N/A	Y
Borough of Mount Wolf	421021	1,359	100	0.5	100	Y	N/A	Y
Borough of Mountville	420560	2,802	100	0.9	100	Y	N/A	Y
Borough of New Freedom	420932	3,516	52	2.1	53	Y	N/A	Y
Borough of New Holland	422709	5,378	100	2.0	100	N	N/A	Y

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of New Morgan	422755	71	55	3.0	52	Y	N/A	Y
Borough of New Oxford	421246	2,848	100	0.6	100	N	N/A	Y
Borough of New Salem	422743	632	100	0.5	100	Y	N/A	Y
Township of Newberry	422226	14,649	44	30.8	55	Y	N/A	Y
Township of North Codorus	422227	7,931	100	32.3	100	Y	N/A	Y
Township of North Hopewell	422228	2,565	100	18.8	100	Y	N/A	Y
Borough of North York	420933	1,715	100	0.3	100	Y	N/A	Y
Borough of Oxford	420284	5,077	25	0.9	46	Y	N/A	Y
Township of Oxford	420003	6,614	100	9.7	100	Y	N/A	Y
Township of Paradise	421777	5,131	100	18.7	100	Y	N/A	Y
Township of Paradise	420934	3,602	100	20.2	100	Y	N/A	Y
Borough of Parkesburg	422277	3,593	0	0.2	13	Y	N/A	Y
Township of Peach Bottom	422229	4,440	100	29.5	100	Y	N/A	Y
Township of Penn	421778	8,789	100	29.8	100	Y	N/A	Y
Township of Penn	421025	14,586	100	13.1	100	Y	N/A	Y
Township of Pequea	421779	4,605	100	13.6	100	Y	N/A	Y
Town of Perryville	240024	4,361	60	1.5	50	Y	N/A	Y
Town of Port Deposit	240025	653	100	2.1	92	Y	N/A	Y

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Providence	421780	6,897	100	20.1	100	Y	N/A	Y
Borough of Quarryville	420563	2,576	100	1.3	100	Y	N/A	Y
Borough of Railroad	420935	299	100	0.6	100	Y	N/A	Y
Township of Rapho	421781	10,442	100	47.8	100	Y	N/A	Y
Township of Reading	420004	6,306	100	26.8	100	Y	N/A	Y
Borough of Red Lion	422214	6,130	100	1.3	100	Y	N/A	Y
Town of Rising Sun	240158	2,781	100	1.5	96	Y	N/A	Y
Township of Robeson	420146	7,216	8	0.4	1	Y	N/A	Y
Township of Sadsbury	421782	3,395	100	19.7	100	Y	N/A	Y
Township of Sadsbury	421488	3,570	0	0.0	<1	Y	N/A	Y
Township of Salisbury	421783	11,062	84	41.9	93	Y	N/A	Y
Borough of Seven Valleys	420936	487	100	1.1	100	Y	N/A	Y
Borough of Shrewsbury	422748	3,336	100	1.8	100	N	N/A	Y
Township of Shrewsbury	422230	5,981	92	29.1	89	Y	N/A	Y
Township of South Heidelberg	421107	7,271	9	2.4	18	Y	N/A	Y
Township of South Lebanon	420581	9,461	1	7.1	33	Y	N/A	Y
Township of South Londonderry	421043	6,993	1	2.1	9	Y	N/A	Y
Township of Spring	421108	27,119	5	5.8	31	Y	N/A	Y

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Spring Garden	420937	12,078	100	6.8	100	Y	N/A	Y
Borough of Spring Grove	420938	2,047	100	0.8	100	Y	N/A	Y
Township of Springettsbury	421031	23,744	100	16.3	100	Y	N/A	Y
Township of Springfield	422231	3,963	100	26.7	100	Y	N/A	Y
Borough of Stewartstown	422744	1,733	100	0.8	100	N	N/A	Y
Township of Straban	421259	5,676	26	34.5	47	Y	N/A	Y
Borough of Strasburg	427790	2,809	100	1.0	100	Y	N/A	Y
Township of Strasburg	421784	4,182	100	20.1	100	Y	N/A	Y
Borough of Terre Hill	422710	1,295	100	0.5	100	N	N/A	Y
Township of Tyrone	421163	3,134	100	21.6	100	Y	N/A	Y
Township of Union	421261	4,485	43	17.6	79	Y	N/A	Y
Township of Upper Leacock	421785	8,708	100	18.3	100	Y	N/A	Y
Township of Upper Oxford	422278	2,484	35	18.3	57	Y	N/A	Y
Township of Warrington	422232	4,445	100	36.1	98	Y	N/A	Y
Township of Warwick	421786	17,783	100	19.9	100	Y	N/A	Y
Township of Washington	421150	2,517	100	28.1	100	Y	N/A	Y
Borough of Wellsville	420940	267	100	0.1	100	Y	N/A	Y
Township of West Caln	421497	9,014	22	5.4	24	Y	N/A	Y

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of West Cocalico	421787	7,280	96	27.6	99	Y	N/A	Y
Township of West Cornwall	420583	1,945	15	1.8	21	Y	N/A	Y
Township of West Donegal	421788	8,260	66	15.9	80	Y	N/A	Y
Township of West Earl	420959	7,868	100	17.9	100	Y	N/A	Y
Township of West Fallowfield	422602	2,566	100	17.6	98	Y	N/A	Y
Township of West Hempfield	421789	16,153	100	21.0	100	Y	N/A	Y
Township of West Lampeter	420566	15,209	100	16.6	100	Y	N/A	Y
Township of West Manchester	422233	16,996	100	20.0	100	Y	N/A	Y
Township of West Manheim	422234	4,863	100	20.1	94	Y	N/A	Y
Township of West Nantmeal	421498	2,170	0	0.6	4	Y	N/A	Y
Township of West Nottingham	422280	2,722	77	11.5	81	Y	N/A	Y
Township of West Sadsbury	422281	2,444	100	9.3	88	Y	N/A	Y
Borough of West York	420941	4,272	100	0.5	100	Y	N/A	Y
Borough of Windsor	420942	1,396	100	0.5	100	Y	N/A	Y
Township of Windsor	422235	12,851	100	27.3	100	Y	N/A	Y
Borough of Winterstown	422745	553	100	2.4	100	N	N/A	Y
Borough of Wrightsville	420943	2,207	100	0.7	100	Y	N/A	Y
Borough of Yoe	420944	911	100	0.2	100	Y	N/A	Y

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
City of York	420945	40,831	100	5.3	100	Y	N/A	Y
Township of York	421032	23,583	100	25.6	100	Y	N/A	Y
Borough of York Haven	420946	780	79	0.3	51	Y	N/A	Y
Borough of York Springs	421239	756	100	0.2	100	Y	N/A	Y
Borough of Yorkana	422746	218	100	0.2	100	N	N/A	Y

Community-specific results are provided on subsequent pages. Data provided below and on subsequent pages only includes areas located within the Lower Susquehanna Watershed Flood Risk Project and do not necessarily represent community-wide totals.

Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

- TEIF 1% Loss Value for Lower Susquehanna Watershed: \$4,521,200,000.00

3.2.2 Flood Risk Datasets

As a part of this Flood Risk Project, flood risk datasets were created for inclusion in the Flood Risk Database. Those datasets are summarized for this Flood Risk Project below:

- **Changes Since Last FIRM**
 - Changes Since Last FIRM occurred across the project area inside York and Lancaster Counties due to updated hydrologic and hydraulic analyses, using updated data sources since the previous studies. Updated data sources include topographic data from LiDAR, land use changes, and updated survey data. Adams, Berks, Cecil, Chester, Cumberland, and Lebanon Counties were not included since there was no updated analysis from current effective data.

The table below summarizes the increases, decreases, and net change of SFHAs for the watershed.

Table 2: Summary of Changes Since Last FIRM for Lower Susquehanna Watershed

Area of Interest	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Area within SFHA*	132.4	25.5	-16.3	9.2
Area within Floodway*	53.0	4.1	-0.7	3.4

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Lower Susquehanna Watershed, the figures in this table only represent information within the Lower Susquehanna Watershed.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- The FRD contains datasets in the form of depth grids for the entire Flood Risk Project that can be used for additional analysis, enhanced visualization, and communication of flood risks for hazard mitigation planning and emergency management. The data provided within the FRD should be used to further isolate areas where flood mitigation potential is high and may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation. Section 2 of the FRR provides general information regarding the development of and potential uses for this data.

- **Flood Risk Results Information**

- Lower Susquehanna Watershed flood risk analysis incorporates results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were estimated as well as potential loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 3: Summary of Potential Flood Losses – Lower Susquehanna Watershed (Total Project Area)

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$69,022,400,000	63%	\$0	N/A	\$0	N/A	\$460,900,000	1%	\$573,200,000	1%	\$0	N/A
Commercial Building and Contents	\$21,114,000,000	19%	\$0	N/A	\$0	N/A	\$294,500,000	1%	\$395,400,000	2%	\$0	N/A
Other Building and Contents	\$19,364,600,000	18%	\$0	N/A	\$0	N/A	\$272,500,000	1%	\$358,700,000	2%	\$0	N/A
Total Building and Contents ²	\$109,501,000,000	100%	\$0	N/A	\$0	N/A	\$1,028,500,000	1%	\$1,327,300,000	1%	\$0	N/A
Business Disruption ³	N/A	N/A	\$0	N/A	\$0	N/A	\$34,200,000	N/A	\$48,700,000	N/A	\$0	N/A
TOTAL⁴	\$109,501,000,000	N/A	\$0	N/A	\$0	N/A	\$1,062,700,000	1%	\$1,376,000,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3 Communities

The following sections provide an overview of the community's floodplain management program as of the date of this publication, as well as summarize the flood risk analysis performed for each project area in Lower Susquehanna Watershed.

3.3.1 Borough of Abbottstown (CID 421157)

The following pages include Flood Risk data for the Borough of Abbottstown, Adams County PA.

3.3.1.1. Overview

The information below provides an overview of the Borough of Abbottstown as of the date of this publication.

Table 4: Overview of Borough of Abbottstown

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Abbottstown	421157	1,163	100	0.6	100	Y	N/A	Y

- Participating in Adams County 2009 Hazard Mitigation Plan Update, which expires on 12/31/2014.
- Past Federal Disaster Declarations for flooding = 5
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 8 policies totaling approximately \$1,198,800
- TEIF 1% Loss Value: \$2,900,000.00

Data provided below only includes areas within the Borough of Abbottstown, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.1.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 5: Summary of Changes Since Last FIRM for Borough of Abbottstown

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Abbottstown, the figures in this table only represent information within the Borough of Abbottstown.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- percent-annual-chance flood depth grid)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of Abbottstown's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 6: Summary of Potential Flood Losses – Borough of Abbottstown

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$61,200,000	62%	\$0	N/A	\$0	N/A	\$70,000	<1%	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$25,300,000	25%	\$0	N/A	\$0	N/A	\$60,000	<1%	\$0	N/A	\$0	N/A
Other Building and Contents	\$13,000,000	13%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$99,500,000	100%	\$0	N/A	\$0	N/A	\$100,000	<1%	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$99,500,000	N/A	\$0	N/A	\$0	N/A	\$100,000	<1%	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.2 Borough of Adamstown Summary (CID 420541)

The following pages include Flood Risk data for the Borough of Adamstown, Lancaster County PA.

3.3.2.1 Overview

The information below provides an overview of the Borough of Adamstown as of the date of this publication.

Table 7: Overview of Borough of Adamstown

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Adamstown	420541	1,772	100	1.4	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 1 policies totaling approximately \$56,100
- TEIF 1% Loss Value: \$15,800,000

Data provided below only includes areas within the Borough of Adamstown, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.2.2 Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 8: Overview of Changes Since Last FIRM For Borough of Adamstown

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.1	<0.1	0.0	<0.1
Within Floodway	0.0	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Adamstown, the figures in this table only represent information within the Borough of Adamstown.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of Adamstown's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 9: Summary of Potential Flood Losses – Borough of Adamstown

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$103,400,000	39%	\$0	N/A	\$0	N/A	\$1,100,000	<1%	\$80,000	<1%	\$0	N/A
Commercial Building and Contents	\$9,800,000	4%	\$0	N/A	\$0	N/A	\$30,000	<1%	\$10,000	<1%	\$0	N/A
Other Building and Contents	\$152,700,000	57%	\$0	N/A	\$0	N/A	\$100,000	<1%	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$266,000,000	100%	\$0	N/A	\$0	N/A	\$1,200,000	<1%	\$80,000	<1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$266,000,000	N/A	\$0	N/A	\$0	N/A	\$1,300,000	<1%	\$80,000	<1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.3 Borough of Akron Summary (CID 422461)

The following pages include Flood Risk data for the Borough of Akron, Lancaster County PA.

3.3.3.1. Overview

The information below provides an overview of the Borough of Akron as of the date of this publication.

Table 10: Overview of Borough of Akron

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Akron	422461	3,876	100	1.2	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 6 policies totaling approximately \$1,292,900
- TEIF 1% Loss Value: \$2,800,000

Data provided below only includes areas within the Borough of Akron, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.3.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 11: Overview of Changes Since Last FIRM For Borough of Akron

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	<0.1	<0.1	<-0.1	<0.1
Within Floodway	<0.1	<0.1	0.0	<0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Akron, the figures in this table only represent information within the Borough of Akron.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of Akron's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 12: Summary of Potential Flood Losses – Borough of Akron

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$347,400,000	74%	\$0	N/A	\$0	N/A	\$800,000	<1%	\$1,600,000	<1%	\$0	N/A
Commercial Building and Contents	\$77,900,000	17%	\$0	N/A	\$0	N/A	\$200,000	<1%	\$400,000	1%	\$0	N/A
Other Building and Contents	\$44,600,000	9%	\$0	N/A	\$0	N/A	\$40,000	<1%	\$70,000	<1%	\$0	N/A
Total Building and Contents ²	\$469,800,000	100%	\$0	N/A	\$0	N/A	\$1,100,000	<1%	\$2,100,000	<1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$469,800,000	N/A	\$0	N/A	\$0	N/A	\$1,100,000	<1%	\$2,100,000	<1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.4 Borough of Arendtsville Summary (CID 422292)

The following pages include Flood Risk data for the Borough of Arendtsville, Adams County PA.

3.3.4.1 Overview

The information below provides an overview of the Borough of Arendtsville as of the date of this publication.

Table 13: Overview of Borough of Arendtsville

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Arendtsville	422292	969	100	0.8	100	Y	N/A	Y

- Participating in Adams County 2009 Hazard Mitigation Plan Update, which expires on 12/31/2014.
- Past Federal Disaster Declarations for flooding = 5
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 2 policies totaling approximately \$165,000
- TEIF 1% Loss Value: \$1,700,000

Data provided below only includes areas within the Borough of Arendtsville, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.4.2 Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 14: Overview of Changes Since Last FIRM For Borough of Arendtsville

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Arendtsville, the figures in this table only represent information within the Borough of Arendtsville.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1-percent-annual-chance flood depth grid)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of Arendtsville's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 15: Summary of Potential Flood Losses – Borough of Arendtsville

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$63,200,000	70%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$18,300,000	20%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$9,000,000	10%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$90,500,000	100%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$90,500,000	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.5 Borough of Atglen Summary (CID 420273)

The following pages include Flood Risk data for the Borough of Atglen, Chester County PA.

3.3.5.1 Overview

The information below provides an overview of the Borough of Atglen as of the date of this publication.

Table 16: Overview of Borough of Atglen

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Atglen	420273	1,406	100	0.9	100	Y	N/A	Y

- Participating in 2010 Chester County Multi-Jurisdictional Hazard Mitigation Plan, which expires on 6/1/2015.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 3 policies totaling approximately \$530,000
- TEIF 1% Loss Value: \$4,500,000

Data provided below only includes areas within the Borough of Atglen, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.5.2 Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 17: Overview of Changes Since Last FIRM For Borough of Atglen

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Atglen, the figures in this table only represent information within the Borough of Atglen.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1-percent-annual-chance flood depth grid)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of Atglen's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 18: Summary of Potential Flood Losses – Borough of Atglen

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$90,200,000	85%	\$0	N/A	\$0	N/A	\$400,000	<1%	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$6,000,000	6%	\$0	N/A	\$0	N/A	\$40,000	1%	\$0	N/A	\$0	N/A
Other Building and Contents	\$9,800,000	9%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$106,100,000	100%	\$0	N/A	\$0	N/A	\$400,000	<1%	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$106,100,000	N/A	\$0	N/A	\$0	N/A	\$400,000	<1%	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.6 Township of Bart Summary (CID 421761)

The following pages include Flood Risk data for the Township of Bart, Lancaster County PA.

3.3.6.1. Overview

The information below provides an overview of the Township of Bart as of the date of this publication.

Table 19: Overview of Township of Bart

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Bart	421761	3,094	100	16.5	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 5 policies totaling approximately \$1,171,000
- TEIF 1% Loss Value: \$12,200,000

Data provided below only includes areas within the Township of Bart, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.6.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 20: Overview of Changes Since Last FIRM For Township of Bart

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.7	0.1	-0.1	<0.1
Within Floodway	0.2	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Bart, the figures in this table only represent information within the Township of Bart.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Bart's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 21: Summary of Potential Flood Losses – Township of Bart

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$166,900,000	77%	\$0	N/A	\$0	N/A	\$1,000,000	1%	\$100,000	<1%	\$0	N/A
Commercial Building and Contents	\$24,200,000	11%	\$0	N/A	\$0	N/A	\$500,000	2%	\$30,000	<1%	\$0	N/A
Other Building and Contents	\$24,700,000	11%	\$0	N/A	\$0	N/A	\$200,000	1%	\$80,000	<1%	\$0	N/A
Total Building and Contents ²	\$215,800,000	100%	\$0	N/A	\$0	N/A	\$1,700,000	1%	\$200,000	<1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$215,800,000	N/A	\$0	N/A	\$0	N/A	\$1,700,000	1%	\$200,000	<1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.7 Borough of Bendersville Summary (CID 422293)

The following pages include Flood Risk data for the Borough of Bendersville, Adams County PA.

3.3.7.1 Overview

The information below provides an overview of the Borough of Bendersville as of the date of this publication.

Table 22: Overview of Borough of Bendersville

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Bendersville	422293	968	100	0.5	100	Y	N/A	Y

- Participating in Adams County 2009 Hazard Mitigation Plan Update, which expires on 12/31/2014.
- Past Federal Disaster Declarations for flooding = 5
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 1 policies totaling approximately \$350,000
- TEIF 1% Loss Value: \$700,000

Data provided below only includes areas within the Borough of Bendersville, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.7.2 Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 23: Overview of Changes Since Last FIRM For Borough of Bendersville

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Bendersville, the figures in this table only represent information within the Borough of Bendersville.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1-percent-annual-chance flood depth grid)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of Bendersville's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 24: Summary of Potential Flood Losses – Borough of Bendersville

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$38,600,000	78%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$3,400,000	7%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$7,300,000	15%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$49,300,000	100%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$49,300,000	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.8 Township of Berwick Summary (CID 421160)

The following pages include Flood Risk data for the Township of Berwick, Adams County PA.

3.3.8.1 Overview

The information below provides an overview of the Township of Berwick as of the date of this publication.

Table 25: Overview of Township of Berwick

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Berwick	421160	3,272	100	7.6	100	Y	N/A	Y

- Participating in Adams County 2009 Hazard Mitigation Plan Update, which expires on 12/31/2014.
- Past Federal Disaster Declarations for flooding = 5
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 7 policies totaling approximately \$1,408,700
- TEIF 1% Loss Value: \$5,600,000

Data provided below only includes areas within the Township of Berwick, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.8.2 Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 26: Overview of Changes Since Last FIRM For Township of Berwick

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Berwick, the figures in this table only represent information within the Township of Berwick.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1-percent-annual-chance flood depth grid)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Berwick's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 27: Summary of Potential Flood Losses – Township of Berwick

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$132,500,000	74%	\$0	N/A	\$0	N/A	\$70,000	<1%	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$32,200,000	18%	\$0	N/A	\$0	N/A	\$100,000	<1%	\$0	N/A	\$0	N/A
Other Building and Contents	\$14,900,000	8%	\$0	N/A	\$0	N/A	\$50,000	<1%	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$179,500,000	100%	\$0	N/A	\$0	N/A	\$300,000	<1%	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$179,500,000	N/A	\$0	N/A	\$0	N/A	\$300,000	<1%	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.9 Borough of Biglerville Summary (CID 422649)

The following pages include Flood Risk data for the Borough of Biglerville, Adams County PA.

3.3.9.1 Overview

The information below provides an overview of the Borough of Biglerville as of the date of this publication.

Table 28: Overview of Borough of Biglerville

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Biglerville	422649	1,243	100	0.7	100	Y	N/A	Y

- Participating in Adams County 2009 Hazard Mitigation Plan Update, which expires on 12/31/2014.
- Past Federal Disaster Declarations for flooding = 5
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 1 policies totaling approximately \$50,000
- TEIF 1% Loss Value: \$0

Data provided below only includes areas within the Borough of Biglerville, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.9.2 Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 29: Overview of Changes Since Last FIRM For Borough of Biglerville

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Biglerville, the figures in this table only represent information within the Borough of Biglerville.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- percent-annual-chance flood depth grid)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Borough of Biglerville's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 30: Summary of Potential Flood Losses – Borough of Biglerville

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$78,100,000	54%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$16,900,000	12%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$49,800,000	34%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$144,800,000	100%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$144,800,000	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.10 Township of Brecknock Summary (CID 421053)

The following pages include Flood Risk data for the Township of Brecknock, Berks County PA.

3.3.10.1. Overview

The information below provides an overview of the Township of Brecknock as of the date of this publication.

Table 34: Overview of Township of Brecknock (Berks County)

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Brecknock	421053	4,585	25	17.9	51	Y	N/A	Y

- Participating in Hazard Vulnerability Assessment and Mitigation Plan Update, which expires on 2/19/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 4 policies totaling approximately \$807,500
- TEIF 1% Loss Value: \$5,400,000

Data provided below only includes areas within the Township of Brecknock, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.10.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 35: Overview of Changes Since Last FIRM For Township of Brecknock (Berks County)

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Brecknock, the figures in this table only represent information within the Township of Brecknock.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1-annual-chance flood event depth grid)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Township of Brecknock's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 36: Summary of Potential Flood Losses – Township of Brecknock (Berks County)

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$156,300,000	89%	\$0	N/A	\$0	N/A	\$40,000	<1%	\$50,000	<1%	\$0	N/A
Commercial Building and Contents	\$10,900,000	6%	\$0	N/A	\$0	N/A	\$10,000	<1%	\$10,000	<1%	\$0	N/A
Other Building and Contents	\$7,800,000	4%	\$0	N/A	\$0	N/A	\$30,000	<1%	\$40,000	1%	\$0	N/A
Total Building and Contents ²	\$175,000,000	100%	\$0	N/A	\$0	N/A	\$70,000	<1%	\$100,000	<1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$175,000,000	N/A	\$0	N/A	\$0	N/A	\$70,000	<1%	\$100,000	<1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.11 Township of Brecknock Summary (CID 421762)

The following pages include Flood Risk data for the Township of Brecknock, Lancaster County PA.

3.3.11.1. Overview

The information below provides an overview of the Township of Brecknock as of the date of this publication.

Table 31: Overview of Township of Brecknock (Lancaster County)

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Brecknock	421762	7,199	100	24.8	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 12 policies totaling approximately \$2,958,200
- TEIF 1% Loss Value: \$31,600,000

Data provided below only includes areas within the Township of Brecknock, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.11.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 32: Overview of Changes Since Last FIRM For Township of Brecknock (Lancaster County)

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	1.5	0.5	-0.2	0.3
Within Floodway	<0.1	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Brecknock, the figures in this table only represent information within the Township of Brecknock.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Brecknock's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 33: Summary of Potential Flood Losses – Township of Brecknock (Lancaster County)

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$522,400,000	77%	\$0	N/A	\$0	N/A	\$5,400,000	1%	\$8,200,000	2%	\$0	N/A
Commercial Building and Contents	\$77,000,000	11%	\$0	N/A	\$0	N/A	\$1,600,000	2%	\$2,100,000	3%	\$0	N/A
Other Building and Contents	\$82,200,000	12%	\$0	N/A	\$0	N/A	\$1,900,000	2%	\$2,500,000	3%	\$0	N/A
Total Building and Contents ²	\$681,600,000	100%	\$0	N/A	\$0	N/A	\$9,000,000	1%	\$12,900,000	2%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$200,000	N/A	\$300,000	N/A	\$0	N/A
TOTAL⁴	\$681,600,000	N/A	\$0	N/A	\$0	N/A	\$9,200,000	1%	\$13,200,000	2%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.12 Township of Butler Summary (CID 421247)

The following pages include Flood Risk data for the Township of Butler, Adams County PA.

3.3.12.1. Overview

The information below provides an overview of the Township of Butler as of the date of this publication.

Table 37: Overview of Township of Butler

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Butler	421247	3,621	59	24.0	88	Y	N/A	Y

- Participating in Adams County 2009 Hazard Mitigation Plan Update, which expires on 12/31/2014.
- Past Federal Disaster Declarations for flooding = 5
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 10 policies totaling approximately \$1,800,500
- TEIF 1% Loss Value: \$26,300,000

Data provided below only includes areas within the Township of Butler, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.12.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 38: Overview of Changes Since Last FIRM For Township of Butler

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Butler, the figures in this table only represent information within the Township of Butler.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1-annual-chance flood event depth grid)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Butler's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 39: Summary of Potential Flood Losses – Township of Butler

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$143,700,000	65%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$33,700,000	15%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$42,600,000	19%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$220,000,000	100%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$220,000,000	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.13 Township of Caernarvon Summary (CID 421055)

The following pages include Flood Risk data for the Township of Caernarvon, Berks County PA.

3.3.13.1. Overview

The information below provides an overview of the Township of Caernarvon as of the date of this publication.

Table 40: Overview of Township of Caernarvon (Berks County)

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Caernarvon	421055	4,006	39	8.7	97	Y	N/A	Y

- Participating in Hazard Vulnerability Assessment and Mitigation Plan Update, which expires on 2/19/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 11 policies totaling approximately \$4,181,600
- TEIF 1% Loss Value: \$19,300,000

Data provided below only includes areas within the Township of Caernarvon, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.13.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 41: Overview of Changes Since Last FIRM For Township of Caernarvon (Berks County)

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Caernarvon, the figures in this table only represent information within the Township of Caernarvon.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Caernarvon's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 42: Summary of Potential Flood Losses – Township of Caernarvon (Berks County)

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$173,900,000	39%	\$0	N/A	\$0	N/A	\$0	N/A	\$10,000	<1%	\$0	N/A
Commercial Building and Contents	\$122,200,000	27%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$148,800,000	33%	\$0	N/A	\$0	N/A	\$20,000	<1%	\$20,000	<1%	\$0	N/A
Total Building and Contents ²	\$444,900,000	100%	\$0	N/A	\$0	N/A	\$20,000	<1%	\$30,000	<1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$444,900,000	N/A	\$0	N/A	\$0	N/A	\$20,000	<1%	\$30,000	<1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.14 Township of Caernarvon Summary (CID 421763)

The following pages include Flood Risk data for the Township of Caernarvon, Lancaster County PA.

3.3.14.1. Overview

The information below provides an overview of the Township of Caernarvon as of the date of this publication.

Table 43: Overview of Township of Caernarvon (Lancaster County)

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Caernarvon	421763	4,748	100	23.0	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 6 policies totaling approximately \$976,800
- TEIF 1% Loss Value: \$9,400,000

Data provided below only includes areas within the Township of Caernarvon, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.14.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 44: Overview of Changes Since Last FIRM For Township of Caernarvon (Lancaster County)

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	1.1	0.5	-0.1	0.4
Within Floodway	<0.1	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Caernarvon, the figures in this table only represent information within the Township of Caernarvon.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Township of Caernarvon's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 45: Summary of Potential Flood Losses – Township of Caernarvon (Lancaster County)

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$268,700,000	65%	\$0	N/A	\$0	N/A	\$1,100,000	<1%	\$1,800,000	1%	\$0	N/A
Commercial Building and Contents	\$76,600,000	19%	\$0	N/A	\$0	N/A	\$1,200,000	2%	\$1,500,000	2%	\$0	N/A
Other Building and Contents	\$67,100,000	16%	\$0	N/A	\$0	N/A	\$1,500,000	2%	\$2,100,000	3%	\$0	N/A
Total Building and Contents ²	\$412,300,000	100%	\$0	N/A	\$0	N/A	\$3,900,000	1%	\$5,300,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$200,000	N/A	\$0	N/A
TOTAL⁴	\$412,300,000	N/A	\$0	N/A	\$0	N/A	\$4,000,000	1%	\$5,500,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.15 Township of Carroll Summary (CID 422216)

The following pages include Flood Risk data for the Township of Carroll, York County PA.

3.3.15.1. Overview

The information below provides an overview of the Township of Carroll as of the date of this publication.

Table 46: Overview of Township of Carroll

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Carroll	422216	4,805	5	15.0	8	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 22 policies totaling approximately \$5,293,000
- TEIF 1% Loss Value: \$90,000

Data provided below only includes areas within the Township of Carroll, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.15.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 47: Overview of Changes Since Last FIRM For Township of Carroll

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.9	0.2	-0.2	<0.1
Within Floodway	0.3	<0.1	<-0.1	<0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Carroll, the figures in this table only represent information within the Township of Carroll.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Carroll's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 48: Summary of Potential Flood Losses – Township of Carroll

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$15,000,000	66%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$3,200,000	14%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$4,600,000	20%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$22,800,000	100%	\$0	N/A	\$0	N/A	\$0	N/A	\$10,000	<1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$22,800,000	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$10,000	<1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.16 Township of Chanceford Summary (CID 422217)

The following pages include Flood Risk data for the Township of Chanceford, York County PA.

3.3.16.1. Overview

The information below provides an overview of the Township of Chanceford as of the date of this publication.

Table 49: Overview of Township of Chanceford

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Chanceford	422217	5,982	100	48.5	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 10 policies totaling approximately \$1,754,000
- TEIF 1% Loss Value: \$13,800,000

Data provided below only includes areas within the Township of Chanceford, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.16.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 50: Overview of Changes Since Last FIRM For Township of Chanceford

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	1.4	0.3	-0.3	<0.1
Within Floodway	0.3	<0.1	<-0.1	0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Chanceford, the figures in this table only represent information within the Township of Chanceford.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Chanceford's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 51: Summary of Potential Flood Losses – Township of Chanceford

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$462,800,000	86%	\$0	N/A	\$0	N/A	\$1,700,000	<1%	\$2,500,000	1%	\$0	N/A
Commercial Building and Contents	\$34,900,000	6%	\$0	N/A	\$0	N/A	\$700,000	2%	\$900,000	3%	\$0	N/A
Other Building and Contents	\$42,500,000	8%	\$0	N/A	\$0	N/A	\$900,000	2%	\$1,100,000	3%	\$0	N/A
Total Building and Contents ²	\$540,200,000	100%	\$0	N/A	\$0	N/A	\$3,300,000	1%	\$4,500,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$0	N/A
TOTAL⁴	\$540,200,000	N/A	\$0	N/A	\$0	N/A	\$3,300,000	1%	\$4,600,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.17 Borough of Christiana Summary (CID 420542)

The following pages include Flood Risk data for the Borough of Christiana, Lancaster County PA.

3.3.17.1. Overview

The information below provides an overview of the Borough of Christiana as of the date of this publication.

Table 52: Overview of Borough of Christiana

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Christiana	420542	1,168	100	0.5	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 3 policies totaling approximately \$418,400
- TEIF 1% Loss Value: \$9,600,000

Data provided below only includes areas within the Borough of Christiana, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.17.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 53: Overview of Changes Since Last FIRM For Borough of Christiana

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.1	<0.1	<-0.1	<0.1
Within Floodway	<0.1	<0.1	0.0	<0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Christiana, the figures in this table only represent information within the Borough of Christiana.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of Christiana's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 54: Summary of Potential Flood Losses – Borough of Christiana

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$101,100,000	74%	\$0	N/A	\$0	N/A	\$2,200,000	2%	\$40,000	<1%	\$0	N/A
Commercial Building and Contents	\$17,100,000	12%	\$0	N/A	\$0	N/A	\$600,000	4%	\$0	N/A	\$0	N/A
Other Building and Contents	\$19,300,000	14%	\$0	N/A	\$0	N/A	\$800,000	4%	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$137,400,000	100%	\$0	N/A	\$0	N/A	\$3,700,000	3%	\$50,000	<1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$137,400,000	N/A	\$0	N/A	\$0	N/A	\$3,800,000	3%	\$50,000	<1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.18 Township of Clay Summary (CID 421764)

The following pages include Flood Risk data for the Township of Clay, Lancaster County PA.

3.3.18.1. Overview

The information below provides an overview of the Township of Clay as of the date of this publication.

Table 55: Overview of Township of Clay

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Clay	421764	6,308	100	22.8	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 14 policies totaling approximately \$2,171,500
- TEIF 1% Loss Value: \$21,300,000

Data provided below only includes areas within the Township of Clay, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.18.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 56: Overview of Changes Since Last FIRM For Township of Clay

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	1.7	0.4	-0.1	0.3
Within Floodway	0.1	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Clay, the figures in this table only represent information within the Township of Clay.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Township of Clay's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 57: Summary of Potential Flood Losses – Township of Clay

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$335,500,000	66%	\$0	N/A	\$0	N/A	\$3,000,000	1%	\$2,500,000	1%	\$0	N/A
Commercial Building and Contents	\$94,300,000	18%	\$0	N/A	\$0	N/A	\$1,600,000	2%	\$800,000	1%	\$0	N/A
Other Building and Contents	\$82,100,000	16%	\$0	N/A	\$0	N/A	\$800,000	1%	\$800,000	1%	\$0	N/A
Total Building and Contents ²	\$511,900,000	100%	\$0	N/A	\$0	N/A	\$5,300,000	1%	\$4,200,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$511,900,000	N/A	\$0	N/A	\$0	N/A	\$5,400,000	1%	\$4,200,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.19 Township of Codorus Summary (CID 421142)

The following pages include Flood Risk data for the Township of Codorus, York County PA.

3.3.19.1. Overview

The information below provides an overview of the Township of Codorus as of the date of this publication.

Table 58: Overview of Township of Codorus

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Codorus	421142	3,644	93	33.5	95	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 22 policies totaling approximately \$4,115,100
- TEIF 1% Loss Value: \$18,200,000

Data provided below only includes areas within the Township of Codorus, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.19.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 59: Overview of Changes Since Last FIRM For Township of Codorus

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	1.0	0.2	-0.5	-0.3
Within Floodway	0.4	0.1	<-0.1	0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Codorus, the figures in this table only represent information within the Township of Codorus.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Codorus's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 60: Summary of Potential Flood Losses – Township of Codorus

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$259,300,000	78%	\$0	N/A	\$0	N/A	\$1,400,000	1%	\$2,400,000	1%	\$0	N/A
Commercial Building and Contents	\$20,100,000	6%	\$0	N/A	\$0	N/A	\$300,000	1%	\$400,000	2%	\$0	N/A
Other Building and Contents	\$54,400,000	16%	\$0	N/A	\$0	N/A	\$400,000	1%	\$500,000	1%	\$0	N/A
Total Building and Contents ²	\$333,700,000	100%	\$0	N/A	\$0	N/A	\$2,100,000	1%	\$3,300,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$100,000	N/A	\$0	N/A
TOTAL⁴	\$333,700,000	N/A	\$0	N/A	\$0	N/A	\$2,200,000	1%	\$3,400,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.20 Township of Colerain Summary (CID 421765)

The following pages include Flood Risk data for the Township of Colerain, Lancaster County PA.

3.3.20.1. Overview

The information below provides an overview of the Township of Colerain as of the date of this publication.

Table 61: Overview of Township of Colerain

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Colerain	421765	3,635	100	29.0	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 5 policies totaling approximately \$975,200
- TEIF 1% Loss Value: \$14,900,000

Data provided below only includes areas within the Township of Colerain, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.20.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 62: Overview of Changes Since Last FIRM For Township of Colerain

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	2.1	0.3	-0.3	<0.0
Within Floodway	0.1	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Colerain, the figures in this table only represent information within the Township of Colerain.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Colerain's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 63: Summary of Potential Flood Losses – Township of Colerain

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$195,100,000	78%	\$0	N/A	\$0	N/A	\$2,000,000	1%	\$2,300,000	1%	\$0	N/A
Commercial Building and Contents	\$29,400,000	12%	\$0	N/A	\$0	N/A	\$400,000	1%	\$500,000	2%	\$0	N/A
Other Building and Contents	\$27,000,000	11%	\$0	N/A	\$0	N/A	\$300,000	1%	\$400,000	1%	\$0	N/A
Total Building and Contents ²	\$251,600,000	100%	\$0	N/A	\$0	N/A	\$2,700,000	1%	\$3,200,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$251,600,000	N/A	\$0	N/A	\$0	N/A	\$2,800,000	1%	\$3,200,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.21 Borough of Columbia Summary (CID 420543)

The following pages include Flood Risk data for the Borough of Columbia, Lancaster County PA.

