

County of Albany

Harold L. Joyce
Albany County Office Building
112 State Street - Albany, NY 12207



Meeting Agenda

Thursday, August 28, 2025

5:30 PM

**Harold L. Joyce Albany County Office Building
Cahill Room - First Floor**

Public Safety Committee

PREVIOUS BUSINESS:

1. APPROVING PREVIOUS MEETING MINUTES
2. PUBLIC HEARING ON PROPOSED LOCAL LAW NO. "T" FOR 2024: A LOCAL LAW OF THE COUNTY OF ALBANY, NEW YORK AMENDING CHAPTER 288 OF THE ALBANY COUNTY CODE, ESTABLISHING A MINIMUM PASSING DISTANCE FOR MOTOR VEHICLES
3. LOCAL LAW NO. "T" FOR 2024: A LOCAL LAW OF THE COUNTY OF ALBANY, NEW YORK AMENDING CHAPTER 288 OF THE ALBANY COUNTY CODE, ESTABLISHING A MINIMUM PASSING DISTANCE FOR MOTOR VEHICLES

CURRENT BUSINESS:

4. AMENDING THE 2025 SHERIFF'S OFFICE BUDGET: PERSONNEL ADJUSTMENTS
5. AMENDING THE 2025 SHERIFF'S OFFICE BUDGET: AUCTIONED AGENCY VEHICLES
6. AUTHORIZING THE APPOINTMENT OF A MEMBER TO THE FIRE ADVISORY BOARD
7. AMENDING THE 2025 SHERIFF'S OFFICE BUDGET: SPECIALTY EQUIPMENT
8. AMENDING RESOLUTION NO. 572 FOR 2023 REGARDING THE NEW YORK STATE COMPANION ANIMAL CAPITAL PROJECTS FUND GRANT
9. AUTHORIZING AGREEMENTS WITH COLUMBIA UNIVERSITY, CHESTNUT HEALTH SYSTEMS, INC., AND THE NEW YORK STATE OFFICE OF MENTAL HEALTH REGARDING THE E-CONNECT SUICIDE RISK ASSESSMENT FOR JUVENILES
10. AUTHORIZING AN AGREEMENT WITH THE NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES REGARDING THE GUN INVOLVED VIOLENCE ELIMINATION GRANT

11. AUTHORIZING AN AGREEMENT WITH ALLIED UNIVERSAL ELECTRONIC MONITORING US, INC. REGARDING ELECTRONIC MONITORING PRODUCTS AND SERVICES
12. ADOPTING THE 2025 ALBANY COUNTY HAZARD MITIGATION PLAN

County of Albany

*Harold L. Joyce
Albany County Office Building
112 State Street - Albany, NY 12207*



Meeting Minutes

Thursday, July 31, 2025

5:30 PM

**Harold L. Joyce Albany County Office Building
Cahill Room - First Floor**

Public Safety Committee

PREVIOUS BUSINESS:

Present: Frank J. Commisso, Robert J. Beston, Gary W. Domalewicz, Beroro T. Efekoro, Gilbert F. Ethier, Zach Collins, Patrice Lockart, Timothy Lane and Susan Pedo

1. APPROVING PREVIOUS MEETING MINUTES

A motion was made that the previous meeting minutes be approved. The motion carried by a unanimous vote.

2. PUBLIC HEARING ON PROPOSED LOCAL LAW NO. "T" FOR 2024: A LOCAL LAW OF THE COUNTY OF ALBANY, NEW YORK AMENDING CHAPTER 288 OF THE ALBANY COUNTY CODE, ESTABLISHING A MINIMUM PASSING DISTANCE FOR MOTOR VEHICLES

This proposal was tabled at the request of the Sponsor.

3. LOCAL LAW NO. "T" FOR 2024: A LOCAL LAW OF THE COUNTY OF ALBANY, NEW YORK AMENDING CHAPTER 288 OF THE ALBANY COUNTY CODE, ESTABLISHING A MINIMUM PASSING DISTANCE FOR MOTOR VEHICLES

This Local Law was tabled at the request of the Sponsor.

CURRENT BUSINESS:**4. AMENDING THE 2025 SHERIFF'S OFFICE BUDGET: MAINTENANCE MECHANIC III POSITION**

A motion was made to move the proposal forward with a positive recommendation. The motion carried by a unanimous vote.

5. AMENDING THE 2025 SHERIFF'S OFFICE BUDGET: DEPUTY SHERIFF POSITIONS

A motion was made to move the proposal forward with a positive recommendation. The motion carried by a unanimous vote.

6. AUTHORIZING AN AGREEMENT WITH CFG MEDICAL SERVICES REGARDING MEDICAL CARE AT THE ALBANY COUNTY CORRECTIONAL FACILITY

A motion was made to move the proposal forward with a positive recommendation. The motion carried by a unanimous vote.

7. AMENDING THE 2025 SHERIFF'S OFFICE BUDGET: FIRE APPARATUS VEHICLE PURCHASE

A motion was made to move the proposal forward with a positive recommendation. The motion carried by a unanimous vote.

8. AMENDING RESOLUTION NO. 355 FOR 2024 REGARDING THE 2022 HAZARDOUS MATERIALS GRANT AND AMENDING THE 2025 SHERIFF'S OFFICE BUDGET

A motion was made to move the proposal forward with a positive recommendation. The motion carried by a unanimous vote.

9. AUTHORIZING THE SUBMISSION OF A GRANT APPLICATION TO AND AN AGREEMENT WITH THE NEW YORK STATE CANAL CORPORATION REGARDING REIMBURSEMENT FOR MARINE PATROL SERVICES

A motion was made to move the proposal forward with a positive recommendation. The motion carried by a unanimous vote.

10. AMENDING RESOLUTION NO. 491 FOR 2022 REGARDING THE COMPREHENSIVE OPIOID, STIMULANT, AND SUBSTANCE ABUSE PROGRAM

A motion was made to move the proposal forward with a positive recommendation. The motion carried by a unanimous vote.

11. AMENDING THE 2025 VETERANS BUREAU BUDGET: PERSONNEL ADJUSTMENTS

A motion was made to move the proposal forward with a positive recommendation. The motion carried by a unanimous vote.

12. AUTHORIZING THE SUBMISSION OF A GRANT APPLICATION TO AND AN AGREEMENT WITH THE NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES REGARDING THE 2025 GUN INVOLVED VIOLENCE ELIMINATION GRANT AND AMENDING THE 2025 SHERIFF'S OFFICE BUDGET

A motion was made to move the proposal forward with a positive recommendation. The motion carried by a unanimous vote.

LOCAL LAW NO. “T” FOR 2024

A LOCAL LAW OF THE COUNTY OF ALBANY, NEW YORK AMENDING CHAPTER 288 OF THE ALBANY COUNTY CODE, ESTABLISHING A MINIMUM PASSING DISTANCE FOR MOTOR VEHICLES

Introduced: 12/2/24

By Fein, Laurilliard, A. Joyce and Miller:

A local law amending Chapter 288 of the Albany County Code, entitled **Vehicles**, to create Article IV of such Chapter, entitled **Minimum Passing Distance Requirements for Motor Vehicles**, to establish a minimum passing distance for motor vehicles.

BE IT ENACTED by the Albany County Legislature as follows:

Section 1. Article Creation.

Chapter 288, Article IV, **Minimum Passing Distance Requirements for Motor Vehicles**, is hereby created.

Section 2. §288-26, Title.

This local law shall be known as the “Albany County Safe Passing Law.”

Section 3. § 288-27, Legislative Intent.

The Albany County Legislature recognizes that bicyclists, pedestrians, and other vulnerable road users often need to share roadways with motor vehicles out of necessity.

The Legislature also acknowledges that in these situations, vulnerable road users are susceptible to the actions of motor vehicle operators who can pose a threat to their health and safety if passing too closely.

Therefore, this Legislature finds it necessary to establish a minimum passing distance for motor vehicles approaching or passing vulnerable road users.

Section 4. § 288-28, Vulnerable Road User.

“Vulnerable road user” means any pedestrian; person operating a wheelchair or other personal mobility device regardless of motorization; person operating a bicycle or other non-motorized mode of transportation such as roller skates, rollerblades, roller skis, skateboard, longboard, or unicycle; operator of roadway

construction, repair, or maintenance equipment; utility worker; construction worker; roadside assistance worker; operator of agricultural equipment; person riding, driving, or herding an animal; law enforcement officer; firefighter; emergency medical technician; or first responder.

Section 5. § 288-29, Minimum Distance Requirements for Motor Vehicles.

The operator of a motor vehicle that is approaching or passing vulnerable road user shall do so at a distance of at least three feet until safely clear thereof. The three-foot distance requirement shall not apply on roads with clearly-marked bicycle lanes as defined by New York Vehicle and Traffic Law § 102-a.

Section 6. § 288-30, Compliance with New York Vehicle and Traffic Law.

The operator of a motor vehicle that is approaching or passing a vulnerable road user shall not violate New York Vehicle and Traffic Law §§ 1122-a, 1124, 1125, 1126, or any other section pertaining to overtaking and passing.

Section 7. § 288-31, Penalties.

1. Any person committing the above-referenced offense shall be guilty of a violation and subject to a fine not to exceed \$225 for a first offense, \$325 for a second offense and \$425 for any third or subsequent offense(s).
2. This section does not preclude a person from being charged with, convicted of, or punished for any other violation of law.

Section 8. § 288-32, Applicability.

This law shall apply to all actions occurring on or after the effective date.

Section 9. § 288-33, Severability.

If any clause, sentence, paragraph, section, subdivision, or other part of this local law or its application shall be adjudged by a court of competent jurisdiction to be invalid or unconstitutional, such order or judgment shall not affect, impair, or invalidate the remainder of the local law which shall remain in full force and effect except as limited by such order or judgment.

Section 10. § 288-34, SEQRA Compliance.

This County Legislature determines that this local law constitutes a “Type II action” pursuant to the provisions of the State Environmental Quality Review Act (SEQRA), and that no further action under SEQRA is required.

Section 11. Effective Date.

This local law shall take effect immediately following its filing with the Office of the Secretary of State.

Referred to Law and Public Safety Committees – 12/02/24

RESOLUTION NO. 823

PUBLIC HEARING ON PROPOSED LOCAL LAW NO. “T” FOR 2024: A LOCAL LAW OF THE COUNTY OF ALBANY, NEW YORK AMENDING CHAPTER 288 OF THE ALBANY COUNTY CODE, ESTABLISHING A MINIMUM PASSING DISTANCE FOR MOTOR VEHICLES

Introduced: 12/2/24

By Fein, Laurilliard, A. Joyce and Miller:

RESOLVED, By the County Legislature of the County of Albany that a public hearing on proposed Local Law No. “T” for 2024, “A LOCAL LAW OF THE COUNTY OF ALBANY, NEW YORK AMENDING CHAPTER 288 OF THE ALBANY COUNTY CODE, ESTABLISHING A MINIMUM PASSING DISTANCE FOR MOTOR VEHICLES” be held by the Albany County Legislature at 7:15 p.m. on Tuesday, February 25, 2025, with participation information to be made available on the Albany County website, and the Clerk of the County Legislature is directed to cause notice of such hearing to be published containing the necessary information in accordance with the applicable provisions of law.

LOCAL LAW NO. “T” FOR 2024

A LOCAL LAW OF THE COUNTY OF ALBANY, NEW YORK AMENDING CHAPTER 288 OF THE ALBANY COUNTY CODE, ESTABLISHING A MINIMUM PASSING DISTANCE FOR MOTOR VEHICLES

Introduced: 12/2/24

By Fein, Laurilliard, A. Joyce and Miller:

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The Legislature also acknowledges that in these situations, vulnerable road users are susceptible to the actions of motor vehicle operators who can pose a threat to their health and safety if passing too closely.

Therefore, this Legislature finds it necessary to establish a minimum passing distance for motor vehicles approaching or passing vulnerable road users.

Section 4. § 288-28, Vulnerable Road User.

“Vulnerable road user” means any pedestrian; person operating a wheelchair or other personal mobility device regardless of motorization; person operating a bicycle or other non-motorized mode of transportation such as roller skates, rollerblades, roller skis, skateboard, longboard, or unicycle; operator of roadway

construction, repair, or maintenance equipment; utility worker; construction worker; roadside assistance worker; operator of agricultural equipment; person riding, driving, or herding an animal; law enforcement officer; firefighter; emergency medical technician; or first responder.

Section 5. § 288-29, Minimum Distance Requirements for Motor Vehicles.

The operator of a motor vehicle that is approaching or passing vulnerable road user shall do so at a distance of at least three feet until safely clear thereof. The three-foot distance requirement shall not apply on roads with clearly-marked bicycle lanes as defined by New York Vehicle and Traffic Law § 102-a.

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Section 7. § 288-31, Penalties.

1. Any person committing the above-referenced offense shall be guilty of a violation and subject to a fine not to exceed \$225 for a first offense, \$325 for a second offense and \$425 for any third or subsequent offense(s).
2. This section does not preclude a person from being charged with, convicted of, or punished for any other violation of law.

Section 8. § 288-32, Applicability.

This law shall apply to all actions occurring on or after the effective date.

Section 9. § 288-33, Severability.

If any clause, sentence, paragraph, section, subdivision, or other part of this local law or its application shall be adjudged by a court of competent jurisdiction to be invalid or unconstitutional, such order or judgment shall not affect, impair, or invalidate the remainder of the local law which shall remain in full force and effect except as limited by such order or judgment.

Section 10. § 288-34, SEQRA Compliance.

This County Legislature determines that this local law constitutes a “Type II action” pursuant to the provisions of the State Environmental Quality Review Act (SEQRA), and that no further action under SEQRA is required.

Section 11. Effective Date.

This local law shall take effect immediately following its filing with the Office of the Secretary of State.

Referred to Law and Public Safety Committees – 12/02/24

ALBANY COUNTY SHERIFF'S OFFICE

14

CRAIG D. APPLE, SR.
SHERIFF



MICHAEL S. MONTELEONE
EXECUTIVE UNDERSHERIFF

County Court House
Albany, New York 12207 (518) 487-5400
WWW.ALBANYCOUNTYSHERIFF.COM

July 28, 2025

Honorable Joanne Cunningham
Legislative Clerk's Office
112 State Street, Room 710
Albany, New York 12207

Re: Request for Legislative Action
Budget Amendment

Jo
Dear Chairwoman Cunningham:

Enclosed please find the Albany County Sheriff's Office Request for Legislative Action relative to the above captioned.

Briefly, this request is to fund a full time Commander position at the Albany County Sheriff's Office. There will be no additional cost to the county to fund this position as this is budget neutral.

Please present the enclosed at the next available Legislative Meeting for consideration and action. Thank you and if you have any questions please feel free to contact me.

Sincerely

Craig D. Apple Sr.
Sheriff

Cc. Hon. Daniel P. McCoy, County Executive
Hon. Wanda Willingham, Audit & Finance Committee

REQUEST FOR LEGISLATIVE ACTION**Description (e.g., Contract Authorization for Information Services):**

..title

Request for Legislative approval for personnel adjustments at the Albany County Sheriff's Office

..body

Date: July 28, 2025 Submitted By: Craig D. Apple, Sr.
 Department: Sheriff's Office Title: Sheriff
 Attending Meeting: Sheriff Craig D. Apple, Sr. Phone: 518-487-5440

Purpose of Request: Budget Amendment Enter text.

CONTRACT TERMS/CONDITIONS:

Party Names and Addresses:

Enter text.

Term: (Start/end date or duration) Enter text.

Amount/Raise Schedule/Fee: Enter text.

BUDGET INFORMATION:Is there a Fiscal Impact: Yes ☒ No ☐Anticipated in Budget: Yes ☐ No ☒Spreadsheet attached: Yes ☒ No ☐**Source of Funding – (Percentages)**

Federal: 0% County: 100%

State: 0% Local: 0%

County Budget Accounts:

Revenue Account and Line: Enter text.

Revenue Amount: Enter text.

Appropriation Account and Line: Enter text.

Appropriation Amount: Enter text.

ADDITIONAL INFORMATION:Mandated Program/Service: Yes ☐ No ☒

If Mandated, Cite Authority: Enter text.

Request for Bids / Proposals:

Competitive Bidding Exempt: Yes ☐ No ☐

of Response(s): Enter text.

of MWBE: Enter text.

of Veteran Business: Enter text.

Bond Resolution No.: Enter text.

Apprenticeship Program Yes ☐ No ☐**Previous requests for Identical or Similar Action:**

Resolution/Law Number and Date: Enter text.

DESCRIPTION OF REQUEST: (state briefly why legislative action is requested)

Position necessary to ensure proper functioning and safety of the Sheriff's Office.

APPROPRIATIONS						
ACCOUNT NO.	RESOLUTION DESCRIPTION	INCREASE	DECREASE	ANNUAL SALARY	COMMENTS	
A 3110 1 2309 007	379312 Commander	38,386.00		117,399.00	Payroll check 9/4	
A 3110 1 6236 002	370139 Clerk Typist		20,000.00	38,377.00	Reduce Position	
A 3110 1 6192 001	379154 Keyboard Specialist		18,386.00	35,895.00	Reduce Position	
TOTAL APPROPRIATIONS		38,386.00	38,386.00			
ESTIMATED REVENUES						
ACCOUNT NO.	RESOLUTION DESCRIPTION	DECREASE	INCREASE	UNIT COST	COMMENTS	
TOTAL ESTIMATED REVENUES		0.00	0.00			
GRAND TOTALS		38,386.00	38,386.00			

ALBANY COUNTY SHERIFF'S OFFICE

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CRAIG D. APPLE, SR.
SHERIFF



MICHAEL S. MONTELEONE
EXECUTIVE UNDERSHERIFF

County Court House
Albany, New York 12207 (518) 487-5400
WWW.ALBANYCOUNTYSHERIFF.COM

July 28, 2025

Honorable Joanne Cunningham
Legislative Clerk's Office
112 State Street, Room 710
Albany, New York 12207

Dear Chairwoman Cunningham:

The attached correspondence is forwarded for presentation to the Albany County Legislature.

Legislative approval is requested authorizing a budget amendment moving Sixty-One Thousand Nine Hundred and Ten Dollars (\$61,910.00) deposited into our general funds to our vehicle budget line. These funds represent reimbursement from Department of Public Works for the auction of our agency vehicles within the Sheriff's Office.

Should there be any questions, do not hesitate to call.

Sincerely,

A handwritten signature in black ink, appearing to read "Craig D. Apple, Sr.", written over the typed name and title.

Craig D. Apple, Sr.
Sheriff

Cc. Hon. Daniel P. McCoy, County Executive
Hon. Wanda Willingham, Audit & Finance Committee

REQUEST FOR LEGISLATIVE ACTION**Description (e.g., Contract Authorization for Information Services):**

..title

Legislative approval to authorize and accept reimbursement for auctioned agency vehicles.

..body

Date:	July 28, 2025	Submitted By:	Craig D. Apple, Sr.
Department:	Sheriff's Office	Title:	Sheriff
Attending Meeting:	Sheriff Craig D. Apple, Sr.	Phone:	518-487-5440

Purpose of Request: Budget Amendment

CONTRACT TERMS/CONDITIONS:

Party Names and Addresses:

Enter text.

Term: (Start/end date or duration) Enter text.

Amount/Raise Schedule/Fee: Enter text.

BUDGET INFORMATION:Is there a Fiscal Impact: Yes ☒ No ☐Anticipated in Budget: Yes ☐ No ☒Spreadsheet attached: Yes ☒ No ☐**Source of Funding – (Percentages)**

Federal: 0 County: 100%

State: 0 Local: 0

County Budget Accounts:

Revenue Account and Line: Enter text.

Revenue Amount: Enter text.

Appropriation Account and Line: Enter text.

Appropriation Amount: Enter text.

ADDITIONAL INFORMATION:Mandated Program/Service: Yes ☐ No ☒

If Mandated, Cite Authority: Enter text.

Request for Bids / Proposals:

Competitive Bidding Exempt: Yes ☐ No ☒

of Response(s): Enter text.

of MWBE: Enter text.

of Veteran Business: Enter text.

Bond Resolution No.: Enter text.

Apprenticeship Program Yes ☐ No ☒**Previous requests for Identical or Similar Action:**

Resolution/Law Number and Date: Enter text.

DESCRIPTION OF REQUEST: (state briefly why legislative action is requested)

To authorize Albany County to accept reimbursement from the Department of Public Works for the auction of agency vehicles in the Sheriff's Office.



Auctions International
11167 Big Tree Rd
East Aurora, NY 14052
800-536-1401 FAX 800-569-3334
auctionsinternational.com

Albany County Sheriffs Dept.
Christine Tashjian
449 New Salem Road Voorheesville, NY
12186 USA
Phone 518-765-2055

APPROVED

Statement Date: 07/14/2025
Email:
Christine.Tashjian@albanycounty.co

Statement For: Albany County Sheriff's Dept-NY #42655

Lot	Buyer	Description	Quantity	Price	Commission	Net Due
0001	56000	(#1) 2014 Ford E350 Ambulance (Year: 2014), Ford, E350	1	5,200.00	0.00	5,200.00
0001	-	Picture / Condition Fee @ 30 fee for lot # 0001	-	-	-	(30.00)
0002	120195	(#2) 2015 Ford E350 Ambulance (Year: 2015), Ford, E350	1	4,600.00	0.00	4,600.00
0002	-	Picture / Condition Fee @ 30 fee for lot # 0002	-	-	-	(30.00)
0003	49739	(#3) 2012 Chevy Tahoe/Police Vehicle (Year: 2012), Chevy	1	1,250.00	0.00	1,250.00
0003	-	Picture / Condition Fee @ 30 fee for lot # 0003	-	-	-	(30.00)
0004	77136	(#4) 2008 Ford E350 Van (Year: 2008), Ford, E350	1	1,700.00	0.00	1,700.00
0004	-	Picture / Condition Fee @ 30 fee for lot # 0004	-	-	-	(30.00)
0004A	98001	(#4)/(903) 2009 Chevy Trail Blazer SUV (Year: 2009), Chevy, Trail Blazer	1	220.00	0.00	220.00
0004A	-	Picture / Condition Fee @ 30 fee for lot # 0004A	-	-	-	(30.00)
0005	10087	(#5) 2014 Ford Taurus 4DSD/Police Vehicle (Year: 2014), Ford, Taurus	1	450.00	0.00	450.00
0005	-	Picture / Condition Fee @ 30 fee for lot # 0005	-	-	-	(30.00)
0008	78014	(#8) 2018 Ford F150 Crew Cab Pickup Truck/Police Vehicle (Year: 2018), Ford, F150	1	7,000.00	0.00	7,000.00
0008	-	Picture / Condition Fee @ 30 fee for lot # 0008	-	-	-	(30.00)
0009	109867	(#9) 2018 Ford F150 Crew Cab Pickup Truck/Police Vehicle (Year: 2018), Ford, F150	1	7,900.00	0.00	7,900.00
0009	-	Picture / Condition Fee @ 30 fee for lot # 0009	-	-	-	(30.00)
0010	76378	(#10) 2004 Dodge Ram 2500 Pickup Truck (Year: 2004), Dodge Ram, 2500	1	1,800.00	0.00	1,800.00
0010	-	Picture / Condition Fee @ 30 fee for lot # 0010	-	-	-	(30.00)
0011	75122	(#11) 2016 Chevy Tahoe/Police Vehicle (Year: 2016), Chevy	1	3,250.00	0.00	3,250.00
0011	-	Picture / Condition Fee @ 30 fee for lot # 0011	-	-	-	(30.00)
0012	44849	(#12) 2007 Chevy Uplander Van (Year: 2007), Chevy, Uplander	1	200.00	0.00	200.00
0012	-	Picture / Condition Fee @ 30 fee for lot # 0012	-	-	-	(30.00)
0013	59931	(#13) 2017 Ford Taurus 4DSD/Police Vehicle (Year: 2017), Ford, Taurus	1	900.00	0.00	900.00
0013	-	Picture / Condition Fee @ 30 fee for lot # 0013	-	-	-	(30.00)
0014	49739	(#14) 2017 Chevy Tahoe (Year: 2017), Chevy	1	7,800.00	0.00	7,800.00
0014	-	Picture / Condition Fee @ 30 fee for lot # 0014	-	-	-	(30.00)
0015	99098	(#15) 1976 16' 7" Boston Whaler Boat and Trailer (Year: 1976)	1	4,450.00	0.00	4,450.00

0015	-	Picture / Condition Fee @ 30 fee for lot # 0015	-	-	-	(30.00)
0016	117894	(#16) 2015 Chevy Tahoe/Police Vehicle (Year: 2015), Chevy	1	5,300.00	0.00	5,300.00
0016	-	Picture / Condition Fee @ 30 fee for lot # 0016	-	-	-	(30.00)
0017	120195	(#17) 1998 Ford E450 Ambulance (Year: 1998), Ford, E450	1	3,400.00	0.00	3,400.00
0017	-	Picture / Condition Fee @ 30 fee for lot # 0017	-	-	-	(30.00)
0021	2367	(#21)/(Brush Truck) 1985 Chevy C/K30 Mini Pumper Truck (Year: 1985), Chevy, C/K30	1	7,000.00	0.00	7,000.00
0021	-	Picture / Condition Fee @ 30 fee for lot # 0021	-	-	-	(30.00)

Summary of Sales Activity at Albany County Sheriff's Dept-NY #42655

Commissions are Calculated on a Percent of the Sale Price of EACH LOT.

Commission Summary:

Commission Description	Commission Rate	Amount Sold	Comm. Amount
	0.00%	62,420.00	0.00
	0.00%	0.00	0.00

Statement Totals

17 Lots Sold.

Total Sales \$62,420.00

Less: Fees \$510.00

Less: Commissions \$0.00

Total Amount Due \$61,910.00

Note: Auction Closed 06/19/25 MNM

2025 Budget Amendment

Appropriations

Account No.	Resolution Description	Increase	Decrease	Department Name
A9 3110 2 2400	Automobiles	61,910.00		Sheriff's Office
TOTAL APPROPRIATIONS		61,910.00		

REVENUES

Account No.	Resolution Description	Increase	Decrease	Department Name
A2 3110 02770	Unclassified	61,910.00		Sheriff's Office
Grand Totals		61,910.00	0.00	

ALBANY COUNTY SHERIFF'S OFFICE

CRAIG D. APPLE, SR.
SHERIFF



MICHAEL S. MONTELEONE
EXECUTIVE UNDERSHERIFF

County Court House
Albany, New York 12207 (518) 487-5400
WWW.ALBANYCOUNTYSHERIFF.COM

July 29, 2025

Honorable Joanne Cunningham
Legislative Chairwoman
112 State Street, Room 710
Albany, New York 12207

Dear Chairwoman Cunningham:

The attached correspondence is forwarded for presentation to the Albany County Legislature.

Legislative approval is requested to add one (1) new member to the Albany County Fire Advisory Board. Our office would like to add Anthony Carrow, his resume is attached for your review.

Should there be any questions, do not hesitate to call.

Sincerely,

A handwritten signature in black ink, appearing to read "Craig D. Apple, Sr.", written over the typed name and title.
Craig D. Apple, Sr.
Sheriff

Cc: Hon. Daniel P. McCoy, County Executive
Hon. Wanda F. Willingham, Deputy Chairwoman

2025 BUDGET AMENDMENT						
			APPROPRIATIONS			
		ACCOUNT NO.	RESOLUTION DESCRIPTION	INCREASE	DECREASE	DEPARTMENT NAME
	A9	3110 2 2800	SPECIALTY EQUIPMENT	66,887.34		SHERIFF'S OFFICE
			TOTAL APPROPRIATIONS	66,887.34		
REVENUES						
		ACCOUNT NO.	RESOLUTION DESCRIPTION	INCREASE	DECREASE	DEPARTMENT NAME
	A	A 00890	RESERVE EMS AMBULANCE FUND		66,887.34	SHERIFF'S OFFICE
			GRAND TOTALS	66,887.34	66,887.34	

Anthony J. Carrow
272 Longhouse Lane
Slingerlands, NY 12159
tonycwfd@gmail.com
518-858-7165

January 17, 2025

Gerald E. Paris, Jr.
Albany County Fire Coordinator
58 Verda Avenue
PO Box A
Clarksville, NY 12041

Re: Albany County Deputy Fire Coordinator Position

Dear Chief Paris:

Pursuant to our conversation, please accept this transmittal as letter of interest for the position of Albany County Deputy Fire Coordinator.

As you know I have recently stepped down as Chief of the Westmere Fire Department. I still carry strong passion within the fire service and serving our community.

Attached you will find a snapshot of my professional fire service career.

Very truly yours,


Anthony J. Carrow

Anthony J. Carrow
 272 Longhouse Lane
 Slingerlands, NY 12159
tonycwfd@gmail.com
 518-858-7165

I have a history of a perspective and calm emergency response and planning, with a 36 year background in providing prompt and efficient community response to the Westmere Fire District. I am seeking a position to continue my passion and enhance my leadership abilities within the Albany County Emergency Services.

Joined the Westmere Fire Department in 1988. I am presently an active member.

1990 – 1996	Lieutenant and Captain of the Westmere Fire Department
1997 - 1999	Assistant Chief of the Westmere Fire Department
2000 - 2006	Chief of the Westmere Fire Department
2007 - 2011	Commissioner of the Westmere Fire Department
2012 - 2013	Lieutenant and Captain of the Westmere Fire Department.
2014 - 2017	Assistant Chief of the Westmere Fire Department.
2018 - 2025	Chief of the Westmere Fire Department

Skills:

Critical thinking, verbal and written communication, conflict resolution, active listening, organization, planning, effective collaboration, time management, community engagement and leadership.

Experience:

- Coordinate, develop, and implement a fire protection plan for the residents of the Westmere Fire District utilizing neighboring, County, and Statewide resources.
- Developed a plan to recruit and train volunteer personnel to carry out district fire protection plan.
- Developed a hierarchy management team to oversee "day-to-day" department operations.
- Developed training and education programs for department personnel and community members.
- Developed annual and long range operating and capital budgets based on a continuous needs analysis assessment.
- Worked "hand-in-hand" with local developers on district construction as it related to fire and life safety systems and response.
- Continuous collaboration and training with in-house management to strengthen our leadership skills.
- Attend, conduct, and address meetings at public gatherings to explain the activities and functions of the fire department and to establish favorable public relations.

Please note the above information is a snap-shot of my fire service career over the past 36 years. I am happy to get together to provide you a more in-depth review of my career including experience, education, awards, accomplishments, etc.

References available upon request

ALBANY COUNTY SHERIFF'S OFFICE

26

CRAIG D. APPLE, SR.
SHERIFF



MICHAEL S. MONTELEONE
EXECUTIVE UNDERSHERIFF

County Court House
Albany, New York 12207 (518) 487-5400
WWW.ALBANYCOUNTYSHERIFF.COM

July 28, 2025

Honorable Joanne Cunningham
Legislative Clerk's Office
112 State Street, Room 710
Albany, New York 12207

Re: Request for Legislative Action
Budget Amendment

Dear Chairwoman Cunningham:

The attached correspondence is forwarded for presentation to the Albany County Legislature.

Legislative approval is required in order to allow the Albany County Sheriff's Office to move funds in the amount of \$66,887.34 from ambulance reserve account to the active budget for the purchase of a new stretcher for our Ambulance. We have attached a budget amendment reflecting this change.

Should there be any questions, please do not hesitate to call.

Sincerely,

A handwritten signature in black ink, appearing to read "Craig D. Apple, Sr.", written over the printed name and title.
Craig D. Apple, Sr.
Sheriff

Cc. Hon. Daniel P. McCoy, County Executive
Hon. Wanda Willingham, Audit & Finance Committee

REQUEST FOR LEGISLATIVE ACTION**Description (e.g., Contract Authorization for Information Services):**

..title

Request for Legislative approval to transfer funds from EMS reserve to 2025 Active Budget

..body

Date:	July 28, 2025	Submitted By:	Craig D. Apple, Sr.
Department:	Sheriff's Office	Title:	Sheriff
Attending Meeting:	Sheriff Craig D. Apple, Sr.	Phone:	518-487-5440

Purpose of Request: Budget Amendment Enter text.

CONTRACT TERMS/CONDITIONS:

Party Names and Addresses:

Enter text.

Term: (Start/end date or duration) Enter text.

Amount/Raise Schedule/Fee: Enter text.

BUDGET INFORMATION:Is there a Fiscal Impact: Yes ☒ No ☐Anticipated in Budget: Yes ☐ No ☒Spreadsheet attached: Yes ☒ No ☐**Source of Funding (Percentages)**

Federal: 0% County: 100%

State: 0% Local: 0%

County Budget Accounts:

Revenue Account and Line: Enter text.

Revenue Amount: Enter text.

Appropriation Account and Line: Enter text.

Appropriation Amount: Enter text.

ADDITIONAL INFORMATION:Mandated Program/Service: Yes ☐ No ☒

If Mandated, Cite Authority: Enter text.

Request for Bids / Proposals:

Competitive Bidding Exempt: Yes ☐ No ☐

of Response(s): Enter text.

of MWBE: Enter text.

of Veteran Business: Enter text.

Bond Resolution No.: Enter text.

Apprenticeship Program Yes ☐ No ☐**Previous requests for Identical or Similar Action:**

Resolution/Law Number and Date: 671 of 2024

DESCRIPTION OF REQUEST: (state briefly why legislative action is requested)

This \$66,887.34 transfer will be used to purchase a stretcher for Ambulance .

RFB-2025-099

Purchase of Stretcher and Accessories for Ambulance

Category A

	Qty		Stryker
Stryker MTS Power Load Item#639005550001	1	\$	30,934.59
Stryker 6507 Power Pro 2 High Config Item#650705550001	1	\$	33,532.41
Stryker Kit, Alvarium Battery Services Item#650707000002	1	\$	982.23
Stryker Assembly Battery Charger Item#650700450301	1	\$	1,405.92
Stryker Assembly Power Cord North AM Item#650700450102	1	\$	32.19
		\$	66,887.34

Category B

Percentage discount from Stryker
Mfg List Price

13%

RESOLUTION NO. 671

AMENDING THE 2024 SHERIFF'S OFFICE BUDGET: VEHICLE REPLACEMENT

Introduced: 11/12/24

By Public Safety Committee:

WHEREAS, The Albany County Sheriff has requested an amendment to the 2024 Sheriff's Office Budget in order to transfer \$55,000 from the reserve fund line to the Automobile line to complete the purchase of a used ambulance, now, therefore, be it

RESOLVED, By the Albany County Legislature, that the 2024 Sheriff's Office Budget is hereby amended as follows:

2024 BUDGET AMENDMENT					
APPROPRIATIONS					
ACCOUNT NO		RESOLUTION DESCRIPTION	INCREASE	DECREASE	DEPARTMENT NAME
A9 3110 2 2400		AUTOMOBILES	55,000.00		SHERIFF'S OFFICE
TOTAL APPROPRIATIONS			55,000.00		
REVENUES					
ACCOUNT NO		RESOLUTION DESCRIPTION	INCREASE	DECREASE	DEPARTMENT NAME
A A 00890		RESERVE EMS AMBULANCE FUND		55,000.00	SHERIFF'S OFFICE
GRAND TOTALS			55,000.00	55,000.00	

and, be it further

RESOLVED, That the Clerk of the County Legislature is directed to forward certified copies of this resolution to the appropriate County Officials.

Adopted by unanimous vote - 11/12/24

2025 BUDGET AMENDMENT							
APPROPRIATIONS							
		ACCOUNT NO.	RESOLUTION DESCRIPTION		INCREASE	DECREASE	DEPARTMENT NAME
	A9	3110 2 2800	SPECIALITY EQUIPMENT		66,887.34		SHERIFFS OFFICE
TOTAL APPROPRIATIONS					66,887.34		
REVENUES							
		ACCOUNT NO.	RESOLUTION DESCRIPTION		INCREASE	DECREASE	DEPARTMENT NAME
	A	A 00890	RESERVE EMS AMBULANCE FUND			66,887.34	SHERIFFS OFFICE
GRAND TOTALS					66,887.34	66,887.34	

ALBANY COUNTY SHERIFF'S OFFICE

31

CRAIG D. APPLE, SR.
SHERIFF



MICHAEL S. MONTELEONE
EXECUTIVE UNDERSHERIFF

County Court House
Albany, New York 12207 (518) 487-5400
WWW.ALBANYCOUNTYSHERIFF.COM

August 6, 2025

Honorable Joanne Cunningham
Legislative Clerk's Office
112 State Street, Room 710
Albany, New York 12207

Dear Chairwoman Cunningham:

The attached correspondence is forwarded for presentation to the Albany County Legislature.

Legislative approval is required to allow the Albany County Sheriff's Office to enter into a grant extension with NYS Agriculture & Markets regarding the NYS Companion Animal Capital Fund Grant. The extension timeframe for this grant would be July 31, 2025 through July 31, 2026. This grant was previously approved under Res. 572 in 2023, copy attached hereto. The award amount for Albany County is \$500,000.00 with a match requirement of 25% of the project cost or \$186,309.00. This will serve as an auxiliary shelter for the Humane Society which has already exceeded its capacity and ensure a safe, healthy environment to animals brought in by municipalities.

Should there be any questions, do not hesitate to call.

Sincerely,

A handwritten signature in cursive script that reads "Craig D. Apple".

Craig D. Apple, Sr.
Sheriff

Cc. Hon. Daniel P. McCoy, County Executive
Hon. Wanda Willingham, Audit & Finance Committee

REQUEST FOR LEGISLATIVE ACTION**Description (e.g., Contract Authorization for Information Services):**

..title

Legislative approval to extend the NYS Companion Animal Capital Fund Grant Program

..body

Date:	August 6, 2025	Submitted By:	Craig D. Apple, Sr.
Department:	Sheriff's Office	Title:	Sheriff
Attending Meeting:	Sheriff Craig D. Apple, Sr.	Phone:	518-487-5440

Purpose of Request: Contract Authorization 07/31/2025 – 07/31/2026

CONTRACT TERMS/CONDITIONS:**Party Names and Addresses:**

NYS Agriculture and Markets 10B Airline Drive Albany, N.Y. 12235

Term: (Start/end date or duration)	01/01/2023 - 07/31/2026
Amount/Raise Schedule/Fee:	\$500,000.00 (25% match)

BUDGET INFORMATION:

Is there a Fiscal Impact:	Yes ☒ No ☐
Anticipated in Budget:	Yes ☒ No ☐
Spreadsheet attached:	Yes ☐ No ☒

Source of Funding – (Percentages)

Federal:	0	County:	25%
State:	75%	Local:	0

County Budget Accounts:

Revenue Account and Line:	Enter text.
Revenue Amount:	Enter text.
Appropriation Account and Line:	Enter text.
Appropriation Amount:	Enter text.

ADDITIONAL INFORMATION:

Mandated Program/Service:	Yes ☐ No ☒
If Mandated, Cite Authority:	Enter text.
Request for Bids / Proposals:	
Competitive Bidding Exempt:	Yes ☐ No ☒
# of Response(s):	Enter text.
# of MWBE:	Enter text.
# of Veteran Business:	Enter text.
Bond Resolution No.:	Enter text.
Apprenticeship Program	Yes ☐ No ☒

Previous requests for Identical or Similar Action:

Resolution/Law Number and Date:	#572 of 2023
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DESCRIPTION OF REQUEST: (state briefly why legislative action is requested)

These grant funds will serve as an auxiliary shelter for the Humane Society to ensure a safe health environment to animals brought in by municipalities.

RESOLUTION NO. 572

AUTHORIZING AN AGREEMENT WITH THE NEW YORK STATE DEPARTMENT OF AGRICULTURE AND MARKETS REGARDING THE 2023 NEW YORK STATE COMPANION ANIMAL CAPITAL FUND GRANT PROGRAM AND AMENDING THE 2023 SHERIFF'S OFFICE BUDGET

Introduced: 12/4/23

By Public Safety Committee:

WHEREAS, The Albany County Sheriff has requested authorization to enter into an agreement with the New York State Department of Agriculture and Markets regarding the 2023 New York State Companion Animal Capital Fund Grant Program funding in the amount of \$500,000 for the term commencing January 1, 2023 and ending December 31, 2025, and

WHEREAS, The Sheriff has indicated that this funding, which requires a 25% County match, will be used to assist with renovations at the Albany County Correctional Facility and Rehabilitative Services Center to create an auxiliary animal shelter in partnership with the Mohawk-Hudson Humane Society, and

WHEREAS, The Sheriff has also requested a budget amendment to incorporate this funding into the 2023 Sheriff's Office Budget, now, therefore, be it

RESOLVED, By the Albany County Legislature that the County Executive is authorized to enter into an agreement with the New York State Department of Agriculture and Markets regarding the 2023 New York State Companion Animal Capital Fund Grant Program funding in the amount of \$500,000 for the term commencing January 1, 2023 and ending December 31, 2025, and, be it further

RESOLVED, That the 2023 Sheriff's Office Budget is hereby amended as follows:

Create and Increase Revenue Account A3150 0 3388 Law Enforce Aiding Animal Shelter by \$500,000

Create and Increase Appropriation Account A3150.2 by \$250,000 by creating and increasing Line Item A3150 2 2999 Misc. Equipment by \$250,000

Create and Increase Appropriation Account A3150.4 by \$250,000 by creating and increasing Line Item A3150 4 4071 Property Repair & Rental by \$250,000

and, be it further

RESOLVED, That the County Attorney is authorized to approve said agreement as to form and content, and, be it further

RESOLVED, That the Clerk of the County Legislature is directed to forward certified copies of this resolution to the appropriate County Officials.

Adopted by unanimous vote – 12/4/23

DANIEL P. MCCOY
County Executive



**COUNTY OF ALBANY
PROBATION DEPARTMENT
60 SOUTH PEARL STREET
ALBANY, NEW YORK 12207**
PHONE: (518) 487-5200
FAX: (518) 487-5204
www.albanycounty.com

WILLIAM CONNORS
Director

Lori Haggerty
Deputy Director

Michael OConnor
Principal Probation Officer

July 14, 2025

Honorable Joanne Cunningham, Chairwoman
Albany County Legislature
112 State Street, Room 710
Albany, NY 12207

Re: Request for Legislative Action
to enter into an agreement with Columbia
University to screen and service Juvenile
Justice youth at risk of suicide

Dear Chairwoman Cunningham:

Albany County Probation would like to enter into a collaboration with Columbia University, Chestnut Health Systems, and NYS OMH. The project is to provide intervention to youth who may be at risk of suicide and share data. Juvenile Justice Youth would complete a mental health screen on equipment provided by Columbia University. The screen would then be scored by Probation staff and then provide a referral to the Department of Children, Youth and Families and the Children's Mental Health Clinic.

If you have any questions or need additional information, please do not hesitate to contact me directly at (518) 487-5194.

Sincerely,

William Connors
Probation Director

WC/km
Enc.

cc: Honorable Dennis Feeney, Majority Leader
Honorable Frank Mauriello, Minority Leader
Rebekah Kennedy, Esq., Majority Counsel
James Curran, Esq., Minority Counsel



County of Albany

Harold L. Joyce
Albany County Office
Building
112 State Street - Albany,
NY 12207

Legislation Text

File #: TMP-6706, **Version:** 1

REQUEST FOR LEGISLATIVE ACTION

Description (e.g., Contract Authorization for Information Services):

Authorizing an agreement with Columbia University regarding e-Connect Suicide Risk Assessment for juveniles

Date: July 14, 2025
Department: Probation
Attending Meeting: William Connors
Submitted By: William Connors
Title: Probation Director
Phone: 518-487-5194

Purpose of Request: Contract Authorization Enter text.

CONTRACT TERMS/CONDITIONS:

Party Names and Addresses:

Columbia University/New York State Psychiatric Institute, 1051 Riverside Drive, Unit 78, New York, NY 10032

Party Names and Addresses:

Chestnut Health Services, 221 W. Walton Street, Chicago, IL 60610

Party Names and Addresses:

NY State Office of Mental Health, 44 Holland Avenue, Albany, NY 12229

Term: (Start/end date or duration) 10.1.2023-10.12.2027
Amount/Raise Schedule/Fee: N/A

BUDGET INFORMATION:

Is there a Fiscal Impact: Yes ☐ No ☒
Anticipated in Budget: Yes ☐ No ☒
Spreadsheet attached: Yes ☐ No ☒

Source of Funding - (Percentages)

Federal: 0% County: 0%
State: 0% Local: 0%

County Budget Accounts:

Revenue Account and Line: N/A
Revenue Amount: N/A
Appropriation Account and Line: N/A

Appropriation Amount: N/A

ADDITIONAL INFORMATION:

Mandated Program/Service: Yes ☐ No ☒

If Mandated, Cite Authority: Enter text.

Request for Bids / Proposals:

Competitive Bidding Exempt: Yes ☐ No ☒

of Response(s): Enter text.

of MWBE: Enter text.

of Veteran Business: Enter text.

Bond Resolution No.: Enter text.

Apprenticeship Program Yes ☐ No ☒

Previous requests for Identical or Similar Action:

Resolution/Law Number and Date: Resolution NO 395-2018

DESCRIPTION OF REQUEST: (state briefly why legislative action is requested)

Columbia University will provide computer equipment and support for Probation Staff regarding e-Connect Suicide Risk Assessment to identify at risk youth and data analysis form Chestnut Healthcare Systems, and NYS Office of Mental Health.

FDP Reciprocal Data Transfer and Use Agreement (“Agreement”)	
Party 1: The Trustees of Columbia University in the City of New York	Party 2: Albany County Department of Probation
Party 1 Scientist Name: Email:	Party 2 Scientist Name: Email:
Party 1 Data Type: Other - See Attachment 2	Party 2 Data Type: De-identified Data about Human Subjects
Agreement Term Start Date: End Date:	Project Title:
Terms and Conditions 1) The Parties shall provide the data set(s) described on Attachment 1 (the “Data”) to each other for the research purpose set forth in Attachment 1 (the “Project”). Each Party is a Providing Party when providing Data and a Receiving Party when receiving Data. Providing Party shall retain ownership of any rights it may have in the Data, and Receiving Party does not obtain any rights in the Data other than as set forth herein. 2) Receiving Party shall not use the Data except as authorized under this Agreement. The Data will be used solely to conduct the Project and solely by Receiving Party’s Scientist and Receiving Party’s faculty, employees, fellows, students, and agents (“Receiving Party Personnel”) and Third Party Personnel (as defined in Attachment 3) that have a need to use, or provide a service in respect of, the Data in connection with the Project and whose obligations of use are consistent with the terms of this Agreement (collectively, “Authorized Persons”). 3) Except as authorized under this Agreement or otherwise required by law, Receiving Party agrees to retain control over the Data and shall not disclose, release, sell, rent, lease, loan, or otherwise grant access to the Data to any third party, except Authorized Persons, without the prior written consent of Providing Party. Receiving Party agrees to establish appropriate administrative, technical, and physical safeguards to prevent unauthorized use of or access to the Data and comply with any other special requirements relating to safeguarding of the Data as may be set forth in the applicable Attachment 2. 4) Receiving Party agrees to use the Data in compliance with all applicable laws, rules, and regulations, as well as all professional standards applicable to such research. 5) The Parties are encouraged to make publicly available the results of the Project. Before either Party submits a paper or abstract for publication or otherwise intends to publicly disclose information about the results of the Project, the other Party will have thirty (30) days from receipt to review proposed manuscripts and ten (10) days from receipt to review proposed abstracts to ensure that the Data is appropriately protected. The non-publishing Party may request in writing that the proposed publication or other disclosure be delayed for up to thirty (30) additional days as necessary to protect proprietary information. The Parties will together make decisions on jointly authored publications. Authorship will be in accordance with academic and/or scholarly standards. 6) Receiving Party agrees to recognize the contribution of the Providing Party as the source of the Data in all written, visual, or oral public disclosures concerning Receiving Party’s research using the Data, as appropriate in accordance with scholarly standards and any specific format that has been indicated in Attachment 1. 7) Unless terminated earlier in accordance with this section or extended via a modification in accordance with Section 12, this Agreement shall expire as of the End Date set forth above. Either Party may terminate this Agreement with thirty (30) days written notice to the other Party’s Authorized Official as set forth below. Upon expiration or early termination of this Agreement, Receiving Party shall follow the disposition instructions provided in Attachment 1, provided, however, that Receiving Party may retain one (1) copy of the Data to the extent necessary to comply with the records retention requirements under any law, and for the purposes of research integrity and verification. 8) EXCEPT AS PROVIDED BELOW OR PROHIBITED BY LAW, ANY DATA DELIVERED PURSUANT TO THIS AGREEMENT IS UNDERSTOOD TO BE PROVIDED “AS IS.” PROVIDING PARTY MAKES NO REPRESENTATIONS AND EXTENDS NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED. THERE ARE NO EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR THAT THE USE OF THE DATA WILL NOT INFRINGE ANY PATENT, COPYRIGHT, TRADEMARK, OR OTHER PROPRIETARY RIGHTS. Notwithstanding, Providing Party, to the best of its knowledge and belief, has the right and authority to provide the Data to Receiving Party for use in the Project.	

9) Each Receiving Party shall be liable for damages, losses, claims, and demands which may arise from its use, storage, disclosure, or disposal of the Data except to the extent (a) prohibited by law and/or (b) caused by the negligence, willful misconduct, or violation of applicable privacy or security laws and regulations by the Providing Party. No indemnification for any damage, loss, claim, demand, or liability is intended or provided by either Party under this Agreement.

10) Neither Party shall use the other Party's name, trademarks, or other logos in any publicity, advertising, or news release without the prior written approval of an authorized representative of that Party. The Parties agree that each Party may disclose factual information regarding the existence and purpose of the relationship that is the subject of this Agreement for other purposes without written permission from the other Party provided that any such statement shall accurately and appropriately describe the relationship of the Parties and shall not in any manner imply endorsement by the other Party whose name is being used.

11) Unless otherwise specified, this Agreement and the below listed Attachments embody the entire understanding between the Parties regarding the transfer of the Data for the Project:

- I. Attachment 1: Project-specific Information
- II. Party 1 Attachment 2: Data-specific Terms and Conditions
- III. Party 2 Attachment 2: Data-specific Terms and Conditions
- IV. Attachment 3: Identification of Permitted Third Parties (if any)

In the event of any conflict between the obligations set forth in the applicable Attachment 2 and this Agreement, the obligations set forth in Attachment 2 shall prevail.

12) No modification or waiver of this Agreement shall be valid unless in writing and executed by duly authorized representatives of both Parties.

13) The undersigned Authorized Officials of the Parties expressly represent and affirm that the contents of any statements made herein are truthful and accurate and that they are duly authorized to sign this Agreement on behalf of their institution.

By an Authorized Official of Party 1:

 Name: _____ Date _____
 Title: _____

Contact Information for Formal Notices:

Name:
 Address:

 Email:
 Phone:

By an Authorized Official of Party 2:

 Name: _____ Date _____
 Title: _____

Contact Information for Formal Notices:

Name:
 Address:

 Email:
 Phone:

Attachment 1
Reciprocal Data Transfer and Use Agreement
Project-specific Information

1. Description of Project:

The e-Connect Project is a federally funded research project seeking to increase the screening, referral, and treatment initiation rates of youth on probation. The project does this by implementing a digital behavioral health and suicide risk self-report screener for probation youth at intake. The system generates a risk classification for the youth based on their responses, these include Class I (Crisis, Imminent risk), Class II (Crisis, Non-imminent risk), Class III (Standard behavioral health need, Non-Crisis), and Below Threshold (No behavioral health treatment need). Based on this risk classification, predetermined & county specific referral pathways will appear for the probation officer to follow to make a referral for the youth. Youth are then followed by the probation officer to see if treatment was attended.

2. Description of Party 1 Data:

N/A - Columbia is not providing any data

3. Party 1 Disposition Requirements upon the termination or expiration of the Agreement

Monthly data transfer is set to terminate at the expiration of the agreement.

4. For Party 1, send Data Select One to:

Name: N/A

Email: N/A

Address: N/A

Phone:

5. Description of Party 2 Data:

Albany County Department of Probation holds data that generate the outcomes for this project on their management information system - Caseload Explorer. These data include 3 separate TXT files of de-identified data including:

(1) Cases - YouthPIN, Age (in years), Gender (M/F/U), Race (W/NW/U), CaseID, CaseType, CaseDate, CaseDateType, CaseCreationDate, ChargeType, OffenseCategory, eConnectEligible, CloseDate, CloseReason, eConnectDate, NonECReason

(2) Assessments - YouthPIN, AssessInstrument, AssessmentDate, Need, MHScreenOutcome, YASIRiskLevel, MHFlag, SURisk, FHRisk, Internalizing, SubstanceUse, Class

(3) Referrals - YouthPIN, NonReferral, NonReferralDate, ReferralDate, Service, Provider, BHRef, PrimaryReason, SecondaryReason, Basis, BHAppt_S, BHAppt_A, TerminationType, BHInitiate

6. Party 2 Disposition Requirements upon the termination or expiration of the Agreement

Monthly data transfer is set to terminate at the expiration of the agreement.

7. For Party 2, send Data electronically to:

Name: Via secure monthly SFTP transfer programmed by Catalis/Automon

Email:

Address:

Phone:

Attachment 3**Reciprocal Data Transfer and Use Agreement
Identification of Permitted Third Parties (if any)**

For all purposes of this Agreement, the definition of “Third Party Personnel” checked below will pertain:

☐

“Third Party Personnel” means: None. No collaborators are permitted on the Project.

-OR-

☒

“Third Party Personnel” means as set forth below and agreed upon between the Parties:

Columbia University may provide aggregated data by quarter to the NYS Office of Mental Health’s Suicide Prevention Center (SPCNY) in form of counts, percentages, or other summary data. The aggregated data shared with SPCNY will not include any personally identifiable information and will not allow for the identification of case level data. SPCNY will not have access to any raw, unaggregated data. SPCNY will use the data exclusively for oversight and reporting in accordance with its funding responsibilities.

This **DATA USE AGREEMENT** (this “Agreement”) is made this ____ day of _____, 20____, (the “Effective Date”), by and between **CHESTNUT HEALTH SYSTEMS, INC.**, an Illinois not-for-profit corporation (“Chestnut”), and _____ (“Site”). Chestnut and Site are sometimes each referred to herein as a “Party” and collectively as the “Parties”.

