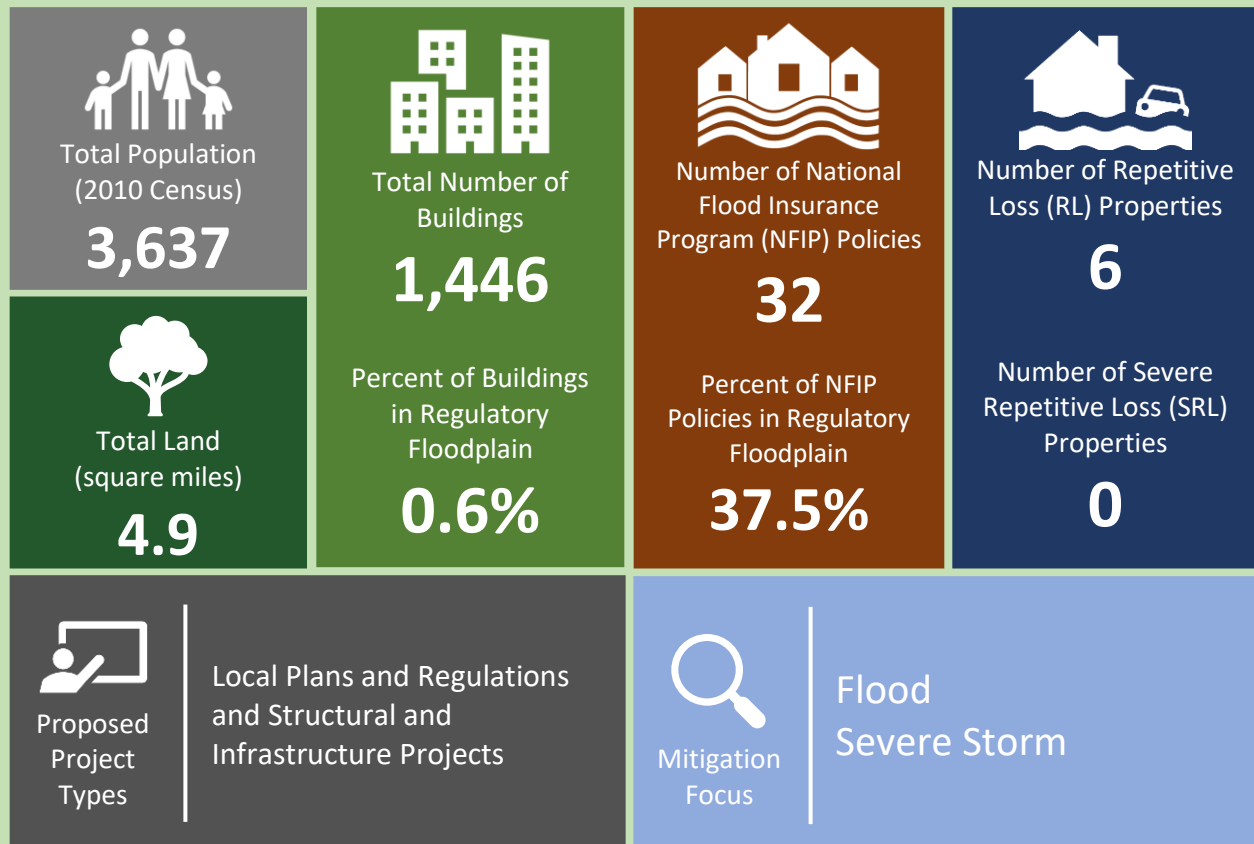
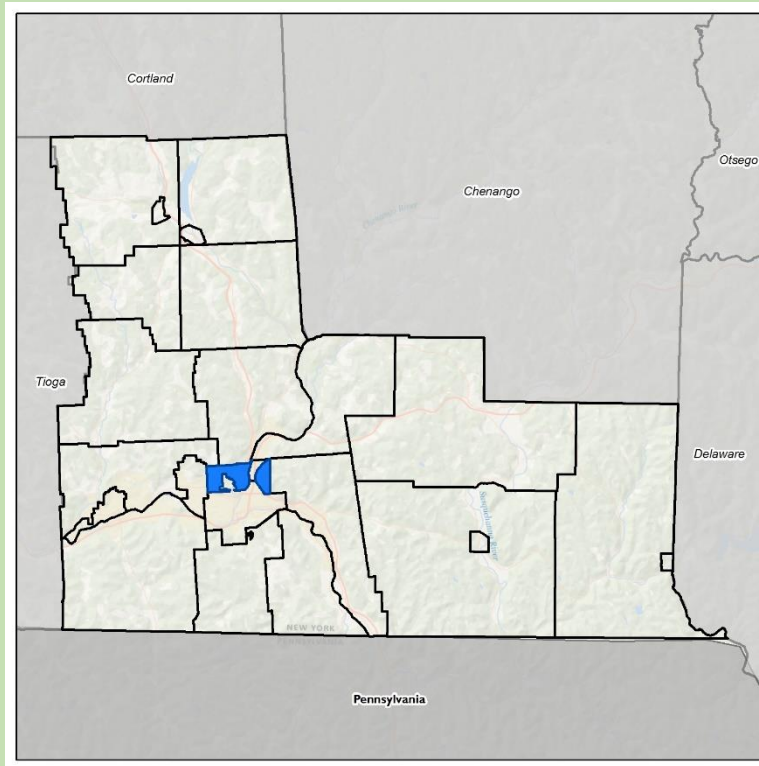




# MUNICIPAL ANNEX | Town of Dickinson





## 9.9 Town of Dickinson

This section presents the jurisdictional annex for the Town of Dickinson. It includes resources and information to assist public and private sectors to reduce losses from future hazard events. This annex is not guidance of what to do when a disaster occurs. Rather, this annex concentrates on actions that can be implemented prior to a disaster in order to reduce or eliminate damage to property and people. This annex includes a general overview of the municipality and who in the Town participated in the planning process; an assessment of the Town of Dickinson’s risk and vulnerability; the different capabilities utilized in the Town; and an action plan that will be implemented to achieve a more resilient community.

### 9.9.1 Hazard Mitigation Planning Team

The following individuals have been identified as the Town of Dickinson’s hazard mitigation plan primary and alternate points of contact.

Primary Point of Contact	Alternate Point of Contact
Name: Stephen Rafferty Title: Code Enforcement Officer Phone Number: 607-723-9401 Address: 531 Old Front Street, Binghamton, NY 13905 Email: srafferty@townofdickinson.com	Name: Michael Marinaccio Title: Supervisor Phone Number: 607-723-9401 x204 Address: 531 Old Front Street, Binghamton, Ny 13905 Email: mmarina191@aol.com
Floodplain Administrator	
Name: Stephen Rafferty Title: Code Enforcement Officer Phone Number: 607-723-9401 Address: 531 Old Front Street, Binghamton, NY 13905 Email: srafferty@townofdickinson.com	

### 9.9.2 Municipal Profile

The Town of Dickinson is in located in the central part of Broome County, NY. The town is divided by the Chenango River. The Village of Port Dickinson is located within the Town of Dickinson on the east bank of the Chenango River. For more information on the Village of Port Dickinson, refer to Section 9.18.

The Town of Dickinson has a total area of 4.9 square miles. The town is bounded on the north by the Towns of Chenango and Fenton, to the east by Kirkwood, to the south by the of Binghamton, and to the west by the Town of Union. The town is divided by the Chenango River. Interstate 81 joins Interstate 88 by the north town line. U.S. Route 11 passes across the south part of the town, turning north on the west side of the Chenango River. New York State Route 7 is a major north-south highway in the eastern part of Dickinson.

The 2016 estimated population was 3,447, a 5.2% decrease from the 2010 Census (3,637). Data from the 2016 U.S. Census American Community Survey estimates that 1.7% of the town population is five years of age or younger, and 23.2% is 65 years of age or older.

Home rule is strong in New York State and thus, each town and village has its own governing body. The Town of Dickinson is governed by a Supervisor and four council members.

### History and Cultural Resources

The Town of Dickinson was formed in 1890 from the Town of Binghamton and is the last town to be formed in Broome County. The former Chenango Canal passed through the town that linked Binghamton to Troy, NY and





the Erie Canal. The current village of Port Dickinson formed as a port on the canal. The canal linked Binghamton to Troy and the Erie Canal.

Otsiningo Park offers visitors soccer and softball fields, sand volleyball courts, a large children's playground, community gardens, picnic facilities and a trail along the wooded bank of the Chenango River. The park derived its name from the Indians who lived there in the 18th century.

A long-time historical landmark in the Town was the Alms house, which was part of the former Broome County Poor Farm. Beginning in the 1830s, the farm's 123 acres fulfilled the state requirement that each county have a public-supported home for the poor. The farm served a wide range of people, including unwed mothers, the disabled, the mentally ill and alcoholics, before it was turned over to be farmed by county inmates in the 1920s. The farm and home closed in the 1960s. It then served for years as a building on the campus of Broome Community College, with classrooms and offices.

### Growth/Development Trends

Table 9.9-1 summarizes major residential/commercial development that as of September 2018 and any known or anticipated major residential/commercial development and major infrastructure development that is likely to be occur within the municipality in the next five years. Refer to the map in 9.9.8 of this annex which illustrates the hazard areas along with the location of potential new development.