3.3.21.1. Overview

The information below provides an overview of the Borough of Columbia as of the date of this publication.

Table 64: Overview of Borough of Columbia

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Columbia	420543	10,400	100	2.4	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 23 policies totaling approximately \$4,681,400
- TEIF 1% Loss Value: \$35,400,000

Data provided below only includes areas within the Borough of Columbia, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.21.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 65: Overview of Changes Since Last FIRM For Borough of Columbia

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.2	0.0	0.0	0.0
Within Floodway	0.1	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Columbia, the figures in this table only represent information within the Borough of Columbia.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of Columbia's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 66: Summary of Potential Flood Losses – Borough of Columbia

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$784,400,000	63%	\$0	N/A	\$0	N/A	\$4,400,000	1%	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$325,600,000	26%	\$0	N/A	\$0	N/A	\$3,300,000	1%	\$0	N/A	\$0	N/A
Other Building and Contents	\$143,900,000	11%	\$0	N/A	\$0	N/A	\$500,000	<1%	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$1,253,900,000	100%	\$0	N/A	\$0	N/A	\$8,200,000	1%	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$200,000	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$1,253,900,000	N/A	\$0	N/A	\$0	N/A	\$8,400,000	1%	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.22 Township of Conestoga Summary (CID 420544)

The following pages include Flood Risk data for the Township of Conestoga, Lancaster County PA.

3.3.22.1. Overview

The information below provides an overview of the Township of Conestoga as of the date of this publication.

Table 67: Overview of Township of Conestoga

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Conestoga	420544	3,776	100	16.6	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 9 policies totaling approximately \$2,208,800
- TEIF 1% Loss Value: \$11,000,000

Data provided below only includes areas within the Township of Conestoga, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.22.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 68: Overview of Changes Since Last FIRM For Township of Conestoga

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	2.6	0.2	<-0.1	0.2
Within Floodway	2.3	0.1	<-0.1	0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Conestoga, the figures in this table only represent information within the Township of Conestoga.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Conestoga's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 69: Summary of Potential Flood Losses – Township of Conestoga

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$287,300,000	82%	\$0	N/A	\$0	N/A	\$1,700,000	1%	\$3,100,000	1%	\$0	N/A
Commercial Building and Contents	\$32,400,000	9%	\$0	N/A	\$0	N/A	\$90,000	<1%	\$200,000	1%	\$0	N/A
Other Building and Contents	\$30,800,000	9%	\$0	N/A	\$0	N/A	\$100,000	<1%	\$300,000	1%	\$0	N/A
Total Building and Contents ²	\$350,600,000	100%	\$0	N/A	\$0	N/A	\$1,900,000	1%	\$3,500,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$350,600,000	N/A	\$0	N/A	\$0	N/A	\$1,900,000	1%	\$3,500,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.23 Township of Conewago Summary (CID 421248)

The following pages include Flood Risk data for the Township of Conewago, Adams County PA.

3.3.23.1. Overview

The information below provides an overview of the Township of Conewago as of the date of this publication.

Table 73: Overview of Township of Conewago (Adams County)

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Conewago	421248	6,746	100	10.5	100	Y	N/A	Y

- Participating in Adams County 2009 Hazard Mitigation Plan Update, which expires on 12/31/2014.
- Past Federal Disaster Declarations for flooding = 5
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 21 policies totaling approximately \$5,114,100
- TEIF 1% Loss Value: \$46,800,000

Data provided below only includes areas within the Township of Conewago, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.23.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 74: Overview of Changes Since Last FIRM For Township of Conewago (Adams County)

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Conewago, the figures in this table only represent information within the Township of Conewago.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- percent-annual-chance flood depth grid)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Conewago's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 75: Summary of Potential Flood Losses – Township of Conewago (Adams County)

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$420,600,000	50%	\$0	N/A	\$0	N/A	\$1,400,000	<1%	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$104,200,000	12%	\$0	N/A	\$0	N/A	\$800,000	1%	\$0	N/A	\$0	N/A
Other Building and Contents	\$312,700,000	37%	\$0	N/A	\$0	N/A	\$2,100,000	1%	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$837,500,000	100%	\$0	N/A	\$0	N/A	\$4,200,000	1%	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$300,000	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$837,500,000	N/A	\$0	N/A	\$0	N/A	\$4,500,000	1%	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.24 Township of Conewago Summary (CID 420918)

The following pages include Flood Risk data for the Township of Conewago, York County PA.

3.3.24.1. Overview

The information below provides an overview of the Township of Conewago as of the date of this publication.

Table 70: Overview of Township of Conewago (York County)

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Conewago	420918	5,263	100	24.7	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 54 policies totaling approximately \$10,775,800
- TEIF 1% Loss Value: \$44,800,000

Data provided below only includes areas within the Township of Conewago, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.24.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 71: Overview of Changes Since Last FIRM For Township of Conewago (York County)

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	1.5	0.2	-0.7	0.8
Within Floodway	0.5	<0.1	<-0.1	<0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Conewago, the figures in this table only represent information within the Township of Conewago.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Conewago's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 72: Summary of Potential Flood Losses – Township of Conewago (York County)

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$348,500,000	80%	\$0	N/A	\$0	N/A	\$6,500,000	2%	\$9,100,000	3%	\$0	N/A
Commercial Building and Contents	\$58,600,000	13%	\$0	N/A	\$0	N/A	\$1,100,000	2%	\$1,400,000	2%	\$0	N/A
Other Building and Contents	\$27,400,000	6%	\$0	N/A	\$0	N/A	\$600,000	2%	\$800,000	3%	\$0	N/A
Total Building and Contents ²	\$434,600,000	100%	\$0	N/A	\$0	N/A	\$8,200,000	2%	\$11,400,000	3%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$434,600,000	N/A	\$0	N/A	\$0	N/A	\$8,200,000	2%	\$11,400,000	3%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.25 Township of Conoy Summary (CID 420545)

The following pages include Flood Risk data for the Township of Conoy, Lancaster County PA.

3.3.25.1. Overview

The information below provides an overview of the Township of Conoy as of the date of this publication.

Table 76: Overview of Township of Conoy

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Conoy	420545	3,194	71	18.4	60	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 19 policies totaling approximately \$3,239,200
- TEIF 1% Loss Value: \$29,400,000

Data provided below only includes areas within the Township of Conoy, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.25.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 77: Overview of Changes Since Last FIRM For Township of Conoy

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	4.4	<0.1	<-0.1	<0.1
Within Floodway	3.8	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Conoy, the figures in this table only represent information within the Township of Conoy.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Township of Conoy's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 78: Summary of Potential Flood Losses – Township of Conoy

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$158,100,000	79%	\$0	N/A	\$0	N/A	\$2,500,000	2%	\$900,000	1%	\$0	N/A
Commercial Building and Contents	\$20,800,000	10%	\$0	N/A	\$0	N/A	\$600,000	3%	\$100,000	<1%	\$0	N/A
Other Building and Contents	\$22,400,000	11%	\$0	N/A	\$0	N/A	\$500,000	2%	\$100,000	<1%	\$0	N/A
Total Building and Contents ²	\$201,300,000	100%	\$0	N/A	\$0	N/A	\$3,600,000	2%	\$1,200,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$201,300,000	N/A	\$0	N/A	\$0	N/A	\$3,700,000	2%	\$1,200,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.26 Borough of Cornwall Summary (CID 420968)

The following pages include Flood Risk data for the Borough of Cornwall, Lebanon County PA.

3.3.26.1. Overview

The information below provides an overview of the Borough of Cornwall as of the date of this publication.

Table 79: Overview of Borough of Cornwall

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Cornwall	420968	4,112	19	9.8	32	Y	N/A	Y

- Participating in Lebanon County 2013 Hazard Mitigation Plan, which expires on 12/1/2018.
- Past Federal Disaster Declarations for flooding = 8
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 13 policies totaling approximately \$2,668,700
- TEIF 1% Loss Value: \$10,000

Data provided below only includes areas within the Borough of Cornwall, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.26.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 80: Overview of Changes Since Last FIRM For Borough of Cornwall

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Cornwall, the figures in this table only represent information within the Borough of Cornwall.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- and 0.2-percent-annual-chance flood events)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Borough of Cornwall's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 81: Summary of Potential Flood Losses – Borough of Cornwall

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$75,300,000	88%	\$0	N/A	\$0	N/A	\$60,000	<1%	\$100,000	<1%	\$0	N/A
Commercial Building and Contents	\$7,900,000	9%	\$0	N/A	\$0	N/A	\$40,000	1%	\$60,000	1%	\$0	N/A
Other Building and Contents	\$1,900,000	2%	\$0	N/A	\$0	N/A	\$10,000	1%	\$20,000	1%	\$0	N/A
Total Building and Contents ²	\$85,100,000	100%	\$0	N/A	\$0	N/A	\$100,000	<1%	\$200,000	<1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$85,100,000	N/A	\$0	N/A	\$0	N/A	\$100,000	<1%	\$200,000	<1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.27 Borough of Cross Roads Summary (CID 422209)

The following pages include Flood Risk data for the Borough of Cross Roads, York County PA.

3.3.27.1. Overview

The information below provides an overview of the Borough of Cross Roads as of the date of this publication.

Table 82: Overview of Borough of Cross Roads

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Cross Roads	422209	500	100	1.8	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- TEIF 1% Loss Value: \$1,800,000

Data provided below only includes areas within the Borough of Cross Roads, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.27.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 83: Overview of Changes Since Last FIRM For Borough of Cross Roads

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	<0.1	<0.1	<-0.1	<0.1
Within Floodway	0.0	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Cross Roads, the figures in this table only represent information within the Borough of Cross Roads.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Borough of Cross Roads's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 84: Summary of Potential Flood Losses – Borough of Cross Roads

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$43,400,000	91%	\$0	N/A	\$0	N/A	\$10,000	<1%	\$20,000	<1%	\$0	N/A
Commercial Building and Contents	\$3,000,000	6%	\$0	N/A	\$0	N/A	\$10,000	<1%	\$10,000	<1%	\$0	N/A
Other Building and Contents	\$1,300,000	3%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$47,800,000	100%	\$0	N/A	\$0	N/A	\$20,000	<1%	\$30,000	<1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$47,800,000	N/A	\$0	N/A	\$0	N/A	\$20,000	<1%	\$30,000	<1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.28 Township of Cumberland Summary (CID 421249)

The following pages include Flood Risk data for the Township of Cumberland, Adams County PA.

3.3.28.1. Overview

The information below provides an overview of the Township of Cumberland as of the date of this publication.

Table 85: Overview of Township of Cumberland

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Cumberland	421249	7,516	0	33.6	<1	Y	N/A	Y

- Participating in Adams County 2009 Hazard Mitigation Plan Update, which expires on 12/31/2014.
- Past Federal Disaster Declarations for flooding = 5
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 48 policies totaling approximately \$14,453,400
- TEIF 1% Loss Value: \$0

Data provided below only includes areas within the Township of Cumberland, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.28.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 86: Overview of Changes Since Last FIRM For Township of Cumberland

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Cumberland, the figures in this table only represent information within the Township of Cumberland.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- percent-annual-chance flood depth grid)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Township of Cumberland's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 87: Summary of Potential Flood Losses – Township of Cumberland

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$400,000	50%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$200,000	32%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$100,000	18%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$700,000	100%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$700,000	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.29 Borough of Dallastown Summary (CID 422739)

The following pages include Flood Risk data for the Borough of Dallastown, York County PA.

3.3.29.1. Overview

The information below provides an overview of the Borough of Dallastown as of the date of this publication.

Table 88: Overview of Borough of Dallastown

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
BOROUGH OF DALLASTOWN	422739	4,161	100	0.8	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 3 policies totaling approximately \$381,300
- TEIF 1% Loss Value: \$0

Data provided below only includes areas within the Borough of Dallastown, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.29.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 89: Overview of Changes Since Last FIRM For Borough of Dallastown

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Dallastown, the figures in this table only represent information within the Borough of Dallastown.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of Dallastown's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 90: Summary of Potential Flood Losses – Borough of Dallastown

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$348,800,000	73%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$70,500,000	15%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$61,200,000	13%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$480,600,000	100%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$480,600,000	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.30 Borough of Delta Summary (CID 422211)

The following pages include Flood Risk data for the Borough of Delta, York County PA.

3.3.30.1. Overview

The information below provides an overview of the Borough of Delta as of the date of this publication.

Table 91: Overview of Borough of Delta

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Delta	422211	709	100	0.3	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- TEIF 1% Loss Value: \$300,000

Data provided below only includes areas within the Borough of Delta, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.30.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 92: Overview of Changes Since Last FIRM For Borough of Delta

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	<0.1	0.0	<-0.1	<-0.1
Within Floodway	0.0	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Delta, the figures in this table only represent information within the Borough of Delta.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of Delta's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 93: Summary of Potential Flood Losses – Borough of Delta

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$54,000,000	68%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$12,300,000	16%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$12,500,000	16%	\$0	N/A	\$0	N/A	\$0	N/A	\$10,000	<1%	\$0	N/A
Total Building and Contents ²	\$78,900,000	100%	\$0	N/A	\$0	N/A	\$0	N/A	\$20,000	<1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$78,900,000	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$20,000	<1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.31 Borough of Denver Summary (CID 420546)

The following pages include Flood Risk data for the Borough of Denver, Lancaster County PA.

3.3.31.1. Overview

The information below provides an overview of the Borough of Denver as of the date of this publication.

Table 94: Overview of Borough of Denver

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Denver	420546	3,861	100	1.3	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 15 policies totaling approximately \$3,562,200
- TEIF 1% Loss Value: \$38,600,000

Data provided below only includes areas within the Borough of Denver, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.31.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 95: Overview of Changes Since Last FIRM For Borough of Denver

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.2	0.1	<-0.1	0.1
Within Floodway	0.1	<0.1	<-0.1	<0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Denver, the figures in this table only represent information within the Borough of Denver.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Borough of Denver's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 96: Summary of Potential Flood Losses – Borough of Denver

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$277,800,000	63%	\$0	N/A	\$0	N/A	\$6,600,000	2%	\$10,100,000	4%	\$0	N/A
Commercial Building and Contents	\$59,000,000	13%	\$0	N/A	\$0	N/A	\$3,000,000	5%	\$5,400,000	9%	\$0	N/A
Other Building and Contents	\$102,300,000	23%	\$0	N/A	\$0	N/A	\$7,800,000	8%	\$13,800,000	13%	\$0	N/A
Total Building and Contents ²	\$439,100,000	100%	\$0	N/A	\$0	N/A	\$17,400,000	4%	\$29,300,000	7%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$800,000	N/A	\$1,600,000	N/A	\$0	N/A
TOTAL⁴	\$439,100,000	N/A	\$0	N/A	\$0	N/A	\$18,200,000	4%	\$30,900,000	7%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.32 Borough of Dillsburg Summary (CID 420919)

The following pages include Flood Risk data for the Borough of Dillsburg, York County PA.

3.3.32.1. Overview

The information below provides an overview of the Borough of Dillsburg as of the date of this publication.

Table 97: Overview of Borough of Dillsburg

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Dillsburg	420919	1,997	100	0.8	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 3 policies totaling approximately \$708,000
- TEIF 1% Loss Value: \$0

Data provided below only includes areas within the Borough of Dillsburg, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.32.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 98: Overview of Changes Since Last FIRM For Borough of Dillsburg

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	<0.1	<0.1	<-0.1	<0.1
Within Floodway	0.0	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Dillsburg, the figures in this table only represent information within the Borough of Dillsburg.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of Dillsburg's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 99: Summary of Potential Flood Losses – Borough of Dillsburg

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$100,000	27%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$40,000	9%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$200,000	64%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$400,000	100%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$400,000	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.33 Borough of Dover Summary (CID 422569)

The following pages include Flood Risk data for the Borough of Dover, York County PA.

3.3.33.1. Overview

The information below provides an overview of the Borough of Dover as of the date of this publication.

Table 100: Overview of Borough of Dover

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
BOROUGH OF DOVER	422569	1,812	100	0.5	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 2 policies totaling approximately \$421,000
- TEIF 1% Loss Value: \$2,100,000

Data provided below only includes areas within the Borough of Dover, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.33.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

• Changes Since Last FIRM

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 101: Overview of Changes Since Last FIRM For Borough of Dover

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	<0.1	<0.1	<-0.1	0.0
Within Floodway	<0.1	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Dover, the figures in this table only represent information within the Borough of Dover.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of Dover's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 102: Summary of Potential Flood Losses – Borough of Dover

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$144,300,000	73%	\$0	N/A	\$0	N/A	\$100,000	<1%	\$200,000	<1%	\$0	N/A
Commercial Building and Contents	\$27,700,000	14%	\$0	N/A	\$0	N/A	\$200,000	1%	\$300,000	1%	\$0	N/A
Other Building and Contents	\$26,700,000	13%	\$0	N/A	\$0	N/A	\$20,000	<1%	\$30,000	<1%	\$0	N/A
Total Building and Contents ²	\$198,800,000	100%	\$0	N/A	\$0	N/A	\$400,000	<1%	\$500,000	<1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$198,800,000	N/A	\$0	N/A	\$0	N/A	\$400,000	<1%	\$500,000	<1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.34 Township of Dover Summary (CID 420920)

The following pages include Flood Risk data for the Township of Dover, York County PA.

3.3.34.1. Overview

The information below provides an overview of the Township of Dover as of the date of this publication.

Table 103: Overview of Township of Dover

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Dover	420920	18,021	100	41.8	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 71 policies totaling approximately \$10,567,600
- TEIF 1% Loss Value: \$91,500,000

Data provided below only includes areas within the Township of Dover, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.34.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 104: Overview of Changes Since Last FIRM For Township of Dover

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	2.5	0.5	-0.8	-0.4
Within Floodway	0.5	<0.1	<-0.1	<0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Dover, the figures in this table only represent information within the Township of Dover.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Dover's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 105: Summary of Potential Flood Losses – Township of Dover

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$1,341,800,000	81%	\$0	N/A	\$0	N/A	\$19,700,000	1%	\$26,300,000	2%	\$0	N/A
Commercial Building and Contents	\$189,900,000	11%	\$0	N/A	\$0	N/A	\$3,400,000	2%	\$4,200,000	2%	\$0	N/A
Other Building and Contents	\$133,100,000	8%	\$0	N/A	\$0	N/A	\$2,800,000	2%	\$3,500,000	3%	\$0	N/A
Total Building and Contents ²	\$1,664,800,000	100%	\$0	N/A	\$0	N/A	\$25,900,000	2%	\$34,100,000	2%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$400,000	N/A	\$500,000	N/A	\$0	N/A
TOTAL⁴	\$1,664,800,000	N/A	\$0	N/A	\$0	N/A	\$26,300,000	2%	\$34,600,000	2%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.35 Township of Drumore Summary (CID 421766)

The following pages include Flood Risk data for the Township of Drumore, Lancaster County PA.

3.3.35.1. Overview

The information below provides an overview of the Township of Drumore as of the date of this publication.

Table 106: Overview of Township of Drumore

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Drumore	421766	3,691	100	29.2	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 3 policies totaling approximately \$91,200
- TEIF 1% Loss Value: \$16,000,000

Data provided below only includes areas within the Township of Drumore, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.35.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 107: Overview of Changes Since Last FIRM For Township of Drumore

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	6.4	0.7	-0.6	0.1
Within Floodway	4.7	0.3	0.0	0.3

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Drumore, the figures in this table only represent information within the Township of Drumore.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Drumore's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 108: Summary of Potential Flood Losses – Township of Drumore

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$147,600,000	77%	\$0	N/A	\$0	N/A	\$600,000	<1%	\$1,000,000	1%	\$0	N/A
Commercial Building and Contents	\$25,400,000	13%	\$0	N/A	\$0	N/A	\$100,000	<1%	\$200,000	1%	\$0	N/A
Other Building and Contents	\$19,800,000	10%	\$0	N/A	\$0	N/A	\$100,000	1%	\$200,000	1%	\$0	N/A
Total Building and Contents ²	\$192,900,000	100%	\$0	N/A	\$0	N/A	\$800,000	<1%	\$1,300,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$100,000	N/A	\$0	N/A
TOTAL⁴	\$192,900,000	N/A	\$0	N/A	\$0	N/A	\$900,000	<1%	\$1,400,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.36 Township of Earl Summary (CID 421767)

The following pages include Flood Risk data for the Township of Earl, Lancaster County PA.

3.3.36.1. Overview

The information below provides an overview of the Township of Earl as of the date of this publication.

Table 109: Overview of Township of Earl

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Earl	421767	7,024	100	22.1	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 6 policies totaling approximately \$949,900
- TEIF 1% Loss Value: \$42,200,000

Data provided below only includes areas within the Township of Earl, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.36.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 110: Overview of Changes Since Last FIRM For Township of Earl

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	1.5	0.7	-0.3	0.4
Within Floodway	0.3	0.2	<-0.1	0.2

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Earl, the figures in this table only represent information within the Township of Earl.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Township of Earl's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 111: Summary of Potential Flood Losses – Township of Earl

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$365,200,000	31%	\$0	N/A	\$0	N/A	\$1,200,000	<1%	\$2,600,000	1%	\$0	N/A
Commercial Building and Contents	\$501,100,000	43%	\$0	N/A	\$0	N/A	\$4,300,000	1%	\$5,400,000	1%	\$0	N/A
Other Building and Contents	\$309,500,000	26%	\$0	N/A	\$0	N/A	\$9,500,000	3%	\$11,300,000	4%	\$0	N/A
Total Building and Contents ²	\$1,175,900,000	100%	\$0	N/A	\$0	N/A	\$15,000,000	1%	\$19,300,000	2%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$1,000,000	N/A	\$1,200,000	N/A	\$0	N/A
TOTAL⁴	\$1,175,900,000	N/A	\$0	N/A	\$0	N/A	\$16,000,000	1%	\$20,500,000	2%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.37 Borough of East Berlin Summary (CID 420001)

The following pages include Flood Risk data for the Borough of East Berlin, Adams County PA.

3.3.37.1. Overview

The information below provides an overview of the Borough of East Berlin as of the date of this publication.

Table 112: Overview of Borough of East Berlin

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of East Berlin	420001	1,592	100	0.7	100	Y	N/A	Y

- Participating in Adams County 2009 Hazard Mitigation Plan Update, which expires on 12/31/2014.
- Past Federal Disaster Declarations for flooding = 5
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 31 policies totaling approximately \$5,057,500
- TEIF 1% Loss Value: \$9,900,000

Data provided below only includes areas within the Borough of East Berlin, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.37.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 113: Overview of Changes Since Last FIRM For Borough of East Berlin

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of East Berlin, the figures in this table only represent information within the Borough of East Berlin.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- percent-annual-chance flood depth grid)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of East Berlin's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 114: Summary of Potential Flood Losses – Borough of East Berlin

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$105,800,000	65%	\$0	N/A	\$0	N/A	\$2,400,000	2%	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$31,800,000	19%	\$0	N/A	\$0	N/A	\$500,000	2%	\$0	N/A	\$0	N/A
Other Building and Contents	\$26,100,000	16%	\$0	N/A	\$0	N/A	\$1,200,000	5%	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$163,800,000	100%	\$0	N/A	\$0	N/A	\$4,100,000	3%	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$200,000	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$163,800,000	N/A	\$0	N/A	\$0	N/A	\$4,300,000	3%	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.38 Township of East Cocalico Summary (CID 420547)

The following pages include Flood Risk data for the Township of East Cocalico, Lancaster County, PA.

3.3.38.1. Overview

The information below provides an overview of the Township of East Cocalico as of the date of this publication.

Table 115: Overview of Township of East Cocalico

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of East Cocalico	420547	10,310	100	20.6	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 23 policies totaling approximately \$4,512,400
- TEIF 1% Loss Value: \$41,200,000

Data provided below only includes areas within the Township of East Cocalico, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.38.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 116: Overview of Changes Since Last FIRM For Township of East Cocalico

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	1.2	0.4	-0.1	0.3
Within Floodway	0.3	0.1	<-0.1	0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of East Cocalico, the figures in this table only represent information within the Township of East Cocalico.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of East Cocalico's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 117: Summary of Potential Flood Losses – Township of East Cocalico

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$861,000,000	64%	\$0	N/A	\$0	N/A	\$4,600,000	1%	\$6,300,000	1%	\$0	N/A
Commercial Building and Contents	\$219,600,000	16%	\$0	N/A	\$0	N/A	\$6,100,000	3%	\$8,900,000	4%	\$0	N/A
Other Building and Contents	\$270,700,000	20%	\$0	N/A	\$0	N/A	\$6,100,000	2%	\$9,300,000	3%	\$0	N/A
Total Building and Contents ²	\$1,351,400,000	100%	\$0	N/A	\$0	N/A	\$16,900,000	1%	\$24,500,000	2%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$1,100,000	N/A	\$1,500,000	N/A	\$0	N/A
TOTAL⁴	\$1,351,400,000	N/A	\$0	N/A	\$0	N/A	\$18,000,000	1%	\$26,000,000	2%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.39 Township of East Donegal Summary (CID 421768)

The following pages include Flood Risk data for the Township of East Donegal, Lancaster County PA.

3.3.39.1. Overview

The information below provides an overview of the Township of East Donegal as of the date of this publication.

Table 118: Overview of Township of East Donegal

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of East Donegal	421768	7,755	100	23.8	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 19 policies totaling approximately \$2,378,400
- TEIF 1% Loss Value: \$34,900,000

Data provided below only includes areas within the Township of East Donegal, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.39.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 119: Overview of Changes Since Last FIRM For Township of East Donegal

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	3.9	0.1	-0.1	<-0.1
Within Floodway	2.7	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of East Donegal, the figures in this table only represent information within the Township of East Donegal.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of East Donegal's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 120: Summary of Potential Flood Losses – Township of East Donegal

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$487,600,000	71%	\$0	N/A	\$0	N/A	\$4,500,000	1%	\$70,000	<1%	\$0	N/A
Commercial Building and Contents	\$109,800,000	16%	\$0	N/A	\$0	N/A	\$800,000	1%	\$20,000	<1%	\$0	N/A
Other Building and Contents	\$86,200,000	13%	\$0	N/A	\$0	N/A	\$1,500,000	2%	\$100,000	<1%	\$0	N/A
Total Building and Contents ²	\$683,600,000	100%	\$0	N/A	\$0	N/A	\$6,800,000	1%	\$200,000	<1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$200,000	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$683,600,000	N/A	\$0	N/A	\$0	N/A	\$7,000,000	1%	\$200,000	<1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.40 Township of East Drumore Summary (CID 421769)

The following pages include Flood Risk data for the Township of East Drumore, Lancaster County PA.

3.3.40.1. Overview

The information below provides an overview of the Township of East Drumore as of the date of this publication.

Table 121: Overview of Township of East Drumore

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of East Drumore	421769	3,691	100	23.2	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 1 policies totaling approximately \$500,000
- TEIF 1% Loss Value: \$ 14,100,000

Data provided below only includes areas within the Township of East Drumore, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.40.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 122: Overview of Changes Since Last FIRM For Township of East Drumore

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.8	0.3	-0.1	0.2
Within Floodway	<0.1	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of East Drumore, the figures in this table only represent information within the Township of East Drumore.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of East Drumore's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 123: Summary of Potential Flood Losses – Township of East Drumore

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$307,200,000	66%	\$0	N/A	\$0	N/A	\$500,000	<1%	\$900,000	<1%	\$0	N/A
Commercial Building and Contents	\$81,500,000	17%	\$0	N/A	\$0	N/A	\$400,000	<1%	\$500,000	1%	\$0	N/A
Other Building and Contents	\$77,200,000	17%	\$0	N/A	\$0	N/A	\$200,000	<1%	\$300,000	<1%	\$0	N/A
Total Building and Contents ²	\$465,800,000	100%	\$0	N/A	\$0	N/A	\$1,000,000	<1%	\$1,600,000	<1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$465,800,000	N/A	\$0	N/A	\$0	N/A	\$1,100,000	<1%	\$1,600,000	<1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.41 Township of East Earl Summary (CID 421770)

The following pages include Flood Risk data for the Township of East Earl, Lancaster County PA.

3.3.41.1. Overview

The information below provides an overview of the Township of East Earl as of the date of this publication.

Table 124: Overview of Township of East Earl

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of East Earl	421770	6,507	100	24.7	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 13 policies totaling approximately \$1,663,800
- TEIF 1% Loss Value: \$29,800,000

Data provided below only includes areas within the Township of East Earl, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.41.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 125: Overview of Changes Since Last FIRM For Township of East Earl

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	1.2	0.2	-0.2	<-0.1
Within Floodway	0.5	0.1	<-0.1	<0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of East Earl, the figures in this table only represent information within the Township of East Earl.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of East Earl's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 126: Summary of Potential Flood Losses – Township of East Earl

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$347,800,000	53%	\$0	N/A	\$0	N/A	\$2,400,000	1%	\$3,500,000	1%	\$0	N/A
Commercial Building and Contents	\$144,200,000	22%	\$0	N/A	\$0	N/A	\$1,100,000	1%	\$1,400,000	1%	\$0	N/A
Other Building and Contents	\$165,200,000	25%	\$0	N/A	\$0	N/A	\$3,300,000	2%	\$5,400,000	3%	\$0	N/A
Total Building and Contents ²	\$657,200,000	100%	\$0	N/A	\$0	N/A	\$6,800,000	1%	\$10,300,000	2%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$500,000	N/A	\$900,000	N/A	\$0	N/A
TOTAL⁴	\$657,200,000	N/A	\$0	N/A	\$0	N/A	\$7,300,000	1%	\$11,200,000	2%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.42 Township of East Hempfield Summary (CID 420548)

The following pages include Flood Risk data for the Township of East Hempfield.

3.3.42.1. Overview

The information below provides an overview of the Township of East Hempfield as of the date of this publication.

Table 127: Overview of Township of East Hempfield

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of East Hempfield	420548	23,552	100	21.2	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 76 policies totaling approximately \$20,402,200
- TEIF 1% Loss Value: \$190,300,000

Data provided below only includes areas within the Township of East Hempfield, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.42.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 128: Overview of Changes Since Last FIRM For Township of East Hempfield

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	1.2	0.1	-0.2	<-0.1
Within Floodway	0.5	<0.1	<-0.1	<-0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of East Hempfield, the figures in this table only represent information within the Township of East Hempfield.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Township of East Hempfield's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 129: Summary of Potential Flood Losses – Township of East Hempfield

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$2,133,000,000	54%	\$0	N/A	\$0	N/A	\$14,500,000	1%	\$9,200,000	<1%	\$0	N/A
Commercial Building and Contents	\$931,700,000	24%	\$0	N/A	\$0	N/A	\$12,400,000	1%	\$12,500,000	1%	\$0	N/A
Other Building and Contents	\$891,100,000	23%	\$0	N/A	\$0	N/A	\$9,400,000	1%	\$4,100,000	<1%	\$0	N/A
Total Building and Contents ²	\$3,955,800,000	100%	\$0	N/A	\$0	N/A	\$36,300,000	1%	\$25,700,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$1,500,000	N/A	\$900,000	N/A	\$0	N/A
TOTAL⁴	\$3,955,800,000	N/A	\$0	N/A	\$0	N/A	\$37,800,000	1%	\$26,600,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.43 Township of East Hopewell Summary (CID 422218)

The following pages include Flood Risk data for the Township of East Hopewell, York County PA.

3.3.43.1. Overview

The information below provides an overview of the Township of East Hopewell as of the date of this publication.

Table 130: Overview of Township of East Hopewell

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of East Hopewell	422218	2,221	100	20.6	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 3 policies totaling approximately \$466,100
- TEIF 1% Loss Value: \$6,500,000

Data provided below only includes areas within the Township of East Hopewell, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.43.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 131: Overview of Changes Since Last FIRM For Township of East Hopewell

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.8	0.2	-0.1	0.4
Within Floodway	0.1	<0.1	<-0.1	<0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of East Hopewell, the figures in this table only represent information within the Township of East Hopewell.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Township of East Hopewell's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 132: Summary of Potential Flood Losses – Township of East Hopewell

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$193,900,000	84%	\$0	N/A	\$0	N/A	\$900,000	<1%	\$1,300,000	1%	\$0	N/A
Commercial Building and Contents	\$21,000,000	9%	\$0	N/A	\$0	N/A	\$100,000	<1%	\$100,000	<1%	\$0	N/A
Other Building and Contents	\$15,400,000	7%	\$0	N/A	\$0	N/A	\$90,000	1%	\$100,000	1%	\$0	N/A
Total Building and Contents ²	\$230,200,000	100%	\$0	N/A	\$0	N/A	\$1,100,000	<1%	\$1,500,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$230,200,000	N/A	\$0	N/A	\$0	N/A	\$1,100,000	<1%	\$1,500,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.44 Township of East Lampeter Summary (CID 421771)

The following pages include Flood Risk data for the Township of East Lampeter, Lancaster County PA.

3.3.44.1. Overview

The information below provides an overview of the Township of East Lampeter as of the date of this publication.

Table 133: Overview of Township of East Lampeter

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of East Lampeter	421771	16,424	100	19.9	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 33 policies totaling approximately \$9,066,100
- TEIF 1% Loss Value: \$95,600,000

Data provided below only includes areas within the Township of East Lampeter, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.44.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 134: Overview of Changes Since Last FIRM For Township of East Lampeter

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	1.4	0.2	-0.1	0.1
Within Floodway	0.6	<0.1	<-0.1	<-0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of East Lampeter, the figures in this table only represent information within the Township of East Lampeter.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of East Lampeter's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 135: Summary of Potential Flood Losses – Township of East Lampeter

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$1,214,800,000	50%	\$0	N/A	\$0	N/A	\$19,900,000	2%	\$13,100,000	1%	\$0	N/A
Commercial Building and Contents	\$766,800,000	32%	\$0	N/A	\$0	N/A	\$16,300,000	2%	\$6,100,000	1%	\$0	N/A
Other Building and Contents	\$435,600,000	18%	\$0	N/A	\$0	N/A	\$8,000,000	2%	\$6,200,000	1%	\$0	N/A
Total Building and Contents ²	\$2,417,200,000	100%	\$0	N/A	\$0	N/A	\$44,300,000	2%	\$25,400,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$1,100,000	N/A	\$800,000	N/A	\$0	N/A
TOTAL⁴	\$2,417,200,000	N/A	\$0	N/A	\$0	N/A	\$45,400,000	2%	\$26,200,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.45 Township of East Manchester Summary (CID 420921)

The following pages include Flood Risk data for the Township of East Manchester, York County PA.

3.3.45.1. Overview

The information below provides an overview of the Township of East Manchester as of the date of this publication.

Table 136: Overview of Township of East Manchester

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of East Manchester	420921	5,169	100	17.3	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 21 policies totaling approximately \$3,182,100
- TEIF 1% Loss Value: \$73,200,000

Data provided below only includes areas within the Township of East Manchester, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.45.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 137: Overview of Changes Since Last FIRM For Township of East Manchester

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	1.5	0.2	-0.4	<-0.1
Within Floodway	0.4	0.1	<-0.1	0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of East Manchester, the figures in this table only represent information within the Township of East Manchester.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of East Manchester's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 138: Summary of Potential Flood Losses – Township of East Manchester

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$407,600,000	55%	\$0	N/A	\$0	N/A	\$3,900,000	1%	\$6,400,000	2%	\$0	N/A
Commercial Building and Contents	\$136,400,000	18%	\$0	N/A	\$0	N/A	\$700,000	1%	\$1,100,000	1%	\$0	N/A
Other Building and Contents	\$197,100,000	27%	\$0	N/A	\$0	N/A	\$300,000	<1%	\$600,000	<1%	\$0	N/A
Total Building and Contents ²	\$741,100,000	100%	\$0	N/A	\$0	N/A	\$5,000,000	1%	\$8,100,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$0	N/A
TOTAL⁴	\$741,100,000	N/A	\$0	N/A	\$0	N/A	\$5,000,000	1%	\$8,200,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.46 Township of East Nottingham Summary (CID 421482)

The following pages include Flood Risk data for the Township of East Nottingham, Chester County PA.

3.3.46.1. Overview

The information below provides an overview of the Township of East Nottingham as of the date of this publication.

