FEMA

REGION II DISCOVERY REPORT

SACANDAGA WATERSHED | HUC 02020002

HAMILTON, FULTON, SARATOGA, AND WARREN COUNTIES*

*These counties span more than one watershed; please see the following page for a list of communities fully or partially located in the watershed. This report covers only the Sacandaga Watershed.

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Federal Emergency Management Agency Region II
26 Federal Plaza, Room 1807
New York, NY 10278

March 2019

RiskMAP
Increasing Resilience Together

TABLE OF CONTENTS

TABLE OF CONTENTS CONT'D

LIST OF FIGURES

STUDY INFORMATION

The Federal Emergency Management Agency's (FEMA's) Risk Mapping, Assessment, and Planning (Risk MAP) program helps communities identify and assess their flood risk. Through Risk MAP, FEMA provides information to enhance local Hazard Mitigation Plans (HMPs), improve community outreach, and increase local resilience to floods. Discovery is the process of gathering local knowledge and data for analysis with the goal of initiating a hazard risk assessment and promoting risk discussions within the watershed.

The Discovery process for the Sacandaga Watershed began in June 2018, and data collection was completed in July 2018. The in-person Discovery meetings were held in July 2018. Additional details on meetings and stakeholder involvement can be found in the *Discovery Outreach and Engagement Strategy*, community input can be found in the *Summary of Community Risks Identified*, and outcomes can be found in the *Recommendations for Future Risk MAP Project Scope*.

Questions and comments about this report may be shared with Stephanie Gootman of FEMA Region II at stephanie.gootman@fema.dhs.gov.

PROJECT AREA COMMUNITY LIST

The Discovery project for the Sacandaga Watershed includes communities in Fulton, Hamilton, Saratoga, and Warren Counties. This list includes all communities within the Sacandaga Watershed. While all communities may be under consideration for a revised FEMA Flood Insurance Study (FIS) and Flood Insurance Rate Map (FIRM), not all communities will receive them. For the purposes of this Discovery Report, the term "Sacandaga Watershed" refers to all communities included in this project.

Fulton County:
Town of Bleecker
Town of Broadalbin
Village of Broadalbin
Town of Caroga
City of Gloversville
Town of Johnstown
Town of Mayfield
Village of Mayfield
Town of Northampton
Village of Northville
Town of Perth
Town of Stratford

Hamilton County:
Town of Arietta*
Town of Benson
Town of Hope
Town of Indian Lake*
Town of Lake Pleasant*
Town of Morehouse
Village of Speculator*
Town of Wells*

Saratoga County:
Town of Corinth
Town of Day*
Town of Edinburg
Town of Galway
Town of Greenfield
Town of Hadley*
Town of Providence

Warren County:
Town of Johnsburg*
Town of Stony Creek*
Town of Thurman*

* *Also spans Upper Hudson Watershed*

TERMS AND ACRONYMS

APA: Adirondack Park Agency

CAC: Community Assistance Contact

CAV: Community Assistance Visit

CFR: Code of Federal Regulations

CID: Community Identification Number

CIS: Community Information System

CLOMA: Conditional Letter of Map Amendment

CLOMR: Conditional Letter of Map Revision

CNMS: Coordinated Needs Management Strategy

CRS: Community Rating System

FEMA: Federal Emergency Management Agency

FIRM: Flood Insurance Rate Map

FIS: Flood Insurance Study

FMA: Flood Mitigation Assistance

GIS: Geographic Information System

HMA: Hazard Mitigation Assistance

HMGP: Hazard Mitigation Grant Program

HMP: Hazard Mitigation Plan

HWM: High Water Mark

HUC: Hydrologic Unit Code

LiDAR: Light Detection and Ranging

LOMA: Letter of Map Amendment

LOMC: Letter of Map Change

LOMR: Letter of Map Revision

LOMR-F: Letter of Map Revision Based on Fill

LOMR-VZ: Letter of Map Revision V Zone

MIP: Mapping Information Platform

NOAA: National Oceanic and Atmospheric Administration

NRCS: National Resources Conservation Service

NWS: National Weather Service

NYSDEC: New York State Department of Environmental Conservation

NYSDHSES: New York State Division of Homeland Security and Emergency Services

NYSDOT: New York State Department of Transportation

PDM: Pre-Disaster Mitigation

Risk MAP: Risk Mapping, Assessment, and Planning

RL: Repetitive Loss

SFHA: Special Flood Hazard Area

SRL: Severe Repetitive Loss

SWCD: Soil and Water Conservation District

USACE: United States Army Corps of Engineers

USDA: United States Department of Agriculture

USGS: United States Geological Survey

GLOSSARY OF TERMS

Please note: *The Federal Emergency Management Agency (FEMA) is the source for the following terms and definitions, unless cited otherwise.*

1-Percent-Annual-Chance Flood: The flood that has a 1-percent chance of being equaled or exceeded in any given year. This is the regulatory standard also referred to as the "100-year flood" or "base flood." The base flood is the national standard used by the National Flood Insurance Program (NFIP) and all Federal agencies for the purposes of requiring the purchase of flood insurance and regulating new development.

0.2-Percent-Annual-Chance Flood: A flood that has a 0.2-percent chance of being equaled or exceeded in any given year (also known as a 500-year flood).

Approximate Study: Areas subject to inundation by the 1-percent-annual-chance flood event, generally determined using approximate methodologies. Because detailed hydraulic analyses have not been performed, no Base Flood Elevations (BFEs) or flood depths are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply. An approximate study is represented on a FIRM as a Zone A.

Community Assistance Contacts (CACs): A telephone call or brief visit to an NFIP community for the purpose of establishing or reestablishing contact to determine if any program-related problems exist and to offer assistance.

Community Assistance Visits (CAVs): A visit to a community by a FEMA staff member or staff of a State agency on behalf of FEMA that serves the dual purpose of providing technical assistance to the community and ensuring that the community is adequately enforcing its floodplain management regulations.

Community Rating System (CRS): A voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements. Flood insurance premium rates in participating communities are discounted to reflect the reduced flood risk resulting from the community actions.

Conditional Letter of Map Revision (CLOMR): A CLOMR is a letter from FEMA that comments on a proposed project that would, upon construction, affect the hydrologic or hydraulic characteristics of a flooding source and thus result in the modification of the existing regulatory floodway, the effective BFEs, or the Special Flood Hazard Area (SFHA). The letter does not revise an effective NFIP map; it indicates whether the project, if built as proposed, would be recognized by FEMA. FEMA charges a fee for processing a CLOMR to recover the costs associated with the review.

Conditional Letter of Map Revision Based on Fill (CLOMR-F): A CLOMR-F is FEMA's comment on a proposed project that will be elevated by fill. This process is not for submitting proposed development that would affect the hydrologic or hydraulic characteristics of a flooding source and thus result in the modification of the existing regulatory floodway, the effective BFEs, or the SFHA. The letter does not revise an effective NFIP map, but indicates whether the project, if built as proposed, would be recognized by FEMA.

Coordinated Needs Management Strategy (CNMS): The CNMS application is FEMA's inventory of flood hazard studies and flood hazard mapping needs for areas where a flood hazard study is needed. CNMS is beneficial for community officials and FEMA staff in analyzing and depicting flood hazards to enhance understanding of flood risk and make informed decisions on community planning and flood mitigation.

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 (Federal Energy Regulatory Commission). The New York State Department of Environmental Conservation (NYSDEC) uses a classification scale of A to D to assign hazard potential to each of the dam structures contained within the inventory, while dams without a hazard code assignment are considered Class 0 or unclassified hazard potential. The hazard classifications for dams are assigned based on the particular physical characteristics of a dam and its location, may be assigned irrespective of the size of the dam, as appropriate, and are as follows:

- Class A or low hazard dam. A dam failure is unlikely to result in damage to anything more than isolated or unoccupied buildings, undeveloped lands, minor roads such as town or county roads; is unlikely to result in the interruption of important utilities, including water supply, sewage treatment, fuel, power, cable, or telephone infrastructure; and/or is otherwise unlikely to pose the threat of personal injury, substantial economic loss, or substantial environmental damage.
- Class B or intermediate hazard dam. A dam failure may result in damage to isolated homes, main highways, and minor railroads; may result in the interruption of important utilities, including water supply, sewage treatment, fuel, power, cable, or telephone infrastructure; and/or is otherwise likely to pose the threat of personal injury and/or substantial economic loss or substantial environmental damage. Loss of human life is not expected.
- Class C or high hazard dam. A dam failure may result in widespread or serious damage to home(s); damage to main highways, industrial or commercial buildings, railroads, and/or important utilities, including water supply, sewage treatment, fuel, power, cable, or telephone infrastructure; or substantial environmental damage; such that the loss of human life or widespread substantial economic loss is likely.
- Class D or negligible or no hazard dam. A dam that has been breached or removed, or has failed or otherwise no longer materially impounds waters, or a dam that was planned but never constructed. Class D dams are considered to be defunct dams posing negligible or no hazard. The department may retain pertinent records regarding such dams.

Disaster Declaration: The President can declare a major disaster for any natural event that is determined to have caused damage of such severity that it is beyond the combined capabilities of State and local governments to respond. A Major Disaster Declaration provides a wide range of Federal assistance programs for individuals and public infrastructure, including funds for both emergency and permanent work.

Detailed Study: A flood hazard mapping study done using hydrologic and hydraulic methods that produce BFEs, floodways, and other pertinent flood data. Detailed study areas are shown on the FIRM as Zones AE, AH, AO, AR, A99, A1-A30, and in coastal areas as Zones V, VE, and V1-30.

Flood Insurance Rate Map (FIRM): The official map of a community on which FEMA has delineated both the SFHAs and the risk premium zones applicable to the community.

Flood Insurance Study (FIS): A compilation and presentation of flood risk data for specific watercourses, lakes, and coastal flood hazard areas within a community. When a flood study is completed for the NFIP, the information and maps are assembled into an FIS report. The FIS report contains detailed flood elevation data in flood profiles and data tables.

Flood Mitigation Assistance (FMA): The FMA program provides funds for projects to reduce or eliminate risk of flood damage to buildings that are insured under the NFIP on an annual basis. There are three types of FMA grants available, which include (1) planning grants, (2) project grants, and (3) management cost grants.

Hazard Mitigation Assistance (HMA): FEMA's HMA grant programs, which include the Hazard Mitigation Grant Program (HMGP), Pre-Disaster Mitigation (PDM), and FMA, provide funding for eligible mitigation activities that reduce disaster losses and protect life and property from future disaster damages.

Hazard Mitigation Grant Program (HMGP): The HMGP provides grants to States or Tribes and local governments (as sub-grantees) to implement long-term hazard mitigation measures after a Major Disaster Declaration.

Hydrologic Unit Code (HUC): The U.S. Geological Survey (USGS) divides and subdivides the area of the United States into successively smaller hydrologic units that are classified into four levels: regions, sub-regions, accounting units, and cataloging units. The hydrologic units are arranged or nested within each other, from the largest geographic area (regions) to the smallest geographic area (cataloging units). Each hydrologic unit is identified by a unique HUC consisting of two to eight digits based on the four levels of classification in the hydrologic unit system. (USGS)

Ice Jams: An ice jam may be defined as an accumulation of ice in a river, stream, or other flooding source that reduces the cross-sectional area available to carry the flow and increases the water-surface elevation. Ice usually accumulates at a natural or manmade obstruction or a relatively sudden change in slope, alignment, or cross-section shape or depth. Ice jams are common in locations where the channel slope changes from relatively steep to mild and where a tributary stream enters a large river.

Light Detection and Ranging (LiDAR): LiDAR is a remote sensing method that uses light in the form of a pulsed laser to measure ranges (variable distances) to the Earth. These light pulses—combined with other data recorded by the airborne system—generate precise, three-dimensional information about the shape of the Earth and its surface characteristics. LiDAR systems allow scientists and mapping professionals to examine both natural and manmade environments with accuracy, precision, and flexibility. (NOAA)

Letter of Map Amendment (LOMA): A LOMA is an official amendment, by letter, to an effective NFIP map. A LOMA establishes a property's location in relation to the SFHA. LOMAs are usually issued because a property has been inadvertently identified as being in the floodplain but is actually on natural high ground above the BFE or out as shown on the FIRM. Because a LOMA officially amends the effective NFIP map, it is a public record that the community must maintain. Any LOMA should be noted on the community's master flood map and filed by panel number in an accessible location.

Letter of Map Change (LOMC): LOMC is a general term used to refer to the several types of revisions and amendments to FEMA maps that can be accomplished by letter. They include LOMAs, Letters of Map Revision (LOMRs), and Letters of Map Revision Based on Fill (LOMR-Fs).

Letter of Map Revision (LOMR): A LOMR is FEMA's modification to an effective FIRM or portion of the FIRM. LOMRs are generally based on the implementation of physical measures that affect the hydrologic or hydraulic characteristics of a flooding source and, thus, result in the modification of the existing regulatory floodway, the effective BFEs, or the SFHA. The LOMR officially revises the FIRM and sometimes the FIS report.

Letter of Map Revision Based on Fill (LOMR-F): A LOMR-F is a FEMA letter amending the effective FIRM for an existing structure or parcel of land that has been elevated by fill.

Levee/Floodwall: A manmade structure designed to contain or control the flow of water. Levees and floodwalls are constructed from earth, compacted soil, or artificial materials, such as concrete or steel. To protect against erosion and scouring, earthen levees can be covered with grass and gravel or hard surfaces like stone, asphalt, or concrete.

Mitigation: Any action taken to eliminate or reduce the long-term risk to life and property from natural and technological hazards, including, but not limited to, flooding. Flood mitigation measures include elevation, floodproofing, relocation, demolition, or any combination thereof.

Multi-Frequency Depth Grids: This Flood Risk Product helps communities better understand their flood hazard risk beyond the 1-percent-annual-chance floodplain and provides information useful for developing a Benefit-Cost Analysis by producing grids for the 10-percent (10-year depth), 4-percent (25-year depth), 2-percent (50-year depth), 1-percent (100-year depth), and 0.2-percent-annual-chance (500-year depth) flood events. These grids will be used to create additional analyses that depict the percent-annual chance of flooding and the percent chance of flooding over a 30-year span in the floodplain.

Pre-Disaster Mitigation (PDM): The PDM grant program provides funds for hazard mitigation planning and projects on an annual basis. The PDM program was enacted to reduce overall risk to people and structures, while simultaneously reducing reliance on Federal funding in the event of a disaster.

Repetitive Loss (RL) property: An RL property is any insurable building for which two or more claims of more than $1,000 were paid by the NFIP within any rolling 10-year period since 1978. An RL property may or may not be currently insured by the NFIP.

Risk Mapping, Assessment, and Planning (Risk MAP) program: The FEMA Risk MAP program provides communities with flood risk information and tools to support mitigation planning and risk reduction actions.

Severe Repetitive Loss (SRL) property: An SRL property is a single family property (consisting of one to four residences) covered by flood insurance underwritten by the NFIP and has incurred flood-related damage for which four or more separate claim payments have been paid with the amount of each claim payment exceeding $5,000 and with a cumulative amount of such claim payments exceeding $20,000; or for which at least two separate claim payments have been made with the cumulative amount of such claims exceeding the market value of the property.

Special Flood Hazard Area (SFHA): SFHAs are high-risk areas subject to inundation by the base (1-percent-annual-chance) flood; they are also referred to as 1-percent-annual-chance floodplains, base floodplains, or 100-year floodplains.

Water-Surface Elevation Grids: When appropriated, this non-regulatory Flood Risk Product is produced during the Flood Risk Review phase to complement the 1-percent-annual-chance floodplains designated on the FIRMs making the calculated WSEL results more readily available. The WSEL Grid is prepared for the 1-percent-annual-chance storm event and may be produced for a range of other flood events. Using a Geographic Information System (GIS), community officials can easily generate an estimated BFE for interested residents and land developers, and to make critical floodplain management and mitigation decisions.

EXECUTIVE SUMMARY

In 2018, FEMA implemented a Risk MAP Discovery project for the Sacandaga Watershed, which consists of four counties and 30 communities. Discovery begins after a watershed has been prioritized based on flood risk, recent hazard events, and population density by FEMA. Through the Discovery process, FEMA was able to obtain key insights and data that will lead to greater community resiliency. Stakeholders within the watershed helped FEMA to determine what natural hazard information already exists and learn what natural hazard information is still needed to make mitigation decisions. Communities also helped to identify critical infrastructure and resources that could be impacted during a natural hazard event.

Comprising significant input from local stakeholders, the Sacandaga Watershed Discovery Report describes historical flood risk, existing flood-related data, local needs concerning FEMA FIS reports and FIRMs, and current flood mitigation activities. During the outreach process—which involved individual phone calls and emails, informational webinars, and discussion-based meetings—emphasis was placed on opportunities for stakeholders to provide comments, concerns, input for future mapping projects, and ideas for mitigation activities. Through these efforts, FEMA found that many communities worked in partnership and relied on support from State agencies for their floodplain management activities and data.

The Discovery project for the Sacandaga Watershed was informed by data and resources available at the watershed and county level, as well as local insights from stakeholders at the community level. Using community mapping needs and data collected through the engagement process, as well as additional detailed analysis, a recommended scope of work for the Sacandaga Watershed was developed. Data collected from community stakeholders within the watershed can be found in the *Summary of Community Risks Identified* section, with additional information in the *Fulton, Hamilton, Saratoga,* and *Warren County Overview* sections.

The recommended scope of work includes new detailed and new and updated approximate studies for Fulton, Hamilton, Saratoga, and Warren Counties, as well as providing modernized flood maps in a digital format. Two new detailed and 22 new and updated approximate stream studies, totaling 143.3 miles, are recommended. These study requests were prioritized based on community interest expressed during the Discovery process, the presence of existing data and flood maps, the proximity to recent or proposed development, and the status of the water body in the CNMS database. It does not include studies requested for flooding solely due to ice jams or beaver dams.

The new and updated studies can assist both the communities and counties in enforcing floodplain regulations and managing development. In addition to potentially providing modernized flood maps in a digital format, the scope of work may help to address any areas of flood risk, conduct studies, and inform communities of more precise flood risk data and information. Specific information on stream study requests and other community needs collected through the Discovery process can be found in the section on *Recommendations for Future Risk MAP Project Scope*.

Upon completion of the Risk MAP Discovery phase, FEMA will initiate further data development, prioritize areas for restudy, and begin the process to update maps within the watershed, pending available funding.

DISCOVERY OVERVIEW

The FEMA Risk MAP program is an interactive and collaborative process between local, State, and Federal agencies to develop quality natural hazard data that encourages local awareness of risk and supports mitigation actions that increase a community's resilience to natural hazards, with an emphasis on flood risk. For example, Risk MAP can help communities:

- Identify hazard mitigation projects to be incorporated into HMPs, Recovery Plans, and Response Plans;
- Identify gaps in current regulations or Comprehensive Plans and identify the need for new land use and development standards; and
- Support personal preparedness and outreach event planning and marketing.

Discovery is the first phase of Risk MAP and is initiated after a watershed has been prioritized based on flood risk and population density. The goals of Discovery are to:

- Gather information about local flood risk and flood hazards;
- Determine what natural hazard information already exists;
- Learn what natural hazard information is still needed to make mitigation decisions;
- Identify what critical infrastructure and resources could be affected during a natural hazard event; and
- Support relationship building and resource sharing between local communities, State, and Federal agencies.

Based on the findings of the Discovery process, FEMA will consider a potential flood risk mapping project within the Sacandaga Watershed, culminating in studying the flood risk within the watershed and at the countywide level. While there is no exact timeline, a flood risk mapping project takes on average three to five years to complete. Upon completion, communities are provided with updated FIRMs, FIS reports, and FIRM databases, also known as Flood Hazard Products or regulatory products.

With Discovery as the Risk MAP starting point, FEMA gathers the necessary local knowledge that supports the entire multi-year Risk MAP flood risk mapping project, which is outlined below for the Sacandaga Watershed.

YOUR RISK MAP PROCESS

Discovery Meetings: July 26, 2018 and July 27, 2018	Completed and summarized in this Discovery Report.

If the data and research collected during the Discovery phase supports the need for a flood map update and regulatory products, a recommended scope of work is developed for stream reaches requiring new studies. The following timeline shows the steps of that process.