**Table 9.9-1. Growth and Development**

Property or Development Name	Type (e.g. Res., Comm.)	# of Units / Structures	Location (address and/or Parcel ID)	Known Hazard Zone(s)	Description/Status of Development
<b>Recent Development from 2013 to present</b>					
The Agency	Com	1	5 S. College Dr	A15	completed
Taste of New York	Com	1	840 Upper Front St	A15	completed
Farmer's Market	Com	1	840 Upper Front St	A15	completed
BOCES	Com	1	435 Glenwood Rd.	None	Approved, grading stage
<b>Known or Anticipated Development in the Next Five (5) Years</b>					
None					

*\* Only location-specific hazard zones or vulnerabilities identified.*

### 9.9.3 Hazard Event History Specific to the Town of Dickinson

Broome County has a history of natural events as detailed in Volume I, Section 5.0 of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The Town of Dickinson's history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Broome County. Table 9.9-2 provides details regarding municipal-specific loss and damages the Town experienced during hazard events. Information provided in the table below is based on reference material or local sources. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.



**Table 9.9-2. Hazard Event History**

Dates of Event	Event Type (Disaster Declaration if applicable)	Broome County Designated?	Summary of Event	Municipal Summary of Damages and Losses
October 27 – November 8, 2012	Hurricane Sandy (EM-3351)	Yes	The remnants of Hurricane Sandy moved over the area bringing high winds and precipitation	Although the County was impacted, the Town did not report damages.
June 26 – July 10, 2013	Severe Storms and Flooding (DR-4129)	Yes	The County was impacted by a series of severe storms and flash flood events.	Although the County was impacted, the Town did not report damages.
June 14, 2015	Flash Flood	No	warm front stalled across New York and northern Pennsylvania, providing the focus for repeating clusters of thunderstorms in the Finger Lakes and Southern Tier NY regions. A tropical-like airmass was in place allowing for a stripe of 2-4 inches of very heavy rain to fall in a narrow band extending from near Watkins Glen to areas north of Binghamton. Severe flash flooding was encountered with numerous roads and culverts destroyed by raging water.	Although the County was impacted, the Town did not report damages.
March 14-15, 2017	Severe Winter Storm and Snowstorm (DR-4322)	Yes	A record snowfall of between 25 and 35 inches of snow fell. Snowfall rates reached up to 5 inches per hour especially during the onset of the storm. The Greater Binghamton Airport broke an all-time daily snowfall record with 32.4 inches and a 2-day snowfall record of 34.9 inches.	Although the County was impacted, the Town did not report damages.
July 23-24, 2017	Flash Flood	No	Heavy rain producing thunderstorms developed during the late afternoon and evening hours as an upper level jet stream punched into the area. Widespread thunderstorms produced swaths of 3 to 4 inches of rain in just a few hours' time during the late evening and overnight hours. Rapid rises of area streams and creeks resulted in severe flash flooding.	Although the County was impacted, the Town did not report damages.
August 2018	Severe Storms and Flooding (DR-4397)	Yes	A slow-moving storm tracked north from New Jersey to northern New York. This system triggered several rounds of heavy rain producing thunderstorms which caused severe flash flooding and major damages in several locations.	Although the County was impacted, the Town did not report damages

*Notes:*

- EM      *Emergency Declaration (FEMA)*
- FEMA   *Federal Emergency Management Agency*
- DR      *Major Disaster Declaration (FEMA)*
- N/A     *Not applicable*

**9.9.4 Hazard Ranking and Jurisdiction-Specific Vulnerabilities**

The hazard profiles in Section 5.0 (Risk Assessment) of this plan have detailed information regarding each plan participant’s vulnerability to the identified hazards. The following summarizes the hazards of greatest concern





and risk to the Town of Dickinson. For additional vulnerability information relevant to this jurisdiction, refer to Section 5.0.

### Hazard Risk Ranking

This section includes the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 of the plan. The ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy as well as community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 5.3 (Hazard Ranking), each participating town or village may have differing degrees of risk exposure and vulnerability compared to Broome County as a whole. Therefore, each municipality ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the Town of Dickinson. The Town of Dickinson has reviewed the County hazard risk/vulnerability risk ranking table as well as its individual results to reflect the relative risk of the hazards of concern to the community.

During the review of the hazard/vulnerability risk ranking, the Town indicated the following:

- The Town agreed with the calculated risk rankings below.

**Table 9.9-3. Town of Dickinson Municipal Hazard Ranking Input**

HAZARD	Drought	Earthquake	Extreme Temperature	Flood	Invasive Species	Severe Storm	Severe Winter Storm	Wildfire
RELATIVE RISK FACTOR	Medium	High	Medium	Low	Low	High	Medium	Medium

Notes: The scale is based on the following hazard rankings as established in Section 5.3.  
 High = Total hazard priority risk ranking score of 5 and above  
 Medium = Total hazard priority risk ranking of 3.9 – 4.9  
 Low = Total hazard risk ranking below 3.8

### Critical Facilities Flood Risk

New York Department of Environmental Conservation (DEC) Statute 6 CRR-NY 502.4 sets forth floodplain management criteria for State projects located in flood hazard areas. The law states that no such projects related to critical facilities shall be undertaken in a Special Flood Hazard Area (SFHA) unless constructed according to specific mitigation specifications, including being raised 2’ above the Base Flood Elevation (BFE). This statute is outlined at <http://tinyurl.com/6-CRR-NY-502-4>. While all vulnerabilities should be assessed and documented, the State places a high priority on exposure to flooding. Critical facilities located in an SFHA, or having ever sustained previous flooding, must be protected to the 500-year flood event, or worst damage scenario. For those that do not meet this criteria, the jurisdiction must identify an action to achieve this level of protection (NYS DHSES 2017).

The table below identifies critical facilities in the community located in the 1-percent and 0.2-percent floodplain and presents Hazards United States (HAZUS) – Multi-Hazards (MH) estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.



**Table 9.9-4. Potential Flood Losses to Critical Facilities**

Name	Type	Exposure		Potential Loss from 1% Flood Event		Addressed by Proposed Action
		1% Event	0.2% Event	Percent Structure Damage	Percent Content Damage	
Sunrise Terrace Pump Station	WW Pump		X	-	-	-
Broome County Dog Shelter	Animal Shelter		X	-	-	-
Dog Shelter	County		X	-	-	-
BCC	County		X	-	-	-
Child Care Center	Daycare		X	-	-	-
Sunrise Terrace Community Center	Polling		X	-	-	-
Nimmonsburg United Methodist Church	Shelter (RC)		X	-	-	-

Source: Hazus 4.2

### Identified Issues

The municipality has identified the following vulnerabilities within their community:

- There are six Repetitive Loss properties (RLs) located in the Town of Dickinson
- Sunrise Terrace Pump Station is located within the floodplain which could lead to vulnerabilities or damage during flood events.

Specific areas of concern based on resident response to the Broome County Hazard Mitigation Citizen survey include:

- Conklin
- Kirkwood
- Sections of Binghamton
- Johnson City, near the river

### 9.9.5 Capability Assessment

This section identifies the following capabilities of the local jurisdiction:

- Planning and regulatory capability
- Administrative and technical capability
- Fiscal capability
- Community classification
- National Flood Insurance Program
- Integration of mitigation planning into existing and future planning mechanisms

### Planning and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Town of Dickinson.



**Table 9.9-5. Planning and Regulatory Tools**

Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
<b>Planning Capability</b>				
Comprehensive Plan	Yes, 2004	Local	Planning Board Town Board	19 – currently being updated
Capital Improvements Plan	No	-	-	-
Floodplain Management / Basin Plan	No	-	-	-
Stormwater Management Plan	Yes, 2009	Local	Code/Engineer Town Board	470
Open Space Plan	Yes	Local	Planning Board	490-18
Stream Corridor Management Plan	No	-	-	-
Watershed Management or Protection Plan	No	-	-	-
Economic Development Plan	No	-	-	-
Comprehensive Emergency Management Plan	Yes	Local or County	Town Board	Comprehensive Emergency Management Plan
Emergency Operation Plan	Yes	Local or County	Town Board	Emergency Operation Plan
Evacuation Plan	-	-	-	-
Post-Disaster Recovery Plan	No	-	-	-
Transportation Plan	No	-	-	-
Strategic Recovery Planning Report	No	-	-	-
Other Plans:	No	-	-	-
<b>Regulatory Capability</b>				
Building Code	Yes, 2011	State & Local	Town Board	Chapter 265 of the municipal code
Zoning Ordinance	Yes, 2009	Local	Town Board	Chapter 600 of the municipal code
Subdivision Ordinance	Yes, 2009	State	Town Board	Chapter 490 of the municipal code
NFIP Flood Damage Prevention Ordinance	Yes, 2009	Federal, State, Local	Town Board	Chapter 299 of the municipal code
NFIP: Cumulative Substantial Damages	No – Under development	-	Highway	-
NFIP: Freeboard	Yes	State, Local	Code	State mandated BFE+2 for all construction, both residential and non-residential
Growth Management Ordinances	Yes	Local	Planning Board	Updating Comprehensive Plan
Site Plan Review Requirements	Yes	Local	Planning Board	Chapter 600 of the municipal code





Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Stormwater Management Ordinance	No	-	-	-
Municipal Separate Storm Sewer System (MS4)	Yes	DEC, Local	Engineering	EPA & DEC Mandate
Natural Hazard Ordinance	No	-	-	-
Post-Disaster Recovery Ordinance	No	-	-	-
Real Estate Disclosure Requirement	Yes	State	-	NYS mandate, Property Condition Disclosure Act, NY Code - Article 14 §460-467
Other (Special Purpose Ordinances [i.e., sensitive areas, steep slope])	No	-	-	-

### Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Town of Dickinson.