Table 139: Overview of Township of East Nottingham

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of East Nottingham	421482	8,650	16	20.0	21	Y	N/A	Y

- Participating in 2010 Chester County Multi-Jurisdictional Hazard Mitigation Plan, which expires on 6/1/2015.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 9 policies totaling approximately \$1,415,200
- TEIF 1% Loss Value: \$5,700,000

Data provided below only includes areas within the Township of East Nottingham, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.46.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 140: Overview of Changes Since Last FIRM For Township of East Nottingham

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of East Nottingham, the figures in this table only represent information within the Township of East Nottingham.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of East Nottingham's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 141: Summary of Potential Flood Losses – Township of East Nottingham

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$95,700,000	68%	\$0	N/A	\$0	N/A	\$400,000	<1%	\$10,000	<1%	\$0	N/A
Commercial Building and Contents	\$21,300,000	15%	\$0	N/A	\$0	N/A	\$30,000	<1%	\$0	N/A	\$0	N/A
Other Building and Contents	\$24,700,000	17%	\$0	N/A	\$0	N/A	\$40,000	<1%	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$141,600,000	100%	\$0	N/A	\$0	N/A	\$500,000	<1%	\$10,000	<1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$141,600,000	N/A	\$0	N/A	\$0	N/A	\$500,000	<1%	\$10,000	<1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.47 Borough of East Petersburg Summary (CID 420549)

The following pages include Flood Risk data for the Borough of East Petersburg, Lancaster County PA.

3.3.47.1. Overview

The information below provides an overview of the Borough of East Petersburg as of the date of this publication.

Table 142: Overview of Borough of East Petersburg

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of East Petersburg	420549	4,506	100	1.2	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 10 policies totaling approximately \$3,651,600
- TEIF 1% Loss Value: \$7,400,000

Data provided below only includes areas within the Borough of East Petersburg, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.47.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 143: Overview of Changes Since Last FIRM For Borough of East Petersburg

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	<0.1	<0.1	<-0.1	<-0.1
Within Floodway	<0.1	0.0	<-0.1	<-0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of East Petersburg, the figures in this table only represent information within the Borough of East Petersburg.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of East Petersburg's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 144: Summary of Potential Flood Losses – Borough of East Petersburg

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$412,200,000	77%	\$0	N/A	\$0	N/A	\$1,200,000	<1%	\$2,600,000	1%	\$0	N/A
Commercial Building and Contents	\$86,200,000	16%	\$0	N/A	\$0	N/A	\$600,000	1%	\$900,000	1%	\$0	N/A
Other Building and Contents	\$36,300,000	7%	\$0	N/A	\$0	N/A	\$50,000	<1%	\$80,000	<1%	\$0	N/A
Total Building and Contents ²	\$534,700,000	100%	\$0	N/A	\$0	N/A	\$1,900,000	<1%	\$3,600,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$0	N/A
TOTAL⁴	\$534,700,000	N/A	\$0	N/A	\$0	N/A	\$1,900,000	<1%	\$3,700,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.48 Borough of East Prospect Summary (CID 422740)

The following pages include Flood Risk data for the Borough of East Prospect, York County PA.

3.3.48.1. Overview

The information below provides an overview of the Borough of East Prospect as of the date of this publication.

Table 145: Overview of Borough of East Prospect

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of East Prospect	422740	646	100	0.3	100	N	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- TEIF 1% Loss Value: \$0

Data provided below only includes areas within the Borough of East Prospect, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.48.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 146: Overview of Changes Since Last FIRM For Borough of East Prospect

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of East Prospect, the figures in this table only represent information within the Borough of East Prospect.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Borough of East Prospect's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 147: Summary of Potential Flood Losses – Borough of East Prospect

	Flood Risk Project Refined Losses		Estimated Potential Losses for Flood Event Scenarios									
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$44,800,000	61%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$8,600,000	12%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$19,600,000	27%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$73,000,000	100%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$73,000,000	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.49 Township of Eden Summary (CID 421772)

The following pages include Flood Risk data for the Township of Eden, Lancaster County PA.

3.3.49.1. Overview

The information below provides an overview of the Township of Eden as of the date of this publication.

Table 148: Overview of Township of Eden

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Eden	421772	2,094	100	12.6	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 2 policies totaling approximately \$396,300
- TEIF 1% Loss Value: \$5,100,000

Data provided below only includes areas within the Township of Eden, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.49.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 149: Overview of Changes Since Last FIRM For Township of Eden

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.3	0.1	<-0.1	0.1
Within Floodway	<0.1	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Eden, the figures in this table only represent information within the Township of Eden.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Eden's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 150: Summary of Potential Flood Losses – Township of Eden

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$112,600,000	67%	\$0	N/A	\$0	N/A	\$200,000	<1%	\$300,000	<1%	\$0	N/A
Commercial Building and Contents	\$12,100,000	7%	\$0	N/A	\$0	N/A	\$600,000	5%	\$700,000	6%	\$0	N/A
Other Building and Contents	\$43,500,000	26%	\$0	N/A	\$0	N/A	\$3,200,000	7%	\$4,600,000	11%	\$0	N/A
Total Building and Contents ²	\$168,200,000	100%	\$0	N/A	\$0	N/A	\$4,000,000	2%	\$5,500,000	3%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$600,000	N/A	\$700,000	N/A	\$0	N/A
TOTAL⁴	\$168,200,000	N/A	\$0	N/A	\$0	N/A	\$4,600,000	3%	\$6,200,000	4%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.50 Township of Elizabeth Summary (CID 421773)

The following pages include Flood Risk data for the Township of Elizabeth, Lancaster County PA.

3.3.50.1. Overview

The information below provides an overview of the Township of Elizabeth as of the date of this publication.

Table 151: Overview of Township of Elizabeth

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Elizabeth	421773	3,886	100	17.8	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 9 policies totaling approximately \$2,093,900
- TEIF 1% Loss Value: \$12,400,000

Data provided below only includes areas within the Township of Elizabeth, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.50.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 152: Overview of Changes Since Last FIRM For Township of Elizabeth

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	1.1	0.2	-0.2	0.1
Within Floodway	<0.1	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Elizabeth, the figures in this table only represent information within the Township of Elizabeth.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Township of Elizabeth's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 153: Summary of Potential Flood Losses – Township of Elizabeth

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$269,900,000	64%	\$0	N/A	\$0	N/A	\$1,400,000	1%	\$2,000,000	1%	\$0	N/A
Commercial Building and Contents	\$46,100,000	11%	\$0	N/A	\$0	N/A	\$800,000	2%	\$1,000,000	2%	\$0	N/A
Other Building and Contents	\$106,400,000	25%	\$0	N/A	\$0	N/A	\$600,000	1%	\$700,000	1%	\$0	N/A
Total Building and Contents ²	\$422,300,000	100%	\$0	N/A	\$0	N/A	\$2,800,000	1%	\$3,700,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$0	N/A
TOTAL⁴	\$422,300,000	N/A	\$0	N/A	\$0	N/A	\$2,800,000	1%	\$3,800,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.51 Borough of Elizabethtown Summary (CID 420550)

The following pages include Flood Risk data for the Borough of Elizabethtown, Lancaster PA.

3.3.51.1. Overview

The information below provides an overview of the Borough of Elizabethtown as of the date of this publication.

Table 154: Overview of Borough of Elizabethtown

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Elizabethtown	420550	11,844	100	2.7	99	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 23 policies totaling approximately \$4,899,800
- TEIF 1% Loss Value: \$29,500,000

Data provided below only includes areas within the Borough of Elizabethtown, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.51.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 155: Overview of Changes Since Last FIRM For Borough of Elizabethtown

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.1	<0.1	<-0.1	<0.1
Within Floodway	<0.1	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Elizabethtown, the figures in this table only represent information within the Borough of Elizabethtown.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of Elizabethtown's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 156: Summary of Potential Flood Losses – Borough of Elizabethtown

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$1,068,800,000	76%	\$0	N/A	\$0	N/A	\$2,900,000	<1%	\$400,000	<1%	\$0	N/A
Commercial Building and Contents	\$155,400,000	11%	\$0	N/A	\$0	N/A	\$1,600,000	1%	\$300,000	<1%	\$0	N/A
Other Building and Contents	\$179,800,000	13%	\$0	N/A	\$0	N/A	\$4,600,000	3%	\$900,000	1%	\$0	N/A
Total Building and Contents ²	\$1,404,000,000	100%	\$0	N/A	\$0	N/A	\$9,100,000	1%	\$1,500,000	<1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$500,000	N/A	\$100,000	N/A	\$0	N/A
TOTAL⁴	\$1,404,000,000	N/A	\$0	N/A	\$0	N/A	\$9,600,000	1%	\$1,600,000	<1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.52 Borough of Elverson Summary (CID 422287)

The following pages include Flood Risk data for the Borough of Elverson, Chester County PA.

3.3.52.1. Overview

The information below provides an overview of the Borough of Elverson as of the date of this publication.

Table 157: Overview of Borough of Elverson

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Elverson	422287	1,225	27	1.0	50	Y	N/A	Y

- Participating in 2010 Chester County Multi-Jurisdictional Hazard Mitigation Plan, which expires on 6/1/2015.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 1 policies totaling approximately \$350,000
- TEIF 1% Loss Value: \$900,000

Data provided below only includes areas within the Borough of Elverson, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.52.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 158: Overview of Changes Since Last FIRM For Borough of Elverson

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Elverson, the figures in this table only represent information within the Borough of Elverson.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- percent-annual-chance flood depth grid)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of Elverson's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 159: Summary of Potential Flood Losses – Borough of Elverson

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$39,200,000	56%	\$0	N/A	\$0	N/A	\$40,000	<1%	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$5,600,000	8%	\$0	N/A	\$0	N/A	\$10,000	<1%	\$0	N/A	\$0	N/A
Other Building and Contents	\$25,200,000	36%	\$0	N/A	\$0	N/A	\$100,000	<1%	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$69,900,000	100%	\$0	N/A	\$0	N/A	\$200,000	<1%	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$69,900,000	N/A	\$0	N/A	\$0	N/A	\$200,000	<1%	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.53 Borough of Ephrata Summary (CID 420551)

The following pages include Flood Risk data for the Borough of Ephrata, Lancaster County PA.

3.3.53.1. Overview

The information below provides an overview of the Borough of Ephrata as of the date of this publication.

Table 160: Overview of Borough of Ephrata

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Ephrata	420551	13,394	100	3.5	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 54 policies totaling approximately \$9,350,500
- TEIF 1% Loss Value: \$51,500,000

Data provided below only includes areas within the Borough of Ephrata, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.53.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 161: Overview of Changes Since Last FIRM For Borough of Ephrata

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.3	0.1	<-0.1	0.1
Within Floodway	0.2	0.1	<-0.1	0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Ephrata, the figures in this table only represent information within the Borough of Ephrata.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of Ephrata's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 162: Summary of Potential Flood Losses – Borough of Ephrata

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$1,070,800,000	56%	\$0	N/A	\$0	N/A	\$8,500,000	1%	\$15,900,000	1%	\$0	N/A
Commercial Building and Contents	\$475,000,000	25%	\$0	N/A	\$0	N/A	\$11,100,000	2%	\$18,200,000	4%	\$0	N/A
Other Building and Contents	\$359,100,000	19%	\$0	N/A	\$0	N/A	\$9,000,000	3%	\$13,800,000	4%	\$0	N/A
Total Building and Contents ²	\$1,904,900,000	100%	\$0	N/A	\$0	N/A	\$28,600,000	2%	\$48,000,000	3%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$1,000,000	N/A	\$1,600,000	N/A	\$0	N/A
TOTAL⁴	\$1,904,900,000	N/A	\$0	N/A	\$0	N/A	\$29,600,000	2%	\$49,600,000	3%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.54 Township of Ephrata Summary (CID 421208)

The following pages include Flood Risk data for the Township of Ephrata, Lancaster County PA.

3.3.54.1. Overview

The information below provides an overview of the Township of Ephrata as of the date of this publication.

Table 163: Overview of Township of Ephrata

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Ephrata	421208	9,400	100	16.4	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 35 policies totaling approximately \$5,437,700
- TEIF 1% Loss Value: \$58,700,000

Data provided below only includes areas within the Township of Ephrata, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.54.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 164: Overview of Changes Since Last FIRM For Township of Ephrata

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	1.3	0.4	-0.1	0.3
Within Floodway	0.4	0.1	<-0.1	0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Ephrata, the figures in this table only represent information within the Township of Ephrata.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Ephrata's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 165: Summary of Potential Flood Losses – Township of Ephrata

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$611,300,000	56%	\$0	N/A	\$0	N/A	\$9,800,000	2%	\$17,000,000	3%	\$0	N/A
Commercial Building and Contents	\$247,300,000	23%	\$0	N/A	\$0	N/A	\$6,200,000	3%	\$11,200,000	5%	\$0	N/A
Other Building and Contents	\$238,100,000	22%	\$0	N/A	\$0	N/A	\$8,300,000	3%	\$11,900,000	5%	\$0	N/A
Total Building and Contents ²	\$1,096,700,000	100%	\$0	N/A	\$0	N/A	\$24,300,000	2%	\$40,100,000	4%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$1,300,000	N/A	\$1,700,000	N/A	\$0	N/A
TOTAL⁴	\$1,096,700,000	N/A	\$0	N/A	\$0	N/A	\$25,600,000	2%	\$41,800,000	4%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.55 Township of Fairview Summary (CID 420923)

The following pages include Flood Risk data for the Township of Fairview, York County PA.

3.3.55.1. Overview

The information below provides an overview of the Township of Fairview as of the date of this publication.

Table 166: Overview of Township of Fairview

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Fairview	420923	14,030	12	34.5	23	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 172 policies totaling approximately \$26,343,200
- TEIF 1% Loss Value: \$4,400,000

Data provided below only includes areas within the Township of Fairview, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.55.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 167: Overview of Changes Since Last FIRM For Township of Fairview

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	1.9	0.6	-0.2	0.3
Within Floodway	0.8	0.1	<-0.1	<0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of TOWNSHIP OF FAIRVIEW, the figures in this table only represent information within the TOWNSHIP OF FAIRVIEW.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Fairview's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 168: Summary of Potential Flood Losses – Township of Fairview

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$163,700,000	86%	\$0	N/A	\$0	N/A	\$1,000,000	1%	\$1,500,000	1%	\$0	N/A
Commercial Building and Contents	\$15,200,000	8%	\$0	N/A	\$0	N/A	\$100,000	1%	\$100,000	1%	\$0	N/A
Other Building and Contents	\$12,100,000	6%	\$0	N/A	\$0	N/A	\$100,000	1%	\$100,000	1%	\$0	N/A
Total Building and Contents ²	\$191,100,000	100%	\$0	N/A	\$0	N/A	\$1,200,000	1%	\$1,700,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$191,100,000	N/A	\$0	N/A	\$0	N/A	\$1,200,000	1%	\$1,700,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.56 Township of Fawn Summary (CID 422219)

The following pages include Flood Risk data for the Township of Fawn, York County PA.

3.3.56.1. Overview

The information below provides an overview of the Township of Fawn as of the date of this publication.

Table 169: Overview of Township of Fawn

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
TOWNSHIP OF FAWN	422219	2,731	100	27.1	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 3 policies totaling approximately \$130,700
- TEIF 1% Loss Value: \$10,800,000

Data provided below only includes areas within the Township of Fawn, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.56.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

• Changes Since Last FIRM

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 170: Overview of Changes Since Last FIRM For Township of Fawn

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.8	0.2	-0.2	<0.1
Within Floodway	0.1	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Fawn, the figures in this table only represent information within the Township of Fawn.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township Of Fawn's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 171: Summary of Potential Flood Losses – Township of Fawn

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$198,600,000	75%	\$0	N/A	\$0	N/A	\$600,000	<1%	\$1,000,000	1%	\$0	N/A
Commercial Building and Contents	\$35,700,000	13%	\$0	N/A	\$0	N/A	\$500,000	1%	\$600,000	2%	\$0	N/A
Other Building and Contents	\$30,500,000	12%	\$0	N/A	\$0	N/A	\$200,000	1%	\$200,000	1%	\$0	N/A
Total Building and Contents ²	\$264,700,000	100%	\$0	N/A	\$0	N/A	\$1,300,000	<1%	\$1,800,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$0	N/A
TOTAL⁴	\$264,700,000	N/A	\$0	N/A	\$0	N/A	\$1,300,000	<1%	\$1,900,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.57 Borough of Fawn Grove Summary (CID 422570)

The following pages include Flood Risk data for the Borough of Fawn Grove, York County PA.

3.3.57.1. Overview

The information below provides an overview of the Borough of Fawn Grove as of the date of this publication.

Table 172: Overview of Borough of Fawn Grove

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Fawn Grove	422570	469	100	1.7	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- TEIF 1% Loss Value: \$900,000

Data provided below only includes areas within the Borough of Fawn Grove, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.57.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 173: Overview of Changes Since Last FIRM For Borough of Fawn Grove

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.0	0.0	<-0.1	<-0.1
Within Floodway	0.0	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Fawn Grove, the figures in this table only represent information within the Borough of Fawn Grove.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of Fawn Grove's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 174: Summary of Potential Flood Losses – Borough of Fawn Grove

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$48,100,000	76%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$12,000,000	19%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$3,400,000	5%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$63,500,000	100%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$63,500,000	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.58 Borough of Felton Summary (CID 420922)

The following pages include Flood Risk data for the Borough of Felton, York County PA.

3.3.58.1. Overview

The information below provides an overview of the Borough of Felton as of the date of this publication.

Table 175: Overview of Borough of Felton

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Felton	420922	439	100	0.6	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 16 policies totaling approximately \$2,023,200
- TEIF 1% Loss Value: \$8,700,000

Data provided below only includes areas within the Borough of Felton, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.58.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 176: Overview of Changes Since Last FIRM For Borough of Felton

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.1	<0.1	<-0.1	<0.1
Within Floodway	<0.1	<0.1	<-0.1	<0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Felton, the figures in this table only represent information within the Borough of Felton.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of Felton's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 177: Summary of Potential Flood Losses – Borough of Felton

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$33,800,000	71%	\$0	N/A	\$0	N/A	\$1,100,000	3%	\$2,100,000	6%	\$0	N/A
Commercial Building and Contents	\$7,100,000	15%	\$0	N/A	\$0	N/A	\$300,000	4%	\$300,000	4%	\$0	N/A
Other Building and Contents	\$6,800,000	14%	\$0	N/A	\$0	N/A	\$1,000,000	15%	\$1,700,000	25%	\$0	N/A
Total Building and Contents ²	\$47,700,000	100%	\$0	N/A	\$0	N/A	\$2,400,000	5%	\$4,100,000	9%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$200,000	N/A	\$200,000	N/A	\$0	N/A
TOTAL⁴	\$47,700,000	N/A	\$0	N/A	\$0	N/A	\$2,600,000	5%	\$4,300,000	9%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.59 Township of Franklin Summary (CID 422220)

The following pages include Flood Risk data for the Township of Franklin, York County PA.

3.3.59.1. Overview

The information below provides an overview of the Township of Franklin as of the date of this publication.

Table 178: Overview of Township of Franklin (York County)

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Franklin	422220	4,479	98	19.2	85	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 3 policies totaling approximately \$644,500
- TEIF 1% Loss Value: \$11,300,000

Data provided below only includes areas within the Township of Franklin, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.59.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 179: Overview of Changes Since Last FIRM For Township of Franklin (York County)

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.6	0.2	<0.1	0.2
Within Floodway	0.1	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Franklin, the figures in this table only represent information within the Township of Franklin.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Franklin's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 180: Summary of Potential Flood Losses – Township of Franklin (York County)

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$247,400,000	78%	\$0	N/A	\$0	N/A	\$400,000	<1%	\$700,000	<1%	\$0	N/A
Commercial Building and Contents	\$36,700,000	12%	\$0	N/A	\$0	N/A	\$300,000	1%	\$400,000	1%	\$0	N/A
Other Building and Contents	\$32,700,000	10%	\$0	N/A	\$0	N/A	\$200,000	1%	\$200,000	1%	\$0	N/A
Total Building and Contents ²	\$316,900,000	100%	\$0	N/A	\$0	N/A	\$900,000	<1%	\$1,400,000	<1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$0	N/A
TOTAL⁴	\$316,900,000	N/A	\$0	N/A	\$0	N/A	\$900,000	<1%	\$1,500,000	<1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.60 Township of Franklin Summary (CID 421250)

The following pages include Flood Risk data for the Township of Franklin, Adams County PA.

3.3.60.1. Overview

The information below provides an overview of the Township of Franklin as of the date of this publication.

Table 181: Overview of Township of Franklin (Adams County)

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Franklin	421250	5,415	14	68.5	20	Y	N/A	Y

- Participating in Adams County 2009 Hazard Mitigation Plan Update, which expires on 12/31/2014.
- Past Federal Disaster Declarations for flooding = 5
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 38 policies totaling approximately \$8,932,200
- TEIF 1% Loss Value: \$4,600,000

Data provided below only includes areas within the Township of Franklin, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.60.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 182: Overview of Changes Since Last FIRM For Township of Franklin (Adams County)

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Franklin, the figures in this table only represent information within the Township of Franklin.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- percent-annual-chance flood depth grid)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Township of Franklin's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 183: Summary of Potential Flood Losses – Township of Franklin (Adams County)

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$52,600,000	63%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$5,300,000	6%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$25,600,000	31%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$83,400,000	100%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$83,400,000	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.61 Borough of Franklinton Summary (CID 422741)

The following pages include Flood Risk data for the Borough of Franklinton, York County PA.

3.3.61.1. Overview

The information below provides an overview of the Borough of Franklinton as of the date of this publication.

Table 184: Overview of Borough of Franklinton

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Franklinton	422741	534	100	0.3	100	N	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- TEIF 1% Loss Value: \$0

Data provided below only includes areas within the Borough of Franklinton, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.61.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 185: Overview of Changes Since Last FIRM For Borough of Franklinton

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Franklinton, the figures in this table only represent information within the Borough of Franklinton.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Borough of Franklinton's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 186: Summary of Potential Flood Losses – Borough of Franklinton

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$37,800,000	61%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$6,100,000	10%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$17,700,000	29%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$61,500,000	100%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$61,500,000	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.62 Township of Fulton Summary (CID 421774)

The following pages include Flood Risk data for the Township of Fulton, Lancaster County PA.

3.3.62.1. Overview

The information below provides an overview of the Township of Fulton as of the date of this publication.

Table 187: Overview of Township of Fulton

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Fulton	421774	3,074	100	29.4	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 4 policies totaling approximately \$1,268,500
- TEIF 1% Loss Value: \$17,500,000

Data provided below only includes areas within the Township of Fulton, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.62.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 188: Overview of Changes Since Last FIRM For Township of Fulton

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	5.1	0.5	-0.4	0.1
Within Floodway	3.5	0.1	0.0	0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Fulton, the figures in this table only represent information within the Township of Fulton.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Fulton's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 189: Summary of Potential Flood Losses – Township of Fulton

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$182,600,000	61%	\$0	N/A	\$0	N/A	\$1,000,000	1%	\$1,700,000	1%	\$0	N/A
Commercial Building and Contents	\$26,400,000	9%	\$0	N/A	\$0	N/A	\$200,000	1%	\$200,000	1%	\$0	N/A
Other Building and Contents	\$89,000,000	30%	\$0	N/A	\$0	N/A	\$600,000	1%	\$700,000	1%	\$0	N/A
Total Building and Contents ²	\$298,000,000	100%	\$0	N/A	\$0	N/A	\$1,800,000	1%	\$2,700,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$0	N/A
TOTAL⁴	\$298,000,000	N/A	\$0	N/A	\$0	N/A	\$1,800,000	1%	\$2,800,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.63 Borough of Glen Rock Summary (CID 420924)

The following pages include Flood Risk data for the Borough of Glen Rock, York County PA.

3.3.63.1. Overview

The information below provides an overview of the Borough of Glen Rock as of the date of this publication.

Table 190: Overview of Borough of Glen Rock

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Glen Rock	420924	1,794	100	0.8	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 35 policies totaling approximately \$5,358,200
- TEIF 1% Loss Value: \$16,500,000

Data provided below only includes areas within the Borough of Glen Rock, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.63.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 191: Overview of Changes Since Last FIRM For Borough of Glen Rock

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.1	<0.1	<-0.1	<0.1
Within Floodway	<0.1	<0.1	<-0.1	<0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Glen Rock, the figures in this table only represent information within the Borough of Glen Rock.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of Glen Rock's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 192: Summary of Potential Flood Losses – Borough of Glen Rock

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$139,100,000	69%	\$0	N/A	\$0	N/A	\$2,100,000	2%	\$3,000,000	2%	\$0	N/A
Commercial Building and Contents	\$34,100,000	17%	\$0	N/A	\$0	N/A	\$1,600,000	5%	\$2,000,000	6%	\$0	N/A
Other Building and Contents	\$27,400,000	14%	\$0	N/A	\$0	N/A	\$2,200,000	8%	\$2,400,000	9%	\$0	N/A
Total Building and Contents ²	\$200,500,000	100%	\$0	N/A	\$0	N/A	\$5,900,000	3%	\$7,500,000	4%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$200,000	N/A	\$0	N/A
TOTAL⁴	\$200,500,000	N/A	\$0	N/A	\$0	N/A	\$6,000,000	3%	\$7,700,000	4%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.64 Borough of Hallam Summary (CID 420926)

The following pages include Flood Risk data for the Borough of Hallam, York County PA.

3.3.64.1. Overview

The information below provides an overview of the Borough of Hallam as of the date of this publication.

Table 193: Overview of Borough of Hallam

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Hallam	420926	1,459	100	0.7	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 15 policies totaling approximately \$1,103,600
- TEIF 1% Loss Value: \$23,200,000

Data provided below only includes areas within the Borough of Hallam, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.64.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 194: Overview of Changes Since Last FIRM For Borough of Hallam

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.1	<0.1	<-0.1	<0.1
Within Floodway	0.1	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Hallam, the figures in this table only represent information within the Borough of Hallam.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of Hallam's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 195: Summary of Potential Flood Losses – Borough of Hallam

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$124,000,000	71%	\$0	N/A	\$0	N/A	\$2,200,000	2%	\$4,000,000	3%	\$0	N/A
Commercial Building and Contents	\$17,900,000	10%	\$0	N/A	\$0	N/A	\$800,000	4%	\$1,300,000	7%	\$0	N/A
Other Building and Contents	\$33,400,000	19%	\$0	N/A	\$0	N/A	\$200,000	1%	\$300,000	1%	\$0	N/A
Total Building and Contents ²	\$175,400,000	100%	\$0	N/A	\$0	N/A	\$3,200,000	2%	\$5,600,000	3%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$100,000	N/A	\$0	N/A
TOTAL⁴	\$175,400,000	N/A	\$0	N/A	\$0	N/A	\$3,300,000	2%	\$5,700,000	3%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.65 Township of Hamilton Summary (CID 420002)

The following pages include Flood Risk data for the Township of Hamilton, Adams County PA.

3.3.65.1. Overview

The information below provides an overview of the Township of Hamilton as of the date of this publication.

Table 196: Overview of Township of Hamilton

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Hamilton	420002	3,624	100	13.6	100	Y	N/A	Y

- Participating in Adams County 2009 Hazard Mitigation Plan Update, which expires on 12/31/2014.
- Past Federal Disaster Declarations for flooding = 5
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 36 policies totaling approximately \$5,317,700
- TEIF 1% Loss Value: \$18,300,000

Data provided below only includes areas within the Township of Hamilton, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.65.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 197: Overview of Changes Since Last FIRM For Township of Hamilton

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Hamilton, the figures in this table only represent information within the Township of Hamilton.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- percent-annual-chance flood depth grid)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Hamilton's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 198: Summary of Potential Flood Losses – Township of Hamilton

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$147,100,000	78%	\$0	N/A	\$0	N/A	\$2,800,000	2%	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$23,800,000	13%	\$0	N/A	\$0	N/A	\$800,000	3%	\$0	N/A	\$0	N/A
Other Building and Contents	\$18,500,000	10%	\$0	N/A	\$0	N/A	\$200,000	1%	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$189,400,000	100%	\$0	N/A	\$0	N/A	\$3,800,000	2%	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$189,400,000	N/A	\$0	N/A	\$0	N/A	\$3,800,000	2%	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.66 Borough of Hanover Summary (CID 422212)

The following pages include Flood Risk data for the Borough of Hanover, York County PA.

3.3.66.1. Overview

The information below provides an overview of the Borough of Hanover as of the date of this publication.

Table 199: Overview of Borough of Hanover

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Hanover	422212	14,564	100	3.7	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 14 policies totaling approximately \$3,528,700
- TEIF 1% Loss Value: \$22,900,000

Data provided below only includes areas within the Borough of Hanover, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.66.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 200: Overview of Changes Since Last FIRM For Borough of Hanover

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.1	<0.1	<-0.1	<-0.1
Within Floodway	<0.1	<0.1	<-0.1	<0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Hanover, the figures in this table only represent information within the Borough of Hanover.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of Hanover's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 201: Summary of Potential Flood Losses – Borough of Hanover

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$1,212,600,000	49%	\$0	N/A	\$0	N/A	\$30,000	<1%	\$40,000	<1%	\$0	N/A
Commercial Building and Contents	\$690,200,000	28%	\$0	N/A	\$0	N/A	\$600,000	<1%	\$900,000	<1%	\$0	N/A
Other Building and Contents	\$578,700,000	23%	\$0	N/A	\$0	N/A	\$90,000	<1%	\$100,000	<1%	\$0	N/A
Total Building and Contents ²	\$2,481,500,000	100%	\$0	N/A	\$0	N/A	\$800,000	<1%	\$1,000,000	<1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$2,481,500,000	N/A	\$0	N/A	\$0	N/A	\$800,000	<1%	\$1,000,000	<1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.67 Township of Heidelberg Summary (CID 420969)

The following pages include Flood Risk data for the Township of Heidelberg, Lebanon County PA.

3.3.67.1. Overview

The information below provides an overview of the Township of Heidelberg as of the date of this publication.

Table 202: Overview of Township of Heidelberg (Lebanon County)

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Heidelberg	420969	4,069	73	24.7	67	Y	N/A	Y

- Participating in Lebanon County 2013 Hazard Mitigation Plan, which expires on 12/1/2018.
- Past Federal Disaster Declarations for flooding = 8
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 14 policies totaling approximately \$1,353,200
- TEIF 1% Loss Value: \$17,200,000

Data provided below only includes areas within the Township of Heidelberg, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.67.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 203: Overview of Changes Since Last FIRM For Township of Heidelberg (Lebanon County)

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Heidelberg, the figures in this table only represent information within the Township of Heidelberg.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- and 0.2-percent-annual-chance flood events)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Township of Heidelberg's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 204: Summary of Potential Flood Losses – Township of Heidelberg (Lebanon County)

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$222,600,000	68%	\$0	N/A	\$0	N/A	\$600,000	<1%	\$1,000,000	<1%	\$0	N/A
Commercial Building and Contents	\$38,200,000	12%	\$0	N/A	\$0	N/A	\$400,000	1%	\$500,000	1%	\$0	N/A
Other Building and Contents	\$66,700,000	20%	\$0	N/A	\$0	N/A	\$300,000	<1%	\$400,000	1%	\$0	N/A
Total Building and Contents ²	\$327,400,000	100%	\$0	N/A	\$0	N/A	\$1,300,000	<1%	\$1,900,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$0	N/A
TOTAL⁴	\$327,400,000	N/A	\$0	N/A	\$0	N/A	\$1,300,000	<1%	\$2,000,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.68 Township of Heidelberg Summary (CID 422221)

The following pages include Flood Risk data for the Township of Heidelberg, York County PA.

3.3.68.1. Overview

The information below provides an overview of the Township of Heidelberg as of the date of this publication.

Table 205: Overview of Township of Heidelberg (York County)

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Heidelberg	422221	2,920	100	14.6	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 4 policies totaling approximately \$784,000
- TEIF 1% Loss Value: \$23,000,000

Data provided below only includes areas within the Township of Heidelberg, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.68.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 206: Overview of Changes Since Last FIRM For Township of Heidelberg (York County)

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	1.4	0.2	-0.1	<0.1
Within Floodway	0.3	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Heidelberg, the figures in this table only represent information within the Township of Heidelberg.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Heidelberg's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 207: Summary of Potential Flood Losses – Township of Heidelberg (York County)

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$241,300,000	70%	\$0	N/A	\$0	N/A	\$3,000,000	1%	\$4,900,000	2%	\$0	N/A
Commercial Building and Contents	\$20,600,000	6%	\$0	N/A	\$0	N/A	\$600,000	3%	\$900,000	4%	\$0	N/A
Other Building and Contents	\$82,200,000	24%	\$0	N/A	\$0	N/A	\$1,800,000	2%	\$2,800,000	3%	\$0	N/A
Total Building and Contents ²	\$344,100,000	100%	\$0	N/A	\$0	N/A	\$5,400,000	2%	\$8,600,000	2%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$300,000	N/A	\$0	N/A
TOTAL⁴	\$344,100,000	N/A	\$0	N/A	\$0	N/A	\$5,500,000	2%	\$8,900,000	3%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.69 Township of Hellam Summary (CID 420927)

The following pages include Flood Risk data for the Township of Hellam, York County PA.

3.3.69.1. Overview

The information below provides an overview of the Township of Hellam as of the date of this publication.

Table 208: Overview of Township of Hellam

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Hellam	420927	6,128	100	28.2	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 74 policies totaling approximately \$11,435,600
- TEIF 1% Loss Value: \$38,700,000

Data provided below only includes areas within the Township of Hellam, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.69.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 209: Overview of Changes Since Last FIRM For Township of Hellam

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	1.5	0.4	-0.1	0.3
Within Floodway	0.6	0.1	0.0	0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Hellam, the figures in this table only represent information within the Township of Hellam.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Hellam's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 210: Summary of Potential Flood Losses – Township of Hellam

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$553,000,000	70%	\$0	N/A	\$0	N/A	\$8,000,000	1%	\$12,100,000	2%	\$0	N/A
Commercial Building and Contents	\$129,600,000	16%	\$0	N/A	\$0	N/A	\$1,200,000	1%	\$2,200,000	2%	\$0	N/A
Other Building and Contents	\$108,200,000	14%	\$0	N/A	\$0	N/A	\$3,800,000	4%	\$5,400,000	5%	\$0	N/A
Total Building and Contents ²	\$790,800,000	100%	\$0	N/A	\$0	N/A	\$13,000,000	2%	\$19,700,000	2%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$500,000	N/A	\$700,000	N/A	\$0	N/A
TOTAL⁴	\$790,800,000	N/A	\$0	N/A	\$0	N/A	\$13,500,000	2%	\$20,400,000	3%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.70 Township of Highland Summary (CID 422289)

The following pages include Flood Risk data for the Township of Highland, Chester County PA.

3.3.70.1. Overview

The information below provides an overview of the Township of Highland as of the date of this publication.

Table 211: Overview of Township of Highland

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Highland	422289	1,272	16	17.2	23	N	N/A	Y

- Participating in 2010 Chester County Multi-Jurisdictional Hazard Mitigation Plan, which expires on 6/1/2015.
- Past Federal Disaster Declarations for flooding = 10
- TEIF 1% Loss Value: \$200,000

Data provided below only includes areas within the Township of Highland, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.70.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 212: Overview of Changes Since Last FIRM For Township of Highland

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Highland, the figures in this table only represent information within the Township of Highland.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- percent-annual-chance flood depth grid)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Highland's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 213: Summary of Potential Flood Losses – Township of Highland

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$21,400,000	84%	\$0	N/A	\$0	N/A	\$10,000	<1%	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$2,800,000	11%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$1,200,000	5%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$25,400,000	100%	\$0	N/A	\$0	N/A	\$10,000	<1%	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$25,400,000	N/A	\$0	N/A	\$0	N/A	\$10,000	<1%	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.71 Township of Honey Brook Summary (CID 422290)

The following pages include Flood Risk data for the Township of Honey Brook, Chester County PA.

3.3.71.1. Overview

The information below provides an overview of the Township of Honey Brook as of the date of this publication.

Table 214: Overview of Township of Honey Brook

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Honey Brook	422290	1,713	27	25.1	9	Y	N/A	Y

- Participating in 2010 Chester County Multi-Jurisdictional Hazard Mitigation Plan, which expires on 6/1/2015.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 2 policies totaling approximately \$388,000
- TEIF 1% Loss Value: \$1,100,000

Data provided below only includes areas within the Township of Honey Brook, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.71.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 215: Overview of Changes Since Last FIRM For Township of Honey Brook

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Honey Brook, the figures in this table only represent information within the Township of Honey Brook.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- percent-annual-chance flood depth grid)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Township of Honey Brook's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 216: Summary of Potential Flood Losses – Township of Honey Brook

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$32,000,000	64%	\$0	N/A	\$0	N/A	\$20,000	<1%	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$12,900,000	26%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$4,900,000	10%	\$0	N/A	\$0	N/A	\$10,000	<1%	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$49,800,000	100%	\$0	N/A	\$0	N/A	\$30,000	<1%	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$49,800,000	N/A	\$0	N/A	\$0	N/A	\$30,000	<1%	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.72 Township of Hopewell Summary (CID 422222)

The following pages include Flood Risk data for the Township of Hopewell, York County PA.

3.3.72.1. Overview

The information below provides an overview of the Township of Hopewell as of the date of this publication.