WHEREAS, Site has agreed to collaborate with Columbia University, who has received funding from the Centers for Disease Control (CDC) (the “Sponsor”) for purposes of participating in the following project: Capital Connect/ e-Connect Suicide Risk Assessment (the “Project”);

WHEREAS, Site will be collecting data on behavioral health and suicide risk as part of the Project;

WHEREAS, Site wishes to have access to Chestnut’s data collection expertise, including training, instruments, manuals, computer applications and technical assistance, and to utilize Chestnut’s expertise to provide training, quality assurance feedback, and staff certification concerning the Global Appraisal of Individual Needs (“GAIN”);

WHEREAS, Chestnut is a Covered Entity within the meaning of the Health Insurance Portability and Accountability Act (“HIPAA”), as amended by the Health Information Technology for Economic and Clinical Health Act (the “HITECH Act”), and the Privacy Rule and Security Rule, 45 C.F.R. Parts 160-164 (collectively, the “Privacy and Security Rules”);

WHEREAS, as the GAIN coordinating center, Chestnut receives from several entities certain data in order to aggregate such data and Chestnut discloses data back to each such entity for purposes of such entity’s internal operations; and

WHEREAS, the Parties wish to enter into this Agreement that will permit the sharing of data between them as necessary to fulfill the purposes of the Project and their reporting requirements, as well as to comply with the requirements of 42 C.F.R. Part 2, the HITECH Act, and the Privacy and Security Rules.

NOW, THEREFORE, in consideration of the mutual covenants and promises set forth herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereto agree as follows:

1. DEFINITIONS.

1.1 “De-identified Information” means health information that does not identify an individual and cannot be used to identify an individual. Health information is de-identified if all of the following types of information are removed for an individual and his/her relatives, employers and household members:

- Names
- All geographic subdivisions smaller than a state, including street address, city, county, precinct, zip code, and their equivalent geocodes, except for the initial three digits of a zip code if, according to the current publicly available data from the United States Census Bureau (a) the geographic unit formed by combining all zip codes with the same three initial digits contains more than twenty thousand (20,000) people and (b) the initial three digits of a zip code for all such geographic units containing twenty thousand (20,000) or fewer people is changed to “000”
- All elements of dates (except year) for dates directly related to an individual, including birth date, admission date, discharge date, and date of death
- All ages over eighty-nine (89) and all elements of dates (including year) indicative of such age, except a single category may be used for age ninety (90) or older

Chestnut Health Systems, Inc.

Data Use Agreement (CHS CE, Site Non-CE) E-Connect

APPROVED FOR USE IN CALENDAR YEAR 2025 ONLY

- Telephone and facsimile numbers
- E-mail addresses
- Social Security numbers
- Medical record numbers
- Health plan beneficiary numbers
- Account numbers
- Certificate/license numbers
- Vehicle identifiers and serial numbers, including license plate numbers
- Device identifiers and serial numbers
- Internet Universal Resource Locators (URLs)
- Internet Protocol (IP) address numbers
- Biometric identifiers, including finger and voice prints
- Full face photographic images and any comparable images
- Any other unique identifying number, characteristic, or code, except permitted re-identifiers
- Any other information the staff member actually knows could be used alone or in combination with other information to identify an individual

If all the information listed above is not removed, health information can also be considered de-identified if an expert in generally accepted statistical and scientific principles relating to rendering information not individually identifiable determines that the risk is very small that the information could be used, alone or in combination with other reasonably available information, to identify an individual. The methods and results of the expert's analysis must be documented.

1.2 "Individually Identifiable Health Information" means information that is a subset of health information, including demographic information collected from an individual, and (1) is created or received by a health care provider, health plan, employer, or health care clearinghouse; and (2) relates to the past, present, or future physical or mental health or condition of an individual, the provision of health care to an individual, or the past, present, or future payment for the provision of health care to an individual, and (a) that identifies the individual, or (b) with respect to which there is reasonable basis to believe the information can be used to identify the individual.

1.3 "Limited Data Set" means a data set that has had the following identifiers for an individual and for his/her relatives, employers and household members removed:

- Names
- Street or postal address information (other than town or city, state and zip code)
- Telephone numbers
- Facsimile numbers
- E-mail addresses
- Social Security numbers
- Medical record numbers
- Health plan beneficiary numbers
- Account numbers
- Certificate/license numbers
- Vehicle identifiers and serial numbers, including license plate numbers
- Device identifiers and serial numbers
- Internet Universal Resource Locators (URLs)
- Internet Protocol (IP) address numbers
- Biometric identifiers, including finger and voice prints
- Full face photographic images and any comparable images

A Limited Data Set may include the following identifying information:

- The town or city, state and zip code of the individual and/or of his/her relatives, employers or household members
- Dates, including dates of behaviors or services converted to days before or after intake and the federal fiscal year of intake
- Age (in years) at intake
- A unique identifying number, characteristic or code

Chestnut Health Systems, Inc.

Data Use Agreement (CHS CE, Site Non-CE)

APPROVED FOR USE IN CALENDAR YEAR 2025 ONLY

A Limited Data Set may also include non-identifying information, including the type of treatment or service received or randomly assigned and the amount of services received, as well as the facility location. A Limited Data Set will require two linkage files (one at Chestnut and one at Site) to connect it back to Protected Health Information (as defined in Section 1.4 hereof).

1.4 “Protected Health Information” or “PHI” means Individually Identifiable Health Information that is (1) transmitted by electronic media, (2) maintained or transmitted in any medium described in the definition of electronic media at Section 160.103 of the Privacy Rule, or (3) transmitted or maintained in any other form or medium.

PHI does not include Individually Identifiable Health Information (4) in education records covered by the Family Educational Rights and Privacy Act, as amended, 20 U.S.C. 1232g, (5) in records described at 20 U.S.C. 1232g(a)(4)(B)(iv), (6) in employment records held by a covered entity in its role as employer, and (6) regarding a person who has been deceased for more than fifty (50) years.

1.5 All other capitalized terms not defined herein shall have the same meaning given to them in the Privacy Rule and/or the Security Rule.

2. SERVICES TO BE PROVIDED.

2.1 Chestnut will provide the following services to Site, as requested by Site (collectively, the “Services”): (a) development of a software application to meet the needs of the project, (b) training of Site’s staff on the software application, (b) technical assistance on software application, and (c) data aggregation services. In the performance of the Services, Chestnut may have varying degrees of access to PHI, a Limited Data Set, or De-identified Information.

2.2 Chestnut hereby designates the following individual to oversee Chestnut’s receipt and disclosure of data pursuant to this Agreement:

Name: Michael L. Dennis, Sr. Research Psychologist, LI
E-mail Address: mdennis@chestnut.org
Telephone Number: (309) 451-7801

2.3 Site hereby designates the following individual as its point of contact for purposes of this Agreement:

Name: _____
E-mail Address: _____
Telephone Number: _____

3. BUSINESS ASSOCIATE PROVISIONS. To the extent Chestnut uses, accesses, creates, maintains, transmits, receives and/or discloses PHI in the course of providing the Services, Chestnut will be considered a Business Associate of Site and the terms and provisions of this Section 3 shall apply. All PHI that is created or received by Chestnut and disclosed or made available in any form, including paper records, oral communications, audio recordings, and electronic displays, by Site or any of its operating units to Chestnut or received by Chestnut on behalf of Site, will be subject to this Section 3.

3.1 Permitted Uses and Disclosures.

3.1.1 Chestnut may use, access, create, maintain, transmit, receive or disclose PHI on behalf of Site only in order to perform any of the Services. Except as otherwise limited by this Agreement, Chestnut may also use PHI (a) for the proper management and administration of Chestnut, and (b) to carry out the legal responsibilities of Chestnut (i.e., audits).

3.1.2 Chestnut may not use or disclose PHI if such use or disclosure would be a violation of the Privacy Rule if done by Site.

3.1.3 Chestnut agrees that it will not use or further disclose PHI other than as permitted or required by this Agreement or as required by law.

3.2 Safeguards. Chestnut agrees to use appropriate physical, administrative and technical safeguards to prevent use or disclosure of PHI other than as permitted by this Agreement or by HIPAA.

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3.3 Mitigation. Chestnut agrees to mitigate, to the extent practicable, any harmful effect that is known to Chestnut of a use or disclosure of PHI by Chestnut that violates the requirements of this Agreement.

3.4 Reporting. Chestnut agrees to report to Site, in writing, any use or disclosure of the PHI not permitted by this Agreement of which it becomes aware within ten (10) days of Chestnut's discovery of such unauthorized use and/or disclosure. If Chestnut becomes aware of a Breach of any Unsecured PHI in Chestnut's possession (i.e., PHI that has not been rendered unusable, unreadable or indecipherable to unauthorized individuals), Chestnut shall work with Site to investigate, mitigate, assess and notify affected individuals as required and shall comply with the notification requirements to the Secretary of the United States Department of Health and Human Services. Chestnut shall notify Site of any breach of Unsecured PHI as soon as possible, but in no event later than sixty (60) calendar days after discovery.

3.5 Subcontractors. In the event Chestnut is permitted by law to provide PHI to an agent, Chestnut agrees to ensure that all such agents, including subcontractors, that create, receive, maintain, use, disclose, access or transmit PHI on behalf of Chestnut agree to the same restrictions, conditions, and requirements that apply to Chestnut with respect to such information. Chestnut agrees to satisfy this requirement by implementing a written agreement with each subcontractor setting forth the terms and conditions required under this Agreement.

3.6 Right of Access. The Parties agree that Chestnut will not be creating or receiving any PHI on behalf of Site that is not already contained within Site's records. Therefore, any requests for access to PHI by Site's clients or their legal representatives shall be the sole responsibility of Site.

3.7 Right of Amendment. Chestnut agrees to incorporate any amendments to PHI as directed or agreed to by Site in accordance with the amendment of PHI provisions of the Privacy Rule set forth at 45 C.F.R. §164.526 in the time and manner that are mutually agreeable to the Parties.

3.8 Right to Accounting of Disclosures. Chestnut will maintain and make available to Site, within ten (10) days following Site's request, the information required to provide an accounting of disclosures in accordance with the Privacy Rule.

3.9 Books and Records. Chestnut agrees to make its internal practices, books, and records relating to the use and disclosure of PHI available to the Secretary of the United States Department of Health and Human Services for purposes of determining Chestnut's and the Site's compliance with this Section 3, the Security Rule, and/or the Privacy Rule.

3.10 Return or Destruction of PHI. Upon termination of this Agreement for any reason, Chestnut shall, as directed by Site, return or destroy all PHI received from or created or received by Chestnut on behalf of Site that Chestnut still maintains in any form and retain no copies of PHI. This provision shall apply to PHI that is in the possession of Chestnut, its subcontractors or agents. If return or destruction is not feasible, Chestnut shall provide to Site notification of the conditions that make return or destruction infeasible. If Site is in agreement that return or destruction is not feasible, then Chestnut will agree to extend the protections of this Agreement to the information and to limit further uses and disclosures to those purposes that make the return or destruction of the information infeasible, for as long as Chestnut maintains such PHI.

3.11 Security Provisions. Chestnut will take the following security measures: (a) implement administrative, physical and technical safeguards that reasonably and appropriately protect the confidentiality, integrity and availability of the electronic PHI that it creates, receives, maintains or transmits on behalf of the Site as required by the Security Rule in accordance with 45 C.F.R. §§ 164.308, 164.310, 164.312, 164.314, and 164.316; (b) ensure that any agent, including a subcontractor, to whom it provides such information enters into a written agreement to implement reasonable and appropriate safeguards to protect the electronic PHI; (c) develop and enforce appropriate policies, procedures and documentation standards, including designation of a Security Official; and (d) in accordance with this Section 3.11, report to Site any Security Incident (as defined in 45 C.F.R. § 164.304) of which it becomes aware, as well as any breach of Unsecured PHI. The Parties agree that the breach notification requirements of Section 3.4 hereof satisfy any notice requirements of Chestnut to Site of the ongoing existence and occurrence of attempted but unsuccessful Security Incidents, for which no additional notice to Site shall be required.

4. QUALIFIED SERVICE ORGANIZATION PROVISIONS. To the extent Chestnut has access to substance abuse treatment information in the course of providing the Services, Chestnut will be considered a Qualified Service Organization of Site (as defined in 42 C.F.R. § 2.11) and the terms and provisions of this Section 4 shall apply.

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4.1 In receiving, storing, processing or otherwise dealing with any protected substance abuse information from Site, Chestnut is fully bound by the provisions of 42 C.F.R. Part 2.

4.2 If necessary, Chestnut will resist in judicial proceedings any efforts to obtain access to protected substance abuse information unless access is expressly permitted under 42 C.F.R. Part 2.

4.3 Chestnut acknowledges that any unauthorized disclosure of information under this Section 4 is a federal criminal offense.

5. DE-IDENTIFIED INFORMATION.

5.1 Data will be de-identified in accordance with §§ 164.514 (a) and (b) of the Privacy Rule. Chestnut shall be permitted to use or disclose De-identified Information without restriction, including using De-identified Information to test software applications, new or modified functionality, reports, and products.

5.2 Chestnut's De-identified Information data set shall contain a randomly assigned identification number, which will be linked only to the identification number assigned by the Site. Site will not have access to this link. Similarly, Chestnut will have not have access to the link between the Site's identification number and personal identifiers.

6. TERM AND TERMINATION.

6.1 Term. This Agreement shall become effective on the Effective Date and shall terminate when data is no longer being provided to, created by, used by, disclosed to, maintained by, transmitted to or received by Chestnut on behalf of Site. Chestnut agrees that all identifying information not previously returned or destroyed in accordance with Section 3.10 hereof will be destroyed within five (5) years of the termination of this Agreement, unless continuation funding and/or an updated consent is/are obtained or as otherwise required by law.

6.2 Termination. Site may terminate for any reason, or no reason. Either Party may terminate this Agreement immediately in the event of a material breach of this Agreement by the other Party that remains uncured for fifteen (15) days after notification of said breach by the non-breaching party. If termination is not feasible, the non-terminating party, if a Covered Entity, shall have the responsibility to report any problems to the Secretary of the U.S. Department of Health and Human Services. Upon termination, any PHI in possession of Chestnut shall be returned to Site or destroyed in accordance with Section 3.10 hereof.

7. INDEMNIFICATION. Chestnut shall indemnify, defend and hold harmless the County of Rensselaer and its officers, directors, owners, managers, members, employees, agents, successors and assigns from and against any and all actions, suits, proceedings, causes of action, demands, assessments, and judgments of any nature, and reasonable costs and legal and other expenses incident thereto, relating to Chestnut's material breach of HIPAA, the Juvenile Justice Records Confidentiality Law, the Federal Confidentiality of Alcohol and Drug Abuse Patient Records law, any other confidentiality law or regulation, or otherwise arising under this Agreement.

7.1 Insurance. Chestnut will at all times and at its own cost maintain Cyber Liability Coverage in an adequate amount and will name the County of Rensselaer, its officers, employees, agents and assigns as additional insureds on said policy. Proof of such insurance shall be provided prior to commencement of this Agreement.

8. MISCELLANEOUS.

8.1 Compliance with Law. Each Party agrees to perform its responsibilities hereunder in accordance with all applicable laws.

8.2 Notices. Any and all notices, demands, requests, and other communications required or permitted hereunder shall be in writing and shall be given in person or by registered mail, return receipt requested, or by facsimile or electronic transmission, addressed as follows. Any notice shall be deemed to have been given at the time of actual receipt.

If to Chestnut:

Chestnut Health Systems, Inc.
Attention: Puneet Leekha, General Counsel
1003 Martin Luther King Drive

Bloomington, Illinois 61701
Email: pleekha@chestnut.org

If to Site:

Name: _____
Attention: _____
Address: _____

Telephone: _____
Email: _____

8.3 Amendments. This Agreement may only be amended or modified in writing as mutually agreed upon by the Parties.

8.4 Assignment. The Parties expressly agree that neither Party may assign any of its rights or responsibilities under this Agreement to any individual or entity without the prior written consent of the other Party. Notwithstanding the foregoing, Site acknowledges that Chestnut may assign any or all of its rights or responsibilities under this Agreement to any of its wholly-owned subsidiaries, affiliates, or related entities, without the consent of Site.

8.5 Severability. If any provision of this Agreement shall for any reason be held to be invalid or unenforceable, such invalidity or unenforceability shall not affect any other provision hereof, and this Agreement shall be construed as if such invalid or unenforceable provisions were omitted.

8.6 Waiver. The waiver by either Party of a breach or violation of any provision of this Agreement shall not operate as, or be construed to be, a waiver of any subsequent breach of the same or other provisions hereof.

8.7 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Illinois.

8.8 Entire Agreement. This Agreement, including any exhibits hereto, constitutes the entire agreement between the Parties with respect to the subject matter hereof. There are no representations, agreements, arrangements, restrictions, limitations or understandings, oral or written, between the Parties relating to the subject matter of this Agreement that are not fully expressed herein.

8.9 No Third-Party Beneficiaries. No person or entity that is not a party to this Agreement will be a third party beneficiary of any rights or obligations hereunder or be entitled to enforce any of said rights or obligations.

8.10 Headings. Section headings have been inserted into this Agreement as a matter of convenience of reference only, and it is agreed that such section headings are not part of this Agreement and shall not be used in the interpretation of any provisions of this Agreement.

8.11 Singular, Plural, and Gender. Throughout this Agreement and whenever required by context, the use of the singular shall be construed to include the plural, and the use of plural the singular, and the use of any gender shall include all genders.

8.12 Remedies Cumulative. No remedy set forth in this Agreement or otherwise conferred upon or reserved to either party shall be considered exclusive of any other remedy.

8.13 Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be considered an original and all of which shall together constitute one and the same document. Delivery of an executed counterpart of this Agreement by electronic or facsimile transmission shall be equally as effective as delivery of an original executed counterpart. Any Party delivering an executed counterpart of this Agreement by electronic or facsimile transmission shall also deliver an original executed counterpart, but failure to deliver an original executed counterpart shall not affect the validity, enforceability, or binding effect of this Agreement.

8.14 Drafting. Chestnut, or Chestnut's legal counsel, has drafted this Agreement solely as a matter of convenience for the Parties hereto. Each Party has carefully reviewed and negotiated the terms of this Agreement and, accordingly, any drafting errors, ambiguities or inconsistencies will not be interpreted against Chestnut.

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8.15 Expenses. Each Party will pay its own fees and expenses and those of its agents, advisors, attorneys and accountants, with respect to the preparation and negotiation of this Agreement.

IN WITNESS WHEREOF, the Parties have executed this **DATA USE AGREEMENT** as of the date first set forth above.

CHESTNUT:

SITE:

CHESTNUT HEALTH SYSTEMS, INC.

By: _____
Name: _____
Title: _____

By: _____
Name: _____
Title: _____

DATA SHARING AGREEMENT
Between
NEW YORK STATE OFFICE OF MENTAL HEALTH
And

This **AGREEMENT** ("Agreement") dated _____, 20__ ("Effective Date") is made by the New York State Office of Mental Health, with its principal offices located at 44 Holland Avenue, Albany, New York 12229 ("OMH"), and the _____, with its principal offices located at _____ ("_____"). Each party shall individually be referred to as the "Party" or collectively as the "Parties."

WHEREAS, [BACKGROUND RECITALS, NATURE OF THE PROJECT; DEFINE "PROJECT"]

NOW THEREFORE, in consideration of the mutual promises and covenants herein set forth, the Parties agree as follows:

ARTICLE 1. TERM AND TERMINATION

- 1.1 **Term.** This Agreement shall commence as of the Effective Date and remain effective until _____, unless sooner terminated or extended by mutual agreement of the parties, in accordance with the terms and conditions stated herein.
- 1.2 **Right of Termination.** Each Party shall have the right to terminate this Agreement in whole or in part, with or without cause, upon thirty (30) days written notice to the other Party.
- 1.3 **Effect of Termination.** Upon termination of this Agreement for any reason, the confidentiality provisions set forth herein shall continue to apply to the Data (as defined below).

ARTICLE 2. PURPOSE AND SCOPE OF AGREEMENT

This Agreement sets forth the terms and conditions governing the arrangement between the Parties for granting access to and sharing the Data, as well as the procedures for security, transfer, use, retention, ownership, and confidentiality of the Data. OMH shall have access to the Data solely for the purposes of _____. The Data will be used to advance the research being conducted for this Project.

ARTICLE 3. DEFINITION AND USE OF DATA

- 3.1 "Data" shall mean _____. The Parties acknowledge and agree that _____ shall retain ownership of any rights it may have in the Data, and OMH

does not obtain any rights in the Data other than as set forth herein.

- 3.2 _____ hereby grants to OMH a limited, non-exclusive, non-transferable and revocable license to access, copy, and use the Data solely for the purposes of the Project, provided such access, copy and use of the Data is made in compliance with all applicable federal, state and local laws and regulations and the terms of this Agreement.

ARTICLE 4. DATA SECURITY, CONFIDENTIALITY AND PRIVACY SAFEGUARDS

- 4.1 **Access Authorization.** OMH shall not use the Data except as expressly authorized under this Agreement, in accordance with applicable laws, rules and regulations. The Data will be used solely to conduct the Project and solely by OMH and OMH's faculty, employees, fellows, students, and agents that have a need to use, or provide a service in respect of, the Data in connection with the Project and whose obligations of use are consistent with the terms of this Agreement and applicable laws, rules and regulations (collectively, "Authorized Persons"). OMH agrees that it will restrict access to the Data to only those Authorized Persons who need access to the Data to perform tasks in connection with this Agreement.
- 4.2 **Safeguards to Protect the Data.** Except as authorized under this Agreement or otherwise required by law, OMH agrees at all times to retain control over the Data and shall not disclose, release, sell, rent, lease, loan, or otherwise grant access to the Data to any third party, except Authorized Persons, without the prior written consent of _____. OMH shall exercise at least the same degree of care as it uses with its own data and confidential information, but in no event less than reasonable care, to protect the Data from misuse and unauthorized access or disclosure. OMH agrees to establish appropriate administrative, technical, and physical safeguards to prevent unauthorized use of or access to the Data and comply with any other special requirements relating to safeguarding of the Data. Specifically, OMH shall take all reasonable measures to safeguard and keep the Data confidential and secure, including but not limited to (a) storing the Data in access restricted files; (b) creating a password or encryption system to obtain and restrict access to the Data; (c) keeping any hard copy versions of the Data in locked areas with restricted access; and (d) ensuring that only Authorized Persons shall have access to the Data (e) creating a firewall to protect the Data, and (f) reviewing, updating and training Authorized Persons on new security protocols in accordance with current industry standards, so that no third party, other than Authorized Persons, is allowed access to the Data.
- 4.3 **Confidentiality.**
- a. OMH shall maintain the security and confidentiality of all Data it receives in connection with this Agreement, and shall comply with all Federal, State and other governmental security requirements and all applicable laws, rules, and regulations pertaining to the confidentiality, privacy, and security of the Data received, generated, used, or held in the course of its performance under this Agreement including but not limited to, New York State Public Health Law, New York Social Services Law and the Health Insurance Portability and Accountability Act of 1996 ("HIPAA"), and their implementing

regulations.

- b. OMH shall not disclose, re-disclose, release, sell, rent, lease, loan, or otherwise grant access to the Data in any individually identifiable form, or in a form in which an individual could reasonably be identified, to anyone not immediately involved with the work under this Agreement without prior written approval of _____ or as permissible under applicable laws, rules, and regulations.
- c. OMH shall ensure that Authorized Persons who have access to the Data are aware of the confidentiality and security requirements and restricted use of the Data and the penalties for its unauthorized access, use or release and that Authorized Persons receive training from time to time regarding existing and updated confidential, privacy and security protocols.
- d. OMH shall ensure that all confidential information contained in or derived from the Data will remain confidential even after this Agreement expires and even when an Authorized Person is not working with the Data (including post-employment).
- e. In the event of any breach, as defined below, involving the Data or any reports, drafts, information, plans, or documents derived from the Data, furnished to, prepared by, assembled, or used by OMH, the Authorized Person, or any of OMH's employees, agents, volunteers, consultants, or vendors/contractors, OMH will (a) advise _____ of the incident within 24 hours of discovery, (b) safeguard or destroy the information that would identify the individual, (d) forward a written incident report to _____ expeditiously and not (re)disclose the identity of the individual to anyone else, (e) work with _____ security compliance officers, as applicable, to ensure all required protocols are followed related to review and follow-up actions; and (f) take reasonable steps to remediate the cause or causes of such breach, and provide written notice to _____ of such steps. For the purposes of this subsection, a breach is a situation or event which, intentionally or unintentionally, results in any of the Data being improperly released or removed from OMH's custody or where there is other evidence of willful/intentional or accidental/unintentional misuse.
- f. Notwithstanding any inconsistent provision in this Agreement, OMH shall not be liable for disclosure of the Data to the extent disclosure is required by virtue of court order, subpoena, other validly issued administrative or judicial notice or order, or pursuant to applicable law; provided that, in such event OMH has given _____ prompt notice of its receipt of the court order, subpoena, other validly issued administrative or judicial notice or order, or request pursuant to applicable law so that _____ may seek a protective order or other appropriate remedy and/or waive compliance with the provisions of this Agreement. The Parties shall cooperate with each other to obtain a protective order or other appropriate remedy, and if _____ cannot obtain a protective order, other appropriate remedy, or otherwise fail to quash the legal process requiring disclosure, OMH shall disclose the Data only to the extent strictly necessary to satisfy the request.
- g. The Parties acknowledge that: the material breach of this Agreement may cause irreparable damage for which recovery of damages would be inadequate; the damages

flowing from such material breach may not be readily susceptible to measurement in monetary terms; and, to the extent permitted by applicable law, any affected Party shall be entitled to immediate injunctive relief restraining any breach hereof, as well as such further relief as may be granted by a court of competent jurisdiction.

h. Nothing in this Agreement shall be deemed to limit the Parties' remedies at law or in equity for any such breach by either Party of any term of this Agreement.

4.4 **Supervision of Data.** The Data and all records/reports derived from the Data shall remain under the immediate supervision and control of the Authorized Persons in a manner that will protect the confidentiality of the Data and all information and records derived from the Data. OMH will further ensure that unauthorized persons cannot retrieve any such information and records by computer, remote terminal, or other means.

4.5 **Data Transfer.** The Data shall be securely transferred between the Parties using a method developed jointly by the Parties' technical staff, with approval of the Parties' cyber-security managers or other authorized staff.

4.6 **Data Retention/Disposition.** The Data shall be retained by OMH for a period of at least six (6) years after the sooner of the termination of this Agreement or upon completion of the Project, whichever occurs first. As soon as the purposes for the Data regarding any individual have been accomplished, OMH will destroy or cause to be destroyed the Data without a trace, in accordance with NIST Standard SP-800-88 Appendix A (Minimum Sanitation Recommendations), in order to prevent unauthorized access or use thereof.

4.7 **Restrictions on Use of Data.** OMH may **NOT**:

- a. Use the Data for any purpose other than to effectuate the purpose of this Agreement, in furtherance of the Project;
- b. Examine or permit any other entity to examine the Data unless such examination is required by Authorized Person in the performance of his/her official duties or responsibilities;
- c. (Re)disclose any identifying or personal information (as applicable) in the Data to any unauthorized person, including other staff;
- d. Enable or permit the Data to be accessed by any person who does not have a direct need and purpose for working with the Data;
- e. Enable or permit the Data to be accessed by any person who does not consent to abide by all the terms of this Agreement;
- f. Except as provided below or prohibited by law, any Data delivered pursuant to this Agreement is understood to be provided "AS IS." _____MAKES NO REPRESENTATIONS AND EXTEND NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED. REGARDING THE ACCURACY OR COMPLETENESS OF THE DATA OR THAT THE USE OF THE DATA WILL NOT INFRINGE ANY

PATENT, COPYRIGHT, TRADEMARK, OR OTHER PROPRIETARY RIGHTS. THERE ARE NO EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OMH ACKNOWLEDGES AND AGREES THAT _____ SHALL NOT BE LIABLE TO OMH FOR ANY DAMAGES, LOSSES, LIABILITY RESULTING FROM ANY RELIANCE UPON, ACCESS TO OR USE OF THE DATA OR THIS AGREEMENT. THE PARTIES FURTHER AGREE THAT NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL OR PUNITIVE DAMAGES ARISING OUT OF OR IN CONNECTION WITH THE DATA OR THIS AGREEMENT. Notwithstanding the foregoing to the contrary, each Party, to the best of its knowledge and belief, has the right and authority to provide the Data to OMH for use in the Project.

- 4.8 **Cooperation and Mitigation.** The Parties shall cooperate with each other regarding any remediation that, in their discretion, determine to be necessary to (a) address any applicable reporting requirements, and (b) mitigate any effects of such unauthorized use or disclosure of the Data, including measures necessary to restore goodwill with stakeholders, including research subjects, collaborators, governmental authorities and the public.
- 4.9. **Agents and Subcontractors.** OMH will ensure that any agents, including subcontractors to whom it provides Data, agree to the same restrictions and conditions set forth in this Agreement. _____ and OMH agree that the Parties and their officers, employees, agents, consultants, contractors, subconsultants and/or subcontractors, including Authorized Persons, are independent contractors and not employees of the other Party or any department, agency or unit thereof, nor will they hold themselves out as, or claim to be, officers or employees of the other Party, or any department, agency or unit thereof.
- 4.10 **Liability.** The Parties acknowledge and agree that OMH and the State are self-insured for its general liability exposure, workers compensation and automobile liability. In accordance with Article II of the New York Court of Claims Act, they shall be liable For damage or injury arising from negligent actions caused by an officer of OMH or the State or its employees acting within the scope of their respective employment. The State's self-insured funds could be drawn down if a judgment of liability is made under The provisions of the New York Court Claims Act, or in the case of small claims, an acknowledgement of liability has been made by the Attorney General and the Comptroller of the State of New York. The State's obligation with respect to any such claims are subject to the availability of lawful appropriations, as required by Section 41 of the New York State Finance Law.

ARTICLE 5. MODIFICATION

The Parties agree that no extension, modification or waiver of any provision of this Agreement shall be valid unless in writing pursuant to an amendment executed by duly authorized representatives of the Parties.

ARTICLE 6. ASSIGNMENT

Neither Party shall delegate any duties or assign any of its rights under this Agreement without the prior express written consent of the other Party. Neither Party shall subcontract any part of the work hereunder without the written consent of the other Party. Any purported delegation of duties, assignment of rights or subcontracting under this Agreement without the prior express written consent of the other Party is void.

ARTICLE 7. NOTICES

All notices and requests required or permitted to be made under this Agreement by any Party to the other shall be in writing, directed to the address of the parties as follows, either in person, by courier, by facsimile (and promptly confirmed by personal delivery or courier), or by certified mail, return receipt requested, and shall be effective upon delivery:

[insert notice information]

ARTICLE 8. SURVIVAL

Notwithstanding any other provision of this Agreement, the following sections shall survive termination of this Agreement: 1.3 and 4.1 – 4.8 and 4.10.

ARTICLE 9. ENTIRE AGREEMENT

Unless otherwise specified, this Agreement and the below listed Attachments embody the entire understanding between the Parties regarding the transfer of the Data to OMH for the Project:

- I. Attachment 1: Data-specific Terms and Conditions Fully Identifiable Data
- II. Attachment 2: Data-specific Terms and Conditions Limited Data Set
- III. Attachment 3: Data-specific Terms and Conditions De-Identified Data About Human Subjects

ARTICLE 10. NO THIRD-PARTY BENEFICIARY

Nothing express or implied in this Agreement is intended to confer, nor shall anything herein confer, upon any person other than the Parties, any rights, remedies, obligations, or liabilities whatsoever.

ARTICLE 11. ADDITIONAL PROVISIONS

11.1. **Governing Law.** This Agreement shall be governed by and construed in accordance with the laws of the State of New York without regard to choice of laws or conflict of law principles and the laws of the United States, where applicable.

11.2. **Jurisdiction and Venue.** The Parties agree that any and all claims arising under or related to this Agreement shall solely be heard and determined either in the courts of the State of New York. The Parties hereby waive personal service by personal delivery and agrees that service of process may be made by overnight courier or post-paid certified mail directed to the Parties at the Parties' addresses set forth in the Notice section of this Agreement, deemed effective upon receipt with the same effect as though personally served.

11.3. **Counterparts.** This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same Agreement. This Agreement may also be executed in counterpart facsimile or scanned signatures, each of which facsimile or scanned signature of a party shall be deemed to be the original signature of such party.

11.4. **Interpretation.** In the event of any conflict between the terms of this Agreement and the terms of any schedule or attachment hereto, it is understood that the terms of this Agreement shall be controlling with respect to any interpretation of the meaning and intent of the Parties. In addition, any ambiguity in this Agreement shall be resolved in favor of a meaning that permits the parties to maintain the confidentiality and security of the Data.

11.5. **Headings.** The headings and other captions in this Agreement are for convenience and reference only and shall not be used in interpreting, construing or enforcing any of the provisions of this Agreement.

11.6. **Severability.** If any provision of this Agreement is found by a proper authority to be unenforceable or invalid, such unenforceability or invalidity shall not render this Agreement unenforceable or invalid as a whole and, in such event, such provision shall be changed and interpreted so as to best accomplish the objectives of such unenforceable or invalid provision within the limits of applicable law or applicable court decisions.

11.7. **Publicity.** No Party shall use any other Parties' name, trademarks, or other logos in any publicity, advertising, or news release without the prior written approval of an authorized representative of that Party. The Parties agree that each party may disclose factual information regarding the existence and purpose of the relationship that is the subject of this Agreement for other purposes without written permission from the other party provided that any such statement shall accurately and appropriately describe the relationship of the parties and shall not in any manner imply endorsement by the other party whose name is being used.

11.8. **Intellectual Property Ownership.** The Parties hereby acknowledge that this Agreement does not constitute a grant by any Party to the other(s) of any license or right to any Party's intellectual property existing as of the effective date of this Agreement. If any party develops any new intellectual property in connection herewith, the Parties shall enter into a separate definitive agreement regarding the ownership of that new intellectual property.

1.9. **Compliance with Laws.** The Parties shall comply, at its own expense, with the provisions of all applicable local, state and federal laws, rules and regulations, including, but not limited to, those applicable to the Parties as an employer of labor. The Parties shall further comply, at its own expense, with all applicable rules, regulations and licensing requirements pertaining to this Agreement.

[The remainder of this page has been deliberately left blank; signatures to follow on next page]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year appearing below their respective signatures.

NYS OFFICE OF MENTAL HEALTH

By: _____

Name:

Title:

Attachment 1
Data Transfer and Use Agreement

1. [Description of protocol]

2. Description of Project: OMH IRB Protocol(s) (include name and numbers);

3. Data Disposition Requirements upon the termination or expiration of the Agreement:
Disposition Requirements set forth in Article ____ of this Agreement.

Attachment 2 Data Transfer and Use Agreement Data-specific Terms and Conditions: Other: Fully Identifiable Data

Additional Terms and Conditions:

The additional terms and conditions are as set forth below and agreed upon between the Parties:

1. Nothing herein shall authorize the Recipient to use or further disclose the Data in a manner that would violate the requirements of OMH under 45 CFR 164.514.
2. Recipients shall not use or further disclose the Data other than as permitted by this Agreement or as otherwise required by law.
3. Recipients shall report to OMH any use or disclosure of the Data not provided for by this Agreement within 5 business days of when it becomes aware of such use or disclosure.
4. Recipients will not use the Data, either alone or in concert with any other information, to make any effort to identify or contact individuals who are or may be the sources of Data without specific written approval from _____ and appropriate IRB approval, if required pursuant to 45 CFR 46. Should Recipients inadvertently receive identifiable information or otherwise identify a subject, Recipients shall promptly notify OMH and follow _____'s reasonable written instructions, which may include return or destruction of the identifiable information.
5. By signing this Agreement, Recipients provide assurance that relevant institutional policies and applicable federal, state, or local laws and regulations (if any) have been followed, including the completion of any IRB or ethics review or approval that may be required.
6. The parties agree to take such action as is necessary to amend this Agreement, from time to time, in order for _____ - to remain in compliance with the requirements of HIPAA.
7. Recipients and their employees, agents, subcontractors and any other individual permitted by Recipients to access the data will: (i) use all reasonable security practices; and (ii) take all reasonable security measures necessary to protect the security and privacy of the data.
8. Recipients will be solely responsible for the selection, implementation, and maintenance of its security procedures and policies: (a) for the protection of its internal network and information, and (b) that are sufficient to ensure that (I) the data is used only for authorized purposes, and (II) its systems and data are protected against improper access, use, loss alteration or destruction.

9. Recipients will not use unencrypted devices such as desktop, laptop, including external media, such as USB thumb drives (aka “flash drives”) or external hard drives, or cloud storage systems (such as OneDrive, Google Drive, Dropbox, etc.) to store any OMH data.
10. Any mobile device (i.e., laptop, phone, tablet, etc.) used to store OMH data, must have full disk encryption enabled.
11. All network communications containing patient, employee, agent, student, or other personally identifiable information, or system administrator credentials will be encrypted using industry-standard encryption mechanisms implemented through widely used and tested libraries and using AES-256, Data Authentication using at least SHA1 and Handshake encryption using at least RSA-2048 but preferably 4096), or use its own encryption and configuration policies if recognized as an industry standard by a technology standard organization (for example IEEE and RFC).
12. Recipient will comply with the following transmission standards:
 - Data to Recipient: Recipient will use either SFTP/SCP or FTP over SSL/TLS (FTPS) methods to allow OMH to transmit data to Recipient. If one of these secure methods is not used, then Recipient will notify OMH, and OMH will then transfer the data in an encrypted format to above standards.
 - Information from Recipient: Recipient will use either SFTP/SCP or FTP over SSL/TLS (FTPS) methods to transmit data to OMH. If one of these secure methods is not used, then Recipient will encrypt the information before transmitting the information to above standards.
13. Upon expiration of this agreement, the data transferred to Recipient shall be deleted by Recipient per NIST Standard SP-800-88 Appendix A (Minimum Sanitization Recommendations), unless both parties extend the agreement prior.

Attachment 3
Data Transfer and Use Agreement
Data-specific Terms and Conditions: Limited Data Set

Additional Terms and Conditions:

1. Nothing herein shall authorize the Recipient to use or further disclose the Data in a manner that would violate the requirements of OMH under 45 CFR 164.514.
2. Recipient shall not use or further disclose the Data other than as permitted by this Agreement or as otherwise required by law.
3. Recipient shall report to the OMH any use or disclosure of the Data not provided for by this Agreement within 5 business days of when it becomes aware of such use or disclosure.
4. OMH is a HIPAA Covered Entity, and the Data will be a Limited Data Set as defined by the Health Insurance Portability and Accountability Act of 1996 (“HIPAA”). In accordance with Section 164.514(e)(2) of the HIPAA Privacy Rule, the Data shall exclude the following direct identifiers of the individual or of relatives, employers, or household members of the individual:
 - Names;
 - Postal address information, other than town or city, State, and zip code;
 - Telephone numbers;
 - Fax numbers;
 - Electronic mail addresses;
 - Social security numbers;
 - Medical record numbers;
 - Health plan beneficiary numbers;
 - Account numbers;
 - Certificate/license numbers;
 - Vehicle identifiers and serial numbers, including license plate numbers;
 - Device identifiers and serial numbers;
 - Web Universal Resource Locators (URLs);
 - Internet Protocol (IP) address numbers;
 - Biometric identifiers, including finger and voice prints; and
 - Full face photographic images and any comparable images.

If the Data being provided is coded, the OMH will not release, and the Recipient will not request, the key to the code.

5. Recipient will not use the Data, either alone or in concert with any other information, to make any effort to identify or contact individuals who are or may be the sources of Data without specific written approval from OMH and appropriate IRB approval, if required pursuant to 45 CFR 46. Should Recipient inadvertently receive identifiable information

or otherwise identify a subject, Recipient shall promptly notify OMH and follow OMH's reasonable written instructions, which may include return or destruction of the identifiable information.

6. By signing this Agreement, Recipient provides assurance that relevant institutional policies and applicable federal, state, or local laws and regulations (if any) have been followed, including the completion of any IRB or ethics review or approval that may be required.
7. The parties agree to take such action as is necessary to amend this Agreement, from time to time, in order for the OMH to remain in compliance with the requirements of HIPAA.
8. Recipient and its employees, agents, subcontractors and any other individual permitted by Recipient to access the data will: (i) use all reasonable security practices; and (ii) take all reasonable security measures necessary to protect the security and privacy of the data.
9. Recipient will be solely responsible for the selection, implementation, and maintenance of its security procedures and policies: (a) for the protection of its internal network and information, and (b) that are sufficient to ensure that (I) the data is used only for authorized purposes, and (II) its systems and data are protected against improper access, use, loss alteration or destruction.
10. Recipient will not use unencrypted devices such as desktop, laptop, including external media, such as USB thumb drives (aka "flash drives") or external hard drives, or cloud storage systems (such as OneDrive, Google Drive, Dropbox, etc.) to store any OMH data.
11. Any mobile device (i.e., laptop, phone, tablet, etc.) used to store OMH data, must have full disk encryption enabled.
12. All network communications containing patient, employee, agent, student, or other personally identifiable information, or system administrator credentials will be encrypted using industry- standard encryption mechanisms implemented through widely used and tested libraries and using AES-256, Data Authentication using at least SHA1 and Handshake encryption using at least RSA- 2048 but preferably 4096), or use its own encryption and configuration policies if recognized as an industry standard by a technology standard organization (for example IEEE and RFC).
13. Recipient will comply with the following transmission standards:
 - Data to Recipient: Recipient will use either SFTP/SCP or FTP over SSL/TLS (FTPS) methods to allow OMH to transmit data to Recipient. If one of these secure methods is not used, then Recipient will notify OMH, and OMH will then transfer the data in an encrypted format to above standards.
 - Information from Recipient: Recipient will use either SFTP/SCP or FTP over SSL/TLS (FTPS) methods to transmit data to OMH. If one of these secure methods is not

used, then Recipient will encrypt the information before transmitting the information to above standards.

14. Upon expiration of this agreement, the data transferred to Recipient shall be deleted by Recipient per NIST Standard SP-800-88 Appendix A (Minimum Sanitization Recommendations), unless both parties extend the agreement prior.

DRAFT

Attachment 4
Data Transfer and Use Agreement
Data-specific Terms and Conditions: De-identified Data about Human Subjects

Additional Terms and Conditions:

1. The Data will not include personally identifiable information as defined in NIST Special Publication 800-122. If the Data being provided is coded, the OMH will not release, and the Recipient will not request, the key to the code.
2. If OMH is a Covered Entity, the Data will be de-identified data, as defined by the Health Insurance Portability and Accountability Act of 1996 (“HIPAA”).
3. Recipient will not use the Data, either alone or in concert with any other information, to make any effort to identify or contact individuals who are or may be the sources of Data without specific written approval from OMH and appropriate IRB approval, if required pursuant to 45 CFR 46. Should Recipient inadvertently receive identifiable information or otherwise identify a subject, Recipient shall promptly notify OMH and follow OMH’s reasonable written instructions, which may include return or destruction of the identifiable information.
4. By signing this Agreement, Recipient provides assurance that relevant institutional policies and applicable federal, state, or local laws and regulations (if any) have been followed, including the completion of any IRB or ethics review or approval that may be required.
5. Recipient shall promptly report to the OMH any use or disclosure of the Data not provided for by this Agreement of which it becomes aware.
6. Recipient and its employees, agents, subcontractors and any other individual permitted by Recipient to access the data will: (i) use all reasonable security practices; and (ii) take all reasonable security measures necessary to protect the security and privacy of the data.
7. Recipient will be solely responsible for the selection, implementation, and maintenance of its security procedures and policies: (a) for the protection of its internal network and information, and (b) that are sufficient to ensure that (I) the data is used only for authorized purposes, and (II) its systems and data are protected against improper access, use, loss alteration or destruction.
8. Upon expiration of this agreement, the data transferred to Recipient shall be deleted by Recipient per NIST Standard SP-800-88 Appendix A (Minimum Sanitization Recommendations) or any industry-accepted successor standards, unless both parties extend the agreement prior.
9. Recipient shall not use or further disclose the Data other than as permitted by this Agreement or as otherwise required by law.

Addendum

Albany County Technology Procurement – Contractor Administrative Terms & Conditions

1. Secure System Development Lifecycle and Specifications

Unless otherwise agreed to by the Authorized User (AU), "Albany County," in writing, the contractor's current version of the solution must function as specified in the associated Request for Proposal, Contract, or other agreement in an environment comprised solely of components including, but not limited to operating system and database platform versions which are in an active support phase (e.g., no requirement to run on End of Life software, such as Windows 7, etc.).

Unless otherwise agreed to by the Authorized User in writing, the Contractor shall represent the below practices by providing the documentation of Contractor's adherence to the below policies available in a public website or secure portal that shall be provided to Authorized Users upon request.

a) Secure System Development Lifecycle

- i) Policies that govern software development practices commensurate with the risk of the intended use of each software component:
 - (1) Such policies shall define documented security roles for the software development team
 - (2) On no less than an annual basis, the contractor shall conduct a comprehensive review of software development policies and make changes where indicated to adequately address new or changed risk
- ii) At least annually, the contractor shall provide training in secure software development practices to its developer workforce.
 - (1) Such training shall be focused on the technologies in use within the software development environment
 - (2) Such training shall include a review of the contractor's chosen secure coding framework (see "Vulnerability Management" section) and related policies, procedures and standards
 - (3) Such training shall include a review of the security-related roles and responsibilities conferred on development personnel by organizational policy
- iii) The contractor shall, to the extent legally permissible, conduct criminal background checks, credit checks and reference checks for all personnel engaged in the software development process, and establish a set of criteria for when management must be engaged regarding the results of such checks.
- iv) The contractor shall deliver remote and /or on premises support only with approval of AU and with the option for AU to supervise / observe the support activity
- v) At no time during remote and /or on premises support, or any other time, shall contractor transfer AU's data from AU's on premise installation to a remote location without the express written permission of the AU
- vi) The contractor shall 1) utilize uniquely assigned credentials for each of its workforce members to be used in supporting the AU's solution and 2) revoke those credentials within 24 hours of the departure of a contractor's workforce member who had knowledge of credentials used to support the AU's solution or notify the AU within 24 hours if the credentials used exist on an AU on-premise system. Credential management must be in accordance with NIST 800-63-3, Digital Identity, or its successor.

- vii) Upon request and with reasonable notice, the contractor shall provide the AU with a list of its workforce members with knowledge of credentials used to access the AU's solution.
- b) Vulnerability Management
 - i) The contractor shall make commercially reasonable efforts to ensure that components including but not limited to third party libraries, components and APIs are maintained at their most recent, stable version within the released application made available to the AU.
 - ii) The contractor shall follow a secure coding framework appropriate to the nature of its software components. For example, web application development teams may follow the Open Web Application Security Project's Secure Coding Practices
 - iii) The contractor shall document and execute a remediation plan for any vulnerability identified through dynamic or static analysis, vulnerability scans or penetration tests, where the vulnerability has a CVSS severity of 7.0 or higher
 - iv) The contractor shall establish processes for monitoring and acting upon vulnerability notices published regarding components of the software development environment as well as components used in the solution provided to the AU
 - v) The contractor shall maintain publicly available mechanisms for receiving reports of vulnerabilities identified by its customers, security researchers and similar entities.
- c) Application Lifecycle Management
 - i) The contractor shall ensure that any open source licenses which apply to components used in the solution confer no obligations upon the AU, or that in the event of such obligation, the AU is aware of and agrees to same.
 - ii) All applications released by contractor to the AU shall be signed by a publicly trusted code signing certificate so that the AU may verify the authenticity and integrity of the release. This code signing certificate shall be rotated on at least an annual basis.
 - iii) The contractor shall ensure that all implementation services and / or guides comprehensively address security hardening for the solution. Such hardening shall include, but not be limited to, the disabling of unnecessary features based on the Scope of Work and the implementation of a "least privilege" access model for all users and service accounts.
 - iv) The contractor shall implement processes to ensure that all changes to the solution:
 - (1) Are made at the direction of its product managers or equivalent role
 - (2) Are documented in a work management / issue tracking application
 - (3) Maintain evidence of security checks and approvals
 - (4) Include documented functional requirements and non-functional security requirements
 - (5) Include a plan for notifying customers, including the AU, of any substantive changes upon release
 - v) The contractor shall provide ample notice, and in no case less than six months, should the solution version used by the AU reach End of Life, such that it will no longer receive security updates to address vulnerabilities.
- d) Specifications

During the term of the Contract, the Authorized User may request Product specifications for particular items that have been included by the Contractor on its approved price list for the Contract. These specifications will be provided by the Contractor at no cost.

2. Instruction Manuals and Associated Documentation

Product shall be furnished, at no extra charge, with one complete set of standard operator instruction manuals and Documentation (hard copy, CD/DVD, or web link) as would normally accompany such Product. Contractor shall also ensure that the part numbers and net prices associated with the documentation are available to the Authorized User and included on its approved price list for this Contract should an Authorized User need to purchase additional sets of technical manuals. Where Documentation is provided in electronic format, an Authorized User shall be entitled to make copies to the extent necessary to fully enjoy the rights granted under this Contract provided that the Authorized User reproduces the copyright notice and any other legend of ownership on any copies made.

3. Security

a) Security Incidents

The Authorized User and the Contractor must, in writing, determine a Security Incident notification policy prior to the finalization of the Authorized User Agreement. If no such agreement is in place, then the default agreement shall be notification of all Security Incidents that may have a direct impact on the AU by phone immediately upon detection to the Authorized User representative.

All AU notifications will be followed with a notification to the Albany County Chief Information Officer.

If requested in the Authorized User agreement and agreed to by the Contractor, a written preliminary incident analysis report must be provided to AU within 72 hours of discovery. Contractor representative must be available by phone and email for discussions with the Albany County Chief Information Officer and AU representative throughout incident response activity and must provide status updates at mutually agreed upon cadences. A written final incident analysis report, including a detailed technical section including root cause of incident, timeline, scope, impact and corrective actions taken must be delivered to AU at the conclusion of incident response.

b) Data Breach – Required Contractor Actions

Unless otherwise provided by law, in the event of a Data Breach, the Contractor shall:

- i) notify the Albany County Chief Information Officer, the Albany County Cyber Incident Response Team, and any potentially affected Authorized User's representative, by telephone as soon as possible from the time the Contractor confirms Data Breach. An Authorized User may specify a maximum notification time in their RFQ or RFP.;
- ii) consult with and receive authorization from the Authorized User as to the content of any notice to affected parties prior to notifying any affected parties to whom notice of the Data Breach is required, either by statute or by the Authorized User;

- iii) coordinate all communication regarding the Data Breach with the Albany County Chief Information Officer and Authorized User (including possible communications with third parties);
- iv) cooperate with the Authorized User, Albany County Chief Information Officer, Albany County Division of Information Services and any Contractor working on behalf of the Authorized User or Albany County in attempting (a) to determine the scope and cause of the breach; and (b) to prevent the future recurrence of such security breaches; and
- v) promptly take commercially reasonable steps to mitigate the effects and minimize any damage resulting from the Security Event. Contractor shall provide Written notice to the Authorized User as to all such corrective actions taken by the Contractor to remedy the Data Breach. Unless otherwise agreed to in the Authorized User Agreement, if Contractor is unable to complete the corrective action within the required timeframe, the Authorized User may contract with a third party to provide the required services until corrective actions and services resume in a manner acceptable to the Authorized User, or until the Authorized User has completed a new procurement for a replacement service system; (ii) and the Contractor will be responsible for the reasonable cost of these services during this period.

Nothing herein shall in any way (a) impair the authority of the Office of the Attorney General or other investigative or law enforcement entity to bring an action against Contractor to enforce the provisions of the New York State Information Security Breach Notification Act (ISBNA) or (b) limit Contractor's liability for any violations of the ISBNA or any other applicable statutes, rules or regulations.

c) Location of Data; CONUS or OCONUS

- i) The RFQ or RFP must specify if the AU will allow Data to be located outside of the Continental United States (OCONUS).
- ii) Unless otherwise authorized in the RFQ and agreed to in the Authorized User Agreement, when the Contractor is responsible for managing the Data, the Contractor shall meet the following requirements:
 - a. All Data shall remain in the Continental United States (CONUS).
 - b. Any Data stored, or acted upon, shall be solely located in Data Centers within CONUS.
 - c. Any services which directly or indirectly access Data shall be performed only from locations within CONUS.
 - d. All Data in transit shall remain in CONUS and shall be encrypted in accordance with generally accepted standards.
 - e. All helpdesk, online and support services which may access Data shall be performed only from locations within CONUS.
 - f. No Follow the Sun support shall be allowed to access Data directly or indirectly from locations outside CONUS.
- iii) Unless otherwise authorized in the RFQ or RFP and agreed to in the Authorized User Agreement, when the Authorized User is responsible for managing the Data, the Contractor

shall provide the Authorized User with the capability and the means or tools to meet the following requirements:

- a. All Data shall remain in the Continental United States (CONUS).
 - b. Any Data stored, or acted upon, shall be solely located in Data Centers within CONUS.
 - c. Any services which directly or indirectly access Data shall be performed only from locations within CONUS.
 - d. All Data in transit shall remain in CONUS and shall be encrypted in accordance with generally accepted standards.
 - e. All helpdesk, online and support services which may access Data shall be performed only from locations within CONUS.
 - f. No Follow the Sun support shall be allowed to access Data directly or indirectly from locations outside CONUS.
- iv) Unless otherwise authorized in the RFQ or RFP and agreed to in the Authorized User Agreement, Contractor may not store, act upon, or access Data outside of the Continental United States (OCONUS) and may not perform support services that may access Data from OCONUS.

Authorized Users must receive prior written approval from the Albany County Chief Information Officer, before authorizing Data to be stored, acted upon, or accessed OCONUS, and before authorizing support services to be performed from OCONUS.

- v) Notwithstanding the foregoing, all services must be performed within CONUS and may not be authorized to be performed from OCONUS.

d) Security Reports

Contractor must log in accordance with NIST 800-92, or its successor. Upon request, the Contractor must provide the Authorized User with security logs and reports (such as SOC2 Type 2, CAIQ, and ISO27001) to allow the Authorized User to make an informed decision about the Contractor's security controls and their effectiveness.

Contractor shall cooperate with all reasonable Authorized User requests for a written description of Contractor's physical/virtual security and/or internal control processes. The Authorized User shall have the right to reject any Contractor's RFQ or RFP response or terminate an Authorized User Agreement when such a request has been denied.

e) Support Services

All helpdesk, online, and support services which access any Data must be performed from within CONUS, unless expressly authorized by the Authorized User in writing. Unless such authorization is granted, at no time will any Follow the Sun support be allowed to access Data directly, or indirectly, from outside CONUS. If an Authorized User agrees to OCONUS services that access Data, then the Authorized User must be provided any information requested such as security

reports (e.g. SOC2 Type 2, CAIQ and ISO27001) to allow the Authorized User to make an informed decision about the security of the Data in that location.

f) Infrastructure Support Services

Infrastructure support services that do not directly or indirectly access Data may be provided in a Follow the Sun format, if expressly outlined within the Authorized User Agreement.

g) Requests for Data By Third Parties

Unless prohibited by law, Contractor shall notify the Authorized User in writing within 24 hours of any request for Data (including requestor, nature of Data requested and timeframe of response) by a person or entity other than the Authorized User, and the Contractor shall secure Written acknowledgement of such notification from the Authorized User before responding to the request for Data.