RISK MAP PHASE	WHAT TO EXPECT
Data Development	If a flood mapping update project is initiated, FEMA and its partners move forward with preparing the data, maps, and Flood Risk Products. Tasks included in the data development process include gathering information required for hydraulic and hydrologic modeling, ground truthing, and conducting engineering studies.
Data Communication: Flood Risk Review	FEMA, State, and local officials meet to validate mapping data and supporting research, which helps identify areas prone to flooding and provides spatial orientation to project planners.
Issue Preliminary Map	FEMA issues preliminary maps and FIS reports for community officials to review.
Data Communication: Community Coordination and Outreach (CCO)	Preliminary maps are reviewed with community officials at the CCO Meeting. The comment and appeal process is also explained.
Facilitate Public Comment and Appeal Period	Preliminary maps and the comments and appeals process are shared with community residents and business owners during a FEMA-supported Public Meeting or Open House. Communities have 90 days to submit comments and/or appeals. Comments and/or appeals are reviewed, and flood maps may be updated appropriately.
Issue Letter of Final Determination	Once a flood map in finalized, it is adopted by the community. A six months adoption period begins to allow communities time to adopt adequate floodplain management ordinances based on the new flood map.
Issue Flood Map	Community leaders monitor and track local developments. LOMRs are required within six months of project completion for projects that change the flood hazards in a specific area.

Additionally, communities may receive a set of non-regulatory tools that they can use to better understand and make informed decisions to reduce risk. The following non-regulatory products may be delivered to the communities at the end of a project.

FLOOD RISK PRODUCT		WHAT IS IT?	HOW IS IT USED?
	**FLOOD RISK MAP**	Illustrates overall flood risk within the project area by including the outcomes of assessments completed during the flood risk mapping project.	Can be used by communities as outreach tools to communicate risk to residents more clearly.
	**FLOOD RISK DATABASE**	Provides communities with geospatial information collected during the risk assessment process. Offers effective ways to visualize and communicate flood risk. Four datasets are included.	
	**1. Changes Since Last FIRM (CSLF)**	Highlights how the latest FIRMs differ from the previous maps to help communities understand the changes and prepare for adoption of new maps.	Communities can use this to engage residents and businesses about their changing risk and the implications for flood insurance.
	**2. Flood Risk Assessment**	Focuses on damage that results from floods of various magnitudes. Identifies flood-prone areas and vulnerable populations and properties, and provides an estimate of potential losses.	Can help guide community mitigation efforts by highlighting areas where risk reduction actions may produce the most effective results.
	**3. Flood Depth and Analysis Grid**	Communicates detailed information about the depth and velocity of floodwaters, as well as the probability of an area being flooded over time.	Officials can use depth grids to show individuals the depth of flooding their home might experience at different flood frequencies.
	**4. Areas of Mitigation Interest**	Explains how various physical factors affect the severity of flooding.	Information can be tied to the local HMP, which can help projects gain traction and help officials secure funding for those projects.

The flood risk mapping products, both regulatory and non-regulatory, can inform and encourage local awareness of risk and support a community's resilience to flooding events. If flood mapping products are developed, at their completion, an optional Resilience Meeting can be supported by FEMA. The Resilience Meeting provides an opportunity for local, State, and Federal partners to come together to discuss local mitigation actions that can be supported and strengthened by the Flood Risk Products.

DISCOVERY OUTREACH AND ENGAGEMENT STRATEGY

In the Sacandaga Watershed, the Discovery phase of Risk MAP had four major components: (1) Identify stakeholders, (2) gather information from each participating community through pre-Discovery Information Exchange webinars and a voluntary online questionnaire, (3) support in-person Discovery meetings to continue to build upon the information gathered ahead of the meeting, and (4) conduct post-meeting follow-up and engagement. Together, the strategy will help FEMA to work with communities to confirm natural hazard information and assess the need for more data on natural hazards and their impact on critical facilities.

1. IDENTIFICATION OF STAKEHOLDERS

The first step in this engagement process was to identify stakeholders. As part of this Discovery process for the Sacandaga River Watershed, as well as for the Ausable River, Saranac River, and Upper Hudson Watersheds, FEMA developed an extensive list of contact information in consultation with NYSDEC of community officials and other stakeholders within the watersheds. These included floodplain administrators, emergency managers, planners, public works officials, GIS staff, community development officials, building officials, parks and recreation staff, transportation staff, and contract support staff. Community officials were also encouraged to invite other officials as they deemed appropriate.

Across all four watersheds, over 485 stakeholders—including local community officials, county officials, representatives from Federal and State agencies, Federal and State elected representatives, non-governmental organizations, and other local groups—were contacted and invited to one of seven Discovery meetings. In instances where communities were near or within two watersheds, stakeholders were invited to choose between the two closest meeting locations regardless of their primary watershed location to ensure that information was shared at both the county and community level.

Invitations were sent out via email (at least one per pre-Discovery webinar, and at least two per in-person meeting). Two rounds of calls were made to stakeholders who did not respond via email invitations. Within the Sacandaga River Watershed, approximately 165 stakeholders were contacted by email or phone, including the following:

- One-hundred and thirty community officials representing all municipalities within the watershed (see Project Area Community List)
- Thirty-five county and State officials from:
  - NYS Department of Environmental Conservation (NYSDEC)
  - NYS Department of Homeland Security and Emergency Services (NYSDHSES)
  - New York State Office of Emergency Management
  - Fulton County
  - Hamilton County
  - Saratoga County
  - Warren County

In addition to municipal officials and planning and emergency response staff, other stakeholders offered valuable information to help develop pre-mapping data and final mapping products. Local organizations and non-profits invited to participate in the Sacandaga Watershed Discovery process included the following:

- Adirondack Association of Towns & Villages
- Adirondack Community College
- Adirondack Council, Inc.
- Adirondack Mountain Club
- Adirondack Park Agency (APA)
- Cornell Cooperative Extension

2. PRE-MEETING ENGAGEMENT AND INFORMATION EXCHANGE

Summaries of the pre-Discovery webinars and the voluntary online questionnaire responses were captured in the profiles for Fulton, Hamilton, Saratoga, and Warren Counties.

Pre-Discovery Information Exchange Webinars

The Sacandaga Watershed Discovery phase began with a series of Information Exchange Webinars that were held with each community from June 11 to 19, 2018. These webinars served as an opportunity to gain information from each local community. The webinars explored natural hazard risks with an emphasis on flood impacts, community development efforts, and HMPs. Furthermore, information from these webinars was recorded both as written notes and included in community-scaled maps to visually display areas of concern identified during these pre-Discovery conversations. Questions asked during the webinars included the following:

1. Are there areas in your community affected by flooding? If so, are you in need of more accurate flood mapping information?
2. While our efforts primarily focus on flooding, are there other natural hazards that impact your community?
3. Are there areas of population growth or development that may be impacted by known flooding or other natural hazards?
4. Are there any environmentally sensitive areas identified in your community?
5. Can you share one example of a mitigation activity/project that your community has prioritized and one example of how you have helped your community to be more prepared?

Additionally, during the Information Exchange Webinars, FEMA provided an update for the Hudson-Hoosic Discovery project, which was completed in 2014, because the study area also encompasses parts of Saratoga and Warren Counties. Outcomes from the Hudson-Hoosic Discovery project are described in the *Sacandaga Watershed Characteristics and Geography* section of this report.

Voluntary Online Questionnaire

To help stakeholders who were unable to attend the webinars and to gain knowledge from webinar participants, FEMA distributed a questionnaire that asked local community officials for information regarding local risks. The questionnaire was not mandatory, but it allowed FEMA and its contractors to confirm and obtain the following information from key community stakeholders:

- Areas that need a flood restudy
- Areas affected by flooding
- Areas that have flooded more than once
- Verifiable high water marks
- Recent/ongoing/proposed mitigation actions
- Areas undergoing growth
- Hazards that are not flood-related
- Additional community contacts that should be invited to the in-person meetings

3. DISCOVERY MEETINGS

Following the webinars, FEMA hosted two in-person Discovery meetings for the Sacandaga Watershed on Thursday, July 26, 2018, in the Town of Thurman and on Friday, July 27, 2018, in the Town of Mayfield to discuss and explore the opportunities for a Risk MAP project. The goals of the meeting were multifaceted:

- Continue the discussion of natural hazard risks and ways to mitigate those risks;
- Discuss and connect to various risk assessment tools available from FEMA to support and enhance resilience efforts; and
- Prioritize areas of potential studies and projects that will be considered for scoping a Risk MAP project.

Following an introductory presentation of Risk MAP and the Discovery process, FEMA and community participants reviewed and validated flood and other hazard data, event history, mapping needs, local risk concerns, and development plans. Using community-scaled maps, participants identified locations prone to flooding and other natural hazards or where data is needed. Where possible, participants identified locations of mitigation projects that could reduce risk and categorized the projects on a timeline (1 to 3 years [short-term], 3 to 7 years [mid-term], and 7 to 15 years [long-term]) and noted which projects were the highest priority. Communities were also asked to identify training needs and other necessities, which included, but were not limited to, funding support, floodplain management training, and hazard preparedness brochures. Mapping and hazard needs, recent and potential mitigation projects, and other resource needs identified during the Discovery process are detailed in the *Summary of Community Risks Identified* section.

The following materials were used at the meeting:

- Meeting agenda
- Meeting sign-in sheets
- Meeting presentation
- Fulton County: Profile
- Hamilton County: Profile
- Saratoga County: Profile
- Warren County: Profile
- Breakout session guide
- Notetaking guide

4. POST-DISCOVERY ENGAGEMENT

Following the Sacandaga Watershed Discovery Meeting, FEMA sent participants a follow-up email, which included a link to download copies of the Discovery presentation, county profiles, contact information, and additional resources on grants.

Additional outreach to communities in the Sacandaga Watershed was conducted by FEMA in September. FEMA sent follow-up emails to communities that had not participated in the Discovery process to date (i.e., did not participate in the pre-Discovery Information Exchange Webinars, complete the voluntary questionnaire, and/or attend one of the Discovery meetings), and again requested their input on the process.

Continued engagement with communities will include the delivery of the draft Discovery Report, a commenting period on the report, the delivery of the final Discovery Report, and future coordination with communities as mapping projects are discussed. In addition, FEMA is available to support calls, events, and other outreach opportunities as communities participate in flood mitigation efforts.

SACANDAGA WATERSHED CHARACTERISTICS AND GEOGRAPHY

The Sacandaga Watershed is located north and east of the center of New York State and occupies 1,053 square miles. Portions of Franklin, Hamilton, Saratoga, and Warren Counties lie within the watershed. The watershed ranges in elevation from 541 to 3,559 feet above sea level, with the highest elevations found in the northern portion of the watershed (U.S. Department of Agriculture 2011).

The watershed is primarily rural. According to the 2011 National Land Cover Database, only 3.3 percent of the Sacandaga Watershed is developed with open space and low intensity uses, while 0.6 percent is developed with medium and high intensity uses. The only urban area within the watershed is Gloversville. There is very little agriculture in the watershed, most of which is found within the southern portion of the watershed. Forests comprise the majority of the watershed at 79.1 percent, followed by open water at 6.6 percent, wetlands at 3.9 percent, shrub at 3.5 percent, and grassland at 2.2 percent, with crops and barren land at less than 1 percent each (National Land Cover Database 2011).

There are 67 dams in the Sacandaga Watershed, including 10 dams that, if they were to fail, could cause substantial economic loss or the loss of lives (NYSDEC 2018).

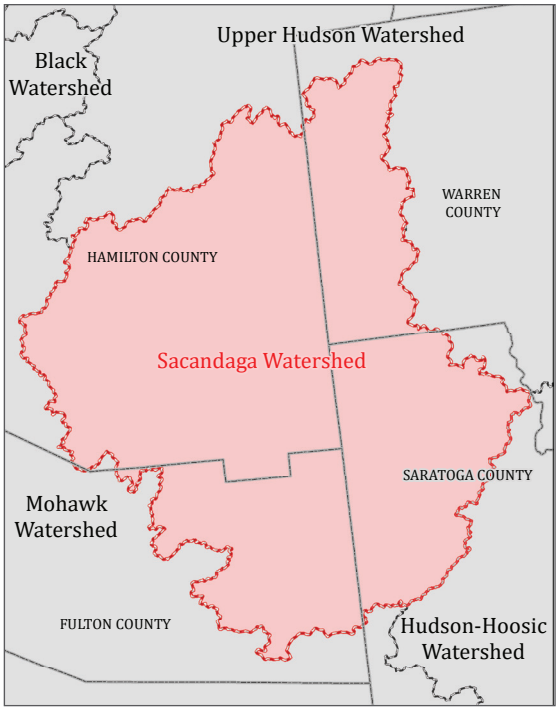

FIGURE 1: Sacandaga Watershed

Unclassified Potential	1
No/Negligible Potential	13
Low Potential	43
Intermediate Potential	5
High Potential	5
TOTAL	**67**

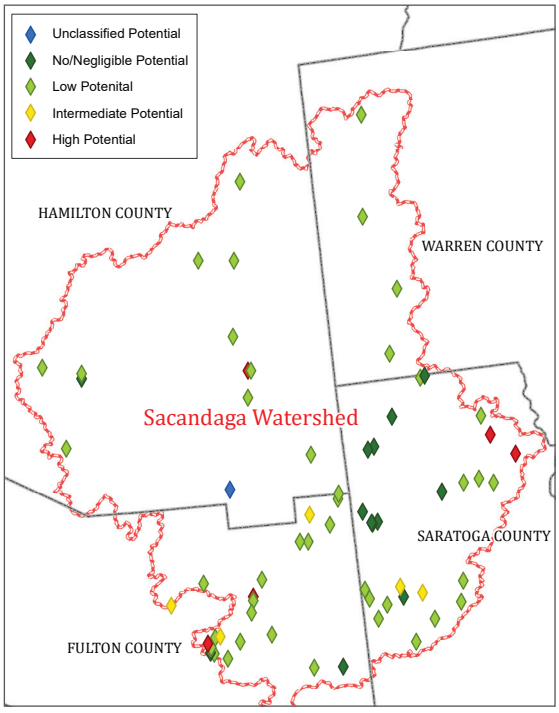

FIGURE 2: Dams within the Sacandaga Watershed

Watershed boundaries are classified based on hydrologic units following a numerical classification system. The Sacandaga Watershed boundary is represented by the HUC-8 code of 02020002. The numbers are arranged by scale, with the first two numbers representing the region, and the following two numbers each representing the sub-regions, accounting units, and cataloging units, respectively. The Sacandaga Watershed shares boundaries with:

- Hudson-Hoosic Watershed (02020003)
- Mohawk Watershed (02020004)
- Upper Hudson Watershed (02020001)

The Discovery process for Upper Hudson Watershed is currently underway and a recommended scope of work will be summarized in a final report in early 2019. In the Hudson-Hoosic Watershed, for which the Discovery process was completed in 2014, reaches of the Hudson River shoreline and multiple other streams were identified for detailed and approximate studies. In addition to upgrading existing mapping in Saratoga and Warren Counties to a digital format, the Hudson River and 15 additional studies were recommended for inclusion in a future Risk MAP project scope (FEMA 2014). In Fiscal Years 2012, 2016, and 2017, flood hazard analysis was funded for several of the recommended studies. Work maps in the Hudson-Hoosic Watershed were issued in early 2018. In Fiscal Year 2018, FEMA issued Flood Risk Products (FRPs) for portions of Saratoga County. These FRPs are tools to inform decision making and include a Flood Risk Report, Water-Surface Elevation (WSEL) Grids, and Multi-Frequency Depth Grids. More information about the project can be found in the *Hudson-Hoosic Watershed Discovery Report*, which is available for download at https://data.femadata.com/Region2/Discovery.

WATERSHED DISASTER DECLARATIONS

2017
DR-4322/SNOW
Severe Winter Storm and Snowstorm
Fulton County, Hamilton County & Saratoga County

2013
DR-4129/FLOOD
Severe Storm and Flooding
Warren County

2012
EM-3351/HURRICANE
Hurricane Sandy
Fulton County, Hamilton County, Saratoga County & Warren County

2011
DR-4031/SEVERE STORM(S)
Remnants of Tropical Storm Lee
Fulton County

2011
DR-4020/HURRICANE
Hurricane Irene
Fulton County, Hamilton County, Saratoga County & Warren County

2011
DR-1993/FLOOD
Severe Storms, Flooding, Tornadoes, and Straight-Line Wind
Hamilton County & Warren County

2010
DR-1899/SEVERE STORM(S)
Severe Storms and Flooding
Warren County

2009
DR-1827/SEVERE STORM(S)
Severe Winter Storm
Saratoga County

2008
EM-3299/SEVERE STORM(S)
Severe Winter Storm
Saratoga County

2006
DR-1670/SEVERE STORM(S)
Severe Winter Storm
Hamilton County

In response to disasters, FEMA can issue disaster declarations for Major Disasters (DRs) and Emergency Declarations (EMs).

The President can declare a DR in New York after the Governor submits a request for any natural event, fire, flood, or explosion in which the severity of damage is determined to exceed the combined response capabilities of State and local governments. A wide range of Federal assistance programs for individual and public infrastructure can be provided after such a declaration is made, including funds for both emergency and permanent work.

EMs can be declared by the President, after the Governor submits a request for any occasion or instance when the President determines Federal assistance is needed to supplement State and local government efforts in providing emergency services, up to $5 million dollars.

As of October 2018, there have been a total of 29 FEMA disaster declarations in the Sacandaga Watershed dating back to 1976. The number of declarations informed the need for this Discovery effort within the Sacandaga Watershed. The timeline shows the 10 most recent declarations in more detail, while the table summarizes all declarations within the watershed (FEMA 2018, Disaster Declarations Summary).

Incident Type	Declared County/Area	Total Disaster Declarations	Declaration Date
EARTHQUAKE	Hamilton County & Warren County	1	(DR): 2002
FIRE	Fulton County, Hamilton County, Saratoga County & Warren County	1	(DR): 2001
FLOOD	Hamilton County, Saratoga County & Warren County	4	(DR): 2013, 2011, 1996, 1976
HURRICANE	Fulton County, Hamilton County, Saratoga County & Warren County	4	(DR): 2011, 1999 (EM): 2012, 2005
SEVERE STORM(S)	Fulton County, Hamilton County, Saratoga County & Warren County	12	(DR): 2011, 2010, 2009, 2006, 2004, 2003, 1998, 1996 (EM): 2008
SNOW	Fulton County, Hamilton County, Saratoga County & Warren County	5	(DR): 2017, 1998, 1987 (EM): 2003, 1993
OTHER (Power Outage & West Nile Virus)	Statewide, Clinton County & Essex County	2	(EM): 2003, 2000

FULTON COUNTY | OVERVIEW

55.5K
COUNTY POPULATION
(U.S. CENSUS BUREAU 2010)

112
PERSONS PER SQUARE MILE
(U.S. CENSUS BUREAU 2010)

.7
SQUARE MILES OF FARMLAND
(U.S. DEPARTMENT OF AGRICULTURE 2012)

78
ESTIMATED FARMS IN WATERSHED
(U.S. DEPARTMENT OF AGRICULTURE 2011)

TOP INDUSTRIES IN COUNTY:
HEALTH CARE & SOCIAL ASSISTANCE, RETAIL TRADE, EDUCATIONAL SERVICES
(U.S. CENSUS BUREAU 2015)

14
PRESIDENTIALLY DECLARED DISASTERS SINCE 1953
(FEMA 2018, DATA VISUALIZATION: DISASTER DECLARATIONS)

HMP STATUS

APA DATE: 8/18/2011
PLAN APPROVAL: 9/28/2011
ADOPTION DATE: 9/28/2011
EXPIRATION DATE: 9/27/2016
PLAN STATUS: EXPIRED/PLAN IN PROGRESS
(FULTON COUNTY NY 2010)

HAZARD PROFILE
(FULTON COUNTY NY 2010)

- FLOOD
- SEVERE WINTER STORM
- EARTHQUAKE
- SEVERE STORMS

Overview

Fulton County is bordered by Saratoga, Hamilton, Herkimer, and Montgomery Counties and has a total area of 495.47 square miles. The estimated population of Fulton County within the Sacandaga Watershed is 50,392. The estimate was derived by combining total populations for all towns in Fulton County that are partially or fully within the watershed (U.S. Census Bureau 2010). The City of Gloversville is a city center of the county, and the City of Johnstown functions as the county seat. Additionally, 184.4 square miles of land are in the Sacandaga Watershed study area (U.S. Department of Agriculture 2011). Major Disaster Declarations for Fulton County occurred most recently following two events on March 14, 2017, when the county experienced a severe winter storm and snow, and on October 27, 2012, when Hurricane Sandy made landfall with rain and wind effects lasting for several days. Following the 2017 declaration, the county received support through FEMA Public Assistance and Hazard Mitigation Assistance; following the 2012 declaration, the county received support through FEMA Public Assistance (FEMA 2018, Disaster Declarations Summary). All communities in Fulton County are included in the Sacandaga Watershed Discovery process, though some areas of the county are within the Mohawk Watershed. There are no other current FEMA studies in Fulton County.