**Table 9.9-6. Administrative and Technical Capabilities**

Resources	Is this in place? (Yes or No)	Department/ Agency/Position
<b>Administrative Capability</b>		
Planning Board	Yes	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Maintenance programs to reduce risk	Yes	Highway Dept.
Mutual aid agreements	Yes	County & other municipalities
Flood Committee	No	-
<b>Technical/Staffing Capability</b>		
Planner(s) or engineer(s) with knowledge of land development and land management practices	Yes	Supervisor
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	Yes	Supervisor
Planners or engineers with an understanding of natural hazards	Yes	Supervisor
NFIP Floodplain Administrator (FPA)	Yes	Code – Stephen Rafferty
Surveyor(s)	No	-
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	No	-
Scientist familiar with natural hazards	No	-
Warning systems/services	No	-





Resources	Is this in place? (Yes or No)	Department/ Agency/Position
Emergency Manager	Yes	Supervisor
Grant writer(s)	No	-
Staff with expertise or training in benefit/cost analysis	No	-
Professionals trained in conducting damage assessments	Yes	Engineer

### Fiscal Capability

The table below summarizes financial resources available to the Town of Dickinson.

**Table 9.9-7. Fiscal Capabilities**

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvements project funding	No
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas or electric service	Yes
Impact fees for homebuyers or developers of new development/homes	No
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	No
Open Space Acquisition funding programs	No
Other	No

### Community Classifications

The table below summarizes classifications for community programs available to the Town of Dickinson.

**Table 9.9-8. Community Classifications**

Program	Do you have this? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	NP	-	-



Program	Do you have this? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Building Code Effectiveness Grading Schedule (BCEGS)	NP	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	NP	-	-
NYSDEC Climate Smart Community	No	-	-
Storm Ready Certification	NP	-	-
Firewise Communities classification	NP	-	-
Natural disaster/safety programs in/for schools	No	-	-
Organizations with mitigation focus (advocacy group, non-government)	No	-	-
Public education program/outreach (through website, social media)	No	-	-
Public-private partnership initiatives addressing disaster-related issues	No	-	-
Other	No	-	-

Note:

- N/A Not applicable
- NP Not participating
- Unavailable

The classifications listed above relate to the community’s ability to provide effective services to lessen its vulnerability to the hazards identified. These classifications can be viewed as a gauge of the community’s capabilities in all phases of emergency management (preparedness, response, recovery and mitigation) and are used as an underwriting parameter for determining the costs of various forms of insurance. The CRS class applies to flood insurance while the BCEGS and Public Protection classifications apply to standard property insurance. CRS classifications range on a scale of 1 to 10 with class 1 being the best possible classification, and class 10 representing no classification benefit. Firewise classifications include a higher classification when the subject property is located beyond 1000 feet of a creditable fire hydrant and is within 5 road miles of a recognized Fire Station.

Criteria for classification credits are outlined in the following documents:

- The Community Rating System Coordinators Manual
- The Building Code Effectiveness Grading Schedule (<https://www.isomitigation.com/bcegs/>)
- The ISO Mitigation online ISO’s Public Protection website at <https://www.isomitigation.com/ppc/>
- New York State Climate Smart Communities (<http://www.dec.ny.gov/energy/56876.html>)
- The National Weather Service Storm Ready website at <https://www.weather.gov/stormready/communities>
- The National Firewise Communities website at <http://firewise.org/>

### Self-Assessment of Capability

The table below provides an approximate measure of the Town of Dickinson’s capability to work in a hazard-mitigation capacity and/or effectively implement hazard mitigation strategies to reduce hazard vulnerabilities.



**Table 9.9-9. Self-Assessment Capability for the Municipality**

Area	Degree of Hazard Mitigation Capability		
	Limited (If limited, what are your obstacles?)	Moderate	High
Planning and regulatory capability		X	
Administrative and technical capability		X	
Fiscal capability		X	
Community political capability			X
Community resiliency capability		X	
Capability to integrate mitigation into municipal processes and activities		X	

**National Flood Insurance Program**

This section provides specific information on the management and regulation of the regulatory floodplain.

**NFIP Floodplain Administrator (FPA)**

Stephen Rafferty, Code Enforcement Officer

**National Flood Insurance Program (NFIP) Summary**

The Town of Dickinson does not maintain an inventory of properties that have been flood damaged in part due to the fact that the town has had very few properties damaged by flooding. Dickinson does make substantial damage estimates and one person is interested in mitigation.

**Table 9.9-10. NFIP Summary**

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties	# SRL Properties	# Policies in the 1% Flood Boundary
Dickinson (T)	32	42	\$1,077,186	6	0	12

Source: FEMA 2018

Notes: Policies, claims, repetitive loss, and severe repetitive loss statistics provided by FEMA Region 2, and current as of May 31, 2018. The total number of repetitive loss properties does not include severe repetitive loss properties

RL Repetitive Loss; SRL Severe Repetitive Loss

**Resources**

The FPA is assisted in floodplain administration responsibilities by the Deputy Code Officer and the Town Engineer. NFIP administration services include permit review and inspections. The Town uses the municipal website to provide outreach on flood hazards and flood risk reduction. The FPA noted that the Town has access to resources to determine possible future flooding conditions from climate change. The FPA does not feel there are any barriers to running an effective floodplain management program and feels adequately supported and trained to fulfill their responsibilities as the municipal floodplain administrator. The FPA has attended continuing education and/or certification training on floodplain management in the past and would do so in the future.

**Compliance History**

The Town of Dickinson is in good standing with the NFIP. The most recent compliance audit [e.g. Community Assistance Visit (CAV)] took place in 2016.





## Regulatory

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The Flood Damage Prevention Ordinance for the Town of Dickinson meets State and FEMA standards. Site plan review by the Planning Board and variance requests by the ZBA support floodplain management and the meeting of NFIP requirements. The Town has not considered joining the Community Rating System (CRS) program but would attend a seminar if it were offered locally.

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

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

## Planning

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### Existing Integration

**Comprehensive Plan:** The Town of Dickinson's Comprehensive Plan includes areas of natural hazard risk and refers to the Countywide Hazard Mitigation Plan. The Plan was updated in 2018 and addendums are being considered for 2019.

**Stormwater Management Plan:** The Town of Dickinson is an MS4 Regulated Community and has a formal Stormwater Management Plan. The Plan specifies projects/actions/initiatives to reduce the volume of stormwater, or otherwise mitigate stormwater flooding.

**Emergency Plans:** The Town has a Comprehensive Emergency Management Plan which refers to the Countywide Hazard Mitigation Plan. The Town also has a Continuity of Operations/Continuity of Government Plan (COOP/COG).

The Town does not have a Re-Development Plan, Growth Plan, Economic Development Plan, Open Space Plan, Watershed/Stream Corridor Management Plan, Local Waterfront Revitalization Plan, resilience plan/strategy, or Climate Adaptation Plan/strategy.

### Opportunities for Future Integration

The Town could develop additional plans that include information on natural hazards and refer to the Countywide Hazard Mitigation Plan. The Comprehensive Plan will be updated with additional addendums from the Office of the Aging.

## Regulatory and Enforcement (Ordinances)

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### Existing Integration

**Zoning Ordinance:** The Town of Dickinson Zoning Ordinance (Chapter 600 of the municipal code) was established for the purposes of promoting and protecting the public health, safety and general welfare and providing for solar access. It should be noted that the Town has purposely not provided for the establishment or expansion of existing cemeteries in this chapter, due to the presence in the Town of adequate space already devoted to existing cemeteries, and the belief that the remaining limited developable space located in the Town should be devoted to residential, commercial and industrial development.



**Subdivision of Land Ordinance:** The Town of Dickinson Land Subdivision Ordinance (Chapter 490 of the municipal code) establishes that the Planning Board consider land subdivision plats as part of a plan for the orderly, efficient and economical development of the Town of Dickinson, hereinafter called the "Town." This means, among other things, that land to be subdivided shall be of such character that it can be used safely for building purposes without danger to health or peril from fire, flood or other menace; that proper provision shall be made for drainage, water supply, sewerage and other needed improvements; that all proposed lots shall be so laid out and of such size as to be in harmony with the development pattern of the neighboring properties; that the proposed streets shall compose a convenient system conforming to the Official Map, if such exists, and shall be properly related to the proposals shown on the Comprehensive Plan, if such exists, and shall be of such width, grade and location as to accommodate the prospective traffic, to facilitate fire protection and to provide access of fire-fighting equipment to buildings; and that proper provision shall be made for preserving and developing open spaces for parks and playgrounds.