Table 217: Overview of Township of Hopewell

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Hopewell	422222	5,046	100	26.8	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 7 policies totaling approximately \$1,413,700
- TEIF 1% Loss Value: \$8,100,000

Data provided below only includes areas within the Township of Hopewell, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.72.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 218: Overview of Changes Since Last FIRM For Township of Hopewell

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.8	0.2	-0.1	0.1
Within Floodway	<0.1	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Hopewell, the figures in this table only represent information within the Township of Hopewell.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Hopewell's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 219: Summary of Potential Flood Losses – Township of Hopewell

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$433,700,000	81%	\$0	N/A	\$0	N/A	\$900,000	<1%	\$1,400,000	<1%	\$0	N/A
Commercial Building and Contents	\$48,000,000	9%	\$0	N/A	\$0	N/A	\$200,000	<1%	\$400,000	1%	\$0	N/A
Other Building and Contents	\$54,600,000	10%	\$0	N/A	\$0	N/A	\$200,000	<1%	\$200,000	<1%	\$0	N/A
Total Building and Contents ²	\$536,400,000	100%	\$0	N/A	\$0	N/A	\$1,300,000	<1%	\$2,000,000	<1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$536,400,000	N/A	\$0	N/A	\$0	N/A	\$1,300,000	<1%	\$2,000,000	<1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.73 Township of Huntington Summary (CID 421143)

The following pages include Flood Risk data for the Township of Huntington, Adams County PA.

3.3.73.1. Overview

The information below provides an overview of the Township of Huntington as of the date of this publication.

Table 220: Overview of Township of Huntington

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Huntington	421143	3,263	100	25.1	99	Y	N/A	Y

- Participating in Adams County 2009 Hazard Mitigation Plan Update, which expires on 12/31/2014.
- Past Federal Disaster Declarations for flooding = 5
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 7 policies totaling approximately \$1,845,000
- TEIF 1% Loss Value: \$12,300,000

Data provided below only includes areas within the Township of Huntington, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.73.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 221: Overview of Changes Since Last FIRM For Township of Huntington

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Huntington, the figures in this table only represent information within the Township of Huntington.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- percent-annual-chance flood depth grid)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Huntington's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 222: Summary of Potential Flood Losses – Township of Huntington

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$151,600,000	74%	\$0	N/A	\$0	N/A	\$300,000	<1%	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$18,900,000	9%	\$0	N/A	\$0	N/A	\$90,000	<1%	\$0	N/A	\$0	N/A
Other Building and Contents	\$35,500,000	17%	\$0	N/A	\$0	N/A	\$400,000	1%	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$206,100,000	100%	\$0	N/A	\$0	N/A	\$800,000	<1%	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$206,100,000	N/A	\$0	N/A	\$0	N/A	\$800,000	<1%	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.74 Township of Jackson Summary (CID 422223)

The following pages include Flood Risk data for the Township of Jackson, York County PA.

3.3.74.1. Overview

The information below provides an overview of the Township of Jackson as of the date of this publication.

Table 223: Overview of Township of Jackson

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Jackson	422223	6,122	100	22.8	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 9 policies totaling approximately \$1,578,500
- TEIF 1% Loss Value: \$17,800,000

Data provided below only includes areas within the Township of Jackson, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.74.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 224: Overview of Changes Since Last FIRM For Township of Jackson

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	1.5	0.5	-0.3	0.3
Within Floodway	0.2	0.1	<-0.1	<0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Jackson, the figures in this table only represent information within the Township of Jackson.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Jackson's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 225: Summary of Potential Flood Losses – Township of Jackson

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$434,500,000	74%	\$0	N/A	\$0	N/A	\$2,100,000	<1%	\$3,500,000	1%	\$0	N/A
Commercial Building and Contents	\$54,600,000	9%	\$0	N/A	\$0	N/A	\$400,000	1%	\$500,000	1%	\$0	N/A
Other Building and Contents	\$94,500,000	16%	\$0	N/A	\$0	N/A	\$700,000	1%	\$1,000,000	1%	\$0	N/A
Total Building and Contents ²	\$583,600,000	100%	\$0	N/A	\$0	N/A	\$3,300,000	1%	\$5,000,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$200,000	N/A	\$0	N/A
TOTAL⁴	\$583,600,000	N/A	\$0	N/A	\$0	N/A	\$3,400,000	1%	\$5,200,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.75 Borough of Jacobus Summary (CID 420928)

The following pages include Flood Risk data for the Borough of Jacobus, York County PA.

3.3.75.1. Overview

The information below provides an overview of the Borough of Jacobus as of the date of this publication.

Table 226: Overview of Borough of Jacobus

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Jacobus	420928	1,150	100	0.9	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 2 policies totaling approximately \$455,000
- TEIF 1% Loss Value: \$3,000,000

Data provided below only includes areas within the Borough of Jacobus, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.75.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 227: Overview of Changes Since Last FIRM For Borough of Jacobus

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	<0.1	<0.1	<-0.1	<-0.1
Within Floodway	0.0	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Jacobus, the figures in this table only represent information within the Borough of Jacobus.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of Jacobus's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 228: Summary of Potential Flood Losses – Borough of Jacobus

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$100,000,000	60%	\$0	N/A	\$0	N/A	\$70,000	<1%	\$100,000	<1%	\$0	N/A
Commercial Building and Contents	\$41,800,000	25%	\$0	N/A	\$0	N/A	\$20,000	<1%	\$30,000	<1%	\$0	N/A
Other Building and Contents	\$24,100,000	15%	\$0	N/A	\$0	N/A	\$40,000	<1%	\$50,000	<1%	\$0	N/A
Total Building and Contents ²	\$165,900,000	100%	\$0	N/A	\$0	N/A	\$100,000	<1%	\$200,000	<1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$165,900,000	N/A	\$0	N/A	\$0	N/A	\$100,000	<1%	\$200,000	<1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.76 Borough of Jefferson Summary (CID 422742)

The following pages include Flood Risk data for the Borough of Jefferson, York County PA.

3.3.76.1. Overview

The information below provides an overview of the Borough of Jefferson as of the date of this publication.

Table 229: Overview of Borough of Jefferson

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Jefferson	422742	627	100	0.6	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- TEIF 1% Loss Value: \$200,000

Data provided below only includes areas within the Borough of Jefferson, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.76.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 230: Overview of Changes Since Last FIRM For Borough of Jefferson

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.0	0.0	<-0.1	<-0.1
Within Floodway	0.0	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Jefferson, the figures in this table only represent information within the Borough of Jefferson.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Borough of Jefferson's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 231: Summary of Potential Flood Losses – Borough of Jefferson

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$50,700,000	28%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$16,400,000	9%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$113,100,000	63%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$180,200,000	100%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$180,200,000	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.77 City of Lancaster Summary (CID 420552)

The following pages include Flood Risk data for the City of Lancaster, Lancaster County PA.

3.3.77.1. Overview

The information below provides an overview of the City of Lancaster as of the date of this publication.

Table 232: Overview of City of Lancaster

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
City of Lancaster	420552	59,322	100	7.3	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 116 policies totaling approximately \$15,751,700
- TEIF 1% Loss Value: \$76,200,000

Data provided below only includes areas within the City of Lancaster, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.77.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 233: Overview of Changes Since Last FIRM For City of Lancaster

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.5	0.1	<-0.1	0.1
Within Floodway	0.3	0.1	<-0.1	<0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of City of Lancaster, the figures in this table only represent information within the City of Lancaster.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The City of Lancaster's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 234: Summary of Potential Flood Losses – City of Lancaster

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$1,100,600,000	38%	\$0	N/A	\$0	N/A	\$13,700,000	1%	\$27,200,000	2%	\$0	N/A
Commercial Building and Contents	\$792,900,000	27%	\$0	N/A	\$0	N/A	\$8,700,000	1%	\$13,300,000	2%	\$0	N/A
Other Building and Contents	\$1,010,200,000	35%	\$0	N/A	\$0	N/A	\$13,500,000	1%	\$29,500,000	3%	\$0	N/A
Total Building and Contents ²	\$2,903,800,000	100%	\$0	N/A	\$0	N/A	\$35,900,000	1%	\$70,000,000	2%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$1,100,000	N/A	\$2,200,000	N/A	\$0	N/A
TOTAL⁴	\$2,903,800,000	N/A	\$0	N/A	\$0	N/A	\$37,000,000	1%	\$72,200,000	3%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.78 Township of Lancaster Summary (CID 420553)

The following pages include Flood Risk data for the Township of Lancaster, Lancaster County PA.

3.3.78.1. Overview

The information below provides an overview of the Township of Lancaster as of the date of this publication.

Table 235: Overview of Township of Lancaster

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Lancaster	420553	16,149	100	6.1	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 54 policies totaling approximately \$11,464,900
- TEIF 1% Loss Value: \$62,700,000

Data provided below only includes areas within the Township of Lancaster, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.78.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 236: Overview of Changes Since Last FIRM For Township of Lancaster

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.7	0.3	<-0.1	0.3
Within Floodway	0.5	0.2	<-0.1	0.2

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Lancaster, the figures in this table only represent information within the Township of Lancaster.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Lancaster's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 237: Summary of Potential Flood Losses – Township of Lancaster

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$1,382,700,000	82%	\$0	N/A	\$0	N/A	\$19,400,000	1%	\$30,700,000	2%	\$0	N/A
Commercial Building and Contents	\$203,700,000	12%	\$0	N/A	\$0	N/A	\$4,700,000	2%	\$6,900,000	3%	\$0	N/A
Other Building and Contents	\$102,500,000	6%	\$0	N/A	\$0	N/A	\$2,000,000	2%	\$3,100,000	3%	\$0	N/A
Total Building and Contents ²	\$1,688,900,000	100%	\$0	N/A	\$0	N/A	\$26,100,000	2%	\$40,700,000	2%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$200,000	N/A	\$300,000	N/A	\$0	N/A
TOTAL⁴	\$1,688,900,000	N/A	\$0	N/A	\$0	N/A	\$26,300,000	2%	\$41,000,000	2%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.79 Township of Latimore Summary (CID 421162)

The following pages include Flood Risk data for the Township of Latimore, Adams County PA.

3.3.79.1. Overview

The information below provides an overview of the Township of Latimore as of the date of this publication.

Table 238: Overview of Township of Latimore

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Latimore	421162	3,046	100	21.5	99	Y	N/A	Y

- Participating in Adams County 2009 Hazard Mitigation Plan Update, which expires on 12/31/2014.
- Past Federal Disaster Declarations for flooding = 5
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 15 policies totaling approximately \$2,878,100
- TEIF 1% Loss Value: \$30,700,000

Data provided below only includes areas within the Township of Latimore, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.79.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 239: Overview of Changes Since Last FIRM For Township of Latimore

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Latimore, the figures in this table only represent information within the Township of Latimore.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- percent-annual-chance flood depth grid)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Township of Latimore's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 240: Summary of Potential Flood Losses – Township of Latimore

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$225,500,000	73%	\$0	N/A	\$0	N/A	\$200,000	<1%	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$54,300,000	18%	\$0	N/A	\$0	N/A	\$600,000	1%	\$0	N/A	\$0	N/A
Other Building and Contents	\$28,100,000	9%	\$0	N/A	\$0	N/A	\$90,000	<1%	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$307,800,000	100%	\$0	N/A	\$0	N/A	\$1,000,000	<1%	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$307,800,000	N/A	\$0	N/A	\$0	N/A	\$1,000,000	<1%	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.80 Township of Leacock Summary (CID 420958)

The following pages include Flood Risk data for the Township of Leacock, Lancaster County PA.

3.3.80.1. Overview

The information below provides an overview of the Township of Leacock as of the date of this publication.

Table 241: Overview of Township of Leacock

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Leacock	420958	5,220	100	20.6	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 15 policies totaling approximately \$2,343,300
- TEIF 1% Loss Value: \$32,800,000

Data provided below only includes areas within the Township of Leacock, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.80.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 242: Overview of Changes Since Last FIRM For Township of Leacock

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	1.0	<0.1	-0.6	-0.6
Within Floodway	0.1	<0.1	<-0.1	<0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Leacock, the figures in this table only represent information within the Township of Leacock.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Township of Leacock's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 243: Summary of Potential Flood Losses – Township of Leacock

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$280,200,000	54%	\$0	N/A	\$0	N/A	\$1,600,000	1%	\$2,400,000	1%	\$0	N/A
Commercial Building and Contents	\$129,500,000	25%	\$0	N/A	\$0	N/A	\$1,600,000	1%	\$2,100,000	2%	\$0	N/A
Other Building and Contents	\$113,100,000	22%	\$0	N/A	\$0	N/A	\$700,000	1%	\$1,000,000	1%	\$0	N/A
Total Building and Contents ²	\$522,800,000	100%	\$0	N/A	\$0	N/A	\$3,900,000	1%	\$5,500,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$200,000	N/A	\$200,000	N/A	\$0	N/A
TOTAL⁴	\$522,800,000	N/A	\$0	N/A	\$0	N/A	\$4,100,000	1%	\$5,700,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.81 Borough of Lewisberry Summary (CID 420929)

The following pages include Flood Risk data for the Borough of Lewisberry, York County PA.

3.3.81.1. Overview

The information below provides an overview of the Borough of Lewisberry as of the date of this publication.

Table 244: Overview of Borough of Lewisberry

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Lewisberry	420929	379	100	0.1	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- TEIF 1% Loss Value: \$2,400,000

Data provided below only includes areas within the Borough of Lewisberry, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.81.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 245: Overview of Changes Since Last FIRM For Borough of Lewisberry

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	<0.1	<0.1	<-0.1	<0.1
Within Floodway	<0.1	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Lewisberry, the figures in this table only represent information within the Borough of Lewisberry.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of Lewisberry's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 246: Summary of Potential Flood Losses – Borough of Lewisberry

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$25,100,000	79%	\$0	N/A	\$0	N/A	\$200,000	1%	\$600,000	2%	\$0	N/A
Commercial Building and Contents	\$1,900,000	6%	\$0	N/A	\$0	N/A	\$50,000	3%	\$60,000	3%	\$0	N/A
Other Building and Contents	\$4,900,000	15%	\$0	N/A	\$0	N/A	\$50,000	1%	\$70,000	1%	\$0	N/A
Total Building and Contents ²	\$31,800,000	100%	\$0	N/A	\$0	N/A	\$300,000	1%	\$700,000	2%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$31,800,000	N/A	\$0	N/A	\$0	N/A	\$300,000	1%	\$700,000	2%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.82 Borough of Lititz Summary (CID 420554)

The following pages include Flood Risk data for the Borough of Lititz, Lancaster County PA.

3.3.82.1. Overview

The information below provides an overview of the Borough of Lititz as of the date of this publication.

Table 247: Overview of Borough of Lititz

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Lititz	420554	9,369	100	2.3	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 58 policies totaling approximately \$12,149,100
- TEIF 1% Loss Value: \$41,500,000

Data provided below only includes areas within the Borough of Lititz, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.82.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 248: Overview of Changes Since Last FIRM For Borough of Lititz

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.2	<0.1	<-0.1	<0.1
Within Floodway	<0.1	<0.1	<-0.1	<-0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Lititz, the figures in this table only represent information within the Borough of Lititz.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Borough of Lititz's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 249: Summary of Potential Flood Losses – Borough of Lititz

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$826,100,000	57%	\$0	N/A	\$0	N/A	\$2,600,000	<1%	\$2,300,000	<1%	\$0	N/A
Commercial Building and Contents	\$204,600,000	14%	\$0	N/A	\$0	N/A	\$8,200,000	4%	\$9,800,000	5%	\$0	N/A
Other Building and Contents	\$429,500,000	29%	\$0	N/A	\$0	N/A	\$10,800,000	3%	\$12,600,000	3%	\$0	N/A
Total Building and Contents ²	\$1,460,100,000	100%	\$0	N/A	\$0	N/A	\$21,600,000	1%	\$24,600,000	2%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$1,400,000	N/A	\$1,700,000	N/A	\$0	N/A
TOTAL⁴	\$1,460,100,000	N/A	\$0	N/A	\$0	N/A	\$23,000,000	2%	\$26,300,000	2%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.83 Township of Little Britain Summary (CID 421775)

The following pages include Flood Risk data for the Township of Little Britain, Lancaster County PA.

3.3.83.1. Overview

The information below provides an overview of the Township of Little Britain as of the date of this publication.

Table 250: Overview of Township of Little Britain

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Little Britain	421775	4,106	100	27.6	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 5 policies totaling approximately \$1,327,500
- TEIF 1% Loss Value: \$10,000,000

Data provided below only includes areas within the Township of Little Britain, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.83.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 251: Overview of Changes Since Last FIRM For Township of Little Britain

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	1.5	0.2	-0.2	0.1
Within Floodway	0.1	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Little Britain, the figures in this table only represent information within the Township of Little Britain.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Little Britain's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 252: Summary of Potential Flood Losses – Township of Little Britain

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$243,600,000	80%	\$0	N/A	\$0	N/A	\$2,000,000	1%	\$2,000,000	1%	\$0	N/A
Commercial Building and Contents	\$29,200,000	10%	\$0	N/A	\$0	N/A	\$400,000	1%	\$500,000	2%	\$0	N/A
Other Building and Contents	\$31,500,000	10%	\$0	N/A	\$0	N/A	\$200,000	1%	\$200,000	1%	\$0	N/A
Total Building and Contents ²	\$304,400,000	100%	\$0	N/A	\$0	N/A	\$2,600,000	1%	\$2,700,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$304,400,000	N/A	\$0	N/A	\$0	N/A	\$2,600,000	1%	\$2,700,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.84 Borough of Loganville Summary (CID 422213)

The following pages include Flood Risk data for the Borough of Loganville, York County PA.

3.3.84.1. Overview

The information below provides an overview of the Borough of Loganville as of the date of this publication.

Table 253: Overview of Borough of Loganville

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Loganville	422213	893	100	1.0	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 1 policies totaling approximately \$28,000
- TEIF 1% Loss Value: \$0

Data provided below only includes areas within the Borough of Loganville, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.84.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 254: Overview of Changes Since Last FIRM For Borough of Loganville

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Loganville, the figures in this table only represent information within the Borough of Loganville.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of Loganville's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

Table 255: Summary of Potential Flood Losses – Borough of Loganville

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$73,400,000	76%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$13,500,000	14%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$10,000,000	10%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$96,900,000	100%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$96,900,000	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.85 Township of Lower Chanceford Summary (CID 420930)

The following pages include Flood Risk data for the Township of Lower Chanceford, York County PA.

3.3.85.1. Overview

The information below provides an overview of the Township of Lower Chanceford as of the date of this publication.

Table 256: Overview of Township of Lower Chanceford

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Lower Chanceford	420930	2,892	100	41.5	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 12 policies totaling approximately \$1,632,200
- TEIF 1% Loss Value: \$9,300,000

Data provided below only includes areas within the Township of Lower Chanceford, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.85.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 257: Overview of Changes Since Last FIRM For Township of Lower Chanceford

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	1.5	0.5	-0.2	0.3
Within Floodway	0.3	0.1	0.0	0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Lower Chanceford, the figures in this table only represent information within the Township of Lower Chanceford.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Lower Chanceford's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 258: Summary of Potential Flood Losses – Township of Lower Chanceford

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$211,800,000	78%	\$0	N/A	\$0	N/A	\$2,600,000	1%	\$3,500,000	2%	\$0	N/A
Commercial Building and Contents	\$22,000,000	8%	\$0	N/A	\$0	N/A	\$1,000,000	5%	\$1,300,000	6%	\$0	N/A
Other Building and Contents	\$37,100,000	14%	\$0	N/A	\$0	N/A	\$900,000	2%	\$1,100,000	3%	\$0	N/A
Total Building and Contents ²	\$270,900,000	100%	\$0	N/A	\$0	N/A	\$4,500,000	2%	\$5,800,000	2%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$0	N/A
TOTAL⁴	\$270,900,000	N/A	\$0	N/A	\$0	N/A	\$4,500,000	2%	\$5,900,000	2%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.86 Township of Lower Oxford Summary (CID 421485)

The following pages include Flood Risk data for the Township of Lower Oxford, Chester County PA.

3.3.86.1. Overview

The information below provides an overview of the Township of Lower Oxford as of the date of this publication.

Table 259: Overview of Township of Lower Oxford

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Lower Oxford	421485	5,200	29	18.3	71	Y	N/A	Y

- Participating in 2010 Chester County Multi-Jurisdictional Hazard Mitigation Plan, which expires on 6/1/2015.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 2 policies totaling approximately \$420,000
- TEIF 1% Loss Value: \$13,100,000

Data provided below only includes areas within the Township of Lower Oxford, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.86.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 260: Overview of Changes Since Last FIRM For Township of Lower Oxford

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Lower Oxford, the figures in this table only represent information within the Township of Lower Oxford.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- and 0.2-percent-annual-chance flood events)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Township of Lower Oxford's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 261: Summary of Potential Flood Losses – Township of Lower Oxford

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$117,300,000	70%	\$0	N/A	\$0	N/A	\$1,100,000	1%	\$700,000	1%	\$0	N/A
Commercial Building and Contents	\$27,500,000	16%	\$0	N/A	\$0	N/A	\$900,000	3%	\$50,000	<1%	\$0	N/A
Other Building and Contents	\$22,500,000	13%	\$0	N/A	\$0	N/A	\$300,000	1%	\$90,000	<1%	\$0	N/A
Total Building and Contents ²	\$167,300,000	100%	\$0	N/A	\$0	N/A	\$2,300,000	1%	\$900,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$167,300,000	N/A	\$0	N/A	\$0	N/A	\$2,400,000	1%	\$900,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.87 Township of Lower Windsor Summary (CID 421187)

The following pages include Flood Risk data for the Township of Lower Windsor, York County PA.

3.3.87.1. Overview

The information below provides an overview of the Township of Lower Windsor as of the date of this publication.

Table 262: Overview of Township of Lower Windsor

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Lower Windsor	421187	7,408	100	25.1	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 72 policies totaling approximately \$13,635,800
- TEIF 1% Loss Value: \$37,600,000

Data provided below only includes areas within the Township of Lower Windsor, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.87.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 263: Overview of Changes Since Last FIRM For Township of Lower Windsor

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.9	0.2	-0.3	-0.1
Within Floodway	0.2	<0.1	<-0.1	<0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Lower Windsor, the figures in this table only represent information within the Township of Lower Windsor.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Lower Windsor's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 264: Summary of Potential Flood Losses – Township of Lower Windsor

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$516,400,000	80%	\$0	N/A	\$0	N/A	\$6,500,000	1%	\$9,000,000	2%	\$0	N/A
Commercial Building and Contents	\$63,800,000	10%	\$0	N/A	\$0	N/A	\$1,200,000	2%	\$1,500,000	2%	\$0	N/A
Other Building and Contents	\$61,800,000	10%	\$0	N/A	\$0	N/A	\$300,000	<1%	\$300,000	<1%	\$0	N/A
Total Building and Contents ²	\$642,000,000	100%	\$0	N/A	\$0	N/A	\$8,000,000	1%	\$10,900,000	2%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$642,000,000	N/A	\$0	N/A	\$0	N/A	\$8,000,000	1%	\$10,900,000	2%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.88 Borough of Manchester Summary (CID 422747)

The following pages include Flood Risk data for the Borough of Manchester, York County PA.

3.3.88.1. Overview

The information below provides an overview of the Borough of Manchester as of the date of this publication.

Table 265: Overview of Borough of Manchester

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Manchester	422747	2,274	100	0.8	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 1 policies totaling approximately \$280,000
- TEIF 1% Loss Value: \$4,500,000

Data provided below only includes areas within the Borough of Manchester, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.88.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 266: Overview of Changes Since Last FIRM For Borough of Manchester

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	<0.1	<0.1	<-0.1	0.0
Within Floodway	<0.1	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Manchester, the figures in this table only represent information within the Borough of Manchester.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of Manchester's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 267: Summary of Potential Flood Losses – Borough of Manchester

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$184,500,000	78%	\$0	N/A	\$0	N/A	\$400,000	<1%	\$500,000	<1%	\$0	N/A
Commercial Building and Contents	\$28,200,000	12%	\$0	N/A	\$0	N/A	\$200,000	1%	\$200,000	1%	\$0	N/A
Other Building and Contents	\$24,100,000	10%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$236,800,000	100%	\$0	N/A	\$0	N/A	\$500,000	<1%	\$600,000	<1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$0	N/A
TOTAL⁴	\$236,800,000	N/A	\$0	N/A	\$0	N/A	\$500,000	<1%	\$700,000	<1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.89 Township of Manchester Summary (CID 420931)

The following pages include Flood Risk data for the Township of Manchester, York County PA.

3.3.89.1. Overview

The information below provides an overview of the Township of Manchester as of the date of this publication.

Table 268: Overview of Township of Manchester

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Manchester	420931	12,803	100	15.8	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 49 policies totaling approximately \$14,535,100
- TEIF 1% Loss Value: \$66,500,000

Data provided below only includes areas within the Township of Manchester, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.89.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 269: Overview of Changes Since Last FIRM For Township of Manchester

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.8	0.1	-0.2	-0.1
Within Floodway	0.2	<0.1	<-0.1	<-0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Manchester, the figures in this table only represent information within the Township of Manchester.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Manchester's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 270: Summary of Potential Flood Losses – Township of Manchester

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$1,300,000,000	52%	\$0	N/A	\$0	N/A	\$5,400,000	<1%	\$7,300,000	1%	\$0	N/A
Commercial Building and Contents	\$518,700,000	21%	\$0	N/A	\$0	N/A	\$6,000,000	1%	\$8,500,000	2%	\$0	N/A
Other Building and Contents	\$663,500,000	27%	\$0	N/A	\$0	N/A	\$5,800,000	1%	\$9,000,000	1%	\$0	N/A
Total Building and Contents ²	\$2,482,200,000	100%	\$0	N/A	\$0	N/A	\$17,200,000	1%	\$24,900,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$1,000,000	N/A	\$1,300,000	N/A	\$0	N/A
TOTAL⁴	\$2,482,200,000	N/A	\$0	N/A	\$0	N/A	\$18,200,000	1%	\$26,200,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.90 Borough of Manheim Summary (CID 420555)

The following pages include Flood Risk data for the Borough of Manheim, Lancaster County PA.

3.3.90.1. Overview

The information below provides an overview of the Borough of Manheim as of the date of this publication.

Table 271: Overview of Borough of Manheim

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Manheim	420555	4,858	100	1.4	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 99 policies totaling approximately \$16,043,000
- TEIF 1% Loss Value: \$97,300,000

Data provided below only includes areas within the Borough of Manheim, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.90.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 272: Overview of Changes Since Last FIRM For Borough of Manheim

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	<0.1	0.0	0.0	0.0
Within Floodway	0.1	<0.1	<-0.1	<0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Manheim, the figures in this table only represent information within the Borough of Manheim.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Borough of Manheim's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 273: Summary of Potential Flood Losses – Borough of Manheim

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$399,700,000	60%	\$0	N/A	\$0	N/A	\$6,300,000	2%	\$100,000	<1%	\$0	N/A
Commercial Building and Contents	\$134,500,000	20%	\$0	N/A	\$0	N/A	\$9,500,000	7%	\$100,000	<1%	\$0	N/A
Other Building and Contents	\$135,400,000	20%	\$0	N/A	\$0	N/A	\$15,800,000	12%	\$300,000	<1%	\$0	N/A
Total Building and Contents ²	\$669,600,000	100%	\$0	N/A	\$0	N/A	\$31,600,000	5%	\$500,000	<1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$2,300,000	N/A	\$100,000	N/A	\$0	N/A
TOTAL⁴	\$669,600,000	N/A	\$0	N/A	\$0	N/A	\$33,900,000	5%	\$600,000	<1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.91 Township of Manheim Summary (CID 420556)

The following pages include Flood Risk data for the Township of Manheim, Lancaster County PA.

3.3.91.1. Overview

The information below provides an overview of the Township of Manheim as of the date of this publication.

Table 274: Overview of Township of Manheim (Lancaster County)

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Manheim	420556	38,133	100	24.1	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 108 policies totaling approximately \$26,232,400
- TEIF 1% Loss Value: \$214,400,000

Data provided below only includes areas within the Township of Manheim, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.91.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 275: Overview of Changes Since Last FIRM For Township of Manheim (Lancaster County)

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	1.3	0.3	-0.2	1
Within Floodway	0.6	0.1	-0.1	<0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Manheim, the figures in this table only represent information within the Township of Manheim.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Manheim's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 276: Summary of Potential Flood Losses – Township of Manheim (Lancaster County)

	Flood Risk Project Refined Losses		Estimated Potential Losses for Flood Event Scenarios									
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$3,392,000,000	60%	\$0	N/A	\$0	N/A	\$23,400,000	1%	\$34,700,000	1%	\$0	N/A
Commercial Building and Contents	\$1,514,400,000	27%	\$0	N/A	\$0	N/A	\$26,800,000	2%	\$34,200,000	2%	\$0	N/A
Other Building and Contents	\$702,800,000	13%	\$0	N/A	\$0	N/A	\$4,600,000	1%	\$4,300,000	1%	\$0	N/A
Total Building and Contents ²	\$5,609,200,000	100%	\$0	N/A	\$0	N/A	\$54,800,000	1%	\$73,200,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$900,000	N/A	\$1,000,000	N/A	\$0	N/A
TOTAL⁴	\$5,609,200,000	N/A	\$0	N/A	\$0	N/A	\$55,700,000	1%	\$74,200,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.92 Township of Manheim Summary (CID 422224)

The following pages include Flood Risk data for the Township of Manheim, York County PA.

3.3.92.1. Overview

The information below provides an overview of the Township of Manheim as of the date of this publication.

Table 277: Overview of Township of Manheim (York County)

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Manheim	422224	3,116	81	22.4	74	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 8 policies totaling approximately \$1,971,400
- TEIF 1% Loss Value: \$11,000,000

Data provided below only includes areas within the Township of Manheim, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.92.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 278: Overview of Changes Since Last FIRM For Township of Manheim (York County)

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	1.5	0.1	-0.4	-0.3
Within Floodway	0.1	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Manheim, the figures in this table only represent information within the Township of Manheim.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Manheim's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 279: Summary of Potential Flood Losses – Township of Manheim (York County)

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$207,700,000	81%	\$0	N/A	\$0	N/A	\$600,000	<1%	\$1,000,000	<1%	\$0	N/A
Commercial Building and Contents	\$23,700,000	9%	\$0	N/A	\$0	N/A	\$400,000	2%	\$500,000	2%	\$0	N/A
Other Building and Contents	\$25,800,000	10%	\$0	N/A	\$0	N/A	\$500,000	2%	\$700,000	3%	\$0	N/A
Total Building and Contents ²	\$257,200,000	100%	\$0	N/A	\$0	N/A	\$1,500,000	1%	\$2,200,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$100,000	N/A	\$0	N/A
TOTAL⁴	\$257,200,000	N/A	\$0	N/A	\$0	N/A	\$1,600,000	1%	\$2,300,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.93 Township of Manor Summary (CID 420557)

The following pages include Flood Risk data for the Township of Manor, Lancaster County PA.

3.3.93.1. Overview

The information below provides an overview of the Township of Manor as of the date of this publication.

Table 280: Overview of Township of Manor

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Manor	420557	19,612	100	48.6	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 76 policies totaling approximately \$12,384,600
- TEIF 1% Loss Value: \$85,300,000

Data provided below only includes areas within the Township of Manor, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.93.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 281: Overview of Changes Since Last FIRM For Township of Manor

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	11.8	0.2	-0.1	0.1
Within Floodway	11.0	0.1	<-0.1	<0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Manor, the figures in this table only represent information within the Township of Manor.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Manor's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 282: Summary of Potential Flood Losses – Township of Manor

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$1,438,800,000	65%	\$0	N/A	\$0	N/A	\$19,500,000	1%	\$20,300,000	1%	\$0	N/A
Commercial Building and Contents	\$407,500,000	19%	\$0	N/A	\$0	N/A	\$3,800,000	1%	\$4,100,000	1%	\$0	N/A
Other Building and Contents	\$354,400,000	16%	\$0	N/A	\$0	N/A	\$2,400,000	1%	\$1,600,000	<1%	\$0	N/A
Total Building and Contents ²	\$2,200,800,000	100%	\$0	N/A	\$0	N/A	\$25,800,000	1%	\$25,900,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$300,000	N/A	\$200,000	N/A	\$0	N/A
TOTAL⁴	\$2,200,800,000	N/A	\$0	N/A	\$0	N/A	\$26,100,000	1%	\$26,100,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.94 Borough of Marietta Summary (CID 420558)

The following pages include Flood Risk data for the Borough of Marietta, Lancaster County PA.

3.3.94.1. Overview

The information below provides an overview of the Borough of Marietta as of the date of this publication.

Table 283: Overview of Borough of Marietta

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Marietta	420558	2,588	100	0.8	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 138 policies totaling approximately \$21,689,200
- TEIF 1% Loss Value: \$80,300,000

Data provided below only includes areas within the Borough of Marietta, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.94.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 284: Overview of Changes Since Last FIRM For Borough of Marietta

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.3	0.0	0.0	0.0
Within Floodway	<0.1	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Marietta, the figures in this table only represent information within the Borough of Marietta.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of Marietta's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 285: Summary of Potential Flood Losses – Borough of Marietta

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$221,300,000	66%	\$0	N/A	\$0	N/A	\$8,000,000	4%	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$42,400,000	13%	\$0	N/A	\$0	N/A	\$2,800,000	7%	\$0	N/A	\$0	N/A
Other Building and Contents	\$70,000,000	21%	\$0	N/A	\$0	N/A	\$4,400,000	6%	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$333,800,000	100%	\$0	N/A	\$0	N/A	\$15,300,000	5%	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$200,000	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$333,800,000	N/A	\$0	N/A	\$0	N/A	\$15,500,000	5%	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.95 Township of Martic Summary (CID 421146)

The following pages include Flood Risk data for the Township of Martic, Lancaster County PA.

3.3.95.1. Overview

The information below provides an overview of the Township of Martic as of the date of this publication.

Table 286: Overview of Township of Martic

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Martic	421146	5,190	100	32.7	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 10 policies totaling approximately \$2,690,900
- TEIF 1% Loss Value: \$18,500,000

Data provided below only includes areas within the Township of Martic, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.95.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 287: Overview of Changes Since Last FIRM For Township of Martic

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	4.9	0.6	-0.1	0.5
Within Floodway	3.4	0.1	<-0.1	0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Martic, the figures in this table only represent information within the Township of Martic.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Martic's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 288: Summary of Potential Flood Losses – Township of Martic

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$398,900,000	81%	\$0	N/A	\$0	N/A	\$3,500,000	1%	\$4,300,000	1%	\$0	N/A
Commercial Building and Contents	\$42,000,000	9%	\$0	N/A	\$0	N/A	\$200,000	<1%	\$200,000	<1%	\$0	N/A
Other Building and Contents	\$52,100,000	11%	\$0	N/A	\$0	N/A	\$200,000	<1%	\$200,000	<1%	\$0	N/A
Total Building and Contents ²	\$493,000,000	100%	\$0	N/A	\$0	N/A	\$3,900,000	1%	\$4,800,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$493,000,000	N/A	\$0	N/A	\$0	N/A	\$3,900,000	1%	\$4,800,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.96 Borough of McSherrystown Summary (CID 421245)

The following pages include Flood Risk data for the Borough of McSherrystown, Adams County PA.

3.3.96.1. Overview

The information below provides an overview of the Borough of McSherrystown as of the date of this publication.

Table 289: Overview of Borough of McSherrystown

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of McSherrystown	421245	3,673	100	0.5	100	Y	N/A	Y

- Participating in Adams County 2009 Hazard Mitigation Plan Update, which expires on 12/31/2014.
- Past Federal Disaster Declarations for flooding = 5
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 21 policies totaling approximately \$5,523,900
- TEIF 1% Loss Value: \$18,700,000

Data provided below only includes areas within the Borough of McSherrystown, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.96.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 290: Overview of Changes Since Last FIRM For Borough of McSherrystown

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of McSherrystown, the figures in this table only represent information within the Borough of McSherrystown.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- percent-annual-chance flood depth grid)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of McSherrystown's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 291: Summary of Potential Flood Losses – Borough of McSherrystown

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$206,100,000	63%	\$0	N/A	\$0	N/A	\$300,000	<1%	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$89,600,000	27%	\$0	N/A	\$0	N/A	\$20,000	<1%	\$0	N/A	\$0	N/A
Other Building and Contents	\$33,900,000	10%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$329,600,000	100%	\$0	N/A	\$0	N/A	\$300,000	<1%	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$329,600,000	N/A	\$0	N/A	\$0	N/A	\$300,000	<1%	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.97 Township of Menallen Summary (CID 421256)

The following pages include Flood Risk data for the Township of Menallen, Adams County PA.

3.3.97.1. Overview

The information below provides an overview of the Township of Menallen as of the date of this publication.