Planning

According to the *2008 Land Use Planning & Regulations: A Survey of New York State Municipalities*, Fulton County has the following resources to assist with planning and greater resiliency: *A Guide to Planning and Zoning Laws of New York State*, Fulton County Planning Department, Fulton County Farm Bureau, and the Fulton

County New York Agricultural Development and Farmland Protection Plan (NY Department of State 2011). In addition, approximately 317 square miles of Fulton County falls under the jurisdiction of the Adirondack Park Agency (APA) (Fulton County NY 2010), which was created in 1971 by the State Legislature to develop long-range public and private land use plans. In Fulton County, the Towns of Bleecker, Caroga, Northampton, and Stratford are completely within the Adirondack Park and are subject to land use regulations of the APA. The Town of Caroga has an Agency-approved Local Land Use Plan. APA land use documents include the *Adirondack Park State Land Master Plan* and the *Citizen's Guide to Adirondack Park Agency Land Use Regulations* (Adirondack Park Agency).

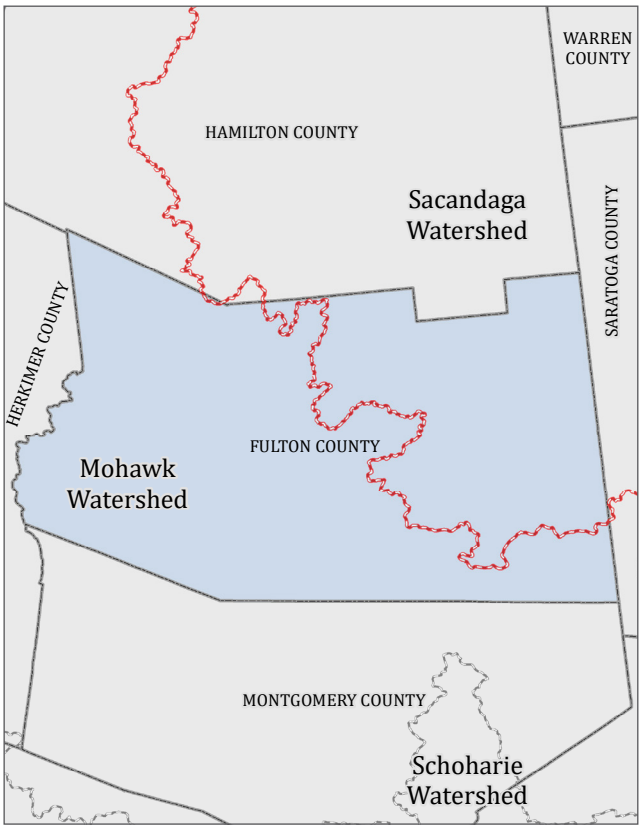

FIGURE 3: The Sacandaga Watershed within Fulton County

Common Flooding Concerns

Communities in Fulton County face unique flooding challenges, but the Discovery process for the Sacandaga Watershed revealed some common themes. Several towns suggested that elevations around lakes are higher than existing FIRMs signify, such as on Peck Lake in the Town of Bleecker and on the Great Sacandaga Lake in the Town of Mayfield. In both locations, LOMCs have been both requested and issued. Flooding, however, is of concern on Cayadutta Creek in the City of Gloversville, Kennyetto Creek in the Town of Broadalbin, East Canada Creek in the Town of Stratford, and on Hunters Creek at County Road 143 in the Town of Northampton. Flooding on Kennyetto Creek may need additional observation as there is interest in locating additional commercial development there. Updated flood map information was requested by multiple communities for the areas surrounding the Great Sacandaga Lake and Mayfield Lake.

The county estimated building stock replacement value of structures and their contents in the 1-percent-annual-chance floodplain as $344,183,000 and $345,159,000 in the 0.2-percent-annual-chance floodplain. Three critical facilities were found within the 0.2-percent-annual-chance floodplain (Fulton County NY 2010).

Common Mitigation Concerns

Communities in Fulton County have unique mitigation concerns, but several themes emerged during the Discovery process and review of the expired 2011 Fulton County Hazard Mitigation Plan (HMP). The HMP highlighted drainage issues. The Village of Broadalbin described the need to evaluate engineering solutions, and the Town of Mayfield stated the need to raise the road elevation. In response to flooding issues, the City of Gloversville and Town of Stratford are seeking to repair local bridges, while the Town of Northampton identified a need to raise the bridge on County Road 143 that crosses Hunters Creek. The expired HMP includes a need to increase culvert sizes in the Towns of Broadalbin and Caroga. The City of Gloversville is interested in rerouting the local river. More detailed information on the flooding and mitigation concerns described here can be found within the *Summary of Community Risks Identified* section.

HAMILTON COUNTY | OVERVIEW

4.8K
COUNTY POPULATION
(U.S. CENSUS BUREAU 2010)

3
PERSONS PER SQUARE MILE
(U.S. CENSUS BUREAU 2010)

TOP INDUSTRIES IN COUNTY:
PUBLIC ADMINISTRATION, ACCOMMODATION & FOOD SERVICE, EDUCATIONAL SERVICES
(U.S. CENSUS BUREAU 2015)

13
PRESIDENTIALLY DECLARED DISASTERS SINCE 1953
(FEMA 2018, DATA VISUALIZATION: DISASTER DECLARATIONS)

HMP STATUS

APA DATE: N/A
PLAN APPROVAL: N/A
ADOPTION DATE: N/A
EXPIRATION DATE: N/A
PLAN STATUS: N/A

HAZARD PROFILED IN THE STATE HMP*


FLOOD


WINTER STORM


HIGH WIND


DROUGHT


HAIL


HURRICANES


EXTREME TEMPERATURE

*This list reflects hazards in Hamilton County that resulted in losses (NY Department of Homeland Security and Emergency Services 2014) since Hamilton County does not have an active Hazard Mitigation Plan.

Overview

Hamilton County is bordered by Herkimer, St Lawrence, Franklin, Essex, Warren, Saratoga, and Fulton Counties and has a total area of 1,717 square miles. The estimated population of Hamilton County within the Sacandaga Watershed is 4,465. The estimate was derived by combining total populations for all towns in Hamilton County that are partially or fully within the watershed (U.S. Census Bureau 2010). The Town of Lake Pleasant functions as the county seat. Additionally, 494.6 square miles of land are in the Sacandaga Watershed study area (U.S. Department of Agriculture 2011). Major Disaster Declarations for Hamilton County occurred most recently following two events on March 14, 2017, when the county experienced a severe winter storm and snow, and on October 27, 2012, when Hurricane Sandy made landfall with rain and wind effects lasting for several days. Following the 2017 declaration, the county received support through FEMA Public Assistance and Hazard Mitigation Assistance; following the 2012 declaration, the county received support through FEMA Public Assistance (FEMA 2018, Disaster Declarations Summary). While portions of Hamilton County are in the Sacandaga Watershed, additional areas of the county are also in the Upper Hudson Watershed, for which the Discovery process is expected to be completed in early 2019, and the Black Watershed, for which the Discovery process was completed in 2015. Other areas of the county are also in the Mohawk and Raquette Watersheds, though communities in these watersheds were studied as part of previous Discovery efforts. There are no ongoing regulatory studies in Hamilton County.

Planning

According to the *2008 Land Use Planning & Regulations: A Survey of New York State Municipalities*, the county does not have county-specific boards or guidance but can use *A Guide to Planning and Zoning Laws of New York State* for planning and greater resiliency (NY Department of State 2011). In addition, 100 percent of Hamilton County falls under the jurisdiction of the Adirondack Park Agency (APA), which was created in 1971 by the State Legislature to develop long-range public and private land use plans. The Towns of Arietta and Indian Lake have Agency-approved Local Land Use Plans. APA land use documents include the *Adirondack Park State Land Master Plan* and the *Citizen's Guide to Adirondack Park Agency Land Use Regulations* (Adirondack Park Agency).

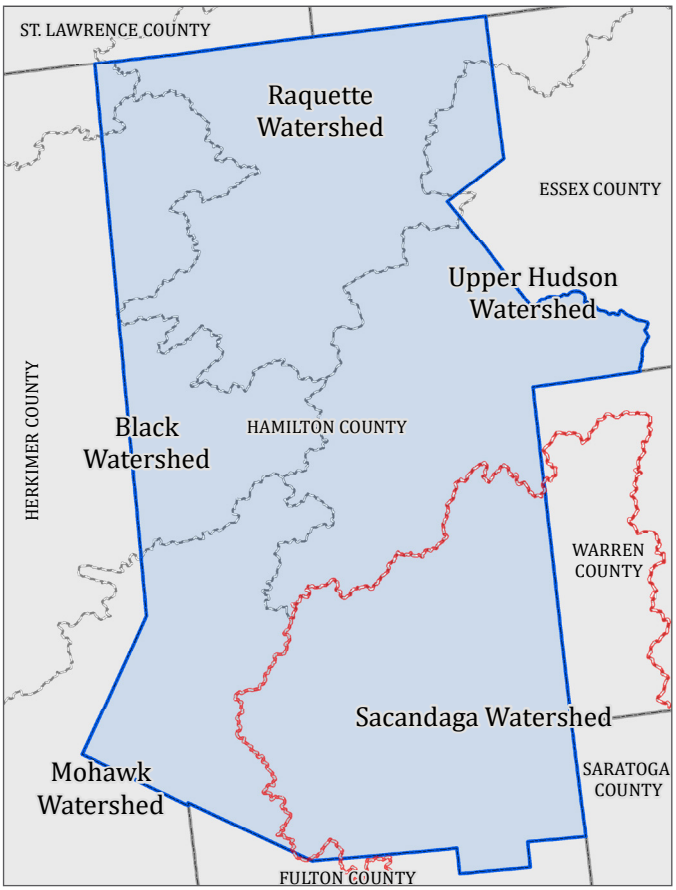

FIGURE 4: The Sacandaga Watershed within Hamilton County

Common Flooding Concerns

Communities in Hamilton County shared fewer flooding concerns compared to other counties in the watershed, due to the local topography and generally high elevations. However, the Towns of Arietta and Indian Lake said steep slopes exacerbated flooding after small rain events. Communities identified beaver dam-associated flooding as an occasional flooding source, occurring on Wild Road near Piseco Lake in the Town of Arietta and on Elm Lake Road in the Village of Speculator. In winter, ice jam-related flooding occurs in the Towns of Hope, Indian Lake, and Lake Pleasant. Important community assets in potential risk areas were discussed. The Town of Benson described their town barn, used for storage, as being mapped in the floodplain but having no known history of flood vulnerability.

Common Mitigation Concerns

Since Hamilton County does not have an active Hazard Mitigation Plan, mitigation concerns were identified only during the Discovery process. The county shared that NYSDEC has flagged a culvert in the Village of Speculator that does not meet standards and should be increased in size. Similarly, the Town of Benson shared that the Town of Hope requires stream crossing repairs and enlargement. More detailed information on the flooding and mitigation concerns described here can be found within the *Summary of Community Risks Identified* section.

SARATOGA COUNTY | OVERVIEW

219.6K
COUNTY POPULATION
(U.S. CENSUS BUREAU 2010)

271
PERSONS PER SQUARE MILE
(U.S. CENSUS BUREAU 2010)

5
SQUARE MILES OF FARMLAND
(U.S. DEPARTMENT OF AGRICULTURE 2012)

173
ESTIMATED FARMS IN WATERSHED
(U.S. DEPARTMENT OF AGRICULTURE 2011)

TOP INDUSTRIES IN COUNTY:
EDUCATIONAL SERVICES, HEALTH CARE & SOCIAL ASSISTANCE, RETAIL TRADE
(U.S. CENSUS BUREAU 2015)

16
PRESIDENTIALLY DECLARED DISASTERS SINCE 1953
(FEMA 2018, DATA VISUALIZATION: DISASTER DECLARATIONS)

HMP STATUS

APA DATE: 7/12/2011
PLAN APPROVAL: 11/16/2011
ADOPTION DATE: 11/29/2011
EXPIRATION DATE: 11/15/2016
PLAN STATUS: EXPIRED/PLAN IN PROGRESS
(SARATOGA COUNTY NY 2011)

HAZARDS PROFILED IN THE COUNTY HMP
(SARATOGA COUNTY NY 2011)

- FLOOD
- SEVERE WINTER STORM
- EARTHQUAKE
- SEVERE STORMS
- GROUND FAILURE

Overview

Saratoga County is bordered by Warren, Washington, Rensselaer, Albany, Montgomery, Schenectady, Fulton, and Hamilton Counties and has a total area of 809.98 square miles. The estimated population of Saratoga County within the Sacandaga Watershed is 21,882. The estimate was derived by combining total populations for all towns in Saratoga County that are partially or fully within the watershed (U.S. Census Bureau 2010). The Village of Ballston Spa functions as the county seat. Additionally, 225.2 square miles of land are in the Sacandaga Watershed study area (U.S. Department of Agriculture 2011). Major Disaster Declarations for Saratoga County occurred most recently following two events on March 14, 2017, when the county experienced a severe winter storm and snow, and on October 27, 2012 when Hurricane Sandy made landfall with rain and wind effects lasting for several days. Following the 2017 declaration, the county received support through FEMA Public Assistance and Hazard Mitigation Assistance; following the 2012 declaration, the county received support through FEMA Public Assistance (FEMA 2018, Disaster Declarations Summary). While portions of Saratoga County are in the Sacandaga Watershed, additional areas in the county are also in the Upper Hudson Watershed, for which the Discovery process is expected to be completed in early 2019, and the Hudson-Hoosic Watershed, for which the Discovery process was completed in 2014. In Fiscal Year 2012, FEMA Region II funded flood hazard analyses for several studies. Data development and work maps in the Hudson-Hoosic Watershed, including for Saratoga County, were issued in early 2018. FEMA also issued Flood Risk Products for portions of Saratoga County. Other areas of the county are also in the Mohawk Watershed, however, those communities were studied as part of previous Discovery efforts.

Planning

According to the *2008 Land Use Planning & Regulations: A Survey of New York State Municipalities*, Saratoga County has the following resources to assist with planning and greater resiliency: *A Guide to Planning and Zoning Laws of New York State*, the Saratoga County Planning Board, a Comprehensive Plan, and a Right-to-Farm law (NY Department of State 2011). In addition, the northern part of Saratoga County falls under the jurisdiction of the Adirondack Park Agency (APA) (Saratoga County NY 2011), which was created in 1971 by the State Legislature to develop long-range public and private land use plans The Towns of Day and Edinburg have Agency-approved Local Land Use Plans. APA land use documents include the *Adirondack Park State Land Master Plan* and the *Citizen's Guide to Adirondack Park Agency Land Use Regulation*s (Adirondack Park Agency).

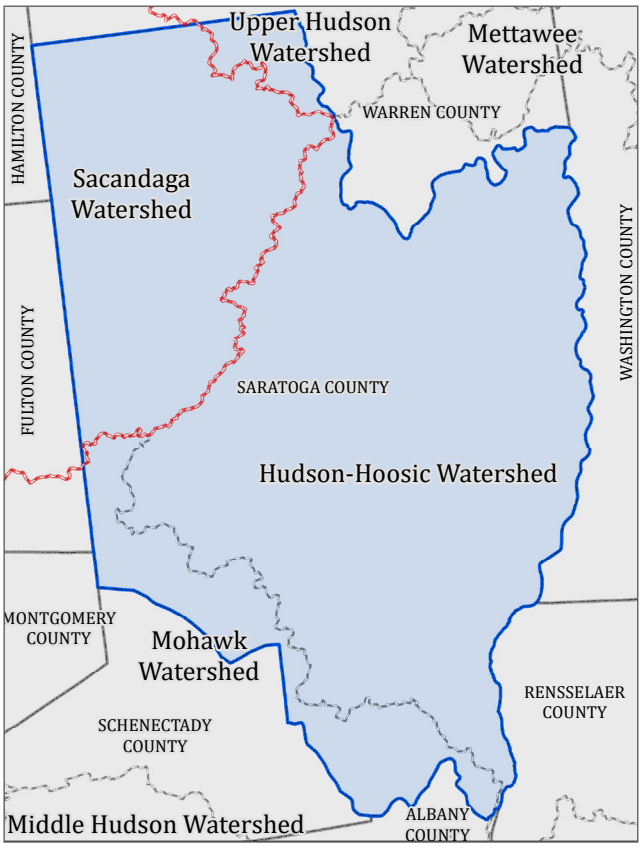

FIGURE 5: The Sacandaga Watershed within Saratoga County

Common Flooding Concerns

Communities within Saratoga County that participated in the Sacandaga Watershed Discovery process showed particular concern with ice jam-related flooding and flooding associated with the spring thaw, and high winds were also cited as a commonly-felt hazard. Road washout is an issue on Wilbur Terrace in the Town of Edinburg and on Hans Creek Road at Sleezer Road in the Town of Providence. Flooding is known to affect homes on South Branch Kayaderosseras Creek and Porter Corners Road in the Town of Greenfield, Eddy Road and Tower Road in the Town of Hadley, and the bridge at the border of the Towns of Hadley and Lake Luzerne.

The estimated building stock replacement value of structures and contents in the 1-percent-annual-chance floodplain is $242,861,000 and $308,315,000 in the 0.2-percent-annual-chance floodplain. Saratoga County has identified eight critical facilities within the 0.2-percent-annual-chance floodplain (Saratoga County NY 2011).

Common Mitigation Concerns

As shared in discovery meetings in Saratoga County and described in the expired 2011 Saratoga County Hazard Mitigation Plan (HMP), common mitigation ideas ranged from enrollment in the Community Rating System (CRS), updating town plans, and repair or enlargement of culverts. The expired HMP describes that the Towns of Corinth and Edinburg will consider enrolling in the CRS. The Town of Greenfield has a master plan that discourages growth in hazard prone areas, and the Town of Providence is interested in updating its master plan to incorporate risk information. The Towns of Edinburg and Galway described the need to replace undersized culverts on Wilbur Terrace and County Road 14, respectively. The Town of Hadley described ongoing culvert repair work in terms of mitigation. The Town of Greenfield identified a bridge on Porter Road crossing South Branch Kayaderosseras Creek that needs replacement. More detailed information on the flooding and mitigation concerns described here can be found within the *Summary of Community Risks Identified* section.

WARREN COUNTY | OVERVIEW

65.7K
COUNTY POPULATION
(U.S. CENSUS BUREAU 2010)

76
PERSONS PER SQUARE MILE
(U.S. CENSUS BUREAU 2010)

1
SQUARE MILES OF FARMLAND
(U.S. DEPARTMENT OF AGRICULTURE 2012)

14
ESTIMATED FARMS IN WATERSHED
(U.S. DEPARTMENT OF AGRICULTURE 2011)

TOP INDUSTRIES IN COUNTY:
HEALTH CARE & SOCIAL ASSISTANCE, RETAIL TRADE, ACCOMMODATION & FOOD SERVICES
(U.S. CENSUS BUREAU 2015)

16
PRESIDENTIALLY DECLARED DISASTERS SINCE 1953
(FEMA 2018, DATA VISUALIZATION: DISASTER DECLARATIONS)

HMP STATUS

APA DATE: 4/25/2017
PLAN APPROVAL: 7/5/2017
ADOPTION DATE: 7/25/2017
EXPIRATION DATE: 7/4/2022
PLAN STATUS: APPROVED
(WARREN COUNTY NY 2016)

HAZARDS PROFILED IN THE COUNTY HMP
(WARREN COUNTY NY 2016)

- FLOOD
- SEVERE WINTER STORM
- SEVERE STORMS
- WILDFIRE
- EARTHQUAKE
- LANDSLIDE
- INFESTATION
- HAZARDOUS MATERIAL INCIDENTS
- CYBERSECURITY

Overview

Warren County is bordered by Washington, Saratoga, Hamilton, and Essex Counties and has a total area of 866 square miles. The estimated population of Warren County within the Sacandaga Watershed is 4,232. The estimate was derived by combining total populations for all towns in Warren County that are partially or fully within the watershed (U.S. Census Bureau 2010). The main population centers are the City of Glens Falls and the Town of Queensbury, with the latter functioning as the county seat. Additionally, 150 square miles of land are in the Sacandaga Watershed study area (U.S. Department of Agriculture 2011). Major Disaster Declarations for Warren County occurred most recently following two events on June 26, 2013, when severe storms and flooding were experienced for several days, and on October 27, 2012, when Hurricane Sandy made landfall with rain and wind effects lasting for several days. Following the 2013 declaration, the county received support through FEMA Public Assistance and Hazard Mitigation Assistance; following the 2012 declaration, the county received support through FEMA Public Assistance (FEMA 2018, Disaster Declarations Summary). While portions of Warren County are in the Sacandaga Watershed, additional areas in the county are also in the Upper Hudson Watershed, for which the Discovery process is expected to be completed in early 2019, as well as the Lake Champlain and Hudson-Hoosic Watersheds, for which the Discovery processes were completed in 2016 and 2014, respectively. In Fiscal Year 2012, FEMA Region II funded flood hazard analyses for some studies from the Hudson-Hoosic Watershed Discovery process. Data development and work maps in the Hudson-Hoosic Watershed, including for some streams in Warren County, were issued in early 2018. Other areas of Warren County are in the Mettawee River Watershed.