**Flood Damage Prevention Ordinance:** The Town of Dickinson Flood Damage Prevention Ordinance (Chapter 299 of the municipal code) was adopted to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

- Regulate uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;
- Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- Control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of floodwaters;
- Control filling, grading, dredging and other development which may increase erosion or flood damages;
- Regulate the construction of flood barriers which will unnaturally divert floodwaters, or which may increase flood hazards to other lands; and
- Qualify for and maintain participation in the National Flood Insurance Program.

The Ordinance aims:

- To protect human life and health;
- To minimize expenditure of public money for costly flood control projects;
- To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- To minimize prolonged business interruptions;
- To minimize damage to public facilities and utilities, such as water and gas mains, electric, telephone, and sewer lines, streets and bridges located in areas of special flood hazard;
- To help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas;
- To provide that developers are notified that property is in an area of special flood hazard; and,
- To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

**Stormwater Management and Erosion and Sediment Control:** The Stormwater Management and Erosion and Sediment Control ordinance (Chapter 476 of the municipal code) established minimum stormwater management requirements and controls to protect and safeguard the general health, safety, and welfare of the public residing within this jurisdiction. This chapter seeks to meet those purposes by achieving the following objectives:



- Meet the requirements of minimum measures 4 and 5 of the SPDES General Permit for Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s), Permit No. GP-02-02, as amended or revised;
- Require land development activities to conform to the substantive requirements of the NYS Department of Environmental Conservation State Pollutant Discharge Elimination System (SPDES) General Permit for Construction Activities, GP-02-01, as amended or revised;
- Minimize increases in stormwater runoff from land development activities in order to reduce flooding, siltation, increases in stream temperature, and stream bank erosion and maintain the integrity of stream channels;
- Minimize increases in pollution caused by stormwater runoff from land development activities which would otherwise degrade local water quality;
- Minimize the total annual volume of stormwater runoff which flows from any specific site during and following development to the maximum extent practicable; and
- Reduce stormwater runoff rates and volumes, soil erosion and nonpoint source pollution, wherever possible, through stormwater management practices and to ensure that these management practices are properly maintained and eliminate threats to public safety.

The Town's zoning, subdivision regulations, and site plan review process consider natural hazard risk and require developers to take additional actions to mitigate natural hazard risk. The Planning Board and Zoning Board of Appeals are provided with comments from 239 review to help guide their decisions with respect to natural hazard risk management.

### Opportunities for Future Integration

Any ordinances that will be updated will consider natural hazard risk. When the FIRM maps are updated and released, the Town will consider updating related ordinances accordingly.

### Operational and Administration

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#### Existing Integration

**Planning Board:** The Planning Board of Dickinson consists of five members. A major goal for the Town Planning Board is to update the Town's Comprehensive Plan. The Comprehensive Plan will address the changing forces and patterns of the town, if any, and serve as the foundation for the Planning Board's advisory role to the Town's elected Board and Zoning Board of Appeals. Planning Board's meeting dates, times and any cancellations will be posted on the Town's website and the Press & Sun Bulletin. The Planning Board is established by Chapter 151 of the municipal code. The Board is responsible for site plan approval and variance requests.

**Zoning Board of Appeals:** The Zoning Board of Appeals is made up of four members. The Board is responsible for site plan approval and variance requests. Zoning Board Hearings are arranged as needs arise. The Zoning Board of Appeals is established by Chapter 151 of the municipal code.

**National Incident Management System:** The Town of Dickinson continues training in the National Incident Command System (ICS), under the National Incident Management System (NIMS).

The Town of Dickinson does not have a municipal planner or contract planning firm. Stormwater Management functions in the Town are performed by the Town Engineer. NFIP Floodplain Administration functions are performed by the Codes Enforcement Officer. The Town does not have staff or contract with firms that have experience with developing Benefit-Cost Analysis or can perform Substantial Damage Estimates. The Town has staff/contracts with firms that have experience in preparing grant applications for mitigation projects. Staff



receive training/continuing professional education which supports natural hazard risk reduction. The Code Enforcement Officer, Town Engineer, and Commissioner of Public Works have job descriptions that specifically include identifying/implementing mitigation projects/activities to reduce natural hazard risk. Town staff participate in associations, organizations, groups or other committees that support natural hazard risk reduction and build hazard management capabilities. The Town also has additional hazard management programs in place.

### Opportunities for Future Integration

The Town could hire staff or contract with firms that have experience with developing Benefit-Cost Analysis or can perform Substantial Damage Estimates.

### Funding

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#### Existing Integration

The Town's municipal budget does not include line items for mitigation projects/activities. The Capital Improvements Budget has included budget for mitigation-related projects in the past. The Town has not pursued grant funding for mitigation projects in the past and does not have any other mechanisms to fiscally support hazard mitigation projects.

#### Opportunities for Future Integration

The Town could apply for grant funding to support hazard mitigation projects.

### Education and Outreach

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#### Existing Integration

The Town of Dickinson conducts outreach through the annual newsletter and the municipal website (<http://www.townofdickinson.com/>) which has various community information and news.

#### Opportunities for Future Integration

The Town could expand outreach efforts to include additional information hosted at the Town hall.

### Sheltering, Evacuation, and Temporary Housing

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Temporary housing, evacuation routes, and sheltering measures must be in place and available for public awareness to protect residents, mitigate risk, and relocate residents, if necessary, to maintain post-disaster social and economic stability.

Refer to Section 4.6.5 of Volume 1 of this plan for a description of resources identified by the county to support municipalities with the identification of evacuation, sheltering, and temporary and permanent housing.

### Temporary and Permanent Housing

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The Town of Dickinson has not identified potential sites for the placement of temporary housing for residents displaced by a disaster or potential sites suitable for relocating houses of the floodplain and/or building new homes once properties in the floodplain are acquired.

### Evacuation and Sheltering Needs

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The Town of Dickinson has not designated emergency shelters, evacuation routes, or evacuation procedures.

## 9.9.6 Mitigation Strategy and Prioritization

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This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and their prioritization.

### **Past Mitigation Initiative Status**

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The following table indicates progress on the community’s mitigation strategy identified in the 2013 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under ‘Capability Assessment’ presented previously in this annex.



Table 9.9-11. Status of Previous Mitigation Actions

Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if project status is complete)		Next Steps 1. Project to be included in 2019 HMP or Discontinue 2. If including action in the 2019 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Cost	Level of Protection	
1.	Continue training in the National Incident Command System (ICS), under the National Incident Management System (NIMS).	All		Town Board	No Progress	Cost		1. Discontinue 2. 3. No longer a priority
						Level of Protection		
						Damages Avoided; Evidence of Success		
2.	Maintain programs to keep trees from threatening lives, property, and public infrastructure during storm events.	Severe Storm		Town Highway Dept	Ongoing capability	Cost		1. Discontinue 2. 3. Ongoing capability
						Level of Protection		
						Damages Avoided; Evidence of Success		
3.	Maintain backup generators and other redundant utilities for DPW facilities.	All		Town DPW	Ongoing capability	Cost		1. Discontinue 2. 3. Ongoing capability
						Level of Protection		
						Damages Avoided; Evidence of Success		
4.	Assist in the update of flood plain (FIRM) maps – Jurisdictional Level. Specific assistance can be provided in the area of attending map update meetings held by FEMA, NYDEC and USGS; and identification of flood-prone areas outside of currently designated areas	Flood		FEMA, Town NFIP Coordinator	Ongoing capability	Cost		1. Discontinue 2. 3. Ongoing capability
						Level of Protection		
						Damages Avoided; Evidence of Success		
5.	Continue participation in the National Flood Insurance Program (NFIP).	Flood		Town NFIP Coordinator	Ongoing capability	Cost		1. Discontinue 2. 3. Ongoing capability
						Level of Protection		
						Damages Avoided;		



Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if project status is complete)		Next Steps 1. Project to be included in 2019 HMP or Discontinue 2. If including action in the 2019 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Evidence of Success		
6 (7.)	Evaluate obtaining a dozen portable sump pumps to loan to citizens during basement flooding situations.	Flood		Town DPW	Ongoing capability	Cost		1. Discontinue 2. 3. Ongoing capability
						Level of Protection		
						Damages Avoided; Evidence of Success		
7 (8.)	Maintain, as appropriate, a parking ordinance for emergency snow removal.	Severe Storm		Town Police Dept.	Ongoing capability	Cost		1. Discontinue 2. 3. Ongoing capability
						Level of Protection		
						Damages Avoided; Evidence of Success		
8 (9.)	Encourage review of site plans by firefighting companies to ensure fire-fighting capacity exists at the local level to support development.	All		Town Fire Dept.	Ongoing capability	Cost		1. Discontinue 2. 3. Ongoing capability
						Level of Protection		
						Damages Avoided; Evidence of Success		
9 (10.)	Encourage amendment of the zoning ordinances to ensure developments served by private wells have adequate well recharge area	Drought		Town Board and Code Enforcement	Ongoing capability	Cost		1. Discontinue 2. 3. Ongoing capability
						Level of Protection		
						Damages Avoided; Evidence of Success		
10 (11.)	Consider non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, including those that have been identified as repetitive loss properties, such as acquisition/relocation, or elevation depending on feasibility. The parameters for feasibility	Flood		Town Code Enforcement	Ongoing capability	Cost		1. Discontinue 2. 3. Ongoing capability
						Level of Protection		
						Damages Avoided; Evidence of Success		





Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if project status is complete)		Next Steps 1. Project to be included in 2019 HMP or Discontinue 2. If including action in the 2019 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Cost		
	for this initiative would be: funding, benefits versus costs and willing participation of property owners.							
11.	Flap Gate on outflow to river to prevent river back up at BCC area.	Flood		Town, State highway	Complete	Cost		1. Discontinue Implemented recommendation and installed a flap gate to prevent river backup Project funded by NYSDOT (2015) 3. Complete
						Level of Protection		
						Damages Avoided; Evidence of Success		
12.	John Street upgrade to drainage.	Flood		Town DPW	Complete	Cost	\$35,000	1. Discontinue 2. 3. Complete
						Level of Protection		
						Damages Avoided; Evidence of Success		
13.	Chenango Shores – drainage study and improvements including a shutoff valve.	Flood		Town DPW	Complete	Cost	\$300,000	1. Discontinue 2. 3. Complete
						Level of Protection		
						Damages Avoided; Evidence of Success		
15.	Terrace Drive – Upgrade drainage system	Flood		Town DPW	Complete	Cost	\$20,000	1. Choose an item. 2. 3.
						Level of Protection		
						Damages Avoided; Evidence of Success		
Flood-1	Purchase, elevate, or relocate structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive	Flood		Municipality (via Municipal Engineer/NFIP Floodplain Administrator) with support from BCPD,	No Progress	Cost		1. Include in 2019 HMP 2. 3.
						Level of Protection		
						Damages Avoided; Evidence of Success		





Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if project status is complete)		Next Steps 1. Project to be included in 2019 HMP or Discontinue 2. If including action in the 2019 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
	<p>loss properties as priority.</p> <p>Phase 1: Identify appropriate candidates based on cost-effectiveness versus retrofitting.</p> <p>Phase 2: Where relocation is determined to be a viable option, work with property owners toward implementation of that action based on available funding from FEMA and local match availability.</p>			NYSOEM, FEMA				
Flood-2	<p>Maintain compliance with and good-standing in the NFIP including adoption and enforcement of floodplain management requirements (e.g. regulating all new and substantially improved construction in Special Hazard Flood Areas), floodplain identification and mapping, and flood insurance outreach to the community.</p> <p>Further, continue to meet and/or exceed the minimum NFIP standards and criteria through the following NFIP-related continued compliance actions identified as Initiatives below.</p>	Flood		Municipality (via Municipal Engineer/NFIP Floodplain Administrator) with support from NYSOEM, FEMA	Ongoing capability	Cost		1. Discontinue
						Level of Protection		2.
						Damages Avoided; Evidence of Success		3. Ongoing capability
Flood-3	Conduct and facilitate community and public education and outreach	Flood		Municipality with support from Planning	Ongoing capability	Cost		1. Discontinue
						Level of Protection		2.





Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if project status is complete)		Next Steps 1. Project to be included in 2019 HMP or Discontinue 2. If including action in the 2019 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
	<p>for residents and businesses to include, but not be limited to, the following to promote and effect natural hazard risk reduction:</p> <ul style="list-style-type: none"> <li>• Provide and maintain links to the HMP website, and regularly post notices on the County/municipal homepage(s) referencing the HMP webpages.</li> <li>• Prepare and distribute informational letters to flood vulnerable property owners and neighborhood associations, explaining the availability of mitigation grant funding to mitigate their properties, and instructing them on how they can learn more and implement mitigation.</li> <li>• Use email notification systems and newsletters to better educate the public on flood insurance, the availability of mitigation grant funding, and personal natural hazard risk reduction measures. Work with neighborhood associations, civic and business groups to disseminate information on flood insurance and the availability of mitigation grant funding.</li> </ul>			Partners, BCPD, NYSOEM, FEMA		Damages Avoided; Evidence of Success		3. Ongoing capability



Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if project status is complete)		Next Steps 1. Project to be included in 2019 HMP or Discontinue 2. If including action in the 2019 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Cost	Level of Protection Damages Avoided; Evidence of Success	
Flood-4	Obtain and archive elevation certificates	Flood		NFIP Floodplain Administrator	Ongoing capability			1. Discontinue 2. 3. Ongoing capability
Flood-5	Continue to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Section 7.0	Flood		Municipality with support from Planning Partners, BCPD, NYSOEM, FEMA	Ongoing capability			1. Discontinue 2. 3. Ongoing capability
Flood-6	Complete ongoing updates of Comprehensive Emergency Management Plans	Flood		Municipality with support from NYSOEM	Ongoing capability			1. Discontinue 2. 3. Ongoing capability
Flood-7	Create/Enhance/Maintain Mutual Aid agreements with neighboring communities for continuity of operations	All Hazards		Municipality with support from County, NYSOEM, FEMA and surrounding communities	Ongoing capability			1. Discontinue 2. 3. Ongoing capability
Flood-8	Identify and develop agreements with entities that can provide support with FEMA/SOEM paperwork after disasters; qualified damage assessment personnel – Improve post-disaster capabilities – damage assessment; FEMA/SOEM paperwork compilation, submissions, record-keeping	Flood		Municipality with support from County, NYSOEM and FEMA	Ongoing capability			1. Discontinue 2. 3. Ongoing capability
Flood-9		Flood				Cost		1. Discontinue







Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if project status is complete)		Next Steps 1. Project to be included in 2019 HMP or Discontinue 2. If including action in the 2019 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Level of Protection	Damages Avoided; Evidence of Success	
	Work with regional agencies (i.e. County and SOEM) to help develop damage assessment capabilities at the local level through such things as training programs, certification of qualified individuals (e.g. code officials, floodplain managers, engineers).			Municipality with support from County, NYSOEM and FEMA	Ongoing capability			2.  3. Ongoing capability
Flood-10	Participate in local, county and/or state level projects and programs to develop improved structure and facility inventories and hazard datasets to support enhanced risk assessment efforts. Such programs may include developing a detailed inventory of critical facilities based upon FEMA's Comprehensive Data Management System (CDMS) which could be used for various planning and emergency management purposes including: <ul style="list-style-type: none"> <li>Support the performance of enhanced risk and vulnerability assessments for hazards of concern.</li> <li>Support state, county and local planning efforts including mitigation (including updates to the State HMP), comprehensive</li> </ul>	Flood		Hazard Mitigation Plan Coordinator	Ongoing capability	Cost Level of Protection		1. Discontinue 2.  3. Ongoing capability



Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if project status is complete)		Next Steps 1. Project to be included in 2019 HMP or Discontinue 2. If including action in the 2019 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
	<p>emergency management, debris management, and land use. Improved structural and facility inventories could incorporate flood, wind and seismic-specific parameters (e.g. first floor elevations, roof types, structure types based on FEMA-154 "Rapid Visual Screening of Buildings for Potential Seismic Hazards" methodologies). It is recognized that these programs will need to be initiated and supported at the County and/or State level, and will require training, tools and funding provided at the county, state and/or federal level.</p>							
Severe Storm-1	<p>Enhance the County/community resilience to severe storms (incl. severe winter storms) by joining the NOAA "Storm Ready" program and supporting communities in joining the program. "StormReady" communities are better prepared to save lives from the onslaught of severe weather through advanced planning, education and awareness. Participation in the NOAA "StormReady" program shall include providing</p>	Severe Storm		Municipality with support from County, NYSOEM and FEMA	No Progress	Cost		1. Include in 2019 HMP 2. 3.
						Level of Protection		
						Damages Avoided; Evidence of Success		



Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if project status is complete)		Next Steps 1. Project to be included in 2019 HMP or Discontinue 2. If including action in the 2019 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Cost	Level of Protection Damages Avoided; Evidence of Success	
	information on the "StormReady" program, facilitating public outreach and awareness programs, and supporting community storm risk reduction activities as appropriate. Specific actions addressed by "StormReady" participation include establishing a 24-hour Warning Point, increase number of ways EOC receives NWS warnings, increase number of ways to disseminate warnings, monitoring hydrometeorological data, providing annual weather safety talks, train weather spotters, create a formal hazardous weather plan, host annual visits by NWS to communities, etc.							
Earthquake-1	Obtain training and conduct rapid screening assessment of critical facilities for earthquake vulnerability.	Earthquake		Municipal Emergency Management, Fire, PD with support from County, NYSOEM	No Progress	Cost		1. Include in 2019 HMP 2. 3.
						Level of Protection		
						Damages Avoided; Evidence of Success		
Earthquake-2	Develop a post-earthquake management plan to address building safety inspections, gas leaks, and other elements to protect public safety.	Earthquake		Municipal Emergency Management, Fire, PD with support from County, NYSOEM	No Progress	Cost		1. Include in 2019 HMP 2. 3.
						Level of Protection		
						Damages Avoided; Evidence of Success		





### Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Town of Dickinson has identified the following mitigation projects/activities that have also been completed but were not identified in the previous mitigation strategy in the 2013 Plan:

- The Town of Dickinson has performed ongoing maintenance projects to reduce the impact of flooding but has not identified specific mitigation projects/activities that have been completed but were not identified in the previous mitigation strategy in the 2013 Plan.
- **Building Resiliency (2016):** The Broome County Department of Planning prepared Building Resiliency to document resiliency projects municipalities have completed. The Town of Dickinson identified the following completed projects (as of 2016):
  - Broome County Department of Public Works repaired county-owned bridges and culverts in the Town of Dickinson.