Table 292: Overview of Township of Menallen

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Menallen	421256	3,856	73	42.8	83	Y	N/A	Y

- Participating in Adams County 2009 Hazard Mitigation Plan Update, which expires on 12/31/2014.
- Past Federal Disaster Declarations for flooding = 5
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 16 policies totaling approximately \$3,188,300
- TEIF 1% Loss Value: \$21,800,000

Data provided below only includes areas within the Township of Menallen, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.97.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 293: Overview of Changes Since Last FIRM For Township of Menallen

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Menallen, the figures in this table only represent information within the Township of Menallen.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- percent-annual-chance flood depth grid)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Menallen's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 294: Summary of Potential Flood Losses – Township of Menallen

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$207,200,000	67%	\$0	N/A	\$0	N/A	\$40,000	<1%	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$42,900,000	14%	\$0	N/A	\$0	N/A	\$600,000	1%	\$0	N/A	\$0	N/A
Other Building and Contents	\$60,000,000	19%	\$0	N/A	\$0	N/A	\$300,000	<1%	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$310,000,000	100%	\$0	N/A	\$0	N/A	\$900,000	<1%	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$310,000,000	N/A	\$0	N/A	\$0	N/A	\$900,000	<1%	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.98 Township of Millcreek Summary (CID 420574)

The following pages include Flood Risk data for the Township of Millcreek, Lebanon County PA.

3.3.98.1. Overview

The information below provides an overview of the Township of Millcreek as of the date of this publication.

Table 295: Overview of Township of Millcreek

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Millcreek	420574	3,892	3	20.3	9	Y	N/A	Y

- Participating in Lebanon County 2013 Hazard Mitigation Plan, which expires on 12/1/2018.
- Past Federal Disaster Declarations for flooding = 8
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 10 policies totaling approximately \$2,120,000
- TEIF 1% Loss Value: \$700,000

Data provided below only includes areas within the Township of Millcreek, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.98.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 296: Overview of Changes Since Last FIRM For Township of Millcreek

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Millcreek, the figures in this table only represent information within the Township of Millcreek.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- percent-annual-chance flood depth grid)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Millcreek's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 297: Summary of Potential Flood Losses – Township of Millcreek

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$9,600,000	71%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$1,200,000	9%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$2,700,000	20%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$13,400,000	100%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$13,400,000	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.99 Borough of Millersville Summary (CID 420559)

The following pages include Flood Risk data for the Borough of Millersville, Lancaster County PA.

3.3.99.1. Overview

The information below provides an overview of the Borough of Millersville as of the date of this publication.

Table 298: Overview of Borough of Millersville

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Millersville	420559	8,168	100	1.9	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 4 policies totaling approximately \$366,000
- TEIF 1% Loss Value: \$13,300,000

Data provided below only includes areas within the Borough of Millersville, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.99.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 299: Overview of Changes Since Last FIRM For Borough of Millersville

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	<0.1	<0.1	<-0.1	0.0
Within Floodway	<0.1	0.0	<-0.1	<-0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Millersville, the figures in this table only represent information within the Borough of Millersville.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Borough of Millersville's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 300: Summary of Potential Flood Losses – Borough of Millersville

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$663,400,000	83%	\$0	N/A	\$0	N/A	\$400,000	<1%	\$500,000	<1%	\$0	N/A
Commercial Building and Contents	\$69,900,000	9%	\$0	N/A	\$0	N/A	\$10,000	<1%	\$10,000	<1%	\$0	N/A
Other Building and Contents	\$69,700,000	9%	\$0	N/A	\$0	N/A	\$3,300,000	5%	\$4,100,000	6%	\$0	N/A
Total Building and Contents ²	\$803,000,000	100%	\$0	N/A	\$0	N/A	\$3,700,000	<1%	\$4,600,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$803,000,000	N/A	\$0	N/A	\$0	N/A	\$3,700,000	<1%	\$4,600,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.100 Township of Monaghan Summary (CID 422225)

The following pages include Flood Risk data for the Township of Monaghan, York County PA.

3.3.100.1. Overview

The information below provides an overview of the Township of Monaghan as of the date of this publication.

Table 301: Overview of Township of Monaghan

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Monaghan	422225	2,124	4	12.9	11	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 10 policies totaling approximately \$2,294,600
- TEIF 1% Loss Value: \$0

Data provided below only includes areas within the Township of Monaghan, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.100.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 302: Overview of Changes Since Last FIRM For Township of Monaghan

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.6	0.2	-0.2	<0.1
Within Floodway	0.3	<0.1	<-0.1	<0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Monaghan, the figures in this table only represent information within the Township of Monaghan.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Township of Monaghan's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 303: Summary of Potential Flood Losses – Township of Monaghan

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$8,100,000	65%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$700,000	6%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$3,700,000	29%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$12,500,000	100%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$12,500,000	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.101 Borough of Mount Joy Summary (CID 420561)

The following pages include Flood Risk data for the Borough of Mount Joy, Lancaster County PA.

3.3.101.1. Overview

The information below provides an overview of the Borough of Mount Joy as of the date of this publication.

Table 304: Overview of Borough of Mount Joy

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Mount Joy	420561	7,410	100	2.4	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 15 policies totaling approximately \$2,036,000
- TEIF 1% Loss Value: \$15,200,000

Data provided below only includes areas within the Borough of Mount Joy, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.101.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 305: Overview of Changes Since Last FIRM For Borough of Mount Joy

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.1	<0.1	<-0.1	<0.1
Within Floodway	0.0	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Mount Joy, the figures in this table only represent information within the Borough of Mount Joy.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of Mount Joy's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 306: Summary of Potential Flood Losses – Borough of Mount Joy

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$522,600,000	59%	\$0	N/A	\$0	N/A	\$2,600,000	<1%	\$3,200,000	1%	\$0	N/A
Commercial Building and Contents	\$201,500,000	23%	\$0	N/A	\$0	N/A	\$800,000	<1%	\$900,000	<1%	\$0	N/A
Other Building and Contents	\$157,700,000	18%	\$0	N/A	\$0	N/A	\$50,000	<1%	\$100,000	<1%	\$0	N/A
Total Building and Contents ²	\$881,800,000	100%	\$0	N/A	\$0	N/A	\$3,400,000	<1%	\$4,200,000	<1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$0	N/A
TOTAL⁴	\$881,800,000	N/A	\$0	N/A	\$0	N/A	\$3,400,000	<1%	\$4,300,000	<1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.102 Township of Mount Joy Summary (CID 421776)

The following pages include Flood Risk data for the Township of Mount Joy, Lancaster County PA.

3.3.102.1. Overview

The information below provides an overview of the Township of Mount Joy as of the date of this publication.

Table 307: Overview of Township of Mount Joy

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Mount Joy	421776	9,873	68	28.0	82	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 13 policies totaling approximately \$2,648,700
- TEIF 1% Loss Value: \$15,000,000

Data provided below only includes areas within the Township of Mount Joy, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.102.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 308: Overview of Changes Since Last FIRM For Township of Mount Joy

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.9	0.3	<-0.1	0.2
Within Floodway	0.2	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Mount Joy, the figures in this table only represent information within the Township of Mount Joy.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Mount Joy's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 309: Summary of Potential Flood Losses – Township of Mount Joy

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$561,700,000	64%	\$0	N/A	\$0	N/A	\$1,900,000	<1%	\$1,100,000	<1%	\$0	N/A
Commercial Building and Contents	\$191,900,000	22%	\$0	N/A	\$0	N/A	\$2,000,000	1%	\$500,000	<1%	\$0	N/A
Other Building and Contents	\$124,500,000	14%	\$0	N/A	\$0	N/A	\$300,000	<1%	\$200,000	<1%	\$0	N/A
Total Building and Contents ²	\$878,100,000	100%	\$0	N/A	\$0	N/A	\$4,200,000	<1%	\$1,800,000	<1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$878,100,000	N/A	\$0	N/A	\$0	N/A	\$4,300,000	<1%	\$1,800,000	<1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.103 Township of Mount Pleasant Summary (CID 421258)

The following pages include Flood Risk data for the Township of Mount Pleasant.

3.3.103.1. Overview

The information below provides an overview of the Township of Mount Pleasant as of the date of this publication.

Table 310: Overview of Township of Mount Pleasant

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Mount Pleasant	421258	6,106	45	30.6	66	Y	N/A	Y

- Participating in Adams County 2009 Hazard Mitigation Plan Update, which expires on 12/31/2014.
- Past Federal Disaster Declarations for flooding = 5
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 8 policies totaling approximately \$1,969,800
- TEIF 1% Loss Value: \$17,000,000

Data provided below only includes areas within the Township of Mount Pleasant, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.103.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 311: Overview of Changes Since Last FIRM For Township of Mount Pleasant

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Mount Pleasant, the figures in this table only represent information within the Township of Mount Pleasant.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1-percent-annual-chance flood depth grid)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Township of Mount Pleasant's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 312: Summary of Potential Flood Losses – Township of Mount Pleasant

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$166,000,000	72%	\$0	N/A	\$0	N/A	\$2,700,000	2%	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$28,800,000	13%	\$0	N/A	\$0	N/A	\$500,000	2%	\$0	N/A	\$0	N/A
Other Building and Contents	\$35,000,000	15%	\$0	N/A	\$0	N/A	\$400,000	1%	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$229,800,000	100%	\$0	N/A	\$0	N/A	\$3,700,000	2%	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$229,800,000	N/A	\$0	N/A	\$0	N/A	\$3,700,000	2%	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.104 Borough of Mount Wolf Summary (CID 421021)

The following pages include Flood Risk data for the Borough of Mount Wolf, York County PA.

3.3.104.1. Overview

The information below provides an overview of the Borough of Mount Wolf as of the date of this publication.

Table 313: Overview of Borough of Mount Wolf

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Mount Wolf	421021	1,359	100	0.5	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 6 policies totaling approximately \$1,051,400
- TEIF 1% Loss Value: \$4,400,000

Data provided below only includes areas within the Borough of Mount Wolf, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.104.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 314: Overview of Changes Since Last FIRM For Borough of Mount Wolf

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.1	<0.1	<-0.1	<0.1
Within Floodway	<0.1	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Mount Wolf, the figures in this table only represent information within the Borough of Mount Wolf.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of Mount Wolf's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 315: Summary of Potential Flood Losses – Borough of Mount Wolf

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$109,200,000	91%	\$0	N/A	\$0	N/A	\$1,300,000	1%	\$2,200,000	2%	\$0	N/A
Commercial Building and Contents	\$4,200,000	3%	\$0	N/A	\$0	N/A	\$0	N/A	\$10,000	<1%	\$0	N/A
Other Building and Contents	\$7,000,000	6%	\$0	N/A	\$0	N/A	\$300,000	4%	\$400,000	6%	\$0	N/A
Total Building and Contents ²	\$120,400,000	100%	\$0	N/A	\$0	N/A	\$1,600,000	1%	\$2,600,000	2%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$120,400,000	N/A	\$0	N/A	\$0	N/A	\$1,600,000	1%	\$2,600,000	2%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.105 Borough of Mountville Summary (CID 420560)

The following pages include Flood Risk data for the Borough of Mountville, Lancaster County PA.

3.3.105.1. Overview

The information below provides an overview of the Borough of Mountville as of the date of this publication.

Table 316: Overview of Borough of Mountville

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Mountville	420560	2,802	100	0.9	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 2 policies totaling approximately \$132,000
- TEIF 1% Loss Value: \$1,500,000

Data provided below only includes areas within the Borough of Mountville, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.105.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 317: Overview of Changes Since Last FIRM For Borough of Mountville

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	<0.1	0.0	0.0	0.0
Within Floodway	<0.1	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Mountville, the figures in this table only represent information within the Borough of Mountville.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of Mountville's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 318: Summary of Potential Flood Losses – Borough of Mountville

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$196,000,000	70%	\$0	N/A	\$0	N/A	\$40,000	<1%	\$10,000	<1%	\$0	N/A
Commercial Building and Contents	\$56,300,000	20%	\$0	N/A	\$0	N/A	\$10,000	<1%	\$0	N/A	\$0	N/A
Other Building and Contents	\$27,400,000	10%	\$0	N/A	\$0	N/A	\$10,000	<1%	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$279,700,000	100%	\$0	N/A	\$0	N/A	\$60,000	<1%	\$20,000	<1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$279,700,000	N/A	\$0	N/A	\$0	N/A	\$60,000	<1%	\$20,000	<1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.106 Borough of New Freedom Summary (CID 420932)

The following pages include Flood Risk data for the Borough of New Freedom, York County PA.

3.3.106.1. Overview

The information below provides an overview of the Borough of New Freedom as of the date of this publication.

Table 319: Overview of Borough of New Freedom

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of New Freedom	420932	3,516	52	2.1	53	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 6 policies totaling approximately \$1,226,800
- TEIF 1% Loss Value: \$7,200,000

Data provided below only includes areas within the Borough of New Freedom, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.106.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 320: Overview of Changes Since Last FIRM For Borough of New Freedom

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.0	0.0	-0.1	-0.1
Within Floodway	0.0	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of New Freedom, the figures in this table only represent information within the Borough of New Freedom.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Borough of New Freedom's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 321: Summary of Potential Flood Losses – Borough of New Freedom

	Flood Risk Project Refined Losses		Estimated Potential Losses for Flood Event Scenarios									
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$195,300,000	64%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$73,900,000	24%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$37,900,000	12%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$307,200,000	100%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$307,200,000	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.107 Borough of New Holland Summary (CID 422709)

The following pages include Flood Risk data for the Borough of New Holland, Lancaster County PA.

3.3.107.1. Overview

The information below provides an overview of the Borough of New Holland as of the date of this publication.

Table 322: Overview of Borough of New Holland

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of New Holland	422709	5,378	100	2.0	100	N	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- TEIF 1% Loss Value: \$0

Data provided below only includes areas within the Borough of New Holland, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.107.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 323: Overview of Changes Since Last FIRM For Borough of New Holland

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of New Holland, the figures in this table only represent information within the Borough of New Holland.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of New Holland's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 324: Summary of Potential Flood Losses – Borough of New Holland

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$1,800,000	18%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$6,800,000	68%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$1,400,000	14%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$9,900,000	100%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$9,900,000	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.108 Borough of New Morgan Summary (CID 422755)

The following pages include Flood Risk data for the Borough of New Morgan, Berks County PA.

3.3.108.1. Overview

The information below provides an overview of the Borough of New Morgan as of the date of this publication.

Table 325: Overview of Borough of New Morgan

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of New Morgan	422755	71	55	5.7	52	Y	N/A	Y

- Participating in Hazard Vulnerability Assessment and Mitigation Plan Update, which expires on 2/19/2018.
- Past Federal Disaster Declarations for flooding = 10
- TEIF 1% Loss Value: \$30,000

Data provided below only includes areas within the Borough of New Morgan, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.108.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 326: Overview of Changes Since Last FIRM For Borough of New Morgan

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of New Morgan, the figures in this table only represent information within the Borough of New Morgan.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- percent-annual-chance flood depth grid)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of New Morgan's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 327: Summary of Potential Flood Losses – Borough of New Morgan

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$3,000,000	48%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$2,800,000	44%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$500,000	8%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$6,200,000	100%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$6,200,000	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.109 Borough of New Oxford Summary (CID 421246)

The following pages include Flood Risk data for the Borough of New Oxford, York County PA.

3.3.109.1. Overview

The information below provides an overview of the Borough of New Oxford as of the date of this publication.

Table 328: Overview of Borough of New Oxford

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of New Oxford	421246	2,848	100	0.6	100	N	N/A	Y

- Participating in Adams County 2009 Hazard Mitigation Plan Update, which expires on 12/31/2014.
- Past Federal Disaster Declarations for flooding = 5
- TEIF 1% Loss Value: \$0

Data provided below only includes areas within the Borough of New Oxford, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.109.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 329: Overview of Changes Since Last FIRM For Borough of New Oxford

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of New Oxford, the figures in this table only represent information within the Borough of New Oxford.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of New Oxford's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

Table 330: Summary of Potential Flood Losses – Borough of New Oxford

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$141,300,000	56%	\$0	N/A	\$0	N/A	\$10,000	<1%	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$54,600,000	22%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$57,400,000	23%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$253,300,000	100%	\$0	N/A	\$0	N/A	\$10,000	<1%	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$253,300,000	N/A	\$0	N/A	\$0	N/A	\$10,000	<1%	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.110 Borough of New Salem Summary (CID 422743)

The following pages include Flood Risk data for the Borough of New Salem, York County PA.

3.3.110.1. Overview

The information below provides an overview of the Borough of New Salem as of the date of this publication.

Table 331: Overview of Borough of New Salem

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of New Salem	422743	632	100	0.5	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 1 policies totaling approximately \$28,000
- TEIF 1% Loss Value: \$1,000,000

Data provided below only includes areas within the Borough of New Salem, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.110.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 332: Overview of Changes Since Last FIRM For Borough of New Salem

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	<0.1	0.0	0.0	0.0
Within Floodway	0.0	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of New Salem, the figures in this table only represent information within the Borough of New Salem.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Borough of New Salem's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 333: Summary of Potential Flood Losses – Borough of New Salem

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$47,900,000	74%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$10,700,000	17%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$6,000,000	9%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$64,600,000	100%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$64,600,000	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.111 Township of Newberry Summary (CID 422226)

The following pages include Flood Risk data for the Township of Newberry, York County PA.

3.3.111.1. Overview

The information below provides an overview of the Township of Newberry as of the date of this publication.

Table 334: Overview of Township of Newberry

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Newberry	422226	14,649	44	30.8	55	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 60 policies totaling approximately \$8,342,100
- TEIF 1% Loss Value: \$18,100,000

Data provided below only includes areas within the Township of Newberry, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.111.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 335: Overview of Changes Since Last FIRM For Township of Newberry

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	2.0	0.6	-0.1	0.5
Within Floodway	0.7	0.1	<-0.1	0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Newberry, the figures in this table only represent information within the Township of Newberry.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Newberry's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 336: Summary of Potential Flood Losses – Township of Newberry

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$401,500,000	79%	\$0	N/A	\$0	N/A	\$5,300,000	1%	\$7,300,000	2%	\$0	N/A
Commercial Building and Contents	\$63,600,000	13%	\$0	N/A	\$0	N/A	\$1,000,000	2%	\$1,300,000	2%	\$0	N/A
Other Building and Contents	\$40,700,000	8%	\$0	N/A	\$0	N/A	\$300,000	1%	\$400,000	1%	\$0	N/A
Total Building and Contents ²	\$505,800,000	100%	\$0	N/A	\$0	N/A	\$6,600,000	1%	\$9,000,000	2%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$0	N/A
TOTAL⁴	\$505,800,000	N/A	\$0	N/A	\$0	N/A	\$6,600,000	1%	\$9,100,000	2%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.112 Township of North Codorus Summary (CID 422227)

The following pages include Flood Risk data for the Township of North Codorus, York County PA.

3.3.112.1. Overview

The information below provides an overview of the Township of North Codorus as of the date of this publication.

Table 337: Overview of Township of North Codorus

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of North Codorus	422227	7,931	100	32.3	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 16 policies totaling approximately \$1,880,200
- TEIF 1% Loss Value: \$51,700,000

Data provided below only includes areas within the Township of North Codorus, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.112.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 338: Overview of Changes Since Last FIRM For Township of North Codorus

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	2.6	0.3	-0.2	0.1
Within Floodway	0.8	0.1	<-0.1	0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of North Codorus, the figures in this table only represent information within the Township of North Codorus.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of North Codorus's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 339: Summary of Potential Flood Losses – Township of North Codorus

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$560,000,000	77%	\$0	N/A	\$0	N/A	\$2,700,000	<1%	\$3,800,000	1%	\$0	N/A
Commercial Building and Contents	\$44,300,000	6%	\$0	N/A	\$0	N/A	\$1,300,000	3%	\$1,900,000	4%	\$0	N/A
Other Building and Contents	\$126,600,000	17%	\$0	N/A	\$0	N/A	\$4,300,000	3%	\$6,900,000	5%	\$0	N/A
Total Building and Contents ²	\$730,900,000	100%	\$0	N/A	\$0	N/A	\$8,300,000	1%	\$12,600,000	2%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$500,000	N/A	\$800,000	N/A	\$0	N/A
TOTAL⁴	\$730,900,000	N/A	\$0	N/A	\$0	N/A	\$8,800,000	1%	\$13,400,000	2%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.113 Township of North Hopewell Summary (CID 422228)

The following pages include Flood Risk data for the Township of North Hopewell, York County PA.

3.3.113.1. Overview

The information below provides an overview of the Township of North Hopewell as of the date of this publication.

Table 340: Overview of Township of North Hopewell

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of North Hopewell	422228	2,565	100	18.8	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 7 policies totaling approximately \$1,190,400
- TEIF 1% Loss Value: \$8,700,000

Data provided below only includes areas within the Township of North Hopewell, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.113.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 341: Overview of Changes Since Last FIRM For Township of North Hopewell

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.6	0.1	-0.1	<0.1
Within Floodway	0.1	<0.1	<-0.1	<0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of North Hopewell, the figures in this table only represent information within the Township of North Hopewell.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of North Hopewell's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 342: Summary of Potential Flood Losses – Township of North Hopewell

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$175,700,000	79%	\$0	N/A	\$0	N/A	\$600,000	<1%	\$900,000	1%	\$0	N/A
Commercial Building and Contents	\$19,300,000	9%	\$0	N/A	\$0	N/A	\$20,000	<1%	\$20,000	<1%	\$0	N/A
Other Building and Contents	\$27,300,000	12%	\$0	N/A	\$0	N/A	\$600,000	2%	\$600,000	2%	\$0	N/A
Total Building and Contents ²	\$222,300,000	100%	\$0	N/A	\$0	N/A	\$1,100,000	<1%	\$1,500,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$222,300,000	N/A	\$0	N/A	\$0	N/A	\$1,100,000	<1%	\$1,500,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.114 Borough of North York Summary (CID 420933)

The following pages include Flood Risk data for the Borough of North York, York County PA.

3.3.114.1. Overview

The information below provides an overview of the Borough of North York as of the date of this publication.

Table 343: Overview of Borough of North York

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of North York	420933	1,715	100	0.3	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 1 policies totaling approximately \$34,800
- TEIF 1% Loss Value: \$8,300,000

Data provided below only includes areas within the Borough of North York, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.114.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 344: Overview of Changes Since Last FIRM For Borough of North York

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	<0.1	0.0	0.0	0.0
Within Floodway	<0.1	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of North York, the figures in this table only represent information within the Borough of North York.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of North York's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 345: Summary of Potential Flood Losses – Borough of North York

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$144,500,000	62%	\$0	N/A	\$0	N/A	\$800,000	1%	\$1,200,000	1%	\$0	N/A
Commercial Building and Contents	\$45,200,000	19%	\$0	N/A	\$0	N/A	\$400,000	1%	\$1,000,000	2%	\$0	N/A
Other Building and Contents	\$43,800,000	19%	\$0	N/A	\$0	N/A	\$1,200,000	3%	\$1,900,000	4%	\$0	N/A
Total Building and Contents ²	\$233,500,000	100%	\$0	N/A	\$0	N/A	\$2,300,000	1%	\$4,100,000	2%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$100,000	N/A	\$0	N/A
TOTAL⁴	\$233,500,000	N/A	\$0	N/A	\$0	N/A	\$2,400,000	1%	\$4,200,000	2%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.115 Borough of Oxford Summary (CID 420284)

The following pages include Flood Risk data for the Borough of Oxford, Chester County PA.

3.3.115.1. Overview

The information below provides an overview of the Borough of Oxford as of the date of this publication.

Table 346: Overview of Borough of Oxford

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Oxford	420284	5,077	25	2.0	46	Y	N/A	Y

- Participating in 2010 Chester County Multi-Jurisdictional Hazard Mitigation Plan, which expires on 6/1/2015.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 2 policies totaling approximately \$190,000
- TEIF 1% Loss Value: \$1,500,000

Data provided below only includes areas within the Borough of Oxford, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.115.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 347: Overview of Changes Since Last FIRM For Borough of Oxford

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Oxford, the figures in this table only represent information within the Borough of Oxford.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- percent-annual-chance flood depth grid)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of Oxford's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 348: Summary of Potential Flood Losses – Borough of Oxford

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$144,400,000	73%	\$0	N/A	\$0	N/A	\$400,000	<1%	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$40,000,000	20%	\$0	N/A	\$0	N/A	\$30,000	<1%	\$0	N/A	\$0	N/A
Other Building and Contents	\$13,200,000	7%	\$0	N/A	\$0	N/A	\$10,000	<1%	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$197,500,000	100%	\$0	N/A	\$0	N/A	\$400,000	<1%	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$197,500,000	N/A	\$0	N/A	\$0	N/A	\$400,000	<1%	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.116 Township of Oxford Summary (CID 420003)

The following pages include Flood Risk data for the Township of Oxford, Adams County PA.

3.3.116.1. Overview

The information below provides an overview of the Township of Oxford as of the date of this publication.

Table 349: Overview of Township of Oxford

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Oxford	420003	6,614	100	9.7	100	Y	N/A	Y

- Participating in Adams County 2009 Hazard Mitigation Plan Update, which expires on 12/31/2014.
- Past Federal Disaster Declarations for flooding = 5
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 17 policies totaling approximately \$4,033,000
- TEIF 1% Loss Value: \$23,200,000

Data provided below only includes areas within the Township of Oxford, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.116.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 350: Overview of Changes Since Last FIRM For Township of Oxford

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Oxford, the figures in this table only represent information within the Township of Oxford.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- percent-annual-chance flood depth grid)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Oxford's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 351: Summary of Potential Flood Losses – Township of Oxford

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$407,800,000	74%	\$0	N/A	\$0	N/A	\$2,800,000	1%	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$71,700,000	13%	\$0	N/A	\$0	N/A	\$700,000	1%	\$0	N/A	\$0	N/A
Other Building and Contents	\$68,900,000	13%	\$0	N/A	\$0	N/A	\$1,100,000	2%	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$548,400,000	100%	\$0	N/A	\$0	N/A	\$4,600,000	1%	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$548,400,000	N/A	\$0	N/A	\$0	N/A	\$4,700,000	1%	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.117 Township of Paradise Summary (CID 421777)

The following pages include Flood Risk data for the Township of Paradise, Lancaster County PA.

3.3.117.1. Overview

The information below provides an overview of the Township of Paradise as of the date of this publication.

Table 352: Overview of Township of Paradise (Lancaster County)

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Paradise	421777	5,131	100	18.7	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 11 policies totaling approximately \$2,223,800
- TEIF 1% Loss Value: \$34,200,000

Data provided below only includes areas within the Township of Paradise, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.117.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 353: Overview of Changes Since Last FIRM For Township of Paradise (Lancaster County)

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.9	0.1	-0.3	-0.2
Within Floodway	0.1	<0.1	<-0.1	<-0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Paradise, the figures in this table only represent information within the Township of Paradise.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Township of Paradise's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 354: Summary of Potential Flood Losses – Township of Paradise (Lancaster County)

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$311,000,000	62%	\$0	N/A	\$0	N/A	\$2,400,000	1%	\$4,200,000	1%	\$0	N/A
Commercial Building and Contents	\$110,800,000	22%	\$0	N/A	\$0	N/A	\$2,500,000	2%	\$4,000,000	4%	\$0	N/A
Other Building and Contents	\$77,000,000	15%	\$0	N/A	\$0	N/A	\$1,500,000	2%	\$2,800,000	4%	\$0	N/A
Total Building and Contents ²	\$498,800,000	100%	\$0	N/A	\$0	N/A	\$6,500,000	1%	\$11,000,000	2%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$200,000	N/A	\$300,000	N/A	\$0	N/A
TOTAL⁴	\$498,800,000	N/A	\$0	N/A	\$0	N/A	\$6,700,000	1%	\$11,300,000	2%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.118 Township of Paradise Summary (CID 420934)

The following pages include Flood Risk data for the Township of Paradise, York County PA.

3.3.118.1. Overview

The information below provides an overview of the Township of Paradise as of the date of this publication.

Table 355: Overview of Township of Paradise (York County)

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Paradise	420934	3,602	100	20.2	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 25 policies totaling approximately \$3,347,000
- TEIF 1% Loss Value: \$12,800,000

Data provided below only includes areas within the Township of Paradise, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.118.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 356: Overview of Changes Since Last FIRM For Township of Paradise (York County)

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.8	0.2	-0.2	<0.1
Within Floodway	0.2	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Paradise, the figures in this table only represent information within the Township of Paradise.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Paradise's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 357: Summary of Potential Flood Losses – Township of Paradise (York County)

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$265,100,000	83%	\$0	N/A	\$0	N/A	\$1,500,000	1%	\$2,700,000	1%	\$0	N/A
Commercial Building and Contents	\$28,800,000	9%	\$0	N/A	\$0	N/A	\$500,000	2%	\$700,000	2%	\$0	N/A
Other Building and Contents	\$26,800,000	8%	\$0	N/A	\$0	N/A	\$600,000	2%	\$900,000	3%	\$0	N/A
Total Building and Contents ²	\$320,600,000	100%	\$0	N/A	\$0	N/A	\$2,600,000	1%	\$4,300,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$320,600,000	N/A	\$0	N/A	\$0	N/A	\$2,700,000	1%	\$4,300,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.119 Borough of Parkesburg Summary (CID 422277)

The following pages include Flood Risk data for the Borough of Parkesburg, Chester County PA.

3.3.119.1. Overview

The information below provides an overview of the Borough of Parkesburg as of the date of this publication.

Table 358: Overview of Borough of Parkesburg

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Parkesburg	422277	3,593	0	1.3	13	Y	N/A	Y

- Participating in 2010 Chester County Multi-Jurisdictional Hazard Mitigation Plan, which expires on 6/1/2015.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 6 policies totaling approximately \$1,919,500
- TEIF 1% Loss Value: \$0

Data provided below only includes areas within the Borough of Parkesburg, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.119.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 359: Overview of Changes Since Last FIRM For Borough of Parkesburg

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Parkesburg, the figures in this table only represent information within the Borough of Parkesburg.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- percent-annual-chance flood depth grid)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of Parkesburg's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 360: Summary of Potential Flood Losses – Borough of Parkesburg

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$100,000	2%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$5,500,000	96%	\$0	N/A	\$0	N/A	\$10,000	<1%	\$0	N/A	\$0	N/A
Other Building and Contents	\$100,000	2%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$5,700,000	100%	\$0	N/A	\$0	N/A	\$10,000	<1%	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$5,700,000	N/A	\$0	N/A	\$0	N/A	\$10,000	<1%	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.120 Township of Peach Bottom Summary (CID 422229)

The following pages include Flood Risk data for the Township of Peach Bottom, York County PA.

3.3.120.1. Overview

The information below provides an overview of the Township of Peach Bottom as of the date of this publication.

Table 361: Overview of Township of Peach Bottom

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Peach Bottom	422229	4,440	100	29.5	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 15 policies totaling approximately \$2,549,700
- TEIF 1% Loss Value: \$21,900,000

Data provided below only includes areas within the Township of Peach Bottom, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.120.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 362: Overview of Changes Since Last FIRM For Township of Peach Bottom

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	1.0	0.2	-0.2	0.5
Within Floodway	0.3	<0.1	0.0	<0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Peach Bottom, the figures in this table only represent information within the Township of Peach Bottom.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Township of Peach Bottom's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 363: Summary of Potential Flood Losses – Township of Peach Bottom

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$352,700,000	80%	\$0	N/A	\$0	N/A	\$2,800,000	1%	\$4,400,000	1%	\$0	N/A
Commercial Building and Contents	\$62,600,000	14%	\$0	N/A	\$0	N/A	\$700,000	1%	\$1,000,000	2%	\$0	N/A
Other Building and Contents	\$27,900,000	6%	\$0	N/A	\$0	N/A	\$100,000	<1%	\$200,000	1%	\$0	N/A
Total Building and Contents ²	\$443,100,000	100%	\$0	N/A	\$0	N/A	\$3,600,000	1%	\$5,700,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$443,100,000	N/A	\$0	N/A	\$0	N/A	\$3,600,000	1%	\$5,700,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.121 Township of Penn Summary (CID 421778)

The following pages include Flood Risk data for the Township of Penn, Lancaster County PA.

3.3.121.1. Overview

The information below provides an overview of the Township of Penn as of the date of this publication.

Table 364: Overview of Township of Penn (Lancaster County)

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Penn	421778	8,789	100	29.8	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 34 policies totaling approximately \$4,685,700
- TEIF 1% Loss Value: \$25,600,000

Data provided below only includes areas within the Township of Penn, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.121.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 365: Overview of Changes Since Last FIRM For Township of Penn (Lancaster County)

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	1.2	0.6	<-0.1	0.6
Within Floodway	<0.1	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Penn, the figures in this table only represent information within the Township of Penn.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Township of Penn's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 366: Summary of Potential Flood Losses – Township of Penn (Lancaster County)

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$617,100,000	59%	\$0	N/A	\$0	N/A	\$3,500,000	1%	\$3,700,000	1%	\$0	N/A
Commercial Building and Contents	\$273,100,000	26%	\$0	N/A	\$0	N/A	\$3,900,000	1%	\$3,500,000	1%	\$0	N/A
Other Building and Contents	\$164,700,000	16%	\$0	N/A	\$0	N/A	\$1,500,000	1%	\$900,000	1%	\$0	N/A
Total Building and Contents ²	\$1,054,800,000	100%	\$0	N/A	\$0	N/A	\$8,900,000	1%	\$8,200,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$300,000	N/A	\$200,000	N/A	\$0	N/A
TOTAL⁴	\$1,054,800,000	N/A	\$0	N/A	\$0	N/A	\$9,200,000	1%	\$8,400,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.122 Township of Penn Summary (CID 421025)

The following pages include Flood Risk data for the Township of Penn, York County PA.

3.3.122.1. Overview

The information below provides an overview of the Township of Penn as of the date of this publication.

Table 367: Overview of Township of Penn (York County)

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Penn	421025	14,586	100	13.1	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 46 policies totaling approximately \$9,567,900
- TEIF 1% Loss Value: \$66,500,000

Data provided below only includes areas within the Township of Penn, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.122.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 368: Overview of Changes Since Last FIRM For Township of Penn (York County)

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.6	0.1	-0.2	-0.1
Within Floodway	0.1	<0.1	<-0.1	<0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Penn, the figures in this table only represent information within the Township of Penn.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Township of Penn's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 369: Summary of Potential Flood Losses – Township of Penn (York County)

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$1,281,200,000	59%	\$0	N/A	\$0	N/A	\$3,000,000	<1%	\$4,700,000	<1%	\$0	N/A
Commercial Building and Contents	\$493,800,000	23%	\$0	N/A	\$0	N/A	\$8,200,000	2%	\$11,100,000	2%	\$0	N/A
Other Building and Contents	\$389,200,000	18%	\$0	N/A	\$0	N/A	\$8,000,000	2%	\$12,100,000	3%	\$0	N/A
Total Building and Contents ²	\$2,164,300,000	100%	\$0	N/A	\$0	N/A	\$19,200,000	1%	\$27,800,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$1,300,000	N/A	\$2,000,000	N/A	\$0	N/A
TOTAL⁴	\$2,164,300,000	N/A	\$0	N/A	\$0	N/A	\$20,500,000	1%	\$29,800,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.123 Township of Pequea Summary (CID 421779)

The following pages include Flood Risk data for the Township of Pequea, Lancaster County PA.

3.3.123.1. Overview

The information below provides an overview of the Township of Pequea as of the date of this publication.

Table 370: Overview of Township of Pequea

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Pequea	421779	4,605	100	13.6	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 3 policies totaling approximately \$9,100,000
- TEIF 1% Loss Value: \$19,600,000

Data provided below only includes areas within the Township of Pequea, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.123.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 371: Overview of Changes Since Last FIRM For Township of Pequea

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.8	0.4	<-0.1	0.3
Within Floodway	0.4	0.2	<-0.1	0.2

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Pequea, the figures in this table only represent information within the Township of Pequea.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Township of Pequea's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 372: Summary of Potential Flood Losses – Township of Pequea

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$359,600,000	73%	\$0	N/A	\$0	N/A	\$4,600,000	1%	\$6,200,000	2%	\$0	N/A
Commercial Building and Contents	\$50,600,000	10%	\$0	N/A	\$0	N/A	\$600,000	1%	\$800,000	2%	\$0	N/A
Other Building and Contents	\$85,500,000	17%	\$0	N/A	\$0	N/A	\$1,000,000	1%	\$1,300,000	2%	\$0	N/A
Total Building and Contents ²	\$495,700,000	100%	\$0	N/A	\$0	N/A	\$6,200,000	1%	\$8,200,000	2%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$200,000	N/A	\$200,000	N/A	\$0	N/A
TOTAL⁴	\$495,700,000	N/A	\$0	N/A	\$0	N/A	\$6,400,000	1%	\$8,400,000	2%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.124 Town of Perryville Summary (CID 240024)

The following pages include Flood Risk data for the Town of Perryville, Cecil County MD.

3.3.124.1. Overview

The information below provides an overview of the Town of Perryville as of the date of this publication.