Unless compelled by law, the Contractor shall not release Data without the Authorized User's prior written approval.

h) Security Policies

Contractor must maintain records documenting adherence to the following security policies and must provide such records to an Authorized User, or to the Albany County Chief Information Officer or Division of Information Services, upon request, through a public website or secure portal.

Policies that govern software development practices commensurate with the risk of the intended use of each software application

- Such policies shall define documented security roles for the software development team
- On no less than an annual basis, the contractor shall conduct a comprehensive review of software development policies and make changes where indicated to adequately address new or changed risk

The contractor shall deliver remote and /or on premises support only with approval of AU and with the option for AU to supervise / observe the support activity

At no time during remote and /or on premises support, or any other time, shall contractor transfer AU's data from AU's on premise installation of the software application to a remote location without the express written permission of the AU

The contractor shall 1) utilize uniquely assigned credentials for each of its workforce members to be used in supporting the AU's software application or 2) notify the AU within 24 hours of the departure of a contractor's workforce member who had knowledge of credentials used to support the AU's software application.

Upon request and with reasonable notice, the contractor shall provide the AU with a list of its workforce members with knowledge of credentials used to access the AU's software application

The contractor shall make commercially reasonable efforts to ensure that components including but not limited to third party libraries, components and APIs are maintained at their most recent, stable version within the released application made available to the AU.

The contractor shall follow a secure coding framework appropriate to the nature of its software application. For example, web application development teams may follow the Open Web Application Security Project's Secure Coding Practices

The contractor shall document and execute a remediation plan for any vulnerability identified through dynamic or static analysis, vulnerability scans or penetration tests, where the vulnerability has a CVSS severity of 4.0 or higher

The contractor shall establish processes for monitoring and acting upon vulnerability notices published regarding components of the software development environment as well as components used in the software application provided to the AU

The contractor shall maintain publicly available mechanisms for receiving reports of vulnerabilities identified by its customers, security researchers and similar entities.

The contractor shall ensure that any open source licenses which apply to components used in the software application confer no obligations upon the AU, or that in the event of such obligation, the AU is aware of and agrees to same.

All applications released by contractor to the AU shall be signed by a publicly trusted code signing certificate so that the AU may verify the authenticity and integrity of the release. This code signing certificate shall be rotated on at least an annual basis.

The contractor shall ensure that all implementation guides and training comprehensively address security hardening for the application. Such hardening shall include, but not be limited to, the disabling of unnecessary features based on the Scope of Work and the implementation of a "least privilege" access model for all users and service accounts.

The contractor shall implement processes to ensure that all changes to the software application:

- Are made at the direction of its product managers or equivalent role
- Are documented in a work management / issue tracking application
- Maintain evidence of security checks and approvals
- Include documented functional requirements and non-functional security requirements
- Include a plan for notifying customers, including the AU, of any substantive changes upon release

In no case shall the contractor knowingly release to the AU an application which contains a vulnerability with a CVSS severity of 7.0 or higher, without the direct written permission of the AU.

i) Secure Data Disposal

After 60 calendar days from expiration or termination of an Authorized User Agreement, or at a time mutually agreed upon by the Authorized User and the Contractor, the Contractor shall destroy Data in all of its forms, including all back-ups. Data shall be permanently deleted and shall not be recoverable, according to National Institute of Standards and Technology (NIST) 800-88, or its successor, as designated by the Authorized User, as applicable. If requested by the Authorized User, certificates of destruction, in a form acceptable to the Authorized User, shall be provided by the Contractor to the Authorized User.

j) Authentication Tokens

If included in an RFQ or RFP, the Authorized User Agreement may require authentication tokens for all systems in accordance with NIST 800-63B Authentication and Lifecycle Management, or its successor.

RESOLUTION NO. 395

AUTHORIZING AGREEMENTS WITH NEW YORK STATE OFFICE OR PROBATION AND CORRECTION ALTERNATIVES, COLUMBIA UNIVERSITY AND CHESTNUT HEALTH SYSTEMS, INC. REGARDING SCREENING SERVICES FOR AT-RISK YOUTH

Introduced: 9/12/18

By Social Services Committee:

WHEREAS, The Director of the Albany County Department of Probation has requested authorization to enter into agreements with Columbia University and Chestnut Healthcare Systems, Inc. regarding screening and intervention services for youth who may be at-risk of suicide, and

WHEREAS, Such agreements will provide computer equipment and support for Probation Department staff regarding the e-Connect Suicide Risk Assessment project to identify at-risk youth from Columbia University, and analysis and identification of risk factors from Chestnut Healthcare Systems, Inc. under a data-sharing agreement, now, therefore, be it

RESOLVED, By the Albany County Legislature, that the County Executive is hereby authorized to enter into an agreement with Columbia University, New York, NY 10032 regarding the e-Connect Suicide Risk Assessment project, for a term commencing October 1, 2018 and ending September 30, 2023, and, be it further

RESOLVED, that the County Executive is authorized to enter into a data-sharing agreement with Chestnut Healthcare Systems, Inc. regarding data analysis and support for the e-Connect Suicide Risk Assessment project, for a term commencing October 1, 2018 and ending September 30, 2023, and, be it further

RESOLVED, That the County Attorney is authorized to approve said agreements as to form and content, and, be it further

RESOLVED, That the Clerk of the County Legislature is directed to forward certified copies of this resolution to the appropriate County Officials.

Adopted by unanimous vote – 9/12/18

State of New York
County of Albany

This is to certify that I, the undersigned, Clerk of the Albany County Legislature, have compared the foregoing copy of the resolution and/or local law with the original resolution and/or local law now on file in the office, and which was passed by the Legislature of said County on the 12th day of September, 2018, a majority of all members elected to the Legislature voting in favor thereof, and that the same is a correct and true transcript of such original resolution and/or local law and the whole thereof.



IN WITNESS WHEREOF, I have hereunto set my hand and the official seal of the County Legislature this 13th day of September, 2018.

A handwritten signature in dark ink, appearing to read "Robert T. Deen", is written over a horizontal line.

Clerk, Albany County Legislature

DANIEL P. MCCOY
County Executive



**COUNTY OF ALBANY
PROBATION DEPARTMENT
60 SOUTH PEARL STREET
ALBANY, NEW YORK 12207**
PHONE: (518) 487-5200
FAX: (518) 487-5204
www.albanycounty.com

WILLIAM CONNORS
Director

Lori Haggerty
Deputy Director

Michael OConnor
Principal Probation Officer

July 18, 2025

Honorable Joanne Cunningham, Chairwoman
Albany County Legislature
112 State Street, Room 710
Albany, NY 12207

Re: Gun Involved Violence Elimination
(GIVE) Grant Renewal

Dear Chairwoman Cunningham:

Enclosed is a request for Legislative Action for permission to renew The Probation Department's contract with the New York State Division of Criminal Justice Services (DCJS) regarding Gun Involved Violence Elimination (GIVE) grant. This year we have been awarded \$380,672, which is a slight increase for salaries. This amount will be reflected in the 2026 Probation budget. The GIVE Grant pays for personnel, training material, GPS, incentives, and overtime for related work. This continues to be a partnership with the Albany County District Attorney Office, the Albany Police, the Albany County Sheriff, and NYS Division of Criminal Justice Services.

It is respectfully requested this be considered. If you have any questions or need additional information, please do not hesitate to contact me directly at (518) 487-5194.

Sincerely,

William Connors
Probation Director

WC/km
Enc.

cc: Honorable Dennis Feeney, Majority Leader
Honorable Frank Mauriello, Minority Leader
Rebekah Kennedy, Esq., Majority Counsel
James Curran, Esq., Minority Counsel



County of Albany

Harold L. Joyce
Albany County Office
Building
112 State Street - Albany,
NY 12207

Legislation Text

File #: TMP-6711, **Version:** 1

REQUEST FOR LEGISLATIVE ACTION

Description (e.g., Contract Authorization for Information Services):

Contract Authorization with NYS for the Gun Involved Violence Elimination (GIVE) grant

Date: July 18, 2025
Department: Probation Department
Attending Meeting: William Connors
Submitted By: William Connors
Title: Probation Director
Phone: 518-487-5194

Purpose of Request: Contract Authorization Enter text.

CONTRACT TERMS/CONDITIONS:

Party Names and Addresses:

New York State Division of Criminal Justice Services, 80 South Swan Street, Albany, NY 12210

Term: (Start/end date or duration) 7.1.2025-6.30.2026
Amount/Raise Schedule/Fee: 380,672.

BUDGET INFORMATION:

Is there a Fiscal Impact: Yes ☒ No ☐
Anticipated in Budget: Yes ☒ No ☐
Spreadsheet attached: Yes ☐ No ☒

Source of Funding - (Percentages)

Federal:	0	County:	0
State:	100	Local:	0

County Budget Accounts:

Revenue Account and Line: A3140.03334
Revenue Amount: 380,672.
Appropriation Account and Line: various lines
Appropriation Amount: Enter text.

ADDITIONAL INFORMATION:

Mandated Program/Service: Yes ☐ No ☒
If Mandated, Cite Authority: Enter text.
Request for Bids / Proposals:

Competitive Bidding Exempt:	Yes ☐ No ☐
# of Response(s):	Enter text.
# of MWBE:	Enter text.
# of Veteran Business:	Enter text.
Bond Resolution No.:	Enter text.
Apprenticeship Program	Yes ☐ No ☐

Previous requests for Identical or Similar Action:

Resolution/Law Number and Date: 24-478

DESCRIPTION OF REQUEST: (state briefly why legislative action is requested)

The Probation Department is a partner with the Albany County District Attorney Office, the Albany Police, the Albany County Sheriff, and NYS DCJS to reduce gun violence in Albany County by participating in the Gun Violence Elimination GIVE Grant. The grant funds monitoring persons sentenced to Probation having been convicted of gun related crimes. It pays for the salary of 3.5 Probation Officers who are assigned GIVE related duties of Pre-Sentence Investigation Reports and Supervision of GIVE identified Probationers. The GIVE Probation Officers provide enhanced pre-sentence investigation reports and probation supervision. This may include special details where probationers may attend, curfew checks, increased reporting and GPS monitoring. Other funding includes Overtime, incentives, and GPS monitoring.

Project #: GV25-1005-D00 GIVE Initiative Project Status: Pending Contract Information
Participant: Albany County

Project

Home
Search
Open

General	Participants	Budget	Work Plan	Questions	Conditions	Acceptance	Contract Checklist
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Please enter budget information. If you are requesting an advance, please enter the amount requested and the justification, then save the screen before proceeding. You may edit the Advance if necessary at a later time. Enter budget information by participant. If you will only be operating with one budget, please enter the budget for the Grantee agency. For consortia, you may enter budgets by individual implementing agency. When you have completed your budget, please go on to the Workplan tab.

Go toAttachment
Progress
Site Review
Equipment**Budget Summary**

Participant	Grant Funds	Matching Funds	Total
Albany County	\$0.00	\$0.00	\$0.00
Albany County Probation Department	\$380,672.00	\$0.00	\$380,672.00
Total	100.00%	\$380,672.00	0.00%
		\$0.00	\$380,672.00

ReportsApplication
Deficiency
Draft
Contract

Advance Request Amount (If not requesting an advance, please skip) \$ 0.00

Advance Request Justification (200 character limit)

Help
Logout**Budget Summary by Participant**
Albany CountyLogin ID:
albco

Albany County Probation Department

Version
5.1.14

Version 1 - Edit (Click here to add more lines to budget categories)

#	Personnel	Number	Unit Cost	Total Cost	Grant Funds	Matching Funds	Deficient
1	Hot-Spot Policing OT	1	\$30,000.00	\$30,000.00	\$30,000.00	\$0.00	no
2	Probation Officer's	1	\$225,291.00	\$225,291.00	\$225,291.00	\$0.00	no
Total				\$255,291.00	\$255,291.00	\$0.00	

#	Fringe Benefits	Number	Unit Cost	Total Cost	Grant Funds	Matching Funds	Deficient
1	Probation Officer's Fringe	1	\$101,381.00	\$101,381.00	\$101,381.00	\$0.00	no
Total				\$101,381.00	\$101,381.00	\$0.00	

#	All Other Expenses	Number	Unit Cost	Total Cost	Grant Funds	Matching Funds	Deficient
1	Ankle Bracelet Activation and Monitoring	1	\$16,000.00	\$16,000.00	\$16,000.00	\$0.00	no
2	CBI-Brief Intervention Therapy	1	\$1,000.00	\$1,000.00	\$1,000.00	\$0.00	no
3	Community Events/Incentives	1	\$7,000.00	\$7,000.00	\$7,000.00	\$0.00	no
Total				\$24,000.00	\$24,000.00	\$0.00	

Version 1 Total	Total Cost	Grant Funds	Matching Funds
	\$380,672.00	\$380,672.00	\$0.00

RESOLUTION NO. 478

AUTHORIZING AN AGREEMENT WITH THE NEW YORK STATE DIVISION
OF CRIMINAL JUSTICE SERVICES REGARDING THE GUN INVOLVED
VIOLENCE ELIMINATION GRANT

Introduced: 8/12/24

By Public Safety Committee:

WHEREAS, The Director of the Probation Department has requested authorization to enter into an agreement with the New York State Division of Criminal Justice Services regarding the Gun Involved Violence Elimination (GIVE) Initiative in the amount of \$372,890 for the term commencing July 1, 2024 and ending June 30, 2025, and

WHEREAS, The Director has indicated that the GIVE Initiative is a partnership between the Probation Department, New York State Division of Criminal Justice Services, the Albany County District Attorney's Office, the Albany County Sheriff and the City of Albany Police Department and that funding will assist in monitoring individuals sentenced to Probation after being convicted of gun-related crimes, now, therefore, be it

RESOLVED, By the Albany County Legislature that the County Executive is authorized to enter into an agreement with the New York State Division of Criminal Justice Services regarding the Gun Involved Violence Elimination Initiative in the amount of \$372,890 for the term commencing July 1, 2024 and ending June 30, 2025, and, be it further

RESOLVED, That the County Attorney is authorized to approve said agreement as to form and content, and, be it further

RESOLVED, That the Clerk of the County Legislature is directed to forward certified copies of this resolution to the appropriate County Officials.

Adopted by unanimous vote – 8/12/24

State of New York
County of Albany

This is to certify that I, the undersigned, Clerk of the Albany County Legislature, have compared the foregoing copy of the resolution and/or local law with the original resolution and/or local law now on file in the office, and which was passed by the Legislature of said County on the 12th day of August, 2024, a majority of all members elected to the Legislature voting in favor thereof, and that the same is a correct and true transcript of such original resolution and/or local law and the whole thereof.



IN WITNESS THEREOF, I have hereunto set my hand and the official seal of the County Legislature this 14th day of August, 2024.

A handwritten signature in cursive script, reading "Nicole Chambers", is written over a horizontal line.

Clerk, Albany County Legislature

DANIEL P. MCCOY
County Executive



COUNTY OF ALBANY
PROBATION DEPARTMENT
60 SOUTH PEARL STREET
ALBANY, NEW YORK 12207
PHONE: (518) 487-5200
FAX: (518) 487-5204
www.albanycounty.com

WILLIAM CONNORS
Director

Lori Haggerty
Deputy Director

Michael OConnor
Principal Probation Officer

July 15, 2025

Honorable Joanne Cunningham, Chairwoman
Albany County Legislature
112 State Street, Room 710
Albany, NY 12207

Re: Allied Universal Electronic Monitoring Contract

Dear Chairwoman Cunningham:

Authorization is requested to enter into a contract with Allied Universal Electronic Monitoring, for 2026 to provide Global Position System services to the Probation Department.

In 2020, New York State passed Bail Reform Legislation. Bail Reform allows Courts to release defendants under non-monetary conditions which include GPS. This allows courts to order enhanced Pre Trial Release, including electronic monitoring. The Probation Department also provides GPS services to other courts in Albany County which may include Youth Court and Family Court under recent legislation entitled Raise the Age. GPS service may also be ordered to other high risk offenders which may include sex offenders and gun involved individuals. Funding is 100% from New York Grants which include Raise the Age, Gun Involved Violence Elimination, and Pre-Trial Discovery.

The current contract with Allied Universal Electronic Monitoring will expire December 31, 2025. It is requested the contract be approved with the same vendor. The amount requested is for \$250,000. This is expected in the 2026 Probation Budget. The actual cost is \$3.10 per day for active units.

It is respectfully requested this be considered. If you have any questions or need additional information, please do not hesitate to contact me directly at (518) 487-5194.

Sincerely,

William Connors
Probation Director

WC/km

Enc.

cc: Honorable Dennis Feeney, Majority Leader
Honorable Frank Mauriello, Minority Leader
Rebekah Kennedy, Esq., Majority Counsel
James Curran, Esq., Minority Counsel



County of Albany

Harold L. Joyce
Albany County Office
Building
112 State Street - Albany,
NY 12207

Legislation Text

File #: TMP-6712, **Version:** 1

REQUEST FOR LEGISLATIVE ACTION

Description (e.g., Contract Authorization for Information Services):

Contract Authorization for Probation Department with Allied Universal Electronic Monitoring

Date: July 18, 2025
Department: Probation Department
Attending Meeting: William Connors
Submitted By: William Connors
Title: Probation Director
Phone: 518-487-5194

Purpose of Request: Contract Authorization

CONTRACT TERMS/CONDITIONS:

Party Names and Addresses:

Allied Universal Electronic Monitoring, 1838 Gun Highway, Odessa, FL 33556

Term: (Start/end date or duration) 1.1.2026-12.31.2026
Amount/Raise Schedule/Fee: 250,000.00

BUDGET INFORMATION:

Is there a Fiscal Impact: Yes ☒ No ☐
Anticipated in Budget: Yes ☒ No ☐
Spreadsheet attached: Yes ☐ No ☒

Source of Funding - (Percentages)

Federal:	0	County:	0
State:	100	Local:	0

County Budget Accounts:

Revenue Account and Line:	A3140.03322/A3140.03334/A3140.03394
Revenue Amount:	250,000.
Appropriation Account and Line:	A3140.44046/A3140.44046R
Appropriation Amount:	250,000.

ADDITIONAL INFORMATION:

Mandated Program/Service: Yes ☒ No ☐
If Mandated, Cite Authority: NYS State Bail Reform, NYS RTA, NYS DCJS-GIVE
Request for Bids / Proposals:

Competitive Bidding Exempt:	Yes ☒ No ☐
# of Response(s):	Enter text.
# of MWBE:	Enter text.
# of Veteran Business:	Enter text.
Bond Resolution No.:	Enter text.
Apprenticeship Program	Yes ☐ No ☒

Previous requests for Identical or Similar Action:

Resolution/Law Number and Date: 24-676

DESCRIPTION OF REQUEST: (state briefly why legislative action is requested)

In 2020, New York State passed Bail Reform Legislation. Bail Reform allows Courts to release defendants under non-monetary conditions which include GPS. This allows courts to order enhanced Pre-Trial Release, including electronic monitoring. The Probation Department also provides GPS services to other courts in Albany County which may include Youth Court and Family Court under recent legislation entitled Raise the Age. GPS service may also be ordered to other high-risk offenders which may include sex offenders and gun involved individuals.

Participating Addendum Number 22PSX0021
&
New York State Office of General Services Piggyback Contract # PC70431
for
Electronic Monitoring Products and Services
between
Albany County
and
Allied Universal Electronic Monitoring US, Inc.

This Participating Addendum is entered into by **Albany County** ("Participating Entity") and the following Contractor (each a "Party" and collectively the "Parties") for the purpose of participating in NASPO ValuePoint Master Agreement Number 22PSX0021, executed by Contractor and the State of Connecticut ("Lead State") for Electronic Monitoring Products and Services ("Master Agreement"):

Allied Universal Electronic Monitoring US, Inc. ("Contractor")
1838 Gunn Hwy.
Odessa, FL 33556

I. PARTICIPATING ADDENDUM CONTACTS.

Contractor's contact for this Participating Addendum is:

Paul Drews
Vice President of Sales & Business Dev.
1838 Gunn Hwy.
Odessa, FL 33556
Paul.Drews@em.aus.com
813.860.8897

Participating Entity's contact for this Participating Addendum is:

William Connors
Probation Director
60 South Pearl Street
Albany, NY 12207-2197
William.Connors@albanycountyny.gov
518.487.5200

- II. TERM.** This Participating Addendum is effective the last date signed below (the "Effective Date") and will terminate upon termination of the Master Agreement, as amended, unless the Participating Addendum is terminated sooner in accordance with the terms set forth herein.
- III. PARTICIPATION AND USAGE.** This Participating Addendum may be used by all state agencies, institutions of higher education, cities, counties, districts, and other political subdivisions of the state, and nonprofit organizations within the state if authorized herein and by law. Participating Entity has sole authority to determine which entities are eligible to use this Participating Addendum. If Contractor becomes aware that an entity's use of this Participating Addendum is not authorized, Contractor will notify NASPO ValuePoint to initiate outreach to the appropriate parties.
- IV. GOVERNING LAW.** The construction and effect of this Participating Addendum and any Orders placed hereunder will be governed by, and construed in accordance with, Participating Entity's laws.
- V. SCOPE.** Except as otherwise stated herein, this Participating Addendum incorporates the scope, pricing, terms, and conditions of the Master Agreement and the rights and obligations set forth therein as applied to Contractor and Participating Entity and Purchasing Entities.
- a. Products.** All products available through the Master Agreement may be offered and sold by Contractor to Purchasing Entities.
 - b. Services.** All services available through the Master Agreement may be offered and sold by Contractor to Purchasing Entities.

- c. **Contractor Partners.** All subcontractors, dealers, distributors, resellers, and other partners identified on Contractor's NASPO ValuePoint webpage as authorized to provide Products and Services to Participating Entity may provide Products and Services to users of this Participating Addendum. Contractor will ensure that the participation of Contractor's subcontractors, dealers, distributors, resellers, and other partners is in accordance with the terms and conditions set forth in the Master Agreement and in this Participating Addendum. Any amendment to the Master Agreement shall be deemed incorporated into this Participating Addendum unless the amendment is rejected by Participating Entity in writing to Contractor within ten (10) calendar days of the amendment's effective date and is documented thereafter via written amendment hereto.

Any conflict between this Participating Addendum and the Master Agreement will be resolved in favor of the Participating Addendum. The terms of this Participating Addendum, including those modifying or adding to the terms of the Master Agreement, apply only to the Parties and shall have no effect on Contractor's participating addenda with other participating entities or Contractor's Master Agreement with the Lead State.

- VI. **ORDERS.** Purchasing Entities may place orders under this Participating Addendum by referencing the Participating Addendum Number on an Order. Each Order placed under this Participating Addendum is subject to the pricing and terms set forth herein and in the Master Agreement, including applicable discounts, reporting requirements, and payment of administrative fees to NASPO ValuePoint and Participating Entity, if applicable.
- VII. **PARTICIPATING ENTITY REPORTING REQUIREMENTS AND ADMINISTRATIVE FEE. RESERVED.**
- VIII. **FEDERAL FUNDING REQUIREMENTS.** Orders funded with federal funds may have additional contractual requirements or certifications that must be satisfied at the time the Order is placed or upon delivery. When applicable, a Purchasing Entity will identify in the Order any alternative or additional requirements related to the use of federal funds. By accepting the Order, Contractor agrees to comply with the requirements set forth therein.
- IX. **INFORMATION TECHNOLOGY STANDARDS. RESERVED,**
- X. **ATTACHMENTS.** This Participating Addendum includes the following attachments:
- New York State Office of General Services Piggyback Contract #: PC70431**
NASPO Master Agreement #: 22PSX0021
- XI. **NOTICE.** Any notice required herein shall be sent to the following:
- | | |
|---|------------------------------------|
| For Contractor: | For Participating Entity: |
| Paul Drews | William Connors |
| Vice President of Sales & Business Dev. | Probation Director |
| Paul.Drews@em.aus.com | William.Connors@albanycountyny.gov |
| 813.860.8897 | 518.487.5200 |
- XII. **SUBMISSION OF PARTICIPATING ADDENDUM TO NASPO VALUEPOINT.** Upon execution, Contractor shall promptly email a copy of this Participating Addendum and any amendments hereto to NASPO ValuePoint at pa@naspovaluepoint.org. The Parties acknowledge and agree that the Participating Addendum, as amended, may be published on the NASPO ValuePoint website.

[The remainder of this page intentionally left blank]

[Signature page follows]

SIGNATURE

The undersigned for each Party represents and warrants that this Participating Addendum is a valid and legal agreement binding on the Party and enforceable in accordance with the Participating Addendum's terms and that the undersigned is duly authorized and has legal capacity to execute and deliver this Participating Addendum and bind the Party hereto.

IN WITNESS WHEREOF, the Parties have executed this Participating Addendum as of the Effective Date.

CONTRACTOR:
ALLIED UNIVERSAL ELECTRONIC
MONITORING US, INC.

PARTICIPATING ENTITY:
ALBANY COUNTY

Signature

Arnold Roese

Printed Name

Vice President and General Manager

Title

Date

Signature

Printed Name

Title

Date

**New York State Office of General Services - Negotiated Pricing
Lease Product Pricing**

Product Description	Supervision Level	Quantity	Lease Rate Per Unit/ Per Day
One-Piece GPS Tracking Device	Active	1-500	\$3.10
One-Piece GPS Tracking Device	Active	501-2,000	\$3.05
One-Piece GPS Tracking Device	Active	2,001+	\$3.00
One-Piece GPS Tracking Device - Optional Add-On Beacon	N/A	1+	\$0.55
Two-Piece GPS Tracking System	Active	1+	\$4.29
aCheck App	N/A	1+	\$1.00

Lost, Damaged, Stolen Replacement Cost

Product Description	Replacement Cost (Each)
One-Piece Tracking Device	\$595.00
One-Piece Tracking Device Beacon	\$320.00
Two-Piece Tracking System GPS Device	\$900.00
Two-Piece Tracking System Bracelet	\$90.00

Other Lease Product and Pricing are available under NASPO.

Payment Terms: Net 30 Days.

Spare Inventory: 20% spare inventory at no additional cost. Levels above this will be returned to Contractor if not used or allocated to new participants.

Lost, Damaged and Stolen: Contractor will cover Lost/Damaged/Stolen equipment up to an annual cap of 25% of the total annual contract value (the "Lost/Damaged/Stolen Equipment Amount"). The said Lost/Damaged/Stolen Equipment Amount shall be calculated annually.

The Lost/Damaged/Stolen annual allowance is applicable to GPS equipment.

The Lost/Damaged/Stolen annual allowance is not applicable to alcohol equipment.

Freedom Charger (Optional Purchase)

Product Description	Purchase Price Each
Freedom Charger Kit	\$60.00
Freedom Charger without charging cord	\$55.00
Freedom Charger replacement charging cord	\$5.00

[Optional Purchases Continued Next Page]

Reinforced Pre-Cut Strap (Optional Purchase)

Reinforced Pre-cut Strap	Quantity Minimum Order 10 Straps Any Size	Purchase Cost
Reinforced Pre-cut Strap (Size A) Blue	10	\$120.00
Reinforced Pre-cut Strap (Size B) Rose	10	\$120.00
Reinforced Pre-cut Strap (Size C) Green	10	\$120.00
Reinforced Pre-cut Strap (Size D) Grey	10	\$120.00
Reinforced Pre-cut Strap (Size E) Yellow	10	\$120.00
Reinforced Pre-cut Strap (Size F) Teal	10	\$120.00
Reinforced Pre-cut Strap (Size G) Red	10	\$120.00
Reinforced Pre-cut Strap (Size H) Light Grey	10	\$120.00
Reinforced Pre-cut Strap (Size I) Orange	10	\$120.00
Reinforced Pre-cut Strap (Size J) Pink	10	\$120.00

Reinforced Pre-Cut Strap Accessories (Optional Purchase)

Reinforced Strap	Quantity	Purchase Cost
Measuring Tape for Pre-Cut Reinforced Strap	10	\$18.00
Strap Cutter for Pre-Cut Reinforced Strap	1+	\$14.00
Screwdriver for Pre-Cut Reinforced Strap	1+	\$4.00

MASTER AGREEMENT #: 22PSX0021

EXHIBIT B

PRICE SCHEDULE

NYS OGS Piggyback Agreement and NYS OGS Authorized Users

This Exhibit B Price Schedule includes not to exceed "ceiling" pricing for Contractor for the electronic

A. Electronic Monitoring Service Category: RF

Contractor: Allied Universal Electronic Monitoring US, Inc.

Item	Description of Service
1	Real time electronic monitoring of home confinement 24 hours per day, 7 days per week
2	System implementation, integration, configuration, UAT and Go-Live deployment
3	Licensed Software for Purchasing Entity authorized Users
4	Hosted Services
5	System Training for unlimited Users: • Web Based and/or Virtual Training • On-Site
6	Preventative Maintenance and Support of Hardware
7	Five (5%) Percent Allowance for Loss, Stolen, or Damaged Hardware • 5% allowance is based on the total annual calendar year contract value for RF leased units
8	Twenty (20%) Percent Allowance of Surplus Hardware • 20% surplus hardware provided based on Purchasing Entity's active RF leased units.
9	Monitoring Center Live Alert Calls and Rule Configuration Options, 24/7/365
9.1	24/7/365 calling on 3 rule configuration options to Purchasing Entity authorized User or offender
9.2	24/7/365 calling on each additional rule configuration option beyond 3 to Purchasing Entity authorized User or offender
9.3	After hours calling on 3 rule configuration options to Purchasing Entity authorized User or offender
9.4	After hours calls on each additional rule configuration option beyond 3 to Purchasing Entity authorized User or offender
9.5	Additional Option: Calls to both Purchasing Entity authorized User and offender.
Hardware Purchase Options:	
Item	Model Description
1	Model #1 Manufacturer: Allied Universal Electronic Monitoring US, Inc. Brand/Model Number: Base Station: Home Curfew RF Monitoring System 3000/062310064 Bracelet: BTX / 4433

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Optional Accessories for Purchase:	Price
Regular Strap	\$ 4.75 each
Reinforced Strap	\$ 4.75 each
Pin Trays (Qty: 10 per package)	\$ 17.81 per package
Tamper Plugs (Qty: 10 per package)	\$ 17.81 per package
Strap Cutter for Pre-Cut Reinforced Strap	\$ 13.30 each
Screwdriver for Pre-Cut Reinforced Strap	\$ 3.80 each
1-Piece Measuring Tape for Pre-Cut Reinforced Strap	\$ 17.10 each
Pre-Cut Reinforced Straps Pkg (Qty: 10 per package)	\$ 142.50 per package
Officer Installation Tool	\$ 14.25 each
Screwdriver	\$ 1.90 each
Strap Cutter	\$ 9.50 each
Plug and cord for BU 3000	\$ 47.50 each
Phone Cord for BU 3000	\$ 9.50 each

Hardware Lease Options:		
Item	Model Description	
1	Model #1 Manufacturer: Allied Universal Electronic Monitoring US, Inc. Brand/Model Number: Base Station: Home Curfew RF Monitoring System 3000/062310064 Bracelet: BTX / 4433 Price inclusive of all accessories.	

B. Electronic Monitoring Service Category: A

Contractor: Allied Universal Electronic Monitoring US, Inc.

Item	Description of Service
1	Real time electronic monitoring of home confinement 24 hours per day, 7 days per week
2	System implementation, integration, configuration, UAT and Go-Live deployment
3	Licensed Software for Users
4	Hosted Services
5	System Training for unlimited Users: - Web Based and/or Virtual Training - On-Site
6	Preventative Maintenance and Support of Hardware

Hardware Lease Options:

Item	Model Description
1	Model #1 Manufacturer: Alcohol Monitoring Services Brand/Model Number: SCRAM Remote Breath Pro/60000122 device Accessories included at no additional cost: wall charger, carrying case and two straws

Item	Model Description
2	Model #2 Manufacturer: Alcohol Monitoring Services Bracelet: SCRAM CAM® Bracelet/60000083 Base Stations: CAM Wireless Base Station STATION/60000086 or CAM Landline Base Station/60000082

Optional Accessories for Purchase:	Price
Remote Breath Car Charger	\$ 67.00 each
Remote Breath Carrying Case	\$ 79.00 each
Remote Breath Ethernet Adapter Kit	\$ 38.00 each
Remote Breath or CAM Charger	\$ 15.00 each

C. Electronic Monitoring Service Category: GPS

Contractor: Allied Universal Electronic Monitoring US, Inc.

Item	Description of Service
1	Real time electronic monitoring of home confinement 24 hours per day, 7 days per week
2	System implementation, integration, configuration, UAT and Go-Live deployment
3	Licensed Software for Purchasing Entity authorized Users
4	Hosted Services
5	System Training for unlimited Users: • Web Based and/or Virtual Training • On-Site
6	Preventative Maintenance and Support of Hardware
7	Five (5%) Percent Allowance for Loss, Stolen, or Damaged Hardware • 5% allowance is based on the total annual calendar year contract value for GPS leased units
8	Twenty (20%) Percent Allowance of Surplus Hardware • 20% surplus hardware provided based on Purchasing Entity's active GPS leased units.
9	Monitoring Center Live Alert Calls and Rule Configuration Options, 24/7/365
9.1	24/7/365 calling on 3 rule configuration options to Purchasing Entity authorized User or offer
9.2	24/7/365 calling on each additional rule configuration option beyond 3 to Purchasing Entity a
9.3	After hours calling on 3 rule configuration options to Purchasing Entity authorized User or off

9.4	After hours calls on each additional rule configuration option beyond 3 to Purchasing Entity
9.5	Additional Option: Calls to both Purchasing Entity authorized User and offender.

Hardware Purchase Options:

Item	Model Description	Number of Units
1	Model #1 Manufacturer: Allied Universal Electronic Monitoring US, Inc. Brand/Model Number: GPS Device: AT1 LTE A/063450001 or AT1 LTE V/063450002 Optional Beacon: SB1000/001420038	1 - 100
		101 - 250
		251 - 500
		501 - 1,000
		1,001 - 2,000
		2,001 - 3,500
		3,501+

Item	Model Description	Number of Units
2	Model #2 Manufacturer: Allied Universal Electronic Monitoring US, Inc. Brand/Model Number: Bracelet BTX/4433 GPS Device: RTC LTE V/064000006 Optional Home Base Station: Base Unit RTC LL/062310076	1 - 100
		101 - 250
		251 - 500
		501 - 1,000
		1,001 - 2,000
		2,001 - 3,500
		3,501+

Optional Accessories for Purchase:	Price
Regular Strap	\$ 4.75 each
Reinforced Strap	\$ 4.75 each
Pin Trays (Qty: 10 per package)	\$ 17.81 per package
Tamper Plugs (Qty: 10 per package)	\$ 17.81 per package
Strap Cutter for Pre-Cut Reinforced Strap	\$ 13.30 each
Screwdriver for Pre-Cut Reinforced Strap	\$ 3.80 each
1-Piece Measuring Tape for Pre-Cut Reinforced Strap	\$ 17.10 each
Pre-Cut Reinforced Straps Pkg (Qty: 10 per package)	\$ 142.50 per package
Officer Installation Tool	\$ 13.30 each
Screwdriver	\$ 1.90 each
Strap Cutter	\$ 9.50 Each
Charger - Wall Plug	\$47.50 each
Car Charger	\$47.50 each
RTC Charge Cable	\$19.00 each

AT1 Charge Cable	\$52.25 each
Freedom Charger Kit (Charger, Cable, Plug)	\$57.00 per kit
Freedom Charger	\$52.50 each
Freedom Charger Cable	\$4.75 each

Hardware Lease Options:

Item	Model Description	Numb Units
1	Model #1 Manufacturer: Allied Universal Electronic Monitoring US, Inc. Brand/Model Number: GPS Device: AT1 LTE A/063450001 or AT1 LTE V/063450002 Optional Beacon: SB1000/001420038 Price inclusive of all accessories.	1 -
		101
		251
		501 -
		1,001
		2,001
		3,5

Item	Model Description	Numb Units
2	Model #2 Manufacturer: Allied Universal Electronic Monitoring US, Inc. Brand/Model Number: GPS Device: RTC LTE V/064000006 Bracelet: BTX/4433 Optional Home Base Station: Base Unit RTC LL/062310076 Price inclusive of all accessories.	1 -
		101
		251
		501 -
		1,001
		2,001
		3,5

; monitoring service offered. All Contractor costs are included in the prices specified unless other



Delivery: As required per Purchasing Entity

	Cost
Week, and 365 days per year	
Units.	

nder.	\$ 0.80 daily rate per active unit per day
authorized User or offender.	\$ 0.20 daily rate per active unit per day
fender	\$ 0.70 daily rate per active unit per day
authorized User or offender	\$ 0.15 daily rate per active unit per day
	\$ 0.10 daily rate per active unit per day

Number of Units	Bracelet Purchase Price (Per Unit)	Base Station Purchase Price (Per Unit)	Daily Rate Per A Landline or Cellula
1 - 100	\$ 90.00	\$ 620.00	
101 - 250	\$ 90.00	\$ 620.00	
251 - 500	\$ 90.00	\$ 620.00	
501 - 1,000	\$ 90.00	\$ 620.00	
1,001 - 2,000	\$ 90.00	\$ 620.00	
2,001 - 3,500	\$ 90.00	\$ 620.00	

3,501+	\$ 90.00	\$ 620.00	
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age
age
age

Number of Units	Daily Rate Per Active Unit Per Day	
	Bracelet and Base Station Lease and Landline	Bracelet and Base Station
1 - 100	\$ 1.43	
101 - 250	\$ 1.43	
251 - 500	\$ 1.43	
501 - 1,000	\$ 1.43	
1,001 - 2,000	\$ 1.43	
2,001 - 3,500	\$ 1.43	
3,501+	\$ 1.43	

M	
	Delivery: As required per Purchasing Entity

	Cost
Week, and 365 days per year	

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Number of Units	Daily Rate Per Active Unit Per Day	
	SCRAM Remote Breath Pro/60000122 device Lease and Cellular	
1 - 50	\$ 4.95	
51 - 150	\$ 4.95	
151 - 300	\$ 4.95	
301+	\$ 4.95	

Number of Units	Daily Rate Per Active Unit Per Day	
	Bracelet and Wireless Base	Bracelet and Landline Base Station
1 - 50	\$ 8.66	\$ 7.70
51 - 150	\$ 8.66	\$ 7.70
151 - 300	\$ 8.66	\$ 7.70
301+	\$ 8.66	\$ 7.70

PS Satellite Monitoring

	Delivery: As required per Purchasing Entity
--	--

	Cost
Week, and 365 days per year	
units.	
nder.	\$ 0.80 daily rate per active unit per day
authorized User or offender.	\$ 0.20 daily rate per active unit per day
fender	\$ 0.70 daily rate per active unit per day

authorized User or offender	\$ 0.15 daily rate per active unit per day
	\$ 0.10 daily rate per active unit per day

	GPS Device Purchase Price (Per Unit)	Optional Beacon Purchase Price (Per Unit)	Per Active Monitoring Month
	\$ 800.00	\$ 320.00	
	\$ 800.00	\$ 320.00	
	\$ 800.00	\$ 320.00	
	\$ 800.00	\$ 320.00	
0	\$ 800.00	\$ 320.00	
0	\$ 800.00	\$ 320.00	
	\$ 800.00	\$ 320.00	

	GPS Device Purchase Price (Per Unit)	Bracelet (Per Unit)	Optional Home Base Station (Per Unit)	Per Active Monitoring Month
	\$ 900.00	\$ 90.00	\$ 425.00	
	\$ 900.00	\$ 90.00	\$ 425.00	
	\$ 900.00	\$ 90.00	\$ 425.00	
	\$ 900.00	\$ 90.00	\$ 425.00	
0	\$ 900.00	\$ 90.00	\$ 425.00	
0	\$ 900.00	\$ 90.00	\$ 425.00	
	\$ 900.00	\$ 90.00	\$ 425.00	

age
age
age

Number of	Daily Rate Per Active Unit Per Day	
	GPS Device Lease and Monitoring Service	Optional Beacon
100	\$ 3.20	\$ 0.55
- 250	\$ 3.20	\$ 0.55
- 500	\$ 3.20	\$ 0.55
1,000	\$ 3.15	\$ 0.55
- 2,000	\$ 3.15	\$ 0.55
- 3,500	\$ 3.10	\$ 0.55
101+	\$ 3.10	\$ 0.55

Number of	Daily Rate Per Active Unit Per Day	
	GPS Device and Bracelet Lease and Monitoring Service	
100	\$ 4.35	
- 250	\$ 4.35	
- 500	\$ 4.35	
1,000	\$ 4.35	
- 2,000	\$ 4.35	
- 3,500	\$ 4.35	
101+	\$ 4.35	

Included at no additional cost.

[illegible]

Replacement Cost Per Unit	
SCRAM Remote Breath Pro/60000122 device	
	\$ 925.00
	\$ 925.00
	\$ 925.00
	\$ 925.00

Replacement Cost Per Unit		
Bracelet	Wireless Base	Landline Base Station
\$ 1,250.00	\$ 725.00	\$ 600.00
\$ 1,250.00	\$ 725.00	\$ 600.00
\$ 1,250.00	\$ 725.00	\$ 600.00
\$ 1,250.00	\$ 725.00	\$ 600.00

Included at no additional cost.

Daily Rate Active Unit Per Day	Replacement Cost Per Unit	
Monitoring Service	GPS Device	Optional Beacon
\$ 1.67	\$ 800.00	\$ 320.00
\$ 1.67	\$ 800.00	\$ 320.00
\$ 1.67	\$ 800.00	\$ 320.00
\$ 1.67	\$ 800.00	\$ 320.00
\$ 1.67	\$ 800.00	\$ 320.00
\$ 1.67	\$ 800.00	\$ 320.00
\$ 1.67	\$ 800.00	\$ 320.00

Daily Rate Active Unit Per Day	Replacement Cost Per Unit		
Monitoring Service	GPS Device	Bracelet	Optional Home Base Station
\$ 1.67	\$ 900.00	\$ 90.00	\$ 425.00
\$ 1.67	\$ 900.00	\$ 90.00	\$ 425.00
\$ 1.67	\$ 900.00	\$ 90.00	\$ 425.00
\$ 1.67	\$ 900.00	\$ 90.00	\$ 425.00
\$ 1.67	\$ 900.00	\$ 90.00	\$ 425.00
\$ 1.67	\$ 900.00	\$ 90.00	\$ 425.00
\$ 1.67	\$ 900.00	\$ 90.00	\$ 425.00

Replacement Cost Per Unit		
	Replacement Cost Per Unit	
	GPS Device	Optional Beacon
	\$ 800.00	\$ 320.00
	\$ 800.00	\$ 320.00
	\$ 800.00	\$ 320.00
	\$ 800.00	\$ 320.00
	\$ 800.00	\$ 320.00
	\$ 800.00	\$ 320.00
	\$ 800.00	\$ 320.00

Replacement Cost Per Unit		
GPS Device	Bracelet	Optional Beacon
\$ 900.00	\$ 90.00	\$ 320.00
\$ 900.00	\$ 90.00	\$ 320.00
\$ 900.00	\$ 90.00	\$ 320.00
\$ 900.00	\$ 90.00	\$ 320.00
\$ 900.00	\$ 90.00	\$ 320.00
\$ 900.00	\$ 90.00	\$ 320.00
\$ 900.00	\$ 90.00	\$ 320.00

the right to further negotiate pricing per its PA.

**NEW YORK STATE OGS
AT1 (ONE-PIECE)
GPS Device Lease and Monitoring Service**

**LEASE EQUIPMENT
Daily Rate Per Active Unit Per Day**

\$ 3.10
\$ 3.10
\$ 3.10
\$ 3.05
\$ 3.05
\$ 3.00
\$ 3.00

**NEW YORK STATE OGS
RTC (TWO-PIECE) GPS PRICING
GPS Device and Bracelet Lease and Monitoring
Service**

**LEASE EQUIPMENT
Daily Rate Per Active Unit Per Day**

\$ 4.29
\$ 4.29
\$ 4.29
\$ 4.29
\$ 4.29
\$ 4.29
\$ 4.29

**PIGGYBACK CONTRACT FOR
ELECTRONIC MONITORING PRODUCTS AND SERVICES (STATEWIDE)
BY AND BETWEEN
NEW YORK STATE OFFICE OF GENERAL SERVICES
AND
ALLIED UNIVERSAL ELECTRONIC MONITORING US, INC.**

New York State Contract #

PC70431

Master Contract #

22PSX0021

THIS CONTRACT for establishment of a “piggyback” contract is made between **the People of the State of New York**, acting by and through the Commissioner of General Services (hereinafter “State” or “OGS”) whose principal place of business is the 36th Floor, Corning Tower, The Governor Nelson A. Rockefeller Empire State Plaza, Albany, New York 12242, pursuant to authority granted under New York State Finance Law §163(10)(e), and **Allied Universal Electronic Monitoring US, Inc.** (hereinafter “Contractor” or “Vendor” or “Offerer”), with its principal place of business at 1838 Gun Hwy. Odessa, FL 33556. OGS and Contractor are hereby individually referred to as a “Party” and collectively referred to as “Parties.”

Whereas, in accordance with New York State Finance Law §163(10)(e), the Commissioner of OGS (hereinafter “Commissioner”) may authorize purchases required by New York State agencies or other authorized purchasers by approving the use of a contract let by any department, agency or instrumentality of the United States government and/or any department, agency, office, political subdivision or instrumentality of any state or states (hereinafter “Issuing Agency”);

Whereas, the State of Connecticut as the Lead State, acting by its Department of Administrative Services (“DAS”) in accordance with sections 4a- 2, 4a-51 and 4d-2 of the Connecticut General Statutes, and acting in connection with the NASPO ValuePoint cooperative contract consortium of the National Association of State Procurement Officials, Inc. (hereinafter “NASPO ValuePoint”), has recently let a certain Contract Number 22PSX0021 with Contractor for Electronic Monitoring Products and Services (hereinafter “Master Contract”);

Whereas, OGS is a member of NASPO ValuePoint and is therefore authorized to utilize NASPO ValuePoint contracts;

Whereas, OGS Procurement Services (hereinafter “OGS” or “Procurement Services”), on behalf of the Commissioner, finds it necessary and desirable to enter into a contract (hereinafter “Piggyback Contract” or “Contract”) with Contractor for the purchase of specified products or services under the terms and conditions established pursuant to the Master Contract; and

Whereas, OGS provided notification of its intention to enter into this Piggyback Contract with Contractor by placing a notice in the February 27, 2024 edition of the New York State Contract Reporter.

Now Therefore, by completing and signing this Piggyback Contract, Contractor is willing and able to enter into a contract and authorizes OGS to process the Piggyback Contract and provide notification to Authorized Users regarding the availability of this Piggyback Contract.

Contract PC70431, Allied Universal Electronic Monitoring US, Inc.

1. INTRODUCTION

1.1 OVERVIEW AND SCOPE

This document sets forth the terms and conditions governing acquisitions under this Piggyback Contract for use by Authorized Users. All the terms, conditions, covenants and representations contained herein and in the Master Contract, except as modified by this Piggyback Contract, are hereby incorporated by reference and deemed to be a part of this Piggyback Contract as if fully set forth at length herein. The terms and conditions of this Piggyback Contract shall supersede any conflicting terms and conditions set forth in the Master Contract. This contract is for purchases by Authorized Users only as defined by Appendix B. Purchases made by non-Authorized Users, including participants in offender-funded monitoring or probation programs, is prohibited.

The Master Contract is expressly amended as noted in Section 2.1, *Contract Documents and Conflict of Terms*, below.

1.2 ESTIMATED QUANTITIES

This Piggyback Contract will be an estimated quantity Contract. No specific quantities are represented or guaranteed, and the State provides no guarantee of individual Authorized User participation. The Contractor must furnish all quantities actually ordered at or below the Contract prices. The individual value of this Piggyback Contract is indeterminate and will depend upon the number of Contracts issued and the competitiveness of the pricing offered. Authorized Users will be encouraged to purchase from Contractors who offer the Products and pricing that best meet their needs in the most practical and economical manner. See Appendix B Section 28 *Estimated/Specific Quantity Contracts*.

Numerous factors could cause the actual quantities of Products purchased under this Piggyback Contract to vary substantially from any estimates. Such factors include, but are not limited to, the following:

- This Piggyback Contract may be a non-exclusive contract;
- There is no guarantee of quantities to be purchased, nor is there any guarantee that demand will continue in any manner consistent with previous purchases;
- The individual value of this Piggyback Contract is indeterminate and will depend upon actual Authorized User demand and actual quantities ordered during the contract period;
- The State reserves the right to terminate this Piggyback Contract for cause or convenience prior to the end of the term pursuant to the terms and conditions of this Piggyback Contract;
- Contract pricing that is lower than anticipated could result in a higher quantity of purchases by Authorized Users than anticipated; and
- Contract pricing that is higher than anticipated could result in a lower quantity of purchases by Authorized Users than anticipated.

By execution of this Piggyback Contract, Contractor acknowledges the foregoing and agrees that actual good faith purchasing volumes during the term of this Piggyback Contract could vary substantially from any estimates provided in this Piggyback Contract or previous purchases.

1.3 NYS COMPTROLLER APPROVAL

In accordance with Section 112 of the State Finance Law, this Contract shall not be valid, effective or binding upon the State until such Contract has been approved by the Office of the New York State Comptroller ("OSC"). Purchase orders or other procurement transactions issued under such Contract may also be subject to OSC approval.

2. CONTRACT TERMS AND CONDITIONS

This section sets forth the terms and conditions of the Contract.

2.1 CONTRACT DOCUMENTS AND CONFLICT OF TERMS

This Piggyback Contract shall incorporate the following appendices and attachments as fully as if set forth at length herein. Only documents expressly enumerated below shall be deemed a part of this Piggyback Contract, and references contained in those documents to additional Contractor documents not enumerated below shall be of no force and effect. Conflicts between these documents shall be resolved in the following descending order of precedence:

- A. Appendix A – *Standard Clauses for NYS Contracts* (June 2023);
- B. Appendix C – *Federal Funding Agency Mandatory Terms and Conditions* (October 2023);
- C. Piggyback Contract (This Document);
- D. Appendix B – *General Specifications* (April 2016);
- E. Attachment 1 – Pricing;
- F. Attachment 2 – *Insurance Requirements*;
- G. Attachment 3 – *Report of Contract Usage*;
- H. Attachment 4 – Contractor and Reseller/Distributor and Service Provider Information; and
- I. Master Contract 22PSX0021 Allied Universal Electronic Monitoring US, Inc..

2.2 DEFINITIONS

Capitalized terms used in this Piggyback Contract shall be defined in accordance with Appendix B, Definitions, or as below.

“Analytic Derivatives” shall mean the outcome from data mining or other aggregated Data analysis techniques.

“Authorized User Agreement” shall mean the Purchase Order and/or such other documents memorializing the Contractor's obligations with respect to a given transaction resulting from the selection of the Contractor by an Authorized User.

“Business Day” shall refer to Monday through Friday from 8:00 AM – 5:00 PM ET, excluding NYS Holidays and federal holidays.

“Cloud Service” shall mean any service in which Authorized User Data is transmitted, stored, or acted upon on non-Authorized User equipment.

“Continental United States (CONUS)” shall mean the 48 contiguous States, and the District of Columbia.

“Data” shall mean any information, Analytic Derivatives, formula, algorithms, or other content that the Authorized User may provide to the Contractor pursuant to this Contract. Data includes, but is not limited to, any of the foregoing that the Authorized User and/or Contractor (i) uploads to the Cloud Service, and/or (ii) creates and/or modifies using the Cloud Service. See also Analytic Derivatives.

“Data Breach” shall mean unauthorized access by any person, including employees, officers, partners or subcontractors of Contractor, who have not been authorized to access such Data.

“Data Center” shall mean all facilities which Authorized User Data is processed or stored.

“Device” shall mean a piece of electronic equipment (such as a laptop, server, hard drive, or USB drive) adapted for a particular purpose.

“Encryption” shall mean a technique used to protect the confidentiality of information. The process transforms ("encrypts") readable information into unintelligible text through an algorithm and associated cryptographic key(s).

“Follow the Sun” shall mean a type of workflow in which tasks are passed around daily between work sites that are in different time zones.

“Information Technology Services (ITS)” shall mean the New York State Office of Information Technology Services (<http://www.its.ny.gov/>). It is the responsibility of ITS to provide centralized IT services to the State and its governmental entities with the awareness that our citizens are reliant on those services.

“MWBE” shall refer to a business certified with NYS Empire State Development (“ESD”) as a Minority- and/or Women-owned Business Enterprise.

“NYS Holidays” refers to the legal holidays for State employees in the classified service of the executive branch, as more particularly specified on the website of the NYS Department of Civil Service. This includes the following: New Year’s Day; Dr. Martin Luther King, Jr. Day; Washington’s Birthday (observed); Memorial Day; Juneteenth; Independence Day; Labor Day; Columbus Day; Veterans’ Day; Thanksgiving Day; and Christmas Day.

“NYS Vendor ID” is a unique ten-character identifier issued by the NYS Office of the State Comptroller (OSC) when the vendor is registered on the Vendor File System.

“Preferred Source Products” shall refer to those Products that have been approved in accordance with New York State Finance Law § 162.

“Preferred Source Program” shall refer to the special social and economic goals set by New York State in State Finance Law § 162 that require a governmental entity purchase select Products from designated organizations when the Products meet the “form, function and utility” requirements of the governmental entity. Under State Finance Law § 163, purchases of Products from Preferred Sources are given the highest priority and are exempt from the competitive bidding requirements. The New York State Preferred Sources include: The Correctional Industries Program of the Department of Corrections and Community Supervision (“Corcraft”); New York State Preferred Source Program for People Who Are Blind (“NYSPSP”); and the New York State Industries for the Disabled (“NYSID”). These requirements apply to a state agencies, political subdivisions and public benefit corporations (including most public authorities).

“Procurement Services” shall refer to a business unit of OGS, formerly known as New York State Procurement and Procurement Services Group (“PSG”).

“SDVOB” shall refer to a NYS-certified Service-Disabled Veteran-Owned Business.

“Security Incident” shall mean a violation or imminent threat of violation of computer security policies, acceptable use policies, or standard security practices. A Security Incident is also defined as any event that adversely affects the confidentiality, integrity, or availability of system and its Data. See also NYS ITS Policy NYS-S13-005 or its successor for additional information.

“State Executive Agencies” shall have the same meaning as in the New York Technology Law and shall mean a department, board, bureau, commission, division, office, council, committee, or officer of the state.