Planning

According to the *2008 Land Use Planning & Regulations: A Survey of New York State Municipalities*, Warren County has the following resources to assist with planning and greater resiliency: *A Guide to Planning and Zoning Laws of New York State* and the Warren County Department of Planning and Community Development (NY Department of State 2011). In addition, Warren County falls under the jurisdiction of the APA, which was created in 1971 by the State Legislature to develop long-range public and private land use plans. The Towns of Bolton, Chester, Hague, Horicon, and Johnsburg have Agency-approved Local Land Use Plans. APA land use documents include the *Adirondack Park State Land Master Plan* and the *Citizen's Guide to Adirondack Park Agency Land Use Regulations* (Adirondack Park Agency).

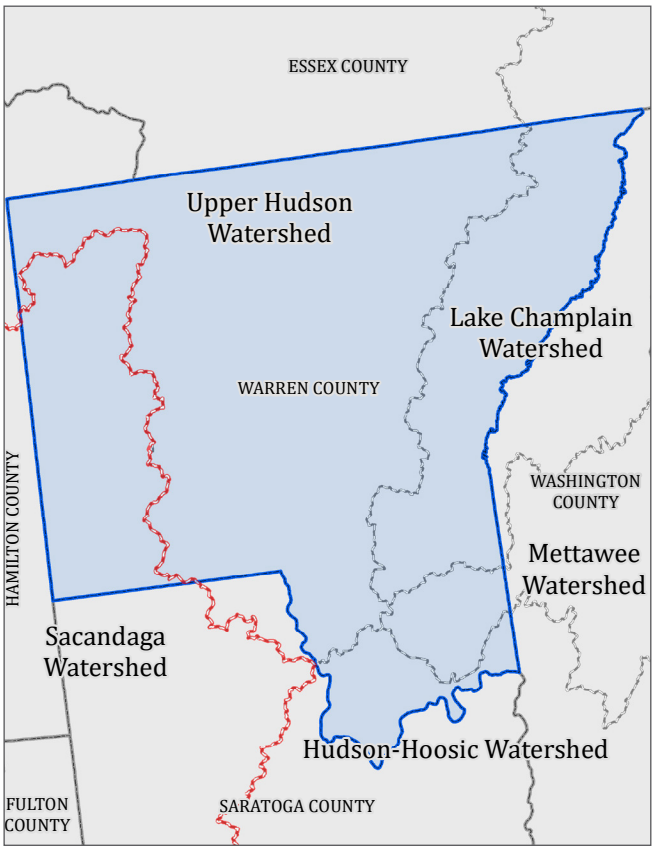

FIGURE 6: The Sacandaga Watershed within Warren County

Common Flooding Concerns

Warren County communities shared significant feedback on flooding concerns during the Sacandaga Watershed Discovery process, as well as noted in the 2016 Warren County Hazard Mitigation Plan (HMP). All towns in Warren County within the watershed described areas that face flood risk, with common flooding causes, including both spring runoff and ice jams. Beaver dams are known to cause flooding in the Towns of Johnsburg and Thurman. The Town of Johnsburg also expressed concern that breached dams could cause significant flooding near Roaring and Baker brooks. Erosion and washouts have affected road access in a few locations, including on States Road East and Van Auken Road in the Town of Stony Creek. Several towns shared an interest in new flood maps, especially areas proximate to Balm of Gilead Stream and several roads in the Town of Johnsburg.

The county estimated replacement cost value for 823 structures in the 1-percent-annual-chance floodplain to be $264,900,485. For 876 structures in the 0.2-percent-annual-chance floodplain, the value was estimated at $278.559,660. Warren County has identified 102 critical facilities within the 1-percent-annual-chance floodplain or 0.2-percent-annual-chance floodplain (Warren County NY 2016).

Common Mitigation Concerns

In Warren County, many of the mitigation concerns shared by communities during the Discovery process were also described in greater detail in the 2016 Warren County HMP. One example of this is Warren County's current effort in assessing all critical facilities in the 1-percent-annual-chance and 0.2-percent-annual-chance floodplains to determine support for facility operators to mitigate future risk. Another example is a countywide effort to map all culverts to build a culvert database that includes information on size, age, and construction type to support planned and ongoing culvert replacement and repair efforts in the Towns of Johnsburg, Thurman, and Stony Creek. The Town of Johnsburg expressed an interest in preserving open space to reduce risk of structural flood damage. More detailed information on the flooding and mitigation concerns described here can be found within the *Summary of Community Risks Identified* section.

SUMMARY OF COMMUNITY RISKS IDENTIFIED

The Discovery process—including webinars, a questionnaire, in-person consultations, and follow-up correspondence—generated numerous identified needs related to flood mapping, mitigation, and training. Although Discovery occurs at the watershed level, the following pages summarize information at the community level–from local officials and other watershed stakeholders. In some instances, specific geographic information is provided; otherwise this information was not collected. The Resources section of this report provides information on mitigation grant opportunities, trainings, and other resources to help address the needs identified during the Discovery process.

In the Sacandaga Watershed, communities have older, community-based paper FIRMs developed between 1984 and 1995. Specific FIRM and Letter of Map Change (LOMC) data for each community provide an understanding of the existing hazard information available. The NFIP status, number of active policies, and ordinance level and effective date show the community's overall preparedness for a flood event, while the Community Rating System (CRS) status indicates whether the community has made additional steps toward reducing risk. A description of the data source is provided in the table, and definitions for terms used are provided in the *Glossary of Terms*.

A combination of the information shared by local officials and relevant available data was used to develop a recommended scope of work for consideration of future Risk MAP projects, if available funding permits. Specific stream study priorities were identified based on the data gathered and stakeholder input provided during this Discovery project. A total of 24 new detailed and new or updated approximate studies were identified by stakeholders. There was also one stream study request for flooding sources outside of the project area. Complete details on priority mapping projects can be found in the *Recommendations for Future Risk MAP Project Scope* section of this report.

DATA	SOURCE
POPULATION	U.S. Census Bureau 2010. Numbers are rounded
FIRM DATE	Effective date of the current FIRM per FEMA Community Information System (CIS) as of May 23, 2018
NFIP STATUS	Status of participation in the NFIP per CIS as of May 23, 2018
FIRM STATUS	Never Mapped – FEMA has not published FIRMs for the area in question Original – the current effective FIRMs are the initial FIRMs produced for the community Revised – the current effective FIRMs were revised through the Risk MAP process and updated since the initial FIRM date Per CIS as of May 23, 2018
LOMC(S)	Number of completed LOMCs per FEMA Mapping Information Platform (MIP) as of August 2018
POLICIES	Number of all active NFIP policies in all zones per CIS as of May 23, 2018
INSURANCE IN FORCE	Total insurance amount from all active NFIP policies in all zones per CIS as of May 23, 2018
# PAID LOSSES	Number of NFIP claims paid for all active policies in all zones per CIS as of May 23, 2018
TOTAL LOSSES PAID	Total amount of NFIP claims paid for all active policies in all zones per CIS as of May 23, 2018
CAV	Date of most recent CAV by FEMA as of May 23, 2018
CAC	Date of most recent CAC by FEMA as of May 23, 2018
ORDINANCE LEVEL	A – when the 1-percent-annual-chance floodplain has not been identified D – when the 1-percent-annual-chance floodplain has been identified, but not including Coastal High-Hazard Areas Information current as of September 2018, per CIS and the NY Department of State, Division of State Records
ORDINANCE EFFECTIVE DATE	Date that minimum NFIP requirements for the ordinance level went into effect, as of September 2018, per CIS and the NY Department of State, Division of State Records
CRS RATING	Rating level if the community is enrolled in the CRS per FEMA NFIP Flood Insurance Manual as of May 1, 2018

CITY OF GLOVERSVILLE | FULTON COUNTY

SUMMARY OF MAPPING NEEDS AND HAZARDS IDENTIFIED:

- In 2017, snow melt and heavy rainfall caused flooding at the Colonial Tanning site from Cayadutta Creek and a tributary to Cayadutta Creek north of West 8th Avenue. There is a 30-minute interval between water accumulation on the mountains and its arrival downstream in the city
- Concrete culverts near South Main Street and Burr Street, as well as along North Arlington Avenue between North Street and Grand Street, experience regular flooding from Cayadutta Creek
- Cayadutta Creek has flooded a low bridge at the South Boulevard and Harrison Street intersection
- The retaining wall at an abandoned factory (1 Rose Street, Gloversville) is in jeopardy of failing, causing concern of chemicals entering the Tributary A that feeds into West Millpond
- Fulton County shared that Cayadutta Creek floods near the transit area, by the intersection of South Main Street and West Pine Street, where the Department of Public Works plans to redevelop
- Erosion occurs near the City Hall, Police Department, and Fire Department buildings, where Cayadutta Creek flows between Lincoln Street and Rose Street
- The location of the Martin-Littell Pond Dam on North Street, between Jay Street and Bleecker Street, was incorrectly displayed on the Discovery meeting project area map and has been revised in the geodatabase

HAZARD MITIGATION ACTIONS IDENTIFIED:

Planned, Completed, or Ongoing Projects:

- The City of Gloversville is applying for a BRIDGE NY grant to repair the bridge at the intersection of South Bend and Harrison Street

Mitigation and Risk Reduction Needs:

- In the next one to three years, the city would like to fix their retaining walls with a Climate Smart Communities grant from the NYS Department of Environmental Conservation (NYSDEC)
- In three to seven years, the city may be interested in rerouting water to reduce flooding

TRAINING, OUTREACH, AND/OR PLANNING SUPPORT NEEDS IDENTIFIED:

- A training on creek maintenance is needed from the NYSDEC
- A meeting with FEMA about Repetitive Loss properties has been requested
- Staff are interested in acquiring data on rivers and streams, and they are interested in sharing data with agencies that may have this information
- Fulton County officials are interested in receiving guidance on leveraging resources and integrating Hazard Mitigation Plans and other local plans into their work

COMMUNITY	CITY OF GLOVERSVILLE
POPULATION	15,665
FIRM DATE	9/30/1983
NFIP STATUS	Participating
FIRM STATUS	Original
LOMC(S)	9
POLICIES	29
INSURANCE IN FORCE	$3,998,300
# PAID LOSSES	34
TOTAL LOSSES PAID	$398,305
CAV	9/8/2015
CAC	N/A
ORDINANCE LEVEL	D
ORDINANCE EFFECTIVE DATE	9/30/1983
CRS RATING	N/A

TOWN OF BLEECKER | FULTON COUNTY

SUMMARY OF MAPPING NEEDS AND HAZARDS IDENTIFIED:

- Ice jams and associated flooding occur in the area surrounding West Stony Creek along Barlow Road near its intersection with Bowlers Hill Road and County Road 145
- Wind hazards often cause power outages and straight-line winds are known to take down trees on the north shore of Peck Lake
- Multiple bridges throughout the community are vulnerable to storms; these include one in the Adirondack Park at Barlow Road and two on Pinnacle Road where it crosses Pinnacle Creek and near the Holmes Lake Outlet
- In 2011, the North Shore Peck Lake Road bridge washed out where Peck Creek flows into Peck Lake from the northwest, stranding residents
- A concentration of LOMC requests near the southeast and northwestern shore of Peck Lake and many elevated areas indicate that floodplain maps may need to be updated around Peck Lake
- Residences downstream of Peck Lake, in the Town of Johnstown, would be at risk of flooding if the Peck Lake Dam was breached
- An earthen dam at the headwaters of Stony Creek has no outlet, increasing risks if it collapses
- The town hall and town garage, located near the intersection of County Road 112 and Persch Road, are prioritized as local assets

HAZARD MITIGATION ACTIONS IDENTIFIED:

Planned, Completed, or Ongoing Projects:

- A larger culvert was placed at the North Shore Road bridge along Peck Lake and Peck Creek
- New development containing about 10 homes is set back 100 feet from Woodworth Lake, 25 feet more that is stated in the Adirondack Park Agency regulations

Mitigation and Risk Reduction Needs:

- Mitigate problem culverts

TRAINING, OUTREACH, AND/OR PLANNING SUPPORT NEEDS IDENTIFIED:

- County officials would like communities to receive guidance on leveraging resources and integrating Hazard Mitigation Plans and other local plans into their work

COMMUNITY	TOWN OF BLEECKER
POPULATION	535
FIRM DATE	7/18/1985
NFIP STATUS	Participating
FIRM STATUS	All Zone A, C, and X - No Elevation Determined
LOMC(S)	11
POLICIES	5
INSURANCE IN FORCE	$1,164,500
# PAID LOSSES	1
TOTAL LOSSES PAID	$4,803
CAV	N/A
CAC	9/26/2016
ORDINANCE LEVEL	D
ORDINANCE EFFECTIVE DATE	3/26/1987
CRS RATING	N/A

TOWN OF BROADALBIN | FULTON COUNTY

SUMMARY OF MAPPING NEEDS AND HAZARDS IDENTIFIED:

- Fulton County noted that Kennyetto Creek is a source of flooding within the town
- The county reported interest for commercial development near Kennyetto Creek

HAZARD MITIGATION ACTIONS IDENTIFIED:

Planned, Completed, or Ongoing Projects:

- The 2011 Fulton County Hazard Mitigation Plan describes increasing the culvert size to decrease local flooding west of Midline Road

Mitigation and Risk Reduction Needs:

- No needs identified

TRAINING, OUTREACH, AND/OR PLANNING SUPPORT NEEDS IDENTIFIED:

- County officials would like communities to receive guidance on leveraging resources and integrating Hazard Mitigation Plans and other local plans into their work

COMMUNITY	TOWN OF BROADALBIN
POPULATION	5,260
FIRM DATE	1/3/1985
NFIP STATUS	Participating
FIRM STATUS	All Zone A, C, and X - No Elevations Determined
LOMC(S)	2
POLICIES	2
INSURANCE IN FORCE	$525,000
# PAID LOSSES	0
TOTAL LOSSES PAID	$0
CAV	N/A
CAC	8/1/2016
ORDINANCE LEVEL	D
ORDINANCE EFFECTIVE DATE	6/22/1987
CRS RATING	N/A

Note: The Town of Broadalbin did not provide input during the Discovery process. Fulton County and neighboring town representatives shared the community's information.

VILLAGE OF BROADALBIN | FULTON COUNTY

SUMMARY OF MAPPING NEEDS AND HAZARDS IDENTIFIED:

- No needs identified

HAZARD MITIGATION ACTIONS IDENTIFIED:

Planned, Completed, or Ongoing Projects:

- The 2011 Fulton County Hazard Mitigation Plan proposes an engineering evaluation to address drainage problems at North 2nd Avenue, the railroad bridge, and Saratoga Avenue

Mitigation and Risk Reduction Needs:

- No needs identified

TRAINING, OUTREACH, AND/OR PLANNING SUPPORT NEEDS IDENTIFIED:

- The county is interested in communities receiving guidance on leveraging resources and integrating Hazard Mitigation Plans and other local plans

COMMUNITY	VILLAGE OF BROADALBIN
POPULATION	1,325
FIRM DATE	4/15/1986
NFIP STATUS	Participating
FIRM STATUS	All Zone A, C, and X - No Elevations Determined
LOMC(S)	5
POLICIES	2
INSURANCE IN FORCE	$409,100
# PAID LOSSES	0
TOTAL LOSSES PAID	$0
CAV	N/A
CAC	8/1/2016
ORDINANCE LEVEL	D
ORDINANCE EFFECTIVE DATE	8/30/1988
CRS RATING	N/A

Note: The Village of Broadalbin did not provide input during the Discovery process. Fulton County and neighboring town representatives shared the community's information.

TOWN OF CAROGA | FULTON COUNTY

SUMMARY OF MAPPING NEEDS AND HAZARDS IDENTIFIED:

- Flooding concerns are often associated with seasonal ice jams and beaver dam construction in the Town of Caroga and surrounding areas
- Some lakeside structures in the community are not regulated to the Adirondack Park Agency minimum setbacks and are much closer to the waterline than 100 feet. These structures may be more vulnerable to flood damage and could impact the natural floodplain function.
- Houses with lower elevation along the east shoreline of Canada Lake, starting at intersection of State Routes 10 and 29A and Kasson Drive down to County Road 111, are impacted by flooding from wind-driven wave runup
- Spring runoff elevates lake levels along the south shore of Caroga Lakes causing property flooding and can also have an impact on Caroga Creek

HAZARD MITIGATION ACTIONS IDENTIFIED:

Planned, Completed, or Ongoing Projects:

- The 2011 Fulton County Hazard Mitigation Plan describes an effort to increase culvert sizes to decrease local flooding west of Shutts Road

Mitigation and Risk Reduction Needs:

- An emergency generator could be purchased and installed at the town hall
- Communication in mountainous areas could be improved by increasing cellphone network coverage or through other means
- Trainings and hazard mitigation equipment provisions will continue to be acquired to plan and prepare for emergencies

TRAINING, OUTREACH, AND/OR PLANNING SUPPORT NEEDS IDENTIFIED:

- County officials would like communities to receive guidance on leveraging resources and integrating Hazard Mitigation Plans and other local plans into their work

COMMUNITY	TOWN OF CAROGA
POPULATION	1,205
FIRM DATE	7/18/1985
NFIP STATUS	Participating
FIRM STATUS	All Zone A, C, and X – No Elevations Determined
LOMC(S)	5
POLICIES	18
INSURANCE IN FORCE	$4,082,100
# PAID LOSSES	1
TOTAL LOSSES PAID	$3,955
CAV	7/18/2008
CAC	N/A
ORDINANCE LEVEL	D
ORDINANCE EFFECTIVE DATE	3/10/1987
CRS RATING	N/A

TOWN OF JOHNSTOWN | FULTON COUNTY

SUMMARY OF MAPPING NEEDS AND HAZARDS IDENTIFIED:

- No needs identified

HAZARD MITIGATION ACTIONS IDENTIFIED:

Planned, Completed, or Ongoing Projects:

- The 2011 Fulton County Hazard Mitigation Plan describes an effort for the designated NFIP Floodplain Administrator to become a Certified Floodplain Manager through the Association of State Floodplain Managers and consider relevant continuing education training, such as FEMA's Benefit-Cost Analysis

Mitigation and Risk Reduction Needs:

- No needs identified

TRAINING, OUTREACH, AND/OR PLANNING SUPPORT NEEDS IDENTIFIED:

- County officials would like communities to receive guidance on leveraging resources and integrating Hazard Mitigation Plans and other local plans

COMMUNITY	TOWN OF JOHNSTOWN
POPULATION	7,100
FIRM DATE	7/3/1985
NFIP STATUS	Participating
FIRM STATUS	All Zone A, C, and X - No Elevations Determined
LOMC(S)	4
POLICIES	3
INSURANCE IN FORCE	$460,000
# PAID LOSSES	0
TOTAL LOSSES PAID	$0
CAV	1/17/2013
CAC	N/A
ORDINANCE LEVEL	D
ORDINANCE EFFECTIVE DATE	9/18/1989
CRS RATING	N/A

Note: The Town of Johnstown did not provide input during the Discovery process. Fulton County and neighboring town representatives shared the community's information.