Table 373: Overview of Town of Perryville

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Town of Perryville	240024	4,361	60	2.9	50	Y	N/A	Y

- Participating in 2011 Maryland State Hazard Mitigation Plan Update, which expires on 8/26/2016.
- Past Federal Disaster Declarations for flooding = 6
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 163 policies totaling approximately \$36,414,200
- TEIF 1% Loss Value: \$27,000,000

Data provided below only includes areas within the Town of Perryville, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.124.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

• Changes Since Last FIRM

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 374: Overview of Changes Since Last FIRM For Town of Perryville

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Town of Perryville, the figures in this table only represent information within the Town of Perryville.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- percent-annual-chance flood depth grid)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Town of Perryville's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 375: Summary of Potential Flood Losses – Town of Perryville

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$186,800,000	69%	\$0	N/A	\$0	N/A	\$400,000	<1%	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$54,100,000	20%	\$0	N/A	\$0	N/A	\$400,000	1%	\$0	N/A	\$0	N/A
Other Building and Contents	\$29,500,000	11%	\$0	N/A	\$0	N/A	\$90,000	<1%	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$270,400,000	100%	\$0	N/A	\$0	N/A	\$800,000	<1%	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$270,400,000	N/A	\$0	N/A	\$0	N/A	\$800,000	<1%	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.125 Town of Port Deposit Summary (CID 240025)

The following pages include Flood Risk data for the Town of Port Deposit, Cecil County MD.

3.3.125.1. Overview

The information below provides an overview of the Town of Port Deposit as of the date of this publication.

Table 376: Overview of Town of Port Deposit

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Town of Port Deposit	240025	653	100	2.2	92	Y	N/A	Y

- Participating in 2011 Maryland State Hazard Mitigation Plan Update, which expires on 8/26/2016.
- Past Federal Disaster Declarations for flooding = 6
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 200 policies totaling approximately \$36,077,700
- TEIF 1% Loss Value: \$16,600,000

Data provided below only includes areas within the Town of Port Deposit, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.125.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 377: Overview of Changes Since Last FIRM For Town of Port Deposit

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Town of Port Deposit, the figures in this table only represent information within the Town of Port Deposit.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- percent-annual-chance flood depth grid)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Town of Port Deposit's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 378: Summary of Potential Flood Losses – Town of Port Deposit

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$63,300,000	77%	\$0	N/A	\$0	N/A	\$1,700,000	3%	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$9,900,000	12%	\$0	N/A	\$0	N/A	\$800,000	8%	\$0	N/A	\$0	N/A
Other Building and Contents	\$9,500,000	11%	\$0	N/A	\$0	N/A	\$600,000	6%	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$82,700,000	100%	\$0	N/A	\$0	N/A	\$3,200,000	4%	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$82,700,000	N/A	\$0	N/A	\$0	N/A	\$3,300,000	4%	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.126 Township of Providence Summary (CID 421780)

The following pages include Flood Risk data for the Township of Providence, Lancaster County PA.

3.3.126.1. Overview

The information below provides an overview of the Township of Providence as of the date of this publication.

Table 379: Overview of Township of Providence

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Providence	421780	6,897	100	20.1	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 10 policies totaling approximately \$2,321,200
- TEIF 1% Loss Value: \$19,200,000

Data provided below only includes areas within the Township of Providence, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.126.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 380: Overview of Changes Since Last FIRM For Township of Providence

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.8	0.2	-0.2	<0.1
Within Floodway	0.1	<0.1	0.0	<0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Providence, the figures in this table only represent information within the Township of Providence.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Providence's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 381: Summary of Potential Flood Losses – Township of Providence

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$397,400,000	72%	\$0	N/A	\$0	N/A	\$3,800,000	1%	\$4,700,000	1%	\$0	N/A
Commercial Building and Contents	\$65,400,000	12%	\$0	N/A	\$0	N/A	\$1,700,000	3%	\$1,900,000	3%	\$0	N/A
Other Building and Contents	\$88,700,000	16%	\$0	N/A	\$0	N/A	\$1,000,000	1%	\$700,000	1%	\$0	N/A
Total Building and Contents ²	\$551,500,000	100%	\$0	N/A	\$0	N/A	\$6,500,000	1%	\$7,300,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$100,000	N/A	\$0	N/A
TOTAL⁴	\$551,500,000	N/A	\$0	N/A	\$0	N/A	\$6,600,000	1%	\$7,400,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.127 Borough of Quarryville Summary (CID 420563)

The following pages include Flood Risk data for the Borough of Quarryville, Lancaster County PA.

3.3.127.1. Overview

The information below provides an overview of the Borough of Quarryville as of the date of this publication.

Table 382: Overview of Borough of Quarryville

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Quarryville	420563	2,576	100	1.3	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 20 policies totaling approximately \$3,377,900
- TEIF 1% Loss Value: \$12,100,000

Data provided below only includes areas within the Borough of Quarryville, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.127.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 383: Overview of Changes Since Last FIRM For Borough of Quarryville

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.1	0.0	<-0.1	<-0.1
Within Floodway	<0.1	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Quarryville, the figures in this table only represent information within the Borough of Quarryville.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of Quarryville's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 384: Summary of Potential Flood Losses – Borough of Quarryville

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$163,500,000	56%	\$0	N/A	\$0	N/A	\$600,000	<1%	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$97,000,000	33%	\$0	N/A	\$0	N/A	\$4,500,000	5%	\$30,000	<1%	\$0	N/A
Other Building and Contents	\$34,000,000	12%	\$0	N/A	\$0	N/A	\$100,000	<1%	\$10,000	<1%	\$0	N/A
Total Building and Contents ²	\$294,500,000	100%	\$0	N/A	\$0	N/A	\$5,300,000	2%	\$40,000	<1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$200,000	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$294,500,000	N/A	\$0	N/A	\$0	N/A	\$5,500,000	2%	\$40,000	<1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.128 Borough of Railroad Summary (CID 420935)

The following pages include Flood Risk data for the Borough of Railroad, York County PA.

3.3.128.1. Overview

The information below provides an overview of the Borough of Railroad as of the date of this publication.

Table 385: Overview of Borough of Railroad

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Railroad	420935	299	100	0.6	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 4 policies totaling approximately \$420,000
- TEIF 1% Loss Value: \$2,700,000

Data provided below only includes areas within the Borough of Railroad, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.128.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 386: Overview of Changes Since Last FIRM For Borough of Railroad

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	<0.1	<0.1	<-0.1	0.0
Within Floodway	0.0	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Railroad, the figures in this table only represent information within the Borough of Railroad.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of Railroad's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 387: Summary of Potential Flood Losses – Borough of Railroad

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$28,800,000	94%	\$0	N/A	\$0	N/A	\$90,000	<1%	\$200,000	1%	\$0	N/A
Commercial Building and Contents	\$1,300,000	4%	\$0	N/A	\$0	N/A	\$100,000	8%	\$100,000	8%	\$0	N/A
Other Building and Contents	\$600,000	2%	\$0	N/A	\$0	N/A	\$40,000	7%	\$50,000	8%	\$0	N/A
Total Building and Contents ²	\$30,700,000	100%	\$0	N/A	\$0	N/A	\$200,000	1%	\$300,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$0	N/A
TOTAL⁴	\$30,700,000	N/A	\$0	N/A	\$0	N/A	\$200,000	1%	\$400,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.129 Township of Rapho Summary (CID 421781)

The following pages include Flood Risk data for the Township of Rapho, Lancaster County PA.

3.3.129.1. Overview

The information below provides an overview of the Township of Rapho as of the date of this publication.

Table 388: Overview of Township of Rapho

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Rapho	421781	10,442	100	47.8	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 13 policies totaling approximately \$2,261,900
- TEIF 1% Loss Value: \$30,600,000

Data provided below only includes areas within the Township of Rapho, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.129.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 389: Overview of Changes Since Last FIRM For Township of Rapho

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	2.5	0.5	-0.2	0.3
Within Floodway	0.5	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Rapho, the figures in this table only represent information within the Township of Rapho.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Rapho's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 390: Summary of Potential Flood Losses – Township of Rapho

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$670,000,000	65%	\$0	N/A	\$0	N/A	\$5,600,000	1%	\$4,500,000	1%	\$0	N/A
Commercial Building and Contents	\$155,700,000	15%	\$0	N/A	\$0	N/A	\$2,600,000	2%	\$2,500,000	2%	\$0	N/A
Other Building and Contents	\$200,400,000	20%	\$0	N/A	\$0	N/A	\$2,900,000	1%	\$2,200,000	1%	\$0	N/A
Total Building and Contents ²	\$1,026,000,000	100%	\$0	N/A	\$0	N/A	\$11,100,000	1%	\$9,200,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$200,000	N/A	\$100,000	N/A	\$0	N/A
TOTAL⁴	\$1,026,000,000	N/A	\$0	N/A	\$0	N/A	\$11,300,000	1%	\$9,300,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.130 Township of Reading Summary (CID 420004)

The following pages include Flood Risk data for the Township of Reading, Adams County PA.

3.3.130.1. Overview

The information below provides an overview of the Township of Reading as of the date of this publication.

Table 391: Overview of Township of Reading

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Reading	420004	6,306	100	26.8	100	Y	N/A	Y

- Participating in Adams County 2009 Hazard Mitigation Plan Update, which expires on 12/31/2014.
- Past Federal Disaster Declarations for flooding = 5
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 108 policies totaling approximately \$14,513,000
- TEIF 1% Loss Value: \$43,700,000

Data provided below only includes areas within the Township of Reading, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.130.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 392: Overview of Changes Since Last FIRM For Township of Reading

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Reading, the figures in this table only represent information within the Township of Reading.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1-percent-annual-chance flood depth grid)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Township of Reading's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 393: Summary of Potential Flood Losses – Township of Reading

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$359,700,000	84%	\$0	N/A	\$0	N/A	\$2,500,000	1%	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$40,200,000	9%	\$0	N/A	\$0	N/A	\$400,000	1%	\$0	N/A	\$0	N/A
Other Building and Contents	\$26,400,000	6%	\$0	N/A	\$0	N/A	\$3,300,000	13%	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$426,300,000	100%	\$0	N/A	\$0	N/A	\$6,100,000	1%	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$426,300,000	N/A	\$0	N/A	\$0	N/A	\$6,200,000	1%	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.131 Borough of Red Lion Summary (CID 422214)

The following pages include Flood Risk data for the Borough of Red Lion, York County PA.

3.3.131.1. Overview

The information below provides an overview of the Borough of Red Lion as of the date of this publication.

Table 394: Overview of Borough of Red Lion

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Red Lion	422214	6,130	100	1.3	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 2 policies totaling approximately \$474,000
- TEIF 1% Loss Value: \$0

Data provided below only includes areas within the Borough of Red Lion, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.131.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 395: Overview of Changes Since Last FIRM For Borough of Red Lion

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.0	0.0	0.0	0.0
Within Floodway	0.0	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Red Lion, the figures in this table only represent information within the Borough of Red Lion.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Borough of Red Lion's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 396: Summary of Potential Flood Losses – Borough of Red Lion

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$447,700,000	54%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$141,100,000	17%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$243,400,000	29%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$832,200,000	100%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$832,200,000	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.132 Town of Rising Sun Summary (CID 240158)

The following pages include Flood Risk data for the Town of Rising Sun, Cecil County MD.

3.3.132.1. Overview

The information below provides an overview of the Town of Rising Sun as of the date of this publication.

Table 397: Overview of Town of Rising Sun

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Town of Rising Sun	240158	2,781	100	1.6	96	Y	N/A	Y

- Participating in 2011 Maryland State Hazard Mitigation Plan Update, which expires on 8/26/2016.
- Past Federal Disaster Declarations for flooding = 6
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 3 policies totaling approximately \$554,100
- TEIF 1% Loss Value: \$19,600,000

Data provided below only includes areas within the Town of Rising Sun, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.132.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 398: Overview of Changes Since Last FIRM For Town of Rising Sun

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Town of Rising Sun, the figures in this table only represent information within the Town of Rising Sun.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- percent-annual-chance flood depth grid)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Town of Rising Sun's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 399: Summary of Potential Flood Losses – Town of Rising Sun

	Flood Risk Project Refined Losses		Estimated Potential Losses for Flood Event Scenarios									
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$135,100,000	62%	\$0	N/A	\$0	N/A	\$1,700,000	1%	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$64,500,000	29%	\$0	N/A	\$0	N/A	\$1,500,000	2%	\$0	N/A	\$0	N/A
Other Building and Contents	\$19,300,000	9%	\$0	N/A	\$0	N/A	\$300,000	2%	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$219,000,000	100%	\$0	N/A	\$0	N/A	\$3,500,000	2%	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$219,000,000	N/A	\$0	N/A	\$0	N/A	\$3,600,000	2%	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.133 Township of Robeson Summary (CID 420146)

The following pages include Flood Risk data for the Township of Robeson, Berks County PA.

3.3.133.1. Overview

The information below provides an overview of the Township of Robeson as of the date of this publication.

Table 400: Overview of Township of Robeson

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Robeson	420146	7,216	0	34.2	1	Y	N/A	Y

- Participating in Hazard Vulnerability Assessment and Mitigation Plan Update, which expires on 2/19/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 57 policies totaling approximately \$12,390,500
- TEIF 1% Loss Value: \$0

Data provided below only includes areas within the Township of Robeson, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.133.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 401: Overview of Changes Since Last FIRM For Township of Robeson

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Robeson, the figures in this table only represent information within the Township of Robeson.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- and 0.2-percent-annual-chance flood events)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Township of Robeson's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 402: Summary of Potential Flood Losses – Township of Robeson

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$500,000	93%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$10,000	2%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$30,000	6%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$500,000	100%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$500,000	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.134 Township of Sadsbury Summary (CID 421488)

The following pages include Flood Risk data for the Township of Sadsbury, Chester County PA.

3.3.134.1. Overview

The information below provides an overview of the Township of Sadsbury as of the date of this publication.

Table 406: Overview of Township of Sadsbury (Chester County)

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Sadsbury	421488	3,570	0	6.2	<1	Y	N/A	Y

- Participating in 2010 Chester County Multi-Jurisdictional Hazard Mitigation Plan, which expires on 6/1/2015.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 5 policies totaling approximately \$1,534,500
- TEIF 1% Loss Value: \$0

Data provided below only includes areas within the Township of Sadsbury, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.134.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 407: Overview of Changes Since Last FIRM For Township of Sadsbury (Chester County)

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Sadsbury, the figures in this table only represent information within the Township of Sadsbury.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- percent-annual-chance flood depth grid)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Sadsbury's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 408: Summary of Potential Flood Losses – Township of Sadsbury (Chester County)

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$20,000	70%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$10,000	23%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$0	7%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$30,000	100%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$30,000	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.135 Township of Sadsbury Summary (CID 421782)

The following pages include Flood Risk data for the Township of Sadsbury, Lancaster County PA.

3.3.135.1. Overview

The information below provides an overview of the Township of Sadsbury as of the date of this publication.

Table 403: Overview of Township of Sadsbury (Lancaster County)

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Sadsbury	421782	3,395	100	19.7	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 2 policies totaling approximately \$326,000
- TEIF 1% Loss Value: \$9,600,000

Data provided below only includes areas within the Township of Sadsbury, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.135.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 404: Overview of Changes Since Last FIRM For Township of Sadsbury (Lancaster County)

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	1.0	0.3	-0.1	0.2
Within Floodway	<0.1	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Sadsbury, the figures in this table only represent information within the Township of Sadsbury.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Sadsbury's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 405: Summary of Potential Flood Losses – Township of Sadsbury (Lancaster County)

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$192,100,000	72%	\$0	N/A	\$0	N/A	\$800,000	<1%	\$900,000	<1%	\$0	N/A
Commercial Building and Contents	\$32,200,000	12%	\$0	N/A	\$0	N/A	\$400,000	1%	\$600,000	2%	\$0	N/A
Other Building and Contents	\$44,100,000	16%	\$0	N/A	\$0	N/A	\$1,200,000	3%	\$600,000	1%	\$0	N/A
Total Building and Contents ²	\$268,400,000	100%	\$0	N/A	\$0	N/A	\$2,400,000	1%	\$2,100,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$268,400,000	N/A	\$0	N/A	\$0	N/A	\$2,500,000	1%	\$2,100,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.136 Township of Salisbury Summary (CID 421783)

The following pages include Flood Risk data for the Township of Salisbury, Lancaster County PA.

3.3.136.1. Overview

The information below provides an overview of the Township of Salisbury as of the date of this publication.

Table 409: Overview of Township of Salisbury

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Salisbury	421783	11,062	84	41.9	93	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 6 policies totaling approximately \$593,000
- TEIF 1% Loss Value: \$20,300,000

Data provided below only includes areas within the Township of Salisbury, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.136.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 410: Overview of Changes Since Last FIRM For Township of Salisbury

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	2.6	1.1	-0.2	0.9
Within Floodway	<0.1	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Salisbury, the figures in this table only represent information within the Township of Salisbury.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Salisbury's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

Table 411: Summary of Potential Flood Losses – Township of Salisbury

	Flood Risk Project Refined Losses		Estimated Potential Losses for Flood Event Scenarios									
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$549,900,000	70%	\$0	N/A	\$0	N/A	\$1,300,000	<1%	\$2,100,000	<1%	\$0	N/A
Commercial Building and Contents	\$117,700,000	15%	\$0	N/A	\$0	N/A	\$1,000,000	1%	\$1,100,000	1%	\$0	N/A
Other Building and Contents	\$120,800,000	15%	\$0	N/A	\$0	N/A	\$1,800,000	1%	\$2,200,000	2%	\$0	N/A
Total Building and Contents ²	\$788,400,000	100%	\$0	N/A	\$0	N/A	\$4,000,000	1%	\$5,400,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$200,000	N/A	\$0	N/A
TOTAL⁴	\$788,400,000	N/A	\$0	N/A	\$0	N/A	\$4,100,000	1%	\$5,600,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.137 Borough of Seven Valleys Summary (CID 420936)

The following pages include Flood Risk data for the Borough of Seven Valleys, York County PA.

3.3.137.1. Overview

The information below provides an overview of the Borough of Seven Valleys as of the date of this publication.

Table 412: Overview of Borough of Seven Valleys

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Seven Valleys	420936	487	100	1.1	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 6 policies totaling approximately \$676,600
- TEIF 1% Loss Value: \$9,700,000

Data provided below only includes areas within the Borough of Seven Valleys, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.137.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 413: Overview of Changes Since Last FIRM For Borough of Seven Valleys

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.3	<0.1	-0.1	<-0.1
Within Floodway	0.0	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Seven Valleys, the figures in this table only represent information within the Borough of Seven Valleys.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of Seven Valleys' flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 414: Summary of Potential Flood Losses – Borough of Seven Valleys

	Flood Risk Project Refined Losses		Estimated Potential Losses for Flood Event Scenarios									
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$37,600,000	70%	\$0	N/A	\$0	N/A	\$1,000,000	3%	\$1,200,000	3%	\$0	N/A
Commercial Building and Contents	\$7,200,000	14%	\$0	N/A	\$0	N/A	\$80,000	1%	\$90,000	1%	\$0	N/A
Other Building and Contents	\$8,500,000	16%	\$0	N/A	\$0	N/A	\$20,000	<1%	\$30,000	<1%	\$0	N/A
Total Building and Contents ²	\$53,400,000	100%	\$0	N/A	\$0	N/A	\$1,100,000	2%	\$1,300,000	2%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$53,400,000	N/A	\$0	N/A	\$0	N/A	\$1,100,000	2%	\$1,300,000	2%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.138 Borough of Shrewsbury Summary (CID 422748)

The following pages include Flood Risk data for the Borough of Shrewsbury, York County PA.

3.3.138.1. Overview

The information below provides an overview of the Borough of Shrewsbury as of the date of this publication.

Table 415: Overview of Borough of Shrewsbury

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Shrewsbury	422748	3,336	100	1.8	100	N	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- TEIF 1% Loss Value: \$0

Data provided below only includes areas within the Borough of Shrewsbury, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.138.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 416: Overview of Changes Since Last FIRM For Borough of Shrewsbury

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Shrewsbury, the figures in this table only represent information within the Borough of Shrewsbury.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of Shrewsbury's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 417: Summary of Potential Flood Losses – Borough of Shrewsbury

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$288,200,000	58%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$148,500,000	30%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$58,600,000	12%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$495,400,000	100%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$495,400,000	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.139 Township of Shrewsbury Summary (CID 422230)

The following pages include Flood Risk data for the Township of Shrewsbury, York County PA.

3.3.139.1. Overview

The information below provides an overview of the Township of Shrewsbury as of the date of this publication.

Table 418: Overview of Township of Shrewsbury

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Shrewsbury	422230	5,981	92	29.1	89	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 19 policies totaling approximately \$4,382,700
- TEIF 1% Loss Value: \$17,500,000

Data provided below only includes areas within the Township of Shrewsbury, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.139.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 419: Overview of Changes Since Last FIRM For Township of Shrewsbury

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.9	0.4	-0.1	0.3
Within Floodway	0.1	<0.1	<-0.1	<0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Shrewsbury, the figures in this table only represent information within the Township of Shrewsbury.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Shrewsbury's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 420: Summary of Potential Flood Losses – Township of Shrewsbury

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$490,700,000	73%	\$0	N/A	\$0	N/A	\$1,700,000	<1%	\$2,700,000	1%	\$0	N/A
Commercial Building and Contents	\$102,100,000	15%	\$0	N/A	\$0	N/A	\$1,500,000	1%	\$1,900,000	2%	\$0	N/A
Other Building and Contents	\$81,700,000	12%	\$0	N/A	\$0	N/A	\$700,000	1%	\$800,000	1%	\$0	N/A
Total Building and Contents ²	\$674,600,000	100%	\$0	N/A	\$0	N/A	\$3,800,000	1%	\$5,300,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$100,000	N/A	\$0	N/A
TOTAL⁴	\$674,600,000	N/A	\$0	N/A	\$0	N/A	\$3,900,000	1%	\$5,400,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.140 Township of South Heidelberg Summary (CID 421107)

The following pages include Flood Risk data for the Township of South Heidelberg, Berks County PA.

3.3.140.1. Overview

The information below provides an overview of the Township of South Heidelberg as of the date of this publication.

Table 421: Overview of Township of South Heidelberg

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of South Heidelberg	421107	7,271	9	13.8	18	Y	N/A	Y

- Participating in Hazard Vulnerability Assessment and Mitigation Plan Update, which expires on 2/19/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 23 policies totaling approximately \$5,752,800
- TEIF 1% Loss Value: \$100,000

Data provided below only includes areas within the Township of South Heidelberg, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.140.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 422: Overview of Changes Since Last FIRM For Township of South Heidelberg

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of South Heidelberg, the figures in this table only represent information within the Township of South Heidelberg.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of South Heidelberg's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 423: Summary of Potential Flood Losses – Township of South Heidelberg

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$70,700,000	82%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$11,600,000	13%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$3,700,000	4%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$86,000,000	100%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$86,000,000	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.141 Township of South Lebanon Summary (CID 420581)

The following pages include Flood Risk data for the Township of South Lebanon, Lebanon County PA.

3.3.141.1. Overview

The information below provides an overview of the Township of South Lebanon as of the date of this publication.

Table 424: Overview of Township of South Lebanon

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of South Lebanon	420581	9,461	3	21.2	33	Y	N/A	Y

- Participating in Lebanon County 2013 Hazard Mitigation Plan, which expires on 12/1/2018.
- Past Federal Disaster Declarations for flooding = 8
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 39 policies totaling approximately \$8,245,000
- TEIF 1% Loss Value: \$2,400,000

Data provided below only includes areas within the Township of South Lebanon, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.141.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 425: Overview of Changes Since Last FIRM For Township of South Lebanon

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of South Lebanon, the figures in this table only represent information within the Township of South Lebanon.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of South Lebanon's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 426: Summary of Potential Flood Losses – Township of South Lebanon

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$28,000,000	51%	\$0	N/A	\$0	N/A	\$10,000	<1%	\$10,000	<1%	\$0	N/A
Commercial Building and Contents	\$5,900,000	11%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$21,100,000	38%	\$0	N/A	\$0	N/A	\$60,000	<1%	\$80,000	<1%	\$0	N/A
Total Building and Contents ²	\$54,900,000	100%	\$0	N/A	\$0	N/A	\$70,000	<1%	\$100,000	<1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$10,000	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$54,900,000	N/A	\$0	N/A	\$0	N/A	\$80,000	<1%	\$100,000	<1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.142 Township of South Londonderry Summary (CID 421043)

The following pages include Flood Risk data for the Township of South Londonderry, Lebanon County PA.

3.3.142.1. Overview

The information below provides an overview of the Township of South Londonderry as of the date of this publication.

Table 427: Overview of Township of South Londonderry

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of South Londonderry	421043	6,993	1	24.1	8	Y	N/A	Y

- Participating in Lebanon County 2013 Hazard Mitigation Plan, which expires on 12/1/2018.
- Past Federal Disaster Declarations for flooding = 8
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 36 policies totaling approximately \$7,352,200
- TEIF 1% Loss Value: \$400,000

Data provided below only includes areas within the Township of South Londonderry, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.142.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 428: Overview of Changes Since Last FIRM For Township of South Londonderry

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of South Londonderry, the figures in this table only represent information within the Township of South Londonderry.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of South Londonderry's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 429: Summary of Potential Flood Losses – Township of South Londonderry

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$3,400,000	59%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$300,000	5%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$2,100,000	36%	\$0	N/A	\$0	N/A	\$10,000	<1%	\$10,000	<1%	\$0	N/A
Total Building and Contents ²	\$5,700,000	100%	\$0	N/A	\$0	N/A	\$10,000	<1%	\$10,000	<1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$5,700,000	N/A	\$0	N/A	\$0	N/A	\$10,000	<1%	\$10,000	<1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.143 Township of Spring Summary (CID 421108)

The following pages include Flood Risk data for the Township of Spring, Berks County PA.

3.3.143.1. Overview

The information below provides an overview of the Township of Spring as of the date of this publication.

Table 430: Overview of Township of Spring

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Spring	421108	27,119	5	18.5	31	Y	N/A	Y

- Participating in Hazard Vulnerability Assessment and Mitigation Plan Update, which expires on 2/19/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 30 policies totaling approximately \$9,554,600
- TEIF 1% Loss Value: \$4,400,000

Data provided below only includes areas within the Township of Spring, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.143.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 431: Overview of Changes Since Last FIRM For Township of Spring

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Spring, the figures in this table only represent information within the Township of Spring.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Spring's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 432: Summary of Potential Flood Losses – Township of Spring

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$108,900,000	76%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$21,200,000	15%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$13,700,000	10%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$143,800,000	100%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$143,800,000	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.144 Township of Spring Garden Summary (CID 420937)

The following pages include Flood Risk data for the Township of Spring Garden, York County PA.

3.3.144.1. Overview

The information below provides an overview of the Township of Spring Garden as of the date of this publication.

Table 433: Overview of Township of Spring Garden

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Spring Garden	420937	12,078	100	6.8	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 40 policies totaling approximately \$13,523,800
- TEIF 1% Loss Value: \$144,400,000

Data provided below only includes areas within the Township of Spring Garden, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.144.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 434: Overview of Changes Since Last FIRM For Township of Spring Garden

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.6	0.1	-0.1	<-0.1
Within Floodway	0.2	0.0	<-0.1	<-0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Spring Garden, the figures in this table only represent information within the Township of Spring Garden.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Spring Garden's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 435: Summary of Potential Flood Losses – Township of Spring Garden

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$1,229,400,000	51%	\$0	N/A	\$0	N/A	\$9,200,000	1%	\$13,700,000	1%	\$0	N/A
Commercial Building and Contents	\$519,800,000	22%	\$0	N/A	\$0	N/A	\$19,200,000	4%	\$57,300,000	11%	\$0	N/A
Other Building and Contents	\$660,500,000	27%	\$0	N/A	\$0	N/A	\$12,000,000	2%	\$41,300,000	6%	\$0	N/A
Total Building and Contents ²	\$2,409,700,000	100%	\$0	N/A	\$0	N/A	\$40,500,000	2%	\$112,300,000	5%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$2,100,000	N/A	\$8,000,000	N/A	\$0	N/A
TOTAL⁴	\$2,409,700,000	N/A	\$0	N/A	\$0	N/A	\$42,600,000	2%	\$120,300,000	5%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.145 Borough of Spring Grove Summary (CID 420938)

The following pages include Flood Risk data for the Borough of Spring Grove, York County PA.

3.3.145.1. Overview

The information below provides an overview of the Borough of Spring Grove as of the date of this publication.

Table 436: Overview of Borough of Spring Grove

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Spring Grove	420938	2,047	100	0.8	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 6 policies totaling approximately \$1,304,000
- TEIF 1% Loss Value: \$11,700,000

Data provided below only includes areas within the Borough of Spring Grove, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.145.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 437: Overview of Changes Since Last FIRM For Borough of Spring Grove

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	<0.1	0.0	<-0.1	<0.1
Within Floodway	<0.1	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Spring Grove, the figures in this table only represent information within the Borough of Spring Grove.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Borough of Spring Grove's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 438: Summary of Potential Flood Losses – Borough of Spring Grove

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$153,100,000	62%	\$0	N/A	\$0	N/A	\$20,000	<1%	\$30,000	<1%	\$0	N/A
Commercial Building and Contents	\$47,100,000	19%	\$0	N/A	\$0	N/A	\$40,000	<1%	\$50,000	<1%	\$0	N/A
Other Building and Contents	\$46,600,000	19%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$246,700,000	100%	\$0	N/A	\$0	N/A	\$50,000	<1%	\$80,000	<1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$246,700,000	N/A	\$0	N/A	\$0	N/A	\$50,000	<1%	\$80,000	<1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.146 Township of Springettsbury Summary (CID 421031)

The following pages include Flood Risk data for the Township of Springettsbury, York County PA.

3.3.146.1. Overview

The information below provides an overview of the Township of Springettsbury as of the date of this publication.

Table 439: Overview of Township of Springettsbury

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Springettsbury	421031	23,744	100	16.3	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 69 policies totaling approximately \$20,718,200
- TEIF 1% Loss Value: \$121,800,000

Data provided below only includes areas within the Township of Springettsbury, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.146.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 440: Overview of Changes Since Last FIRM For Township of Springettsbury

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	1.0	0.2	-0.1	<0.1
Within Floodway	0.3	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Springettsbury, the figures in this table only represent information within the Township of Springettsbury.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Springettsbury's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 441: Summary of Potential Flood Losses – Township of Springettsbury

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$2,087,700,000	57%	\$0	N/A	\$0	N/A	\$5,200,000	<1%	\$13,200,000	1%	\$0	N/A
Commercial Building and Contents	\$967,200,000	26%	\$0	N/A	\$0	N/A	\$18,800,000	2%	\$30,900,000	3%	\$0	N/A
Other Building and Contents	\$603,400,000	16%	\$0	N/A	\$0	N/A	\$7,600,000	1%	\$14,100,000	2%	\$0	N/A
Total Building and Contents ²	\$3,658,200,000	100%	\$0	N/A	\$0	N/A	\$31,600,000	1%	\$58,200,000	2%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$1,700,000	N/A	\$3,200,000	N/A	\$0	N/A
TOTAL⁴	\$3,658,200,000	N/A	\$0	N/A	\$0	N/A	\$33,300,000	1%	\$61,400,000	2%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.147 Township of Springfield Summary (CID 422231)

The following pages include Flood Risk data for the Township of Springfield, York County PA.

3.3.147.1. Overview

The information below provides an overview of the Township of Springfield as of the date of this publication.

Table 442: Overview of Township of Springfield

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Springfield	422231	3,963	100	26.7	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 16 policies totaling approximately \$2,858,400
- TEIF 1% Loss Value: \$11,100,000

Data provided below only includes areas within the Township of Springfield, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.147.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 443: Overview of Changes Since Last FIRM For Township of Springfield

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	1.4	0.3	-0.1	0.2
Within Floodway	0.2	<0.1	<-0.1	<0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Springfield, the figures in this table only represent information within the Township of Springfield.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Springfield's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 444: Summary of Potential Flood Losses – Township of Springfield

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$310,600,000	75%	\$0	N/A	\$0	N/A	\$1,900,000	1%	\$2,400,000	1%	\$0	N/A
Commercial Building and Contents	\$58,000,000	14%	\$0	N/A	\$0	N/A	\$1,700,000	3%	\$2,000,000	3%	\$0	N/A
Other Building and Contents	\$44,800,000	11%	\$0	N/A	\$0	N/A	\$1,400,000	3%	\$1,600,000	4%	\$0	N/A
Total Building and Contents ²	\$413,400,000	100%	\$0	N/A	\$0	N/A	\$5,000,000	1%	\$6,000,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$200,000	N/A	\$0	N/A
TOTAL⁴	\$413,400,000	N/A	\$0	N/A	\$0	N/A	\$5,100,000	1%	\$6,200,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.148 Borough of Stewartstown Summary (CID 422744)

The following pages include Flood Risk data for the Borough of Stewartstown, York County PA.

3.3.148.1. Overview

The information below provides an overview of the Borough of Stewartstown as of the date of this publication.

Table 445: Overview of Borough of Stewartstown

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Stewartstown	422744	1,733	100	0.8	100	N	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- TEIF 1% Loss Value: \$0

Data provided below only includes areas within the Borough of Stewartstown, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.148.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 446: Overview of Changes Since Last FIRM For Borough of Stewartstown

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Stewartstown, the figures in this table only represent information within the Borough of Stewartstown.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Borough of Stewartstown's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 447: Summary of Potential Flood Losses – Borough of Stewartstown

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$133,200,000	67%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$47,700,000	24%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$18,700,000	9%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$199,700,000	100%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$199,700,000	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.149 Township of Straban Summary (CID 421259)

The following pages include Flood Risk data for the Township of Straban, Adams County PA.

3.3.149.1. Overview

The information below provides an overview of the Township of Straban as of the date of this publication.

Table 448: Overview of Township of Straban

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Straban	421259	5,676	26	34.5	47	Y	N/A	Y

- Participating in Adams County 2009 Hazard Mitigation Plan Update, which expires on 12/31/2014.
- Past Federal Disaster Declarations for flooding = 5
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 12 policies totaling approximately \$2,643,000
- TEIF 1% Loss Value: \$14,100,000

Data provided below only includes areas within the Township of Straban, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.149.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 449: Overview of Changes Since Last FIRM For Township of Straban

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Straban, the figures in this table only represent information within the Township of Straban.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- percent-annual-chance flood depth grid)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Straban's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 450: Summary of Potential Flood Losses – Township of Straban

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$98,700,000	68%	\$0	N/A	\$0	N/A	\$10,000	<1%	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$16,400,000	11%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$29,200,000	20%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$144,300,000	100%	\$0	N/A	\$0	N/A	\$10,000	<1%	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$144,300,000	N/A	\$0	N/A	\$0	N/A	\$10,000	<1%	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.150 Borough of Strasburg Summary (CID 427790)

The following pages include Flood Risk data for the Borough of Strasburg, Lancaster County PA.

3.3.150.1. Overview

The information below provides an overview of the Borough of Strasburg as of the date of this publication.

Table 451: Overview of Borough of Strasburg

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Strasburg	427790	2,809	100	1.0	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 3 policies totaling approximately \$628,000
- TEIF 1% Loss Value: \$2,000,000

Data provided below only includes areas within the Borough of Strasburg, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.150.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 452: Overview of Changes Since Last FIRM For Borough of Strasburg

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	<0.1	0.0	<-0.1	<-0.1
Within Floodway	0.0	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Strasburg, the figures in this table only represent information within the Borough of Strasburg.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of Strasburg's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 453: Summary of Potential Flood Losses – Borough of Strasburg

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$237,600,000	68%	\$0	N/A	\$0	N/A	\$10,000	<1%	\$10,000	<1%	\$0	N/A
Commercial Building and Contents	\$80,300,000	23%	\$0	N/A	\$0	N/A	\$10,000	<1%	\$10,000	<1%	\$0	N/A
Other Building and Contents	\$32,900,000	9%	\$0	N/A	\$0	N/A	\$10,000	<1%	\$20,000	<1%	\$0	N/A
Total Building and Contents ²	\$350,800,000	100%	\$0	N/A	\$0	N/A	\$20,000	<1%	\$40,000	<1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$350,800,000	N/A	\$0	N/A	\$0	N/A	\$20,000	<1%	\$40,000	<1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.151 Township of Strasburg Summary (CID 421784)

The following pages include Flood Risk data for the Township of Strasburg, Lancaster County PA.

3.3.151.1. Overview

The information below provides an overview of the Township of Strasburg as of the date of this publication.