“Statement of Work (SOW)” shall mean a document that captures and defines the work activities, deliverables, and timeline an Authorized User seeks from a vendor. The SOW usually includes detailed requirements, with standard regulatory and governance terms and conditions.

2.3 RESERVED

2.4 CONTRACT TERM AND EXTENSIONS

The term of this Piggyback Contract shall begin on the date of approval by OSC, pursuant to Section 1.3 *NYS Comptroller Approval*, and shall end upon the expiration or termination of the Master Contract, subject to OGS’ right to terminate this Piggyback Contract as provided herein. The term of this Piggyback Contract shall be deemed extended whenever the term of the Master Contract is extended, without the need for the Parties to execute an extension or amendment to this Piggyback Contract.

2.5 PRICE

The price for Product shall either be at the agreed-upon discounts and service rates listed in Attachment 1 – Pricing, or at a price that is more advantageous to the Authorized User.

Price shall include all customs, duties, and charges, and be net, F.O.B. destination any point in New York State as designated by the ordering Authorized User.

2.6 PRICE AND PRODUCT UPDATES

The Attachment 1 – *Pricing* set forth in the Contract may be updated from time to time, without a Contract amendment, to reflect Contractor discount or price changes, and the addition/deletion of Products, that have been approved for the Master Contract pricelist. Contractor must notify OGS when the Master Contract holder has approved a Master Contract pricelist update, and provide OGS with an electronic copy of the approval and the approved updated pricelist or discount structure, as applicable. Updates to Attachment 1 – *Pricing* shall not be effective until posted on the OGS website for this Contract. Approval of the Master Contract pricelist update by the Master Contract holder, or OGS posting of updates to Attachment 1 – *Pricing* on the OGS website, does not indicate OGS approval of the addition of any Product that has been excluded from the Piggyback Contract scope (see Section 1.1 *Overview and Scope*).

Catalogs and price lists shall be provided in accordance with the terms of the Master Contract and this section. Upon request, Contractor shall also assist Authorized Users in the use of such documents. Procurement Services reserves the right to remove any unclear or unverifiable information from price lists.

2.7 BEST PRICING OFFER

During the Contract term, if the Commissioner becomes aware that the Contractor is selling substantially the same or a smaller quantity of a Product outside of this Contract upon the same or similar terms and conditions as that of this Contract at a lower price to a federal, state or local governmental entity, the price under this Contract, after consultation with the Contractor, may be reduced to a lower price on a prospective basis at the discretion of the Commissioner. The Commissioner reserves the right to request information to verify pricing for the purposes of this clause.

Any prompt payment terms (cash discounts) or quantity (volume) discounts which are included in the Master Contract will also be included in this Piggyback Contract.

2.8 CATALOGS AND PRICE SHEETS

Catalogs and price lists shall be provided in accordance with the terms of the Master Contract and this section. Upon request, Contractor shall also assist Authorized Users in the use of such documents.

2.9 ORDERING

Purchase Orders shall be made in accordance with the terms set forth in Appendix B, *Purchase Orders*. Authorized Users may submit orders over the phone, and, if available, may submit orders electronically via web-based ordering, e-mail, or facsimile at any time. Orders submitted shall be deemed received by Contractor on the date submitted.

All orders shall reference Contract number, requisition, and/or Purchase Order number (if applicable). Upon Contractor's receipt of an order, confirmation is to be provided to the Authorized User electronically or via facsimile. Order confirmation should be sufficiently detailed, and include, at a minimum, purchase price, date of order, delivery information (if applicable), Authorized User name, and sales representative (if applicable).

2.10 PURCHASING CARD ORDERS

If the Contractor accepts orders using the State's Purchasing Card (see Appendix B, *Purchasing Card*), also referred to as the Procurement Card, the Contractor shall not charge or bill the Authorized User for any additional charges related to the use of the Purchasing Card, including but not limited to processing charges, surcharges, or other fees.

2.11 MINIMUM ORDER

If the Master Contract contains minimum order quantities or values, Contractor may elect to honor orders for less than the minimum order.

If the Master Contract does not contain minimum order quantities or values, then there are no minimum order quantities under this Piggyback Contract.

2.12 INVOICING AND PAYMENT

Invoicing and payment shall be made in accordance with the terms set forth in Appendix B *Contract Invoicing*.

The Contractor is required to provide the Authorized User with one invoice for each Purchase Order at the time of delivery. The invoice must include detailed line-item information to allow Authorized Users to verify that pricing at point of receipt matches the Contract price on the original date of order. At a minimum, the following fields must be included on each invoice:

- Contractor Name
- Contractor Billing Address
- Contractor Federal ID Number
- NYS Vendor ID Number
- Account Number
- NYS Contract Number
- Name of Authorized User indicated on the Purchase Order
- NYS Agency Unit ID (if applicable)
- Authorized User's Purchase Order Number
- Order Date
- Invoice Date
- Invoice Number
- Invoice Amount
- Product Descriptions
- Unit Price
- Quantity
- Unit of Measure
- Dates of Service (if applicable)

Cost centers or branch offices within an Authorized User may require separate invoicing as specified by each Authorized User. The Contractor's billing system shall be flexible enough to meet the needs of varying ordering systems in use by different Authorized Users. Visit the following link for further guidance for vendors on invoicing: <https://bsc.ogs.ny.gov/nys-vendors>.

2.13 PROMPT PAYMENTS

Appendix B *Prompt Payments*, applies to this Piggyback Contract. The parties acknowledge that Article 11-A of the State Finance Law requires payments to small businesses to be made within 15 days if the conditions set forth therein are met.

The Federal Prompt Payment Act (or any other law governing payment terms incorporated in the Master Contract) does not apply to the Piggyback Contract regardless of customer.

2.14 PRODUCT RETURNS AND EXCHANGES

In addition to the provisions of Appendix B, *Title and Risk of Loss*, *Product Substitution*, and *Rejected Product*, Products returned or exchanged due to quality problems, duplicated shipments, outdated Product, incorrect Product shipped, Contractor errors otherwise not specified, or Products returned or exchanged due to Authorized User errors, shall be replaced with specified Products or the Authorized User shall be credited or refunded for the full purchase price.

Products shall be replaced within 10 Business Days of written notification to the Contractor of the Authorized User's intent to return or exchange the Product. Contractor can charge only a restocking fee for Product returned or exchanged due to Authorized User error that is determined not to be suitable for resale; the restocking fee cannot exceed the net price of the returned or exchanged Product.

Any credit or refund shall be applied against the next bill/invoice submitted by the Contractor to the Authorized User. If no credit or refund, or only a partial credit or refund, is made in such fashion, the Contractor shall pay to the Authorized User the amount of such credit or refund or portion thereof still outstanding, within 30 calendar days of demand.

2.15 CONTRACT ADMINISTRATION

The Contractor shall provide a sufficient number of Customer Service employees who are knowledgeable and responsive to Authorized User needs and who can effectively service the Contract. Contractor shall also provide an Emergency Contact in the event of an emergency occurring after business hours or on weekend/holidays.

Contractor shall provide a dedicated Contract Administrator to support the updating and management of the Contract on a timely basis. Information regarding the Customer Service, Emergency Contact, and Contract Administrator shall be set forth on the Contract Award Notification (CAN) and on the Contractor Information page for this Contract, which will be posted on the OGS website. Contractor must notify OGS within five Business Days if it's Contract Administrator, Emergency Contact, or Customer Service employees change, and provide an interim contact person until the position is filled. Changes shall be submitted electronically via e-mail to the OGS Contract Management Specialist.

2.16 NYS FINANCIAL SYSTEM (SFS)

New York State is currently operating on an Enterprise Resource Planning (ERP) system, Oracle PeopleSoft software, referred to as the Statewide Financial System (SFS). SFS supports requisition-to-payment processing and financial management functions.

The State may be implementing additional PeopleSoft modules in the near future. Further information regarding business processes, interfaces, and file layouts currently in place may be found at: <http://www.sfs.ny.gov> and <https://web.osc.state.ny.us/agencies/guide/MyWebHelp>.

2.17 CONTRACTOR'S INSURANCE REQUIREMENTS

The Contractor shall maintain in force at all times during the terms of the Contract, policies of insurance pursuant to the requirements outlined in Attachment 2 – *Insurance Requirements*.

2.18 REPORT OF CONTRACT USAGE

Contractor shall submit Attachment 3 – *Report of Contract Usage* including total sales to Authorized Users of this Contract by Contractor, and all authorized resellers, dealers and distributors, if any, no later than 10 days after the close of each half of the calendar year (June 30th and December 31st). If the Contract period begins or ends in a fractional portion of a reporting period, only the actual Contract sales for this fractional period should be included in the semi-annual report.

Contractors shall specify if any authorized resellers, dealers or distributors are NYS Certified Minority- and/or Women-Owned Business Enterprises (MWBs), small business enterprises (SBEs), or Service-Disabled Veteran-Owned Businesses (SDVOBs).

The report is to be submitted electronically via e-mail in Microsoft Excel to OGS Procurement Services, to the attention of the individual listed on the front page of the Contract Award Notification and shall reference the Contract Group Number, Award Number, Contract Number, Sales Period, and Contractor's name.

The report in Attachment 3 – *Report of Contract Usage* contains the minimum information required. Additional related sales information, such as detailed user purchases may be required by OGS and must be supplied upon request. Failure to submit reports on a timely basis may result in Contract cancellation and designation of Contractor as non-responsible.

OGS reserves the right to not accept price list updates from vendors who have not submitted complete sales reports until such time as completed sales reports are submitted to OGS.

This Contract may be terminated if, on the one-year anniversary date of the Contract Award, and annually thereafter, the reports required to be filed under this Section show that the Contractor has made **no sales** to any Authorized User under the Contract for the prior year. The Contract may also be terminated for failure to file the reports required under this Section. Termination of the Contract under this Section is in addition to Appendix B *Termination*, and shall take effect upon written notification to the Contractor.

Contractor shall also make the report or the information therein available to NASPO ValuePoint and the State of Connecticut in accordance with the Master Contract.

2.19 Contractor Requirements and Procedures for Participation by New York State Certified Minority- and Women-Owned Business Enterprises and Equal Employment Opportunities for Minority Group Members and Women

I. New York State Law

Pursuant to New York State Executive Law Article 15-A and Parts 140-145 of Title 5 of the New York Codes, Rules and Regulations (“NYCRR”), the New York State Office of General Services (“OGS”) is required to promote opportunities for the maximum feasible participation of New York State-certified Minority- and Women-Owned Business Enterprises (“MWBEs”) and the employment of minority group members and women in the performance of OGS contracts.

II. General Provisions

- A. OGS is required to implement the provisions of New York State Executive Law Article 15-A and 5 NYCRR Parts 140-145 (“MWBE Regulations”) for all State contracts as defined therein, with a value (1) in excess of \$25,000 for labor, services, equipment, materials, or any combination of the foregoing or (2) in excess of \$100,000 for real property renovations and construction.
- B. The Contractor agrees, in addition to any other nondiscrimination provision of the Contract and at no additional cost to OGS, to fully comply and cooperate with OGS in the implementation of New York State Executive Law Article 15-A and the regulations promulgated thereunder. These requirements include equal employment opportunities for minority group members and women (“EEO”) and contracting opportunities for MWBEs. Contractor’s demonstration of “good faith efforts” pursuant to 5 NYCRR § 142.8 shall be a part of these requirements. These provisions shall be deemed supplementary to, and not in lieu of, the nondiscrimination provisions required by New York State Executive Law Article 15 (the “Human Rights Law”) or other applicable federal, State, or local laws.
- C. Failure to comply with all of the requirements herein may result in a finding of non-responsiveness, a finding of non-responsibility, breach of contract, withholding of funds, suspension or termination of the Contract, and/or such other actions or enforcement proceedings as allowed by the Contract and applicable law.

III. Equal Employment Opportunity (EEO)

- A. The provisions of Article 15-A of the Executive Law and the rules and regulations promulgated thereunder pertaining to equal employment opportunities for minority group members and women shall apply to all Contractors, and any subcontractors, awarded a subcontract over \$25,000 for labor, services, including legal, financial and other professional services, travel, supplies, equipment, materials, or any combination of the foregoing, to be performed for, or rendered or furnished to, the contracting State agency (the “Work”) except where the Work is for the beneficial use of the Contractor.
 1. Contractor and subcontractors shall undertake or continue existing EEO programs to ensure that minority group members and women are afforded equal employment opportunities without discrimination because of race, creed, color, national origin, sex, age, disability, or marital status. For these purposes, EEO shall apply in the areas of recruitment, employment, job assignment, promotion, upgrading, demotion, transfer, layoff or termination, and rates of pay or other forms of compensation. This requirement does not apply to: (i) the performance of work or the provision of services or any

other activity that is unrelated, separate, or distinct from the Contract; or (ii) employment outside New York State.

2. By entering into this Contract, Contractor certifies that the text set forth in clause 12 of Appendix A, attached hereto and made a part hereof, is Contractor's equal employment opportunity policy. In addition, Contractor agrees to comply with the Non-Discrimination Requirements set forth in clause 5 of Appendix A.

B. Form EEO 100 – Staffing Plan

To ensure compliance with this section, the Contractor agrees to submit, or has submitted with the Bid, a staffing plan on Form EEO 100 to OGS to document the composition of the proposed workforce to be utilized in the performance of the Contract by the specified categories listed, including ethnic background, gender, and federal occupational categories.

C. NYS Contract System Workforce Utilization Reporting Module (Commodities & Services)

1. The Contractor shall complete and shall require each of its subcontractors to complete a Workforce Audit on a quarterly basis throughout the term of this Contract, by the 10th day of April, July, October, and January. To report the actual workforce utilized in the performance of the Contract by the specified categories listed including ethnic background, gender, and Federal occupational categories. Contractor shall coordinate with its subcontractors to ensure that all workers associated with this Contract are properly counted and reported. To prepare the report, Contractor and its subcontractors shall use the NYS Contract System Workforce Audit Module found at the following website:
<https://ny.newnycontracts.com>.
 2. Separate audits shall be completed by Contractor and all subcontractors utilized on this contract and the Contractor is responsible for ensuring timely submission of the Workforce Audit by their subcontractors.
 3. In limited instances, the Contractor or subcontractor may not be able to separate out the workforce utilized in the performance of the Contract from its total workforce. When a separation can be made, the Contractor or subcontractor shall complete the Workforce Audit and indicate that the information provided relates to the actual workforce utilized on the Contract. When the workforce to be utilized on the Contract cannot be separated out from the Contractor's or subcontractor's total workforce, the Contractor or subcontractor shall complete the Workforce Audit and indicate that the information provided is the Contractor's or subcontractor's total workforce during the subject time frame, not limited to work specifically performed under the Contract.
- D.** Contractor shall comply with the provisions of the Human Rights Law and all other State and federal statutory and constitutional non-discrimination provisions. Contractor and subcontractors shall not discriminate against any employee or applicant for employment because of race, creed (religion), color, sex, national origin, sexual orientation, military status, age, disability, predisposing genetic characteristic, marital status, or domestic violence victim status, and shall also follow the requirements of the Human Rights Law with regard to non-discrimination on the basis of prior criminal conviction and prior arrest.

IV. Contract Goals

- A.** For purposes of this procurement, OGS conducted a comprehensive search and determined that the Contract does not offer sufficient opportunities to set goals for participation by MWBEs as subcontractors, service providers, or suppliers to Contractor. Contractor is, however, encouraged to make every good faith effort to promote and assist the participation of MWBEs on this Contract for the provision of services and materials. The directory of New York State Certified MWBEs can be viewed at:
<https://ny.newnycontracts.com/>. Additionally, following Contract execution, Contractor is encouraged to contact the Division of Minority and Women's Business Development ((518) 292-5250; (212) 803-2414; or

(716) 846-8200) to discuss additional methods of maximizing participation by MWBEs on the Contract.

B. Good Faith Efforts

Pursuant to 5 NYCRR § 142.8, evidence of good faith efforts shall include, but not be limited to, the following:

1. A list of the general circulation, trade, and MWBE-oriented publications and dates of publications in which the Contractor solicited the participation of certified MWBEs as subcontractors/suppliers, copies of such solicitations, and any responses thereto.
2. A list of the certified MWBEs appearing in the Empire State Development (“ESD”) MWBE directory that were solicited for this Contract. Provide proof of dates or copies of the solicitations and copies of the responses made by the certified MWBEs. Describe specific reasons that responding certified MWBEs were not selected.
3. Descriptions of the Contract documents/plans/specifications made available to certified MWBEs by the Contractor when soliciting their participation and steps taken to structure the scope of work for the purpose of subcontracting with, or obtaining supplies from, certified MWBEs.
4. A description of the negotiations between the Contractor and certified MWBEs for the purposes of complying with the MWBE goals of this Contract.
5. Dates of any pre-bid, pre-award, or other meetings attended by Contractor, if any, scheduled by OGS with certified MWBEs whom OGS determined were capable of fulfilling the MWBE goals set in the Contract.
6. Other information deemed relevant to the request.

V. Fraud

Any suspicion of fraud, waste, or abuse involving the contracting or certification of MWBEs shall be immediately reported to ESD’s Division of Minority and Women’s Business Development at (855) 373-4692.

ALL FORMS ARE AVAILABLE AT: <https://ogs.ny.gov/MWBE>

Vendor must scroll down to the section titled **COMMODITY & SERVICE CONTRACTS** and use the appropriate forms under this section only.

2.20 PARTICIPATION OPPORTUNITIES FOR NEW YORK STATE CERTIFIED SERVICE-DISABLED VETERAN OWNED BUSINESSES

Participation Opportunities For New York State Certified Service-Disabled Veteran Owned Businesses

Article 3 of the New York State Veterans’ Services Law provides for more meaningful participation in public procurement by certified Service-Disabled Veteran-Owned Businesses (“SDVOBs”), thereby further integrating such businesses into New York State’s economy. OGS recognizes the need to promote the employment of service-disabled veterans and to ensure that certified service-disabled veteran-owned businesses have opportunities for maximum feasible participation in the performance of OGS contracts.

In recognition of the service and sacrifices made by service-disabled veterans and in recognition of their economic activity in doing business in New York State, Bidders/Contractors are strongly encouraged and expected to consider SDVOBs in the fulfillment of the requirements of the Contract. Such participation may be as subcontractors or suppliers, as protégés, or in other partnering or supporting roles.

For purposes of this procurement, OGS conducted a comprehensive search and determined that the Contract does not offer sufficient opportunities to set specific goals for participation by SDVOBs as subcontractors, service providers, and suppliers to Contractor. Nevertheless, Bidder/Contractor is encouraged to make good faith efforts to promote and assist in the participation of SDVOBs on the Contract for the provision of services and materials. The directory of New York State Certified SDVOBs can be viewed at: <https://ogs.ny.gov/Veterans/>

Bidder/Contractor is encouraged to contact the Office of General Services’ Division of Service-Disabled Veteran’s Business Development at 518-474-2015 or VeteranDevelopment@ogs.ny.gov to discuss methods of maximizing participation by SDVOBs on the Contract.

ALL FORMS ARE AVAILABLE AT: <https://ogs.ny.gov/Veterans/>

2.21 BULK DELIVERY AND ALTERNATE PACKAGING

New York State encourages the use of innovative packaging that reduces the weight of packaging and the generation of packaging waste. A contractor is encouraged to use reusable materials and containers and to utilize packaging configurations that take advantage of storage containers designed to be part of the Product for the shipment of multi-unit purchases. New York State recognizes that these packaging methods are in the development stage and may not be currently available. Authorized Users are urged to inquire about these programs at the time of purchase and determine the best solution for their needs.

2.22 SURPLUS/TAKE-BACK/RECYCLING

- A. A State agency is reminded of its obligation to comply with the NY State Finance Law §167, Transfer and Disposal of Personal Property, and §168, The Management of Surplus Computer Equipment, regarding transfer and disposal of surplus personal property before utilizing take-back, recycling, or other options for disposition of equipment that is still in operable condition.
- B. If Contractor offers a take-back/recycling program, then Contractor shall provide a record of disposition to each Authorized User who participates in the take-back/recycling program for units transferred for disposition. Contractor shall provide documentation that the units were disposed of in an environmentally sound manner in compliance with applicable local, state and federal laws. See Section C below for specific requirements governing electronic equipment recycling.
- C. The NYS Department of Environmental Conservation (“DEC”) Electronic Equipment Recycling and Reuse Act (“Act”) (Environmental Conservation Law, Article 27, Title 26, Electronic Equipment Recycling and Reuse), requires manufacturers to establish a convenient system for the collection, handling, and recycling or reuse of electronic waste. If Contractor is a manufacturer of electronic equipment covered by the Act, Contractor agrees to comply with the requirements of the Act. More information regarding the Act can be found on the DEC website at: <http://www.dec.ny.gov/chemical/65583.html>.
- D. If a Contractor offers a take-back/recycling program or offers an electronic equipment recycling program pursuant to the Act, and an Authorized User participates in same, then the Authorized User shall ensure the destruction of all data from any hard drives surrendered with the machines/covered electronic equipment. Contractor shall not require an Authorized User to surrender the hard drive, as an Authorized User may wish to retain the hard drive for security purposes. Contractor shall advise the Authorized User in advance if the retention of the hard drive results in additional fees or reduction in trade-in value. It is recommended that an Authorized User use a procedure for ensuring the destruction of confidential data stored on hard drives or other storage media that meets or exceeds the National Institute of Standards and Technology (“NIST”) Guidelines for Media Sanitation as found in NIST Special Publication 800-88.

2.23 ENVIRONMENTAL SUSTAINABILITY AND NYS EXECUTIVE ORDER NUMBER 22

New York State is committed to environmental sustainability and endeavors to procure Products with reduced environmental impact. One example of this commitment may be found in Executive Order No. 22 (Leading By Example: Directing State Agencies to Adopt a Sustainability and Decarbonization Program), which imposes certain requirements on State Agencies, authorities, and public benefit corporations when procuring Products. More information on Executive Order No. 22, including specifications for offerings covered by this Contract, may be found at <http://ogs.ny.gov/greenyny/>. State entities subject to Executive Order No. 22 are advised to become familiar with the specifications that have been developed in accordance with the Order, and to incorporate them, as applicable, when making purchases under this Contract.

2.24 CONSUMER PRODUCTS CONTAINING MERCURY

Contractor shall comply with the requirements of Title 21 of Article 27 of the NYS Environmental Conservation Law regarding restrictions on the sale, purchasing, labeling and management of any products containing elemental mercury under this Piggyback Contract.

2.25 PROHIBITION ON CONTRACTING FOR CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT

In accordance with Section 889 of the National Defense Authorization Act (NDAA) for fiscal year 2019, under any Contract or subcontract resulting from this Solicitation, Bidder or resultant Contractor or Subcontractor shall not provide to the State or Authorized User any equipment, system, or service that uses covered telecommunications equipment or services, as defined by the NDAA, as a substantial or essential component of any system, or as critical technology as part of any system, unless an exception applies or the covered telecommunications equipment or services are covered by a waiver, as set forth in the NDAA and the rules and regulations promulgated thereunder.

2.17 OVERLAPPING CONTRACT PRODUCTS

Products/services available under this Piggyback Contract may also be available from other New York State contracts. Authorized Users will be advised to select the most cost-effective procurement alternative that meets their program requirements, and to document the basis for this selection in the procurement record.

2.18 PREFERRED SOURCE PRODUCTS

Section 162 of the State Finance Law requires that Authorized Users afford first priority to the Products of Preferred Source suppliers such as Corcraft (the marketplace name for the NYS Department of Corrections and Community Supervision, Division of Industries), New York State Preferred Source Program for People who are Blind (NYSPSP), and New York State Industries for the Disabled (NYSID), and others determined by law, when such Products meet the form, function and utility of the Authorized User. Some Products in this Piggyback Contract may be available from one or more Preferred Sources. An Authorized User must determine if a particular Product is approved for a Preferred Source and follow the requirements of State Finance Law § 162(3) or (4)(b), respectively, before engaging the Contractor.

2.19 NEW YORK STATE VENDOR RESPONSIBILITY

The Contractor shall at all times during the Piggyback Contract term remain responsible. The Contractor agrees, if requested by the Commissioner of OGS, to present evidence of its continuing legal authority to do business in New York State, integrity, experience, ability, prior performance, and organizational and financial capacity.

The Commissioner of OGS, in his or her sole discretion, reserves the right to suspend any or all activities under this Piggyback Contract, at any time, when he or she discovers information that calls into question the responsibility of the Contractor. In the event of such suspension, the Contractor will be given written notice outlining the particulars of such suspension. Upon issuance of such notice, the Contractor must comply with the terms of the suspension order. Activity under the Piggyback Contract may resume at such time as the Commissioner of OGS issues a written notice authorizing a resumption of performance under the Piggyback Contract.

The Contractor agrees that if it is found by the State that Contractor's responses to the Questionnaire were intentionally false or intentionally incomplete, on such finding, the Commissioner may terminate the Piggyback Contract.

Upon written notice to the Contractor, and a reasonable opportunity to be heard with appropriate OGS officials or staff, the Piggyback Contract may be terminated by the Commissioner of OGS at the Contractor's expense where the Contractor is determined by the Commissioner of OGS to be non-responsible. In such event, the Commissioner of OGS may complete the contractual requirements in any manner he or she may deem advisable and pursue available legal or equitable remedies for breach.

In no case shall such termination of the Piggyback Contract by the State be deemed a breach thereof, nor shall the State be liable for any damages for lost profits or otherwise, which may be sustained by the Contractor as a result of such termination.

2.20 "OGS OR LESS" GUIDELINES

Purchases of the Products included in the Piggyback Contract are subject to the "OGS or Less" provisions of State Finance Law § 163(3)(a)(v). This means that State Agencies can purchase Products from sources other than the Contractor provided that such Products are substantially similar in form, function or utility to the Products herein and are (1) lower in price and/or

(2) available under terms which are more economically efficient to the State Agency (e.g. delivery terms, warranty terms, etc.).

Agencies are reminded that they must provide the State Contractor an opportunity to match the non-Contract savings at least two Business Days prior to purchase. In addition, purchases made under “OGS or Less” flexibility must meet all requirements of law including, but not limited to, advertising in the New York State Contract Reporter, prior approval of the Office of the State Comptroller and competitive bidding of requirements exceeding the discretionary threshold. State Agencies should refer to Procurement Council Guidelines for additional information.

2.21 NON-STATE AGENCIES PARTICIPATION IN CENTRALIZED CONTRACTS

New York State political subdivisions and others authorized by New York State law may participate in Centralized Contracts. These include, but are not limited to, local governments, public authorities, public school and fire districts, public and nonprofit libraries, and certain other nonpublic/nonprofit organizations. See Appendix B *Participation in Centralized Contracts*. For Purchase Orders issued by the Port Authority of New York and New Jersey (or any other authorized entity that may have delivery locations adjacent to New York State), the terms of the *Price* clause shall be modified to include delivery to locations adjacent to New York State.

Upon request, all eligible non-State agencies must furnish Contractors with the proper tax exemption certificates and documentation certifying eligibility to use State contracts. A list of categories of eligible entities is available on the OGS web site (<https://online.ogs.ny.gov/purchase/snt/othersuse.asp>). Questions regarding an organization's eligibility to purchase from New York State Contracts may also be directed to NYS Procurement Services Customer Services at 518-474-6717.

2.22 RESELLERS

A. Definitions

“Reseller” shall refer to alternate distribution sources (distributors or dealers) for a manufacturer that are authorized and designated by said manufacturer, subject to approval by New York State.

B. Conditions of Reseller Participation

Resellers must be approved in advance by the State as a condition of eligibility under the Contract. The State also reserves the right to rescind any such participation or request that Contractor name additional Resellers, in the best interests of the State, at the State's sole discretion, at any time. Contractor shall have the right to qualify Resellers and their participation under this Contract by product line, contracting program (e.g., government/educational sales), geographic region, size/sales volume, technical training or other criteria (“qualifying criteria”), provided that:

1. such qualifying criteria are uniformly applied to all potential Resellers based upon Contractor's established, neutrally applied commercial/governmental program criteria, and not to a particular procurement;
2. all general categories of qualifying criteria must be disclosed by the Contractor to the State, in advance, at the beginning of the Contract term;
3. those qualifying criteria met by the Reseller must be identified in Reseller designations in Attachment 4 at the time that Reseller approval is requested; and
4. immediate advance notice is provided to OGS in the event that a change in Reseller's status occurs during the Contract term.

All Resellers who have been approved in accordance with the foregoing paragraph shall be eligible to quote lower pricing for procurements under this Contract which meet their qualifying criteria. Contractor warrants and represents that it shall not, directly or indirectly, by agreement, communication or any other means, restrict any Reseller's participation or ability to quote a particular order.

C. Designation of Resellers

When Resellers are submitted for approval, Contractor must provide the State, in advance, with all necessary ordering information, billing addresses and Federal Identification numbers in the format requested in Attachment 4

Contractor shall also specify whether orders must be placed directly with Contractor, or may be placed directly with designated Resellers.

D. Responsibility for Reporting/Performance

Contractor shall be fully liable for a Reseller's performance and compliance with all Contract terms and conditions. Product purchased through a Reseller must be reported by Contractor in the required semiannual sales reports to the State as a condition of payment. In addition to inclusion of Reseller volume in the Contractor's sales reporting obligation to the State, at the request of an Authorized User, the Reseller shall provide the Authorized User with reports of the individual Authorized User's Contract activity with the Reseller.

E. Applicability of Contract Terms

Product ordered directly through Resellers shall be limited to Products previously approved for inclusion under this Contract and shall be subject to all terms and conditions of this Contract as a condition of Reseller participation.

2.23 NEW ACCOUNTS

Contractor may ask State Agencies and other Authorized Users to provide information in order to facilitate the opening of a customer account, including documentation of eligibility to use New York State Contracts, agency code, name, address, and contact person. State Agencies shall not be required to provide credit references.

2.24 CONTRACT MODIFICATIONS

A. Piggyback Contract Modifications

Any modifications to this Piggyback Contract, must be made by an instrument in writing executed by the Parties, and subject to approval by OSC.

B. Master Contract Modifications

Contractor shall submit copies of any modifications to the Master Contract terms and conditions to OGS for review prior to enactment. Subject to approval by OSC, if required, OGS may accept a modification to the Master Contract in full. If the Master Contract modification requires a modification to this Contract, it shall be made in accordance with Paragraph A above. See Section 2.6 Price and Product Updates above, for modifications to the Master Contract pricelist.

C. Authorized Users

An Authorized User shall not have the authority to accept any requests for modifications to the Piggyback Contract, which must be handled as outlined in Paragraph A of this section. However, in accordance with Appendix B *Modification of Contract Terms*, in a specific transaction an Authorized User shall have the authority to accept an offer from Contractor for more advantageous terms and pricing than those provided under this Piggyback Contract.

2.25 CONTRACT DOCUMENTS; ELECTRONIC FORMAT

OGS encourages Contractor to submit all documents to OGS in an electronic format, including electronic copies of documents with original signatures. Documents requested by OGS should be submitted in the format specified by OGS. Contractor is responsible for retaining the original documents with original signatures that have been scanned and submitted electronically for the term of the contract and any extensions thereof, and for a period of six (6) years after the term of the contract has ended. Contractor shall submit such documents with original signatures to OGS upon request. If Contractor seeks to assign the contract during the term, Contractor shall provide all documents relating to the bid and contract that it has retained to the successor Contractor (assignee) upon OGS consent to the assignment.

2.26 USE OF CONTRACT

All Authorized Users shall ensure that any and all purchases are made pursuant to all applicable laws and procurement policies and procedures. Additional details and requirements, including contact information for OGS

Contract Management, are available on the Contract Award Notification website. In accordance with Appendix B, Section 26 *Modification of Contract Terms*, an Authorized User may include additional terms and conditions in the Authorized User Agreement that do not conflict with this Piggyback Contract and are more advantageous to the Authorized User. Examples of such additional terms may include reduced prices or an expedited delivery timeframe.

State Executive Agencies

State Executive Agencies shall ensure that all purchases are in accordance with the State Finance Law and all New York State Office of Information Technology Services (ITS) policies, including, but not limited to, Data Classification and Plan to Procure agency submission requirements. State Executive Agencies shall solicit quotes from all vendors with contracts in Group 38235 – Electronic Monitoring Products and Services. The solicitation shall include, at a minimum, the scope of services needed, specific deliverables, data classification (but not specific data), data retention requirements, data breach requirements, insurance requirements, and any additional requirements or needs. Vendors may be required to provide a Statement of Work that addresses the specific Authorized User requirements. In accordance with State Finance Law section 163(10)(c), the State Executive Agency Authorized User shall ensure that the selection of the vendor is the most practical and economical and is in the best interests of the State.

After selecting a vendor, the Authorized User and vendor shall enter into a formal Authorized User Agreement that specifies the Contractor's and Authorized User's specific requirements and needs. The Authorized User agreement may not add any additional products, services, or material requirements not included in the Statement of Work and solicitation process. Such Authorized User Agreement and Statement of Work shall apply to and be governed by the Piggyback Contract as described above.

Non-State Executive Agencies

Non-State Executive Agencies shall ensure that all purchases are in accordance with applicable procurement laws and any required information technology policies. Authorized Users should solicit quotes from all vendors with contracts in Group 38235 – Electronic Monitoring Products and Services. The solicitation shall include, at a minimum, the scope of services needed, specific deliverables, data classification (but not specific data), data retention requirements, data breach requirements, insurance requirements, and any additional requirements or needs. Vendors may be required to provide a Statement of Work that addresses the specific Authorized User requirements. The Authorized User shall ensure that the selection of the vendor is the most practical and economical and is in the best interests of the State.

After selecting a vendor, the Authorized User and vendor shall enter into a formal Authorized User Agreement that specifies the Contractor's and Authorized User's specific requirements and needs. The Authorized User agreement may not add any additional products, services, or material requirements not included in the Statement of Work and solicitation process. Such Authorized User Agreement and Statement of work shall apply to and be governed by the Piggyback Contract as described above.

2.27 STATE SECURITY POLICIES

For Authorized Users subject to NYS security policies/standards, it is strongly suggested that the Authorized User review statewide policies and guidelines available at: [Policies | Office of Information Technology Services \(ny.gov\)](https://www.ny.gov/policies). The Contractor and its personnel shall review and comply with all State security policies, procedures and directives currently existing or implemented during the term of the Piggyback Contract, including ITS Policy NYS-P03-002 Information Security Policy (or successor policy(ies)). The Contractor and its personnel shall also review and comply with any additional policies, procedures, or directives provided in the Authorized User Agreement. Authorized Users shall provide the Contractor with any updated policies when available.

2.28 REPORTING SECURITY INCIDENTS

Unless otherwise specified in the Authorized User Agreement, Contractor shall report any Security Incidents to the Authorized User in the manner prescribed in ITS Policy NYS-P03-002 Information Security Policy and associated standards ITS Policy NYS-S13-005 Cyber Incident Response Standard (or successor policy(ies)).

2.29 DATA BREACH- REQUIRED CONTRACTOR ACTIONS

Unless otherwise provided by law or in the Authorized User Agreement, in the event of an actual or potential Data Breach, the Contractor shall:

- I. notify the ITS Enterprise Information Security Office and any potentially affected Authorized User(s), or their designated contact person(s), by telephone as soon as possible, but in no event more than four (4) hours from the time the Contractor either has knowledge of a Data Breach, or has knowledge of a potential Data Breach;
- II. consult with and receive authorization from the Authorized User(s) as to the content of any notice to affected parties prior to notifying any affected parties to whom notice of the Data Breach is required, either by statute or by the Authorized User;
- III. coordinate all communication regarding the Data Breach with the ITS EISO and Authorized User(s);
- IV. cooperate with the Authorized User and ITS EISO in attempting (a) to determine the scope and cause of the breach; and (b) to prevent the future recurrence of such security breaches; and
- V. take corrective action in the timeframe required by the Authorized User. If Contractor is unable complete the corrective action within the required timeframe, in addition to the remedies provided in Appendix B, Section 48, Remedies for Breach, the Authorized User may contract with a third party to provide the required services until corrective actions and services resume in a manner acceptable to the Authorized User, or until the Authorized User has completed a new procurement for a replacement service system. The Contractor will be responsible for the cost of these services during this period.

Nothing herein shall in any way (a) impair the authority of the New York State Office of the Attorney General from bringing an action against Contractor to enforce the provisions of the New York State Information Security Breach Notification Act (ISBNA), or (b) limit Contractor's liability for any violations of the ISBNA or any other applicable statutes, rules or regulations.

2.30 DATA OWNERSHIP

The Authorized User shall own all right, title, and interest in Data provided and/or created during the provided services.

The Authorized User shall have access to its Data at all times, including when an account is suspended or terminated. The Authorized User shall have the ability to import or export Data in piecemeal or in its entirety at the Authorized User's discretion, without interference from the Contractor. This includes the ability for the Authorized User to import or export Data to/from other Contractors.

The Contractor shall not copy or transfer Data unless authorized by the Authorized User. In such an event, the Data shall be copied and/or transferred in accordance with the provisions of this Section. Contractor shall not access any Data for any purpose other than fulfilling the service. At no time shall any Data or processes (e.g. workflow, applications, etc.), which either are owned or used by the Authorized User be copied, disclosed, or retained by the Contractor or any party related to the Contractor.

2.31 DATA LOCATION AND RELATED RESTRICTIONS

All Data shall remain in the Continental United States (CONUS). Any Data transmitted, stored, or acted upon, must be located solely in Data Centers in CONUS. Services which directly or indirectly access Data may only be performed from locations within CONUS.

All helpdesk, online, and support services which access any Data must be performed from within CONUS. At no time will any Follow the Sun support (workflow being done by staff in different time zones) be allowed to access Data directly or indirectly from outside CONUS.

2.32 TRANSFERING OF DATA

Contract PC70431, Allied Universal Electronic Monitoring US, Inc.

The Contractor shall not transfer Data unless directed to do so in writing by the Authorized User.

At the request of the Authorized User and at no additional cost to the Authorized User, the Contractor will provide the services required to transfer Data from existing Databases to physical storage devices or other forms of storage as required by the Authorized User.

The Authorized User may require several Cloud providers to share or transfer Data for a period of time. This requirement will be provided for in the Authorized User Agreement or shall be assumed to be limited to a six month duration.

At the end of this Piggyback Contract and/or Authorized User Agreement, Contractor may be required to transfer Data to a new Contractor. This transfer must be carried out as specified by the Authorized User Agreement. This transfer may include, but is not limited to, conversion of all Data into or from an industry standard format(s) including comma/delimited files, txt files, or Microsoft standard file formats. Such transfer of data shall be done at no charge to the Authorized User.

In the event of a breach or termination for breach of this Piggyback Contract or any purchases made under it, costs of all transfers of Data shall be borne by the Contractor.

2.33 ENCRYPTION

All Data must be encrypted at all times unless specifically outlined otherwise in the Authorized User Agreement. At a minimum, encryption must be carried out at the most current Federal Information Processing Standards (FIPS) 46-1 (or successor policy(ies)), with key access restricted to the Authorized User only, unless with the express written permission of the Authorized User. The Authorized User Agreement shall specify any additional encryption requirements and the respective duties of the Contractor and Authorized User.

2.34 REQUESTS FOR DATA BY THIRD PARTIES

Unless prohibited by law, Contractor shall notify the Authorized User in writing within 12 hours of any request for Data (including requestor, nature of Data requested, and timeframe of response) by a person or entity other than the Authorized User, and the Contractor shall secure written acknowledgement of such notification from the Authorized User before responding to the request for Data.

Unless compelled by law, the Contractor shall not release Data without the Authorized User's prior written approval.

2.35 UPGRADES, SYSTEM MAINTENANCE, AND CHANGES

The Contractor shall give a minimum of five (5) Business Days advance written notice to the designated Authorized User(s) contact of any upgrades or system changes that will impact services as provided pursuant to this Piggyback Contract.

2.36 TERMINATION OR SUSPENSION OF SERVICE

During any period of suspension of service, the Contractor shall not take any action to destroy and/or withhold any Data.

In the event of termination of this Piggyback Contract or Authorized User Agreement, in whole or in part, the Contractor shall implement an orderly return of Data in a format and timeframe agreed upon by the Authorized User. The Contractor must certify all Data has been removed from its system and removed from backups within any agreed upon timeframes.

At a minimum, Contractor shall not take any action to destroy and/or withhold any Authorized User Data for a period of:

- 30 calendar days after the effective date of termination, if the termination is for convenience; or

- 60 calendar days after the effective date of termination, if the termination is for cause.

Additional time prior to erasure may be agreed upon in writing by the Authorized User and Contractor.

2.37 SECURE DATA DISPOSAL

When requested by the Authorized User for any reason, the Contractor shall destroy Data in all of its forms, including all back-ups or storage media containing the data. Data shall be permanently deleted and shall not be recoverable, according to ITS Policy S13-003 Sanitization/Secure Disposal or successor and S14-003 Information Security Controls or successor or other relevant policies and procedures per the Authorized User Agreement. Certificates of destruction, in a form acceptable to the Authorized User, shall be provided by the Contractor to the Authorized User.

3. GENERAL PROVISIONS

3.1 NOTICES

Unless otherwise provided in the Contract, notices, demands, designations, certificates, requests, offers, consents, approvals, and other instruments ("Notices") given pursuant to this Contract shall be in writing to the Parties' respective representative and shall be validly given when e-mailed, mailed by registered or certified mail, or hand delivered.

The Parties may, from time to time, specify any address for purpose of notices under this Contract by giving fifteen (15) days written notice to the other party. The Parties agree to mutually designate individuals as their respective representatives for purposes of this Contract. Contact information for the designated individuals will be set forth on the Contract Award Notification (CAN) and on the Contractor Information page for this Contract, which will be posted on the OGS website.

3.2 CAPTIONS

The captions contained in this Piggyback Contract are intended for convenience and reference purposes only and shall in no way be deemed to define or limit any provision thereof.

3.3 SEVERABILITY

If any provision of this Piggyback Contract is deemed invalid or unenforceable, such determination shall have no effect on the balance of the Piggyback Contract, which shall be enforced and interpreted as if such provision was never included in the Piggyback Contract.

3.4 COUNTERPARTS

This Piggyback Contract may be executed in one or more counterparts, each of which shall be deemed to be an original, but all of which together shall constitute the same Contract. Any signature page of any such counterpart may be attached or appended to any counterpart to complete a fully executed counterpart of this Contract, and shall bind such party.

3.5 ENTIRE AGREEMENT

This Piggyback Contract and the referenced appendices and attachments constitute the entire agreement between the Parties hereto and no statement, promise, condition, understanding, inducement or representation, oral or written, expressed or implied, which is not contained herein shall be binding or valid and the Piggyback Contract shall not be changed, modified or altered in any manner except as provided in Section 2.24 of this Piggyback Contract, *Contract Modifications*.

GROUP 38235, Award PGB-23300 – Electronic Monitoring Products and Services (Statewide)

IN WITNESS WHEREOF, the Parties have executed this Piggyback Contract as of the date last written below. The Parties further hereby certify that original copies of this executed and approved signature page will be affixed, upon final approval, to exact copies of this Piggyback Contract being executed simultaneously herewith. The acknowledgment must be fully and properly executed by an authorized person.

By signing you certify your express authority to sign on behalf of yourself, your company, or other entity and full knowledge and acceptance of this Piggyback Contract, Appendix A *Standard Clauses For New York State Contracts* (June 2023), Appendix B *General Specifications* (April 2016), and State Finance Law §139-j and §139-k (Procurement Lobbying), and that all information provided is complete, true and accurate. By signing, Contractor affirms that it understands and agrees to comply with the OGS procedures relative to permissible contacts as required by State Finance Law §139-j (3) and §139-j (6) (b).

CONTRACTOR

Signature:

Arnold Roese

Printed Name:

Arnold Roese

Title:

Vice President and General Manager

Date:

June 3, 2024

Company Name:

Allied Universal Electronic Monitoring
US, Inc.

Federal ID:

134088052

NYS Vendor ID:

1100141649**THE PEOPLE OF THE STATE OF NEW YORK,
ACTING BY AND THROUGH THE COMMISSIONER
OF GENERAL SERVICES**

Signature:

Jennifer Stafford

Printed Name:

Jennifer Stafford

Title:

Team Leader

Date:

6/24/24Office of General Services**NEW YORK STATE OFFICE OF THE STATE
COMPTROLLER**

INDIVIDUAL, CORPORATION, PARTNERSHIP, OR LLC ACKNOWLEDGMENT

STATE OF FLORIDA }

: ss:

COUNTY OF PASCO }

On the 3rd day of June in the year 20 24 , before me personally appeared Arnold Roose , known to me to be the person who executed the foregoing instrument, who, being duly sworn by me did depose and say that he maintains an office at
1838 Gunn Hwy., Odessa, FL 33556

and further that:

[Check One]

(☐ If an individual): he executed the foregoing instrument in his/her name and on his/her own behalf.

(☒ If a corporation): he is the Vice President and General Manager of Allied Universal Electronic Monitoring US, Inc. , the corporation described in said instrument; that, by authority of the Board of Directors of said corporation, he is authorized to execute the foregoing instrument on behalf of the corporation for purposes set forth therein; and that, pursuant to that authority, he executed the foregoing instrument in the name of and on behalf of said corporation as the act and deed of said corporation.

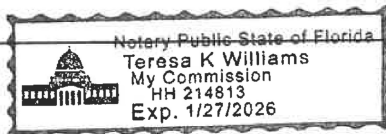
(☐ If a partnership): he is the _____ of _____ , the partnership described in said instrument; that, by the terms of said partnership, he is authorized to execute the foregoing instrument on behalf of the partnership for purposes set forth therein; and that, pursuant to that authority, he executed the foregoing instrument in the name of and on behalf of said partnership as the act and deed of said partnership.

(☐ If a limited liability company): he is a duly authorized member of _____ , LLC, the limited liability company described in said instrument; that, he is authorized to execute the foregoing instrument on behalf of the limited liability company for purposes set forth therein; and that, pursuant to that authority, he executed the foregoing instrument in the name of and on behalf of said limited liability company as the act and deed of said limited liability company.

Teresa K. Williams

Signature of Notary Public

Notary Public Registration No. _____



State FL

RESOLUTION NO. 676**AUTHORIZING AN AGREEMENT WITH ALLIED UNIVERSAL ELECTRONIC MONITORING US, INC. REGARDING GLOBAL POSITION SYSTEM SERVICES**

Introduced: 11/12/24

By Public Safety Committee:

WHEREAS, The Director of Probation has requested authorization to enter into an agreement with Allied Universal Electronic Monitoring US, Inc. regarding Global Position System (GPS) services in an amount not to exceed \$200,000 for a term commencing January 1, 2025 and ending December 31, 2025, and

WHEREAS, The Director has indicated the Probation Department provides GPS services for individuals on pre-trial release, high risk offenders, and Raise the Age youth through courts in Albany County, now, therefore, be it

RESOLVED, By the Albany County Legislature that the County Executive is authorized to enter into an agreement with Allied Universal Electronic Monitoring US, Inc., Odessa, FL 33556 regarding Global Position System services in an amount not to exceed \$200,000 for a term commencing January 1, 2025 and ending December 31, 2025, and, be it further

RESOLVED, That the County Attorney is authorized to approve said agreement as to form and content, and, be it further

RESOLVED, That the Clerk of the County Legislature is directed to forward certified copies of this resolution to the appropriate County Officials.

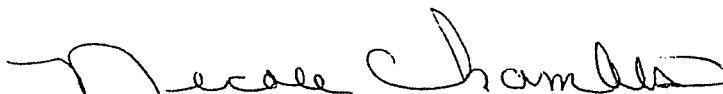
Adopted by unanimous vote – 11/12/24

State of New York
County of Albany

This is to certify that I, the undersigned, Clerk of the Albany County Legislature, have compared the foregoing copy of the resolution and/or local law with the original resolution and/or local law now on file in the office, and which was passed by the Legislature of said County on the 12th day of November, 2024, a majority of all members elected to the Legislature voting in favor thereof, and that the same is a correct and true transcript of such original resolution and/or local law and the whole thereof.



IN WITNESS THEREOF, I have hereunto set my hand and the official seal of the County Legislature this 14th day of November, 2024.


Clerk, Albany County Legislature



DANIEL P. MCCOY
COUNTY EXECUTIVE

COUNTY OF ALBANY
OFFICE OF THE EXECUTIVE
112 STATE STREET
ALBANY, NEW YORK 12207-2021
(518) 447-7040 - FAX (518) 447-5589
WWW.ALBANYCOUNTY.COM

MICHAEL P. McLAUGHLIN, JR.
DEPUTY COUNTY EXECUTIVE

July 21st, 2025

Honorable Joanne Cunningham
Chair, Albany County Legislature
112 State St. Rm. 710
Albany, NY 12207

Dear Chairwoman Cunningham,

FEMA requires state, local, tribal and territorial governments to have approved and adopted hazard mitigation plans to be eligible for certain types of non-emergency disaster assistance, including funding for mitigation projects. Jurisdictions must update their hazard mitigation plans and resubmit them for FEMA approval every five years to remain eligible. The County Executive's Office is seeking authorization for approval and adoption of the County All-Hazard Mitigation Plan that has been in development. The plan has received final approval from FEMA and NYS DHSES.

If you have any questions regarding this request, I can make myself available at your earliest convenience. Thank you for your consideration.

Sincerely,

Daniel P. McCoy
Albany County Executive

cc: Hon. Dennis Feeney, Majority Leader
Hon. Frank Mauriello, Minority Leader
Rebekah Kennedy, Majority Counsel
James Curran, Minority Counsel



County of Albany

Harold L. Joyce
Albany County Office
Building
112 State Street - Albany,
NY 12207

Legislation Text

File #: TMP-6713, **Version:** 1

REQUEST FOR LEGISLATIVE ACTION

Description (e.g., Contract Authorization for Information Services):

Authorization to adopt the updated Albany County Hazard Mitigation Plan

Date: 7/21/2025

Department: CEO

Attending Meeting: Patrick Curran

Submitted By: Patrick Curran

Title: Sustainability and Economic Development Coordinator

Phone: 518-447-5639

Purpose of Request: Approval of Plan/Procedure Enter text.

CONTRACT TERMS/CONDITIONS:

Party Names and Addresses:

New York State Department of Homeland Security and Emergency Services - 1220 Washington Ave #22, Albany, NY 12226

Term: (Start/end date or duration) 8/31/2025

Amount/Raise Schedule/Fee: 9/1/2030

BUDGET INFORMATION:

Is there a Fiscal Impact: Yes ☐ No ☒

Anticipated in Budget: Yes ☐ No ☐

Spreadsheet attached: Yes ☐ No ☒

Source of Funding - (Percentages)

Federal: Enter text. County: Enter text.

State: Enter text. Local: Enter text.

County Budget Accounts:

Revenue Account and Line: Enter text.

Revenue Amount: Enter text.

Appropriation Account and Line: Enter text.

Appropriation Amount: Enter text.

ADDITIONAL INFORMATION:

Mandated Program/Service: Yes ☒ No ☐

If Mandated, Cite Authority: Enter text.

Request for Bids / Proposals:

Competitive Bidding Exempt: Yes ☒ No ☐

of Response(s): Enter text.

of MWBE: Enter text.

of Veteran Business: Enter text.

Bond Resolution No.: Enter text.

Apprenticeship Program Yes ☐ No ☒

Previous requests for Identical or Similar Action:

Resolution/Law Number and Date: Enter text.

DESCRIPTION OF REQUEST: (state briefly why legislative action is requested)

FEMA requires state, local, tribal and territorial governments to have approved and adopted hazard mitigation plans to be eligible for certain types of non-emergency disaster assistance, including funding for mitigation projects. Jurisdictions must update their hazard mitigation plans and resubmit them for FEMA approval every five years to remain eligible. The County Executive's Office is seeking authorization for approval and adoption of the County All-Hazard Mitigation Plan that has been in development. The plan has received final approval from FEMA and NYS DHSES.

Albany County

2025 Multi-Jurisdictional Hazard Mitigation Plan Update

March 2025

Prepared for:



Albany County Executive
Harold L. Joyce Albany County Office Building
112 State St., Room 1200
Albany, NY 12207

Prepared by:

**Barton
& Loguidice**

59 Court St, Suite 712
Binghamton, NY 13901

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Appendices

Appendix A: Jurisdictional Annexes

Appendix B: Sample Plan Adoption Resolution

Appendix C: Community Engagement Plan

Appendix D: Executive Steering Committee Meeting Summaries

Appendix E: Stakeholder and Public Outreach Documentation

Appendix F: HAZUS Data Reports

Appendix G: Plan Update Checklist

Appendix H: Dam Information

Appendix I: New Mitigation Actions Spreadsheet

Appendix J: Critical Facilities and Additional Assets **(for internal use only)**

Appendix K: Project IN-CORE Climate Analysis

Appendix L: Adoption Resolutions

1 INTRODUCTION

1.1 Background

A hazard is defined by the Federal Emergency Management Agency (FEMA) as an event or physical condition that has the potential to cause fatalities, injuries, property damage, infrastructure damage, agricultural losses, damage to the environment, interruption of business, or other types of harm or loss. A hazard can be natural, technological, or human-caused. Natural hazards are a source of harm created by a meteorological, environmental, or geological event. Events such as floods or earthquakes impact the built environment and pose a threat to people's lives. Human-caused or technological hazards are the result of intentional or unintentional events that are caused by humans or by materials created by humans (FEMA, 2017).

Hazard mitigation is defined by FEMA as a method for reducing or alleviating property loss, preventing damage to the environment, and limiting the number and severity of injuries that occur from hazard events through long and short-term strategies. Responsibility for implementing mitigation measures runs communitywide from individuals to industries, private business and all levels of government (FEMA, 2017).

Hazard mitigation is often considered one of four phases of emergency management after a disaster event occurs. The other phases include preparedness, response and recovery. Each of these phases relate to and rely upon each other. The overarching goal for each of these emergency management phases is the prevention or minimization of loss of life and property in disaster situations.

FEMA provides assistance through the Robert T. Stafford Disaster Relief and Emergency Assistance Act to local governments that are recovering from a hazard event. The Federal Disaster Mitigation Act of 2000 (DMA 2000) recognized the importance and cost-effectiveness of mitigation in specifying that local governments must have a FEMA approved natural hazard mitigation plan to be eligible for mitigation project funding.

To meet the federal requirements of the Disaster Mitigation Act of 2000, Albany County completed a Multi-Jurisdictional Hazard Mitigation Plan (HMP). HMPs must also be updated every five years to continue municipal eligibility for mitigation project funding. The County was awarded a Pre-Disaster Hazard Mitigation Grant from FEMA to update their 2018 HMP.

1.2 Purpose and Scope

This Multi-Jurisdictional HMP is an update to the Albany County 2018 HMP. This updated HMP will allow the County to remain eligible for future mitigation funding. The purpose of this plan is to document the natural hazards that affect Albany County and outline practical mitigation strategies that can be implemented to reduce the effects of such hazard events.