TOWN OF MAYFIELD | FULTON COUNTY

SUMMARY OF MAPPING NEEDS AND HAZARDS IDENTIFIED:

- A new detailed flood study is requested generally on and around the Great Sacandaga Lake, with base flood elevations included
- High winds and snow hazards are prioritized over flooding hazards
- Elevation data may be necessary to improve the accuracy of the floodplain in the areas near groups of successful LOMAs at the southern end of the Great Sacandaga Lake, as it joins with Kennyetto Creek and Shafers Brook, more specifically in the areas of Woods Hollow Road, Pekara Drive, Griffis Road, and North Second Ave near the Great Sacandaga Lake
- Proper Road, at the area of intersection with Sunrise Drive between Mayfield Creek, has experienced flooding from the Great Sacandaga Lake, leading to road closures
- Development may be occurring in an area of past flooding, near the convergence of County Road 155, State Route 30 and State Route 29
- A large culvert on Gray Road is flooded by a tributary to Mayfield Creek

HAZARD MITIGATION ACTIONS IDENTIFIED:

Planned, Completed, or Ongoing Projects:

- The 2011 Fulton County Hazard Mitigation Plan identifies an action to raise the elevation of Proper Road and perform drainage work

Mitigation and Risk Reduction Needs:

- Raise road elevation and improve drainage of Proper Road and Sunrise Drive
- Update the culvert on Gray Road to better handle potential flooding from the tributary to Mayfield Creek

TRAINING, OUTREACH, AND/OR PLANNING SUPPORT NEEDS IDENTIFIED:

- The county would like communities to receive guidance on leveraging resources and integrating Hazard Mitigation Plans and other local plans

COMMUNITY	TOWN OF MAYFIELD
POPULATION	6,495
FIRM DATE	8/5/1985
NFIP STATUS	Participating
FIRM STATUS	All Zone A, C, and X - No Elevations Determined
LOMC(S)	11
POLICIES	2
INSURANCE IN FORCE	$202,000
# PAID LOSSES	4
TOTAL LOSSES PAID	$19,980
CAV	2/24/2011
CAC	N/A
ORDINANCE LEVEL	D
ORDINANCE EFFECTIVE DATE	8/5/1985
CRS RATING	N/A

VILLAGE OF MAYFIELD | FULTON COUNTY

SUMMARY OF MAPPING NEEDS AND HAZARDS IDENTIFIED:

- A new detailed flood study is requested generally on the Great Sacandaga Lake, with base flood elevations included
- Sewer and water facilities on the banks of Mayfield Lake could be at risk of flooding and a restudy is requested

HAZARD MITIGATION ACTIONS IDENTIFIED:

Planned, Completed, or Ongoing Projects:

- The 2011 Fulton County Hazard Mitigation Plan describes an action to identify and preserve open spaces, including along the Great Sacandaga Lake

Mitigation and Risk Reduction Needs:

- Identify and preserve open spaces, including along the Great Sacandaga Lake

TRAINING, OUTREACH, AND/OR PLANNING SUPPORT NEEDS IDENTIFIED:

- The county would like communities to receive guidance on leveraging resources and integrating Hazard Mitigation Plans and other local plans

COMMUNITY	VILLAGE OF MAYFIELD
POPULATION	830
FIRM DATE	N/A
NFIP STATUS	Not Participating
FIRM STATUS	Never Mapped
LOMC(S)	0
POLICIES	N/A
INSURANCE IN FORCE	N/A
# PAID LOSSES	N/A
TOTAL LOSSES PAID	N/A
CAV	N/A
CAC	N/A
ORDINANCE LEVEL	D
ORDINANCE EFFECTIVE DATE	10/14/1987
CRS RATING	N/A

VILLAGE OF NORTHVILLE | FULTON COUNTY

SUMMARY OF MAPPING NEEDS AND HAZARDS IDENTIFIED:

- The west side of the village along the Sacandaga River experiences flooding in rain events due to poor drainage
- The community raised a concern about Hunters Creek as it runs slowly through the village until emptying into the Sacandaga River; with an increased flow, the creek could become backed up and cause flooding

HAZARD MITIGATION ACTIONS IDENTIFIED:

Planned, Completed, or Ongoing Projects:

- The 2011 Fulton County Hazard Mitigation Plan describes an action to require and archive elevation certificates

Mitigation and Risk Reduction Needs:

- Increase size of drainage pipes and/or install additional catch basins for rain events, especially along the western shore of the village and on Division Street
- The portion of Hunters Creek in the village could be dredged, especially near East Prospect Street
- Within the next three years, slip form curbing may be installed beside paving on the main town peninsula

TRAINING, OUTREACH, AND/OR PLANNING SUPPORT NEEDS IDENTIFIED:

- The County is interested in communities receiving guidance on leveraging resources and integrating Hazard Mitigation Plans and other local plans

COMMUNITY	VILLAGE OF NORTHVILLE
POPULATION	1,340
FIRM DATE	N/A
NFIP STATUS	Participating
FIRM STATUS	All Zone C and X - No Published FIRM
LOMC(S)	0
POLICIES	0
INSURANCE IN FORCE	$0
# PAID LOSSES	0
TOTAL LOSSES PAID	$0
CAV	N/A
CAC	N/A
ORDINANCE LEVEL	A
ORDINANCE EFFECTIVE DATE	6/30/1976
CRS RATING	N/A

TOWN OF NORTHAMPTON | FULTON COUNTY

SUMMARY OF MAPPING NEEDS AND HAZARDS IDENTIFIED:

- On the northwest lake shore, adjacent to the Village of Northville, stormwater and groundwater are known to seep into the sewer system; this was expressed as a high concern for the town, though not specifically related to flooding
- Multiple LOMAs and LOMRs have been received, which signifies that these areas may need a restudy with elevation data
- A bridge on County Road 143 that crosses Hunters Creek experiences frequent flooding
- Structures along the southwestern bend of Elmer Brown Road on the Great Sacandaga Lake are at high elevations and are not known to experience flooding
- Need for updated floodplain mapping and BFEs for the Great Sacandaga Lake
- The flood risk depicted on the maps shared during the Discovery meeting appears to be correct for the area around the Northampton Beach Campground

HAZARD MITIGATION ACTIONS IDENTIFIED:

Planned, Completed, or Ongoing Projects:

- The 2011 Fulton County Hazard Mitigation Plan describes an effort to explore creation of unified focus groups, made up of participants from the Lake's neighboring communities, to provide an avenue for setting common environmental goals for the entire Great Sacandaga Lake region

Mitigation and Risk Reduction Needs:

- In the next one to three years, elevation data should be collected on structures that do not experience flooding along the southern bend of Elmer Brown Road on the Great Sacandaga Lake
- In the next seven to 15 years, funding sources should be identified and obtained to repair the aged sewer system on the west side of where the Sacandaga River empties into the Great Sacandaga Lake
- Raise the bridge on County Road 143 that crosses Hunters Creek

TRAINING, OUTREACH, AND/OR PLANNING SUPPORT NEEDS IDENTIFIED:

- The county would like communities to receive guidance on leveraging resources and integrating Hazard Mitigation Plans and other local plans

COMMUNITY	TOWN OF NORTHAMPTON
POPULATION	2,670
FIRM DATE	8/19/1985
NFIP STATUS	Participating
FIRM STATUS	All Zone A, C, and X - No Elevations Determined
LOMC(S)	12
POLICIES	3
INSURANCE IN FORCE	$559,000
# PAID LOSSES	0
TOTAL LOSSES PAID	$0
CAV	2/25/2010
CAC	N/A
ORDINANCE LEVEL	D
ORDINANCE EFFECTIVE DATE	4/27/1987
CRS RATING	N/A

TOWN OF PERTH | FULTON COUNTY

SUMMARY OF MAPPING NEEDS AND HAZARDS IDENTIFIED:

- No needs identified

HAZARD MITIGATION ACTIONS IDENTIFIED:

Planned, Completed, or Ongoing Projects:

- The 2011 Fulton County Hazard Mitigation Plan describes an effort to determine if a Community Assistance Visit (CAV) or Community Assistance Contact (CAC) is needed and plan them, if necessary

Mitigation and Risk Reduction Needs:

- No needs identified

TRAINING, OUTREACH, AND/OR PLANNING SUPPORT NEEDS IDENTIFIED:

- The county would like communities to receive guidance on leveraging resources and integrating Hazard Mitigation Plans and other local plans

COMMUNITY	TOWN OF PERTH
POPULATION	3,645
FIRM DATE	2/15/1985
NFIP STATUS	Participating
FIRM STATUS	All Zone A, C, and X - No Elevations Determined
LOMC(S)	0
POLICIES	0
INSURANCE IN FORCE	$0
# PAID LOSSES	0
TOTAL LOSSES PAID	$0
CAV	N/A
CAC	N/A
ORDINANCE LEVEL	D
ORDINANCE EFFECTIVE DATE	2/15/1985
CRS RATING	N/A

Note: The Town of Perth did not provide input during the Discovery process. Fulton County and neighboring town representatives shared the community's information.

TOWN OF STRATFORD | FULTON COUNTY

SUMMARY OF MAPPING NEEDS AND HAZARDS IDENTIFIED:

- According to Fulton County, East Canada Creek is a source of flooding for the town
- State bridge 29A and the fire department experience ice jam issues
- The main residential area (especially along Sorts Landing Road), the post office, town barn, and town hall are of highest priority to the town and at the greatest risk for flooding from East Canada Creek and Ayers Creek; the issues for the latter may be due to poor drainage
- Grandfathered homes exist on the Pleasant Lake shoreline in the Adirondack Park
- The area is prone to high winds that can knock down trees and cause power outages
- There are concerns with brush fires; as a result, burn bans have been imposed, both in the areas between County Road 104 and East Canada Creek and at the intersection of Mike Smith Road and Route 29
- Keeping bridges in working order was expressed as a high concern for the town, as bridge upkeep is a financial burden
- Numerous streams are missing from the map shared during the Discovery meeting; requested that FEMA review the data discrepancy

HAZARD MITIGATION ACTIONS IDENTIFIED:

Planned, Completed, or Ongoing Projects:

- Culverts that recently washed out have been built back larger
- The Piseco Road Bridge at Ayers Creek was washed out and rebuilt with FEMA funding
- The town was awarded a grant from a New York State senator to put in a drain with holding tanks to prevent further contamination in groundwater
- Regulations have been put in place requiring new structures to be built 100 feet from shorelines
- State Bridge 29A is being replaced, but not enlarged
- FEMA funded repairs to Mallet Hill Road following flooding in June 2006, and the Town has applied for grants to repair two bridges on Middle Sprite Road and at the end of Piseco Road

COMMUNITY	TOWN OF STRATFORD
POPULATION	745
FIRM DATE	1/3/1985
NFIP STATUS	Participating
FIRM STATUS	All Zone A, C, and X - No Elevations Determined
LOMC(S)	0
POLICIES	1
INSURANCE IN FORCE	$350,000
# PAID LOSSES	1
TOTAL LOSSES PAID	$2,163
CAV	N/A
CAC	N/A
ORDINANCE LEVEL	D
ORDINANCE EFFECTIVE DATE	1/3/1985
CRS RATING	N/A

- The 2015 Franklin County Hazard Mitigation Plan describes an effort for the town's designated NFIP Floodplain Administrator to become a Certified Floodplain Manager through the Association of State Floodplain Managers and consider relevant continuing education training, including FEMA's Benefit-Cost Analysis training

Mitigation and Risk Reduction Needs:

- The NYS Department of Environmental Conservation (NYSDEC) is responsible for adjusting dam flows but cannot properly operate them because of issues related to understaffing – flooding may be eliminated with better control from the dam becoming State owned
- Eight bridges need repair or replacement. The bridge owners are currently unknown. The town is now responsible but believes the State should be, since it leads to State-owned land

TRAINING, OUTREACH, AND/OR PLANNING SUPPORT NEEDS IDENTIFIED:

- The town requested additional information on Hazard Mitigation Plans, assistance identifying mitigation projects, and training for floodplain management
- The county would like communities to receive guidance on leveraging resources and integrating Hazard Mitigation Plans and other local plans

TOWN OF ARIETTA | HAMILTON COUNTY

The Town of Arietta should also consult the Upper Hudson Watershed Discovery report to review the Recommendations for Future Risk MAP Project Scope, if available.

SUMMARY OF MAPPING NEEDS AND HAZARDS IDENTIFIED:

- Salt runoff after its application in winter was a concern prioritized above flooding
- Flooding is not noted as commonly affecting the town, aside from limited instances, and is not considered a hazard of high concern
- Hamilton County stated that a culvert at Wild Road on Piseco Lake has flooding issues and is affected by beaver dams
- The county noted that small rain events can cause greater flooding issues because of the steepness of slopes
- Hamilton County stated that other countywide hazards, such as wildfire, high winds, snow, and ice jams, are of concern

HAZARD MITIGATION ACTIONS IDENTIFIED:

Planned, Completed, or Ongoing Projects:

- No projects identified

Mitigation and Risk Reduction Needs:

- Mitigation is needed to prevent salt contamination of water bodies in the spring
- Culvert repair and beaver population control is needed off Knox Road at Piseco Lake

TRAINING, OUTREACH, AND/OR PLANNING SUPPORT NEEDS IDENTIFIED:

- The county requested FEMA provide a similar presentation during a monthly Board of Supervisors meeting

COMMUNITY	TOWN OF ARIETTA
POPULATION	300
FIRM DATE	N/A
NFIP STATUS	Participating
FIRM STATUS	All Zone C and X - No Published FIRM
LOMC(S)	0
POLICIES	0
INSURANCE IN FORCE	$0
# PAID LOSSES	0
TOTAL LOSSES PAID	$0
CAV	N/A
CAC	N/A
ORDINANCE LEVEL	A
ORDINANCE EFFECTIVE DATE	2/14/1985
CRS RATING	N/A

TOWN OF BENSON | HAMILTON COUNTY

SUMMARY OF MAPPING NEEDS AND HAZARDS IDENTIFIED:

- The "old barn," on Town Barn Road, is mapped into a potential floodplain but is not known for being flooded by the Sacandaga River, despite having a lower elevation than other parts of the town.
- Forest fires are regarded as a greater hazard than flooding, since the land elevations are generally high
- Hamilton County officials stated that other countywide hazards include high winds, snow, and ice jams

HAZARD MITIGATION ACTIONS IDENTIFIED:

Planned, Completed, or Ongoing Projects:

- A bridge is being raised over Hatch Brook by the crossing of Charter Road and Benson Road

Mitigation and Risk Reduction Needs:

- Elevation data for the "old barn" should be acquired to reassess its flood hazard
- Appliances in the "old barn" could be floodproofed if the barn is at risk of flooding
- A new cell tower on Cathead Mountain would improve communication across the town in case of emergencies
- With the addition of a generator, the town hall could become an emergency center

TRAINING, OUTREACH, AND/OR PLANNING SUPPORT NEEDS IDENTIFIED:

- The county requested FEMA provide a similar presentation during a monthly Board of Supervisors meeting

COMMUNITY	TOWN OF BENSON
POPULATION	190
FIRM DATE	N/A
NFIP STATUS	Participating
FIRM STATUS	All Zone C and X - No Published FIRM
LOMC(S)	0
POLICIES	1
INSURANCE IN FORCE	$350,000
# PAID LOSSES	1
TOTAL LOSSES PAID	$1,505
CAV	N/A
CAC	N/A
ORDINANCE LEVEL	A
ORDINANCE EFFECTIVE DATE	1/31/1983
CRS RATING	N/A

TOWN OF HOPE | HAMILTON COUNTY

SUMMARY OF MAPPING NEEDS AND HAZARDS IDENTIFIED:

- Neighboring communities noted that the river and stream valleys in the lower part of the Town of Hope are vulnerable to ice jams and spring thaw-associated flooding
- Creek Road to Tannery Road experiences ice back-ups, from East Stony Creek or Bear Creek, which re-routes water over the road
- A need was identified for an updated approximate flood study along the Sacandaga River, parallel to Route 30 through the Town of Hope. The community is also concerned with ice jams and associated flooding in this area

HAZARD MITIGATION ACTIONS IDENTIFIED:

Planned, Completed, or Ongoing Projects:

- Officials from the Town of Benson noted that Creek Road to Tannery Road on East Stony Creek was raised with rip rap, with the help of the neighboring communities and the county

Mitigation and Risk Reduction Needs:

- Upsize and repair stream crossings

TRAINING, OUTREACH, AND/OR PLANNING SUPPORT NEEDS IDENTIFIED:

- Hamilton County officials stated that other countywide hazards include wildfire, high winds, snow, and ice jams
- County officials requested that FEMA provide more information about the Risk MAP process during a monthly Board of Supervisors meeting

COMMUNITY	TOWN OF HOPE
POPULATION	400
FIRM DATE	4/30/1986
NFIP STATUS	Participating
FIRM STATUS	All Zone A, C, and X - No Elevations Determined
LOMC(S)	5
POLICIES	6
INSURANCE IN FORCE	$760,100
# PAID LOSSES	37
TOTAL LOSSES PAID	$189,179
CAV	10/26/2006
CAC	7/17/2017
ORDINANCE LEVEL	D
ORDINANCE EFFECTIVE DATE	3/24/1987
CRS RATING	N/A

TOWN OF INDIAN LAKE | HAMILTON COUNTY

The Town of Indian Lake should also consult the Upper Hudson Watershed Discovery report to review the Recommendations for Future Risk MAP Project Scope, if available.

SUMMARY OF MAPPING NEEDS AND HAZARDS IDENTIFIED:

- A restudy was requested for Indian Lake, Adirondack Lake, and Round Pond Brook; LOMAs in these areas indicate need for updated flood study
- Flooding and ice jams are frequent along the Cedar River, from Sprague Brook to the Benton Road area
- A vulnerable culvert exists at Beaver Meadow Brook and Parkerville Road
- Moderate rainfall can cause issues due to the steepness of slopes
- Floodplain map inaccuracies may exist near Lake Abanakee and East Main Street, where successful Letters of Map Amendment were identified
- Hamilton County officials stated that other countywide hazards include wildfire, high winds, snow, and ice jams

HAZARD MITIGATION ACTIONS IDENTIFIED:

Planned, Completed, or Ongoing Projects:

- A culvert at Beaver Meadow Brook was rebuilt

Mitigation and Risk Reduction Needs:

- No needs identified

TRAINING, OUTREACH, AND/OR PLANNING SUPPORT NEEDS IDENTIFIED:

- County officials asked FEMA to give a short presentation about Risk MAP during a monthly Board of Supervisors meeting

COMMUNITY	TOWN OF INDIAN LAKE
POPULATION	1,350
FIRM DATE	12/4/1985
NFIP STATUS	Participating
FIRM STATUS	All Zone A, C, and X - No Elevations Determined
LOMC(S)	22
POLICIES	13
INSURANCE IN FORCE	$3,645,100
# PAID LOSSES	3
TOTAL LOSSES PAID	$58,620
CAV	2/19/2009
CAC	N/A
ORDINANCE LEVEL	D
ORDINANCE EFFECTIVE DATE	1/12/1987
CRS RATING	N/A

Note: The Town of Indian Lake did not provide input during the Discovery process. Hamilton County and neighboring town representatives shared the community's information.

TOWN OF LAKE PLEASANT | HAMILTON COUNTY

The Town of Lake Pleasant should also consult the Upper Hudson Watershed Discovery report to review the Recommendations for Future Risk MAP Project Scope, if available.

SUMMARY OF MAPPING NEEDS AND HAZARDS IDENTIFIED:

- Need new updated approximate flood study to accurately map the flood hazard area around Lake Pleasant
- In a low-elevation shoreline of Sacandaga Lake, near Moffit Beach Road and the Moffit Beach State Campground, a trailer park is often evacuated due to flooding from the Sacandaga Lake and/or Echo Lake. This area should be prioritized, as isolated residents must be evacuated when it floods
- Hamilton County officials stated that countywide hazards include wildfire, high winds, snow, and ice jams

HAZARD MITIGATION ACTIONS IDENTIFIED:

Planned, Completed, or Ongoing Projects:

- No projects identified

Mitigation and Risk Reduction Needs:

- No needs identified

TRAINING, OUTREACH, AND/OR PLANNING SUPPORT NEEDS IDENTIFIED:

- County officials asked FEMA to give a short presentation about Risk MAP during a monthly Board of Supervisors meeting

COMMUNITY	TOWN OF LAKE PLEASANT
POPULATION	780
FIRM DATE	N/A
NFIP STATUS	Participating
FIRM STATUS	All Zone C and X - No Published FIRM
LOMC(S)	0
POLICIES	3
INSURANCE IN FORCE	$980,000
# PAID LOSSES	0
TOTAL LOSSES PAID	$0
CAV	10/11/2012
CAC	N/A
ORDINANCE LEVEL	A
ORDINANCE EFFECTIVE DATE	2/14/1985
CRS RATING	N/A

Note: The Town of Lake Pleasant did not provide input during the Discovery process. Hamilton County and neighboring town representatives shared the community's information.

TOWN OF MOREHOUSE | HAMILTON COUNTY

SUMMARY OF MAPPING NEEDS AND HAZARDS IDENTIFIED:

- Hamilton County officials stated that countywide hazards include wildfire, high winds, snow, and ice jams

HAZARD MITIGATION ACTIONS IDENTIFIED:

Planned, Completed, or Ongoing Projects:

- No projects identified

Mitigation and Risk Reduction Needs:

- No needs identified

TRAINING, OUTREACH, AND/OR PLANNING SUPPORT NEEDS IDENTIFIED:

- The county requested FEMA give a short presentation about Risk MAP during a monthly Board of Supervisors meeting

COMMUNITY	TOWN OF MOREHOUSE
POPULATION	85
FIRM DATE	N/A
NFIP STATUS	Participating
FIRM STATUS	All Zone C and X - No Published FIRM
LOMC(S)	0
POLICIES	0
INSURANCE IN FORCE	$0
# PAID LOSSES	0
TOTAL LOSSES PAID	$0
CAV	N/A
CAC	N/A
ORDINANCE LEVEL	A
ORDINANCE EFFECTIVE DATE	2/14/1985
CRS RATING	N/A

Note: The Town of Morehouse did not provide input during the Discovery process. Hamilton County and neighboring town representatives shared the community's information.

VILLAGE OF SPECULATOR | HAMILTON COUNTY

The Village of Speculator should also consult the Upper Hudson Watershed Discovery report to review the Recommendations for Future Risk MAP Project Scope, if available.