### Proposed Hazard Mitigation Initiatives for the Plan Update

The Town of Dickinson participated in a mitigation action workshop on October 17, 2018 and was provided the following FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards: FEMA 551 ‘Selecting Appropriate Mitigation Measures for Floodprone Structures’ (March 2007) and FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013).

Table 9.9-13 summarizes the comprehensive-range of specific mitigation initiatives the Town of Dickinson would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as ‘High’, ‘Medium’, or ‘Low.’ The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.9-14 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.9-12. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) Mitigated	Description of the Problem and Solution	Critical Facility?	EHP Issues?	Lead and Support Agencies	Estimated Cost	Estimated Benefits	Estimated Timeline	Potential Funding Sources	Priority	Mitigation Category	CRS Category
T. Dickinson-1	Broome Community College Pump Station	1, 5	Flood, Severe Storm	<p><b>Problem:</b> Pump station floods, rebuild it, confined space entry things one guy couldn't valve closed sewer up to his neck, also so all the electrical would be flooded</p> <p><b>Solution:</b> Pump station located near Broome Community College, serves the jail, businesses, residential areas. During flood it backs up, put in additional holding build adjacent, tear down the first one negotiate with the county. Engineering design, plans, specs for construction, water and sewer rates.</p>	Yes	No	Town Engineer, Public Works Superintendent	\$500,000	Continuity of operations protect structure from flood and damages	18 months	FEMA HMGP and FMA, USDA Rural Development	High	SIP	PP
T. Dickinson-2	College Pumping Station increased storage capacity.	1, 5	Flood, Severe Storm	<p><b>Problem:</b> College Pumping Station handles the sewage for the jail, school, and surrounding developments including Chenango Shores. The Pumping Station pumps to the Sunrise Terrace Pump Station and then to the City of Binghamton. The Pumping Station lacks storage capacity necessary to prevent overflow, leading to flooding and damages in</p>	Yes	No	Town Engineer, Public Works Superintendent	\$200,000	Reduction in likelihood of sewer backup and reduction of rates of sewage pumped to City of Binghamton.	5 years	FEMA HMGP and FMA, USDA Rural Development	High	SIP	PP



Project Number	Project Name	Goals Met	Hazard(s) Mitigated	Description of the Problem and Solution	Critical Facility?	EHP Issues?	Lead and Support Agencies	Estimated Cost	Estimated Benefits	Estimated Timeline	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				<p>the areas surrounding the pump station.</p> <p><b>Solution:</b> The Town of Dickinson will replace pipes to double the storage capacity of the College Pumping Station to prevent overflow.</p>										
T. Dickinson-3	Dickinson Repetitive Loss Properties	1, 2, 3	Flood, Severe Storm	<p><b>Problem:</b> There are several repetitive loss properties located in the Town of Dickinson. These properties may be affected by heavy rain or flood events which may post severe health and safety risks to the residents.</p> <p><b>Solution:</b> Conduct an outreach program to the property owners, informing them of the various options there are to mitigate their property. If the owner choses to mitigate, the town will work with them to develop a grant application to obtain funding to mitigate the property.</p>	No	No	Municipal FPA with support from property owner	<\$10,000 for outreach program	Educates property owner on options to protect their home; increase relationships between town and residents	Within 1 year	Municipal Budget	Medium	EAP	PI
T. Dickinson-4	Update the NFIP Flood Damage Prevention Ordinance	1	Flood	<p><b>Problem:</b> The current flood damage prevention ordinance does not include NYS freeboard requirements. Flood Damage Prevention Ordinance will be updated to</p>	No	None	Floodplain Administrator	<\$10,000	Higher building standards and lower flood exposure	Within 6 months	Municipal budget	High	LPR	PR



Project Number	Project Name	Goals Met	Hazard(s) Mitigated	Description of the Problem and Solution	Critical Facility?	EHP Issues?	Lead and Support Agencies	Estimated Cost	Estimated Benefits	Estimated Timeline	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				<p><b>Solution:</b> Update the municipal flood damage prevention ordinance to include the new freeboard requirement of 2 feet above the BFE for both residential and commercial construction.</p>										
T. Dickinson-5	Sunrise Terrace Pump Station	1, 5	Flood, Severe Storm	<p><b>Problem:</b> The Sunrise Terrace Pump Station is located within the 500-year floodplain. Flood inundation of the facility could lead to equipment malfunction and/or a loss of utility service to the residents of the Town of Dickinson. The station also collects stormwater from other sections of the Town and directs it to the nearby Chenango River, which lies just under 1/2 mile to the east of the station. The river is shown in the first of sever photographs of the neighborhood in the following pages.</p> <p>Failure of the station would cause a backup of water being collected throughout the town and cause flooding of low-lying streets and structures.</p> <p><b>Solution:</b> Install a flood wall outside the perimeter of the fence</p>	Yes	No	Public Works Department and Town Engineer	\$75,000	Reduce risk of flooding in the immediate neighborhood and town-wide.	1 year	Local Bonds	High	SIP	PP





Project Number	Project Name	Goals Met	Hazard(s) Mitigated	Description of the Problem and Solution	Critical Facility?	EHP Issues?	Lead and Support Agencies	Estimated Cost	Estimated Benefits	Estimated Timeline	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				containing the pump station and its supporting equipment.										

Notes:

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

Acronyms and Abbreviations:

- CAV Community Assistance Visit
- CRS Community Rating System
- DPW Department of Public Works
- FEMA Federal Emergency Management Agency
- FPA Floodplain Administrator
- HMA Hazard Mitigation Assistance
- N/A Not applicable
- NFIP National Flood Insurance Program
- OEM Office of Emergency Management

Potential FEMA HMA Funding Sources:

- FMA Flood Mitigation Assistance Grant Program
- HMGP Hazard Mitigation Grant Program
- PDM Pre-Disaster Mitigation Grant Program

Timeline:

The time required for completion of the project upon implementation

Cost:

The estimated cost for implementation.

Benefits:

A description of the estimated benefits, either quantitative and/or qualitative.

Mitigation Category:

- Local Plans and Regulations (LPR) – These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.
- Structure and Infrastructure Project (SIP) - These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct manmade structures to reduce the impact of hazards.
- Natural Systems Protection (NSP) – These are actions that minimize damage and losses and preserve or restore the functions of natural systems.
- Education and Awareness Programs (EAP) – These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

CRS Category:

- Preventative Measures (PR) - Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.
- Property Protection (PP) - These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.
- Public Information (PI) - Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.
- Natural Resource Protection (NR) - Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.
- Structural Flood Control Projects (SP) - Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.





- *Emergency Services (ES) - Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities*

Critical Facility:

- Yes  - Critical Facility located in 1% floodplain



Table 9.9-13. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Time line	Agency Champion	Other Community Objectives	Total	High / Medium / Low
T. Dickinson-1	College Pumping Station flood wall.	0	1	1	1	1	1	0	1	1	1	0	1	1	1	11	High
T. Dickinson-2	College Pumping Station increased storage capacity.	0	1	1	1	1	1	0	1	1	1	1	0	1	1	11	High
T. Dickinson-3	Dickinson Repetitive Loss Properties	0	1	1	1	1	1	0	1	1	1	0	1	1	1	11	High
T. Dickinson-4	Update the NFIP Flood Damage Prevention Ordinance	1	1	1	1	1	1	1	1	1	1	0	1	1	1	13	High
T. Dickinson-5	Sunrise Terrace Pump Station	0	1	1	1	1	1	0	1	1	1	0	1	1	1	11	High

Note: Refer to Section 6, which conveys guidance on prioritizing mitigation actions.



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### **9.9.7 Future Needs To Better Understand Risk/Vulnerability**

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None at this time.

### **9.9.8 Staff and Local Stakeholder Involvement in Annex Development**

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The Town of Dickinson followed the planning process described in Section 3 (Planning Process) in Volume I of this plan update. This annex was developed over the course of several months with input from many Town departments, including: Code Enforcement, Engineer, and the Supervisor. The Code Enforcement Officer represented the community on the Broome County Hazard Mitigation Plan Planning Partnership and supported the local planning process requirements by securing input from persons with specific knowledge to enhance the plan. The Engineer served on the Steering Committee. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

Additional documentation on the municipality's planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meetings).