Table 454: Overview of Township of Strasburg

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Strasburg	421784	4,182	100	20.1	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 13 policies totaling approximately \$2,576,500
- TEIF 1% Loss Value: \$28,900,000

Data provided below only includes areas within the Township of Strasburg, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.151.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 455: Overview of Changes Since Last FIRM For Township of Strasburg

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	1.2	0.1	-0.5	-0.4
Within Floodway	0.1	<0.1	<-0.1	<-0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Strasburg, the figures in this table only represent information within the Township of Strasburg.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Strasburg's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 456: Summary of Potential Flood Losses – Township of Strasburg

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$328,200,000	64%	\$0	N/A	\$0	N/A	\$4,700,000	1%	\$6,100,000	2%	\$0	N/A
Commercial Building and Contents	\$152,100,000	30%	\$0	N/A	\$0	N/A	\$9,100,000	6%	\$11,200,000	7%	\$0	N/A
Other Building and Contents	\$34,700,000	7%	\$0	N/A	\$0	N/A	\$800,000	2%	\$800,000	2%	\$0	N/A
Total Building and Contents ²	\$515,000,000	100%	\$0	N/A	\$0	N/A	\$14,600,000	3%	\$18,100,000	4%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$300,000	N/A	\$300,000	N/A	\$0	N/A
TOTAL⁴	\$515,000,000	N/A	\$0	N/A	\$0	N/A	\$14,900,000	3%	\$18,400,000	4%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.152 Borough of Terre Hill Summary (CID 422710)

The following pages include Flood Risk data for the Borough of Terre Hill, Lancaster County PA.

3.3.152.1. Overview

The information below provides an overview of the Borough of Terre Hill as of the date of this publication.

Table 457: Overview of Borough of Terre Hill

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Terre Hill	422710	1,295	100	0.5	100	N	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- TEIF 1% Loss Value: \$0

Data provided below only includes areas within the Borough of Terre Hill, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.152.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 458: Overview of Changes Since Last FIRM For Borough of Terre Hill

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Terre Hill, the figures in this table only represent information within the Borough of Terre Hill.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of Terre Hill's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

Table 459: Summary of Potential Flood Losses – Borough of Terre Hill

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$88,300,000	63%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$23,400,000	17%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$27,700,000	20%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$139,500,000	100%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$139,500,000	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.153 Township of Tyrone Summary (CID 421163)

The following pages include Flood Risk data for the Township of Tyrone, Adams County PA.

3.3.153.1. Overview

The information below provides an overview of the Township of Tyrone as of the date of this publication.

Table 460: Overview of Township of Tyrone

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Tyrone	421163	3,134	100	21.6	100	Y	N/A	Y

- Participating in Adams County 2009 Hazard Mitigation Plan Update, which expires on 12/31/2014.
- Past Federal Disaster Declarations for flooding = 5
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 4 policies totaling approximately \$505,000
- TEIF 1% Loss Value: \$21,800,000

Data provided below only includes areas within the Township of Tyrone, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.153.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 461: Overview of Changes Since Last FIRM For Township of Tyrone

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Tyrone, the figures in this table only represent information within the Township of Tyrone.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- percent-annual-chance flood depth grid)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Tyrone's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 462: Summary of Potential Flood Losses – Township of Tyrone

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$133,200,000	67%	\$0	N/A	\$0	N/A	\$10,000	<1%	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$22,800,000	12%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$42,200,000	21%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$198,200,000	100%	\$0	N/A	\$0	N/A	\$20,000	<1%	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$198,200,000	N/A	\$0	N/A	\$0	N/A	\$20,000	<1%	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.154 Township of Union Summary (CID 421261)

The following pages include Flood Risk data for the Township of Union, Adams County PA.

3.3.154.1. Overview

The information below provides an overview of the Township of Union as of the date of this publication.

Table 463: Overview of Township of Union

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Union	421261	4,485	43	17.6	79	Y	N/A	Y

- Participating in Adams County 2009 Hazard Mitigation Plan Update, which expires on 12/31/2014.
- Past Federal Disaster Declarations for flooding = 5
- TEIF 1% Loss Value: \$6,100,000

Data provided below only includes areas within the Township of Union, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.154.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 464: Overview of Changes Since Last FIRM For Township of Union

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Union, the figures in this table only represent information within the Township of Union.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- percent-annual-chance flood depth grid)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Union's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 465: Summary of Potential Flood Losses – Township of Union

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$133,500,000	78%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$21,200,000	12%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$15,900,000	9%	\$0	N/A	\$0	N/A	\$10,000	<1%	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$170,600,000	100%	\$0	N/A	\$0	N/A	\$10,000	<1%	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$170,600,000	N/A	\$0	N/A	\$0	N/A	\$10,000	<1%	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.155 Township of Upper Leacock Summary (CID 421785)

The following pages include Flood Risk data for the Township of Upper Leacock, Lancaster County PA.

3.3.155.1. Overview

The information below provides an overview of the Township of Upper Leacock as of the date of this publication.

Table 466: Overview of Township of Upper Leacock

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Upper Leacock	421785	8,708	100	18.3	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 14 policies totaling approximately \$1,917,200
- TEIF 1% Loss Value: \$16,700,000

Data provided below only includes areas within the Township of Upper Leacock, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.155.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 467: Overview of Changes Since Last FIRM For Township of Upper Leacock

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	1.1	0.3	-0.2	<0.1
Within Floodway	0.2	<0.1	<-0.1	<0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Upper Leacock, the figures in this table only represent information within the Township of Upper Leacock.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Upper Leacock's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 468: Summary of Potential Flood Losses – Township of Upper Leacock

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$610,500,000	50%	\$0	N/A	\$0	N/A	\$1,800,000	<1%	\$3,200,000	1%	\$0	N/A
Commercial Building and Contents	\$226,400,000	19%	\$0	N/A	\$0	N/A	\$700,000	<1%	\$900,000	<1%	\$0	N/A
Other Building and Contents	\$377,000,000	31%	\$0	N/A	\$0	N/A	\$1,500,000	<1%	\$1,900,000	1%	\$0	N/A
Total Building and Contents ²	\$1,213,900,000	100%	\$0	N/A	\$0	N/A	\$4,100,000	<1%	\$6,100,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$200,000	N/A	\$0	N/A
TOTAL⁴	\$1,213,900,000	N/A	\$0	N/A	\$0	N/A	\$4,200,000	<1%	\$6,300,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.156 Township of Upper Oxford Summary (CID 422278)

The following pages include Flood Risk data for the Township of Upper Oxford, Chester County PA.

3.3.156.1. Overview

The information below provides an overview of the Township of Upper Oxford as of the date of this publication.

Table 469: Overview of Township of Upper Oxford

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Upper Oxford	422278	2,484	35	16.7	57	Y	N/A	Y

- Participating in 2010 Chester County Multi-Jurisdictional Hazard Mitigation Plan, which expires on 6/1/2015.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 3 policies totaling approximately \$411,000
- TEIF 1% Loss Value: \$6,300,000

Data provided below only includes areas within the Township of Upper Oxford, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.156.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 470: Overview of Changes Since Last FIRM For Township of Upper Oxford

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Upper Oxford, the figures in this table only represent information within the Township of Upper Oxford.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- percent-annual-chance flood depth grid)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Upper Oxford's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 471: Summary of Potential Flood Losses – Township of Upper Oxford

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$88,100,000	87%	\$0	N/A	\$0	N/A	\$1,400,000	2%	\$500,000	1%	\$0	N/A
Commercial Building and Contents	\$6,900,000	7%	\$0	N/A	\$0	N/A	\$200,000	3%	\$0	N/A	\$0	N/A
Other Building and Contents	\$6,100,000	6%	\$0	N/A	\$0	N/A	\$100,000	2%	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$101,200,000	100%	\$0	N/A	\$0	N/A	\$1,700,000	2%	\$500,000	<1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$101,200,000	N/A	\$0	N/A	\$0	N/A	\$1,700,000	2%	\$500,000	<1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.157 Township of Warrington Summary (CID 422232)

The following pages include Flood Risk data for the Township of Warrington, York County PA.

3.3.157.1. Overview

The information below provides an overview of the Township of Warrington as of the date of this publication.

Table 472: Overview of Township of Warrington

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Warrington	422232	4,445	100	36.1	98	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 15 policies totaling approximately \$3,470,800
- TEIF 1% Loss Value: \$8,000,000

Data provided below only includes areas within the Township of Warrington, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.157.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 473: Overview of Changes Since Last FIRM For Township of Warrington

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	2.9	1.4	-0.1	1.3
Within Floodway	0.1	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Warrington, the figures in this table only represent information within the Township of Warrington.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Township of Warrington's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 474: Summary of Potential Flood Losses – Township of Warrington

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$297,100,000	72%	\$0	N/A	\$0	N/A	\$4,600,000	2%	\$6,400,000	2%	\$0	N/A
Commercial Building and Contents	\$58,600,000	14%	\$0	N/A	\$0	N/A	\$1,500,000	3%	\$1,800,000	3%	\$0	N/A
Other Building and Contents	\$58,400,000	14%	\$0	N/A	\$0	N/A	\$1,000,000	2%	\$1,400,000	2%	\$0	N/A
Total Building and Contents ²	\$414,100,000	100%	\$0	N/A	\$0	N/A	\$7,100,000	2%	\$9,600,000	2%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$414,100,000	N/A	\$0	N/A	\$0	N/A	\$7,200,000	2%	\$9,600,000	2%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.158 Township of Warwick Summary (CID 421786)

The following pages include Flood Risk data for the Township of Warwick, Lancaster County PA.

3.3.158.1. Overview

The information below provides an overview of the Township of Warwick as of the date of this publication.

Table 475: Overview of Township of Warwick

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Warwick	421786	17,783	100	19.9	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 19 policies totaling approximately \$4,637,400
- TEIF 1% Loss Value: \$79,900,000

Data provided below only includes areas within the Township of Warwick, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.158.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 476: Overview of Changes Since Last FIRM For Township of Warwick

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	1.1	0.3	-0.1	0.2
Within Floodway	0.3	0.2	<-0.1	0.2

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Warwick, the figures in this table only represent information within the Township of Warwick.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Warwick's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 477: Summary of Potential Flood Losses – Township of Warwick

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$1,394,200,000	65%	\$0	N/A	\$0	N/A	\$6,100,000	<1%	\$7,900,000	1%	\$0	N/A
Commercial Building and Contents	\$420,700,000	20%	\$0	N/A	\$0	N/A	\$6,800,000	2%	\$7,000,000	2%	\$0	N/A
Other Building and Contents	\$327,800,000	15%	\$0	N/A	\$0	N/A	\$2,400,000	1%	\$3,300,000	1%	\$0	N/A
Total Building and Contents ²	\$2,142,700,000	100%	\$0	N/A	\$0	N/A	\$15,400,000	1%	\$18,200,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$400,000	N/A	\$500,000	N/A	\$0	N/A
TOTAL⁴	\$2,142,700,000	N/A	\$0	N/A	\$0	N/A	\$15,800,000	1%	\$18,700,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.159 Township of Washington Summary (CID 421150)

The following pages include Flood Risk data for the Township of Washington, York County PA.

3.3.159.1. Overview

The information below provides an overview of the Township of Washington as of the date of this publication.

Table 478: Overview of Township of Washington

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Washington	421150	2,517	100	28.1	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 18 policies totaling approximately \$2,990,000
- TEIF 1% Loss Value: \$20,200,000

Data provided below only includes areas within the Township of Washington, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.159.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 479: Overview of Changes Since Last FIRM For Township of Washington

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	3.2	0.9	-0.3	0.7
Within Floodway	0.4	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Washington, the figures in this table only represent information within the Township of Washington.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of Washington's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 480: Summary of Potential Flood Losses – Township of Washington

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$204,300,000	80%	\$0	N/A	\$0	N/A	\$6,300,000	3%	\$8,700,000	4%	\$0	N/A
Commercial Building and Contents	\$20,600,000	8%	\$0	N/A	\$0	N/A	\$1,000,000	5%	\$1,200,000	6%	\$0	N/A
Other Building and Contents	\$29,600,000	12%	\$0	N/A	\$0	N/A	\$1,000,000	3%	\$1,200,000	4%	\$0	N/A
Total Building and Contents ²	\$254,500,000	100%	\$0	N/A	\$0	N/A	\$8,200,000	3%	\$11,200,000	4%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$100,000	N/A	\$0	N/A
TOTAL⁴	\$254,500,000	N/A	\$0	N/A	\$0	N/A	\$8,300,000	3%	\$11,300,000	4%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.160 Borough of Wellsville Summary (CID 420940)

The following pages include Flood Risk data for the Borough of Wellsville, York County PA.

3.3.160.1. Overview

The information below provides an overview of the Borough of Wellsville as of the date of this publication.

Table 481: Overview of Borough of Wellsville

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Wellsville	420940	267	100	0.1	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- TEIF 1% Loss Value: \$200,000

Data provided below only includes areas within the Borough of Wellsville, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.160.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 482: Overview of Changes Since Last FIRM For Borough of Wellsville

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	<0.1	<0.1	<-0.1	<0.1
Within Floodway	0.0	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Wellsville, the figures in this table only represent information within the Borough of Wellsville.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Borough of Wellsville's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 483: Summary of Potential Flood Losses – Borough of Wellsville

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$31,600,000	48%	\$0	N/A	\$0	N/A	\$20,000	<1%	\$30,000	<1%	\$0	N/A
Commercial Building and Contents	\$7,500,000	11%	\$0	N/A	\$0	N/A	\$40,000	1%	\$50,000	1%	\$0	N/A
Other Building and Contents	\$27,000,000	41%	\$0	N/A	\$0	N/A	\$2,300,000	9%	\$2,700,000	10%	\$0	N/A
Total Building and Contents ²	\$66,100,000	100%	\$0	N/A	\$0	N/A	\$2,400,000	4%	\$2,800,000	4%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$200,000	N/A	\$200,000	N/A	\$0	N/A
TOTAL⁴	\$66,100,000	N/A	\$0	N/A	\$0	N/A	\$2,600,000	4%	\$3,000,000	5%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.161 Township of West Caln Summary (CID 421497)

The following pages include Flood Risk data for the Township of West Caln, Chester County PA.

3.3.161.1. Overview

The information below provides an overview of the Township of West Caln as of the date of this publication.

Table 484: Overview of Township of West Caln

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of West Caln	421497	9,014	22	22.3	24	Y	N/A	Y

- Participating in 2010 Chester County Multi-Jurisdictional Hazard Mitigation Plan, which expires on 6/1/2015.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 9 policies totaling approximately \$2,297,600
- TEIF 1% Loss Value: \$9,300,000

Data provided below only includes areas within the Township of West Caln, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.161.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 485: Overview of Changes Since Last FIRM For Township of West Caln

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of West Caln, the figures in this table only represent information within the Township of West Caln.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- percent-annual-chance flood depth grid)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of West Caln's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 486: Summary of Potential Flood Losses – Township of West Caln

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$170,700,000	80%	\$0	N/A	\$0	N/A	\$2,400,000	1%	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$22,400,000	10%	\$0	N/A	\$0	N/A	\$500,000	2%	\$0	N/A	\$0	N/A
Other Building and Contents	\$21,000,000	10%	\$0	N/A	\$0	N/A	\$700,000	3%	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$214,000,000	100%	\$0	N/A	\$0	N/A	\$3,600,000	2%	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$214,000,000	N/A	\$0	N/A	\$0	N/A	\$3,600,000	2%	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.162 Township of West Cocalico Summary (CID 421787)

The following pages include Flood Risk data for the Township of West Cocalico, Lancaster County PA.

3.3.162.1. Overview

The information below provides an overview of the Township of West Cocalico as of the date of this publication.

Table 487: Overview of Township of West Cocalico

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of West Cocalico	421787	7,280	96	27.6	99	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 11 policies totaling approximately \$1,708,200
- TEIF 1% Loss Value: \$37,200,000

Data provided below only includes areas within the Township of West Cocalico, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.162.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 488: Overview of Changes Since Last FIRM For Township of West Cocalico

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	1.9	0.6	-0.4	0.1
Within Floodway	0.1	<0.1	<-0.1	<0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of West Cocalico, the figures in this table only represent information within the Township of West Cocalico.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of West Cocalico's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 489: Summary of Potential Flood Losses – Township of West Cocalico

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$544,500,000	74%	\$0	N/A	\$0	N/A	\$2,700,000	<1%	\$5,200,000	1%	\$0	N/A
Commercial Building and Contents	\$63,000,000	9%	\$0	N/A	\$0	N/A	\$1,100,000	2%	\$1,400,000	2%	\$0	N/A
Other Building and Contents	\$132,200,000	18%	\$0	N/A	\$0	N/A	\$2,900,000	2%	\$3,800,000	3%	\$0	N/A
Total Building and Contents ²	\$739,700,000	100%	\$0	N/A	\$0	N/A	\$6,600,000	1%	\$10,400,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$300,000	N/A	\$400,000	N/A	\$0	N/A
TOTAL⁴	\$739,700,000	N/A	\$0	N/A	\$0	N/A	\$6,900,000	1%	\$10,800,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.163 Township of West Cornwall Summary (CID 420583)

The following pages include Flood Risk data for the Township of West Cornwall, Lebanon County PA.

3.3.163.1. Overview

The information below provides an overview of the Township of West Cornwall as of the date of this publication.

Table 490: Overview of Township of West Cornwall

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of West Cornwall	420583	1,945	15	8.6	21	Y	N/A	Y

- Participating in Lebanon County 2013 Hazard Mitigation Plan, which expires on 12/1/2018.
- Past Federal Disaster Declarations for flooding = 8
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 3 policies totaling approximately \$111,700
- TEIF 1% Loss Value: \$300,000

Data provided below only includes areas within the Township of West Cornwall, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.163.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 491: Overview of Changes Since Last FIRM For Township of West Cornwall

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of West Cornwall, the figures in this table only represent information within the Township of West Cornwall.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of West Cornwall's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 492: Summary of Potential Flood Losses – Township of West Cornwall

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$29,200,000	99%	\$0	N/A	\$0	N/A	\$0	N/A	\$10,000	<1%	\$0	N/A
Commercial Building and Contents	\$300,000	1%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$100,000	<1%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$29,600,000	100%	\$0	N/A	\$0	N/A	\$0	N/A	\$10,000	<1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$29,600,000	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$10,000	<1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.164 Township of West Donegal Summary (CID 421788)

The following pages include Flood Risk data for the Township of West Donegal, Lancaster County PA.

3.3.164.1. Overview

The information below provides an overview of the Township of West Donegal as of the date of this publication.

Table 493: Overview of Township of West Donegal

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of West Donegal	421788	8,260	66	15.9	80	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 15 policies totaling approximately \$3,947
- TEIF 1% Loss Value: \$7,600,000

Data provided below only includes areas within the Township of West Donegal, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.164.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 494: Overview of Changes Since Last FIRM For Township of West Donegal

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.4	0.2	<-0.1	0.2
Within Floodway	<0.1	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of West Donegal, the figures in this table only represent information within the Township of West Donegal.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of West Donegal's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 495: Summary of Potential Flood Losses – Township of West Donegal

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$527,500,000	83%	\$0	N/A	\$0	N/A	\$1,200,000	<1%	\$1,700,000	<1%	\$0	N/A
Commercial Building and Contents	\$64,200,000	10%	\$0	N/A	\$0	N/A	\$100,000	<1%	\$100,000	<1%	\$0	N/A
Other Building and Contents	\$44,400,000	7%	\$0	N/A	\$0	N/A	\$600,000	1%	\$600,000	1%	\$0	N/A
Total Building and Contents ²	\$636,200,000	100%	\$0	N/A	\$0	N/A	\$2,000,000	<1%	\$2,400,000	<1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$636,200,000	N/A	\$0	N/A	\$0	N/A	\$2,000,000	<1%	\$2,400,000	<1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.165 Township of West Earl Summary (CID 420959)

The following pages include Flood Risk data for the Township of West Earl, Lancaster County PA.

3.3.165.1. Overview

The information below provides an overview of the Township of West Earl as of the date of this publication.

Table 496: Overview of Township of West Earl

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of West Earl	420959	7,868	100	17.9	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 13 policies totaling approximately \$2,328,900
- TEIF 1% Loss Value: \$33,400,000

Data provided below only includes areas within the Township of West Earl, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.165.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 497: Overview of Changes Since Last FIRM For Township of West Earl

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	1.9	1.6	<-0.1	1.6
Within Floodway	0.8	0.8	<-0.1	0.8

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of West Earl, the figures in this table only represent information within the Township of West Earl.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Township of West Earl's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 498: Summary of Potential Flood Losses – Township of West Earl

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$507,700,000	55%	\$0	N/A	\$0	N/A	\$14,900,000	3%	\$28,500,000	6%	\$0	N/A
Commercial Building and Contents	\$199,500,000	22%	\$0	N/A	\$0	N/A	\$2,700,000	1%	\$6,500,000	3%	\$0	N/A
Other Building and Contents	\$211,900,000	23%	\$0	N/A	\$0	N/A	\$4,500,000	2%	\$9,100,000	4%	\$0	N/A
Total Building and Contents ²	\$919,100,000	100%	\$0	N/A	\$0	N/A	\$22,000,000	2%	\$44,100,000	5%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$600,000	N/A	\$1,200,000	N/A	\$0	N/A
TOTAL⁴	\$919,100,000	N/A	\$0	N/A	\$0	N/A	\$22,600,000	2%	\$45,300,000	5%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.166 Township of West Fallowfield Summary (CID 422602)

The following pages include Flood Risk data for the Township of West Fallowfield, Chester County PA.

3.3.166.1. Overview

The information below provides an overview of the Township of West Fallowfield as of the date of this publication.

Table 499: Overview of Township of West Fallowfield

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of West Fallowfield	422602	2,566	100	18.0	98	Y	N/A	Y

- Participating in 2010 Chester County Multi-Jurisdictional Hazard Mitigation Plan, which expires on 6/1/2015.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 4 policies totaling approximately \$1,400,000
- TEIF 1% Loss Value: \$5,800,000

Data provided below only includes areas within the Township of West Fallowfield, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.166.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 500: Overview of Changes Since Last FIRM For Township of West Fallowfield

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of West Fallowfield, the figures in this table only represent information within the Township of West Fallowfield.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- percent-annual-chance flood depth grid)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of West Fallowfield's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 501: Summary of Potential Flood Losses – Township of West Fallowfield

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$146,600,000	73%	\$0	N/A	\$0	N/A	\$600,000	<1%	\$500,000	<1%	\$0	N/A
Commercial Building and Contents	\$23,600,000	12%	\$0	N/A	\$0	N/A	\$100,000	<1%	\$70,000	<1%	\$0	N/A
Other Building and Contents	\$31,400,000	16%	\$0	N/A	\$0	N/A	\$70,000	<1%	\$30,000	<1%	\$0	N/A
Total Building and Contents ²	\$201,600,000	100%	\$0	N/A	\$0	N/A	\$900,000	<1%	\$600,000	<1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$201,600,000	N/A	\$0	N/A	\$0	N/A	\$900,000	<1%	\$600,000	<1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.167 Township of West Hempfield Summary (CID 421789)

The following pages include Flood Risk data for the Township of West Hempfield, Lancaster County PA.

3.3.167.1. Overview

The information below provides an overview of the Township of West Hempfield as of the date of this publication.

Table 502: Overview of Township of West Hempfield

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of West Hempfield	421789	16,153	100	21.0	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 23 policies totaling approximately \$5,478,800
- TEIF 1% Loss Value: \$22,700,000

Data provided below only includes areas within the Township of West Hempfield, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.167.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 503: Overview of Changes Since Last FIRM For Township of West Hempfield

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	3.0	0.2	<-0.1	0.1
Within Floodway	2.6	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of West Hempfield, the figures in this table only represent information within the Township of West Hempfield.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of West Hempfield's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 504: Summary of Potential Flood Losses – Township of West Hempfield

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$1,280,000,000	72%	\$0	N/A	\$0	N/A	\$4,100,000	<1%	\$900,000	<1%	\$0	N/A
Commercial Building and Contents	\$243,000,000	14%	\$0	N/A	\$0	N/A	\$2,300,000	1%	\$1,400,000	1%	\$0	N/A
Other Building and Contents	\$258,900,000	15%	\$0	N/A	\$0	N/A	\$800,000	<1%	\$400,000	<1%	\$0	N/A
Total Building and Contents ²	\$1,781,900,000	100%	\$0	N/A	\$0	N/A	\$7,200,000	<1%	\$2,700,000	<1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$200,000	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$1,781,900,000	N/A	\$0	N/A	\$0	N/A	\$7,400,000	<1%	\$2,700,000	<1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.168 Township of West Lampeter Summary (CID 420566)

The following pages include Flood Risk data for the Township of West Lampeter, Lancaster County PA.

3.3.168.1. Overview

The information below provides an overview of the Township of West Lampeter as of the date of this publication.

Table 505: Overview of Township of West Lampeter

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of West Lampeter	420566	15,209	100	16.6	100	Y	N/A	Y

- Participating in 2013 State Standard All-Hazard Mitigation Plan, which expires on 10/18/2018.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 27 policies totaling approximately \$5,047,800
- TEIF 1% Loss Value: \$56,500,000

Data provided below only includes areas within the Township of West Lampeter, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.168.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 506: Overview of Changes Since Last FIRM For Township of West Lampeter

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.9	0.2	-0.1	0.1
Within Floodway	0.4	<0.1	<-0.1	<0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of West Lampeter, the figures in this table only represent information within the Township of West Lampeter.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of West Lampeter's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 507: Summary of Potential Flood Losses – Township of West Lampeter

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$1,247,100,000	68%	\$0	N/A	\$0	N/A	\$17,800,000	1%	\$16,700,000	1%	\$0	N/A
Commercial Building and Contents	\$324,800,000	18%	\$0	N/A	\$0	N/A	\$5,100,000	2%	\$4,200,000	1%	\$0	N/A
Other Building and Contents	\$251,300,000	14%	\$0	N/A	\$0	N/A	\$1,400,000	1%	\$1,100,000	<1%	\$0	N/A
Total Building and Contents ²	\$1,823,200,000	100%	\$0	N/A	\$0	N/A	\$24,300,000	1%	\$22,100,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$200,000	N/A	\$200,000	N/A	\$0	N/A
TOTAL⁴	\$1,823,200,000	N/A	\$0	N/A	\$0	N/A	\$24,500,000	1%	\$22,300,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.169 Township of West Manchester Summary (CID 422233)

The following pages include Flood Risk data for the Township of West Manchester, York County PA.

3.3.169.1. Overview

The information below provides an overview of the Township of West Manchester as of the date of this publication.

Table 508: Overview of Township of West Manchester

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of West Manchester	422233	16,996	100	20.0	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 52 policies totaling approximately \$10,834,600
- TEIF 1% Loss Value: \$104,400,000

Data provided below only includes areas within the Township of West Manchester, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.169.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 509: Overview of Changes Since Last FIRM For Township of West Manchester

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	1.7	0.2	-0.5	-0.3
Within Floodway	0.2	<0.1	<-0.1	<-0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of West Manchester, the figures in this table only represent information within the Township of West Manchester.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, , 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of West Manchester's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 510: Summary of Potential Flood Losses – Township of West Manchester

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$1,567,900,000	63%	\$0	N/A	\$0	N/A	\$7,300,000	<1%	\$10,500,000	1%	\$0	N/A
Commercial Building and Contents	\$555,100,000	22%	\$0	N/A	\$0	N/A	\$6,500,000	1%	\$10,100,000	2%	\$0	N/A
Other Building and Contents	\$380,000,000	15%	\$0	N/A	\$0	N/A	\$8,700,000	2%	\$11,700,000	3%	\$0	N/A
Total Building and Contents ²	\$2,503,000,000	100%	\$0	N/A	\$0	N/A	\$22,500,000	1%	\$32,300,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$1,100,000	N/A	\$1,500,000	N/A	\$0	N/A
TOTAL⁴	\$2,503,000,000	N/A	\$0	N/A	\$0	N/A	\$23,600,000	1%	\$33,800,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.170 Township of West Manheim Summary (CID 422234)

The following pages include Flood Risk data for the Township of West Manheim, York County PA.

3.3.170.1. Overview

The information below provides an overview of the Township of West Manheim as of the date of this publication.

Table 511: Overview of Township of West Manheim

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of West Manheim	422234	4,863	100	20.1	94	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 9 policies totaling approximately \$2,141,600
- TEIF 1% Loss Value: \$28,100,000

Data provided below only includes areas within the Township of West Manheim, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.170.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 512: Overview of Changes Since Last FIRM For Township of West Manheim

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	1.3	0.1	-0.4	-0.3
Within Floodway	0.2	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of West Manheim, the figures in this table only represent information within the Township of West Manheim.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of West Manheim's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 513: Summary of Potential Flood Losses – Township of West Manheim

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$433,700,000	71%	\$0	N/A	\$0	N/A	\$600,000	<1%	\$1,300,000	<1%	\$0	N/A
Commercial Building and Contents	\$63,100,000	10%	\$0	N/A	\$0	N/A	\$700,000	1%	\$1,000,000	2%	\$0	N/A
Other Building and Contents	\$113,500,000	19%	\$0	N/A	\$0	N/A	\$1,600,000	1%	\$2,300,000	2%	\$0	N/A
Total Building and Contents ²	\$610,300,000	100%	\$0	N/A	\$0	N/A	\$2,900,000	<1%	\$4,500,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$200,000	N/A	\$200,000	N/A	\$0	N/A
TOTAL⁴	\$610,300,000	N/A	\$0	N/A	\$0	N/A	\$3,100,000	1%	\$4,700,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.171 Township of West Nantmeal Summary (CID 421498)

The following pages include Flood Risk data for the Township of West Nantmeal, Chester County PA.

3.3.171.1. Overview

The information below provides an overview of the Township of West Nantmeal as of the date of this publication.

Table 514: Overview of Township of West Nantmeal

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of West Nantmeal	421498	2,170	0	13.4	4	Y	N/A	Y

- Participating in 2010 Chester County Multi-Jurisdictional Hazard Mitigation Plan, which expires on 6/1/2015.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 8 policies totaling approximately \$1,645,000
- TEIF 1% Loss Value: \$0

Data provided below only includes areas within the Township of West Nantmeal, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.171.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 515: Overview of Changes Since Last FIRM For Township of West Nantmeal

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of West Nantmeal, the figures in this table only represent information within the Township of West Nantmeal.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- percent-annual-chance flood depth grid)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of West Nantmeal's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 516: Summary of Potential Flood Losses – Township of West Nantmeal

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$200,000	49%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$90,000	20%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$100,000	30%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$500,000	100%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$500,000	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.172 Township of West Nottingham Summary (CID 422280)

The following pages include Flood Risk data for the Township of West Nottingham, Chester County PA.

3.3.172.1. Overview

The information below provides an overview of the Township of West Nottingham as of the date of this publication.

Table 517: Overview of Township of West Nottingham

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of West Nottingham	422280	2,722	77	14.1	81	Y	N/A	Y

- Participating in 2010 Chester County Multi-Jurisdictional Hazard Mitigation Plan, which expires on 6/1/2015.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 5 policies totaling approximately \$1,160,000
- TEIF 1% Loss Value: \$12,000,000

Data provided below only includes areas within the Township of West Nottingham, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.172.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 518: Overview of Changes Since Last FIRM For Township of West Nottingham

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of West Nottingham, the figures in this table only represent information within the Township of West Nottingham.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- percent-annual-chance flood depth grid)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of West Nottingham's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 519: Summary of Potential Flood Losses – Township of West Nottingham

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$123,100,000	50%	\$0	N/A	\$0	N/A	\$4,900,000	4%	\$600,000	<1%	\$0	N/A
Commercial Building and Contents	\$21,300,000	9%	\$0	N/A	\$0	N/A	\$500,000	2%	\$80,000	<1%	\$0	N/A
Other Building and Contents	\$101,300,000	41%	\$0	N/A	\$0	N/A	\$600,000	1%	\$40,000	<1%	\$0	N/A
Total Building and Contents ²	\$245,700,000	100%	\$0	N/A	\$0	N/A	\$6,000,000	2%	\$700,000	<1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$245,700,000	N/A	\$0	N/A	\$0	N/A	\$6,000,000	2%	\$700,000	<1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.173 Township of West Sadsbury Summary (CID 422281)

The following pages include Flood Risk data for the Township of West Sadsbury, Chester County PA.

3.3.173.1. Overview

The information below provides an overview of the Township of West Sadsbury as of the date of this publication.

Table 520: Overview of Township of West Sadsbury

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of West Sadsbury	422281	2,444	91	10.5	88	Y	N/A	Y

- Participating in 2010 Chester County Multi-Jurisdictional Hazard Mitigation Plan, which expires on 6/1/2015.
- Past Federal Disaster Declarations for flooding = 10
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 1 policies totaling approximately \$220,000
- TEIF 1% Loss Value: \$24,800,000

Data provided below only includes areas within the Township of West Sadsbury, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.173.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 521: Overview of Changes Since Last FIRM For Township of West Sadsbury

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of West Sadsbury, the figures in this table only represent information within the Township of West Sadsbury.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- percent-annual-chance flood depth grid)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of West Sadsbury's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 522: Summary of Potential Flood Losses – Township of West Sadsbury

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$198,800,000	50%	\$0	N/A	\$0	N/A	\$1,400,000	1%	\$20,000	<1%	\$0	N/A
Commercial Building and Contents	\$135,000,000	34%	\$0	N/A	\$0	N/A	\$900,000	1%	\$0	N/A	\$0	N/A
Other Building and Contents	\$65,000,000	16%	\$0	N/A	\$0	N/A	\$600,000	1%	\$10,000	<1%	\$0	N/A
Total Building and Contents ²	\$398,800,000	100%	\$0	N/A	\$0	N/A	\$3,000,000	1%	\$20,000	<1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$10,000	N/A	\$0	N/A
TOTAL⁴	\$398,800,000	N/A	\$0	N/A	\$0	N/A	\$3,000,000	1%	\$30,000	<1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.174 Borough of West York Summary (CID 420941)

The following pages include Flood Risk data for the Borough of West York, York County PA.

3.3.174.1. Overview

The information below provides an overview of the Borough of West York as of the date of this publication.

Table 523: Overview of Borough of West York

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of West York	420941	4,272	100	0.5	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 2 policies totaling approximately \$405,000
- TEIF 1% Loss Value: \$0

Data provided below only includes areas within the Borough of West York, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.174.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 524: Overview of Changes Since Last FIRM For Borough of West York

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of West York, the figures in this table only represent information within the Borough of West York.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Borough of West York's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 525: Summary of Potential Flood Losses – Borough of West York

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$316,000,000	64%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$111,700,000	23%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$63,000,000	13%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$490,800,000	100%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$490,800,000	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.175 Borough of Windsor Summary (CID 420942)

The following pages include Flood Risk data for the Borough of Windsor, York County PA.

3.3.175.1. Overview

The information below provides an overview of the Borough of Windsor as of the date of this publication.

Table 526: Overview of Borough of Windsor

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Windsor	420942	1,396	100	0.5	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 31 policies totaling approximately \$3,694,200
- TEIF 1% Loss Value: \$22,100,000

Data provided below only includes areas within the Borough of Windsor, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.175.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 527: Overview of Changes Since Last FIRM For Borough of Windsor

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	<0.1	<0.1	<-0.1	<-0.1
Within Floodway	<0.1	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Windsor, the figures in this table only represent information within the Borough of Windsor.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of Windsor's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 528: Summary of Potential Flood Losses – Borough of Windsor

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$102,100,000	71%	\$0	N/A	\$0	N/A	\$600,000	1%	\$1,000,000	1%	\$0	N/A
Commercial Building and Contents	\$14,500,000	10%	\$0	N/A	\$0	N/A	\$500,000	3%	\$700,000	5%	\$0	N/A
Other Building and Contents	\$27,700,000	19%	\$0	N/A	\$0	N/A	\$1,100,000	4%	\$1,600,000	6%	\$0	N/A
Total Building and Contents ²	\$144,300,000	100%	\$0	N/A	\$0	N/A	\$2,100,000	1%	\$3,300,000	2%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$200,000	N/A	\$0	N/A
TOTAL⁴	\$144,300,000	N/A	\$0	N/A	\$0	N/A	\$2,200,000	2%	\$3,500,000	2%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.176 Township of Windsor Summary (CID 422235)

The following pages include Flood Risk data for the Township of Windsor.

3.3.176.1. Overview

The information below provides an overview of the Township of Windsor as of the date of this publication.

Table 529: Overview of Township of Windsor

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of Windsor	422235	12,851	100	27.3	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 20 policies totaling approximately \$4,511,700
- TEIF 1% Loss Value: \$25,300,000

Data provided below only includes areas within the Township of Windsor, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.176.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 530: Overview of Changes Since Last FIRM For Township of Windsor

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.7	0.2	-0.3	-0.1
Within Floodway	0.2	<0.1	<-0.1	<0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of Windsor, the figures in this table only represent information within the Township of Windsor.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - The Township of Windsor's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 531: Summary of Potential Flood Losses – Township of Windsor

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$1,024,500,000	78%	\$0	N/A	\$0	N/A	\$1,700,000	<1%	\$3,000,000	<1%	\$0	N/A
Commercial Building and Contents	\$157,700,000	12%	\$0	N/A	\$0	N/A	\$200,000	<1%	\$300,000	<1%	\$0	N/A
Other Building and Contents	\$133,000,000	10%	\$0	N/A	\$0	N/A	\$900,000	1%	\$1,100,000	1%	\$0	N/A
Total Building and Contents ²	\$1,315,200,000	100%	\$0	N/A	\$0	N/A	\$2,800,000	<1%	\$4,400,000	<1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$1,315,200,000	N/A	\$0	N/A	\$0	N/A	\$2,800,000	<1%	\$4,400,000	<1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.177 Borough of Winterstown Summary (CID 422745)

The following pages include Flood Risk data for the Borough of Winterstown, York County PA.