SUMMARY OF MAPPING NEEDS AND HAZARDS IDENTIFIED:

- In a low-elevation shoreline of Sacandaga Lake, near Moffit Beach Road and the Moffit Beach State Campground, a trailer park is often evacuated due to flooding from the Sacandaga Lake and/or Echo Lake. This area should be prioritized, as isolated residents must be evacuated when it floods
- Flooding issues occur on Route 30 from beaver dams on Kunjamuk Bay, Whitaker Lake Outlet, Whiskey Brook, and Hatchery Brook
- Elm Lake Road, also known as "Long Level Road," leads to an outdoor recreation camp; the road can be overtopped by minor flooding from the Kunjamuk River, which washes out culverts. This area also experiences beaver dam-related flooding that washes out culverts
- Need a new flood study to accurately map flood risks around the Lake Pleasant shoreline
- New culverts were recently constructed along Elm Lake Road, north of Elm Lake, but the road still washes out sometimes in this area from tributaries of the Kunjamuk River
- Hamilton County officials stated that other countywide hazards include wildfire, high winds, snow, and ice jams

HAZARD MITIGATION ACTIONS IDENTIFIED:

Planned, Completed, or Ongoing Projects:

- New culverts were placed by Elm Lake Road, where they were washed out previously
- A second culvert that was put in an area of flooding and multiple washouts along Elm Lake Road in the northern end of the village has not completely mitigated storm flooding problems

Mitigation and Risk Reduction Needs:

- The NYS Department of Environmental Conservation has flagged the crossing of Route 30 over Hatchery Brook for replacement to meet their requirements by increasing the culvert size to nine feet

TRAINING, OUTREACH, AND/OR PLANNING SUPPORT NEEDS IDENTIFIED:

- County officials asked FEMA to give a short similar presentation during their monthly Board of Supervisors meeting

COMMUNITY	VILLAGE OF SPECULATOR
POPULATION	325
FIRM DATE	2/6/1984
NFIP STATUS	Participating
FIRM STATUS	All Zone A, C, and X - No Elevations Determined
LOMC(S)	3
POLICIES	4
INSURANCE IN FORCE	$766,900
# PAID LOSSES	0
TOTAL LOSSES PAID	$0
CAV	1/19/2010
CAC	N/A
ORDINANCE LEVEL	D
ORDINANCE EFFECTIVE DATE	2/6/1984
CRS RATING	N/A

TOWN OF WELLS | HAMILTON COUNTY

The Town of Wells should also consult the Upper Hudson Watershed Discovery report to review the Recommendations for Future Risk MAP Project Scope, if available.

SUMMARY OF MAPPING NEEDS AND HAZARDS IDENTIFIED:

- The Town of Arietta, on behalf of the Town of Wells, noted that occasional flooding, as well as ice jams, occurs in the Town of Wells near the border between the two towns
- Elbow Creek, above Lake Algonquin, needs a new approximate study in response to concerns about flooding during heavy rain storms
- Hamilton County officials stated that other countywide hazards include wildfire, high winds, snow, and ice jams

HAZARD MITIGATION ACTIONS IDENTIFIED:

Planned, Completed, or Ongoing Projects:

- No projects identified

Mitigation and Risk Reduction Needs:

- No needs identified

TRAINING, OUTREACH, AND/OR PLANNING SUPPORT NEEDS IDENTIFIED:

- County officials asked FEMA to give a short similar presentation during their monthly Board of Supervisors meeting

COMMUNITY	TOWN OF WELLS
POPULATION	675
FIRM DATE	6/3/1986
NFIP STATUS	Participating
FIRM STATUS	All Zone A, C, and X - No Elevations Determined
LOMC(S)	26
POLICIES	10
INSURANCE IN FORCE	$1,485,500
# PAID LOSSES	0
TOTAL LOSSES PAID	$0
CAV	2/17/2015
CAC	N/A
ORDINANCE LEVEL	D
ORDINANCE EFFECTIVE DATE	6/3/1986
CRS RATING	N/A

Note: The Town of Wells did not provide input during the Discovery process. Hamilton County and neighboring town representatives shared the community's information.

TOWN OF CORINTH | SARATOGA COUNTY

SUMMARY OF MAPPING NEEDS AND HAZARDS IDENTIFIED:

- No needs identified.

HAZARD MITIGATION ACTIONS IDENTIFIED:

Planned, Completed, or Ongoing Projects:

- The 2011 Saratoga Hazard Mitigation Plan describes an action to consider participation in incentive-based programs, such as the Community Rating System

Mitigation and Risk Reduction Needs:

- No needs identified

TRAINING, OUTREACH, AND/OR PLANNING SUPPORT NEEDS IDENTIFIED:

- County officials stated that guidance on leveraging mitigation and other plans and strategies could be useful county-wide

COMMUNITY	TOWN OF CORINTH
POPULATION	6,530
FIRM DATE	8/16/1995
NFIP STATUS	Participating
FIRM STATUS	Revised
LOMC(S)	9
POLICIES	11
INSURANCE IN FORCE	$2,098,900
# PAID LOSSES	6
TOTAL LOSSES PAID	$46,436
CAV	8/14/2008
CAC	7/11/2011
ORDINANCE LEVEL	D
ORDINANCE EFFECTIVE DATE	11/20/1989
CRS RATING	N/A

Note: The Town of Corinth did not provide input during the Discovery process. Saratoga County and neighboring town representatives shared the community's information.

TOWN OF DAY | SARATOGA COUNTY

The Town of Day should also consult the Upper Hudson Watershed Discovery report to review the Recommendations for Future Risk MAP Project Scope, if available.

SUMMARY OF MAPPING NEEDS AND HAZARDS IDENTIFIED:

- No needs identified

HAZARD MITIGATION ACTIONS IDENTIFIED:

Planned, Completed, or Ongoing Projects:

- The 2011 Saratoga Hazard Mitigation Plan describes an action to create, enhance, and maintain mutual aid agreements with neighboring communities

Mitigation and Risk Reduction Needs:

- No needs identified

TRAINING, OUTREACH, AND/OR PLANNING SUPPORT NEEDS IDENTIFIED:

- County officials stated that guidance on leveraging mitigation and other plans and strategies could be useful countywide

COMMUNITY	TOWN OF DAY
POPULATION	860
FIRM DATE	8/16/1995
NFIP STATUS	Participating
FIRM STATUS	All Zone C and X - Published FIRM
LOMC(S)	0
POLICIES	1
INSURANCE IN FORCE	$350,000
# PAID LOSSES	0
TOTAL LOSSES PAID	$0
CAV	N/A
CAC	N/A
ORDINANCE LEVEL	A
ORDINANCE EFFECTIVE DATE	6/22/1984
CRS RATING	N/A

Note: The Town of Day did not provide input during the Discovery process. Saratoga County and neighboring town representatives shared the community's information.

TOWN OF EDINBURG | SARATOGA COUNTY

SUMMARY OF MAPPING NEEDS AND HAZARDS IDENTIFIED:

- High winds are generally of greater concern than flooding
- Wilbur Terrace is a road that experiences flooding and washouts from the Great Sacandaga Lake
- Homes near the South Shore Road bridge crossing at Batcheller Creek experience flooding, despite the bridge having been recently replaced

HAZARD MITIGATION ACTIONS IDENTIFIED:

Planned, Completed, or Ongoing Projects:

- The South Shore Road bridge crossing Batcheller Creek has been replaced, but there is some concern that the crossing is not high enough to accommodate high waters
- Two new culverts were placed near South Shore Road and Marlon Road last year
- A culvert for Sand Creek near the intersection of Sand Lake Road and Military Road was replaced
- The 2011 Saratoga Hazard Mitigation Plan describes an action to consider participation in incentive-based programs, such as the Community Rating System

Mitigation and Risk Reduction Needs:

- Culverts on Wilbur Terrace could be enlarged
- The South Shore Road bridge crossing at Batcheller Creek could be elevated or made larger

TRAINING, OUTREACH, AND/OR PLANNING SUPPORT NEEDS IDENTIFIED:

- County officials stated that guidance on leveraging mitigation and other plans and strategies could be useful countywide

COMMUNITY	TOWN OF EDINBURG
POPULATION	1,215
FIRM DATE	N/A
NFIP STATUS	Not Participating
FIRM STATUS	All Zone C and X - No Published FIRM
LOMC(S)	0
POLICIES	N/A
INSURANCE IN FORCE	N/A
# PAID LOSSES	N/A
TOTAL LOSSES PAID	N/A
CAV	N/A
CAC	N/A
ORDINANCE LEVEL	N/A
ORDINANCE EFFECTIVE DATE	Not Participating
CRS RATING	N/A

TOWN OF GALWAY | SARATOGA COUNTY

SUMMARY OF MAPPING NEEDS AND HAZARDS IDENTIFIED:

- No needs identified

HAZARD MITIGATION ACTIONS IDENTIFIED:

Planned, Completed, or Ongoing Projects:

- The 2011 Saratoga Hazard Mitigation Plan describes action to increase the culvert size to decrease local flooding on County Road 14 (Crooked Street) over the Lake Butterfield Outlet

Mitigation and Risk Reduction Needs:

- No needs identified

TRAINING, OUTREACH, AND/OR PLANNING SUPPORT NEEDS IDENTIFIED:

- County officials stated that guidance on leveraging mitigation and other plans and strategies could be useful countywide

COMMUNITY	TOWN OF GALWAY
POPULATION	3,545
FIRM DATE	8/16/1995
NFIP STATUS	Participating
FIRM STATUS	Revised
LOMC(S)	2
POLICIES	6
INSURANCE IN FORCE	$1,013,000
# PAID LOSSES	0
TOTAL LOSSES PAID	$0
CAV	N/A
CAC	1/3/2017
ORDINANCE LEVEL	D
ORDINANCE EFFECTIVE DATE	8/21/1995
CRS RATING	N/A

Note: The Town of Galway did not provide input during the Discovery process. Saratoga County and neighboring town representatives shared the community's information.

TOWN OF GREENFIELD | SARATOGA COUNTY

SUMMARY OF MAPPING NEEDS AND HAZARDS IDENTIFIED:

- In addition to flooding, the top hazards of concern are high winds, thunderstorms, snow, ice, falling trees, power outages, and beaver dams
- Flooding occurs on South Branch Kayaderosseras Creek and Porter Corners Road
- Heavy rains can overload a culvert on Lake Desolation Road and cause flooding in camping and cabin areas

HAZARD MITIGATION ACTIONS IDENTIFIED:

Planned, Completed, or Ongoing Projects:

- The Master Plan allowed for careful execution of development and growth away from risk-prone areas
- The 2011 Saratoga Hazard Mitigation Plan describes an action to create a mitigation support fund. This provides matching funds on an ongoing basis for municipality and residential mitigation projects, which will fund cost-sharing portions of projects and be replenished during the annual budget cycle

Mitigation and Risk Reduction Needs:

- A bridge on Porter Road crossing South Branch Kayaderosseras Creek needs replacement

TRAINING, OUTREACH, AND/OR PLANNING SUPPORT NEEDS IDENTIFIED:

- County officials stated that guidance on leveraging HMPs and other plans and strategies could be useful countywide

COMMUNITY	TOWN OF GREENFIELD
POPULATION	7,775
FIRM DATE	8/16/1995
NFIP STATUS	Participating
FIRM STATUS	Revised
LOMC(S)	11
POLICIES	20
INSURANCE IN FORCE	$4,058,000
# PAID LOSSES	1
TOTAL LOSSES PAID	$23,804
CAV	9/22/2009
CAC	N/A
ORDINANCE LEVEL	D
ORDINANCE EFFECTIVE DATE	5/11/1995
CRS RATING	N/A

TOWN OF HADLEY | SARATOGA COUNTY

The Town of Hadley should also consult the Upper Hudson Watershed Discovery report to review the Recommendations for Future Risk MAP Project Scope, if available.

SUMMARY OF MAPPING NEEDS AND HAZARDS IDENTIFIED:

- An updated approximate study was requested along the Hudson River near its confluence with Wolf Creek, where the effective Special Flood Hazard Area (SFHA) in this area is too large, according to residents (area is on the boundaries with the Town of Lake Luzerne)
- The Rockwell Street bridge crossing the Hudson River at the border of Lake Luzerne and Hadley experiences flooding
- The town has hydropower dams on the Sacandaga River (Stewarts Bridge Dam on County Road 7 near Antone Mountain Road and Conklingville Dam near the confluence with Bell Brook and off of County Road 8) but no levees or smaller dams; the town did not express high concerns about flood risk in relation to such structures
- Eddy Road and Tower Road experience flooding from Wolf Creek
- Snow is a hazard of significant concern

HAZARD MITIGATION ACTIONS IDENTIFIED:

Planned, Completed, or Ongoing Projects:

- Culvert replacements and repair work are ongoing
- A flash flood committee was formed
- The 2011 Saratoga Hazard Mitigation Plan describes action to enhance the county's resilience to severe storms (including winter storms) by joining the National Weather Service's "Storm Ready" program

Mitigation and Risk Reduction Needs:

- No needs identified

TRAINING, OUTREACH, AND/OR PLANNING SUPPORT NEEDS IDENTIFIED:

- County officials stated that guidance on leveraging Hazard Mitigation Plans and other plans and strategies could be useful countywide

COMMUNITY	TOWN OF HADLEY
POPULATION	2,050
FIRM DATE	8/16/1995
NFIP STATUS	Participating
FIRM STATUS	Revised
LOMC(S)	3
POLICIES	7
INSURANCE IN FORCE	$1,957,500
# PAID LOSSES	2
TOTAL LOSSES PAID	$42,035
CAV	8/2/2016
CAC	N/A
ORDINANCE LEVEL	D
ORDINANCE EFFECTIVE DATE	4/6/1995
CRS RATING	N/A

TOWN OF PROVIDENCE | SARATOGA COUNTY

SUMMARY OF MAPPING NEEDS AND HAZARDS IDENTIFIED:

- Spring flooding, ice jams, and washouts occur where Hans Creek Road and Sleezer Road intersect Hans Creek
- Windstorms resulting in debris and fallen trees are also a hazard
- Lake Nancy was identified by community representatives as an environmentally sensitive area, where the community has prioritized protection and maintenance
- Flooding is not thought of as one of the highest hazards, due to high elevations in the town

HAZARD MITIGATION ACTIONS IDENTIFIED:

Planned, Completed, or Ongoing Projects:

- A bridge over Black Creek, which feeds into Lake Nancy at Black Brook Road, was damaged in 2011 and replaced with an aluminum box culvert
- The 2011 Saratoga Hazard Mitigation Plan describes an action to create a mitigation support fund to provide matching funds on an ongoing basis for municipality and residential mitigation projects, which will fund cost-sharing portions of projects and be replenished during the annual budget cycle

Mitigation and Risk Reduction Needs:

- Update the town's Master Plan
- Repair earthen dams

TRAINING, OUTREACH, AND/OR PLANNING SUPPORT NEEDS IDENTIFIED:

- The county would like communities to receive guidance on leveraging resources and integrating Hazard Mitigation Plans and other local plans into their work

COMMUNITY	TOWN OF PROVIDENCE
POPULATION	1,995
FIRM DATE	8/16/1995
NFIP STATUS	Participating
FIRM STATUS	Original
LOMC(S)	1
POLICIES	1
INSURANCE IN FORCE	$140,000
# PAID LOSSES	0
TOTAL LOSSES PAID	$0
CAV	N/A
CAC	N/A
ORDINANCE LEVEL	D
ORDINANCE EFFECTIVE DATE	8/17/1995
CRS RATING	N/A

TOWN OF JOHNSBURG | WARREN COUNTY

The Town of Johnsburg should also consult the Upper Hudson Watershed Discovery report to review the Recommendations for Future Risk MAP Project Scope, if available.

SUMMARY OF MAPPING NEEDS AND HAZARDS IDENTIFIED:

- Need an updated approximate study along the entire length of the Hudson River from the intersection of 13th Lake Road and Hudson River in the Town of Johnsburg to the intersection of Warren Street and Hudson River in the City of Glens Falls
- The community requests a new approximate flood study along the Balm of Gilead Brook from the confluence with the Hudson River to the upstream crossing at Barton Mines Road
- Common sources for seasonal ice jams and associated flooding include the Hudson River, specifically at the confluences with Mill Creek and 13th Brook
- Recent hurricanes have had large flood impacts
- Warren County noted that beaver dam-associated flooding is a concern throughout the area, and specifically indicated flooding along Austin Pond Road, which is adjacent to Austin Pond and Johnson Brook
- County officials noted that ice jams affect the railroad, the rail station (near Ski Bowl Road and North Creek), and the general area of the Hamlet of North Creek, and occur along the Hudson River at the confluences with Collins Brook and Johnson Brook
- The county attributed significant annual damage throughout the town to an abundance of dirt roads, antiquated infrastructure near streams, and topography favorable to extreme runoff
- Warren County noted flood concerns along Roaring Brook and Baker Brook, which are downstream of an earthen irrigation dam owned by the Gore Mountain Ski Center
- The county reported that an existing high-hazard dam at Garnet Lake causes flooding and is in need of a significant amount of repair
- Concern with flooding on North Creek if Windover Lake Dam ever breached

COMMUNITY	TOWN OF JOHNSBURG
POPULATION	2,395
FIRM DATE	5/1/1985
NFIP STATUS	Participating
FIRM STATUS	All Zone A, C, and X - No Elevations Determined
LOMC(S)	11
POLICIES	5
INSURANCE IN FORCE	$1,857,000
# PAID LOSSES	3
TOTAL LOSSES PAID	$56,869
CAV	4/28/2015
CAC	N/A
ORDINANCE LEVEL	D
ORDINANCE EFFECTIVE DATE	4/14/1987
CRS RATING	N/A

HAZARD MITIGATION ACTIONS IDENTIFIED:

Planned, Completed, or Ongoing Projects:

- There are generally ongoing bridge and culvert replacements and repairs
- The county is assessing critical facilities in the 1-percent-annual-chance and 0.2-percent-annual-chance floodplains, countywide
- The 2016 Warren County Hazard Mitigation Plan describes an action to notify and provide needed support to the facility managers and operators of critical facilities in the floodplain, as well as evaluating the facility's flood vulnerability and identifying feasible mitigation options

Mitigation and Risk Reduction Needs:

- Replace the bridge at Harrington Road and Claude Straight Road
- Replace and repair culverts at locations along Hudson Street, Barton Mines Road, and Crane Mountain Road
- Restore open space and streams throughout the town

TRAINING, OUTREACH, AND/OR PLANNING SUPPORT NEEDS IDENTIFIED:

- No needs identified

TOWN OF STONY CREEK | WARREN COUNTY

The Town of Stony Creek should also consult the Upper Hudson Watershed Discovery report to review the Recommendations for Future Risk MAP Project Scope, if available.

SUMMARY OF MAPPING NEEDS AND HAZARDS IDENTIFIED:

- Tucker Road is affected by ice jams on Twin Brooks and Kidder Brook, and Roaring Branch Road is affected by ice jams on Roaring Branch
- Van Auken Road has been washed out where it crosses Van Auken Brook
- States Road East was taken out by erosion where it crosses Stony Creek, but it was rebuilt safer with an enlarged culvert
- A vulnerable stone wall bridge on Roaring Branch Road, where it crosses Roaring Branch, would strand a populated area, if the bridge jammed
- Flooding occurs on Stony Creek, Roaring Branch, the Hudson River, and other small tributaries
- A restudy of Halfway Brook along Harrisburg Road was requested, as the removal of a dam near Harrisburg Lake may have affected the brook. The removal of this dam is considered to negatively affect lakeside property owners
- A study was requested for the hamlet area, where Roaring Branch meets Stony Creek, as it has a higher amount of residential properties
- Town and county highways, the library, residences, and a resort business that is the largest employer in town are considered the highest priorities to protect
- A restudy was requested for States Road East, where it crosses Stony Creek, to determine whether culverts are sufficient in storm events
- Additional hazards of concern include wildfire, high winds, snow, and earthquakes
- Concern with beaver dams and associated flooding along Wolf Pond Road where it crosses Stony Creek
- Concern with flooding at confluence with Van Auken Brook associated with ice jams
- Concern with flooding along Roaring Branch upstream of Stony Creek associated with ice jams, Roaring Branch Road bridge closure would cut off residents

COMMUNITY	TOWN OF STONY CREEK
POPULATION	680
FIRM DATE	8/24/1984
NFIP STATUS	Participating
FIRM STATUS	All Zone A, C, and X - No Elevations Determined
LOMC(S)	3
POLICIES	0
INSURANCE IN FORCE	$0
# PAID LOSSES	1
TOTAL LOSSES PAID	$2,355
CAV	N/A
CAC	6/16/1992
ORDINANCE LEVEL	D
ORDINANCE EFFECTIVE DATE	4/8/1996
CRS RATING	N/A

HAZARD MITIGATION ACTIONS IDENTIFIED:

Planned, Completed, or Ongoing Projects:

- Culvert replacements and repair work are ongoing through the town and county highway departments
- The county is assessing critical facilities in the 1-percent-annual-chance and 0.2-percent-annual-chance floodplains, countywide
- The 2016 Warren County Hazard Mitigation Plan describes upgrades to undersized culverts on Hildebrandt Road, Fodder Road, Van Auken Road, States Road East, Louis Waite Road, and Roaring Branch Road

Mitigation and Risk Reduction Needs:

- In the next one to three years, enlarge the culverts on Van Auken Road and conduct a stormwater study
- In the next three to seven years, two brook crossings by Van Auken Road could be eliminated or moved to avoid erosion from flooding and the stone wall and bridge on Roaring Branch Road can be replaced and repaired
- In the next three to seven years, relocate the library to less hazard-prone real estate so it can act as a community center
- In the next seven to 15 years, establish a sewer and water treatment system based on results of a study

TRAINING, OUTREACH, AND/OR PLANNING SUPPORT NEEDS IDENTIFIED:

- Federal funding and technical assistance for climate adaptation was discussed

TOWN OF THURMAN | WARREN COUNTY

The Town of Thurman should also consult the Upper Hudson Watershed Discovery report to review the Recommendations for Future Risk MAP Project Scope, if available.