The development of a County HMP provides the following benefits (FEMA, 2023):

- Encourages community leaders to choose actions to reduce risk that stakeholders and the public will support.

- Focuses resources on the greatest risks and vulnerabilities, including where they are needed the most, i.e. areas and populations disproportionately affected by disasters.
- Builds partnerships with diverse stakeholders. This deepens the pool of data and resources, which can help reduce workloads and achieve shared community objectives.
- Boosts awareness of threats and hazards, including their risks and the community's vulnerability to those risks.
- Aligns risk reduction with other community goals and programs like capital improvements.
- Supports socially vulnerable populations and underserved communities in achieving resilience.

The HMP Update focuses on natural hazards. Technological and human-caused hazards are not included in the scope of the HMP Update, due to the fact that mitigation projects related to such hazards are not eligible for mitigation grant funding through FEMA and will not be evaluated as part of the Hazard Mitigation Plan. Additionally, the HMP Update focuses on hazard mitigation rather than preparedness, response, and recovery. According to FEMA, "Hazard mitigation is any sustained action taken to reduce or eliminate long-term risk to life and property from hazards" (FEMA, 2023). More details on mitigation vs. preparedness, response, and recovery are included in Table 1-1.

Table 1-1. The Four Phases of the Emergency Management Cycle

Phase	Description
Preparedness	Preparedness is when we develop or update activities, programs and systems before an event happens. These activities are often tested (or exercised) in non-emergency situations. This tests their effectiveness. Emergency managers also assess potential risks, hazards and vulnerabilities in this phase.
Response	Response focuses on the immediate and short-term effects of a disaster. It is usually focused on life safety and preventing immediate damage.
Recovery	Recovery is a long-term phase that looks to return a community to normal, or to a more resilient state, after a disaster.
Mitigation	Mitigation focuses on building (or rebuilding) in ways that reduce the risk more permanently. It is an activity that can occur at any point in the emergency management cycle. For example, communities can undertake mitigation actions before a disaster (the preparedness phase) or while rebuilding after a disaster (the recovery phase).

Source: Adapted from FEMA's Local Mitigation Planning Handbook (FEMA, 2023). The Albany County 2024 Hazard Mitigation Plan Update focuses on mitigation, rather than preparedness, response, or recovery.

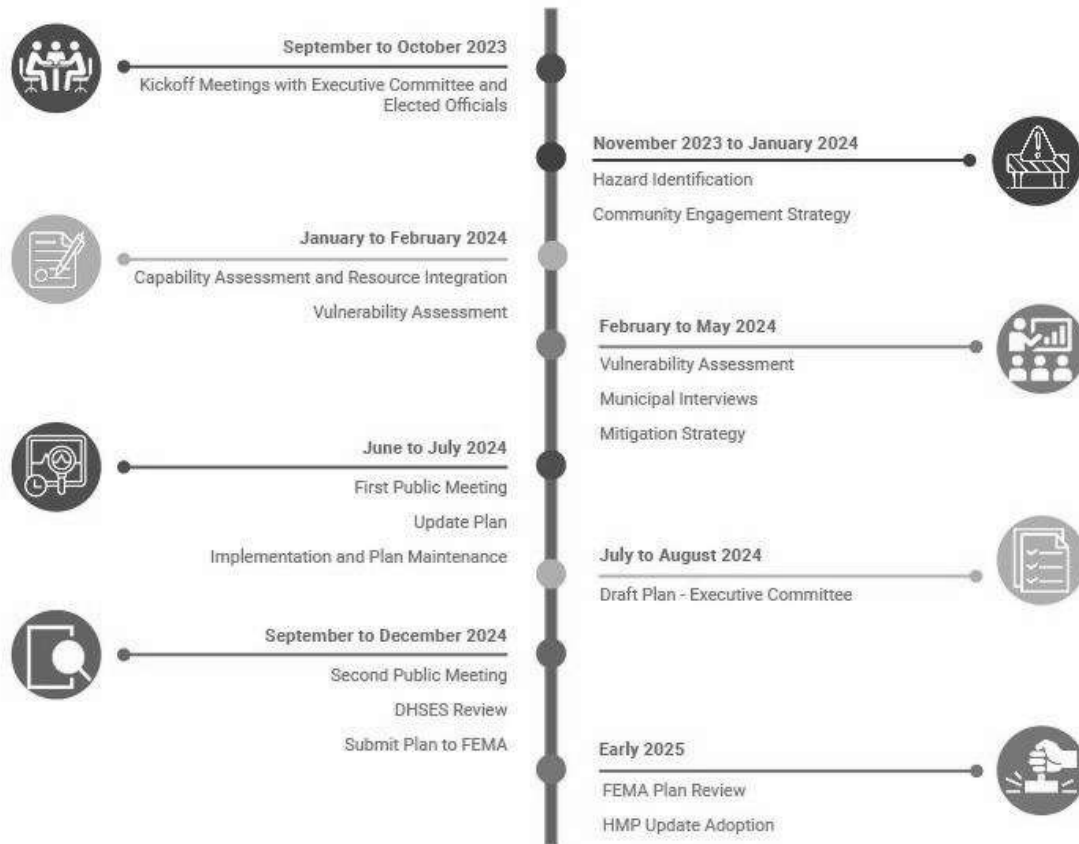
The County and each of its jurisdictions identified and ranked the hazards to which their community is most vulnerable. In addition, the HMP also includes an assessment of the risks and vulnerabilities associated with each hazard and details mitigation strategies to moderate those vulnerabilities and decrease hazard risks. The identified mitigation measures were required to be technically feasible, cost-effective, and environmentally sound.

As described in Section 10, this HMP serves as an important resource for developing and updating various plans and procedures throughout the County. This plan should be incorporated into, considered during, and referenced by future updates and efforts at the County and municipal levels concerning the existing plans, policies, ordinances, programs, studies, reports, and staff included in Section 3 of each jurisdictional annex (Appendix A).

1.3 Hazard Mitigation Planning Process

The Hazard Mitigation Plan was prepared by Barton & Loguidice, D.P.C., in consultation with an Executive Steering Committee, sub-consultant Highland Planning, municipal representatives, stakeholders within Albany County and neighboring counties, and the public. More information on plan participants is provided in Section 3. A schedule of activities is shown in Figure 1-1.

Figure 1-1. Project Timeline



1.4 Jurisdictions Seeking Approval

All 18 municipal jurisdictions in Albany County, plus the County itself, are seeking FEMA approval for the adoption of this Hazard Mitigation Plan Update. These jurisdictions are listed in Table 1-2 below. Further information about jurisdictional participation in the planning process is included in Section 3.2.

Table 1-2. Jurisdictions Seeking Approval for Plan Adoption

Jurisdiction	Seeking Approval For Plan Adoption
Albany County	Yes
Albany, City of	Yes
Altamont, Village of	Yes
Berne, Town of	Yes
Bethlehem, Town of	Yes
Coeymans, Town of	Yes

Jurisdiction	Seeking Approval For Plan Adoption
Cohoes, City of	Yes
Colonie, Town of	Yes
Colonie, Village of	Yes
Green Island, Village of	Yes
Guilderland, Town of	Yes
Knox, Township of	Yes
Menands, Village of	Yes
New Scotland, Town of	Yes
Ravena, Village of	Yes
Rensselaerville, Town of	Yes
Voorheesville, Village of	Yes
Watervliet, City of	Yes
Westerlo, Town of	Yes

1.5 Review of Existing Information

The HMP update was developed in accordance with the guidelines presented in FEMA's Local Mitigation Planning Policy Guide, effective on April 19, 2023 (FEMA, 2023) and the 2022 New York State Hazard Mitigation Planning Standards (NYS DHSES, 2022). In addition to these state and federal resources, many existing plans, studies, reports, and technical information were reviewed for the development of this plan. These sources are documented in the Works Cited section of this plan (Section 11). References are given throughout the document to indicate where each source was incorporated into the plan.

1.6 Contact Information

The Albany Office of the County Executive is the main point of contact for the Albany County 2024 Hazard Mitigation Plan Update. The County Executive's Office is the administrative head of county government, responsible for supervising, directing, and controlling government functions of all administrative units of the county; enforcing laws relating to the administration of county government; and other duties.

Comments or questions concerning this document should be addressed to:

Albany County Executive
Harold L. Joyce Albany County Office Building
112 State St., Room 1200
Albany, NY 12207

Phone: (518) 447-7040

Email: county_executive@albanycountyny.gov

Website: <https://www.albanycounty.com/government/departments/county-executive>

2 ALBANY COUNTY PROFILE

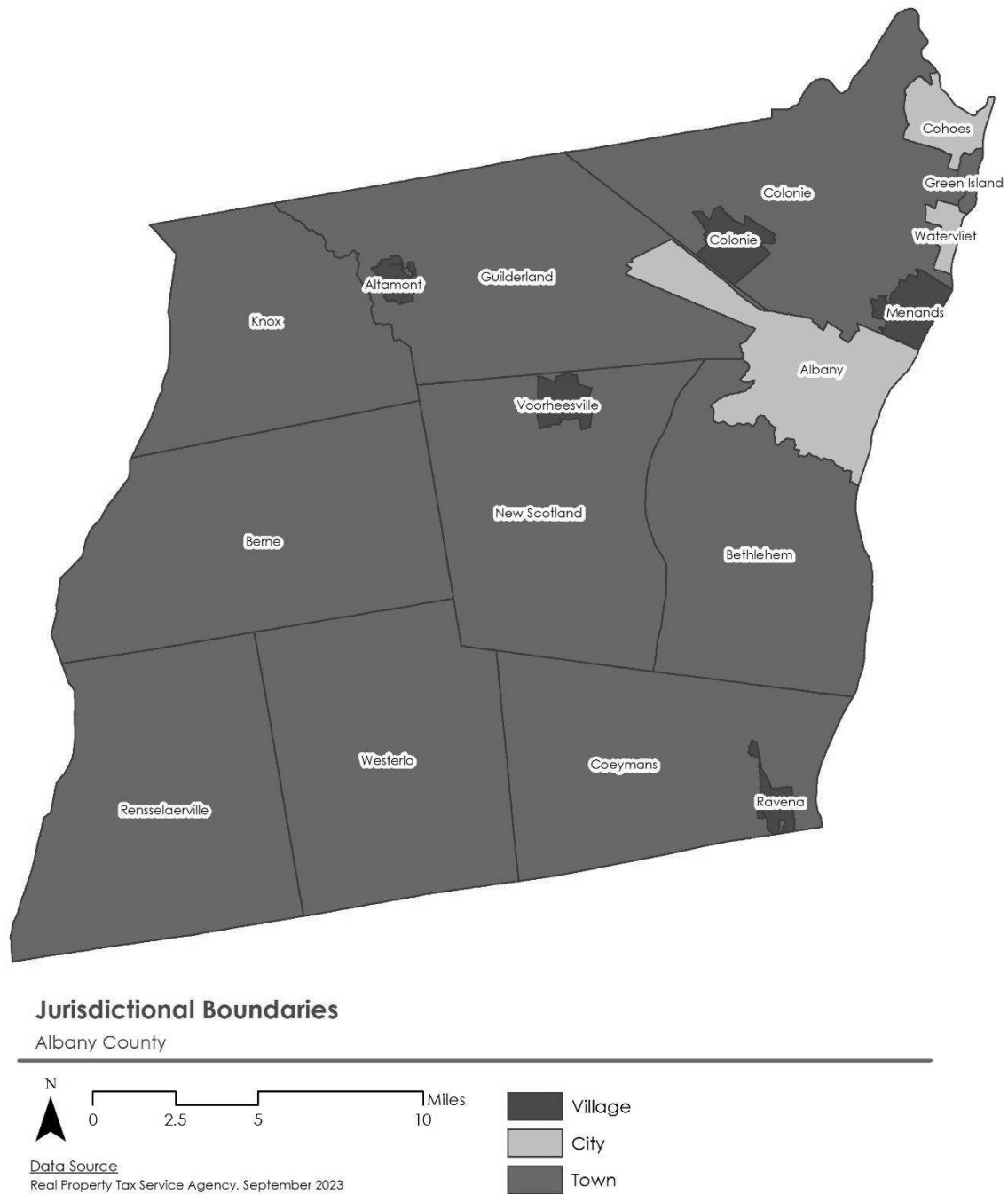
2.1 Geographic Context

2.1.1 *Geographic Location*

Albany County is located in Upstate New York, northwest of New York City. Albany County is geographically bounded to the east by the Hudson River with Rensselaer County bordering the Hudson River, and the Mohawk River to the north creating the border between Albany County and Saratoga County. Schenectady County lies to the northwest, Schoharie County to the west, and Greene County to the south. Albany County is a part of the region known as the “Capital District”. The Capital District is made up of four (4) counties, Albany County, Saratoga County, Rensselaer County, and Schenectady County.

The City of Albany serves as both the Capital of New York State as well as the county seat for Albany County. The County includes three (3) cities, nine (9) towns, five (5) villages, and the Town/Village of Green Island. Albany County consists of a total area of five hundred thirty-three (533) square miles, of which five hundred twenty-three (523) square miles are land area and ten (10) square miles are water area. In terms of total area, the Town of Berne is the largest jurisdiction within Albany County, totaling 64.7 square miles. This equates to 12.16% of the total area of the County. The Town/Village of Green Island is the smallest town in Albany County, totaling 1.0 square miles in area, which represents only 0.17% of the total area of Albany County. Figure 2-1 illustrates the County and its municipalities.

Figure 2-1. Jurisdictions in Albany County



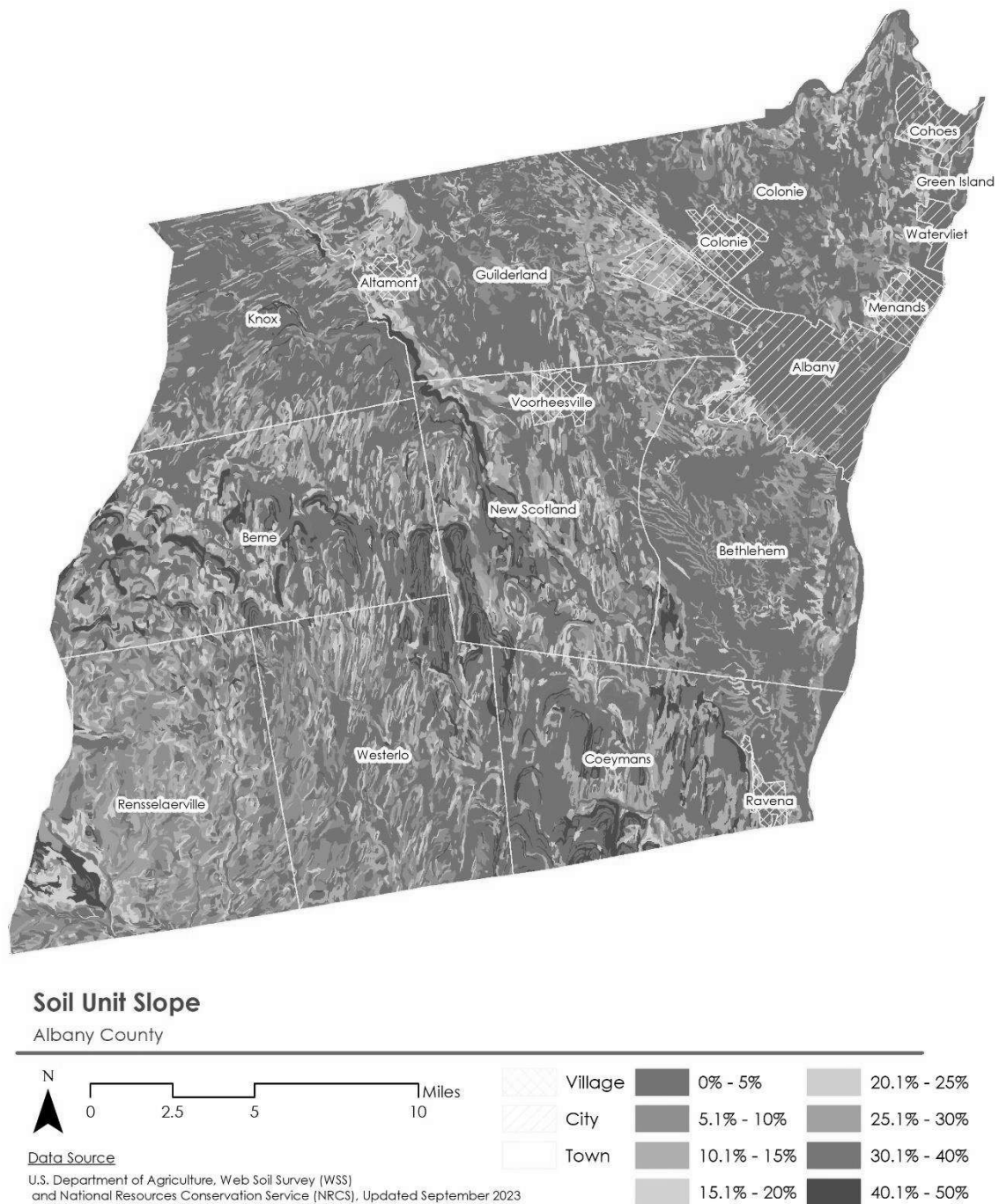
Data Source: Real Property Tax Service Agency, September 2023

2.1.2 Topography and Geology

Within Albany County, the areas surrounding the Hudson and Mohawk River are relatively flat, whereas other areas are high and hilly in the southwest of the Helderberg Escarpment and the Helderberg Mountains. The escarpment is located in John Boyd Thacher State Park, about eleven (11) miles west of the City of Albany (NYSDEC, 2023). The highest summit in the County is located near Henry Hill, and reaches 2,160 feet (658 meters) above sea level; some portions along the Hudson River reach as low as sea level. The Hudson River shoreline in Albany County is subject to ocean tides as part of the Hudson River Estuary (NYSDEC, 2015).

Albany County consists of several different geologic units, the biggest being the Undifferentiated Lower Hamilton Group (shales and sandstones), Normanskill Shale (minor mudstone and sandstone), the Schenectady Formation (graywacke, sandstone, siltstone, and shale) and the Plattekill and Ashokan Formations (shale and sandstone) (USGS, n.d.). Soil unit slopes are depicted in Figure 2-2.

Figure 2-2. Soil Unit Slope in Albany County



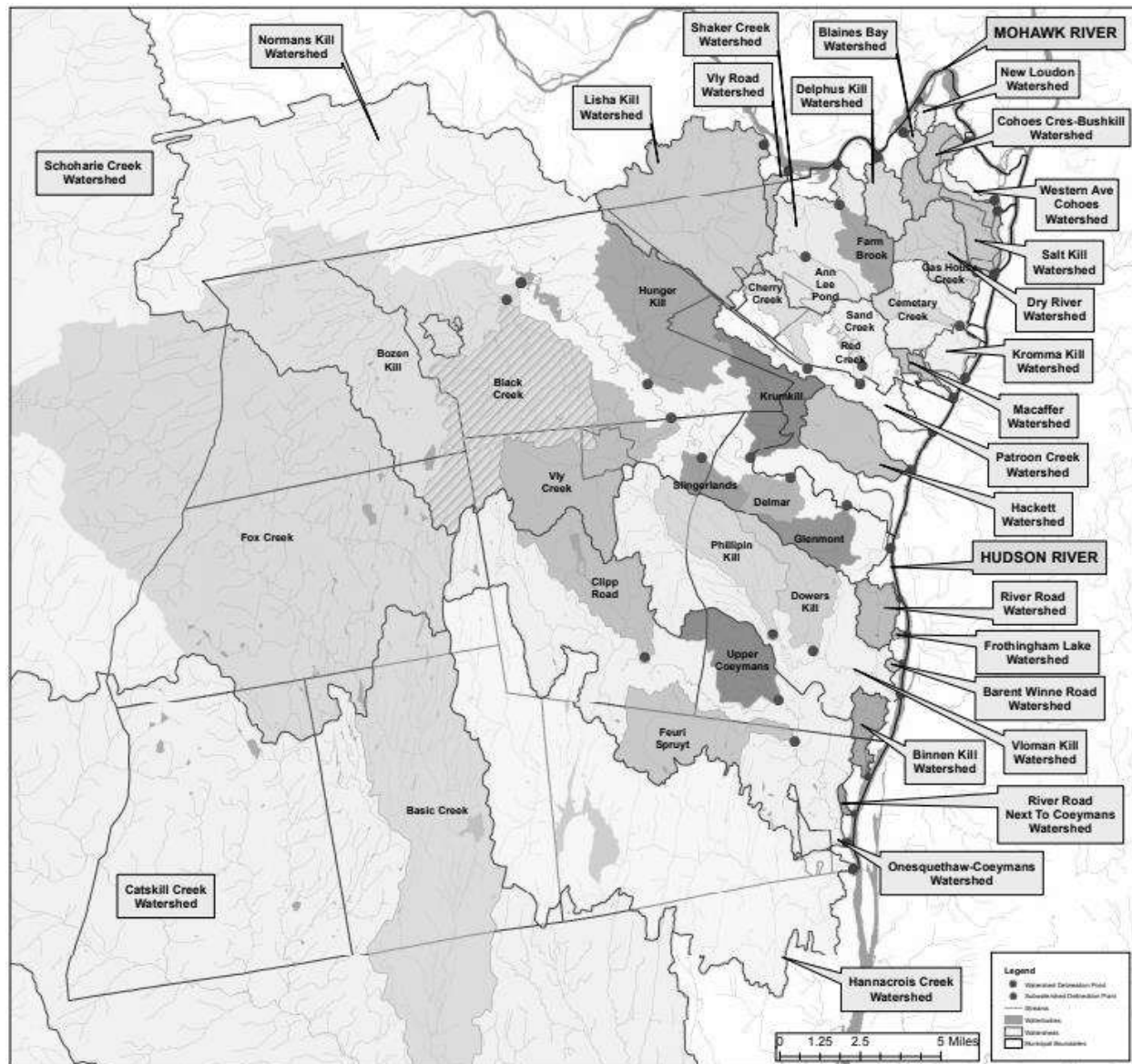
Data Sources: USDA Web Soil Survey, NRCS, September 2023

2.1.3 *Drainage Basins*

Albany County is located within the Hudson Valley. Although Albany County is not located near the Atlantic Coast shoreline, the Hudson River is tidally influenced, putting portions located along the Hudson River at higher risk of flooding than other parts of the County.

Albany County is comprised of twenty-five (25) major watersheds, which include the Normans Kills, Schoharie Creek, Catskill Creek, Hannacrois Creek, Lisha Kill, Vly Road, Shaker Creek, Delphus Kill, Blaines Bay, New Loudon, Cohoes Cres-Bushkill, Western Ave Cohoes, Salt Kill, Dry River, Kromma Kill, Macaffer, Patroon Creek, Hackett, River road, Frothingham Lake, Barent Winne Road, Vloman Kill, Binnen Kill, River Road Next to Coeymans, and the Onesquethaw-Coeymans. Seven (7) of these watersheds drain to the Mohawk River located along a portion of the northern boundary of the County. The other seventeen (17) watersheds delineate to the Hudson River, which makes up the entire eastern boundary of the County. The Schoharie Creek watershed does not delineate to either the Hudson River or the Mohawk River. There are dozens of sub-watersheds located within these watersheds. Figure 2-3 depicts the watersheds within each municipality within Albany County.

Figure 2-3. Albany County Watersheds and Subwatersheds

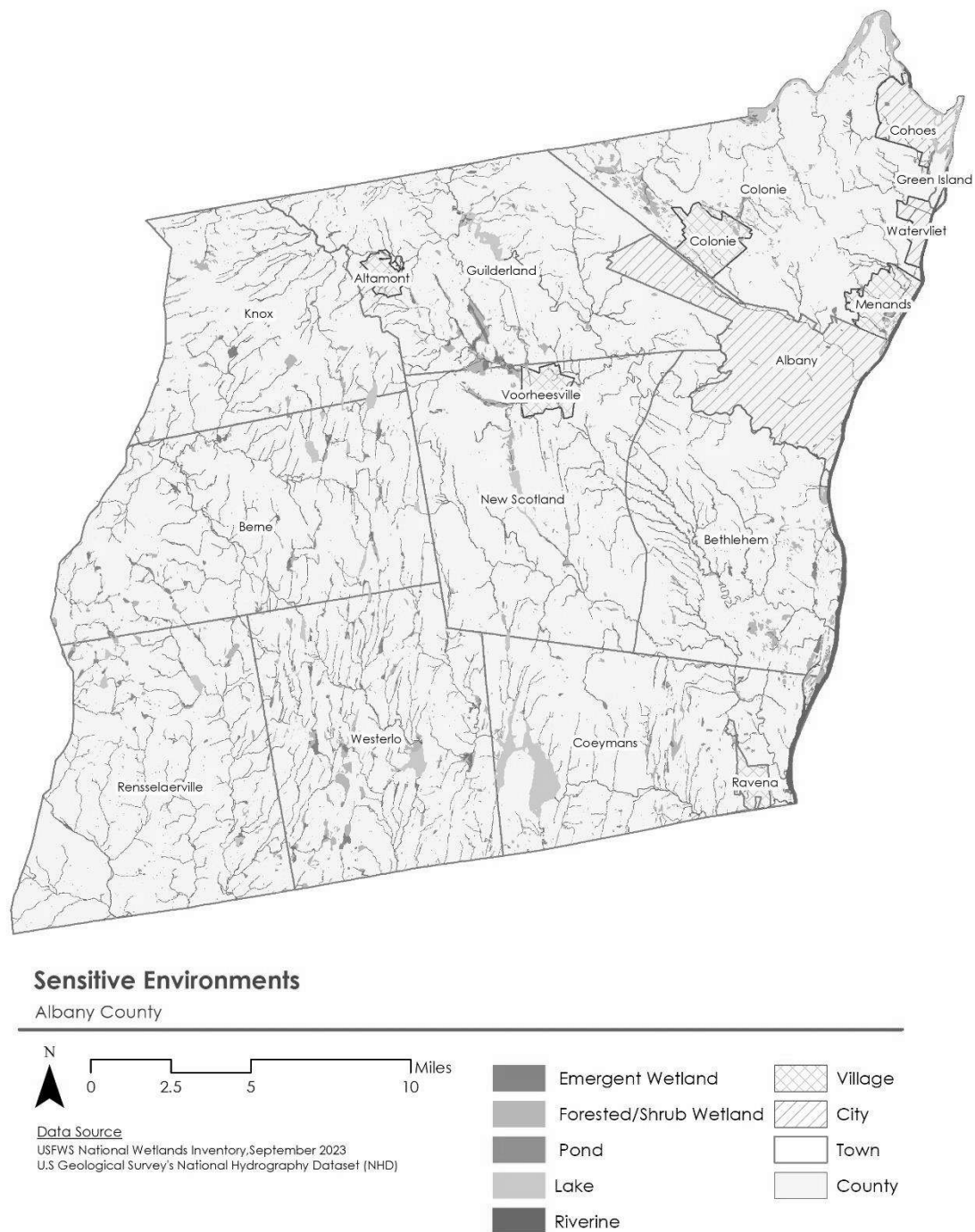


Source: (Stormwater Coalition of Albany County, 2016)

2.1.4 Sensitive Environments

Albany County has several sensitive environments, including wetlands, ponds, lakes, and riverine environments. These are depicted in Figure 2-4.

Figure 2-4. Sensitive Environments in Albany County



Data Sources: USFWS National Wetlands Inventory (September 2023), U.S. Geological Survey's National Hydrography Dataset (NHD)

2.2 Climate

2.2.1 Existing Climate Conditions

New York State's Humid Continental climate is categorized as being quite similar to that of the majority of the Northeastern United States. Humid continental climates have variable weather conditions, due to their location between the polar and tropic air masses. Polar air masses collide with tropical air masses, causing uplift of the moist tropical air and resulting in precipitation.

The location of Albany County is far enough from Lake Ontario that lake-effect weather patterns do not often affect the county. However, the County is located close enough to the coast that heavy snows from Nor'easters affect the area.

The National Weather Service has reported weather-related averages for 1991-2020, based on reporting from the Albany Weather Forecast Office, in the Town of Colonie. In January, high temperatures average around 33°F with average lows around 16°F. In July, the average high temperature is 84°F with lows averaging 63°F. The year-round average temperature is 49.4°F. Total average precipitation is 40.68 inches annually, while annual snowfall averages 59.2 inches (National Weather Service, 2023).

Table 2-1 depicts the fluctuating average temperatures, average precipitation, and seasonal snowfall totals in Albany County from 1950 to 2020.

Table 2-1. Annual Temperature, Precipitation, and Snowfall Data Recorded Between 1950 and 2020 and Displayed as Decade Averages

Years	Average Temperature (°F)	Average Precipitation (inches)	Seasonal Snowfall Totals (inches)
2010-2020	50.0	41.4	53.9
2000-2009	48.6	43.17	60.61
1990-1999	48.4	38.08	58.42
1980-1989	47.4	36.09	59.02
1970-1979	46.9	39.90	69.37
1960-1969	46.9	31.75	67.06
1950-1959	47.8	36.15	59.69
Overall Average	48.0	38.43	62.35

Source: (National Weather Service, 2023)

2.2.2 Climate Change

Climate change is defined by the National Aeronautics and Space Administration (NASA) as the long-term (at least 30-years) shift in average weather patterns that define Earth's local, regional, and global climates (NASA, 2023). Drivers of climate change are both natural and human caused (anthropogenic). Natural drivers include variations in Earth's orbit, variation in the sun's energy, volcanic activity, cyclical oceanic patterns such as El Niño and La Niña, etc.) Anthropogenic drivers include the burning of fossil fuels, deforestation, farming livestock, and more (National Academy of Sciences and

The Royal Society, 2020). The coupling of natural and anthropogenic drivers has exacerbated climate change.

Several climate change impact assessments discuss how various climate change impacts are already being observed in the state of New York and how these impacts are projected to continue and/or increase in the future. These include but are not limited to NYSERDA's ClimAID report (NYSERDA, 2014), New York State's Climate Impacts Assessment (Lamie, et al., 2023) and DEC's report on Observed and Projected Climate Change in NYS (NYSDEC, 2021). Additionally, the 2023 Albany County Climate Resiliency Plan provides a detailed assessment of the risks and vulnerabilities that Albany County faces from climate change, as well as how the County can build resilience to these impacts (Albany County, 2023). These reports indicate the following trends:

- Overall, scientists have indicated increased temperatures and shifting precipitation patterns for Albany County and New York State. Rates for these changes are projected to increase much faster than historic natural rates over the coming century, and as a result extreme hazard events may increase in frequency and intensity.
- Heat waves will become more frequent and intense, increasing heat-related illness and death and posing new challenges to the energy system, air quality, and agriculture. By the 2080s, New York State's annual average temperatures are projected to increase by 4.1°F to 6.1°F.
- Summer drought is projected to increase, affecting water supply, agriculture, ecosystems, and energy production. Horton et al. project that late-summer, short-term droughts will become more frequent toward the end of the century, but it is not known if the risk of multiyear droughts will change.
- Rate of occurrence for heating and cooling days (days over 90°F and days below 32°F) will change. The frequency of heating days is projected to increase, while the frequency of cooling days is projected to decrease.
- Heavy downpours are increasing and are projected to increase further. For example, in the heaviest 1% of precipitation events in the Northeast U.S., the proportion of total annual precipitation that fell during those events increased by 38% between the periods 1901-1960 and 1986-2016. These events can lead to flooding and related impacts on water quality, infrastructure, and agriculture.
- Major changes to ecosystems including species range shifts allow invasive species and pests to spread, population crashes, and other sudden transformations could have wide-ranging impacts, not only for natural systems but also for health, agriculture, and other sectors.
- Coastal flooding is predicted to increase due to sea level rise. Rising sea levels have the potential to impact the Hudson River and adjacent communities (NYSERDA, 2014) (NYSDEC, 2021).

Specific groups of people that are identified in the 2014 ClimAID Report as being particularly vulnerable include older adults, people with disabilities, health-compromised individuals who are more vulnerable to climate hazards like floods and heat waves; low-income groups that have limited ability to meet higher energy costs; farm workers who may be exposed to more chemicals if pesticide use increases in response to climate change; asthma sufferers who will be more vulnerable to the decline in air quality during heat waves; and people who depend on public

transportation and lack private cars for evacuating during emergencies. Small businesses are also identified as being particularly vulnerable, as they are typically less able to cope with costly climate related interruptions and stresses, such as power and communication service disruptions, than larger businesses (NYSERDA, 2014). In addition, the 2023 Albany County Climate Resiliency Plan considers further factors such as language barriers, micro-location, and housing vulnerability (Albany County, 2023).

In addition, the 2014 ClimAID Report highlights that some areas, including Albany County, are vulnerable in other ways: regions that depend on agriculture and tourism (such as fishing, hiking, and wineries) may be especially in need of adaptation assistance; and low-income urban neighborhoods, especially those within flood zones, are less able to cope with climate impacts such as heat waves and flooding.

More details about the effects of climate change on the impacts, extent, and frequency of each hazard profiled in this Hazard Mitigation Plan are described in Section 6. (Lamie, et al., 2023)

Project IN-CORE Climate Analysis

As described in Section 3.5, AT&T engaged Project IN-CORE to conduct a Climate Analysis for Albany County. The Climate Analysis includes projections of how Albany County will be affected by climate change. The results of the Albany County Climate Analysis can be viewed on this storymap (<https://arcg.is/1PObHP>) and in Appendix K. In general, Albany County is projected to see an increase in precipitation, an increase in winter temperatures, increases in flood risk in certain areas, and a potential increase in the risk of landslides.

Figure 2-5. Precipitation Increases Projected by Project IN-CORE



Source: (Duffy, Filante, & Guo, 2024)

2.3 Demographic and Economic Characteristics

2.3.1 Population Trends

According to the 2020 U.S. Census, Albany County had a population of 314,848 people. This reflects a 3% increase in population when compared to the County's population in the 2010 U.S. census (304,204). Table 2-2 and Table 2-3 summarize population and demographic statistics for Albany County based on US Decennial Census data (U.S. Census Bureau, 2010) (U.S. Census Bureau, 2020).

The City of Albany contains the largest population center, while the Town of Colonie has the largest population of senior citizens in the County. There is also a significant commuter population, and a significant increase (up to 40%) in population in the hill towns during the summer.

Table 2-2. Population Trends in Albany County, 2010-2020

Jurisdiction	2010 Population	2020 Population	Percent Change	Notes
Albany, City of	97,856	99,224	1%	
Altamont, Village of	1,720	1,675	-3%	
Berne, Town of	2,794	2,689	-4%	
Bethlehem, Town of	33,656	35,034	4%	
Coeymans, Town of*	7,418	7,256	-2%	Includes Village of Ravena
Cohoes, City of	16,168	18,147	12%	
Colonie, Town of*	81,591	85,590	5%	Includes Village of Colonie and Village of Menands
Colonie, Village of	7,793	7,781	0%	
Green Island, Village of	2,620	2,934	12%	
Guilderland, Town of*	35,303	36,848	4%	Includes Village of Altamont
Knox, Township of	2,692	2,635	-2%	
Menands, Village of	3,990	4,554	14%	
New Scotland, Town of*	8,648	9,096	5%	Includes Village of Voorheesville
Ravena, Village of	3,268	3,271	0%	
Rensselaerville, Town of	1,843	1,826	-1%	
Voorheesville, Village of	2,789	2,841	2%	
Watervliet, City of	10,254	10,375	1%	
Westerlo, Town of	3,361	3,194	-5%	
Albany County (Total)	304,204	314,848	3%	

Data Source: U.S. Decennial Census Redistricting Data (U.S. Census Bureau, 2010) (U.S. Census Bureau, 2020).

*Population statistics for these municipalities include another municipality listed in the table.

Table 2-3. Albany County Demographics, 2020

Statistic	Albany County	New York State
Total Population	314,848	20,201,249
Male Population (%)	48%	48%
Female Population (%)	52%	52%
Population of One Race (%)	93%	91%
White alone (%)	68%	55%
Black or African American alone (%)	14%	15%
American Indian and Alaska Native alone (%)	0%	1%
Asian alone (%)	8%	10%
Native Hawaiian and Other Pacific Islander alone (%)	0%	0%
Some Other Race alone (%)	3%	11%
Two or More Races (%)	7%	9%

Data Source: U.S. Decennial Census Redistricting Data, ACS 5-Year Estimates Subject Tables (U.S. Census Bureau, 2010) (U.S. Census Bureau, 2020) (U.S. Census Bureau, 2020)

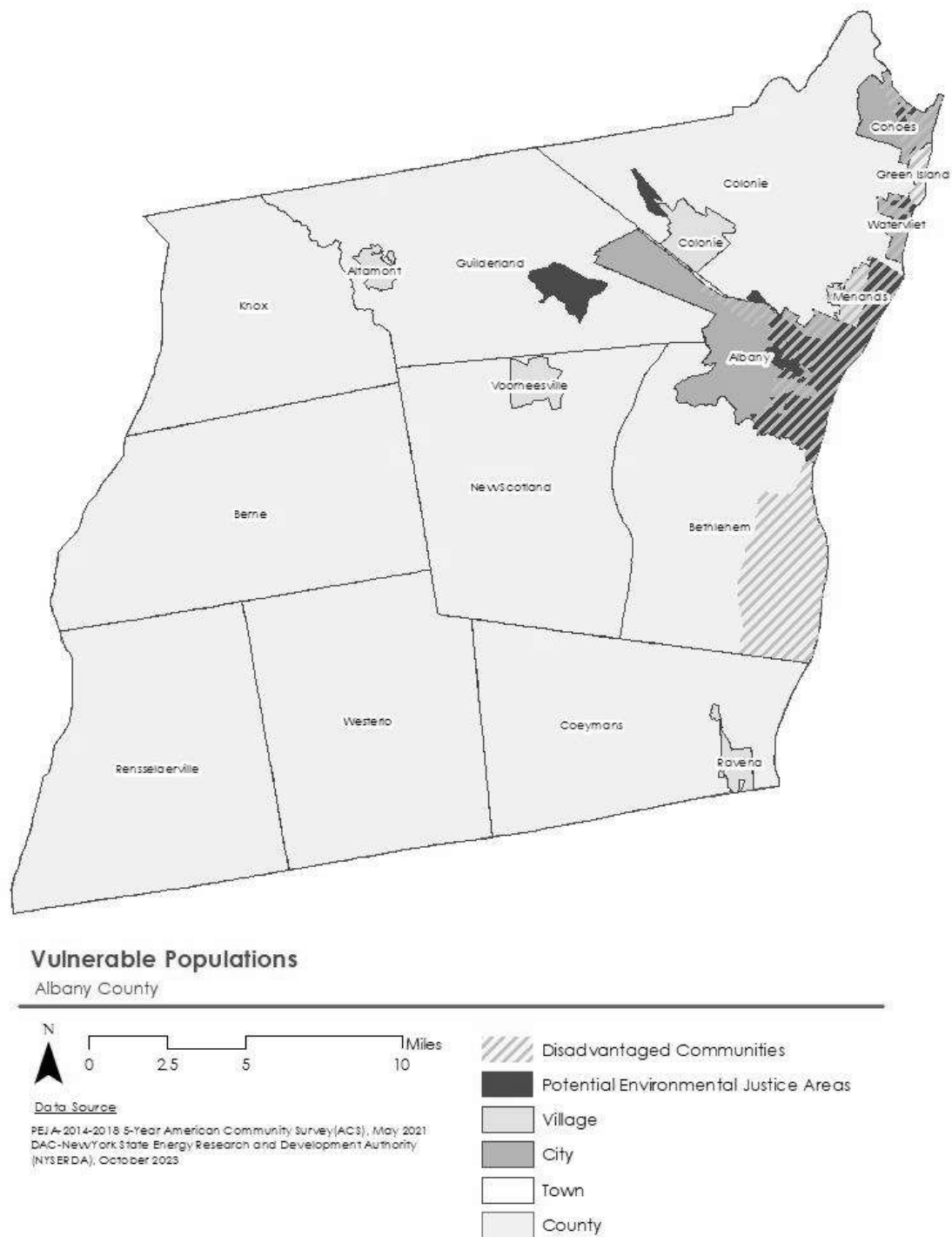
2.3.2 Vulnerable Populations

The Disaster Mitigation Act of 2000 (DMA 2000), which is mandated by the Federal Emergency Management Agency (FEMA), necessitates that hazard mitigation plans (HMP) take into account socially vulnerable groups. Such groups may have a higher vulnerability to hazard events due to various factors, such as their physical and financial capacity to cope with or respond to a hazard, as well as the geographical locations and construction standards of their homes.

Additional information about vulnerable populations in Albany County, is listed in the Engagement Strategy in Appendix C. These include renter households (44% of households), people of color (32% of the population), youth (18%), seniors (17%), people with disabilities (14%), households below the poverty line (13%), households without a vehicle (13%), households without an internet subscription (8.9%), people who do not speak English well (4.8%), and people without health insurance (3.5%). Appendix C also identifies geographic areas that may be more vulnerable to hazards. These include CJEST (Climate and Economic Justice Screening Tool) Disadvantaged Communities, NYS-identified Disadvantaged Communities, Potential Environmental Justice Areas, and areas with a high social vulnerability score on the CDC/ATSDR Social Vulnerability Index. These terms are further explained in Appendix C. Municipalities that have one or more of these communities include the City of Albany, Town of Bethlehem, City of Cohoes, Town of Colonie, Town/Village of Green Island, Town of Guilderland, Village of Menands, and City of Watervliet, with the greatest number of vulnerable communities in the City of Albany, City of Cohoes, and City of Watervliet.

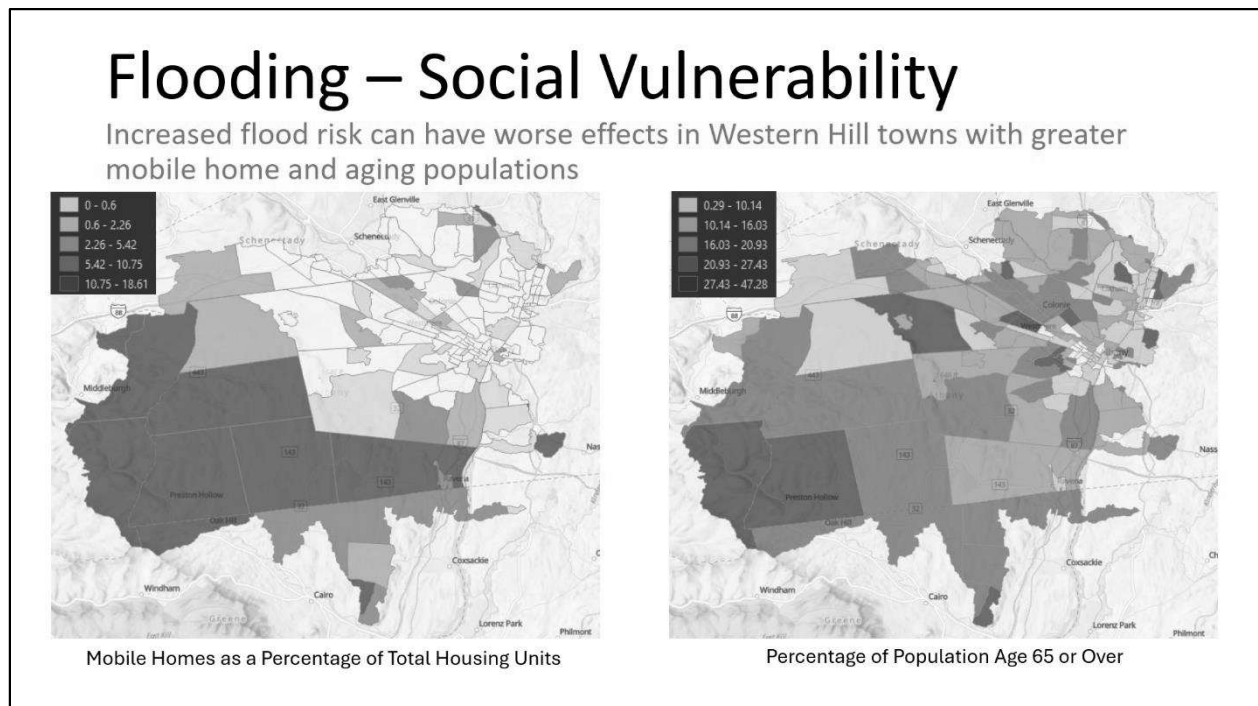
Figure 2-6 shows the distribution of vulnerable populations within Albany County, based on Potential Environmental Justice Area Communities and Interim Disadvantaged Communities specifically. Figure 2-7 shows areas with increased populations of mobile home residents and older adults. These populations may have a higher social vulnerability to flooding.

Figure 2-6. Vulnerable Populations in Albany County



Data Sources: 2014-2018 5-Year American Community Survey (May 2021), NYSERDA (October 2023)

Figure 2-7. Social Vulnerability to Flooding Analyzed by Project IN-CORE



Source: (Duffy, Filante, & Guo, 2024)

In addition to the populations described above, the Department of Mental Health (DMH) is working with the County Health Department to identify vulnerable individuals who may be at particular risk in the event of a natural disaster, or any other type of disaster. These populations include individuals living with severe behavioral health challenges, often in conjunction with significant health-related challenges and disabilities. DMH stands ready to assist in disaster response and recovery, through a longstanding Emergency/Disaster Mental Health Response Team. This team can be activated to assist individuals and communities cope with the immediate impacts of disasters of any type.

2.3.3 Economic Characteristics

The following tables present an overview of the County economy, including agriculture, retail trade, tourism, industry, manufacturing, and educational services. Major industries and employers include the nanotechnology industry, the State Capitol, the Port of Albany, Wadsworth Laboratory, Albany Medical Center, and several colleges and universities.

Table 2-4. Economic Characteristics of Albany County

Statistic	Albany County	New York State
Unemployment Rate (16+ Years Old Civilian Labor Force)	4.90%	6%
Mean Travel Time to Work (Minutes)	20.7	33.5
Median Household Income	\$73,810	\$71,117
Poverty Rate	11.70%	14%

Data Source: ACS 5-Year Estimates (U.S. Census Bureau, 2021)

Table 2-5. Jobs by Industry in Albany County

Industry	People	Share of Total Jobs
Educational services, and health care and social assistance	45,039	27.70%
Professional, scientific, and management, and administrative and waste management services	20,438	12.60%
Public administration	20,290	12.50%
Retail trade	16,318	10.00%
Finance and insurance, and real estate and rental and leasing	12,647	7.80%
Arts, entertainment, and recreation, and accommodation and food services	12,587	7.70%
Manufacturing	9,233	5.70%
Other services, except public administration	7,074	4.30%
Construction	6,755	4.20%
Transportation and warehousing, and utilities	5,966	3.70%
Information	2,986	1.80%
Wholesale trade	2,686	1.70%
Agriculture, forestry, fishing and hunting, and mining	626	0.40%

Data Source: ACS 5-Year Estimates (U.S. Census Bureau, 2021)

2.4 Land Use and Development Trends

The largest category of land use within Albany County is residential, with significant portions of the County designated as vacant land (Figure 2-8). Agricultural districts are found primarily south, west, and southwest of Albany, especially near Knox and surrounding Towns (Figure 2-9). The County also contains significant amounts of commercial land, particularly in the northeast part of the County, and industrial land, particularly in the eastern part of Coeymans. Other designations of land – such as

recreation and entertainment; community services; industrial land; and wild, forested, and public parks – are also found throughout the County.

Table 2-6 displays the changes in land use in Albany County between 2016 and 2021. The grassland/herbaceous category saw a significant decrease in acreage during that time period, while the shrub/scrub and pasture/hay category saw significant increases. Presumably, many of the acres in the grassland/herbaceous category may have been redesignated as shrub/scrub and pasture/hay. Aside from these categories, the developed medium intensity category saw the largest increase in acreage, while the evergreen forest categories and the developed open space categories saw the largest decrease in acreage.

Table 2-7 displays housing vacancy rates in the County for each jurisdiction. A housing unit is determined to be occupied if it is the normal place of residence of the person or persons living in it, including if said person(s) are temporarily absent. A vacant housing unit is classified as such if no one is living in it on a permanent basis, excluding temporary absence. Vacancy rates are calculated during U.S. Census years as a potential indicator of distressed regions. In 2020, Albany County had a total vacancy rate of 9%. The Town of Rensselaerville had the highest vacancy rate (37%), while the Village of Colonie and the Village of Voorheesville had the lowest vacancy rates (4% for each Village).

Structural developments or redevelopments that have been proposed between 2018 and 2023, as well as building permits issued in each jurisdiction, are summarized in each of the jurisdictional annexes. Some of the proposals for the Town may be located in the 0.1% or 0.2% annual chance flood event area, but this was generally not specified in the proposals (Albany County, 2023). As described in Section 6.1.58.2, all of the municipalities in Albany County participate in the NFIP program, and therefore take flooding into account when considering new developments.

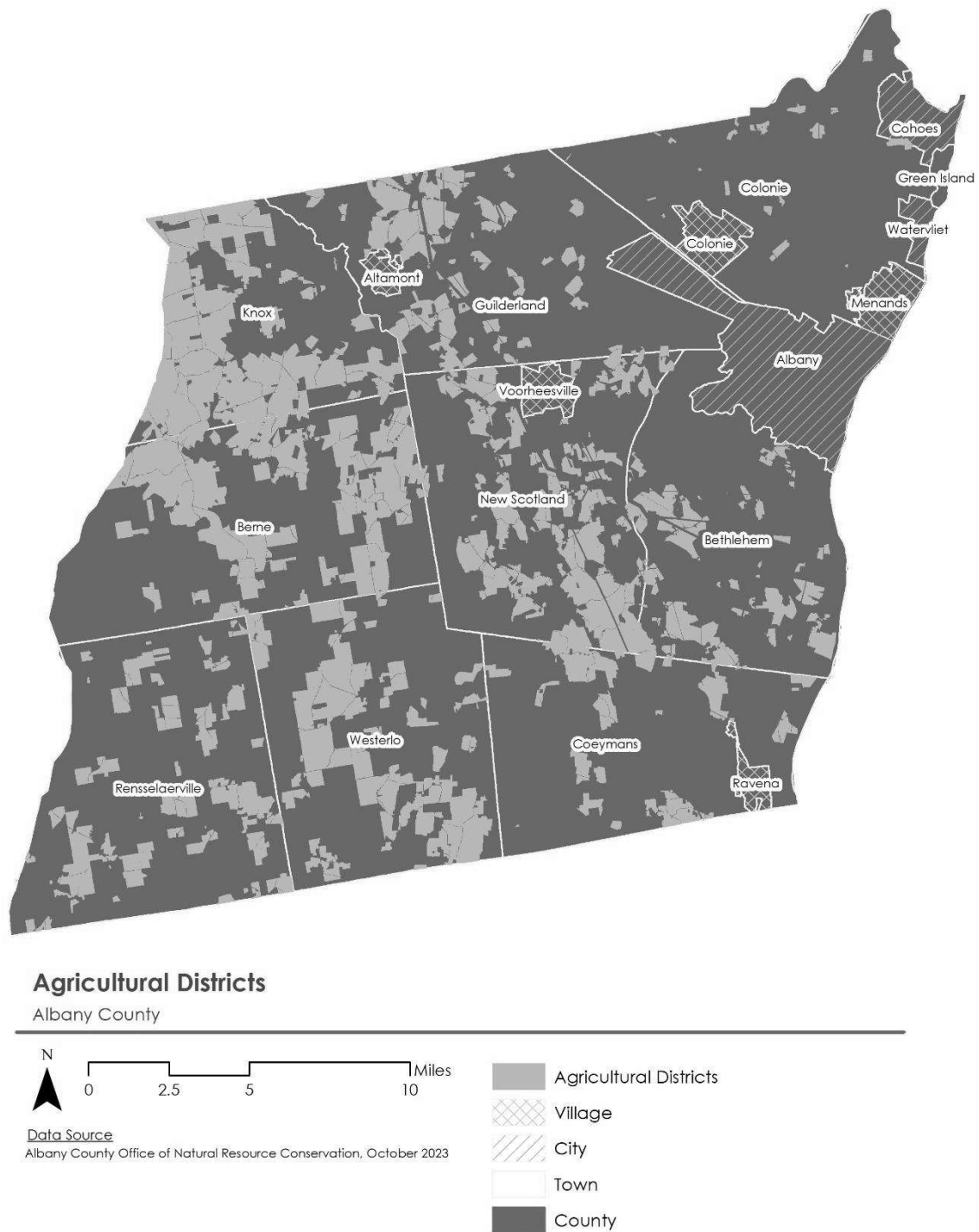
All of the jurisdictions within Albany County have adopted comprehensive/land use plans and/or zoning regulations in order to enforce specific regulations for certain types of land use or structures. The types of land use regulations implemented by each jurisdiction within the County are outlined in Table 4-1 (Section 4.3), and further details are included in the jurisdictional annexes (Appendix A).

Figure 2-8. Land Use in Albany County



Data Source: Real Property Tax Service Agency (November 2023)

Figure 2-9. Agricultural Districts in Albany County



Data Source: Albany County Office of Natural Resource Conservation (October 2023)

Table 2-6. Change in Land Use in Albany County, 2016-2021*

Land Use Type	2016 Acres	2016 % of Total Acres	2021 Acres	2021 % of Total Acres	2016-2021 Change in Acres	2016-2021 % Change in Acres
Open Water	5,798	1.70%	5,384	1.58%	-414	-7.14%
Developed, Open Space	28,690	8.42%	28,227	8.28%	-463	-1.61%
Developed, Low Intensity	22,677	6.65%	22,735	6.67%	58	0.26%
Developed, Medium Intensity	16,057	4.71%	16,535	4.85%	478	2.98%
Developed, High Intensity	8,426	2.47%	8,559	2.51%	133	1.58%
Barren Land	1,885	0.55%	1,956	0.57%	71	3.77%
Deciduous Forest	61,322	17.99%	61,443	18.02%	121	0.20%
Evergreen Forest	28,284	8.30%	27,786	8.15%	-498	-1.76%
Mixed Forest	85,475	25.07%	85,657	25.13%	182	0.21%
Shrub/Scrub	943	0.28%	2,620	0.77%	1,677	177.84%
Grassland/Herbaceous	6,718	1.97%	3,880	1.14%	-2,838	-42.24%
Pasture/Hay	4 6,209	13.55%	47,418	13.91%	1,209	2.62%
Cultivated Crops	4,275	1.25%	4,269	1.25%	-6	-0.14%
Woody Wetlands	21,495	6.30%	21,574	6.33%	79	0.37%
Emergent Herbaceous Wetlands	2,668	0.78%	2,857	0.84%	189	7.08%
Total	340,922	100%	340,900	100%	22	-0.01%

* As of October 2023, data from the National Land Cover Database (NLCD) was only available through 2021. Note that the 2016 and 2021 NLCD data sets are off by 22 acres. Data Source: (USGS, 2023).