3.3.177.1. Overview

The information below provides an overview of the Borough of Winterstown as of the date of this publication.

Table 532: Overview of Borough of Winterstown

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Winterstown	422745	553	100	2.4	100	N	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- TEIF 1% Loss Value: \$0

Data provided below only includes areas within the Borough of Winterstown, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.177.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 533: Overview of Changes Since Last FIRM For Borough of Winterstown

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Winterstown, the figures in this table only represent information within the Borough of Winterstown.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of Winterstown's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 534: Summary of Potential Flood Losses – Borough of Winterstown

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$40,700,000	62%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$5,700,000	9%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$19,300,000	29%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$65,700,000	100%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$65,700,000	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.178 Borough of Wrightsville Summary (CID 420943)

The following pages include Flood Risk data for the Borough of Wrightsville, York County PA.

3.3.178.1. Overview

The information below provides an overview of the Borough of Wrightsville as of the date of this publication.

Table 535: Overview of Borough of Wrightsville

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Wrightsville	420943	2,207	100	0.7	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 15 policies totaling approximately \$2,421,400
- TEIF 1% Loss Value: \$7,700,000

Data provided below only includes areas within the Borough of Wrightsville, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.178.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 536: Overview of Changes Since Last FIRM For Borough of Wrightsville

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.1	<0.1	<-0.1	<0.1
Within Floodway	<0.1	<0.1	0.0	<0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Wrightsville, the figures in this table only represent information within the Borough of Wrightsville.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of Wrightsville's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 537: Summary of Potential Flood Losses – Borough of Wrightsville

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$163,800,000	57%	\$0	N/A	\$0	N/A	\$1,900,000	1%	\$2,800,000	2%	\$0	N/A
Commercial Building and Contents	\$43,600,000	15%	\$0	N/A	\$0	N/A	\$400,000	1%	\$400,000	1%	\$0	N/A
Other Building and Contents	\$82,100,000	28%	\$0	N/A	\$0	N/A	\$5,300,000	6%	\$6,400,000	8%	\$0	N/A
Total Building and Contents ²	\$289,400,000	100%	\$0	N/A	\$0	N/A	\$7,500,000	3%	\$9,600,000	3%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$400,000	N/A	\$500,000	N/A	\$0	N/A
TOTAL⁴	\$289,400,000	N/A	\$0	N/A	\$0	N/A	\$7,900,000	3%	\$10,100,000	3%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.179 Borough of Yoe Summary (CID 420944)

The following pages include Flood Risk data for the Borough of Yoe, York County PA.

3.3.179.1. Overview

The information below provides an overview of the Borough of Yoe as of the date of this publication.

Table 538: Overview of Borough of Yoe

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Yoe	420944	911	100	0.2	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 4 policies totaling approximately \$516,000
- TEIF 1% Loss Value: \$3,300,000

Data provided below only includes areas within the Borough of Yoe, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.179.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 539: Overview of Changes Since Last FIRM For Borough of Yoe

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	<0.1	<0.1	<-0.1	<0.1
Within Floodway	<0.1	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Yoe, the figures in this table only represent information within the Borough of Yoe.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of Yoe's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 540: Summary of Potential Flood Losses – Borough of Yoe

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$57,000,000	48%	\$0	N/A	\$0	N/A	\$400,000	1%	\$600,000	1%	\$0	N/A
Commercial Building and Contents	\$7,600,000	6%	\$0	N/A	\$0	N/A	\$400,000	5%	\$400,000	5%	\$0	N/A
Other Building and Contents	\$53,000,000	45%	\$0	N/A	\$0	N/A	\$900,000	2%	\$1,100,000	2%	\$0	N/A
Total Building and Contents ²	\$117,700,000	100%	\$0	N/A	\$0	N/A	\$1,600,000	1%	\$2,100,000	2%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$100,000	N/A	\$0	N/A
TOTAL⁴	\$117,700,000	N/A	\$0	N/A	\$0	N/A	\$1,700,000	1%	\$2,200,000	2%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.180 City of York Summary (CID 420945)

The following pages include Flood Risk data for the City of York, York County PA.

3.3.180.1. Overview

The information below provides an overview of the City of York as of the date of this publication.

Table 541: Overview of City of York

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
City of York	420945	40,831	100	5.3	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 81 policies totaling approximately \$15,269,000
- TEIF 1% Loss Value: \$228,900,000

Data provided below only includes areas within the City of York, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.180.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 542: Overview of Changes Since Last FIRM For City of York

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.2	<0.1	<-0.1	<0.1
Within Floodway	0.1	0.0	0.0	0.0

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of City of York, the figures in this table only represent information within the City of York.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The City of York's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 543: Summary of Potential Flood Losses – City of York

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$2,833,300,000	52%	\$0	N/A	\$0	N/A	\$7,000,000	<1%	\$27,700,000	1%	\$0	N/A
Commercial Building and Contents	\$1,290,400,000	24%	\$0	N/A	\$0	N/A	\$6,000,000	<1%	\$36,500,000	3%	\$0	N/A
Other Building and Contents	\$1,323,000,000	24%	\$0	N/A	\$0	N/A	\$11,900,000	1%	\$33,100,000	3%	\$0	N/A
Total Building and Contents ²	\$5,446,700,000	100%	\$0	N/A	\$0	N/A	\$24,900,000	<1%	\$97,300,000	2%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$1,000,000	N/A	\$4,700,000	N/A	\$0	N/A
TOTAL⁴	\$5,446,700,000	N/A	\$0	N/A	\$0	N/A	\$25,900,000	<1%	\$102,000,000	2%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.181 Township of York Summary (CID 421032)

The following pages include Flood Risk data for the Township of York, York County PA.

3.3.181.1. Overview

The information below provides an overview of the Township of York as of the date of this publication.

Table 544: Overview of Township of York

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Township of York	421032	23,583	100	25.6	100	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 65 policies totaling approximately \$11,556,300
- TEIF 1% Loss Value: \$89,300,000

Data provided below only includes areas within the Township of York, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.181.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 545: Overview of Changes Since Last FIRM For Township of York

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	1.2	0.2	-0.6	-0.4
Within Floodway	0.4	<0.1	<-0.1	<0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Township of York, the figures in this table only represent information within the Township of York.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Township of York's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 546: Summary of Potential Flood Losses – Township of York

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$2,104,800,000	70%	\$0	N/A	\$0	N/A	\$6,700,000	<1%	\$9,900,000	<1%	\$0	N/A
Commercial Building and Contents	\$617,000,000	20%	\$0	N/A	\$0	N/A	\$2,500,000	<1%	\$4,400,000	1%	\$0	N/A
Other Building and Contents	\$290,100,000	10%	\$0	N/A	\$0	N/A	\$2,200,000	1%	\$3,100,000	1%	\$0	N/A
Total Building and Contents ²	\$3,011,800,000	100%	\$0	N/A	\$0	N/A	\$11,400,000	<1%	\$17,400,000	1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$400,000	N/A	\$600,000	N/A	\$0	N/A
TOTAL⁴	\$3,011,800,000	N/A	\$0	N/A	\$0	N/A	\$11,800,000	<1%	\$18,000,000	1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.182 Borough of York Haven Summary (CID 420946)

The following pages include Flood Risk data for the Borough of York Haven, York County PA.

3.3.182.1. Overview

The information below provides an overview of the Borough of York Haven as of the date of this publication.

Table 547: Overview of Borough of York Haven

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of York Haven	420946	780	79	0.3	51	Y	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 1 policies totaling approximately \$210,000
- TEIF 1% Loss Value: \$1,800,000

Data provided below only includes areas within the Borough of York Haven, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.182.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 548: Overview of Changes Since Last FIRM For Borough of York Haven

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	0.1	<0.1	<-0.1	<0.1
Within Floodway	<0.1	<0.1	0.0	<0.1

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of York Haven, the figures in this table only represent information within the Borough of York Haven.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of York Haven's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 549: Summary of Potential Flood Losses – Borough of York Haven

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$31,300,000	86%	\$0	N/A	\$0	N/A	\$0	N/A	\$60,000	<1%	\$0	N/A
Commercial Building and Contents	\$2,600,000	7%	\$0	N/A	\$0	N/A	\$0	N/A	\$10,000	<1%	\$0	N/A
Other Building and Contents	\$2,300,000	6%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$36,200,000	100%	\$0	N/A	\$0	N/A	\$0	N/A	\$70,000	<1%	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$36,200,000	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$70,000	<1%	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.183 Borough of York Springs Summary (CID 421239)

The following pages include Flood Risk data for the Borough of York Springs, Adams County PA.

3.3.183.1. Overview

The information below provides an overview of the Borough of York Springs as of the date of this publication.

Table 550: Overview of Borough of York Springs

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of York Springs	421239	756	100	0.2	100	Y	N/A	Y

- Participating in Adams County 2009 Hazard Mitigation Plan Update, which expires on 12/31/2014.
- Past Federal Disaster Declarations for flooding = 5
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 4 policies totaling approximately \$646,200
- TEIF 1% Loss Value: \$7,500,000

Data provided below only includes areas within the Borough of York Springs, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.183.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 551: Overview of Changes Since Last FIRM For Borough of York Springs

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of York Springs, the figures in this table only represent information within the Borough of York Springs.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of York Springs's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 552: Summary of Potential Flood Losses – Borough of York Springs

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$43,400,000	85%	\$0	N/A	\$0	N/A	\$50,000	<1%	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$6,100,000	12%	\$0	N/A	\$0	N/A	\$20,000	<1%	\$0	N/A	\$0	N/A
Other Building and Contents	\$1,600,000	3%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$51,000,000	100%	\$0	N/A	\$0	N/A	\$70,000	<1%	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$51,000,000	N/A	\$0	N/A	\$0	N/A	\$70,000	<1%	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.184 Borough of Yorkana Summary (CID 422746)

The following pages include Flood Risk data for the Borough of Yorkana, York County PA.

3.3.184.1. Overview

The information below provides an overview of the Borough of Yorkana as of the date of this publication.

Table 553: Overview of Borough of Yorkana

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Borough of Yorkana	422746	218	100	0.2	100	N	N/A	Y

- Participating in York County 2013 Hazard Mitigation Plan, which expires on 4/1/2018.
- Past Federal Disaster Declarations for flooding = 4
- TEIF 1% Loss Value: \$0

Data provided below only includes areas within the Borough of Yorkana, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.184.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 554: Overview of Changes Since Last FIRM For Borough of Yorkana

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Borough of Yorkana, the figures in this table only represent information within the Borough of Yorkana.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**

- See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (10-, 2-, 1-, and 0.2-percent-annual-chance flood events)
- Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.

- **Hazus Estimated Loss Information**

- The Borough of Yorkana's flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.

- **TEIF Loss Information**

- TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 555: Summary of Potential Flood Losses – Borough of Yorkana

	Flood Risk Project Refined Losses		Estimated Potential Losses for Flood Event Scenarios									
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$16,400,000	66%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$2,700,000	11%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Other Building and Contents	\$5,800,000	23%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$24,900,000	100%	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$24,900,000	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

3.3.185 Cecil County Unincorporated Areas Summary (CID 240019)

The following pages include Flood Risk data for the Cecil County Unincorporated Areas, MD.

3.3.185.1. Overview

The information below provides an overview of Cecil County Unincorporated Areas as of the date of this publication.

Table 556: Overview of Cecil County Unincorporated Areas

Community Name	CID	Total Community Population	Percent of Population in Watershed	Total Community Land Area (sq mi)	Percent of Land Area in Watershed	NFIP	CRS Rating	Mitigation Plan
Cecil County Unincorporated Areas	240019	101,108	15	402.3	14	Y	N/A	Y

- Participating in 2011 Maryland State Hazard Mitigation Plan Update, which expires on 8/26/2016.
- Past Federal Disaster Declarations for flooding = 6
- National Flood Insurance Program (NFIP) policy coverage (policies/values) = 667 policies totaling approximately \$161,072,000
- TEIF 1% Loss Value: \$36,900,000

Data provided below only includes areas within Cecil County Unincorporated Areas, that area located within the Lower Susquehanna Watershed, and do not necessarily represent community-wide totals. Section 2 of the Flood Risk Report (FRR) provides more information regarding the source and methodology used to develop the information presented below. Datasets used toward the generation of results of this project are described in Section 7 of the FRR and are found in the Flood Risk Database (FRD).

3.3.185.2. Community Analyses and Results

Results for each of the Flood Risk Datasets developed for this Flood Risk Project are summarized below:

- **Changes Since Last FIRM**

The table below summarizes the increases, decreases, and net change of SFHAs for the community.

Table 557: Overview of Changes Since Last FIRM For Cecil County Unincorporated Areas

Area of Study	Total Area (mi ²)	Increase (mi ²)	Decrease (mi ²)	Net Change (mi ²)
Within SFHA	N/A	N/A	N/A	N/A
Within Floodway	N/A	N/A	N/A	N/A

**Although the Flood Risk Database may contain Changes Since Last FIRM information outside of Cecil County Unincorporated Areas, the figures in this table only represent information within the Cecil County Unincorporated Areas.*

Section 2 of this report provides more information regarding the source and methodology used to develop this table.

- **Flood Depth and Analysis Grids**
 - See the FRD for the following depth and analysis grid data (Section 2 of the FRR provides general information regarding the development of and potential uses for this data):
 - Multi-frequency flood depth grids (1- percent-annual-chance flood depth grid)
 - Additional information and data layers provided within the FRD should be used to further isolate these and other areas where flood mitigation potential is high. The FRD includes data which may be helpful in planning and implementing mitigation strategies. Properties located in areas expected to experience some depth of water should seriously consider mitigation options for implementation.
- **Hazus Estimated Loss Information**
 - Cecil County Unincorporated Areas' flood risk analysis uses results from a FEMA-performed Hazus analysis which accounts for newly modeled areas in the Flood Risk Project and newly modeled depths for certain flood events. Potential losses were compared with locally provided tax data to estimate loss ratios for multiple scenarios. Additional information and data layers provided within the FRD should be used to further analyze potential losses and areas where they are likely to occur.
- **TEIF Loss Information**
 - TEIF is intended to evaluate potential risk or economic loss in a dollar amount per community based on Hazus General Building Stock (Total Exposure) Values.

Table 558: Summary of Potential Flood Losses – Cecil County Unincorporated Areas

Flood Risk Project Refined Losses	Estimated Potential Losses for Flood Event Scenarios											
	Total Inventory		10% (10-yr)		2% (50-yr)		1% (100-yr)		0.2% (500-yr)		Annualized (\$/yr)	
	Estimated Value	% of Total	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}	Dollar Losses ⁵	Loss Ratio ^{1,6}
Residential Building and Contents	\$1,048,400,000	77%	\$0	N/A	\$0	N/A	\$8,700,000	1%	\$0	N/A	\$0	N/A
Commercial Building and Contents	\$161,000,000	12%	\$0	N/A	\$0	N/A	\$2,700,000	2%	\$0	N/A	\$0	N/A
Other Building and Contents	\$142,200,000	11%	\$0	N/A	\$0	N/A	\$800,000	1%	\$0	N/A	\$0	N/A
Total Building and Contents ²	\$1,351,500,000	100%	\$0	N/A	\$0	N/A	\$12,200,000	1%	\$0	N/A	\$0	N/A
Business Disruption ³	\$0	N/A	\$0	N/A	\$0	N/A	\$100,000	N/A	\$0	N/A	\$0	N/A
TOTAL⁴	\$1,351,500,000	N/A	\$0	N/A	\$0	N/A	\$12,300,000	1%	\$0	N/A	\$0	N/A

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

¹Loss ratio = Dollar Losses / Estimated Value

²Total Building and Contents Loss = Residential Building and Contents Loss + Commercial Building and Contents Loss + Other Building and Contents Loss.

³Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.

⁴Total Loss = Total Building and Contents + Business Disruption

⁵Losses shown are rounded to nearest \$10,000 for values under \$100,000 and to the nearest \$100,000 for values over \$100,000.

⁶Loss Ratios rounded to nearest integer percent.

4 Actions to Reduce Flood Risk

In order to fully leverage the Flood Risk Datasets and Products created for this Flood Risk Project, local stakeholders should consider many different flood risk mitigation tactics, including, but not limited to the items shown in the sub-sections below.

4.1 Types of Mitigation Actions

Mitigation provides a critical foundation on which to reduce loss of life and property by avoiding or lessening the impact of hazard events. This creates safer communities and facilitates resiliency by enabling communities to return to normal function as quickly as possible after a hazard event. Once a community understands its flood risk, it is in a better position to identify potential mitigation actions that can reduce the risk to its people and property.

The mitigation plan requirements in 44 CFR Part 201 encourage communities to understand their vulnerability to hazards and take actions to minimize vulnerability and promote resilience. Flood mitigation actions generally fall into the following categories:

4.1.1 Preventative Measures

Preventative measures are intended to keep flood hazards from getting worse. They can reduce future vulnerability to flooding, especially in areas where development has not yet occurred or where capital improvements have not been substantial. Examples include:

- Comprehensive land use planning
- Zoning regulations
- Subdivision regulations
- Open space preservation
- Building codes
- Floodplain development regulations
- Stormwater management
- Purchase development rights or conservation easements
- Participation in the NFIP Community Rating System (CRS)

4.1.2 Property Protection Measures

Property protection measures protect existing buildings by modifying the building to withstand floods, or by removing buildings from hazardous locations. Examples include:

- Building relocation

Before Mitigation and After Mitigation



Communities will need to prioritize projects as part of the planning process. FEMA can then help route federal mitigation dollars to fund these projects.

NFIP's CRS is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements. As a result, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from community actions meeting the three goals of the CRS: to reduce flood losses, to facilitate accurate insurance rating, and to promote the awareness of flood insurance.

For CRS participating communities, flood insurance premium rates are discounted in increments of 5%; i.e., a Class 1 community would receive a 45% premium discount, while a Class 9 community would receive a 5% discount. (A Class 10 is not participating in the CRS and receives no discount.)

- Acquisition and clearance
- Building elevation
- Barrier installation
- Building retrofit

4.1.3 Natural Resource Protection Activities

Natural resource protection activities reduce the impact of floods by preserving or restoring natural areas such as floodplains, wetlands, and dunes and their natural functions. Examples include:

- Wetland protection
- Habitat protection
- Erosion and sedimentation control
- Best management practices (BMP)
- Prevention of stream dumping activities (anti-litter campaigns)
- Improved forestry practices such as reforestation or selective timbering (extraction)

4.1.4 Structural Mitigation Projects

Structural mitigation projects lessen the impact of floods by modifying the environmental natural progression of the flooding event. Structural protection such as upgrading dams/levees for already existing development and critical facilities may be a realistic alternative. However, citizens should be made aware of their residual risk. Examples include:

- Reservoirs, retention, and detention basins
- Levees and floodwalls
- Channel modifications
- Channel maintenance

4.1.5 Public Education and Awareness Activities

Public education and awareness activities advise residents, business owners, potential property buyers, and visitors about floods, hazardous areas, and mitigation techniques they can use to reduce the flood risk to themselves and their property. Examples include:

- Readily available and readable updated maps
- Outreach projects
- Libraries
- Technical assistance

- Real estate disclosure
- Environmental education
- Risk information via the nightly news

4.1.6 Emergency Service Measures

Although not typically considered a mitigation technique, emergency service measures minimize the impact of flooding on people and property. These are actions commonly taken immediately prior to, during, or in response to a hazard event. Examples include:

- Hazard warning system
- Emergency response plan
- COOP and COG planning
- Critical facilities protection
- Health and safety maintenance
- Post flood recovery planning

For more information regarding hazard mitigation techniques, best practices, and potential grant funding sources, visit www.fema.gov or contact your local floodplain manager, emergency manager, or State Hazard Mitigation Officer.

In Section 3, specific AoMIs were identified. Table 4.1 below identifies possible mitigation actions for each AoMI to consider.

Table 4-1. Mitigation Actions for Areas of Mitigation Interest

AoMI	Possible Actions to Reduce Flood Risk
Dams	<i>Engineering assessment Dam upgrades and strengthening Emergency Action Plan Dam removal Easement creation in impoundment and downstream inundation areas</i>
Levees (accredited and non-accredited) and significant levee-like structures	<i>Generally same as dams above Purchase of flood insurance for at-risk structures</i>
Coastal Structures <i>Jetties Groynes Seawalls Other structures</i>	<i>Increase coastal setbacks for construction Habitat restoration programs Wetland restoration and mitigation banking programs</i>
Stream Flow Pinch Point <i>Undersized culverts or bridge openings</i>	<i>Engineering analysis Replacement of structure pre- and post-disaster</i>
Past Claims and IA/PA Hot Spots	<i>Acquisition Elevation Relocation Floodproofing</i>

<i>AoMI</i>	<i>Possible Actions to Reduce Flood Risk</i>
<i>Major Land Use Changes (past 5 years or next 5 years)</i>	<i>Higher regulatory standard Stormwater BMPs Transfer of Development rights Compensatory storage and equal conveyance standards</i>
<i>Key Emergency Routes Overtopped During Frequent Flooding Events</i>	<i>Elevation Creation of alternate routes Design as low water crossing</i>
<i>Areas of Significant Riverine or Coastal Erosion</i>	<i>Relocation of buildings and infrastructure Regulations and planning Natural vegetation Hardening</i>
<i>Drainage or Stormwater- Based Flood Hazard Areas, or Areas Not Identified as Floodprone on the FIRM But Known to be Inundated</i>	<i>Identification of all flood hazard areas</i>
<i>Areas of Mitigation Success</i>	<i>N/A</i>

4.2 Identifying Specific Actions for Your Community

As many mitigation actions are possible to lessen the impact of floods, how can a community decide which ones are appropriate to implement? There are many ways to identify specific actions most appropriate for a community. Some factors to consider may include the following:

- **Site characteristics.** Does the site present unique challenges (e.g., significant slopes or erosion potential)?
- **Flood characteristics.** Are the flood waters affecting the site fast or slow moving? Is there debris associated with the flow? How deep is the flooding?
- **Social acceptance.** Will the mitigation action be acceptable to the public? Does it cause social or cultural problems?
- **Technical feasibility.** Is the mitigation action technically feasible (e.g., making a building watertight to a reasonable depth)?
- **Administrative feasibility.** Is there administrative capability to implement the mitigation action?
- **Legal.** Does the mitigation action meet all applicable codes, regulations, and laws? Public officials may have a legal responsibility to act and inform citizens if a known hazard has been identified.
- **Economic.** Is the mitigation action affordable? Is it eligible under grant or other funding programs? Can it be completed within existing budgets?

Refer to FEMA Mitigation Planning How To Guide #3 (FEMA 386-3) "Developing the Mitigation Plan - Identifying Mitigation Actions and Implementation Strategies" for more information on how to identify specific mitigation actions to address hazard risk in your community.

FEMA in collaboration with the American Planning Association has released the publication, "Integrating Hazard Mitigation into Local Planning." This guide explains how hazard mitigation can be incorporated into several different types of local planning programs. For more information go to www.planning.org, or <http://www.fema.gov/library>.

- **Environmental.** Does the mitigation action cause adverse impacts on the environment or can they be mitigated? Is it the most appropriate action among the possible alternatives?

Your local Hazard Mitigation Plan is a valuable place to identify and prioritize possible mitigation actions. The plan includes a mitigation strategy with mitigation actions that were developed through a public and open process. You can then add to or modify those actions based on what is learned during the course of the Risk MAP project and the information provided within this FRR.

4.3 Mitigation Programs and Assistance

Not all mitigation activities require funding (e.g., local policy actions such as strengthening a flood damage prevention ordinance), and those that do are not limited to outside funding sources (e.g., inclusion in local capital improvements plan, etc.). For those mitigation actions that require assistance through funding or technical expertise, several state and federal agencies have flood hazard mitigation grant programs and offer technical assistance. These programs may be funded at different levels over time or may be activated under special circumstances such as after a presidential disaster declaration.



Communities can link hazard mitigation plans and actions to the right FEMA grant programs to fund flood risk reduction. More information about FEMA HMA programs can be found at <http://www.fema.gov/government/grant/hma/index.shtm>.

4.3.1 FEMA Mitigation Programs and Assistance

FEMA awards many mitigation grants each year to states and communities to undertake mitigation projects to prevent future loss of life and property resulting from hazard impacts, including flooding. The FEMA Hazard Mitigation Assistance (HMA) programs provide grants for mitigation through the programs listed in Table 4.2 below.

Table 4-2. FEMA Hazard Mitigation Assistance Programs

Mitigation Grant Program	Authorization	Purpose
Hazard Mitigation Grant Program (HMGP)	Robert T. Stafford Disaster Relief and Emergency Assistance Act	Activated after a presidential disaster declaration; provides funds on a sliding scale formula based on a percentage of the total federal assistance for a disaster for long-term mitigation measures to reduce vulnerability to natural hazards
Flood Mitigation Assistance (FMA)	National Flood Insurance Reform Act	Reduce or eliminate claims against the NFIP
Pre-Disaster Mitigation (PDM)	Disaster Mitigation Act	National competitive program focused on mitigation project and planning activities that address multiple natural hazards
Repetitive Flood Claims (RFC)	Bunning-Bereuter-Blumenauer Flood Insurance Reform Act	Reduce flood claims against the NFIP through flood mitigation; properties must be currently NFIP insured and have had at least one NFIP claim

Mitigation Grant Program	Authorization	Purpose
Severe Repetitive Loss (SRL)	Bunning-Bereuter-Blumenauer Flood Insurance Reform Act	Reduce or eliminate the long-term risk of flood damage to SRL residential structures currently insured under the NFIP

The HMGP and PDM programs offer funding for mitigation planning and project activities that address multiple natural hazard events. The FMA, RFC, and SRL programs focus funding efforts on reducing claims against the NFIP. Funding under the HMA programs is subject to availability of annual appropriations, and HMGP funding is also subject to the amount of FEMA disaster recovery assistance provided under a presidential major disaster declaration.

FEMA's HMA grants are awarded to eligible states, tribes, and territories (applicant) that, in turn, provide subgrants to local governments and communities (subapplicant). The applicant selects and prioritizes subapplications developed and submitted to them by subapplicants and submits them to FEMA for funding consideration. Prospective subapplicants should consult the office designated as their applicant for further information regarding specific program and application requirements. Contact information for the FEMA Regional Offices and State Hazard Mitigation Officers (SHMO) is available on the FEMA website (www.fema.gov).

4.3.2 Additional Mitigation Programs and Assistance

Several additional agencies including USACE, Natural Resource Conservation Service (NRCS), U.S. Geological Survey (USGS), and others have specialists on staff and can offer further information on flood hazard mitigation. The State NFIP Coordinator and SHMO are state-level sources of information and assistance, which vary among different states.

The Silver Jackets program, active in several states, is a partnership of USACE, FEMA, and state agencies. The Silver Jackets program provides a state-based strategy for an interagency approach to planning and implementing measures for risk reduction.

5 Acronyms and Definitions

5.1 Acronyms

A

AAL	Average Annualized Loss
ALR	Annualized Loss Ratio
<i>AoMI</i>	<i>Areas of Mitigation Interest</i>

B

BCA	Benefit-Cost Analysis
BFE	Base Flood Elevation
BMP	Best Management Practices

C

CFR	Code of Federal Regulations
COG	Continuity of Government Plan
COOP	Continuity of Operations Plan
CRS	Community Rating System
CSLF	Changes Since Last FIRM

D

DHS	Department of Homeland Security
DMA 2000	Disaster Mitigation Act of 2000

E

EOP	Emergency Operations Plan

F

FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FIS	Flood Insurance Study
FMA	Flood Mitigation Assistance
FRD	Flood Risk Database
FRM	Flood Risk Map
FRR	Flood Risk Report
FY	Fiscal Year

G

GIS	Geographic Information System

H

HMA	Hazard Mitigation Assistance
HMGP	Hazard Mitigation Grant Program

I

IA Individual Assistance

N

NFIA National Flood Insurance Act

NFIP National Flood Insurance Program

NRCS Natural Resource Conservation Service

P

PA Public Assistance

PDM Pre-Disaster Mitigation

R

RFC Repetitive Flood Claims

Risk MAP Mapping, Assessment, and Planning

S

SFHA Special Flood Hazard Area

SHMO State Hazard Mitigation Officer

SRL Severe Repetitive Loss

T

TEIF Total Exposure In Floodplain

U

USACE U.S. Army Corps of Engineers

USGS U.S. Geological Survey

5.2 Definitions

0.2-percent-annual-chance flood – The flood elevation that has a 0.2-percent chance of being equaled or exceeded each year. Sometimes referred to as the 500-year flood.

1-percent-annual-chance flood – The flood elevation that has a 1-percent chance of being equaled or exceeded each year. Sometimes referred to as the 100-year flood.

Annualized Loss Ratio (ALR) – Expresses the annualized loss as a fraction of the value of the local inventory (total value/annualized loss).

Average Annualized Loss (AAL) – The estimated long-term weighted average value of losses to property in any single year in a specified geographic area.

Base Flood Elevation (BFE) – Elevation of the 1-percent-annual-chance flood. This elevation is the basis of the insurance and floodplain management requirements of the NFIP.

Berm – A small levee, typically built from earth.

Cfs – Cubic feet per second, the unit by which discharges are measured (a cubic foot of water is about 7.5 gallons).

Consequence (of flood) – The estimated damages associated with a given flood occurrence.

Crest – The peak stage or elevation reached or expected to be reached by the floodwaters of a specific flood at a given location.

Dam – An artificial barrier that has the ability to impound water, wastewater, or any liquid-borne material, for the purpose of storage or control of water.

Design flood event – The greater of the following two flood events: (1) the base flood, affecting those areas identified as SFHAs on a community's FIRM; or (2) the flood corresponding to the area designated as a flood hazard area on a community's flood hazard map or otherwise legally designated.

Erosion – Process by which floodwaters lower the ground surface in an area by removing upper layers of soil.

Essential facilities – Facilities that, if damaged, would present an immediate threat to life, public health, and safety. As categorized in Hazus, essential facilities include hospitals, emergency operations centers, police stations, fire stations, and schools.

Flood – A general and temporary condition of partial or complete inundation of normally dry land areas from (1) the overflow of inland or tidal waters or (2) the unusual and rapid accumulation or runoff of surface waters from any source.

Flood Insurance Rate Map (FIRM) – An official map of a community, on which FEMA has delineated both the SFHAs and the risk premium zones applicable to the community. See also Digital Flood Insurance Rate Map.

Flood Insurance Study (FIS) Report – Contains an examination, evaluation, and determination of the flood hazards of a community, and if appropriate, the corresponding water-surface elevations.

Flood risk – Probability multiplied by consequence; the degree of probability that a loss or injury may occur as a result of flooding. Sometimes referred to as flood vulnerability.

Flood vulnerability – Probability multiplied by consequence; the degree of probability that a loss or injury may occur as a result of flooding. Sometimes referred to as flood risk.

Floodborne debris impact – Floodwater moving at a moderate or high velocity can carry floodborne debris that can impact buildings and damage walls and foundations.

Floodwall – A long, narrow concrete or masonry wall built to protect land from flooding.

Floodway (regulatory) – The channel of a river or other watercourse and that portion of the adjacent floodplain that must remain unobstructed to permit passage of the base flood without cumulatively increasing the water surface elevation more than a designated height (usually 1 foot).

Floodway fringe – The portion of the SFHA that is outside of the floodway.

Freeboard – A factor of safety usually expressed in feet above a flood level for purposes of flood plain management. “Freeboard” tends to compensate for the many unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions, such as wave action, bridge openings, and the hydrological effect of urbanization of the watershed (44CFR§59.1).

Hazus – A GIS-based risk assessment methodology and software application created by FEMA and the National Institute of Building Sciences for analyzing potential losses from floods, hurricane winds and storm surge, and earthquakes.

High velocity flow – Typically comprised of floodwaters moving faster than 5 feet per second.

Levee – A human-made structure, usually an earthen embankment, designed and constructed in accordance with sound engineering practices to contain, control, or divert the flow of water so as to provide protection from temporary flooding. (44CFR§59.1)

Loss ratio – Expresses loss as a fraction of the value of the local inventory (total value/loss).

Mudflow – Mudslide (i.e., mudflow) describes a condition where there is a river, flow or inundation of liquid mud down a hillside usually as a result of a dual condition of loss of brush cover, and the subsequent accumulation of water on the ground preceded by a period of unusually heavy or sustained rain. A mudslide (i.e., mudflow) may occur as a distinct phenomenon while a landslide is in progress, and will be recognized as such by the Administrator only if the mudflow, and not the landslide, is the proximate cause of damage that occurs. (44CFR§59.1)

Probability (of flood) – The likelihood that a flood will occur in a given area.

Risk MAP – Risk Mapping, Assessment, and Planning, a FEMA strategy to work collaboratively with state, local, and tribal entities to deliver quality flood data that increases public awareness and leads to action that reduces risk to life and property.

Riverine – Of or produced by a river. Riverine floodplains have readily identifiable channels.

Special Flood Hazard Area (SFHA) – Portion of the floodplain subject to inundation by the 1-percent-annual or base flood.

Stafford Act – Robert T. Stafford Disaster Relief and Emergency Assistance Act, PL 100-707, signed into law November 23, 1988; amended the Disaster Relief Act of 1974, PL 93-288. This Act constitutes the statutory authority for most federal disaster response activities especially as they pertain to FEMA and FEMA programs.

Stillwater – Projected elevation that flood waters would assume, referenced to National Geodetic Vertical Datum of 1929, North American Vertical Datum of 1988, or other datum, in the absence of waves resulting from wind or seismic effects.

Stream Flow Constrictions – A point where a human-made structure constricts the flow of a river or stream.

6 Additional Resources

ASCE 7 – National design standard issued by the American Society of Civil Engineers (ASCE), *Minimum Design Loads for Buildings and Other Structures*, which gives current requirements for dead, live, soil, flood, wind, snow, rain, ice, and earthquake loads, and their combinations, suitable for inclusion in building codes and other documents.

ASCE 24-05 – National design standard issued by the ASCE, *Flood Resistant Design and Construction*, which outlines the requirements for flood resistant design and construction of structures in flood hazard areas.

National Flood Insurance Program (NFIP), Federal Emergency Management Agency (FEMA), www.floodsmart.gov

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FEMA, 2007c. *Using Benefit-Cost Review in Mitigation Planning*, FEMA 386-5. Washington, DC, May 2007.

FEMA, 2007d. *Design Guide for Improving Critical Facility Safety from Flooding and High Winds: Providing Protection to People and Buildings*, FEMA 543. Washington, DC, January 2007.

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FEMA, 2007f. *Design Guide for Improving Hospital Safety in Earthquakes, Floods, and High Winds: Providing Protection to People and Buildings*, FEMA 577. Washington, DC, June 2007.

FEMA, 2008. *Reducing Flood Losses Through the International Codes: Meeting the Requirements of the National Flood Insurance Program*, FEMA 9-0372, Third Edition. Washington, DC, December 2007.

7 Data Used to Develop Flood Risk Products

GIS base map information was acquired primarily from the following sources:

- FEMA
- U.S. Census Bureau
- U. S. Department of Agriculture (USDA), Natural Resources Conservation Service, National Cartography and Geospatial Center
- U.S. Geological Survey

Corporate limits, roads, and hydrographic features were obtained from FEMA's most recent countywide FIRM updates.

Engineering study information was leveraged from the USACE and FEMA.

Hazard Mitigation Plan information was provided by FEMA.

Flood Insurance Claim, Policy, and additional Mitigation Plan information were acquired from FEMA.

Photos shown on the Flood Risk Map were taken from publically available sources on the Internet.

Census Information

Census information was collected from FEMA's HAZUS version 2.1 software products. Population data reported for each community is based on the 2000 census. As such, there may be minor discrepancies in the FRD when comparing census blocks to communities to arrive at total population.

HUC-8 Boundary

HUC boundaries were provided by the USDA.

Changes Since Last FIRM (CSLF)

CSLF are provided both for the project area, only as summarized in this Flood Risk Report, as developed for the most recent map revision of the Flood Insurance Rate Map (FIRM). All data was digitally captured from the previously effective maps.

Hillshade

Hillshade, also known as Shaded Relief is shown on the background of the Flood Risk Map. Hillshade is a cartographic process of 3-D visualization of the terrain on maps and charts that implements graded shadows created by light shining from the north-west direction. These data were acquired from the USGS. This data layer is called a "Hillshade" in the Flood Risk Database.

General Building Stock

General Building Stock represents the total economic inventory for a community (i.e. an estimate of the replacement dollar cost for all buildings and their content). These data come from the Census information in Hazus version 2.1. For this report, no updates or changes were made to the default General Building Stock data provided by Hazus.