SUMMARY OF MAPPING NEEDS AND HAZARDS IDENTIFIED:

- Flooding from Patterson Brook affects Valley Road and Dippikill Road, with the most frequent flooding from the Hudson River on River Road and Route 418
- The Hudson River can flood Golf Course Extension Road in Warrensburg across from Mosher Lane and Elm Drive
- A dam breach affected every crossing over the Hudson River during Memorial Day weekend 2011. All culverts washed out across seven to 10 dams and 10 acres
- In the area where Number 26 Brook and Glen Creek meet, a culvert near Dippikill Road goes out once every three years due to spring runoff
- On Ski Hi Road and Putnam Cross Road, a culvert was taken out due to spring runoff and beaver dam failure on Glen Creek
- A section of River Road, along the Hudson River and adjacent to its convergence with Millington Brook, must frequently be closed due to ice jams
- Repeated and extensive ice jams and associated flooding at the Route 418 crossing over the Hudson River
- Cameron Road experiences flooding from the Hudson River near the confluence with Number Nine Brook
- Bridge crossings at Stoney Creek Road and Cameron Road, over Number Nine Brook, experience backwater flooding from the Hudson River. The area on Number Nine Brook near the confluence with the Hudson River was requested for restudy

HAZARD MITIGATION ACTIONS IDENTIFIED:

Planned, Completed, or Ongoing Projects:

- Wolf Pond had twin culverts replaced
- Twin culverts were replaced on Dippikill Road
- The town bought a new generator to run water pumps for the new alternative water system. The town can now act as a shelter in case of emergencies
- Water pumps for an alternative water system were installed in case of emergency

COMMUNITY	TOWN OF THURMAN
POPULATION	1,200
FIRM DATE	8/19/1986
NFIP STATUS	Participating
FIRM STATUS	Original
LOMC(S)	0
POLICIES	4
INSURANCE IN FORCE	$910,000
# PAID LOSSES	4
TOTAL LOSSES PAID	$85,530
CAV	6/23/1993
CAC	4/27/2017
ORDINANCE LEVEL	D
ORDINANCE EFFECTIVE DATE	8/19/1986
CRS RATING	N/A

- Warren County is assessing critical facilities in the 1-percent-annual-chance and 0.2-percent-annual-chance floodplains, countywide
- The 2016 Warren County Hazard Mitigation Plan indicates that the town will address drainage and flooding issues by installing bottomless culverts or other drainage improvements at locations including Wolf Pond Road, Dippikill Road near Parker Cross Road (Patterson Brook), River Road at Huber Road, and Athol Road near Cameron Road

Mitigation and Risk Reduction Needs:

- Complete a model to project two-foot Base Flood Elevation for GIS and Reverse 911 system use
- Create a cost-share program to improve drainage on Glen Athol Road
- General culvert replacement

TRAINING, OUTREACH, AND/OR PLANNING SUPPORT NEEDS IDENTIFIED:

- Town officials would like to see additional opportunities for inter-agency cooperation between the town and the county

RECOMMENDATIONS FOR FUTURE RISK MAP PROJECT SCOPE

The priorities for new or revised floodplain mapping within the Sacandaga Watershed are a result of this Discovery project, through which FEMA learned what flood risk data and resources are needed to inform local decisions. Pre-Discovery community engagement meetings were held for the Sacandaga Watershed via webinar from June 11 to 19, 2018. The purpose of the pre-Discovery webinars was to discuss the Discovery process and collect information on community mapping needs, as well as determine if any data that might exist could be incorporated into a possible Risk MAP project. Counties, communities, and other interested stakeholders throughout the watershed area were invited to the webinars.

Following the pre-Discovery engagement meetings, the project team held two Discovery meetings for the stakeholders within the Sacandaga Watershed on July 26 and 27, 2018. During these meetings, the project team followed up on the information collected during the pre-Discovery webinars and provided an opportunity for the communities and other stakeholders to identify mapping needs. The project team used the information collected throughout the Discovery process, as well as information collected from previous stakeholder engagement meetings, to develop this proposed scope. All study requests will be entered into FEMA's Coordinated Needs Management Strategy (CNMS) database and considered for future floodplain mapping projects.

The Sacandaga Watershed consists of four counties and 30 communities. Participation in the Discovery process included three counties and 20 communities attending the pre-Discovery webinars, completing the questionnaire, attending the in-person Discovery meetings, or responding to follow-up correspondence.

In the Sacandaga Watershed, Fulton, Hamilton, Saratoga, and Warren Counties have not been modernized to a digital countywide product. New detailed and new and updated approximate studies in all areas, along with digital countywide maps, would assist communities in enforcing floodplain regulations and managing development.

The Sacandaga Watershed study requests listed in the tables below were prioritized based on community interest expressed during the Discovery process, the presence of existing data and flood maps, the proximity to recent or proposed development, and the status of the water body in the CNMS database.

DETAILED STUDY REQUESTS

High Priority Detailed Study Requests

RANKING	COMMUNITY REQUESTING STUDY (and community name, if different)	DETAILED LOCATION DESCRIPTION	MILEAGE OF WATER BODY STUDY REQUEST (within the area of concern)	DESCRIPTION OF REQUEST AND RISK TO ADDRESS (What does the community want? Is there new development nearby?)
1	Town/Village of Mayfield, Town of Northampton, Town of Northville (Fulton County) Town of Edinburg (Saratoga County) Town of Benson (Hamilton County)	Great Sacandaga Lake	36.1	A new detailed flood study is requested generally on and around the Great Sacandaga Lake, with base flood elevations included. The Town of Mayfield shared that elevation data may be necessary to improve accuracy of the floodplain in the areas near groups of successful LOMAs at the southern end of the Great Sacandaga Lake, as it joins with Kennyetto Creek and Shafers Brook, more specifically in the areas of Woods Hollow Road, Pekara Drive, Griffis Road, and North Second Ave in proximity to the Great Sacandaga Lake. The Town of Mayfield also shared that Proper Road, at the area of intersection with Sunrise Drive between Mayfield Creek, has experienced flooding from the Great Sacandaga Lake, leading to road closures. A large culvert on Gray Road is also flooded by a tributary to Mayfield Creek, which flows into the Great Sacandaga Lake. The Town of Edinburg described homes near the South Shore Road bridge crossing at Batcheller Creek that experience flooding, despite the bridge having been recently replaced. In addition, Wilbur Terrace is a roadway that experiences flooding and washouts from the Great Sacandaga Lake. The Town of Benson shared that the “old barn”, on Town Barn Road, is mapped into a potential floodplain, but is not known for being flooded by the Sacandaga River, despite having lower elevation than other parts of the town. The Town of Northampton noted that multiple LOMAs and LOMRs have been received, which signifies that these areas may need a restudy with elevation data. In addition, the town described structures along the southwestern bend of Elmer Brown Road that are at high elevations and are not known to experience flooding. The Village of Northville shared that the west side of the village along the Sacandaga River experiences flooding in rain events due to poor drainage.

High Priority Detailed Study Requests

RANKING	COMMUNITY REQUESTING STUDY (and community name, if different)	DETAILED LOCATION DESCRIPTION	MILEAGE OF WATER BODY STUDY REQUEST (within the area of concern)	DESCRIPTION OF REQUEST AND RISK TO ADDRESS (What does the community want? Is there new development nearby?)
2	**City of Gloversville (Fulton County)**	Cayadutta Creek – starting 3,960 ft (0.7 mi) U/S of West Main Street to just D/S of Route 309	6.9	In 2017, snow melt and heavy rainfall caused flooding at the Colonial Tanning site from Cayadutta Creek and a tributary to Cayadutta Creek north of West 8th Avenue. There is a 30-minute interval between water accumulation on the mountains and its arrival downstream in the city. Concrete culverts near South Main Street and Burr Street, as well as along North Arlington Avenue between North Street and Grand Street, experience regular flooding from Cayadutta Creek. Cayadutta Creek has flooded a low bridge at the South Boulevard and Harrison Street intersection. Fulton County shared that Cayadutta Creek floods near the transit area, near intersection of South Main Street and West Pine Street, where the Department of Public Works plans to redevelop. Erosion occurs near the City Hall, Police Department, and Fire Department buildings where Cayadutta Creek flows between Lincoln Street and Rose Street.

No medium priority detailed study requests were identified.

No lower priority detailed study requests were identified.

Total Detailed Lake Study Request Mileage: 36.1 miles*

Total Detailed Stream Study Request Mileage: 6.9 miles*

**Based on length of the water body*

APPROXIMATE STUDY REQUESTS

New Approximate Study Requests

Stakeholders provided a list of stream segments where they would like to see new approximate studies.

RANKING	COMMUNITY REQUESTING STUDY (and community name, if different)	DETAILED LOCATION DESCRIPTION	MILEAGE OF WATER BODY STUDY REQUEST (within the area of concern)	DESCRIPTION OF REQUEST AND RISK TO ADDRESS (What does the community want? Is there new development nearby?)
1	Village of Speculator (Hamilton County)	Sacandaga Lake	3.5	In a low elevation shoreline of Sacandaga Lake, near Moffit Beach Road and the Moffit Beach State Campground, a trailer park is often evacuated due to flooding from the Sacandaga Lake and/or Echo Lake. This area should be prioritized, as isolated residents must be evacuated when it floods.
2	Village of Mayfield (Fulton County)	Mayfield Lake	2.1	Sewer and water facilities on the banks of Mayfield Lake could be at risk for flooding and are requested for a re-study.
3	Town of Wells (Hamilton County)	Elbow Creek – starting at U/S extent to confluence of Sacandaga River	5.9	Elbow Creek, above Lake Algonquin, needs a new approximate study in response to concerns about flooding during heavy rain storms.
4	Town of Providence (Saratoga County)	Hans Creek – Starting at outlet of Cooks Reservoir D/S to 2,120 ft (0.4 mi) U/S of Fayville Road	3.0	Spring flooding, ice jams, and washouts occur where Hans Creek Road and Sleezer Road intersect Hans Creek.
5	Village of Northville (Fulton County)	Hunters Creek – starting 900 ft U/S of County Road 143 D/S to confluence with Sacandaga River / Great Sacandaga Lake	1.8	The community raised concerns about Hunters Creek as it runs slowly through the village until emptying into the Sacandaga River; with an increased flow the creek could become backed up and cause flooding.

Total Approximate Stream Study Requests: 16.3 miles

Updated Approximate Study Requests

Certain stakeholders requested updated approximate studies for all streams within their corporate limits. Typically, all existing approximate studies will be updated in areas receiving new digital mapping. However, since these segments were specifically requested, they are being included for reference.

RANKING	COMMUNITY REQUESTING STUDY (and community name, if different)	DETAILED LOCATION DESCRIPTION	MILEAGE OF WATER BODY STUDY REQUEST (within the area of concern)	DESCRIPTION OF REQUEST AND RISK TO ADDRESS (What does the community want? Is there new development nearby?)
6	**Town of Hope (Hamilton County)**	Sacandaga River – starting 9,650 ft (1.8 mi) D/S of confluence of West Branch Sacandaga River to 550 ft U/S of confluence of East Stony Creek	9.2	A need was identified for an updated approximate flood study along Sacandaga River parallel to Route 30 through the Town of Hope. The community is also concerned with ice jams and associated flooding in this area.
7	**Town of Lake Pleasant/Village of Speculator (Hamilton County)**	Kunjamuk Bay/Lake Pleasant – starting from SR 8 bridge to confluence with Kunjamuk & Sacandaga Rivers	10.1	A need was identified for a new Updated Approximate flood study to accurately map a flood hazard area around Lake Pleasant. Also, a campground and trailer park on Moffitt Beach Road are often evacuated due to flooding.
8	**Town of Mayfield (Fulton County)**	Sacandaga River – starting 1.5 mi U/S of SR 30 to 0.3 mi U/S of S 2nd Avenue	4.0	Development may be occurring in an area of past flooding near the convergence of County Road 155, State Route 30 and State Route 29.
9	**Town of Stony Creek (Warren County)**	Halfway Brook – starting at U/S extents to confluence of South Brook	4.9	A need was identified for an Updated Approximate study along Halfway Brook along Harrisburg Road above Harrisburg Lake to account for dam removal.
10	**Town of Hope (Hamilton County)**	East Stony Creek – starting 2,227 ft (0.4 mi) U/S of confluence with Tenant Creek D/S to confluence with Sacandaga River / Great Sacandaga Lake	9.1	Creek Rd to Tannery Rd experiences ice back-ups from East Stony Creek or Bear Creek, which re-routes water over roadway. Neighboring communities noted that the river and stream valleys in the lower part of the Town of Hope are vulnerable to ice jams and spring thaw-associated flooding.
11	**Town of Bleecker (Fulton County)**	West Stony Creek – starting 2,010 ft (0.4 mi) U/S of confluence with Chase Lake Outlet D/S to Peck Lake inlet	8.8	Ice jams and associated flooding occur in the area surrounding West Stony Creek along Barlow Road near its intersection with Bowlers Hill Road and County Road 145.

Updated Approximate Study Requests

RANKING	COMMUNITY REQUESTING STUDY (and community name, if different)	DETAILED LOCATION DESCRIPTION	MILEAGE OF WATER BODY STUDY REQUEST (within the area of concern)	DESCRIPTION OF REQUEST AND RISK TO ADDRESS (What does the community want? Is there new development nearby?)
12	Village of Speculator (Hamilton County)	Kunjamuk River – starting at 4,080 ft (0.7 mi) D/S of Fly Creek Rd to confluence of Kunjamuk Bay & Sacandaga River	4.9	New culverts were recently constructed along Elm Lake Road north of Elm Lake, but the road still washes out sometimes in this area.
13	Town of Northampton (Fulton County)	Hunters Creek – starting 1,500 ft (0.3 mi) D/S of King Rd to 900 ft U/S of County Road 143	2.0	A bridge on CR 143 that crosses Hunters Creek experiences frequent flooding.
14	Town of Greenfield (Saratoga County)	Kennyetto Creek/Lake Desolation – starting at upstream end of lake to 0.4 mi D/S of Lake Desolation Road	1.0	Heavy rains can overload a culvert on Lake Desolation Road and cause flooding in camping and cabin areas.
15	Town of Bleecker (Fulton County)	Pinnacle Creek – starting at U/S extent to confluence of West Stony Creek	6.5	Multiple bridges throughout the community are vulnerable to storms; these include one in the Adirondack Park at Barlow Road and two on Pinnacle Road where it crosses Pinnacle Creek and near the Holmes Lake Outlet.
16	Town of Broadalbin (Fulton County)	Kenyetto Creek – starting at east side of town boundary extents to the west side of Town/Village of Broadalbin boundary extents	7.5	Fulton County noted that Kenyetto Creek is a source of flooding within the Town of Broadalbin.
17	Town of Bleecker, Town of Johnstown (Fulton County)	Peck Creek/Peck Lake	5.8	A concentration of LOMC requests near the southeast and northwest shore of Peck Lake and elevated areas indicate floodplain maps may need to be updated around Peck Lake.

Updated Approximate Study Requests

RANKING	COMMUNITY REQUESTING STUDY (and community name, if different)	DETAILED LOCATION DESCRIPTION	MILEAGE OF WATER BODY STUDY REQUEST (within the area of concern)	DESCRIPTION OF REQUEST AND RISK TO ADDRESS (What does the community want? Is there new development nearby?)
18	Town of Caroga (Fulton County)	Sprite Creek (Canada Lake)	3.5	Houses with lower elevation along the east shoreline of Canada Lake, starting at intersection of SR 10/SR 29A and Kasson Drive down to County Road 111, are impacted by flooding from wind-driven wave runup.
19	Town of Caroga (Fulton County)	Caroga Creek (West Caroga Lake & East Caroga Lake)	2.9	Spring runoff elevates lake levels along the south shore of Caroga Lakes causing property flooding and can also have an impact on Caroga Creek.
20	Town of Bleecker (Fulton County)	Peck Creek – starting 505 ft U/S of Hohler Road D/S to inlet of Peck Lake	2.4	In 2011, the North Shore Peck Lake Road bridge washed out where Peck Creek flows into Peck Lake from the northwest, stranding residents.
21	Town of Stratford (Fulton County)	East Canada Creek – starting at confluence with Trammel Creek to SR 29A bridge	0.6	State bridge 29A and the fire department experience ice jam issues.
22	Town of Stratford (Fulton County)	East Canada Creek/Ayers Creek – starting 1,170 ft (0.2 mi) U/S of Piseco Rd D/S to confluence with East Canada Creek	0.8	The main residential area (especially along Sorts Landing Road), the post office, town barn, and town offices are of highest priority to the town and at the greatest risk for flooding from East Canada Creek and Ayers Creek, the latter of which may be due to poor drainage.

Total Updated Approximate Stream Study Requests: 84 miles

TOTAL WATERSHED STUDY REQUESTS SUMMARY

Total Detailed Lake Study Request Mileage: 36.1 miles

Total Detailed Stream Study Request Mileage: 6.9 miles

Total New Approximate Stream Study Requests: 16.3 miles

Total Updated Approximate Stream Study Requests: 84 miles

TOTAL MILEAGE OF ALL REQUESTS: 143.3 miles

Note: Hamilton County shared that a culvert at Wild Road on Piseco Lake has flooding issues, but this issue was not addressed in the Recommended Scope of Work because the flooding is caused by beaver dams. In addition, Warren County noted flood concerns on Roaring Brook and Baker Brook, which are downstream of an earthen irrigation dam owned by the Gore Mountain Ski Center, but this issue was not addressed in the Recommended Scope of Work because it the dam is already a known hazard in the CNMS database.

STUDY REQUESTS OUTSIDE PROJECT AREA

Finally, a number of communities provided study requests for stream segments located outside of the project area. These segments will not be prioritized as part of this effort; however, they will be added to FEMA's CNMS database for inclusion in a future project.

COMMUNITY REQUESTING STUDY (and community name, if different)	DETAILED LOCATION DESCRIPTION	MILEAGE OF WATER BODY STUDY REQUEST (within the area of concern)	DESCRIPTION OF REQUEST AND RISK TO ADDRESS (What does the community want? Is there new development nearby?)
Town of Greenfield (Saratoga County)	South Branch Kayaderosseras Creek — starting at N Greenfield Rd to Bockes Rd	0.8	Flooding occurs on South Branch Kayaderosseras Creek and Porter Corners Road.

RESOURCES

The following information is intended to support resource sharing between local communities and State and Federal agencies. As one of the outcomes of Risk MAP, communities will have updated flood risk information that can inform other efforts, such as reducing the impact of flooding to structures, lowering flood insurance premiums, planning to mitigate risk and reduce losses, understanding flood hazard data, trainings to support staff, seeking grants for hazard mitigation projects, and learning more about the information used in this report. These resources were gathered in response to requests from communities during the Discovery process.

REDUCING YOUR COMMUNITY'S FLOOD INSURANCE PREMIUMS

The National Flood Insurance Program (NFIP) aims to reduce the impact of flooding on private and public structures by providing affordable insurance to property owners and by encouraging communities to adopt and enforce floodplain management regulations. These efforts help mitigate the effects of flooding on new and improved structures. Overall, the program reduces the socioeconomic impact of disasters by promoting the purchase and retention of general risk insurance, but also of flood insurance, specifically. All of the communities within the Sacandaga Watershed participate in the NFIP. The information below can help address any questions community staff and residents may have about flood insurance.