Table 2-7. Housing Vacancy Rates by Jurisdiction, 2020

Jurisdiction	Total Housing Units	Vacant Housing Units	Vacancy Rate (%)
Albany, City of	48,031	5,873	12%
Altamont, Village of	729	31	4%
Berne, Town of	1,591	411	26%

Jurisdiction	Total Housing Units	Vacant Housing Units	Vacancy Rate (%)
Bethlehem, Town of	15,099	677	4%
Coeymans, Town of	3,408	349	10%
Cohoes, City of	9,752	1,013	10%
Colonie, Town of	37,118	2,055	6%
Colonie, Village of	3,420	129	4%
Green Island, Village of	1,816	323	18%
Guilderland, Town of	16,018	1,012	6%
Knox, Township of	1,142	100	9%
Menands, Village of	2,259	174	8%
New Scotland, Town of	3,864	226	6%
Ravena, Village of	1,561	169	11%
Rensselaerville, Town of	1,272	474	37%
Voorheesville, Village of	1,184	44	4%
Watervliet, City of	5,429	559	10%
Westerlo, Town of	1,591	247	16%
Albany County (Total)	146,131	13,319	9%

Data Source: U.S. Decennial Census (U.S. Census Bureau, 2020)

3 PLAN PARTICIPATION

3.1 Executive Steering Committee

The Executive Steering Committee took the lead on the development of the Hazard Mitigation Plan update for Albany County. The group met approximately monthly throughout the planning process. The Executive Steering Committee is composed of staff from several County departments, members of the consultant team, and representatives from New York State's Division of Homeland Security and Emergency Services (DHSES). More information is described in the Community Engagement Plan in Appendix C. Details regarding all meetings held throughout the planning process, including attendee lists, are provided in Appendix D and Appendix E.

3.2 Jurisdictional Participation

There are 18 municipal jurisdictions (3 cities, 9 towns, 5 villages, and the Town/Village of Green Island) located within Albany County, in addition to the County itself. All jurisdictions are seeking FEMA approval for this Hazard Mitigation Plan Update. All jurisdictions were invited and encouraged to participate in this plan update, and all jurisdictions met the criteria for participation, as detailed in Table 3-1. Participation criteria was suggested by the consultant team and reviewed by the Executive Steering Committee.

Table 3-1. Jurisdiction Participation Actions

Jurisdiction	Identified Primary Project Contacts*	Attended a Jurisdictional Interview*	Attended an Elected Officials Meeting	Attended Local Emergency Managers Meeting	Attended Floodplain Managers Roundtable	Reviewed Jurisdictional Annex as Needed*	Passed Resolution to Formally Adopt 2024 HMP Update*	SEEKING APPROVAL FOR PLAN ADOPTION
Albany County	Yes	Yes	Yes			Yes	Pending	Yes
Albany, City of	Yes	Yes	Yes			Yes	Pending	Yes
Altamont, Village of	Yes	Yes				Yes	Pending	Yes
Berne, Town of	Yes	Yes				Yes	Pending	Yes
Bethlehem, Town of	Yes	Yes	Yes	Yes		Yes	Pending	Yes
Coeymans, Town of	Yes	Yes		Yes	Yes	Yes	Pending	Yes
Cohoes, City of	Yes	Yes	Yes			Yes	Pending	Yes
Colonie, Town of	Yes	Yes	Yes	Yes	Yes	Yes	Pending	Yes
Colonie, Village of	Yes	Yes				Yes	Pending	Yes
Green Island, Village of	Yes	Yes	Yes			Yes	Pending	Yes
Guiderland, Town of	Yes	Yes	Yes			Yes	Pending	Yes
Knox, Township of	Yes	Yes				Yes	Pending	Yes
Menands, Village of	Yes	Yes	Yes	Yes		Yes	Pending	Yes

Jurisdiction	Identified Primary Project Contacts*	Attended a Jurisdictional Interview*	Attended an Elected Officials Meeting	Attended Local Emergency Managers Meeting	Attended Floodplain Managers Roundtable	Reviewed Jurisdictional Annex as Needed*	Passed Resolution to Formally Adopt 2024 HMP Update*	SEEKING APPROVAL FOR PLAN ADOPTION
New Scotland, Town of	Yes	Yes		Yes		Yes	Pending	Yes
Ravena, Village of	Yes	Yes			Yes	Yes	Pending	Yes
Rensselaerville, Town of	Yes	Yes	Yes			Yes	Pending	Yes
Voorheesville, Village of	Yes	Yes		Yes	Yes	Yes	Pending	Yes
Watervliet, City of	Yes	Yes	Yes	Yes		Yes	Pending	Yes
Westerlo, Town of	Yes	Yes				Yes	Pending	Yes

* Indicates required action

The Elected Officials Kickoff Meetings took place in September 2023 and were optional. The rest of the activities in Table 3-1 were required. The jurisdictional interview consisted of a meeting with the consultant team in order to:

1. Identify current priorities for hazard mitigation in the jurisdiction
2. Review and update 2018 HMP data
3. Assess natural hazards and determine which have the greatest possibility of impacting the jurisdiction
4. Provide a status update on 2018 mitigation actions
5. Develop at least one mitigation action per hazard identified for inclusion in the HMP update, along with associated information

After the jurisdictional interview, jurisdictions were provided with the opportunity to review their jurisdictional annexes and provide further revisions. All jurisdictions are required to adopt the HMP update by passing a board resolution for Approvable Pending Adoption (APA) after the plan is approved by FEMA. A sample HMP adoption resolution is presented in Appendix B. Jurisdictional annexes are provided in Appendix A, which list the primary and secondary contacts from each jurisdiction and other information, such as mitigation actions for each jurisdiction. A list of the individuals who participated in an interview as part of the process of developing these annexes is provided in Table 3-2. Additional information about jurisdictional participation, including the elected officials meetings and jurisdictional interviews, is provided in the Community Engagement Plan (Appendix C).

Table 3-2. Jurisdictional Interview Participants

Jurisdiction	Interview Date(s)	Participants
Albany County	Multiple; through Executive Steering Committee	Executive Steering Committee (see Appendix C for participant list)

Jurisdiction	Interview Date(s)	Participants
Albany, City of	March 11, 2024 and March 27, 2024	Ann Marie Salmon, Commissioner of Administrative Services, City of Albany Howard Goebel, Chief Engineer Faye Andrews, Commissioner City of Albany Neighborhood and Community Services Chiquita D'Arbeau, Executive Director, Albany Housing Authority Jason West, Director of Sustainability Joseph W Gregory, Chief of Department, Albany Fire Department Brian Wolfgang, Deputy Chief, Albany Fire Department Patrick Hines, Deputy Chief, Albany Fire Department David Newton, Deputy Chief, Albany Fire Department Valerie Scott, Deputy Director of /Buildings and Regulatory Compliance Frank Zeoli, Deputy Commissioner of the Department of General Services Erika Corsi, Planner, City of Albany Richard LaJoy, Director City of Albany Building and Regulatory Compliance Joe Coffey, P.E., Commissioner of Department of Water and Water Supply Bill Simcoe, P.E., Deputy Commissioner of Department of Water and Water Supply
Altamont, Village of	April 4, 2024	Kerry Dineen, Mayor Larry Adams, Acting Superintendent of Public Works Patty Blackwood, Village Clerk
Berne, Town of	April 29, 2024	Dennis Palow, Supervisor Kristin De Oliveira, Town Clerk Randy Bashwinger, Highway Superintendent

Jurisdiction	Interview Date(s)	Participants
Bethlehem, Town of	February 27, 2024	Jack Brennan, Director of Emergency Management Rick Webster, Deputy Director of Emergency Management David VanLuven, Town Supervisor Robert Leslie, AICP; Director of Planning Will Vail, Director of Senior Services Paul Penman, PE, Deputy Commissioner of Public Works Bob Baldwin, Commander, Bethlehem PD. Justin Harbinger, Building Inspector (Additional input from Marc Dorsey, Highway Superintendent)
Coeymans, Town of	February 29, 2024	Dan Baker, Highway Superintendent Candace McHugh, Town Clerk Jason Chmielewski, Code Enforcement Officer
Cohoes, City of	March 15, 2024	Bill Keeler, Mayor Amanda Primeau, Director of Operations Garry Nathan, City Engineer Joseph Fahd, Fire Chief-Emergency Manager Steve Hennessey, Commissioner of Public Works
Colonie, Town of	February 20, 2024	Angelina Searles, Senior Resources Department Jennifer Kennedy, Community Development Paul Sugrue, EMS / Emergency Management Thomas Romano, Highway / DPW Andrew Curry, Supervisor's Office Bob Winn, Police Department Ben Stevens, Fire Services / Buildings Chris Mastroianni, Buildings Daniel Seaver, Latham Water District Erin Kelly, EMS
Colonie, Village of	May 21, 2024	Jamie Blot, Village Clerk Hannah Curran, Deputy Village Clerk

Jurisdiction	Interview Date(s)	Participants
Green Island, Village of	March 5, 2024	Ellen McNulty-Ryan, Mayor Lynn McGivern, Zoning Board, Billing Clerk Tod Ward, Code Enforcement Officer Maggie Alix, Executive Assistant to the Mayor Kristin Swinton, Chair of Planning Board, CEO of Green Island Power Authority
Guilderland, Town of	March 19, 2024	Peter Barber, Town Supervisor Jackie Coons, Chief Building and Zoning Inspector Bob Haver, Highway Superintendent Ken Kovalchik, Town Planner Lynne Buchanan, Town Clerk
Knox, Township of	April 23, 2024	Russ Pokorny, Town of Knox Supervisor
Menands, Village of	February 27, 2024	Brian Marsh, Mayor Don Handerhan, Village Clerk
New Scotland, Town of	February 23, 2024	Doug LaGrange, Town Supervisor John Wood, Public Safety Commissioner Jeremy Cramer, Building Inspector
Ravena, Village of	March 5, 2024	Henry Traver, Village Foreman Jason Leonard, Water Department Chief Operator Joseph J. Burns, Code Enforcement Dominic Bruno, Fireman
Rensselaerville, Town of	April 23, 2024	Jason Rauf, Highway Superintendent for the Town of Rensselaerville, formerly on the Town Board John Dolce, Town Supervisor Edwin Csukas, Water/Sewer District Advisory Committee Chair John van Schaik, Water/Sewer District Advisory Committee, and resident
Voorheesville, Village of	March 20, 2024	Doug Miller, Village Public Safety Commissioner

Jurisdiction	Interview Date(s)	Participants
Watervliet, City of	March 5, 2024	Tom Corcoran, EMS Coordinator Joe LaCivita, General Manager – City of Watervliet Paul Laboissiere, Code Enforcement Officer Chris Chartrand, Secretary to the Mayor
Westerlo, Town of	June 5, 2024	Matthew A. Kryzak, Town Supervisor Lisa DeGroff, Confidential Administrator

3.3 Stakeholder Participation

A list of stakeholders identified for the HMP update is provided in Table 3-3, along with the participation activities they completed. Stakeholder participation activities included Executive Steering Committee meetings (which had both regular members and occasional guests), a Neighboring Communities Survey, a presentation to the Albany County Strategic Alliance for Health, a Presentation to Albany County Local Emergency Managers Meeting, a Floodplain Roundtable, and the opportunity to participate in the two public meetings and take the public input survey. These participation activities are further described in the Community Engagement Strategy in Appendix C.

Table 3-3 identifies stakeholders that were involved in the Hazard Mitigation Planning Process and how they participated. As noted in the table, participants included neighboring communities, local and regional agencies involved in hazard mitigation activities, agencies that have the authority to regulate development, businesses, academia and other community-based organizations. Jurisdictional participation activities listed in Section were excluded from this table, although many of the jurisdictional participants are also stakeholders (i.e. local and regional agencies involved in hazard mitigation activities or agencies that have the authority to regulate development).

In addition to stakeholders listed in Table 3-3, owners of High Hazard Potential Dams in the County were also consulted. Each dam owner was provided with the opportunity, via email, to comment on the High Hazard Potential Dam worksheets and corresponding mitigation actions relevant to their dam. Municipalities in which the dams were located were also provided with this opportunity. Comments were incorporated into the worksheets and used to revise the mitigation actions where necessary. Additionally, the project team reached out to the County, NYS Department of Environmental Conservation, and NYS DHSES to obtain relevant documentation for the dams. Some dam owners also provided documentation. Furthermore, the New York State Canal Corporation and New York State Power Authority provided statements which were used in the Hazard Mitigation Plan.

Table 3-3. Stakeholder List and Participation

Name	Title/Affiliation	Category	Attended an Executive Steering Committee Meeting or County Roundtable	Filled Out Neighboring Communities Survey	Filled Out Public Input Survey	Attended Albany County Strategic Alliance for Health Presentation	Attended Albany County Local Emergency Managers Meeting***	Attended Floodplain Managers Roundtable	Other
Patrick Curran	Climate Policy Analyst, Office of the County Executive	Local/Regional Agency*	Yes						
Christina Rust	Health and Mental Health Policy Analyst, Office of the County Executive	Local/Regional Agency*	Yes						
Brian Wood	Emergency Management, Albany County Sheriff's Office	Local/Regional Agency*	Yes				Yes		
Sergeant David Poole	Albany County Sheriff's Office	Local/Regional Agency*	Yes				Yes	Yes	
Brent Meredith	Senior Engineer, Albany County Department of Public Works	Local/Regional Agency*	Yes						

Name	Title/Affiliation	Category	Attended an Executive Steering Committee Meeting or County Roundtable	Filled Out Neighboring Communities Survey	Filled Out Public Input Survey	Attended Albany County Strategic Alliance for Health Presentation	Attended Albany County Local Emergency Managers Meeting***	Attended Floodplain Managers Roundtable	Other
Scott Duncan	Deputy Commissioner, Albany County Department of Public Works	Local/Regional Agency*	Yes						
Tricia Bulatao	Director of Public Health Emergency Preparedness and Performance Management	Community- Based Organization, Local/Regional Agency*	Yes						
Sara Lubera	Albany County Medical Reserve Corps	Local/Regional Agency*	Yes						
Beth O'Reilly	NYS DHSES Planning Manager, Hazard Mitigation	State Agency	Yes				Yes	Yes	
Kevin Clapp	NYS DHSES Supervisor, Hazard Mitigation	State Agency	Yes				Yes	Yes	
Roland Paperman	NYS DHSES	State Agency	Yes						

Name	Title/Affiliation	Category	Attended an Executive Steering Committee Meeting or County Roundtable	Filled Out Neighboring Communities Survey	Filled Out Public Input Survey	Attended Albany County Strategic Alliance for Health Presentation	Attended Albany County Local Emergency Managers Meeting****	Attended Floodplain Managers Roundtable	Other
Michael Tarasoff	NYS DHSES	State Agency	Yes					Yes	
Scott Feuerstein	NYS DHSES Planning Manager	State Agency	Yes				Yes	Yes	
John Wilkinson	NYS DHSES	State Agency						Yes	
Colleen Flynn	Schoharie County	Neighboring Community		Yes					
Edward Tremblay	Saratoga County	Neighboring Community		Possibly****					
Mark LaViolette	Schenectady County	Neighboring Community		Yes					
Jay Wilson	Rensselaer County	Neighboring Community		Possibly****					
David Harrison	Columbia County	Neighboring Community		Possibly****					
Daniel King	Greene County	Neighboring Community		Possibly****					
Anonymous	University at Albany	Academia		Yes					
Anonymous	President of Delmar Pointe HOA				Yes				

Name	Title/Affiliation	Category	Attended an Executive Steering Committee Meeting or County Roundtable		Filled Out Neighboring Communities Survey	Filled Out Public Input Survey	Attended Albany County Strategic Alliance for Health Presentation	Attended Albany County Local Emergency Managers Meeting****	Attended Floodplain Managers Roundtable	Other
Anonymous	City Engineer of City of Cohoes					Yes				
Anonymous	Fire Chiefs and First Responders (5)					Yes				
Charles Day	Albany Medical Center	Community-Based Organization					Yes			
Farah Chatila	American Lung Association	Private Organization					Yes			
Eva Bass	Avillage	Community-Based Organization					Yes			
Justin Reuter	Boys & Girls Clubs of the Capital Area	Community-Based Organization					Yes			
Renee Allen	Capital District Center for Independence	Community-Based Organization					Yes			
Samantha Zayas	Capital District Center for Independence	Community-Based Organization					Yes			

Name	Title/Affiliation	Category	Attended an Executive Steering Committee Meeting or County Roundtable	Filled Out Neighboring Communities Survey	Filled Out Public Input Survey	Attended Albany County Strategic Alliance for Health Presentation	Attended Albany County Local Emergency Managers Meeting****	Attended Floodplain Managers Roundtable	Other
Nora Murphy	Capital District Physicians Health Plan	Private Organization				Yes			
Dylan Hall	Community Foundation for the Greater Capital Region	Community-Based Organization				Yes			
Shawn Smeltzer	Fidelis Care	Private Organization				Yes			
Angie Pender-Fox	The Food Pantries for the Capital District	Community-Based Organization				Yes			
Kevin-Jobin-Davis	Healthy Capital District	Community-Based Organization				Yes			
Simone Brooks	MVP Health Care	Private Organization				Yes			
Brian Perrotto	St. Catherine's Center for Children	Community-Based Organization				Yes			
Simona Fish	St. Peter's Health Partners	Community-Based Organization				Yes			

Name	Title/Affiliation	Category	Attended an Executive Steering Committee Meeting or County Roundtable	Filled Out Neighboring Communities Survey	Filled Out Public Input Survey	Attended Albany County Strategic Alliance for Health Presentation	Attended Albany County Local Emergency Managers Meeting****	Attended Floodplain Managers Roundtable	Other
Jeanie Orr	St. Peter's Health Partners	Community- Based Organization				Yes			
Cara Zampi	St. Peter's Health Partners	Community- Based Organization				Yes			
Christine Bozlak	University at Albany, School of Public Health	Academia				Yes			
Jon Wood	Town of New Scotland Public Safety	Local/Regional Agency*					Yes		
Douglas LaGrange	Town of New Scotland Supervisor	Local/Regional Agency*					Yes		
Douglas Miller	Village of Voorheesville Public Safety Commissioner	Local/Regional Agency*							
Thomas Remmert	Albany County Emergency Management	Local/Regional Agency*					Yes		
Kelli Higgins- Roche	NYSDEC	State Agency						Yes	

Name	Title/Affiliation	Category	Attended an Executive Steering Committee Meeting or County Roundtable	Filled Out Neighboring Communities Survey	Filled Out Public Input Survey	Attended Albany County Strategic Alliance for Health Presentation	Attended Albany County Local Emergency Managers Meeting****	Attended Floodplain Managers Roundtable	Other
Theodore Fisch	New York State Canal Corporation	Local/Regional Agency*							Yes*****
Nicole Pease	New York Power Authority	Local/Regional Agency*							Yes*****

Note: This list excludes jurisdictional participants, who are detailed in Section 3.2.

* Indicates a local or regional agency involved in hazard mitigation activities

** Indicates a local or regional agency with the authority to regulate development

*** The Albany County Local Emergency Managers Meeting also included several municipal representatives, as indicated in Section 3.2.

**** In addition to the University at Albany participant, two other anonymous participants filled out the Neighboring Communities Survey. The individuals listed as "Possibly" were invited to fill out the survey and may have done so.

*****The New York State Canal Corporation and the New York Power Authority both provided statements for inclusion in the HMP, which will facilitate their ability to work with the County on projects related to hazard mitigation in the future.

3.4 Public Participation

Two public information meetings and an online survey provided opportunities for the public to give input on the plan. Public feedback from these initiatives was discussed by the Executive Steering Committee and subsequently incorporated into the HMP, including the mitigation action strategy where appropriate, as described in Section 3.6.

Efforts were made to make the public meetings and survey accessible so that vulnerable populations and underserved communities could participate. For example, the public meetings were offered in a hybrid format, including an online and in-person option. They were offered at two different times of day (12 p.m. and 5 p.m.) to maximize the chances of participation for working individuals, while being practical for the planning team. Closed captions were included at the meetings. The online survey provided another opportunity for participation for those who did not want to or have time to attend a meeting. A flyer and social media template posts were created to advertise the meetings and survey.

Additionally, questions about vulnerable populations (e.g. who is vulnerable to hazards, methods to solicit input from vulnerable populations, and/or ways to reduce vulnerability for vulnerable populations) were raised during several engagement activities, including Executive Steering Committee meetings, jurisdictional interviews, the online public input survey, the Albany County Strategic Alliance for Health meeting, and the local emergency managers' meeting. Takeaways were incorporated into mitigation actions and the implementation strategy where applicable.

These participation activities are further described in Appendix C (Community Engagement Plan).

3.4.1 *Draft Plan Comment Period*

The draft plan was posted on the Albany County Goes Green webpage in September 2024 in advance of Public Information Meeting #2, and remained there for over 30 days to allow for public review and comment. The draft plan was posted in full except for sensitive information, which was redacted. The website included a link to a short survey, where the public could comment on the draft plan. The draft plan was advertised on the County's website, in the flyer displaying the information about the second Public Information Meeting, and in Public Meeting #2. Screenshots of the website and comment form are included in Appendix E. The link to the Albany County Goes Green webpage is <https://www.albanycountyny.gov/government/team-green>. The draft plan was also distributed to relevant County departments.

In an effort to gain feedback from underserved areas where residents may not have computer or internet access, the County distributed printed copies of the plan in multiple locations. Specifically, the County placed physical copies in the Cahill Room of the Albany County office building, located at 112 State Street in Albany, as well as in the Department of Social Services facility located at 162 Washington Avenue. Copies of the plan were also sent to Cornell Cooperative Extension and the Pine Bush Preserve, who stated that they would print copies and make them available to the public, as both organizations have a significant amount of public engagement. Readers of the

printed plan could provide comments to the individuals listed in Section 1.6 of the plan, via the contact information listed in that section.

The online form received comments from one member of the public. Two County departments also commented on the draft plan. Comments and suggested revisions received were incorporated into the plan document and annexes where appropriate.

3.5 Albany County Climate Analysis

Albany is one of five communities selected to be a part of AT&T's Climate Resilient Communities initiative. As part of this program, AT&T engaged Project IN-CORE to conduct a Climate Analysis for Albany County, leveraging data from the Climate Risk and Resilience Portal (ClimRR, available at <https://climrr.anl.gov/>). The ClimRR Portal is the result of a collaboration between AT&T, the Federal Emergency Management Agency (FEMA) and the U.S. Department of Energy's Argonne National Laboratory. The portal offers free, dynamically downscaled climate projections produced using Argonne's supercomputer. The results of the Albany County analysis can be viewed on this storymap (<https://arcg.is/1PObHP>) and were integrated by the County into the Hazard Mitigation Plan, as described in Section 3.6. The results of the analysis are included as Appendix K.

3.6 Key Takeaways and Plan Integration

Key takeaways from public, jurisdictional, and stakeholder participation are listed in Table 3-4. More detail on these efforts is provided in the Community Engagement Plan (Appendix C). Stakeholder and public outreach documentation is provided in Appendix E.

Table 3-4. Participant Takeaways and Plan Integration

Stakeholder Type	Event	Takeaway Message	Integration into Plan or Strategy to Address*
Public	Public Information Meeting #1	Participants asked for increased explanation of Environmental Justice areas and the Climate Justice Corps.	The project team ensured that these explanations were incorporated into the plan (Albany County annex and Appendix C).
	Public Information Meeting #1	Two participants were concerned about severe storms. One was concerned about old growth trees being uprooted, and the other mentioned that their neighborhood has to employ someone to fix any issues that a natural disaster causes, since this person lives on a private road. One was interested in nature-based solutions and the other was interested in structure and infrastructure projects to address these issues.	Since there were only two participants, feedback was considered in conjunction with the public input survey. One participant was put in touch with the emergency manager in their Town.
	Public Input Survey	Many survey respondents expressed a desire for better communication and public education about how to prepare for hazards, especially where to go in the event of an evacuation, as well as how to evacuate, what to do in the event of different hazards, what resources are available, and how to prepare. They currently receive information through multiple channels. Additionally, respondents showed particular concern about impacts of hazards on older adults, power outages, and resources and coordination for emergency services. They also desired updates to infrastructure such as drainage infrastructure, roads, and power lines.	Updates to infrastructure were already widely addressed in jurisdictional mitigation actions. Three new actions at the County level were added to address feedback regarding public education, impact of hazards on vulnerable populations, and coordination and resources among emergency services. One County action ("Energy Resiliency Study") was revised to incorporate concerns about power outages. The hazard impacts most commonly mentioned were incorporated into Section 6 and Section 8.

Stakeholder Type	Event	Takeaway Message	Integration into Plan or Strategy to Address*
	Public Information Meeting #2	No members of the public were in attendance and so no public feedback was given.	N/A
	Draft Plan Comment Form	One comment was received from a dam owner in the County, expressing support for the plan and comments on the Town of Rensselaerville's annex related to the dam.	Changes were made to the Town of Rensselaerville's annex based on the comments made.
County	Executive Steering Committee Meetings, County Roundtable, Hazard Identification Meeting, Planning Mechanisms and Capabilities Meeting, Draft Plan	Hazards to put in the plan were discussed on 1/22/24. Key concerns mentioned in these meetings included flooding and severe storms (especially the provision of shelters for individuals whose homes flood), extreme temperatures (especially the effects on vulnerable populations such as homeless residents, and the provision of warming/cooling centers), and ensuring the adequacy of hazard warning systems. Comments from two County departments were made on the draft plan.	Hazards were incorporated into the plan based on this discussion. Sheltering capacity, warming/cooling centers, and effects on vulnerable residents were addressed through several jurisdictional mitigation actions related to generators at shelters. The County added a mitigation action related to vulnerable populations. Hazard warning systems are addressed through several jurisdictional mitigation actions, as well as County actions MH5 and MH16. Capabilities discussed during the Planning Mechanisms and Capabilities Meeting were used to inform the County's mitigation actions and implementation section of the plan. County comments on the draft plan were addressed.

Stakeholder Type	Event	Takeaway Message	Integration into Plan or Strategy to Address*
Jurisdictions	Local Emergency Managers Meeting	Local emergency managers reported that several populations are particularly vulnerable to natural hazards, especially older adults. While certain locations have more vulnerable populations than others, these populations often live in various locations throughout the municipalities. Flooding, transportation/mobility, and housing/evacuation were identified as particular concerns. The emergency managers proposed several ways to reduce the risk to these populations and to engage with these populations.	One new action at the County level was added to address feedback regarding the impact of hazards on vulnerable populations. The hazard impacts most commonly mentioned were incorporated into Section 6 and Section 8.
	Jurisdictional Interviews	Jurisdictions had a range of priorities as summarized in Section 8.2.3.	Feedback from each jurisdiction was used to develop mitigation actions for that jurisdiction.

Stakeholder Type	Event	Takeaway Message	Integration into Plan or Strategy to Address*
Neighboring Communities	Neighboring Communities Survey	Most respondents did not give detailed feedback about how hazards in Albany County affect them. One respondent was concerned about straight line winds that occur during storms. Two respondents mentioned that their County depends on certain critical facilities and infrastructure in Albany County, including medical facilities, Patroon Creek, & Normans Kill Creek. Some Counties offered space to relocate residents from Albany County if needed, and one respondent mentioned that they offer mutual aid if requested and participate in regional training exercises. Some respondents mentioned projects that they could work on with Albany County, including stormwater resilience planning, projects on Catskill Creek and Fox Creek, and monitoring on the Mohawk River.	The hazard "Wind" was incorporated into the "Severe Storms" hazard. One new mitigation action was added to incorporate sheltering capabilities and project ideas. The County annex contains a list of critical facilities.
Other Stakeholders	Presentations to Albany County Strategic Alliance for Health	This was mostly a presentation by B&L and did not involve significant feedback.	N/A
	Floodplain Roundtable	Attendees expressed a desire to work between municipalities to share equipment to respond to hazards. They discussed the idea of intermunicipal agreements, and some attendees felt that having signed agreements would help with this.	The idea of assisting with intermunicipal agreements was discussed with County staff and incorporated into the plan implementation strategy (Section 10.2).

Stakeholder Type	Event	Takeaway Message	Integration into Plan or Strategy to Address*
	Albany County Climate Analysis (funded by AT&T)	Albany County is projected to see increased precipitation, warmer winter temperatures, and an increased susceptibility to landslides, and various flood risks by mid-century. Flood water storage presents an opportunity for inter-municipal collaboration.	Findings were integrated into the Future Potential Impacts sub-sections and Location of Landslides sub-section in Section 6 (Hazard Profiles), as well as Section 3.5 (Albany County Climate Analysis), Section 2.3.2 (Vulnerable Populations) and Appendix C (Community Engagement Plan). Additionally, new mitigation actions were added to several municipal annexes to recommendations related to intermunicipal agreements. Other mitigation actions were modified. The results of the analysis were included as Appendix K.

* How was the takeaway integrated into the plan, what other strategy was used to address it, or why was it disregarded?

4 CAPABILITIES

4.1 County Capabilities

Albany County implements many initiatives related to hazard mitigation and emergency preparedness and response. Capabilities related to hazard mitigation are listed in the County's jurisdictional annex and in each municipality's jurisdictional annex.

Highlights of County capabilities related to hazard mitigation include:

- **Albany County Climate Resiliency Plan (2023)** – The Plan represents “the County's roadmap to prepare for, adapt to, and build resilience to climate change.” It includes an assessment of the risk and vulnerabilities of various assets to climate change, including infrastructure, housing, natural resources, and the economy. It also includes projects and strategies to build resilience and adapt to climate change.
- **Climate Smart Communities (CSC) bronze certification status** – Albany County participates in the Climate Smart Communities program, which helps local governments reduce greenhouse gas emissions and prepare for climate change impacts. Climate adaptation strategies implemented include maintaining the Team Green website to provide the community with climate adaptation and mitigation strategies.
- **Albany County Strategic Economic Development Plan (2020)** – The Plan identifies a long-term vision for economic growth and strategies for responding to economic opportunities and threats. It includes methods for investing in infrastructure and making sustainable development and land-use decisions. (Albany County, 2023)

4.2 State and Federal Capabilities

Potential funding sources are listed in Section 10.5. Additional state and federal capabilities that may assist with hazard mitigation are listed in Section 10.6.

4.3 Municipal Capabilities

In addition to the local laws and regulations listed in Table 4-1, many municipalities in Albany County engage in community planning activities that support natural hazard mitigation, preparedness, and response, as detailed in the jurisdictional annexes (Appendix A).

Table 4-1 gives an overview of local laws and regulations for each municipality in Albany County that may relate to hazard mitigation planning. This overview is based on documents that were publicly available on ecode360.com, as well as municipal websites and the Department of State's Local Laws Search engine (<https://locallaws.dos.ny.gov/search/laws>) where consultation was needed. More information and additional municipal capabilities are included in Section 3 of each jurisdiction's annex (Appendix A). The jurisdictional annexes also identify each municipality's applicable land use regulations, including those encompassed under the "other" category. In addition to the local laws and regulations listed in Table 4-1, many municipalities in Albany County engage in community planning activities that support natural hazard mitigation, preparedness, and response, as detailed in the jurisdictional annexes (Appendix A).

Table 4-1. Local Laws and Regulations for Municipalities in Albany County

Municipality	Zoning Regulations	Subdivision Review	Site Plan Review	Design Standards/ Overlay Districts	Stormwater Management	Erosion and Sediment Control	Flood Damage Prevention	Wetland and Watercourse Protection	Environmental Quality Review	Historic Preservation	Local Natural Area Protection	Renewable Energy Goals/Laws	Other
City of Albany	Chapter 375 Article II. Zoning Districts	§ 375-404. Subdivision of land		§ 375-206. Overlay districts.	Chapter 133 Part 2 Article XIV. Stormwater Management and Erosion and Control	Chapter 133 Part 2 Article XIV. Stormwater Management and Erosion and Control	§ 375-206(3) FP-O Floodplain Overlay	Chapter 203. Freshwater Wetlands	Chapter 181. Environmental Quality Review	§ 375-206(1). HR-O Historic Resources Overlay Chapter 333 Article XIV. Exemption for Improvements to Historic Property		Chapter 153. Community Choice Aggregation	
	Chapter 285. Zoning and Land Use	Chapter 285 Article XIII. Subdivision of Land	Chapter 285 Article XIV. Site Plan Review and Approval	Chapter 285 Article XVII. Form-Based Code	Chapter 285 Article XV. Stormwater Management and Erosion and Control	Chapter 285 Article XV. Stormwater Management and Erosion and Control	§ 285-45. Floodplain District (FD)	Chapter 159. Freshwater Wetlands		§ 285-44. Historic Overlay District (HD)	§ 285-42. Land Conservation District		§ 285-177. Lighting standards
City of Cohoes													
City of Watervliet	Chapter 272. Zoning		Chapter 272 Article XI. Site Plan Review		Chapter 273. Stormwater Management and Erosion and Sediment Control	Chapter 273. Stormwater Management and Erosion and Sediment Control	Chapter 160. Flood Damage Prevention					Chapter 146. Energy	
	Chapter 190. Zoning	Chapter 170. Subdivision of Land	§ 190-58. Site plan approval.				Chapter 109. Flood Damage Prevention	Chapter 114. Freshwater Wetlands				Chapter 157. Small-Scale Solar Energy Chapter 158. Small-Scale Battery Energy Storage Systems Chapter 187. Wind Energy Facilities	
Town of Berne													

Municipality	Zoning Regulations	Subdivision Review	Site Plan Review	Design Standards/Overlay Districts	Stormwater Management	Erosion and Sediment Control	Flood Damage Prevention	Wetland and Watercourse Protection	Environmental Quality Review	Historic Preservation	Local Natural Area Protection	Renewable Energy Goals/Laws	Other
Town of Bethlehem	Chapter 128. Zoning	Chapter 103. Subdivision Regulations	Chapter 128. Article VII. Special Use Permit and Site Plan Review		Chapter 98. Stormwater Management	§ 128-49. Grading, erosion and sediment control.	Chapter 69. Flood Damage Prevention	Chapter 72. Freshwater Wetlands				Chapter 58. Community Choice Aggregation Program	Chapter 80. Local Waterfront Revitalization Program § 76-4. Storage of rubbish, garbage or junk vehicles outside buildings
	Chapter 165. Zoning	Chapter 145. Subdivision of Land	Chapter 136. Site Plan Review				Chapter 93. Flood Damage Prevention	Chapter 96. Freshwater Wetlands				Chapter 137. Solar Energy	
Town of Coeymans	Chapter 190. Zoning and Land Use		Chapter 190. Zoning and Land Use, Article XI. Site Plan Review and Special Use Permits	Chapter 191. First Prize Center Redevelopment Overlay Zoning District			Chapter 190. Article XVII. Floodplain Management		Chapter 90. Environmental Compliance	Chapter 118. Preservation of Historic Places			
Town of Colonie													

Municipality	Zoning Regulations	Subdivision Review	Site Plan Review	Design Standards/ Overlay Districts	Stormwater Management	Erosion and Sediment Control	Flood Damage Prevention	Wetland and Watercourse Protection	Environmental Quality Review	Historic Preservation	Local Natural Area Protection	Renewable Energy Goals/Laws	Other
Town of Guilderland	Chapter 280. Zoning	Chapter 247. Subdivision of Land	§ 280-53. Site plan approval	§ 280-18.1. Transit-Oriented Development (TOD) District	Chapter 241. Stormwater Management		Chapter 177. Flood Damage Prevention	Chapter 181. Freshwater Wetlands			§ 280-35. Residential cluster/conservation development and open space/parkland Chapter 201. Native Tree Preservation and Protection Chapter 251 Article XVI. Conservation Easement Agreement Exemption	Chapter 150. Community Choice Aggregation Program	
	Zoning Ordinance	Land Subdivision Regulations	Article VI Section 61E. Site Plan Approval				Local Law 2015-1: Flood Damage Prevention Law						
Town of Knox	Zoning 2020 LL01 Codification	Subdivision 1993 Local Law 1			Storm Water Management 2007 Local Law 3		Flood Damage Prevention 2015 LL01	Fresh Water Wetlands Regulation 1976		Historic Preservation Law Local Law 6 of 2019		Community Choice Aggregation 2019 LL07 Solar Collector Systems 2017 LL05 Solar Facilities 2019 LL05	Vehicles, Junk and Junk Storage (1984)
Town of New Scotland													
Town of Rensselaerville	Zoning Law (Amended by LL3 of 2016)		Article X. Site Plans			Article VII Section 2. Erosion and Sedimentation Control	Local Law #2 of 2015 - Flood Damage Prevention	Article VII Section 16. Wetlands and Wetland Buffers				Local Law #1 of 2021 - Solar Energy Law	

Municipality	Zoning Regulations	Subdivision Review	Site Plan Review	Design Standards/ Overlay Districts	Stormwater Management	Erosion and Sediment Control	Flood Damage Prevention	Wetland and Watercourse Protection	Environmental Quality Review	Historic Preservation	Local Natural Area Protection	Renewable Energy Goals/Laws	Other
Town of Westerlo	Zoning Law (last amended by LL3 of 2022)	Land Subdivision Regulation (amended by LL2 of 2007)	Article 9. Site Plan Review				Flood Damage Prevention 2015 LL01	Freshwater Wetlands 1976 LL1				Commercial and Residential Solar Energy Systems 2021 LL04 Battery Energy Storage 2021 LL02 (Revised 2022)	Article 13. Junk and Auto Parts
												Wind Energy Systems 2021 LL03	
	Chapter 169. Zoning		§ 169-14. Planning Board; site plan review		Chapter 141. Stormwater Management		Chapter 87. Flood Damage Prevention	Chapter 90. Freshwater Wetlands				Local Law #1 of 2022 - Opt out of Exemption from Taxation for Certain Energy Systems	
Town/Village of Green Island	Chapter 355. Zoning	Chapter 315. Subdivision of Land	Chapter 355 Article V. Special Use Permits and Site Plan Review		Chapter 308. Stormwater Management		§ 355-13. Flood damage protection					Chapter 160. Community Choice Aggregation Program	
Village of Altamont	Chapter 242. Zoning	Chapter 199. Subdivision of Land				Chapter 95. Clearing, Grading and Erosion Control	Chapter 124. Flood Damage Prevention	Chapter 128. Freshwater Wetlands Chapter 237. Watercourses	Chapter 114. Environmental Quality Review				
Village of Colonie													

Municipality	Zoning Regulations	Subdivision Review	Site Plan Review	Design Standards/ Overlay Districts	Stormwater Management	Erosion and Sediment Control	Flood Damage Prevention	Wetland and Watercourse Protection	Environmental Quality Review	Historic Preservation	Local Natural Area Protection	Renewable Energy Goals/Laws	Other
Village of Menands	Chapter 169. Zoning	Chapter 148. Subdivision of Land	(Repealed 2023)		Chapter 143. Stormwater Management and Erosion and Sediment Control	Chapter 143. Stormwater Management and Erosion and Sediment Control	Chapter 93. Flood Damage Prevention						
	Chapter 119. Zoning	Chapter 102. Subdivision of Land	Chapter 96. Site Plan Review				Chapter 67. Flood Damage Prevention		Chapter 62. Environmental Quality Review			Local Law #5 of 2021 - Regulating Solar Siting	
Village of Voorheesville			Zoning Law (2019)	Wellhead and Aquifer Protection Overlay Areas - Zoning Law (2019) Article V Section C9	Drawer 7. Land Use and Development; 5. Stormwater Management; Soil Erosion and Sediment Control	Drawer 7. Land Use and Development; 5. Stormwater Management; Soil Erosion and Sediment Control	Drawer 7. Land Use and Development; 2. Flood Damage Prevention	Drawer 7. Land Use and Development; 3. Freshwater Wetlands				Article VII Section W. Solar Facilities	
	Zoning Law (2019)	Drawer 7. Land Use and Development; 4. Land Subdivision	Article X. Site Plan Review										

5 HAZARD IDENTIFICATION AND RANKING

5.1 Introduction to Risk Assessment

Risk is the potential for loss or damage when hazards impact a community's people and other assets. It can be thought of as the place where hazards and assets overlap. A risk assessment analyzes and describes this potential risk. It is a data-driven analysis that describes what hazards a community faces, what assets are vulnerable to those hazards, and what impacts might occur. These impacts could include loss of life, injury, economic impacts, property damage, and more. By conducting a risk assessment, communities can then develop strategies to reduce this risk (FEMA, 2023).

The risk assessment process includes the following components:

- Hazard Identification (Section 5) — Determine what hazards may affect a jurisdiction, based on historical data and existing reports.
- Hazard Profiling (Section 6) – Understand what each hazard is, what geographic areas are affected, how severe the hazard can be, how often it has occurred in the past, who and what are vulnerable to the hazard, and how likely it is for the hazard to occur in the future.
- Identify Assets (Section 7) – Identify what is valuable to the County – for instance, people, economic activities, infrastructure, natural resources, historic and cultural resources – in order to understand who and what could be affected by these hazards
- Assess Overall Vulnerability (Section 8) – Understand the overall impacts of hazards to the assets identified in the jurisdiction, based on the sections above, and identify particular vulnerabilities of concern

The HMP Update excludes technological and human-caused hazards from the scope, due to the fact that mitigation projects related to such hazards are not eligible for mitigation grant funding through FEMA and will not be evaluated as part of the HMP. FEMA states that technological hazards and human-caused threats align more with a Threat and Hazard Identification and Risk Assessment (THIRA), as described in the Threat and Hazard Identification and Risk Assessment (THIRA) and Stakeholder Preparedness Review (SPR) Guide (FEMA, 2018).

Albany County is vulnerable to numerous natural hazards. The County conducted a County Emergency Preparedness Assessment (CEPA) analysis update in 2022, which was facilitated by the NYS Division of Homeland Security and Emergency Services (NYS DHSES). During the CEPA update, the County ranked several natural and technological hazards. The 2022 CEPA (Albany County, 2022), the National Risk Index (FEMA, 2023), and the 2023 New York State Hazard Mitigation Plan (DHSES and AVAIL, 2023) were used to inform natural hazard selection and ranking for the HMP update. Details regarding the natural hazards considered are provided within this section of the HMP.

5.2 Hazard Evidence Analyzed

5.2.1 Albany County 2022 CEPA Results

Albany County conducted a County Emergency Preparedness Assessment (CEPA) on June 22, 2022. This event updated the County's previous CEPA that was conducted in 2017. CEPA is a program that was developed by NYS DHSES to analyze hazard risks and the County's capabilities during emergency and disaster events. The hazard analysis completed during the CEPA was used to inform the County's risk and vulnerability assessment for the HMP update.

A number of natural hazards were evaluated during the 2022 CEPA update. The CEPA update also considered multiple technological or human-caused hazards, but these hazards were not considered further for the HMP update. The group analyzed all hazards that were determined to affect Albany County. The CEPA rated each hazard based on the likelihood and consequence ranging from Very High (score of 5) to Very Low (score of 1). Likelihood and Consequence scores are multiplied to provide the overall risk ranking. The Risk Assessment scores are representative of the conversation that Albany County had at this most recent CEPA session.

From the 28 hazards analyzed as part of the CEPA, eight natural hazards were chosen for profiling in the HMP update, and were further grouped into 5 categories: Flood, Drought, Landslide, Severe Storm, and Extreme Temperatures. Three additional natural hazards included in the 2020 CEPA were not included in the HMP Update: animal disease/foreign animal disease, wildfire, and earthquakes. Animal disease/foreign animal disease did not align well with any of FEMA's natural hazard categories. Wildfire was not included because no instances of wildfire have occurred between 1950 and the time of writing of this HMP (NOAA National Centers for Environmental Information, 2023). Although having a medium likelihood and consequence in the 2022 CEPA, Earthquakes were not included because of low magnitude of earthquakes that do occur (U.S. Geological Survey, 2023). These earthquakes are generally between a magnitude of 1 – 3.2 on the Richter scale. Anything under 2.9 is considered a micro earthquake and anything between magnitude 3 – 3.9 are considered a minor earthquake, neither of which have the ability to cause damage and might not even be felt by people in the vicinity (Rafferty, 2023).

The natural hazards listed in the CEPA report are presented in In addition to the local laws and regulations listed in Table 4-1, many municipalities in Albany County engage in community planning activities that support natural hazard mitigation, preparedness, and response, as detailed in the jurisdictional annexes (Appendix A).

Table 4-1 below, along with their associated CEPA Likelihood and Consequence rankings and groupings in the HMP Update. These hazards were grouped into the Flood, Drought, Landslide, Severe Storm, and Extreme Temperatures categories, along with additional sub-hazards as described in Section 5.2.4.

Table 5-1. Albany County Emergency Preparedness Assessment Results

Hazard in CEPA (2022)	CEPA Likelihood Category (2020)	CEPA Consequence Category (2020)	Relative Risk Score	Category in 2024 HMP Update
Flooding	Very High	High	20	Flood
Severe Winter Snowstorm	Very High	High	20	Severe Storm
Ice Storms (at least a ½ inch or more)	High	High	16	Severe Storm
Severe Wind/Tornado	High	Medium	12	Severe Storm
Extreme Temperatures	Very High	Low	10	Extreme Temperatures
Landslides	Medium	Medium	9	Landslides
Hurricanes/Tropical Storm (Wind and Surge)	Medium	Low	6	Severe Storm
Drought	Medium	Low	6	Drought

5.2.2 National Risk Index

The National Risk Index for Albany County profiled the risk that 18 different hazards pose to the County's physical and agricultural assets (FEMA, 2023). According to the report, the County has a risk score of 75.5, which corresponds to Relatively Low. Albany County's risk score is at the 75th percentile for the US and at the 72nd percentile for New York, meaning that its risk score is higher than 75.5% of all census tracts in the nation and higher than 72.6% of the census tracts in New York (FEMA, n.d.). The rankings for the 18 hazards and their status in the HMP Update are provided in Table 5-2.

Table 5-2. Albany County National Risk Index Ratings and Scores

Hazard	Risk Index Rating	Risk Index Score (as a percentile)	Included in 2024 HMP Update?
Riverine Flooding	Relatively Low	62.5	Yes
Cold Wave	Relatively High	84.4	Yes
Ice Storm	Relatively Low	93.7	Yes
Hurricane	Relatively Low	80.9	Yes
Heat Wave	Relatively Low	60.6	Yes
Tornado	Relatively Moderate	87.9	Yes

Hazard	Risk Index Rating	Risk Index Score (as a percentile)	Included in 2024 HMP Update?
Wildfire	Relatively Low	54.5	No
Drought*	No Rating	-	Yes
Landslide	Relatively Moderate	90.9	Yes
Hail	Relatively Low	67.5	Yes
Strong Wind	Relatively Low	57.9	Yes
Earthquake	Relatively Low	80.2	No
Lightning	Relatively Moderate	87.1	No
Winter Weather	Relatively Low	40.9	Yes
Avalanche	-	-	No
Coastal Flooding	Relatively Low	56.1	No
Tsunami	-	-	No
Volcanic Activity	Not Applicable	-	No

*National Risk Index is based on Agricultural (crop only) impacts.

Source: National Risk Index (FEMA, 2023).

5.2.3 Presidential Disaster Declarations

The President of the United States can make an emergency and/or major disaster declaration under the Stafford Act. If a natural disaster causes a severe amount of damage beyond the State and local government response capabilities, the Governor of the impacted State can request a major disaster declaration from the President. The request from the Governor must include an estimate of the amount and severity of damage to public and private sectors, a description of the State and local efforts and resources used to respond to the disaster, an estimate of the type and amount of Stafford Act assistance needed, and certification that the State and local governments will comply with all applicable cost sharing requirements. Counties typically have to meet a per capita threshold of damage that is set by the Federal government to be eligible for assistance. Major disaster declaration assistance generally provides three types of aid: Individual Assistance, Public Assistance, or Hazard Mitigation Assistance. Most declarations will provide either Individual or Public Assistance along with Hazard Mitigation Assistance.

Albany County has been included in 18 Presidential Declared Natural Disasters between 1954 (date of earliest records) and 2023. 1 of these events occurred between 2018 and 2023. Details of these events are provided in Table 5-3. In addition to federally declared disasters, there have been a number of non-declared disaster events, as detailed in Section 6.

Table 5-3. Federal Disaster Declarations Including Albany County, 1954-2023*

Disaster Number	Declaration Date	Incident Type	Title
DR-801-NY	11/10/1987	Severe Winter Storm	New York Severe Winter Storm
EM-3107-NY	3/17/1993	Severe Blizzard	New York Severe Blizzard
DR-1083-NY	1/12/1996	Blizzard	New York Blizzard
DR-1095-NY	1/24/1996	Flood	New York Severe Storms/flooding
DR-1296-NY	9/19/1999	Hurricane	New York Hurricane Floyd
DR-1335-NY	7/21/2000	Severe Storm	New York Severe Storms
EM-3173-NY	2/25/2003	Snowstorm	New York Snowstorm
EM-3184-NY	3/27/2003	Snowstorm	New York Snowstorm
DR-1534-NY	8/3/2004	Severe Storm	New York Severe Storms and Flooding
EM-3262-NY	9/30/2005	Hurricane	New York Hurricane Katrina Evacuation
DR-1692-NY	4/24/2007	Severe Storm	Severe Storms and Inland and Coastal Flooding in New York
EM-3299-NY	12/18/2008	Severe Storm	New York Severe Winter Storm
DR-1827-NY	3/4/2009	Severe Storm	Severe Winter Storm in New York
DR-4020-NY	8/31/2011	Hurricane	Hurricane Irene in New York
EM-3341-NY	9/8/2011	Severe Storm	Remnants of Tropical Storm Lee in New York
EM-3351-NY	10/28/2012	Hurricane	Hurricane Sandy in New York
DR-4322-NY	7/12/2017	Snowstorm	Severe Winter Storms in New York
3565-EM-NY	8/22/2021	Hurricane	New York Hurricane Henri

Sources: (Barton & Loguidice, 2018) (FEMA, 2023)

*Disasters shown only include Natural Hazards. Other Disaster Declarations that occurred during this time frame include Fire and Biological incidents.

5.2.4 2018 HMP

The 2018 Albany County Hazard Mitigation Plan Update profiled the following hazards:

- Extreme Temperatures
- Severe Thunderstorm/Wind/Tornado
- Hurricanes and Tropical Storms
- Floods
- Drought
- Landslides

- Earthquakes
- Winter Storm/Ice Storm
- Wildfires
- Ice Jams

5.3 Hazards Selected

Based on the results from Albany County's 2022 CEPA analysis, the National Risk Index, and Presidential Disaster Declarations, as well as Albany County's 2018 HMP Update and the NYS 2019 HMP, as detailed above, attendees at the Hazard Identification Meeting (1/22/24) selected the hazards to be profiled in the 2024 HMP update. The hazards selected for profiling in the 2024 HMP Update are as follows:

- Flooding – Flooding includes riverine flooding, coastal flooding (including sea level rise), urban flooding, flash flooding, ice jam flooding, flooding due to a dam or levee break, and any other type of flooding that the County may experience.
- Drought – A drought is a period of unusually constant dry weather that causes deficiencies in water supply. The dry weather can last for a short time or for many years, and the deficiencies can be in surface water or groundwater (DHSES and AVAIL, 2023).
- Severe Storm – The “Severe Storm” hazard includes hail, ice storms, wind, thunderstorms and lightning, winter storms, hurricanes, tropical storms, tornado, and any other storm event, as well as associated effects such as power outages.
- Extreme Temperatures (Heat/Cold Wave) – The “Extreme Temperatures” category includes heat, excessive heat, cold and extreme cold weather events, and air pollution (since the effects of air pollution can be exacerbated during heat).
- Landslide - Landslides are defined as the downward and outward movement of slope-forming materials reacting to the force of gravity (U.S. Geological Survey, n.d.).

This selection includes hazards that are commonly recognized to affect the County and includes consideration of the relative risks of the hazards, as discussed in Section 5.2. It excludes hazards which pose a low risk to the County, such as earthquakes and wildfires. It also excludes technological and human-caused hazards, as discussed in Section 5.1.

Hazard groupings were based on the similarity of hazard events, their typical concurrence or their impacts, consideration of hazard grouping in the NYS HMP (DHSES and AVAIL, 2023), and consideration of how hazards have been grouped in Federal Emergency Management Agency (FEMA) guidance documents (FEMA, 2023) (FEMA, 2001) (FEMA, 1997).

5.4 Hazard Ranking

Once the hazards were selected, the Steering Committee completed an updated hazard analysis in 2024 to rank the hazards selected for profiling in the HMP Update for Albany County. For the County itself, the hazard analysis was conducted via a survey, completed by 9 Albany County officials who were on the Executive Steering Committee or were key stakeholders. The survey questions corresponded to the fields in a hazard analysis spreadsheet (Figure 5-1). For the municipalities within Albany County, the hazard analysis spreadsheet was completed during each jurisdictional interview.

Within the spreadsheet, the hazard analysis table was organized by the hazards in rows and the criteria for ranking the vulnerability in columns. For each hazard, four different criteria were analyzed: impact (damage to property, crops, and people), frequency of occurrence, extent of impacts, and level of preparedness. Each of the criteria have three ranking options for measuring their vulnerability. The options for the criteria are as follows: impact - minor, moderate, or major; frequency of occurrence - rare, infrequent, or regular; extent of impacts – one or two problem areas within the county, a significant portion of the county, or county-wide; and level of preparedness - well prepared, moderately prepared, or not prepared.

Figure 5-1. Snapshot of Albany County Hazard Analysis Spreadsheet

Hazard Analysis								
Hazard	Impact (Damage to property, crops, people)		Frequency of Occurrence		Extent of Impacts		Level of Preparedness	
Flooding (Riverine, Coastal, Urban, Flash, Ice Jam, Dam or Levee Break, Other)	Minor	☐	Rare	☐	One or two problem areas within the County	☐	Well Prepared	☐
	Moderate	☐	Infrequent	☒	A significant portion of the County	☒	Moderately Prepared	☒
	Major	☒	Regular	☐	County-wide	☐	Not Prepared	☐
Drought	Minor	☒	Rare	☒	One or two problem areas within the County	☒	Well Prepared	☐
	Moderate	☐	Infrequent	☐	A significant portion of the County	☐	Moderately Prepared	☐
	Major	☐	Regular	☐	County-wide	☐	Not Prepared	☒
Severe Storm (Hail, Ice		☐		☐		☐		☐

As shown in Table 5-4, the ranking options for each criteria are all associated with a value of 1, 2 or 3. The lowest value (1) represents a low vulnerability and the highest value (3) represents a high vulnerability. The ranking options that have a value of 1 are minor, rare, one or two problem areas within the County, and well prepared. The ranking options with a value of 2 are moderate, infrequent, a significant portion of the County, and moderately prepared. The ranking options with a value of 3 are major, regular, County-wide, and not prepared.