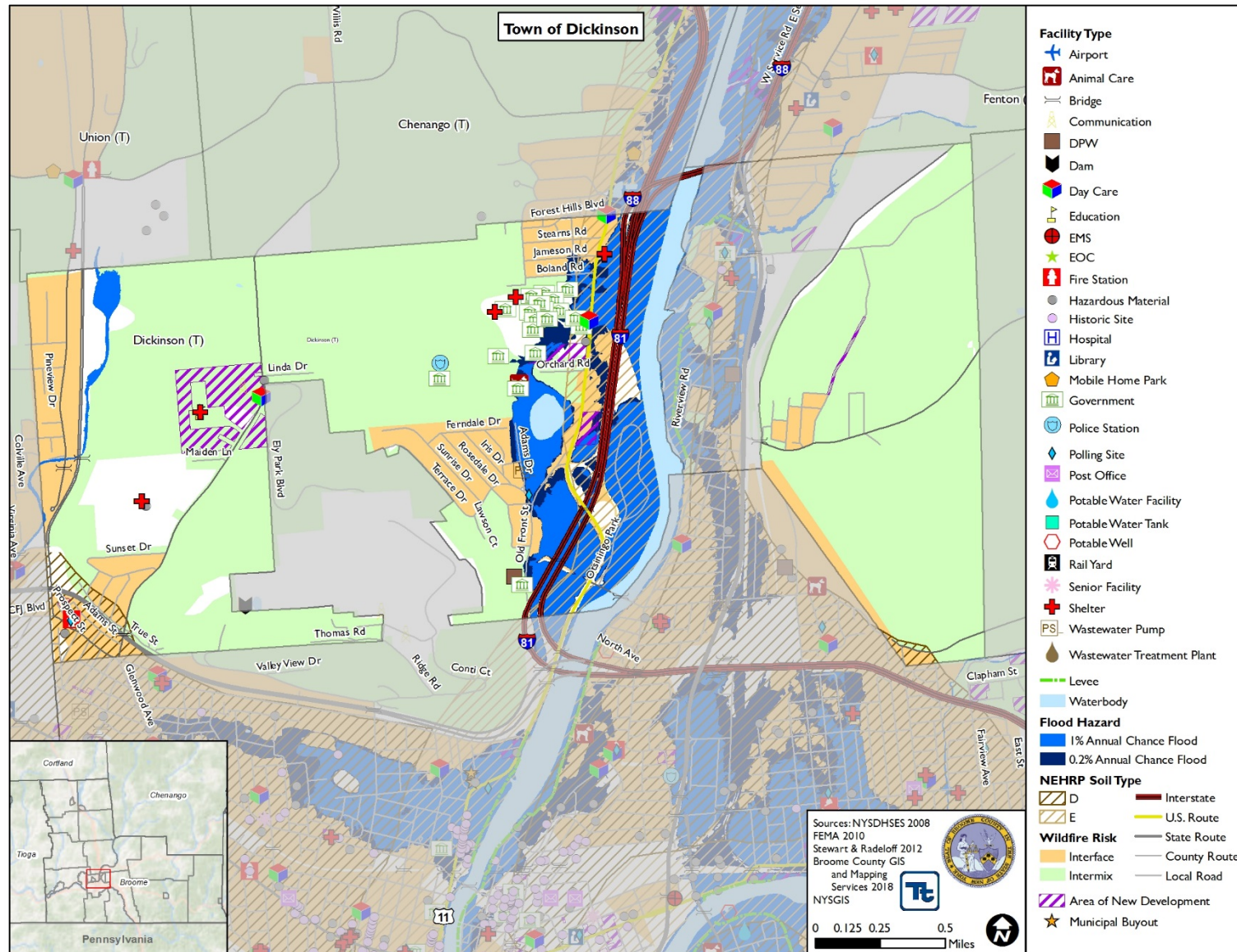
### **9.9.9 Hazard Area Extent and Location**

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Hazard area extent and location maps have been generated for the Town of Dickinson that illustrate the probable areas impacted within the municipality. These maps are based on the best available data at the time of the preparation of this plan and are considered to be adequate for planning purposes. Maps have only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Town of Dickinson has significant exposure. These maps are illustrated below.



Figure 9.9-1. Town of Dickinson Hazard Area Extent and Location Map





Town of Dickinson Action Worksheet			
<b>Project Name:</b>	College Pumping Station flood wall		
<b>Project Number:</b>	T. Dickinson-1		
<b>Risk / Vulnerability</b>			
<b>Hazard(s) of Concern:</b>	Flood, Severe Storm		
<b>Description of the Problem:</b>	College Pumping Station, located along Front Street, handles the sewage for the jail, school, and surrounding developments including Chenango Shores. The Pumping Station pumps to the Sunrise Terrace Pump Station and then to the City of Binghamton. The Pumping Station is vulnerable to flooding. During periods of heavy rain and flooding, the station becomes inundated which causes it to lose power and not function properly.		
<b>Action or Project Intended for Implementation</b>			
<b>Description of the Solution:</b>	The Town of Dickinson will construct a floodwall around the College Pumping Station to protect it to the 500-year flood level. The floodwall will allow the pump station to function during periods of heavy rain and flooding and allow for continuity of operations.		
<b>Is this project related to a Critical Facility?</b>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
<b>Is this project related to a Critical Facility located within the 100-year floodplain?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
<b>Level of Protection:</b>	500-year flood event	<b>Estimated Benefits (losses avoided):</b>	Continuity of operations protect structure from flood and damages
<b>Useful Life:</b>	50 years	<b>Goals Met:</b>	1, 5
<b>Estimated Cost:</b>	\$500,000	<b>Mitigation Action Type:</b>	Structure and Infrastructure Project.
<b>Plan for Implementation</b>			
<b>Prioritization:</b>	High	<b>Desired Timeframe for Implementation:</b>	Design phase, discuss with county, have money in hand, 3-6 months design and specs. 1 month bid, 9 months construction
<b>Estimated Time Required for Project Implementation:</b>	1 year	<b>Potential Funding Sources:</b>	FEMA HMGP and FMA, USDA Rural Development
<b>Responsible Organization:</b>	Town Engineer, Public Works Superintendent	<b>Local Planning Mechanisms to be Used in Implementation if any:</b>	Hazard Mitigation
<b>Three Alternatives Considered (including No Action)</b>			
<b>Alternatives:</b>	<b>Action</b>	<b>Estimated Cost</b>	<b>Evaluation</b>
	No Action	\$0	Problem continues.
	Build in another location	Double or triple cost, piping	Still need pump there even after built
	Rehab current	Cost a lot to build up to code 2x 3-500,000	Cannot keep pumping, still need temp pump; costly
<b>Progress Report (for plan maintenance)</b>			
<b>Date of Status Report:</b>			
<b>Report of Progress:</b>			
<b>Update Evaluation of the Problem and/or Solution:</b>			





Action Worksheet		
<b>Project Name:</b>	College Pumping Station flood wall	
<b>Project Number:</b>	T. Dickinson-1	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	
Property Protection	1	Project will protect the Pumping Station from flooding.
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	The Town has the legal authority to complete the project.
Fiscal	0	
Environmental	1	Project will prevent floodwaters from being exposed to sewage.
Social	1	
Administrative	1	
Multi-Hazard	1	Flooding, Severe Storm
Timeline	0	Project to be completed within 5 years
Agency Champion	1	Public Works
Other Community Objectives	1	Protection of critical facilities
<b>Total</b>	11	
<b>Priority (High/Med/Low)</b>	High	



Town of Dickinson Action Worksheet			
<b>Project Name:</b>	College Pumping Station increased storage capacity.		
<b>Project Number:</b>	T. Dickinson-2		
Risk / Vulnerability			
<b>Hazard(s) of Concern:</b>	Flood, Severe Storm		
<b>Description of the Problem:</b>	College Pumping Station handles the sewage for the jail, school, and surrounding developments including Chenango Shores. The Pumping Station pumps to the Sunrise Terrace Pump Station and then to the City of Binghamton. The Pumping Station lacks storage capacity necessary to prevent overflow, leading to flooding and damages in the areas surrounding the pump station.		
Action or Project Intended for Implementation			
<b>Description of the Solution:</b>	The Town of Dickinson will replace pipes to double the storage capacity of the College Pumping Station to prevent overflow.		
<b>Is this project related to a Critical Facility?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
<b>Is this project related to a Critical Facility located within the 100-year floodplain?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
<b>Level of Protection:</b>	25-year storm	<b>Estimated Benefits (losses avoided):</b>	Reduction in likelihood of sewer backup and reduction of rates of sewage pumped to City of Binghamton.
<b>Useful Life:</b>	15 years	<b>Goals Met:</b>	1, 5
<b>Estimated Cost:</b>	\$200,000	<b>Mitigation Action Type:</b>	Structure and Infrastructure Project.
Plan for Implementation			
<b>Prioritization:</b>	High	<b>Desired Timeframe for Implementation:</b>	Within 5 years
<b>Estimated Time Required for Project Implementation:</b>	1 year	<b>Potential Funding Sources:</b>	FEMA HMGP and FMA, USDA Rural Development
<b>Responsible Organization:</b>	Town Engineer, Public Works Superintendent	<b>Local Planning Mechanisms to be Used in Implementation if any:</b>	Hazard Mitigation
Three Alternatives Considered (including No Action)			
<b>Alternatives:</b>	<b>Action</b>	<b>Estimated Cost</b>	<b>Evaluation</b>
	No Action	\$0	Problem continues.
	Construct an additional pump station	\$1 million+	Too costly
	Enhance maintenance program	\$50,000	Short-term solution might not prevent flood damage
Progress Report (for plan maintenance)			
<b>Date of Status Report:</b>			
<b>Report of Progress:</b>			
<b>Update Evaluation of the Problem and/or Solution:</b>			