FEMA's FloodSmart website contains publicly available resources that can be used to help communities be better prepared against their flood risk and includes information on:

- How to buy or renew flood insurance;
- Why you need flood insurance;
- How to understand your risk;
- How to reduce your cost; and
- How to file a claim.

Visit FEMA's FloodSmart website to learn more about the NFIP at www.FloodSmart.gov.

LOWERING YOUR COMMUNITY'S FLOOD INSURANCE PREMIUMS

The NFIP's Community Rating System (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 the community actions meeting the three goals of the CRS:

1. Reduce flood damage to insurable property;
2. Strengthen and support the insurance aspects of the NFIP; and
3. Encourage a comprehensive approach to floodplain management.

Through the CRS program, participating communities can find success:

- Using stronger regulatory standards;
- Obtaining a heightened awareness and outreach towards flood risk;
- Gaining credibility, recognition, and political support;
- Protecting the environment, increasing quality of life, and supporting resilience;
- Avoiding flood damage and reducing vulnerability;
- Improving capability and organizing internal programs and operations;
- Broadening flood insurance coverage and achieving more accurate ratings; and
- Forging partnerships with State, Federal, or other local agencies, businesses, non-profits, and elected officials.

While no communities within the Sacandaga Watershed currently participate in the CRS program, as of May 1, 2018, there were 35 communities in New York State that are enrolled in the CRS and are eligible for discounts on flood insurance premiums (FEMA 2018, NFIP Flood Insurance Manual).

For more information about ways to reduce insurance premiums and increase your community's resilience through the CRS program, visit https://www.fema.gov/national-flood-insurance-program-community-rating-system.

For additional questions, contact Marianne Luhrs of FEMA Region II at Marianne.Luhrs@fema.dhs.gov.

MITIGATION PLANNING TO REDUCE LOSS OF LIFE AND PROPERTY

Disasters can cause loss of life; damage buildings and infrastructure; and have consequences for a community's economic, social, and environmental well-being. Hazard mitigation is the effort to reduce loss of life and property and is most effective when implemented under a comprehensive, long-term plan. Through the Hazard Mitigation Plan process, communities identify risks and vulnerabilities associated with natural disasters, and develop long-term strategies for protecting people and property from future hazard events. Benefits of mitigation planning include:

- Protecting public safety and preventing loss of life and injury;
- Reducing harm to existing and future development;
- Maintaining community continuity and strengthening the social connections that are essential for recovery;
- Preventing damage to a community's unique economic, cultural, and environmental assets;

- Minimizing operational downtime and accelerating recovery of government and business after disasters;
- Reducing the costs of disaster response and recovery and the exposure of risk for first responders; and
- Helping accomplish other community objectives, such as capital improvements, infrastructure protection, open space preservation, and economic resiliency.

The *Summary of Community Risks Identified* section of this report describes mitigation actions identified by the communities during the Discovery effort. This information can be integrated into local hazard mitigation planning efforts and included, if not already present, in the Hazard Mitigation Plan.

FEMA provides more information about hazard mitigation planning, mitigation planning requirements, Hazard Mitigation Plan status, planning process and mitigation strategy development resources, and contact information to obtain additional guidance and trainings online at https://www.fema.gov/media-library/assets/documents/30627.

The New York State Division of Homeland Security and Emergency Services leads hazard mitigation planning efforts in New York State and offers state-wide resources. For more information, visit http://www.dhses.ny.gov/recovery/mitigation/planning.cfm.

In addition, the draft 2019 New York State Hazard Mitigation Plan provides extensive information on hazards and mitigation planning efforts. Access the draft plan online at http://mitigateny.availabs.org/.

UNDERSTANDING THE VALIDITY OF FLOOD HAZARD DATA

To maintain the validity of flood hazard data over time, FEMA assesses its inventory of FIRMs and flood risk studies and determines whether conditions on the ground are still adequately represented on the FIRM panels for that area. When the information on the FIRM does not adequately represent actual conditions, it is considered a "flood hazard mapping need" and a new or updated FEMA flood hazard study for the area may be warranted.

FEMA uses GIS technology and develops policies, requirements, and procedures to coordinate the management of flood hazard mapping needs in the Coordinated Needs Management Strategy (CNMS). Through the CNMS, FEMA identifies and tracks the lifecycle of community mapping needs.

The CNMS is beneficial for community officials to understand the validity of data in order to make informed decisions on community planning and flood mitigation. For a detailed summary of how the CNMS was utilized within the Sacandaga Watershed, please reference the *Recommendations for Future Risk MAP Scope* section.

Access the CNMS Data Viewer via https://msc.fema.gov/cnms/.

For more information, visit https://www.fema.gov/coordinated-needs-management-strategy.

TRAININGS TO SUPPORT LOCAL MITIGATION EFFORTS

Various Federal and State agencies provide trainings for flood mitigation efforts and hazard mitigation planning. Throughout this Discovery effort, many communities expressed interest in trainings for staff. The resources below can support those needs.

TRAINING SOURCE	PURPOSE
FEMA	**Emergency Management Institute (EMI)** The EMI develops and delivers emergency management training to enhance the capabilities of State, local, and Tribal government officials to minimize the impact of disasters and emergencies on the public. Particular emphasis is placed on governing doctrine such as the National Response Framework, National Incident Management System, and the National Preparedness Guidelines. For more information, visit https://training.fema.gov/. *Highlighted training opportunities:* • Mitigation eGrants for the Subgrant Applicant (IS0030.b) • Mitigation Planning for Local and Tribal Communities (IS0318) • Mitigation Basics for Mitigation Staff (training per hazard type: Tornado-IS0319, Wildfire-IS0320, Hurricane-IS0321, Flood-IS0322, Earthquake-IS0323)
ASFPM	**Association of State Floodplain Managers (ASFPM) Trainings** The ASFPM provides trainings, both in-person and online, to support local floodplain management and floodplain managers. For more information, visit http://www.floods.org/index.asp?menuID=237&firstlevelmenuID=182. *Related resource:* • FEMA has developed the National Flood Insurance Program Floodplain Management Requirements: A Study Guide and Desk Reference for Local Officials (FEMA 480) to support floodplain managers obtaining their Certified Floodplain Manager (CFM) designation and to assist when implementing local floodplain management ordinances. For more information, visit https://www.fema.gov/media-library/assets/documents/902.
NYSDEC	The New York State Department of Environmental Conservation can provide community staff trainings related to the NFIP and floodplain regulations. For more information, contact Floodplain Management staff at floodplain@dec.ny.gov.

SEEKING GRANTS AND SUPPORT FOR HAZARD MITIGATION PROJECTS

Various Federal and State agencies provide grant funding for mitigation projects, though some have prerequisites, such as receiving a Presidential Major Disaster Declaration or having an active Hazard Mitigation Plan. Furthermore, the New York State Hazard Mitigation Plan will provide information on previously approved mitigation projects, grant sources, and links to additional mitigation resources. Access the draft 2019 New York State Hazard Mitigation Plan online at http://mitigateny.availabs.org/.

This list is not intended to be exhaustive and links provided below should be consulted for up-to-date information.

GRANT SOURCE	PURPOSE
FEMA	**Hazard Mitigation Grant Program** A statewide competitive grant available after a Presidential Major Disaster Declaration for post-disaster, All-Hazard Mitigation Plans and projects. These are generally due to the State 12 months after a declaration. For more information, visit: https://www.fema.gov/hazard-mitigation-grant-program.
FEMA	**Pre-Disaster Mitigation Grant Program** A nationally competitive grant available annually for pre-disaster All-Hazard Mitigation Plans and projects. Applications are due to the State about three months after a Federal announcement, which typically occurs in the spring. For more information, visit https://www.fema.gov/pre-disaster-mitigation-grant-program.
FEMA	**Flood Mitigation Assistance Grant Program** A nationally competitive grant available annually for pre-disaster flood hazard funding of plans and projects to reduce flood damage risk to structures with flood insurance coverage. Applications are generally due to the State approximately three months after a Federal announcement, which typically occurs in the spring. For more information, visit https://www.fema.gov/flood-mitigation-assistance-grant-program.
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT (HUD)	**Various Grant Programs** HUD has offered various categories of grant support in the past. The Capacity Building for Community Development and Affordable Housing and Lead-Based Paint Hazard Reduction program are two recent funding opportunities with potential for relevance in supporting hazard mitigation. For more information, visit https://www.hud.gov/program_offices/spm/gmomgmt/grantsinfo.
HUD	**Community Development Block Grant (CDBG)** HUD provides flexible grants to help cities, counties, and States recover from Presidential Major Disaster Declarations subject to the availability of supplemental appropriations. Projects seeking grant support must address a disaster-related impact, direct or indirect, in a Presidentially declared county for the covered disaster, be a CDBG eligible activity, and meeting a CDBG national objective. For more information, visit https://www.hudexchange.info/programs/cdbg-dr/.
NY DEPARTMENT OF ENVIRONMENTAL CONSERVATION	**Various Grant Programs** Some grant categories previously available in New York include Solid and Hazardous Waste, Water Protection, Watershed-based programs, Environmental Cleanup, Wildlife Protection, Land and Forest Protection, Environmental Justice, Climate Change, Food Scraps Reduction, Food Donation, and Food Scraps Recycling programs. For more information, visit https://www.dec.ny.gov/pubs/grants.html.

GRANT SOURCE	PURPOSE
NY DEPARTMENT OF HOMELAND SECURITY AND EMERGENCY SERVICES	**Various Grant Programs** Grant program categories recently available in New York, which can be applicable to mitigation activities, include Regional Catastrophic Planning, Transit Security, Assistance to Firefighters, and Coastal Fish and Wildlife Service. For more information, visit http://www.dhses.ny.gov/grants/. To view current State and Federal funding opportunities that encourage the development and implementation of long-term, cost-effective, and resilience mitigation projects, visit http://mitigateny.availabs.org/strategies/funding.
NY DEPARTMENT OF STATE	**Various Grant Programs** NY Department of State offers a number of funding programs including (but not limited to) Smart Growth Grants, Watershed Protections, Environmental Protection Fund, and Local Waterfront Revitalization Program grants. For more information, visit https://www.dos.ny.gov/grants.html.
NY ENVIRONMENTAL FACILITIES CORPORATION	**Various Grant Programs** The Environmental Facilities Corporation is a public benefit corporation that provides financial and technical assistance to communities by providing low-cost financing for water quality infrastructure projects. For more information, visit https://www.efc.ny.gov/.
NY GRANTS REFORM	**Streamlining State Grant Processes** A Master Contract for Grants has been released to reduce time and costs for both New York State and grantees. This portal allows communities to search for open grants from various State agencies from one location. For more information, visit https://grantsmanagement.ny.gov.
NY GOVERNOR'S OFFICE OF STORM RECOVERY	**NY Rising** Although there are no longer new communities coming into the NY Rising program, the website can be consulted to track project progress and for additional open funding opportunities. For more information, visit https://stormrecovery.ny.gov/.
U.S. ARMY CORPS OF ENGINEERS	**Various Grant Programs** Some recent grants from USACE have assisted in management and enhancement of natural resources, research on a variety of environmental topics, environmental issues, nearshore data collection, and education and training on environmental maintenance and management. For more information, visit https://www.iwr.usace.army.mil/Missions/Flood-Risk-Management/.
U.S. DEPARTMENT OF AGRICULTURE – NATIONAL RESOURCE CONSERVATION SERVICE	**Various Grant Programs** The National Resource Conservation Service conservation programs help people reduce soil erosion, enhance water supplies, improve water quality, increase wildlife habitat, and reduce damage caused by floods and other natural disasters. Some programs, like the Emergency Watershed Protection Program, may only be provided following a natural disaster. For more information, visit https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/.
U.S. GEOLOGICAL SURVEY	**Water Resources National Competitive Grants** The USGS, in cooperation with the National Institutes for Water Resources, supports an annual call for proposals to focus on water problems and issues that are of a regional or interstate nature or that relate to a specific program priority identified by the Secretary of the Interior and the Institutes. Projects covered by this program have included evaluation of approaches to water treatment, infrastructure design, retrofitting, maintenance, management, and replacement; alternative approaches and governance mechanisms for integrated management of ground and surface waters; and the evaluation and assessment of conservation practices. For more information, visit https://water.usgs.gov/wrri/national-competitive-grants.php.

Local and regional organizations often support the implementation of mitigation projects through means other than provision of grants. Some of these resources are highlighted below. Since the list is not exhaustive, the county Soil and Water Conservation District or the Adirondacks Lakes Alliance, Inc. can be consulted for insight on additional resources.

GRANT SOURCE	PURPOSE
NORTH ATLANTIC AQUATIC CONNECTIVITY COLLABORATIVE	The North Atlantic Aquatic Connectivity Collaborative can assist communities with prioritizing mitigation activities through their research to analyze culvert capacities to determine if they are undersized. This information could be incorporated into modeling but also could help communities determine where culverts should be resized to mitigate flooding. For more information, visit https://streamcontinuity.org/assessing_crossing_structures/index.htm

EXPLORING DATA SOURCES USED IN DISCOVERY

Discovery is a process of data mining, collection, and analysis through active collaboration with communities. FEMA gathered a significant amount of data before the Discovery Meeting to focus community engagement on identifying more localized information and sources of data. Additionally, the Region led the review of the Hazard Mitigation Plans, NFIP data, and other local socioeconomic data for each of the jurisdictions prior to the Discovery meetings.

During the Discovery meetings, FEMA asked communities and stakeholders to identify areas of concern that could be addressed during the flood study through updated flood maps, revised ordinances, and desired mitigation projects. The data collected was used to produce the Discovery Map Geodatabase and this Discovery Report. The table below provides an overview of the data collected and used.

DATA	UTILIZATION	SOURCE
AVERAGE ANNUAL LOSS	Discovery Map Geodatabase	FEMA Hazus Average Annualized Loss Viewer
BOUNDARIES: COMMUNITY	Discovery Map Geodatabase	FEMA FIRM Database
BOUNDARIES: COUNTY AND STATE	Discovery Map Geodatabase	US Census, NYS GIS Program Office
BOUNDARIES: ADIRONDACK PARK AGENCY	Discovery Report	Adirondack Park Agency
BOUNDARIES: WATERSHED	Discovery Map Geodatabase	USGS National Hydrography
CENSUS BLOCKS	Discovery Map Geodatabase	US Census
COORDINATED NEEDS MANAGEMENT STRATEGY	Discovery Map Geodatabase	FEMA Coordinated Needs Management Strategy
CRS PARTICIPATION	Discovery Report	FEMA Community Information System
DAMS	Discovery Report, Discovery Map Geodatabase	NYSDEC Inventory of Dams
DECLARED DISASTERS	Discovery Report	FEMA Disaster Declaration Database
EARTHQUAKES	Discovery Report	USGS Earthquake Hazards Program
ECONOMIC CHARACTERISTICS	Discovery Report	US Economic Census
EFFECTIVE FLOODPLAINS: SPECIAL FLOOD HAZARD AREAS	Discovery Map Geodatabase	FEMA National Flood Hazard Layer from the Map Service Center
FARMS	Discovery Report	USDA National Agricultural Statistics Service

DATA	UTILIZATION	SOURCE
HAZARD MITIGATION ASSISTANCE GRANTS	Discovery Report	FEMA Hazard Mitigation Assistance Grants Database
ICE JAMS	Discovery Report	USACE Ice Jam Database
IDENTIFIED MITIGATION ACTIONS	Discovery Report, Discovery Map Geodatabase	County Hazard Mitigation Plans, Discovery meetings
INDIVIDUAL ASSISTANCE	Discovery Report	FEMA Individuals and Households Program Database
LAND USE	Discovery Report	National Land Cover Database
LETTERS OF MAP CHANGE	Discovery Report, Discovery Map Geodatabase	FEMA Mapping Information Platform
LEVEE INVENTORY	Discovery Map Geodatabase	FEMA National Levee Inventory Map
LIDAR	Discovery Map Geodatabase	NYS LiDAR
MITIGATION PLAN STATUS AND SUMMARY	Discovery Report	FEMA Mitigation Planning Portal
NATIONAL HYDROGRAPHY STREAM DATA	Discovery Map Geodatabase	FEMA National Flood Hazard Layer from the Map Service Center
NFIP PARTICIPATION	Discovery Report	FEMA Community Information System
POPULATION	Discovery Report	US Census Bureau Quick Facts
PUBLIC ASSISTANCE	Discovery Report	FEMA Public Assistance Database
STREAM GAGES AND FLOWS	Discovery Map Geodatabase	USGS National Water Information System
STRUCTURES	Discovery Map Geodatabase	FEMA National Flood Hazard Layer from the Map Service Center
TOPOGRAPHY	Discovery Map Geodatabase	USGS Topographic Maps
TRANSPORTATION	Discovery Map Geodatabase	NYS GIS Clearinghouse
WATERSHED BACKGROUND INFORMATION	Discovery Report	USDA NRCS Rapid Watershed Assessment Profiles
WILDFIRES	Discovery Report	USFS 2012 Wildland Fire Potential

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LIST OF APPENDICES

A. Discovery Watershed Maps

APPENDIX A

REGION II DISCOVERY REPORT
DISCOVERY WATERSHED MAPS

SACANDAGA WATERSHED | HUC 02020002

Department of Homeland Security
Federal Emergency Management Agency Region II
26 Federal Plaza, Room 1807
New York, NY 10278

March 2019

FEMA

RiskMAP
Increasing Resilience Together

LEGEND AND NOTES

- Watershed Boundary
- Jurisdiction Boundary
- LOMA

Dams

- Low Hazard
- Intermediate Hazard
- High Hazard

Stream Priority Ranking

- High
- Medium
- Low

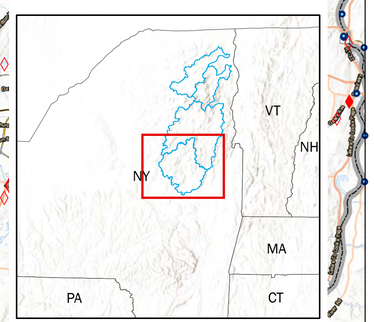
Data Sources: FEMA Region II, FEMA Map Service Center, USGS, US Army Corps of Engineers, NOAA, New York State GIS Clearinghouse, and the Adirondack Park Agency.

Additional information provided by local hazard mitigation plans, local jurisdiction GIS data, and Community Discovery interviews.

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors Sources: Esri, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community
USGS The National Map: National Hydrography Dataset. Data refreshed October, 2018.

Town of Long Lake
Town of Indian Lake
Village of Speculator
Town of Lake Pleasant
Town of Arietta
Town of Morehouse
Town of Wells
Town of Johnsburg
Upper Hudson Watershed
Town of Chester
Town of Horicon
Town of Hague
Town of Bolton
Town of Warrensburg
Town of Thurman
Town of Lake George
Town of Stony Creek
Town of Queensbury
Town of Day
Town of Lake Luzerne
Town of Hadley
Village of Corinth
Town of Corinth
Town of Edinburg
Town of Greenfield
Sacandaga Watershed
Town of Hope
Town of Benson
Village of Northville
Town of Northampton
Town of Stratford
Town of Caroga
Town of Bleecker
Village of Mayfield
Town of Broadalbin
Town of Providence
Village of Dolgeville
Town of Oppenheim
Town of Ephratah
Town of Johnstown
City of Gloversville
Town of Mayfield
Village of Broadalbin
Town of Galway
Village of Galway
Town of Perth
City of Johnstown
HAMILTON COUNTY
WARREN COUNTY
SARATOGA COUNTY
FULTON COUNTY
HERKIMER COUNTY
MONTGOMERY COUNTY
WASHINGTON COUNTY

PROJECT LOCATOR



1 inch = 2.5 miles 1:158,400

N 0 2.5 5 10 Miles

FEMA

National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM
INFORMATION EXCHANGE MAP

NEW YORK
DISCOVERY

The community lies in the following watershed(s):

Sacandaga Watershed
02020002

Map Contains:

COMMUNITY	NUMBER
BENSON, TOWN OF	361598
BLEECKER,TOWN OF	361127
BROADALBIN, TOWN OF	361128
BROADALBIN, VILLAGE OF	361482
CAROGA, TOWN OF	361129
CORINTH, TOWN OF	360715
EDINBURG, TOWN OF	361189
GALWAY, TOWN OF	360716
GLOVERSVILLE, CITY OF	360275
GREENFIELD, TOWN OF	360717
HOPE, TOWN OF	361403
JOHNSTOWN, TOWN OF	361131
MAYFIELD, TOWN OF	361132
MAYFIELD, VILLAGE OF	361483
MOREHOUSE, TOWN OF	361407
NORTHAMPTON, TOWN OF	361400
NORTHVILLE, VILLAGE OF	361484
PERTH, TOWN OF	361135
PROVIDENCE, TOWN OF	361190
STRATFORD, TOWN OF	361136

DATE March, 2019

This is a non-regulatory product and is provided to your community for information gathering and sharing purposes only.