Table 5-4. Hazard Analysis Criteria

Score	Impact (Damage to property, crops, people)	Frequency	Extent	Level of Preparedness	Total Score	Overall Vulnerability
1	Minor	Rare	One or two problem areas within the County	Well Prepared	4 to 5	Low
2	Moderate	Infrequent	A significant portion of the County	Moderately Prepared	6 to 8	Moderate
3	Major	Regular	County-wide	Not Prepared	9 to 12	High

After checking off the rank of each criteria for each hazard, the values that correspond to the ranking option are displayed in another table in the spreadsheet, as shown in Table 5-4. Based on the ranking options described above, each criteria for each hazard is assigned a value of either 1, 2, or 3. In addition, the table contains an overall vulnerability column as well as a jurisdiction rank column. The overall vulnerability column is the sum of all of the values for each specific hazard. If the overall total vulnerability score has a value of 4-5, the overall vulnerability is considered low. It is considered moderate vulnerability if the total score has a value of 6-8. If the overall vulnerability score has a value of 9-12, the vulnerability is considered high. The jurisdiction rank column is numbered 1, 2, 3... to show which hazard events have the highest to lowest ranking, with a ranking of 1 being the highest and signifying a greater priority to the jurisdiction. The 2024 hazard analysis results for the County are summarized in Table 5-5.

Table 5-5. Hazard Vulnerability by Event for Albany County

Hazard Event	Impact (Damage and Injuries)	Frequency of Occurrence	Extent of Impacts	Level of Preparedness	Overall Vulnerability	Jurisdiction Rank
Severe Storm (Hail, Ice Storms, Wind, Thunderstorms and Lightning, Winter Storms, Hurricane, Tropical Storms, Tornado, Power Outage)	2	3	3	2	10 – High	1
Flood (Riverine, Coastal, Urban, Flash, Ice Jam, Dam or Levee Break, Other)	3	2	2	2	9 – High	2
Extreme Temperatures (Cold Wave, Heat Wave, Air Pollution Effects)	2	2	3	2	9 – High	3
Drought	1	1	1	3	6 – Moderate	4
Landslide	1	1	1	2	5 – Low	5

The rankings from survey completed by Albany County officials were ultimately chosen as the hazard rankings for this HMP. These rankings took into account the evidence presented above, as well as additional evidence, which were presented to the Executive Steering Committee and key stakeholders before they completed the survey.

5.4.1 Comparison to Previous Plans

Table 5-6 provides a comparison of the hazard rankings for the HMP update alongside the 2018 HMP and 2022 CEPA hazard analyses. Technological and human-caused hazards are excluded, as this 2024 HMP Update focuses on natural hazards.

Table 5-6. Hazard Ranking Comparison

Hazard	Hazard Category	2018 HMP Rank	2022 CEPA Rank	2024 HMP Update Rank	Affected by Climate Change
Flood (Riverine, Coastal, Urban, Flash, Ice Jam, Dam or Levee Break, Other)	Natural	Varies (Medium to Low)	High	High	Yes
Severe Storm (Hail, Ice Storms, Wind, Thunderstorms and Lightning, Winter Storms, Hurricane, Tropical Storms, Tornado, Power Outage)	Natural	Varies (High to Low)	Varies (High to Low)	High	Yes
Extreme Temperatures (Cold Wave, Heat Wave, Air Pollution Effects)	Natural	Medium	Moderate	High	Yes
Landslide	Natural	Low	Moderate	Low	Yes
Drought	Natural	Low	Low	Moderate	Yes

The rankings for flood, severe storm, and landslide are in line with rankings from the 2018 HMP and the 2022 CEPA, while extreme temperatures and drought were both ranked more highly than they were in these previous plans. The higher ranking of extreme temperatures took into account the numerous extreme temperature events that have occurred since the last plan update (see Section 6.4.5), as well as the higher future probability of extreme heat events (see Section 6.4.6). The higher ranking of drought took into account the higher future probability of drought events (see Section 6.3.6) as well as the County's lack of preparedness for drought as indicated in Table 5-5 above.

6 HAZARD PROFILES

The natural hazards that were selected for profiling in the HMP update are further detailed below. These include flood, drought, severe storm, extreme temperatures, and landslide. The sub-hazards are described in Section 5.3.

*The County described significant concerns about air quality, such as the smoke that the County experienced in the summer of 2023, due to wildfires in Canada. Since air quality can have especially detrimental health effects during a heat wave, air pollution concerns have been grouped under "Heat Wave." Wildfires were not profiled in this HMP update, as discussed in Section 5.

The following sections include a description of the hazard, geographic extent and frequency within Albany County, historical occurrences and damage estimates, and the probability of future hazard events.

Hazard event information was compiled from local records and publicly available data from the 2023 NYS Hazard Mitigation Plan (MitigateNY), National Oceanic and Atmospheric Administration (NOAA) National Climatic Data Center (NCDC), Climate Mapping for Resilience & Adaptation (CMRA), U.S. Army Corps of Engineers (USACE) Cold Regions Research and Engineering Laboratory (CRREL), and other news reports. Some language in this section was taken directly from the 2023 New York State Hazard Mitigation Plan (DHSES and AVAIL, 2023). Damage estimates were compiled using NOAA data (National Oceanic and Atmospheric Administration, n.d.), National Risk Index data (FEMA, 2023), and National Weather Service data (National Weather Service, n.d.).¹

6.1 Flood

6.1.1 Description

According to FEMA, a flood is "A general and temporary condition of partial or complete inundation of 2 or more acres of normally dry land area or of 2 or more properties (at least 1 of which is the policyholder's property) from:

- Overflow of inland or tidal waters; or
- Unusual and rapid accumulation or runoff of surface waters from any source; or
- Mudslides (i.e., mudflows) which are proximately caused by flooding and are akin to a river of liquid and flowing mud on the surfaces of normally dry land

¹ The NCDC damage estimates are subject to the NCDC disclaimer that while the National Weather Service makes an effort to use the best available information to document the occurrence of storms and other significant weather data, some information may be unverified. The National Weather Service (NWS) estimates damage costs using all available data, but property and crop damages listed for individual storms are considered broad estimates and total damages are often higher than those reported by the NCDC.

areas, as when earth is carried by a current of water and deposited along the path of the current.; or

- o Collapse or subsidence of land along the shore of a lake or similar body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels that result in a flood as defined above" (FEMA, 2020).

Flooding can occur during any season, but typically occurs during prolonged rainfalls over several days, intense rainfalls over a short period of time, when snowmelt accumulates faster than soils can absorb it, or when an ice or debris jam causes a river or stream to overflow into the surrounding area. Flooding can also result from the failure of a water control structure, such as a levee or dam (DHSES and AVAIL, 2023).

There are many types of floods that can occur. For the purpose of this HMP, riverine flooding, coastal flooding, urban flooding, flash flooding, ice jam flooding, and flooding due to a dam or levee break are the main flood types of concern for the County. These types of flood are further discussed below. However, the flood category includes any type of flood that the County may experience.

Riverine Flooding

Riverine flooding occurs when streams and rivers exceed their natural or constructed capacity and water overflows the banks, spilling out into adjacent low-lying, dry land. Most riverine floods occur after long periods of persistent precipitation that cause rivers to gradually rise and top their banks. Riverine flooding can also result from snowmelt, ice jams, and downstream constrictions that cause water to back up and overflow. Riverine floodwaters can retreat quickly or may take a few weeks to recede and can inundate roads, crops, and homes, wash away bridges, cause soil bank erosion, and, in extreme cases, result in fatalities. The slower onset of riverine flooding allows for the monitoring of rivers and streams and provides officials (and the media) time to establish warnings and/or evacuation orders for areas that are expected to be impacted. Riverine flooding can lead to property damage, disruptions to transportation and infrastructure, and risks to public safety (DHSES and AVAIL, 2023).

Coastal Flooding

Coastal flooding is the inundation of seawater over coastal land that is normally dry. This is often caused by high or rising tides, storm surge or other factors that elevate the water level above the normal tide levels. The extent to which an area may flood depends on the coastal topography, strength of the storm generating the storm surge, and the depth of the water along the coast. The east coast of the United States experiences the most coastal flooding events in the nation each year (DHSES and AVAIL, 2023).

While Albany County is not located on an ocean, coastal flooding still affects parts of the County. This is because of the Hudson River Estuary, which can be viewed as an extension of the Atlantic Ocean. When sea level rises in the Atlantic Ocean, it also rises

in the Hudson River Estuary. The sea level on the Hudson River has risen about a foot over the last century (Scenic Hudson, 2023).

Hudson River Coastal Risk Areas in Albany County are shown in Figure 6-1. According to the NYS DOS, "Risk Areas help illustrate the geographic distribution of coastal risk along the Hudson River shoreline of Rockland, Orange, Ulster, Greene, Albany, Rensselaer, Columbia, Dutchess, and Putnam Counties." The risks identified in this map includes flooding, erosion, waves and storm surge (NYSDOS, 2024).

Figure 6-1. Hudson River Coastal Risk Areas in Albany County



Data Source: Hudson River Coastal Risk Areas, 2024 (NYSDOS, 2024)

Urban Flooding

Urban flooding refers to the inundation of urban areas, such as cities and towns, caused by heavy rainfall or the overflowing of drainage systems. Unlike rural areas with more natural land cover and porous surfaces, urban environments have extensive impervious surfaces like roads, pavements, and buildings that limit the natural infiltration of rainwater into the ground. This results in increased surface runoff, which can overwhelm drainage systems and lead to flooding in urban areas. Additionally, urbanization often alters natural watercourses and wetlands, further reducing the area available for water storage and drainage (DHSES and AVAIL, 2023).

In many cases, urban flooding has little to do with bodies of water and happens in places that are well outside of mapped floodplains. Even small amounts of rain can overwhelm the deteriorated or inadequate infrastructure found in many urban areas, especially in impoverished, neglected, and/or socioeconomically isolated urban communities (DHSES and AVAIL, 2023).

Flash Flooding

A flash flood is a rapid and intense flood event that occurs within a short period, typically within six (6) hours, and often within (3) hours, of heavy rainfall. Two key factors that contribute to flash flood are how hard the rain falls (rainfall intensity) and how long the rain lasts (duration). Flash floods are characterized by their swift onset and high intensity (DHSES and AVAIL, 2023).

Most flash flooding is caused by slow-moving or stalled thunderstorms, by thunderstorms repeatedly moving over the same area, or by heavy rains from hurricanes and tropical storms. Heavy, sustained rain can create rapid flooding within a few hours or even minutes, and flooding can occur miles away from where the rain fell (DHSES and AVAIL, 2023).

Ice Jam Flooding

An ice jam, or ice dam, happens when ice clumps together to reduce or block the flow of a river, which leads to flooding or flash flooding. Ice jams can develop near river bends, mouths of tributaries, points where the river slope decreases, downstream of dams, and upstream of bridges or obstructions.

The process of ice jam formation typically involves the following steps:

- Freezing: As temperatures drop, the surface of the river or stream begins to freeze, forming a layer of ice.
- Ice Accumulation: As the winter continues, more ice accumulates and thickens on the river's surface.
- Breaking and Movement: Fluctuations in water flow or warming temperatures cause the ice to break apart and move downstream.
- Obstruction and Accumulation: The moving ice encounters obstacles, such as bends in the river or debris, causing it to pile up and form a jam.

- Backwater Effect: As the ice jam grows, it can create a temporary dam effect upstream, causing water to back up and leading to localized flooding.

Once an ice jam forms, it can persist until it breaks apart or melts due to rising temperatures. The breaking of an ice jam can result in a rapid surge of water downstream, leading to flooding in affected areas (DHSES and AVAIL, 2023).

Dam or Levee Break

A dam failure is usually caused by structural damage or failure, and causes rapid, uncontrolled release of enclosed water from a lake or reservoir. According to the Association of State Dam Safety Officials, there are five main causes of dam failure: overtopping, foundation defects, cracking, inadequate maintenance and upkeep, and piping. Overtopping is the most frequent cause, accounting for approximately 34% of all dam failures.

A levee break occurs when the levee wall breaks away, creating a hole for water to flow through, or when water rises high enough to flow over the top of the levee during severe flooding (DHSES and AVAIL, 2023). More information on dams and other high impact facilities in the County and in surrounding areas can be found in Section 7.3.5.

6.1.2 Location

Several areas throughout Albany County are located within the flood zones of the Hudson and Mohawk Rivers as well as along various creeks and streams.

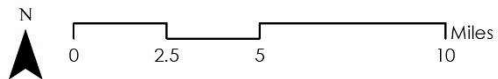
Mapped floodplains in Albany County are shown in Figure 6-2. According to this figure, the 1% and 0.2% annual chance of flood hazard zones are located along the bodies of water located throughout the County. Approximately 5.93% of the County is in a mapped 1% chance floodplain, and 6.47% of the County is in a mapped 0.2% chance floodplain. Additionally, Figure 6-3 displays historical flood events in Albany County from 1996 to early 2023.

Figure 6-2. Floodplains in Albany County

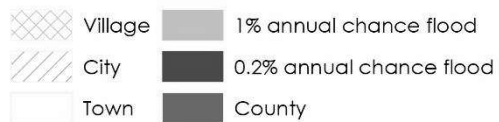


FloodPlains

Albany County



Data Source
FEMA National Flood Hazard Layer (October 2019)



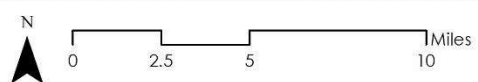
Data Source: FEMA National Flood Hazard Layer (October 2019). The 2019 data reflects the most updated Federal Insurance Rate Maps (FIRMs), which were updated in March of 2015 (FEMA, 2024).

Figure 6-3. Historical Flood Events in Albany County, 1996-2023



Historical Flood Events

Albany County

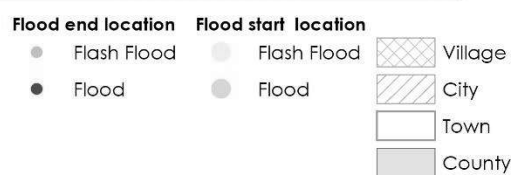


Data Source

NOAA's National Weather Service (NWS), May 2023

Notes

Points are depicted only for flood events where location-specific information was available. Some points may overlap. Availability of flood event data is from 1996 - present



Data Source: National Weather Service (May 2023)

6.1.3 Extent

The extent of flooding associated with a 1% probability of occurrence – the “100-year flood” or “base flood” – is used as regulatory boundaries by a number of federal, state and local agencies. Also referred to as the “special flood hazard area”, this boundary is a convenient tool for assessing vulnerability and risk in flood prone.

FEMA's DFIRM data, as found in the FEMA National Flood Hazard Layer, was used to identify the location of flood hazard areas in Albany County. The FEMA Flood Insurance Rate Map (FIRM) data uses advanced engineering and refined standards to improve data quality and is regarded as FEMA's most reliable flood hazard data. FEMA's DFIRM mapping was overlaid upon the Albany County GIS Base Map to summarize the flood mapping and flood risk areas for all municipalities in Albany County, and the results are presented in Table 6-1. According to the FIRM data, high/moderate flood risk zones exist in all Albany County municipalities. Out of the municipalities in Albany County, the Town/Village of Green Island has by far the highest proportion of its area within 0.2% Annual Chance Floodplain, followed by the Village of Menands and the City of Watervliet (Table 6-1).

Table 6-1. Summary of Area in Floodplains*

Jurisdiction	Total Area (square miles)	Percent of Total Area in 1% Annual Chance Floodplain	Percent of Total Area in 0.2% Annual Chance Floodplain**
Albany, City of	22.0	9.99%	11.61%
Altamont, Village of	1.2	10.22%	10.24%
Berne, Town of	64.7	3.51%	3.52%
Bethlehem, Town of	50.0	8.83%	9.35%
Coeymans, Town of	51.6	10.04%	10.57%
Cohoes, City of	4.3	17.80%	20.54%
Colonie, Town of	51.2	6.14%	6.91%
Colonie, Village of	3.3	0.00%	0.00%
Green Island, Village of	1.0	55.42%	70.77%
Guilderland, Town of	57.5	8.97%	9.97%
Knox, Township of	42.0	1.67%	1.67%
Menands, Village of	3.3	33.44%	39.75%

Jurisdiction	Total Area (square miles)	Percent of Total Area in 1% Annual Chance Floodplain	Percent of Total Area in 0.2% Annual Chance Floodplain**
New Scotland, Town of	55.9	3.68%	3.88%
Ravena, Village of	1.5	2.48%	2.51%
Rensselaerville, Town of	61.9	2.60%	2.60%
Voorheesville, Village of	2.1	8.53%	9.54%
Watervliet, City of	1.5	22.30%	37.38%
Westerlo, Town of	58.5	2.65%	2.99%
Albany County (Total)	533.0	5.93%	6.47%

**If a Village lies within a Town, the area within the Village was excluded from the Town's area in the creation of this table. Additionally, calculated areas and percentages are informational estimates only and are not to be used for official purposes.*

***The 0.2% annual chance floodplain in this table includes the area in the 1% annual chance floodplain.*

Data Source: FEMA National Flood Hazard Layer (October 2019). The 2019 data reflects the most updated Federal Insurance Rate Maps (FIRMs), which were updated in March of 2015 (FEMA, 2024).

Several factors determine the severity of floods, including intensity and duration of rainfall or other water sources. A large amount of rainfall over a short period can result in flash flood conditions. Even a small amount of precipitation can result in flood events in locations where the soil is already saturated or in areas with large amounts of impervious surfaces (i.e., large parking lots, roadways, developments, etc.). Topographic and cover type characteristics are also factors that contribute to the severity of flood events. Water runoff is greater in areas with steep slopes and little or no vegetative ground cover. Frequency of inundation depends on the climate, soil, and channel slope of a particular area.

6.1.4 Impacts and Vulnerability

According to the County's hazard analysis in Section 5.4, Albany County is highly vulnerable to floods based on this hazard's major impact (high potential for damage to property, crops and/or people), infrequent occurrence, moderate extent (affects a significant portion of the jurisdiction), and moderate level of preparedness. This assessment is backed by additional information in Section 5 and Section 6.1.

Flooding can cause widespread damage throughout rural, urban, and suburban areas including severe water damage to buildings and building contents, contamination of drinking water sources, sewage backup, bridge and road closures, transit service disruptions, damage to electrical and communication networks, biodiversity loss, and agricultural loss. Existing drainage systems in New York State were built for past precipitation levels. As storms become more intense, like Ida in 2021 and the rain waters that devastated NYC and Long Island on September 30th, 2023, these drainage systems will continue to be overwhelmed. This risk has been actualized across New York State and will remain as infrastructure investments lag behind the changing climate (DHSES and AVAIL, 2023).

Flood events present many potential cascading effects on individuals and communities, such as loss of hourly wages for those unable to reach their workplaces; hours lost in traffic rerouting and traffic challenges; disruptions in local, regional, and national supply chains; school closings with resultant impacts on parents; temporary or permanent displacement from homes; and health impacts. Floods may cause injuries and loss of life (DHSES and AVAIL, 2023).

In Albany County, the County and jurisdictions are particularly concerned about the impacts of flooding on specific geographic areas within the floodplain, including trailer parks, roads, farms, and remote residents. Jurisdictions mentioned older adults, low-income residents, and people with disabilities as being particularly vulnerable to hazards in the County in general; migrant populations, transient populations, farmers, and others were also mentioned. The County was concerned with having adequate provision of shelters for residents whose homes flood, and enhancing hazard warning systems. The availability of funding for maintaining infrastructure, such as culverts, was cited as an issue in many jurisdictions. Additionally, the Albany County Climate Analysis, funded by AT&T, noted that climate change will increase the potential flood risk to buildings near cities in the County, and that Western Hill Towns with greater mobile home and aging populations would see an increased risk.

Table 4-5 of the County's annex (Appendix A) shows the number and estimated structure value of parcels in the County that intersect 1% chance and 0.2% chance floodplains. In total, there are 6,047 parcels in the 1% annual chance floodplain, with an approximate structure value of \$2.3 billion. There are 7,568 parcels in the 0.2% annual chance floodplain (inclusive of the parcels in the 1% annual chance floodplain), with an approximate structure value of \$2.6 billion. This is one measurement of the impact of flooding on the County.

Additionally, NFIP policy statistics, claims statistics, and repetitive and severe repetitive loss properties are described in Section 6.1.5, quantifying some of the damage from flooding. The County's overall vulnerability to hazards in this Hazard Mitigation Plan Update is described in Section 8.

6.1.5 National Flood Insurance Program

Long-term mitigation of potential flood impacts can be best achieved through comprehensive floodplain management regulations and enforcement at a local level. The National Flood Insurance Program (NFIP), regulated by FEMA, aims to reduce the impact of flooding on private and public structures by providing affordable insurance for property owners. The program encourages local jurisdictions to adopt and enforce floodplain management regulations in order to mitigate the potential effects of flooding on new and existing infrastructure (FEMA, 2023).

Communities that participate in the NFIP adopt floodplain ordinances. If an insured structure incurs damage costs that are over 50% of its market value, the owner must comply with the local floodplain regulations when repairing or rebuilding the structure. A structure could be rebuilt at a higher elevation, or it could be acquired and demolished by the municipality or relocated outside of the floodplain. Insured structures that are located within floodplains identified on FEMA's Flood Insurance Rate Maps (FIRMs) may receive payments for structure and content losses if impacted by a flood event.

The NFIP and other flood mitigation actions are important for the protection of public and private property and public safety. Flood mitigation is valuable to communities because it:

- Creates safer environments by reducing loss of life and decreasing property damage;
- Allows individuals to minimize post-flood disaster disruptions and to recover more quickly (homes built to NFIP standards generally experience less damage from flood events, and when damage does occur, the flood insurance program protects the homeowner's investment); and
- Lessens the financial impacts on individuals, communities, and other involved parties.

Albany County Floodplain Mapping

In Albany County, all municipalities' floodplains are mapped out in their entirety via FEMA's Flood Insurance Rate Map (FIRM) panels, which are the official flood maps utilized in the NFIP. For the entire County, these FIRM panels are also available in digital format for download and use in geographic information systems (GIS). FEMA floodplain mapping information and products, including those related to Albany County, can be accessed via FEMA's Map Service Center and National Flood Hazard Layer (NFHL) ArcGIS Viewer: <https://www.fema.gov/flood-maps/national-flood-hazard-layer>. Information from this digital FIRM data was incorporated into this Hazard Mitigation Plan where appropriate (for example, when identifying which critical facilities are located in the floodplain).

Albany County National Flood Insurance Program (NFIP) Participation

All 18 municipalities within Albany County participate in the NFIP. None of the municipalities in Albany are Community Rating System eligible communities. The CRS is a voluntary incentive program that recognizes and encourages floodplain management activities at the community level. Flood insurance premiums are discounted in CRS communities to reflect the reduced flood risk that results from community actions to meet the program goals: reduce flood loss, facilitate accurate insurance ratings, and promote flood insurance awareness (FEMA, 2023).

NFIP Policy and Claims Statistics

NFIP policy data and claims data as of March 12, 2024 was provided by FEMA to support the development of this HMP. Table 6-2 summarizes the NFIP policy data, while Table 6-3 summarizes the NFIP claims data. Overall, the City of Albany has the largest number of active policies (149), followed by the City of Watervliet with the second largest number of policies (118). The Town of Colonie has the largest number of claims (99), followed by the City of Albany (67). Specific information for each municipality is also summarized in each jurisdictional annex (Appendix A).

Table 6-2. NFIP Policy Statistics for Albany County

Community Name	Number of Policies	Total Premium/Total Paid	Average of Total Premium/Total Paid
Albany, City of	149	\$257,200	\$1,726
Altamont, Village of	22	\$12,866	\$585
Berne, Town of	9	\$6,954	\$773
Bethlehem, Town of	38	\$47,173	\$1,241
Coeymans, Town of	29	\$73,646	\$2,540
Cohoes, City of	31	\$33,289	\$1,074
Colonie, Town of	107	\$100,530	\$940
Colonie, Village of	2	\$1,317	\$659
Green Island, Village of	106	\$178,322	\$1,682
Guilderland, Town of	35	\$37,032	\$1,058
Knox, Township of	2	\$772	\$386
Menands, Village of	44	\$76,607	\$1,741
New Scotland, Town of	16	\$13,029	\$814
Ravena, Village of	6	\$4,450	\$742

Community Name	Number of Policies	Total Premium/Total Paid	Average of Total Premium/Total Paid
Rensselaerville, Town of	7	\$5,838	\$834
Voorheesville, Village of	9	\$10,838	\$1,204
Watervilet, City of	118	\$106,448	\$902
Westerlo, Town of	4	\$3,345	\$836
Total	734	\$969,656	\$1,321

Source: FEMA-provided data, March 12, 2024. Note: Records were organized based on the NFIP Community Book's Community ID and Name convention.

Table 6-3. NFIP Claims Statistics for Albany County

Community Name	Number of Claims	Total Premium/Total Paid	Average of Total Premium/Total Paid
Albany, City of	67	\$788,694	\$11,772
Altamont, Village of	13	\$32,587	\$2,507
Berne, Town of	4	\$36,692	\$9,173
Bethlehem, Town of	30	\$259,070	\$8,636
Coeymans, Town of	23	\$602,072	\$26,177
Cohoes, City of	28	\$86,331	\$3,083
Colonie, Town of	99	\$1,414,654	\$14,289
Colonie, Village of	0	\$0	\$0
Green Island, Village of	5	\$29,307	\$5,861
Guilderland, Town of	15	\$323,567	\$21,571
Knox, Township of	2	\$0	\$0
Menands, Village of	9	\$69,503	\$7,723
New Scotland, Town of	12	\$185,719	\$15,477
Ravena, Village of	5	\$15,003	\$3,001
Rensselaerville, Town of	5	\$211,201	\$42,240
Voorheesville, Village of	11	\$63,431	\$5,766

Community Name	Number of Claims	Total Premium/Total Paid	Average of Total Premium/Total Paid
Watervilet, City of	18	\$66,328	\$3,685
Westerlo, Town of	3	\$19,350	\$6,450
Total	349	\$4,203,511	\$12,044

Source: FEMA-provided data, March 12, 2024. Note: Records were organized based on the NFIP Community Book's Community ID and Name convention.

Repetitive and Severe Repetitive Loss Statistics

According to FEMA, a repetitive loss structure is an NFIP-insured structure that has had at least two paid flood losses of more than \$1,000 each in any 10-year period since 1978. In Albany County, between 1983 and March 12, 2024, there have been a total of 99 repetitive losses spread between 34 properties, as shown below in Table 6-4. Based on the first loss for each property, 27 of these properties were single-family homes, 3 were two to four family homes, and 4 were designated as some other type of nonresidential use. Collectively, these properties have incurred payments totaling \$2,310,194.19, with an average payment of \$23,335.29 per loss. The Town of Colonie had the highest number of repetitive loss properties (14), followed by the City of Albany (7). Of the 34 repetitive loss properties, 5 are designated as severe repetitive loss properties by the NFIP.

Table 6-4. NFIP Repetitive Loss Statistics for Albany County

Community Name	Number of Repetitive Loss Properties	Total Losses	Total Paid
Albany, City of	7	15	\$297,873.21
Altamont, Village of	1	2	\$7,251.33
Berne, Town of	0	0	\$0
Bethlehem, Town of	4	9	\$119,546.32
Coeymans, Town of	2*	4	\$291,539.30
Cohoes, City of	1	2	\$10,473.96
Colonie, Town of	14	52	\$1,052,668.55
Colonie, Village of	0	0	\$0
Green Island, Village of	0	0	\$0
Guilderland, Town of	2	5	\$304,574.78
Knox, Township of	0	0	\$0

Community Name	Number of Repetitive Loss Properties	Total Losses	Total Paid
Menands, Village of	1	2	\$37,499.46
New Scotland, Town of	1	4	\$143,405.63
Ravena, Village of	0	0	\$0
Rensselaerville, Town of	0	0	\$0
Voorheesville, Village of	1	4	\$45,361.65
Watervliet, City of	0	0	\$0
Westerlo, Town of	0	0	\$0
Total	34	99	\$2,310,194.19

Source: FEMA-provided data, March 12, 2024. Note: Records were organized based on the NFIP Community Book's Community ID and Name convention.

*One of the 2 repetitive loss properties located in the Town of Coeymans was not designated as a repetitive loss property by the NFIP, but was designated as a repetitive loss property by the Floodplain Management Association (FMA).

6.1.6 Historical Hazard Occurrences and Damage Estimates

Table 6-5 shows the flood events that the County has experienced between 2018 and 2023, and their estimated damages. No flood events in that time period were given federal disaster declarations, as shown in Section 5.2.3.

Table 6-5. Flood Event Records, 2018-2023

Location	Event Type	Date	Estimated Property Damage	Estimated Crop Damage
Bethlehem	Flash Flood	7/5/2018	\$5,000	0
Colonie	Flood	7/27/2018	0	0
Bethlehem	Flash Flood	8/3/2018	\$2,000	0
Albany	Flash Flood	8/3/2018	\$1,000	0
New Scotland	Flash Flood	8/3/2018	\$1,000	0
Watervliet	Flash Flood	8/3/2018	\$1,000	0
Albany	Flash Flood	8/7/2018	\$1,000	0
Colonie	Flash Flood	8/7/2018	0	0
Colonie	Flood	1/24/2019	\$10,000	0

Location	Event Type	Date	Estimated Property Damage	Estimated Crop Damage
Green Island	Flood	1/25/2019	\$350,000	0
Colonie	Flood	4/15/2019	\$1,000	0
Cohoes	Flood	8/21/2019	0	0
Green Island	Flood	8/21/2019	0	0
Colonie	Flood	8/21/2019	0	0
Colonie	Flash Flood	8/4/2020	\$1,000	0
Bethlehem	Flash Flood	8/4/2020	\$4,000	0
Albany	Flash Flood	8/4/2020	\$1,000	0
Menands	Flood	12/25/2020	0	0
Coeymans	Flood	12/25/2020	0	0
Westerloo	Flood	12/25/2020	0	0
Voorheesville	Flood	12/25/2020	0	0
Albany	Flood	6/8/2021	\$10,000	0
Colonie	Flood	6/8/2021	0	0
New Scotland	Flash Flood	8/13/2021	0	0
Bethlehem	Flash Flood	8/13/2021	0	0
Green Island	Flood	4/7/2022	0	0
Coeymans	Flood	4/7/2022	0	0
Bethlehem	Flash Flood	5/15/2022	0	0
Albany	Flash Flood	5/15/2022	0	0
Bethlehem	Flash Flood	8/4/2022	0	0
Bethlehem	Flood	9/13/2022	0	0
Bethlehem	Flood	10/13/2022	0	0
Coeymans	Flood	12/23/2022	0	0
Colonie	Flood	6/26/2023	0	0
Green Island	Flood	7/10/2023	\$5,000	0
Cohoes	Flood	7/13/2023	0	0
New Scotland	Flash Flood	7/18/2023	\$10,000	0
Voorheesville	Flash Flood	7/18/2023	\$10,000	0

Location	Event Type	Date	Estimated Property Damage	Estimated Crop Damage
Colonie	Flash Flood	7/18/2023	\$15,000	0
Bethlehem	Flash Flood	7/18/2023	\$5,000	0

Source: (NOAA National Centers for Environmental Information, 2023).

According to the FEMA National Risk Index's Expected Annual Loss (\$) Data, flooding is expected to cause \$857,209 in annual total losses (FEMA, 2023). This includes riverine flooding (\$698,696 in Expected Annual Losses) and coastal flooding (\$158,513 in Expected Annual Losses).

HAZUS Overview

HAZUS was used as an additional tool to analyze potential damages to Albany County from flooding. HAZUS is a nationally standardized, open source, GIS-based risk modeling software developed by the Federal Emergency Management Agency (FEMA) and the National Institute of Building Sciences (NIBS). The HAZUS program is a multi-hazard loss estimation model capable of identifying areas which are vulnerable to a variety of natural hazards including floods, tsunamis, hurricanes, and earthquakes. HAZUS can quantify and map risk vulnerability information including physical damages, economic losses, cost-effectiveness, and social impacts, and is a useful tool in hazard mitigation, recovery, preparedness, and response planning. HAZUS was utilized to assess what areas, infrastructure, and populations are most vulnerable to flooding using the flood modeling tool.

A HAZUS study region was developed for Albany County, which consisted of approximately 64 square miles and included 4,746 census blocks. The region contains over 133 thousand households with a total population of 314,684 according to the 2010 Census Bureau data utilized by the model. The model's building stock inventory estimates a total of 105,181 buildings in the region with a total replacement value of over \$ 62,614 million, excluding building contents. Approximately 91.15% of the buildings and 60.01% of the building value included in the study area's building inventory are associated with residential housing. No additional user defined infrastructure inventory data was added to the model.

Flood Model Methodology

The HAZUS flood model was set up using United States Geological Survey Digital Elevation Model (DEM) coverage for the study area, the extent and source of which are determined within HAZUS' model setup resources. Due to the geographic setting of the study region and the lack of coastal areas, the model was set up for riverine flood hazard analysis only. The option to run a coastal flood hazard analysis was not permitted by the software due to its geographic location inland. The study region's stream network was determined using the model's automated stream network

development routine which utilized a user defined drainage area of 3 square miles for stream density determination. The DEM coverage and developed stream network were processed by the model for riverine hydrologic analysis and floodplain extents. Following establishment of the study region's hydrology and floodplains, the model was run to determine physical, economic, and social impacts of flood events for the 1% chance flood and 0.2% chance flood return periods. HAZUS analysis was run on the County-level, and model output represents Countywide damages, economic losses, and social impacts. The HAZUS flood model summary reports are provided in Appendix F.

HAZUS Flood Model Results

HAZUS estimates total economic annualized losses for buildings in Albany County to be \$1,552.70 million and \$1,948.22 million for the 1% chance flood and 0.2% chance flood return periods, respectively. The HAZUS loss estimates are much greater than damages that have been reported with historic severe flood events. Direct economic annualized losses estimated for the 1% chance flood and 0.2% chance flood return periods are summarized below in Table 6-4, including capital stock losses of buildings and their contents, as well as associated income losses.

Table 6-4. HAZUS Flood Model: Direct Economic Annualized Losses for Buildings

Return Period	Capital Stock Losses (Millions of Dollars)			Income Losses (Millions of Dollars)				Total Loss (Millions of Dollars)
	Building Loss	Contents Loss	Inventory Loss	Relocation Loss	Capital Related Loss	Wages Losses	Rental Income Loss	
1% Annual Chance Flood Event	174.26	327.67	29.17	111.89	238.97	606.04	64.70	1,552.70
0.2% Annual Chance Flood Event	231.30	445.85	38.40	135.10	286.39	731.65	79.53	1,948.22

HAZUS estimated the total debris generated from 1% chance and 0.2% chance flood events to be 4,598 tons and 6,123 tons, respectively. The estimated tonnage of debris generated from the 1% chance flood and 0.2% chance flood return periods are summarized in Table 6-5, including debris generated from building finishes, structure, and foundation.

Table 6-5. HAZUS Flood Model: Debris Generation

Return Period	Debris Generated (Tons)			
	Finishes	Structure	Foundation	Total Debris
1% Annual Chance Flood Event	3,978	345	275	4,598
0.2% Annual Chance Flood Event	5,117	563	443	6,123

HAZUS estimates the total population displaced from a 1% chance and 0.2% chance flood events to be 8,395 and 10,927 people, respectively. These results suggest that between 2.67% and 3.47% of the total study region population would be displaced as a result of a 1% chance flood event and 0.2% chance flood event. Within these displaced populations, some individuals will require short term accommodation in temporary public shelters. HAZUS results indicate that between 0.48% and 0.56% of the study region population would require shelter as a result of a 1% chance and 0.2% chance flood event. A summary of the estimated number of displaced persons and persons requiring short term shelter for each flood return period is provided in Table 6-6.

Table 6-6. HAZUS Flood Model: Shelter Requirements

Return Period	Persons Seeking Short-Term Shelter (and percentage of total County population)	Displaced Population (and percentage of total County population)
1% Annual Chance Flood Event	1,518 (0.48%)	8,395 (2.67%)
0.2% Annual Chance Flood Event	1,754 (0.56%)	10,927 (3.47%)

HAZUS estimates the direct economic losses for wastewater utility facilities to be \$148.92 and \$190.98 in millions of dollars for the 1% chance flood and 0.2% chance flood return periods, respectively. HAZUS also estimates a direct economic loss for potable water facilities to be \$0.42 in millions of dollars for the 0.2% chance flood return period. HAZUS estimates the direct economic losses for highway bridges to be \$28,410 and \$62,800 for the 1% chance and 0.2% chance flood return periods, respectively. The direct economic loss reports for transportation and utilities along with other HAZUS model output summary reports are provided in Appendix F.

HAZUS Hurricane Model

The HAZUS hurricane loss estimation model estimates potential economic and social losses resulting primarily from hurricane winds. The HAZUS hurricane model can also be used in combination with the HAZUS flood model to estimate potential economic and social losses due to storm surge. The two model scenario options for the hurricane model are probabilistic and single deterministic track. The default probabilistic scenario considers associated impacts of thousands of potential storm tracks and intensities typical of the region. The deterministic track requires additional user defined inputs through either defining a storm track manually or importing historic storm event data.

Since Albany County identified flooding as one of their hazards of concern, the project team investigated the combined hurricane and flood hazard model to estimate potential losses from storm surge. However, the combined hurricane and flood model was infeasible due to limitations of the model. The two primary limitations are:

1. The portion of the Hudson River in Albany County would not be considered "coastal" by the HAZUS model. As such, a shoreline would not be able to be generated which is a necessary input of the hurricane model.
2. The HAZUS hurricane model would not consider the Hudson River to have a storm surge due to the fact that it has no shoreline and would not be considered "coastal".

6.1.7 Future Potential Impacts and Relation to Climate Change

Probability of Future Events

Based on the Albany County CEPA Results, the National Risk Index, previous Presidential Disaster Declarations, Hazard Identification and Ranking, and Historical Hazard Occurrences, the County's overall vulnerability to a flood remains high. According to the NOAA National Climate Data Center (NCEI) and the CRREL database, Albany County experienced 89 flood events between 1950 and 2023, including 40 riverine floods, 39 flash floods, and 10 ice jams. The table below shows these statistics, as well as the annual average number of events and the probability of these individual flood hazards occurring in Albany County in future years, if there are no other changes (National Oceanic and Atmospheric Administration, 2023; Ice Engineering Research Group, 2023).

The probabilities are calculated using the formula $P = e / (e + y - 1) * 100\%$ where P is the probability of one or more of a given type of event occurring in a given year (e.g. the probability that there would be at least one ice jam in 2023), e is the total number of events over a given number of years (e.g. 1950-2023), and y is the number of years (e.g. 73 years between 1950 and 2023). In these probability calculations, the simplifying assumption has been made that these events are independent of each other – i.e. that the events are not related to one another. This assumption could be incorrect if, for example, an ice jam occurred and then later caused a different flood event when it melted.

Table 6-6. Probability of Future Occurrence of Flooding Events Given No Other Changes

Hazard Type	Number of Occurrences between 1950 and 2023	Rate of Occurrence or Annual Number of Events (Average)	Recurrence Interval (in years) (# Years/Number of Events)	Probability of Event in Any Given Year (%)
Flash Flood	40	.547	1.825	35.7%
Riverine Flood	39	.534	1.871	35.1%
Dam Failure	0	0	0	0.0%
Ice Jams	10	0.137	7.3	12.2%
ALL FLOODS	89	1.219	.96	55.2%

Probability listed is based on 1950-2023 data only. The actual probability may differ; for example, the actual probability of an Ice Jam is greater than 0%.

As mentioned, the table above displays the probability of future events if there are no other changes; it is solely based on historical probability. However, the County's future vulnerability to flooding can be impacted by several factors, including land use changes, population changes, mitigation actions, and climate change. For example, future developments may affect where flooding occurs. Development trends are described in Section 2.4 and a list of recent developments is contained in each jurisdictional annex (Appendix A). Increases in population may lead to additional development pressures in the floodplain (potentially increasing vulnerability), while decreases in population may lead to more vacant properties and less development pressure in the floodplain. Additionally, the County and its jurisdictions proposed numerous flood-related mitigation actions, such as upgrades to culverts, updates to municipal regulations that impact flooding, and nature-based flood mitigation solutions. Once implemented, these projects will reduce the County's overall vulnerability to flood damages. These actions are further described in the jurisdictional annexes (Appendix A). Climate change may also impact the County's vulnerability to flooding, as described below.

Relation to Climate Change

Climate change is expected to increase the future vulnerability of the County to flood events, by slightly increasing the severity and frequency of flooding, and flooding additional locations. Based on the U.S. Global Change Research Program's Climate Mapping For Resilience and Adaptation tool (U.S. Federal Government, 2022), it is predicted that Albany County will experience slightly fewer wet days, but slightly more heavy precipitation events by mid-century. Specifically, the County may experience 1.5 to 2.5 fewer days per year with any precipitation by mid century (2035-2064), compared with 1976-2005, according to mid-level projections. However, the county may experience 6.7 to 7.4 days per year that exceed 99th percentile precipitation by mid-century, compared to 5.2 days per year from 1976-2005, according to mid-level

predictions. These days that exceed the 99th percentile precipitation will result in an increase in flooding. Locations of flood events would also expand when there are more severe floods; for instance, more locations in the 1% chance floodplain may experience flooding on a more regular basis, and areas that are near the 1% chance floodplain may also experience flooding. The types of flooding may not change significantly, except that the increase in average temperatures caused by climate change may lead to less ice buildup and less ice jam flooding.

More generally, with the anticipated increase in severe storms due to climate change, heavy precipitation, and associated flash floods will likely become more common (Horton, Bader, Rosenzweig, DeGaetano, & Solecki, 2014). The annual average amount of precipitation is projected to increase, resulting in a rise in the frequency and severity of flash flooding events in New York State (Rosenzweig, et al., 2011). The Albany County Climate Analysis, funded by AT&T, projected that by mid-century, Albany County would see a 13% increase in inches of winter precipitation for some areas of the County, a 4 degree increase in winter temperatures across the County, and a 7-inch increase in precipitation for some watersheds in the County (Duffy, Filante, & Guo, 2024). Increased winter precipitation could lead to more winter floods, especially if the ground is frozen and less permeable. In addition, rising air and water temperatures would cause ice and snow to melt more rapidly, which could cause more frequent flooding during the winter and early spring months.

6.2 Severe Storm

6.2.1 *Description*

As described above, for the purpose of this HMP update, “Severe Storm” includes hail, ice storms, wind, thunderstorms, winter storms, hurricanes, tropical storms, tornado, and any other storm event, as well as associated effects such as power outages.

Hail

Hail, also referred to as hailstones, is a type of precipitation formed when drops of water freeze together in the cold upper regions of thunderstorm clouds. Most hailstones measure between five (5) millimeters and 15 centimeters in diameter and can be round or jagged. The severity of hail events range based on size of hail, winds, and structures in the path of a hailstorm. Fortunately, most hailstorms produce marble-sized or smaller hailstones, though there is always the possibility that storms can generate larger hail, ranging upward of softball sized.

Hail in New York occurs mainly during the warmer months and can lead to extensive risks and damages. Hail poses a threat to agriculture, with crops and yields at risk due to hailstone damage, potentially resulting in financial losses. Property owners face threats to structures and vehicles, necessitating potentially costly repairs. The natural environment is also vulnerable, as hail can disrupt forest ecosystems, damage trees,

and harm wildlife habitats. The severity of hail events range based on size of hail, wind, and vulnerabilities in the path of a hailstorm (DHSES and AVAIL, 2023).

Ice Storms

An ice storm is freezing rain (rain that freezes on surface contact) with significant ice accumulations of 0.25 inches or greater. Ice storms can lead to heavy accumulations on trees, roads, buildings, and infrastructure.

Ice storms occur when a layer of warm, moist air overrides a layer of cold air near the surface. Rain falls on the warmer air and passes through the cold layer, where air temperatures fall below freezing. As the raindrops come into contact with objects and surfaces, they freeze upon impact, forming a layer of ice. The freezing rain accumulates as a glaze of ice on surfaces, which can vary in thickness from a thin coating to several inches. The severity of an ice storm is measured by the thickness of the ice accumulation. Significant ice buildup is not only extremely slippery, but also heavy in weight.

Wind

High winds are winds with sustained speeds of 40 mph lasting for at least an hour or wind speeds up to 58 mph or greater for any duration of time. High-wind events are often associated with hurricanes and nor'easters, severe thunderstorms, and tornados, but may occur independently.

Straight-line winds are used to describe any thunderstorm wind not associated with rotation that is normally indicative of a tornado. When straight-line winds meet or exceed 58 miles per hour they are classified as severe by the National Weather Service. Straight-line wind intensity can be as powerful as a tornado.

Windstorms, including derechos and microbursts, may or may not be accompanied by precipitation and can vary in intensity, duration, and geographical extent. These intense and localized wind events can result in significant property damage, toppled trees, and power outages (DHSES and AVAIL, 2023).

Thunderstorms and Lightning

Lightning is a brief, visible electrical discharge that occurs between a cloud and the ground or from cloud to cloud. Lightning strikes occur when strong negative charges build up within a thunderstorm cloud while strong positive charges on the ground move up tall objects, such as buildings, trees, and telephone poles.

A lightning bolt can reach temperatures of approximately 50,000 °F. This extreme temperature causes the air surrounding the bolt to rapidly heat and expand, resulting in an explosive shockwave we hear as thunder. Thunderstorms are dangerous storms that include lightning and can include powerful winds over 50 mph, create hail, and cause flash flooding and tornadoes.

There are four different types of lightning:

- Cloud to Sky lightning is a discharge jumping from a cloud into the surrounding sky.
- Intra-cloud lightning is the most common. Intra-cloud lightning occurs when oppositely charged centers within the same cloud ignite and cause a bright flash.
- Inter-cloud lightning occurs between oppositely charged areas of different clouds.
- Cloud to Ground lightning is the most dangerous to people and therefore the most researched. It occurs when the negative charge of the bottom of a cloud travels to the positively charged ground below (DHSES and AVAIL, 2023).

Winter Storms

Severe winter storms may include snow, sleet, freezing rain, or a mix of these wintry forms of precipitation. The severity of a winter storm depends on temperature, wind speed, type of precipitation (snow, sleet, freezing rain, etc.), accumulation rate and length of the storm which can last a few hours or several days. Winter storms, including blizzards and nor'easters, can bring extreme cold, freezing rain, snow, ice and high winds.

A blizzard is a severe and potentially dangerous snowstorm characterized by several specific weather conditions and criteria. While heavy snowfall is a prominent feature of a blizzard, it's the combination of factors that distinguish it from a regular snowstorm. Blizzards typically involve intense and sustained snowfall, which can significantly reduce visibility and create deep snow accumulations. They are characterized by strong, sustained winds of at least 35 miles per hour or greater. These high winds can blow the falling and accumulated snow, reducing visibility to near zero in some cases. To be classified as a blizzard, these conditions must persist for an extended period of three (3) hours or longer.

A Nor'easter is a storm along the East Coast, so called because the winds over the coastal area are typically from the northeast. These storms may occur at any time of year but are most frequent and most violent between September and April. They nearly always bring precipitation in the form of heavy rain or snow, as well as winds of gale force, rough seas, and, occasionally, coastal flooding to the affected regions. Past Nor'easters have been responsible for billions of dollars in damage; severe economic, transportation, and human disruption; and in some cases, disastrous coastal flooding (DHSES and AVAIL, 2023).

Hurricanes and Tropical Storms

A hurricane is a type of storm called a tropical cyclone, which forms over tropical or subtropical waters.

A tropical cyclone is a rotating low-pressure weather system that has organized thunderstorms but no fronts (a boundary separating two air masses of different densities). Tropical cyclones with maximum sustained surface winds of less than 39 miles

per hour (mph) are called tropical depressions. Those with maximum sustained winds of 39 mph or higher are called tropical storms. When a storm's maximum sustained winds reach 74 mph, it is called a hurricane.

When a hurricane reaches land, it pushes a wall of ocean water ashore. This wall of water is called a storm surge. Heavy rain and storm surge from a hurricane can cause flooding.

Parts of a hurricane include:

- Eye: The eye is the "hole" at the center of the storm. Winds are light in this area. Skies are partly cloudy, and sometimes even clear.
- Eye wall: The eye wall is a ring of thunderstorms. These storms swirl around the eye. The wall is where winds are strongest, and rain is heaviest.
- Rain bands: Bands of clouds and rain go far out from a hurricane's eye wall. These bands stretch for hundreds of miles. They contain thunderstorms and sometimes tornadoes.

"Hurricane Season" begins on June 1 and ends on November 30, although hurricanes can, and have, occurred outside of this time frame. NOAA's National Hurricane Center predicts and tracks these massive storm systems, which occur, on average, 12 times a year in the Atlantic basin (DHSES and AVAIL, 2023).

Tornado

A tornado is a violently rotating column of air extending from the base of a thunderstorm cloud to the ground, and often (but not always) visible as a funnel cloud.

A tornado's wind speeds can range from 65 mph to 300 mph, and they can be among the most violent of all atmospheric phenomena and can cause devastating destruction. Usually short-lived, these storms begin as transparent funnels and acquire their grayish coloration as they pick up debris and dust. Their gray color can also be caused by a cloud, because water vapor condenses in the funnel due to its low pressure. Most tornadoes advance west-to-east, but tornadoes can often move southwest to northeast, at an average speed of 30 mph.

Tornadoes are rarely predictable in advance and can uproot trees, demolish buildings, flip cars and turn harmless objects into deadly missiles in a matter of seconds. The path of destruction can exceed one mile in width and 50 miles in length. Additionally, tornadoes can change directions at random, or backtrack if the bottom of the tornado is hit with outflow winds from the thunderstorms core (DHSES and AVAIL, 2023).

Power Outages

While they are not a type of severe storm event, power outages are often associated with severe storm events. A power outage occurs when electrical power turns off unexpectedly. According to Ready.gov, a power outage may:

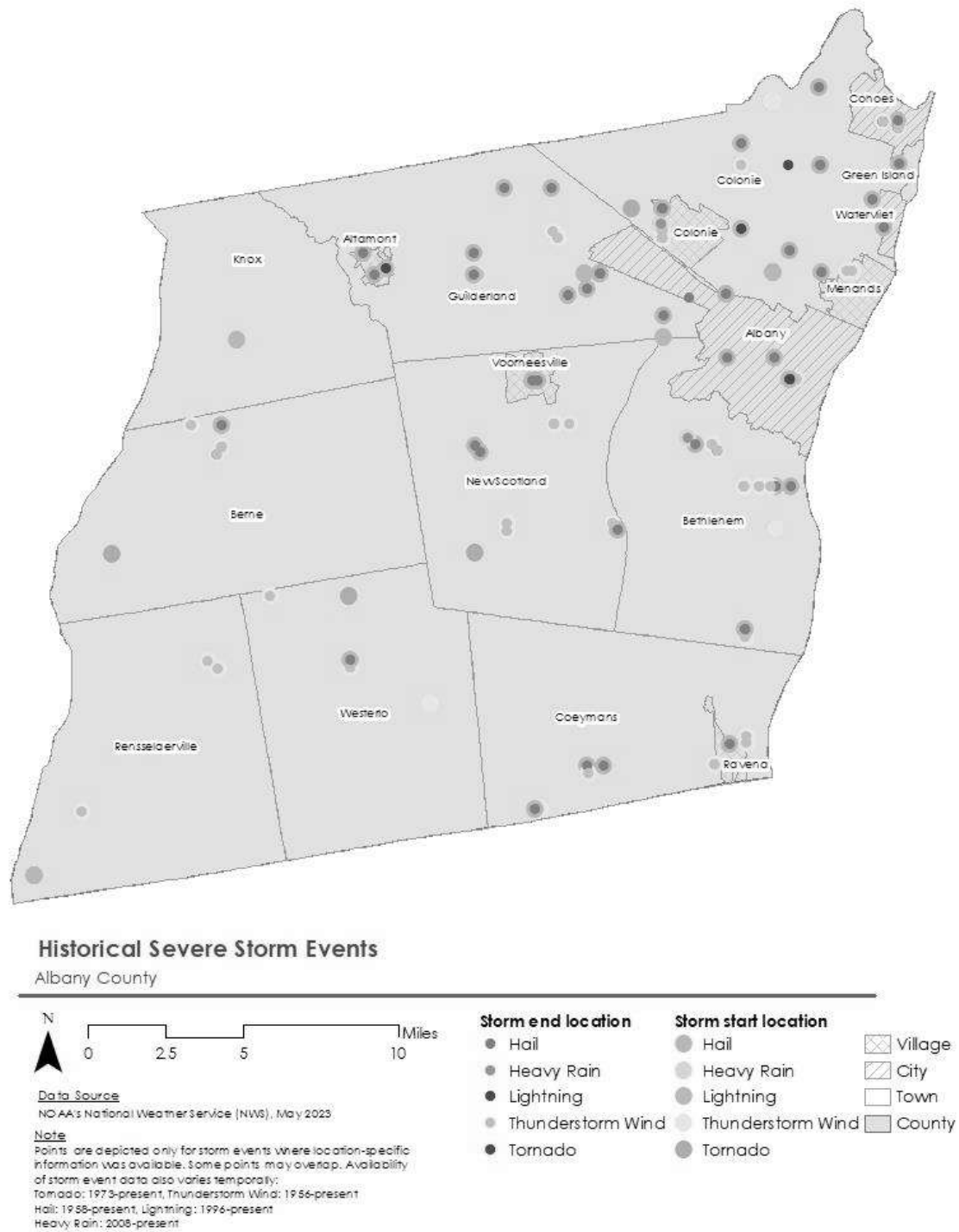
- Disrupt communications, water and transportation.

- Close retail businesses, grocery stores, gas stations, ATMs, banks and other services.
- Cause food spoilage and water contamination.
- Prevent use of medical devices (U.S. Department of Homeland Security, 2023).

6.2.2 Location

All of Albany County is subject to severe storm events. While events like winter storms and hurricanes affect large areas of the County at the same time, severe storm events can also occur in small, localized areas, such as some thunderstorm events. Ridgetops and hilltops, very flat areas, and areas with tall buildings can experience especially strong winds. Higher elevations also see increased snowfall, and hilltops and ridgetops can experience stronger thunderstorms. Figure 6-4 displays a map of severe storm events in Albany County.

Figure 6-4. Historical Storm Event Records in Albany County



Data Source: NOAA National Weather Service (May 2023)

6.2.3 Extent

Specific details regarding extent and frequency for each type of severe storm event considered are provided below. More details on the severity of the severe storm events that the County has actually experienced are given in Section 6.2.5.