Action Worksheet		
<b>Project Name:</b>	College Pumping Station increased storage capacity.	
<b>Project Number:</b>	T. Dickinson-3	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	
Property Protection	1	Project will protect neighboring properties from being exposed to sewage overflow.
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	The Town has the legal authority to complete the project.
Fiscal	0	
Environmental	1	Project will prevent overflow of sewers
Social	1	
Administrative	1	
Multi-Hazard	1	Flooding, Severe Storm
Timeline	0	Project to be completed within 5 years
Agency Champion	1	Public Works
Other Community Objectives	1	
<b>Total</b>	11	
<b>Priority (High/Med/Low)</b>	High	



Action Worksheet			
<b>Project Name:</b>	Sunrise Terrace Pump Station		
<b>Project Number:</b>	T. Dickinson 5		
Risk / Vulnerability			
<b>Hazard(s) of Concern:</b>	Flood, Severe Storm		
<b>Description of the Problem:</b>	<p>The Sunrise Terrace Pump Station is located within a floodplain. Flood inundation of the facility could lead to equipment malfunction and/or a loss of utility service to the residents of the Town of Dickinson. The station also collects stormwater from other sections of the Town and directs it to the nearby Chenango River, which lies just under 1/2 mile to the east of the station. The river is shown in the first of sever photographs of the neighborhood in the following pages.</p> <p>Failure of the station would cause a backup of water being collected throughout the town and cause flooding of low-lying streets and structures.</p>		
Action or Project Intended for Implementation			
<b>Description of the Solution:</b>	Install a flood wall outside the perimeter of the fence containing the pump station and its supporting equipment.		
<b>Is this project related to a Critical Facility?</b>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
<b>Is this project related to a Critical Facility located within the 100-year floodplain?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
<b>Level of Protection:</b>	500-year event	<b>Estimated Benefits (losses avoided):</b>	Reduce risk of flooding in the immediate neighborhood and town-wide.
<b>Useful Life:</b>	30 years	<b>Goals Met:</b>	1, 5
<b>Estimated Cost:</b>	\$75,000	<b>Mitigation Action Type:</b>	Structural
Plan for Implementation			
<b>Prioritization:</b>	High	<b>Desired Timeframe for Implementation:</b>	6 months
<b>Estimated Time Required for Project Implementation:</b>	1 year	<b>Potential Funding Sources:</b>	Local bonds
<b>Responsible Organization:</b>	Public Works Department	<b>Local Planning Mechanisms to be Used in Implementation if any:</b>	Stormwater management plan
Three Alternatives Considered (including No Action)			
<b>Alternatives:</b>	Action	<b>Estimated Cost</b>	<b>Evaluation</b>
	No Action	\$0	Continued vulnerability to failure
	Move the pump station	\$250,000	There is no better location in the neighborhood
	Elevate the pump station	\$325,000	Not feasible from an engineering standpoint
Progress Report (for plan maintenance)			
<b>Date of Status Report:</b>			
<b>Report of Progress:</b>			
<b>Update Evaluation of the Problem and/or Solution:</b>			



Action Worksheet		
<b>Project Name:</b>	Sunrise Terrace Pump Station	
<b>Project Number:</b>	T. Dickinson 5	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	
Property Protection	1	Project will protect the Pumping Station from flooding.
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	The Town has the legal authority to complete the project.
Fiscal	0	
Environmental	1	Project will prevent floodwaters from being exposed to sewage.
Social	1	
Administrative	1	
Multi-Hazard	1	Flooding, Severe Storm
Timeline	0	Project to be completed within 5 years
Agency Champion	1	Public Works
Other Community Objectives	1	Protection of critical facilities
<b>Total</b>	11	
<b>Priority (High/Med/Low)</b>	High	

The first map below is the FEMA flood map, which was produced in 1977. Older maps generally show less land located in the Special Flood Hazard Area (flood zone) than is the case today because zones tend to expand over time as more land and personal property becomes at-risk. Even in 1977, however, the project area, marked by the blue star, was identified as being in the SFHA and vulnerable to flooding.

The Google map at bottom shows the project location in the Town of Dickinson. The pump station is situated behind Sunrise Terrace Community Center, beyond the outfield of the baseball diamond shown on the next page.



Figure 9.9-2. Proposed Project Location

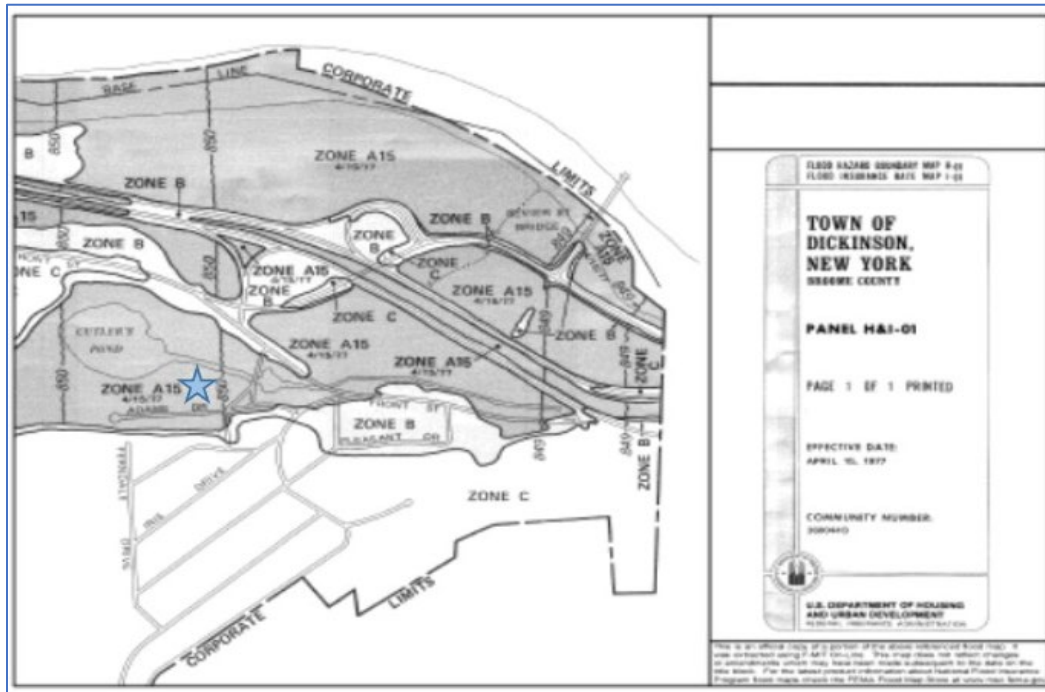
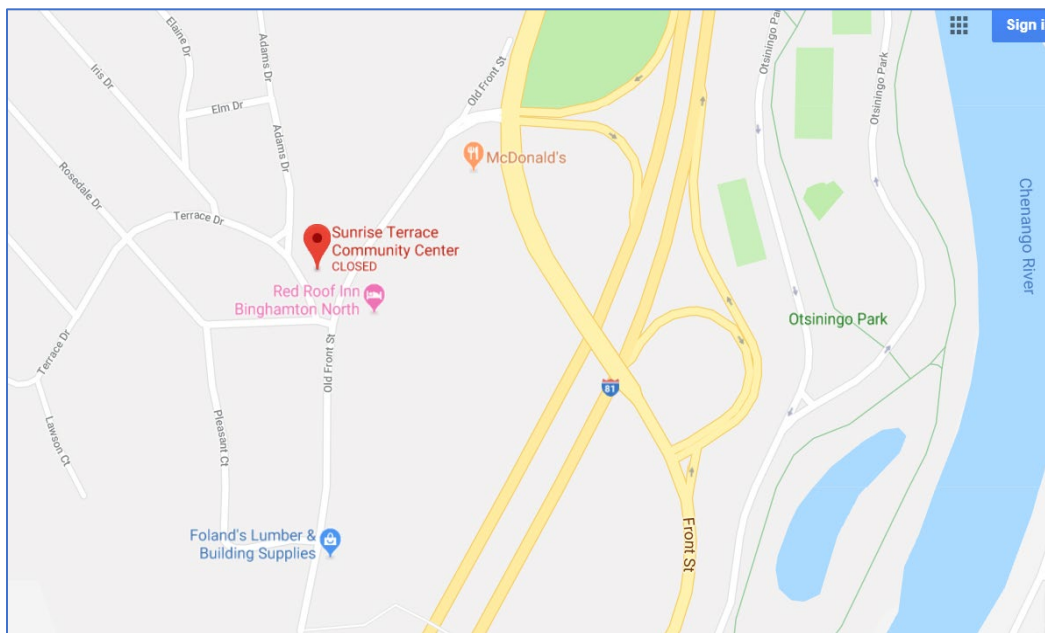


Figure 9.9-3. Proposed Project Location



The ballfield, with the pump station shown outlined by a white box, is located between Adams Drive (top of photo) and Old Front Street (bottom of photo).



Figure 9.9-4. Aerial View of Proposed Project Location



The pump station is shown as being close to Old Front Street. Flooding caused by pump failure would affect traffic on this major thoroughfare.

Figure 9.9-5. Aerial View of Proposed Project Location