Hail

Hailstorms are categorized on the TORRO Hailstorm Intensity Scale (TORRO, 2022), which is provided in Table 6-7.

Table 6-7. TORRO Hailstorm Intensity Scale

Intensity Category		Typical Hail Diameter (mm)	Probable Kinetic Energy, J-m2	Typical Damage Impacts
HO	Hard Hail	5	0-20	No Damage
H1	Potentially Damaging	5-15	>20	Slight general damage to plants, crops
H2	Significant	10-20	>100	Significant damage to fruit, crops, vegetation
H3	Severe	20-30	>300	Severe damage to fruit and crops. Damage to glass and plastic structures, paint, and wood scored
H4	Severe	25-40	>500	Widespread glass damage, vehicle bodywork damage
H5	Destructive	30-50	>800	Wholesale destruction of glass, damage to tiled roofs, significant risk of injuries
H6	Destructive	40-60	-	Bodywork of grounded aircraft dented, brick walls pitted
H7	Destructive	50-75	-	Severe roof damage, risk of serious injuries
H8	Destructive	60-90	-	Severe damage to aircraft bodywork
H9	Super Hailstorms	75-100	-	Extensive structural damage. Risk of severe or even fatal injuries to persons caught in the open
H10	Super Hailstorms	>100	-	Extensive structural damage. Risk of severe or even fatal injuries to persons caught in the open

Source: (TORRO, 2022)

Ice Storms

The severity of an ice storm is measured by the thickness of the ice accumulation (DHSES and AVAIL, 2023), as shown in Figure 6-5.

Figure 6-5. Sperry-Piltz Ice Accumulation Index

The Sperry-Piltz Ice Accumulation Index

Ice damage index	Radial ice	Wind	Damage and impact descriptions
0	0–0.25 in	0–15 mph	Minimal risk of damage to exposed utility systems; no alerts or advisories needed for crews, few outages.
1	0.10–0.25 in	15–25 mph	Some isolated or localized utility interruptions are possible, typically lasting only a few hours. Roads and bridges may become slick and hazardous.
	0.25–0.50 in	0–15 mph	
2	0.10–0.25 in	25–35 mph	Scattered utility interruptions expected, typically lasting 12 to 24 hours. Roads and travel conditions may be extremely hazardous due to ice accumulation.
	0.25–0.50 in	15–25 mph	
	0.50–0.75 in	0–15 mph	
3	0.10–0.25 in	Over 35 mph	Numerous utility interruptions with some damage to main feeder lines and equipment expected. Tree limb damage is excessive. Outages lasting 1 to 5 days.
	0.25–0.50 in	25–35 mph	
	0.50–0.75 in	15–25 mph	
	0.75–1.00 in	0–15 mph	
4	0.25–0.50 in	Over 35 mph	Prolonged and widespread utility interruptions with extensive damage to main distribution feeder lines and some high voltage transmission lines/structures. Outages lasting 5 to 10 days.
	0.50–0.75 in	25–35 mph	
	0.75–1.00 in	15–25 mph	
	1.00–1.50 in	0–15 mph	
5	0.50–0.75 in	Over 35 mph	Catastrophic damage to entire exposed utility systems, including both distribution and transmission networks. Outages could last several weeks in some areas. Shelters needed.
	0.75–1.00 in	Over 25 mph	
	1.00–1.50 in	Over 15 mph	
	Over 1.50 in	Any	

Source: (DHSES and AVAIL, 2023)

Wind

The Beaufort Scale measures winds on a scale from 0 - 12 (calm, less than 1 knot - hurricane 64+ knots).

Table 6-8. Beaufort Wind Scale

Force	Wind (Knots)	WMO Classification	Appearance of Wind Effects On the Water	Appearance of Wind Effects On Land
0	Less than 1	Calm	Sea surface smooth and mirror-like	Calm, smoke rises vertically
1	1-3	Light Air	Scaly ripples, no foam crests	Smoke drift indicates wind direction, still wind vanes
2	4-6	Light Breeze	Small wavelets, crests glassy, no breaking	Wind felt on face, leaves rustle, vanes begin to move
3	7-10	Gentle Breeze	Large wavelets, crests begin to break, scattered whitecaps	Leaves and small twigs constantly moving, light flags extended
4	11-16	Moderate Breeze	Small waves 1-4 ft. becoming longer, numerous whitecaps	Dust, leaves, and loose paper lifted, small tree branches move
5	17-21	Fresh Breeze	Moderate waves 4-8 ft taking longer form, many whitecaps, some spray	Small trees in leaf begin to sway
6	22-27	Strong Breeze	Larger waves 8-13 ft, whitecaps common, more spray	Larger tree branches moving, whistling in wires
7	28-33	Near Gale	Sea heaps up, waves 13-19 ft, white foam streaks off breakers	Whole trees moving, resistance felt walking against wind
8	34-40	Gale	Moderately high (18-25 ft) waves of greater length, edges of crests begin to break into spindrift, foam blown in streaks	Twigs breaking off trees, generally impedes progress
9	41-47	Strong Gale	High waves (23-32 ft), sea begins to roll, dense streaks of foam, spray may reduce visibility	Slight structural damage occurs, slate blows off roofs

Force	Wind (Knots)	WMO Classification	Appearance of Wind Effects On the Water	Appearance of Wind Effects On Land
10	48-55	Storm	Very high waves (29-41 ft) with overhanging crests, sea white with densely blown foam, heavy rolling, lowered visibility	Seldom experienced on land, trees broken or uprooted, "considerable structural damage"
11	56-63	Violent Storm	Exceptionally high (37-52 ft) waves, foam patches cover sea, visibility more reduced	
12	64+	Hurricane	Air filled with foam, waves over 45 ft, sea completely white with driving spray, visibility greatly reduced	

Source: (NOAA and NWS, n.d.)

Thunderstorms and Lightning

Lightning is measured using the Lightning Activity Level (LAL). This is a measurement of cloud-to-ground lightning activity observed (or forecasted to occur) within a 30-mile radius of an observation site (DHSES and AVAIL, 2023).

Figure 6-6. Lightning Activity Level

Lightning Activity Level (LAL)	
Is a scale which describes lightning activity. Values are labeled 1-6:	
LAL 1	No thunderstorms
LAL 2	Isolated thunderstorms. Light rain will occasionally reach the ground. Lightning is very infrequent, 1 to 5 cloud to ground strikes in a five minute period.
LAL 3	Widely scattered thunderstorms. Light to moderate rain will reach the ground. Lightning is infrequent, 6 to 10 cloud to ground strikes in a 5 minute period.
LAL 4	Scattered thunderstorms. Moderate rain is commonly produced Lightning is frequent, 11 to 15 cloud to ground strikes in a 5 minute period.
LAL 5	Numerous thunderstorms. Rainfall is moderate to heavy. Lightning is frequent and intense, greater than 15 cloud to ground strikes in a 5 minute period.
LAL 6	Dry lightning (same as LAL 3 but without rain). This type of lightning has the potential for extreme fire activity and is normally highlighted in fire weather forecasts with a Red Flag Warning.

Winter Storms

Severe winter storms can be characterized using the Regional Snowfall Index, shown in Table 6-9 below (NOAA National Centers for Environmental Information, 2022). The Regional Snowfall Index is based on levels of snowfall, the storm's spatial extent, and the population affected.

Table 6-9. RSI Ranking Categories

Category	Description	RSI Value
1	Notable	1-3
2	Significant	3-6
3	Major	6-10
4	Crippling	10-18
5	Extreme	18.0+

Note: RSI = Regional Snowfall Index. Source: (NOAA National Centers for Environmental Information, 2022)

Hurricanes and Tropical Storms

There are five types, or categories, of hurricanes. The scale of categories is called the Saffir-Simpson Hurricane Scale. The categories are based on wind speed, and are listed as follows:

- Category 1: Winds 119-153 km/hr (74-95 mph) - faster than a cheetah
- Category 2: Winds 154-177 km/hr (96-110 mph) - as fast or faster than a baseball pitcher's fastball
- Category 3: Winds 178-208 km/hr (111-129 mph) - similar, or close, to the serving speed of many professional tennis players
- Category 4: Winds 209-251 km/hr (130-156 mph) - faster than the world's fastest rollercoaster
- Category 5: Winds more than 252 km/hr (157 mph) - similar, or close, to the speed of some high-speed trains (DHSES and AVAIL, 2023).

Hurricane warnings indicate that hurricane conditions (sustained winds of 74 mph or higher) are expected somewhere within the specified area. Because hurricane preparedness activities become difficult once winds reach tropical storm force (sustained winds of 39 to 73 mph), the hurricane warning is issued 36 hours in advance of the anticipated onset of tropical-storm-force winds to allow for important preparation.

A hurricane watch means that hurricane conditions (sustained winds of 74 mph or higher) are possible within the specified area. A hurricane watch is issued 48 hours in advance of the anticipated onset of tropical-storm-force winds in an area (DHSES and AVAIL, 2023).

Tornado

NOAA issues tornado watches and warnings. A tornado watch means that a tornado is possible. A tornado watch is issued when weather conditions favor the formation of tornadoes. A tornado warning means that a tornado has been sighted or indicated by weather radar. People should immediately take shelter during a tornado warning.

The Enhanced Fujita Scale (EF Scale) is used to assign a tornado rating based on estimated wind speeds and related damage. The EF Scale was revised from the original Fujita Scale in 2007 to reflect better examinations of tornado damage surveys to align wind speeds more closely with associated storm damage. The new scale has to do with how most structures are designed (DHSES and AVAIL, 2023). The EF Scale is shown in Figure 6-7.

Figure 6-7. Enhanced Fujita Scale

EF Rating	Wind Speeds	Expected Damage	
EF-0	65-85 mph	'Minor' damage: shingles blown off or parts of a roof peeled off, damage to gutters/siding, branches broken off trees, shallow rooted trees toppled.	
EF-1	86-110 mph	'Moderate' damage: more significant roof damage, windows broken, exterior doors damaged or lost, mobile homes overturned or badly damaged.	
EF-2	111-135 mph	'Considerable' damage: roofs torn off well constructed homes, homes shifted off their foundation, mobile homes completely destroyed, large trees snapped or uprooted, cars can be tossed.	
EF-3	136-165 mph	'Severe' damage: entire stories of well constructed homes destroyed, significant damage done to large buildings, homes with weak foundations can be blown away, trees begin to lose their bark.	
EF-4	166-200 mph	'Extreme' damage: Well constructed homes are leveled, cars are thrown significant distances, top story exterior walls of masonry buildings would likely collapse.	
EF-5	> 200 mph	'Massive/incredible' damage: Well constructed homes are swept away, steel-reinforced concrete structures are critically damaged, high-rise buildings sustain severe structural damage, trees are usually completely debarked, stripped of branches and snapped.	

Source: (National Weather Service, 2015)

6.2.4 Impacts and Vulnerability

According to the updated hazard analysis in Section 5.4, Albany County is highly vulnerable to severe storms based on this hazard's moderate impact (moderate potential for damage to property, crops and/or people), regular occurrence, large extent (county-wide extent of impacts), and moderate level of preparedness. This assessment is backed by additional information in Section 5 and Section 6.1.

Impacts to the County from severe storm events include fallen trees from severe winds, which can damage overhead utility lines, resulting in power outages. These events are likely to result in damages to private and public infrastructure and property. In addition, during severe winter storm events, roadway safety is a primary concern and impacts the safety of residents and operation of critical facilities. Washouts, erosion, and traffic safety around steep slopes are also concerns during storm events. Damages to the County's critical infrastructure or primary transportation routes would be particularly

impactful to residents. Storm damages can have a particular impact the more populated portions of the County, as well as residents in more remote areas who may experience long power outages and longer wait times for snow removal. They can also cause drinking water concerns and communication issues. The County is concerned with having adequate provision of shelters during severe storms, and enhancing hazard warning systems. Public Survey respondents were concerned with impacts on transportation (51% of respondents), home or business damage due to a storm (42% of respondents), flooding of home or business (22% of respondents), power outages (mentioned in survey comments), and emergency response resources and coordination (mentioned in survey comments). Survey respondents most commonly felt that the following populations in their community were at risk from hazards: older adults, residents in certain areas (e.g. low-lying areas or along creeks and rivers), low-income residents, people with disabilities and health issues, and families with young children.

The County's overall vulnerability to hazards in this Hazard Mitigation Plan Update is described in Section 8.

6.2.5 Historical Hazard Occurrences and Damage Estimates

Table 6-10 shows the severe storm events that the County has experienced between 2018 and 2023, and their estimated damages. One (1) severe storm event in that time period was given federal disaster declarations, as shown in Section 5.2.3.

Table 6-10. Severe Storm Event Records, 2018-2023

Location	Event Type	Date	Magnitude (Hail: inches, Wind: knots)	Estimated Property Damage (\$)	Estimated Crop Damage (\$)
County Wide	Severe Winter Storm	1/4/2018	-		
Eastern Albany County	Severe Winter Storm	1/16/2018	-		
Western Albany County	Severe Winter Storm	2/4/2018	-		
County Wide	Severe Winter Storm	2/7/2018	-		
County Wide	Severe Winter Storm	3/2/2018	-		
County Wide	Severe Winter Storm	3/7/2018	-		
County Wide	Severe Winter Storm	3/12/2018	-		

Location	Event Type	Date	Magnitude (Hail: inches, Wind: knots)	Estimated Property Damage (\$)	Estimated Crop Damage (\$)
Eastern Albany County	High Winds	4/4/2018	50		
County Wide	Severe Winter Storm	4/15/2018	-		
Berne	Thunderstorm Wind	5/4/2018	50		
Colonie	Thunderstorm Wind	5/4/2018	50		
Guilderland	Thunderstorm Wind	5/4/2018	50		
Bethlehem	Thunderstorm Wind	5/4/2018	50		
New Scotland	Thunderstorm Wind	5/4/2018	50		
Albany	Thunderstorm Wind	5/4/2018	50		
Bethlehem	Thunderstorm Wind	7/10/2018	50		
Albany	Thunderstorm Wind	7/10/2018	50		
Colonie	Thunderstorm Wind	7/27/2018	50		
Menands	Thunderstorm Wind	7/27/2018	50		
Watervliet	Thunderstorm Wind	7/27/2018	50		
Bethlehem	Thunderstorm Wind	7/27/2018	50		
Bethlehem	Thunderstorm Wind	7/27/2018	60		
Albany	Thunderstorm Wind	7/27/2018	60		
Albany	Thunderstorm Wind	7/27/2018	50		

Location	Event Type	Date	Magnitude (Hail: inches, Wind: knots)	Estimated Property Damage (\$)	Estimated Crop Damage (\$)
Colonie	Thunderstorm Wind	7/27/2018	50		
Colonie	Hail	7/27/2018	1.5		
Colonie	Hail	7/27/2018	1		
Colonie	Hail	7/27/2018	.75		
Watervliet	Hail	7/27/2018	1.75		
Albany	Hail	7/27/2018	.75		
New Scotland	Heavy Rain	8/3/2018	-		
Bethlehem	Thunderstorm Wind	8/3/2018	50		
Bethlehem	Heavy Rain	8/3/2018	-		
Albany	Heavy Rain	8/3/2018	-		
New Scotland	Thunderstorm Wind	8/3/2018	50		
Cohoes	Thunderstorm Wind	8/4/2018	50		
Albany	Thunderstorm Wind	8/7/2018	50		
County Wide	Strong Wind	11/3/2018	43		
County Wide	Strong Wind	11/10/2018	43		
Eastern Albany County	Winter Weather	11/14/2018	-		
County Wide	Winter Weather	11/15/2018	-		
County Wide	Winter Weather	12/17/2018	-		
County Wide	Strong Wind	12/17/2018	41		
County Wide	Strong Wind	12/22/2018	42		
Western Albany	Strong Wind	1/1/2019	40	\$1,000	
Eastern Albany	High Wind	1/1/2019	50		

Location	Event Type	Date	Magnitude (Hail: inches, Wind: knots)	Estimated Property Damage (\$)	Estimated Crop Damage (\$)
County Wide	Winter Storm	1/19/2019	-		
County Wide	Winter Weather	1/29/2019	-		
County Wide	Strong Wind	2/8/2019	49	\$2,000	
County Wide	Winter Storm	2/12/2019	-		
County Wide	High Wind	2/24/2019	53	\$60,000	
County Wide	Winter Weather	2/27/2019	-		
Western Albany	Winter Weather	3/22/2019	-		
County Wide	Strong Wind	4/3/2019	45	\$2,000	
County Wide	Strong Wind	4/9/2019	45	\$2,000	
Bethlehem	Thunderstorm Wind	5/23/2019	50		
Guilderland	Thunderstorm Wind	7/20/2019	50		
Coeymans	Thunderstorm Wind	7/20/2019	50		
Renselaerville	Thunderstorm Wind	7/29/2019	-		
Bethlehem	Lightning	7/29/2019	-	\$1,000	
Guilderland	Thunderstorm Wind	7/30/2019	50		
Coeymans	Hail	8/3/2019	1		
Albany	Thunderstorm Wind	8/3/2019	50		
Bethlehem	Thunderstorm Wind	8/3/2019	50		
Ravena	Thunderstorm Wind	8/3/2019	50		
Albany	Hail	8/7/2019	0.88		
Watervliet	Hail	8/7/2019	1		
Albany	Thunderstorm Wind	8/7/2019	50		

Location	Event Type	Date	Magnitude (Hail: inches, Wind: knots)	Estimated Property Damage (\$)	Estimated Crop Damage (\$)
Menands	Thunderstorm Wind	8/7/2019	50		
Knox	Thunderstorm Wind	8/8/2019	50		
Westerlo	Thunderstorm Wind	8/8/2019	50		
Ravena	Thunderstorm Wind	8/8/2019	50		
Coeymans	Thunderstorm Wind	8/8/2019	50		
Colonie	Thunderstorm Wind	8/8/2019	51		
Albany	Thunderstorm Wind	8/16/2019	50		
Albany	Thunderstorm Wind	8/16/2019	52		
Albany	Thunderstorm Wind	8/16/2019	70		
Bethlehem	Thunderstorm Wind	8/16/2019	50		
Menands	Thunderstorm Wind	8/16/2019	50		
Menands	Thunderstorm Wind	8/16/2019	70		
Knox	Thunderstorm Wind	8/17/2019	50		
Westerlo	Thunderstorm Wind	8/18/2019	50		
New Scotland	Thunderstorm Wind	8/18/2019	50		
Watervliet	Thunderstorm Wind	8/18/2019	50		
Cohoes	Thunderstorm Wind	8/21/2019	50		
Colonie	Hail	8/21/2019	1		

Location	Event Type	Date	Magnitude (Hail: inches, Wind: knots)	Estimated Property Damage (\$)	Estimated Crop Damage (\$)
Cohoes	Hail	8/21/2019	1		
County Wide	Strong Wind	10/16/2019	49		
County Wide	Strong Wind	10/31/2019	45		
County Wide	High Wind	11/1/2019	50		
County Wide	Winter Weather	11/12/2019	-		
County Wide	Winter Weather	11/23/2019	-		
County Wide	Heavy Snow	12/1/2019	-		
County Wide	Strong Wind	12/15/2019	45		
Western Albany County	Ice Storm	12/29/2019	-		
Eastern Albany County	Winter Weather	12/29/2019	-		
County Wide	Strong Wind	1/12/2020	45	\$2,000	
County Wide	Strong Wind	1/16/2020	40	\$2,000	
County Wide	Winter Weather	1/18/2020	-		
County Wide	Winter Weather	2/6/2020	-		
County Wide	Strong Wind	2/7/2020	45		
Western Albany County	Winter Weather	3/23/2020	-		
County Wide	Strong Wind	4/13/2020	45	\$2,000	
Western Albany County	Winter Weather	4/17/2020	-		
Western Albany County	Winter Weather	4/26/2020	-		
Rensselaerville	Thunderstorm Wind	5/15/2020	46	\$1,000	

Location	Event Type	Date	Magnitude (Hail: inches, Wind: knots)	Estimated Property Damage (\$)	Estimated Crop Damage (\$)
Colonie	Thunderstorm Wind	5/15/2020	50		
Cohoes	Thunderstorm Wind	5/15/2020	50		
Albany	Thunderstorm Wind	5/15/2020	50		
Westerlo	Thunderstorm Wind	5/15/2020	50		
Bethlehem	Thunderstorm Wind	5/15/2020	50		
Altamont	Hail	6/5/2020	1		
Bethlehem	Thunderstorm Wind	6/5/2020	50		
Cohoes	Thunderstorm Wind	7/2/2020	50		
Albany	Thunderstorm Wind	7/2/2020	50		
Knox	Thunderstorm Wind	7/2/2020	50		
Bethlehem	Thunderstorm Wind	7/2/2020	50		
Bern	Thunderstorm Wind	7/2/2020	50		
Coeymans	Thunderstorm Wind	7/2/2020	50		
County Wide	Strong Wind	8/4/2020	45	\$2,000	
Eastern Albany County	Strong Wind	8/4/2020	40	\$1,000	
Coeymans	Thunderstorm Wind	8/10/2020	50		
Guilderland	Thunderstorm Wind	8/10/2020	50		
Bethlehem	Thunderstorm Wind	8/10/2020	50		

Location	Event Type	Date	Magnitude (Hail: inches, Wind: knots)	Estimated Property Damage (\$)	Estimated Crop Damage (\$)
Bethlehem	Hail	8/23/2020	1		
Bethlehem	Hail	8/23/2020	1.5		
Coeymans	Thunderstorm Wind	8/23/2020	50	\$7,500,000	
Bethlehem	Thunderstorm Wind	8/23/2020	50		
Guilderland	Thunderstorm Wind	10/7/2020	50		
Colonie	Thunderstorm Wind	10/7/2020	59		
Colonie	Thunderstorm Wind	10/7/2020	50		
New Scotland	Thunderstorm Wind	10/7/2020	50		
Bethlehem	Thunderstorm Wind	10/7/2020	50		
Coeymans	Thunderstorm Wind	10/7/2020	50		
Albany	Thunderstorm Wind	10/7/2020	45		
Westerlo	Thunderstorm Wind	10/7/2020	50		
Rensselaerville	Thunderstorm Wind	10/7/2020	50		
Western Albany County	Winter Weather	10/29/2020	-		
County Wide	Heavy Snow	12/16/2020	-		
Western Albany County	Winter Weather	1/3/2021	-		
Western Albany County	Winter Weather	1/15/2021	-		
County Wide	Winter Weather	1/26/2021	-		

Location	Event Type	Date	Magnitude (Hail: inches, Wind: knots)	Estimated Property Damage (\$)	Estimated Crop Damage (\$)
County Wide	Winter Storm	2/1/2021	-		
County Wide	Winter Weather	2/15/2021	-		
Eastern Albany County	High Wind	3/1/2021	50		
Western Albany County	Strong Wind	3/1/2021	42		
Eastern Albany County	Winter Weather	3/1/2021	-		
Eastern Albany County	Strong Wind	3/12/2021	47		
Eastern Albany County	Strong Wind	3/22/2021	48		
Eastern Albany County	Strong Wind	3/28/2021	44		
Western Albany County	Strong Wind	3/28/2021	49		
Western Albany County	Winter Weather	4/15/2021	-		
County Wide	Strong Wind	4/30/2021	45		
New Scotland	Thunderstorm Wind	7/6/2021	50		
Coeymans	Thunderstorm Wind	7/7/2021	50		
New Scotland	Thunderstorm Wind	7/7/2021	50		
Cohoes	Thunderstorm Wind	7/27/2021	50		
Bethlehem	Hail	7/27/2021	.75		

Location	Event Type	Date	Magnitude (Hail: inches, Wind: knots)	Estimated Property Damage (\$)	Estimated Crop Damage (\$)
Colonie	Thunderstorm Wind	8/12/2021	50		
Colonie	Lightning	8/12/2021	-	\$2,000	
Voorheesville	Hail	8/13/2021	1		
New Scotland	Thunderstorm Wind	8/13/2021	50		
Bethlehem	Thunderstorm Wind	8/13/2021	50		
Albany	Thunderstorm Wind	8/13/2021	50		
Coeymans	Thunderstorm Wind	8/13/2021	50		
Bethlehem	Thunderstorm Wind	9/8/2021	50		
Colonie	Thunderstorm Wind	9/8/2021	50		
Colonie	Thunderstorm Wind	9/8/2021	61		
Albany	Thunderstorm Wind	9/8/2021	50		
Western Albany County	Strong Wind	12/6/2021	40		
Eastern Albany County	Strong Wind	12/6/2021	38		
Eastern Albany County	Strong Wind	12/11/2021	46		
Western Albany County	Strong Wind	12/11/2021	40		
Eastern Albany County	Winter Weather	12/18/2021	-		

Location	Event Type	Date	Magnitude (Hail: inches, Wind: knots)	Estimated Property Damage (\$)	Estimated Crop Damage (\$)
County Wide	Winter Weather	12/22/2021	-		
County Wide	Winter Weather	12/22/2021	-		
County Wide	Winter Weather	1/9/2022	-		
Eastern Albany County	Winter Weather	1/16/2022	-		
Western Albany County	Winter Storm	1/16/2022	-		
County Wide	Winter Storm	2/3/2022	-		
Western Albany County	Strong Wind	2/17/2022	45		
Eastern Albany County	Strong Wind	2/17/2022	40		
County Wide	Winter Weather	2/19/2022	-		
Eastern Albany County	Strong Wind	2/19/2022	45		
Western Albany County	Strong Wind	2/19/2022	35		
County Wide	Winter Storm	2/25/2022	-		
County Wide	Strong Wind	3/7/2022	40		
Rensselaerville	Thunderstorm Wind	3/7/2022	48	\$1,000	
Rensselaerville	Thunderstorm Wind	3/7/2022	50		
Westerlo	Thunderstorm Wind	3/7/2022	50		

Location	Event Type	Date	Magnitude (Hail: inches, Wind: knots)	Estimated Property Damage (\$)	Estimated Crop Damage (\$)
Eastern Albany County	Strong Wind	3/7/2022	49		
Western Albany County	Strong Wind	3/7/2022	45		
County Wide	Winter Weather	3/9/2022	-		
County Wide	Winter Weather	3/12/2022	-		
Western Albany County	Winter Storm	4/18/2022	-		
Albany	Thunderstorm Wind	5/15/2022	50		
Rensselaerville	Thunderstorm Wind	5/16/2022	50		
Westerlo	Thunderstorm Wind	5/16/2022	50		
Ravena	Thunderstorm Wind	5/16/2022	50		
Guilderland	Thunderstorm Wind	5/16/2022	50		
Colonie	Thunderstorm Wind	5/22/2022	50		
Bethlehem	Thunderstorm Wind	5/22/2022	50		
Knox	Thunderstorm Wind	7/24/2022	50		
Westerlo	Thunderstorm Wind	7/24/2022	50		
Bethlehem	Thunderstorm Wind	7/24/2022	50		
Albany	Thunderstorm Wind	8/4/2022	50		

Location	Event Type	Date	Magnitude (Hail: inches, Wind: knots)	Estimated Property Damage (\$)	Estimated Crop Damage (\$)
New Scotland	Thunderstorm Wind	8/4/2022	50		
Watervliet	Thunderstorm Wind	8/17/2022	50		
Knox	Thunderstorm Wind	9/13/2022	45	\$1,000	
Voorheesville	Thunderstorm Wind	9/13/2022	45	\$1,000	
New Scotland	Thunderstorm Wind	9/13/2022	45	\$1,000	
County Wide	Winter Weather	11/15/2022	-		
Eastern Albany County	Winter Weather	11/20/2022	-		
Western Albany County	Strong Wind	12/1/2022	40		
County Wide	Winter Weather	12/11/2022	-		
Western Albany County	Winter Storm	12/15/2022	-		
Eastern Albany County	Winter Weather	12/15/2022	-		
Eastern Albany County	Strong Wind	12/23/2022	48		
Western Albany County	Strong Wind	12/23/2022	40		
Eastern Albany County	Winter Weather	1/17/2023	-		
County Wide	Winter Storm	1/22/2023	-		

Location	Event Type	Date	Magnitude (Hail: inches, Wind: knots)	Estimated Property Damage (\$)	Estimated Crop Damage (\$)
Western Albany County	Strong Wind	2/3/2023	40		
Eastern Albany County	Strong Wind	2/3/2023	46	\$1,000	\$3,000
County Wide	Winter Weather	2/27/2023	-		
County Wide	Winter Storm	3/3/2023	-		
County Wide	Winter Storm	3/13/2023	-		
Bethlehem	Thunderstorm Wind	7/4/2023	50		
Ravena	Thunderstorm Wind	7/4/2023	45		
Coeymans	Thunderstorm Wind	7/4/2023	50		
Coeymans	Thunderstorm Wind	7/4/2023	45		
Albany	Thunderstorm Wind	7/9/2023	50		
Bethlehem	Thunderstorm Wind	7/9/2023	50		
Guilderland	Thunderstorm Wind	7/9/2023	50		
Colonie	Thunderstorm Wind	7/13/2023	50		
Coeymans	Hail	7/25/2023	1.25		
Guilderland	Hail	9/7/2023	.88		
Guilderland	Thunderstorm Wind	9/7/2023	50		
Bethlehem	Thunderstorm Wind	9/7/2023	50		

Source: (NOAA National Centers for Environmental Information, 2023).

Units for magnitude are expressed as the following: Hail: inches, High Wind: knots, Thunderstorm Wind: knots.

According to the FEMA National Risk Index's Expected Annual Loss (\$) Data, severe storm events are expected to cause \$12,791,901 in annual losses (FEMA, 2023). These statistics are displayed in Table 6-11, and include tornado, hurricane, ice storm, lightning, strong wind, hail, and winter weather.

Table 6-11. Expected Annual Losses from Severe Storm Events

Event	Expected Annual Loss (Approximate)
Tornado	\$5,993,887
Hurricane	\$4,501,662
Ice Storm	\$1,010,994
Lightning	\$505,678
Strong Wind	\$477,731
Hail	\$261,489
Winter Weather	\$40,460
TOTAL	\$12,791,901

Data Source: (FEMA, 2023)

6.2.6 Future Potential Impacts and Relation to Climate Change

Probability of Future Events

Based on the Albany County CEPA Results, the National Risk Index, previous Presidential Disaster Declarations, Hazard Identification and Ranking, and Historical Hazard Occurrences, the County's overall vulnerability to a severe storm remains high. According to the NOAA National Climate Data Center (NCEI), Albany County experienced 971 severe storm events between 1950 and 2023. The table below shows these statistics, as well as the annual average number of events and the percent chance of these individual severe storm hazards occurring in Albany County in future years (National Oceanic and Atmospheric Administration, 2023).

The probabilities are calculated using the formula $P = e / (e + y - 1) * 100\%$ where P is the probability of one or more of a given type of event occurring in a given year (e.g. the probability that there would be at least one hail event in 2023), e is the total number of events over a given number of years (e.g. 1950-2023), and y is the number of years (e.g. 73 years between 1950 and 2023). In these probability calculations, the simplifying assumption has been made that these events are independent of each other – i.e. that the events are not related to one another. This assumption could be incorrect if, for example, a single event was counted as both a hail event and a strong wind event.

Table 6-2. Probability of Future Occurrence of Severe Storm Events Given No Other Changes

Hazard Type	Number of Occurrences between 1950 and 2023	Rate of Occurrence or Annual Number of Events (Average)	Recurrence Interval (in years) (# Years/Number of Events)	Probability of Event in Any Given Year (%)
Lightning	21	.287	3.476	22.6%
Hail	183	2.506	.398	71.8%
Tornado	7	.095	10.428	8.9%
High Winds	48	.657	1.52	40%
Strong Wind	84	1.15	.869	53.8%
Thunderstorm Wind	480	6.575	.152	86.9%
Hurricane	0	0	0	0.0%
Tropical Storm	1	.013	73	1.4%
Tropical Depression	0	0	0	0.0%
Heavy Rain	6	.082	12.166	7.7%
Severe Winter Storm*	141	1.931	.517	66.1%
ALL SEVERE STORM EVENTS	971	13.301	.0751	93.1%

Probability listed is based on 1950-2023 data only. The actual probability may differ; for example, a hurricane has a greater than 0% probability, because there is some chance that it will occur in the future even if it has not occurred between 1950 and 2023.

*The Severe Winter Storm category includes the following events: blizzard, heavy snow, ice storm, winter storm, and winter weather.

As mentioned, the table above displays the probability of future events if there are no other changes; it is solely based on historical probability. However, the County's future vulnerability to severe storm events can be impacted by several factors, including land use changes, mitigation actions and climate change. For example, an increase in tree cover in a given area may decrease the severity of winds in that area; however, tree cover near a building may lead to an increase risk of branches or trees falling on that building. Tree cover may be impacted by changes in population and development, as well as mitigation actions such as tree plantings. Climate change may also impact severe storms, as described below.

Relation to Climate Change

Climate change is expected to change the types of severe storm events that the County is vulnerable to, likely making the County more vulnerable to severe thunderstorm, windstorm, and hail events and less vulnerable to heavy snow, ice storms, winter storms and winter weather.

The County's overall vulnerability to severe thunderstorms, windstorm, and hail events remains high. New York State Energy and Research Development Authority's (NYSERDA) ClimAID report states that temperatures will continue to rise over the next several decades (Rosenzweig, et al., 2011). U.S. Global Change Research Program's Climate Mapping for Resilience and Adaptation tool shows similar results, with annual maximum temperature averages increasing. The County may experience 5.2 °F to 6.9°F higher annual maximum temperature averages by mid-century (2035-2064), compared with 1976-2005, according to mid-level projections (U.S. Federal Government, 2022). As a result, weather patterns are projected to increase in severity. Higher temperatures allow storm clouds to hold more vapor, which in turn produces more intense precipitation during storm events. The Albany County Climate Analysis, funded by AT&T, projected that by mid-century, Albany County would see a 13% increase in inches of winter precipitation for some areas of the County, a 4 degree increase in winter temperatures across the County, and a 7-inch increase in precipitation for some watersheds in the County (Duffy, Filante, & Guo, 2024). Due to projected increases in precipitation and increases in yearly average temperatures, severe storm events are anticipated to increase in frequency and intensity.

The County's overall vulnerability to heavy snow, ice storms, winter storms and winter weather may decrease. Based on the U.S. Global Change Research Program's Climate Mapping for Resilience and Adaptation tool, the County may experience 15.9 to 19.8 fewer days with a maximum temperature of 32°F by mid-century (2035-2064), compared to modeled history (1976-2005) (U.S. Federal Government, 2022).

6.3 Drought

6.3.1 Description

A drought is a period of unusually constant dry weather that persists long enough to cause deficiencies in water supply (surface or underground). Droughts can last a short period or for many years (DHSES and AVAIL, 2023). Five types of droughts are recognized:

- Meteorological droughts are caused by a lack of precipitation that leads to dry conditions;
- Hydrological droughts are caused by changes in surface and groundwater supplies, and the effects of these events can persist for multiple years;
- Agricultural droughts relate to impacts to crops, forestry, and/or livestock caused by meteorological and hydrological droughts;

- Socioeconomic droughts reflect water shortages that adversely impact the population at both small and large scales; and
- Ecological droughts are deficits in water supplies that create multiple stresses across ecosystems (National Drought Mitigation Center, 2023).

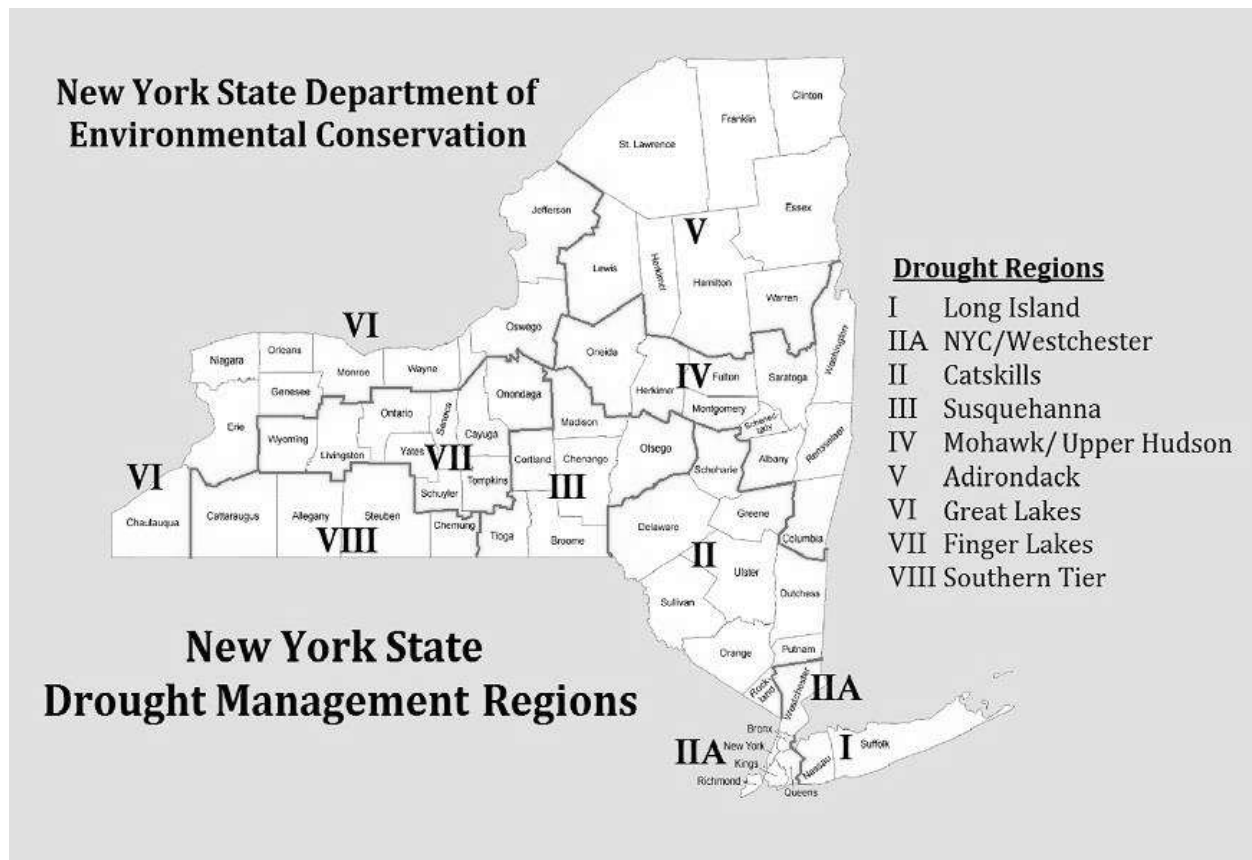
Drought is often referred to as a “creeping disaster” since they develop gradually over time. This can make it hard to recognize the true impacts of drought and respond with the urgency required (NOAA, NIDIS, 2022). While they are slow-onset hazards, over time they can severely affect vegetation and crops, wildlife, municipal water supplies and recreational resources. If drought conditions extend for long periods, the direct and indirect economic impacts can be significant. For example, significant drought can result in food shortages for wildlife, livestock, and people, and result in surging food prices and diminished revenues for local economies. High temperatures, high winds, and low humidity can worsen drought and human activities and demands for water resources can accelerate drought-related impacts (DHSES and AVAIL, 2023).

Although New York State is rich with water resources, normal fluctuations in regional weather patterns can lead to periods of dry weather. Occasional drought is a normal, recurrent feature of virtually every climate in the United States, including those in New York State.

6.3.2 Location

The New York State Department of Environmental Conservation (NYSDEC) has divided New York State into nine drought management regions based roughly on drainage basins and county lines. NYSDEC monitors precipitation, lake and reservoir levels, stream flow, and groundwater level at least monthly in each region and more frequently during periods of drought. NYSDEC uses this data to assess the condition of each region, which can range from “normal” to “drought disaster” (NYSDEC, 2023). Figure 6-8 shows the drought regions of New York State. Albany County is located within the Mohawk/Upper Hudson (Region IV).

Figure 6-8. NYS Drought Management Regions



6.3.3 Extent

Data generated by DEC is used to assess and analyze each of the region's conditions and is classified by four levels of state drought advisories if conditions are not normal: watch, warning, emergency and disaster.

The State Drought Index compares four parameters to historic or "normal" values to evaluate drought conditions: stream flows, precipitation, lake and reservoir storage levels, and groundwater levels. New York's Drought Management Task Force uses those factors as well as water use, duration of the dry period, and season to assess drought in different parts of the state. The State Drought Index helps the State assess the impact on water supply, the regional economy, and the environment (DHSES and AVAIL, 2023).

There are four stages of drought that can be declared in New York State, as follows:

- **Drought Watch** - The least severe of the stages, a drought watch is declared when a drought is developing. Public water suppliers begin to conserve water and urge customers to reduce water use.

- **Drought Warning** - Voluntary water conservation is intensified. Public water suppliers and industries update and implement local drought contingency plans. Local agencies make plans in case of an emergency declaration.
- **Drought Emergency** - The Governor may declare an emergency. The Disaster Preparedness Commission coordinates a response. Mandatory local/county water restrictions may be imposed. Communities may need to tap alternative water sources to avoid depleting water supplies, protect public health and provide for essential uses.
- **Drought Disaster** - Disaster plans are implemented. Water use is further restricted. The Governor may declare a disaster and request federal disaster assistance. Emergency legislation may be enacted. The State provides equipment and technical assistance to communities.

New York also tracks other drought measurements including the Palmer Drought Severity Index (PDSI) and the Standardized Precipitation Evapotranspiration Index (SPEI). These other indicators can be used to evaluate the level of soil moisture, which can help us understand potential impacts to agriculture (DHSES and AVAIL, 2023).

6.3.4 *Impacts and Vulnerability*

According to the updated hazard analysis in Section 5.4, Albany County is moderately vulnerable to a drought based on this hazard's minor impact (minor potential for damage to property, crops and/or people), rare occurrence, small extent (affect one or two problem areas in the jurisdiction), and low level of preparedness. This assessment is backed by additional information in Section 5 and Section 6.1.

Several municipalities within Albany County are served by public water supplies that cover all or almost all residents of the municipality (City of Albany, Village of Altamont, Town of Bethlehem, City of Cohoes, Village of Colonie, Town/Village of Green Island, Town of Guilderland, Village of Menands, Village of Ravena, Village of Voorheesville, and City of Watervliet). The remaining municipalities have water supplies that cover a portion of their residents (Town of Berne, Town of Coeymans, Town of Colonie, Town of Knox, Town of New Scotland, Town of Rensselaerville, Town of Westerlo).² These water supplies, and certain water and wastewater facilities, could be susceptible to impacts during a drought due to low water yields, particularly if a back-up water supply has not been formally established. Additionally, residents who rely on private wells would also be susceptible to the impacts of a drought due to low water yields, including water quality concerns.

Agricultural areas in the County would also experience impacts from drought. For example, agricultural operators who rely on natural rain events, rainwater collection,

² Source:

https://www.health.ny.gov/environmental/water/drinking/pws_contacts/alba_contacts.htm

and healthy soils for crop maintenance and livestock care may be susceptible to the impacts of low water yields during a drought.

The County's overall vulnerability to hazards in this Hazard Mitigation Plan Update is described in Section 8.

6.3.5 Historical Hazard Occurrences and Damage Estimates

Albany County experienced no drought events between 2018 and 2023 according to the NOAA Storm Events Database (NOAA National Centers for Environmental Information, 2023). According to the FEMA National Risk Index's Expected Annual Loss (\$) Data, droughts are expected to incur no annual losses, based on recent historical data (FEMA, 2023). However, as discussed in Section 6.3.6, there have been 3 drought events since 1950, and droughts could occur in the future and cause damage.

6.3.6 Future Potential Impacts and Relation to Climate Change

Probability of Future Events

Based on the Albany County CEPA Results, the National Risk Index, previous Presidential Disaster Declarations, Hazard Identification and Ranking, and Historical Hazard Occurrences, the County's overall vulnerability to a drought remains moderate. According to the NOAA National Climate Data Center (NCEI) Albany County experienced 3 drought events between 1950 and 2023. The table below shows these statistics, as well as the annual average number of events and the percent chance of drought events occurring in Albany County in future years (National Oceanic and Atmospheric Administration, 2023).

The probabilities are calculated using the formula $P = e / (e + y - 1) * 100\%$ where P is the probability of one or more of a given type of event occurring in a given year (e.g. the probability that there would be at least one drought in 2023), e is the total number of events over a given number of years (e.g. 1950-2023), and y is the number of years (e.g. 73 years between 1950 and 2023). In these probability calculations, the simplifying assumption has been made that these events are independent of each other – i.e. that the events are not related to one another. This assumption could be incorrect if, for example, two drought events occurred in a single summer but were caused by the same weather patterns (such as an El Niño year causing unusually high temperatures).

Table 6-2. Probability of Future Occurrence of Drought Events Given No Other Changes

Hazard Type	Number of Occurrences between 1950 and 2022	Rate of Occurrence or Annual Number of Events (average)	Recurrence Interval (in years) (# Years/Number of Events)	Probability of Event in Any Given Year (%)
Drought	3	.041	24.333	4%

Probability listed is based on 1950-2023 data only. The actual probability may differ.

As mentioned, the table above displays the probability of future events if there are no other changes; it is solely based on historical probability. However, the County's future vulnerability to drought events can be impacted by several factors, including land use changes, population changes, mitigation actions and climate change. For example, a decrease in the amount of agricultural operations in a given area or less water-intensive operations may lead to fewer strains on the water system during times of drought. This could decrease the severity of a drought. A significant increase in population in a given area could put more strain on the water system, increasing the severity and frequency of droughts. The use of water-saving techniques, as is included in some jurisdictions' mitigation actions, could decrease the severity of a drought. Climate change may also impact droughts, as described below.

Relation to Climate Change

Climate change is expected to increase the future vulnerability of the County to drought events. Properties that rely on private wells (particularly those that are vulnerable to supply issues) and agricultural areas are particularly likely to be impacted by a drought in the future. The frequency of droughts in New York State, particularly short-duration events occurring in the late summer months, is expected to increase in the future due to projected temperature increases associated with climate change (Horton, Bader, Rosenzweig, DeGaetano, & Solecki, 2014).

Specifically, based on the U.S. Global Change Research Program's Climate Mapping For Resilience and Adaptation tool, it is predicted that Albany County will experience slightly more dry days (U.S. Federal Government, 2022). The County may experience 2.8 to 3.7 more days per year with no precipitation by mid century (2035-2064), compared with 1976-2005, according to mid-level projections. Maximum consecutive dry days increases by 0.4 to 0.7 days per year for the same time period, based again on mid-level projections.

Additionally, changes in precipitation may affect the groundwater supply. As mentioned above, climate change predictions indicate that Albany County will experience slightly more heavy precipitation events, as well as more dry days. If all else is equal, then if the same volume of water falls as heavy precipitation events, rather than more frequent lighter precipitation events, more water would run off into streams and lakes. Consequently, less water would enter the ground and recharge the aquifers. This would lead to a reduced water supply that can be utilized during droughts (Department of Environmental Conservation, 2023), even if Albany County does experience an overall increase in precipitation (Duffy, Filante, & Guo, 2024).

6.4 Extreme Temperatures

6.4.1 Description

Extreme temperature events are defined as extended periods of excessive cold or hot weather with a serious impact on human and/or animal populations.

Extreme Heat

The National Weather Service generally defines a heat wave as a period of abnormally hot weather (typically 10°F or more above average temperatures) generally lasting more than two consecutive days. Extreme heat-related events can occur during all seasons. However, an extreme heat event in the winter is very different from one in the summer, as what is “extreme” is relative to historical averages for that specific time. Whereas extreme heat events in the winter can result in significant damages to winter crops, summer extreme heat events are more likely to cause health challenges and deaths (DHSES and AVAIL, 2023).

For New York State, heat advisories are issued at the county level when the heat index is predicted to remain above 95°F for 2 or more consecutive days or above 100°F for any period of time. Excessive heat warnings are issued at the county level when the heat index is at or above 105°F for 2 hours or more at any location within the affected county or counties. A heat warning means that some people can be seriously affected by heat if precautions are not taken. Mortality begins to increase exponentially as the heat increases or stays above a heat index of 104°F. Excessive heat watches are issued one to two days in advance, when the probability the excessive heat warning criteria will be met is 50 to 79 percent (DHSES and AVAIL, 2023).

The urban heat island effect is a term used to describe higher air and structure temperatures in an urban setting as opposed to the lower temperatures found in more rural areas. With fewer trees in cities and large communities, solar energy is more readily absorbed into manmade structures, causing higher urban area temperatures. The urban heat island effect contributes to higher ambient temperatures, air pollution, greater demands on cooling systems, and health problems related to heat and pollution (DHSES and AVAIL, 2023).

In extreme heat and high humidity, evaporation is slowed and the body must work harder to maintain a normal temperature. People exposed to extreme heat exposure may develop symptoms that include, sunburn, dehydration, heat exhaustion, or heat stroke.

Extreme Heat and Air Pollution

Extreme heat can worsen air pollution due to a number of factors. Hotter temperatures increase the risk of wildfires; while wildfires are not of particular concern within Albany County, smoke from wildfires elsewhere can travel to Albany County and worsen Albany County’s air quality. Hotter temperatures also increase the risk of drought, which can cause more dust. Additionally, hotter temperatures encourage the development of ozone gas, which is a lung irritant and can contribute to health problems like bronchitis and heart conditions (Borunda, 2023).

Extreme Cold

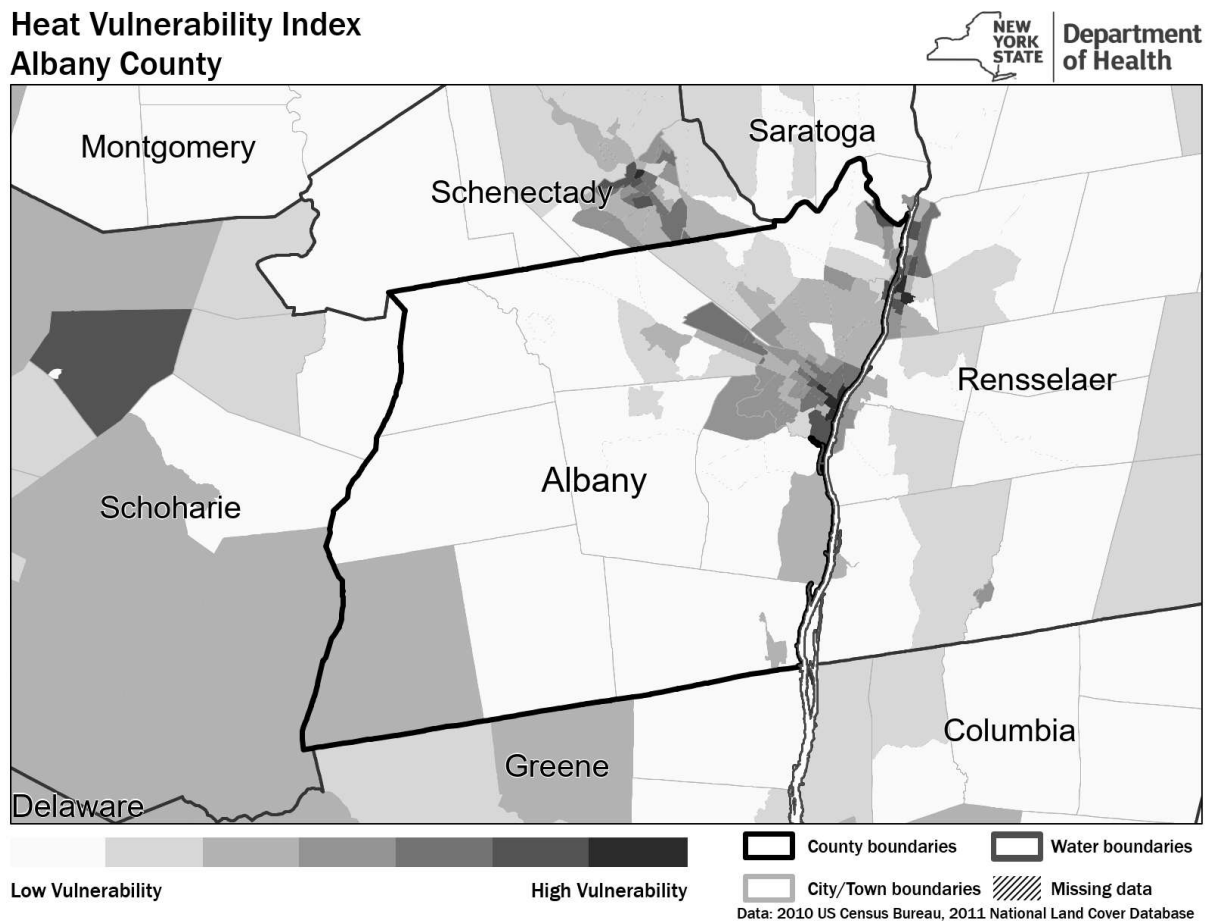
Extreme cold is characterized by a rapid fall in temperature within 24 hours and extreme low temperatures for an extended period. The arctic air, together with brisk winds, can lead to dangerously cold wind chill values.

New York State, despite its reputation for bustling cities and vibrant communities, is not immune to the harsh realities of extreme cold weather events. Extreme cold in New York can encompass frigid temperatures, heavy snowfall, ice storms, and bitter wind chills. The northeastern location of the state makes it highly susceptible to extreme cold. Varying land elevations, character of the landscape, and large bodies of water play a significant role in the state's temperatures. It is common for large portions or the entire state to experience extreme cold. In the face of extreme cold events, schools may close to prevent students, teachers, and staff from commuting to and from school, and there may be risks to public health, infrastructure, and daily life across the state (DHSES and AVAIL, 2023). In extreme cold conditions, people can experience wind chill, frostbite, or hypothermia.

6.4.2 Location

Extreme temperatures may occur anywhere within the county. However, amount of pavement, tree cover, and elevation are all factors that affect where extreme temperatures occur within the county. For example, areas with more pavement, less tree cover, and lower elevation experience increased temperatures in the summer, whereas areas of higher elevation experience colder winter days. Figure 6-9 displays a map of heat vulnerability in the County.

Figure 6-9. Heat Vulnerability Index for Albany County



Source: (NYS Department of Health, 2017)

6.4.3 Extent

The NWS Heat Index, a function of temperature and relative humidity, is used to predict the likelihood that someone could develop heat disorders. The NWS Wind Chill Index is a function of temperature and wind velocity. The NWS Heat and Wind Chill Indices are included in Figure 6-10 and Figure 6-11.

According to the National Centers for Environmental Information's (NCEI) Climate at a Glance Time Series, from 1895 to 2023 in Albany County, July 1955 had the highest monthly maximum temperature (87.9°F), while February 1934 had the lowest monthly minimum temperature (-2.8°F) (NOAA National Centers for Environmental Information, 2024).

Figure 6-10. NWS Heat Index

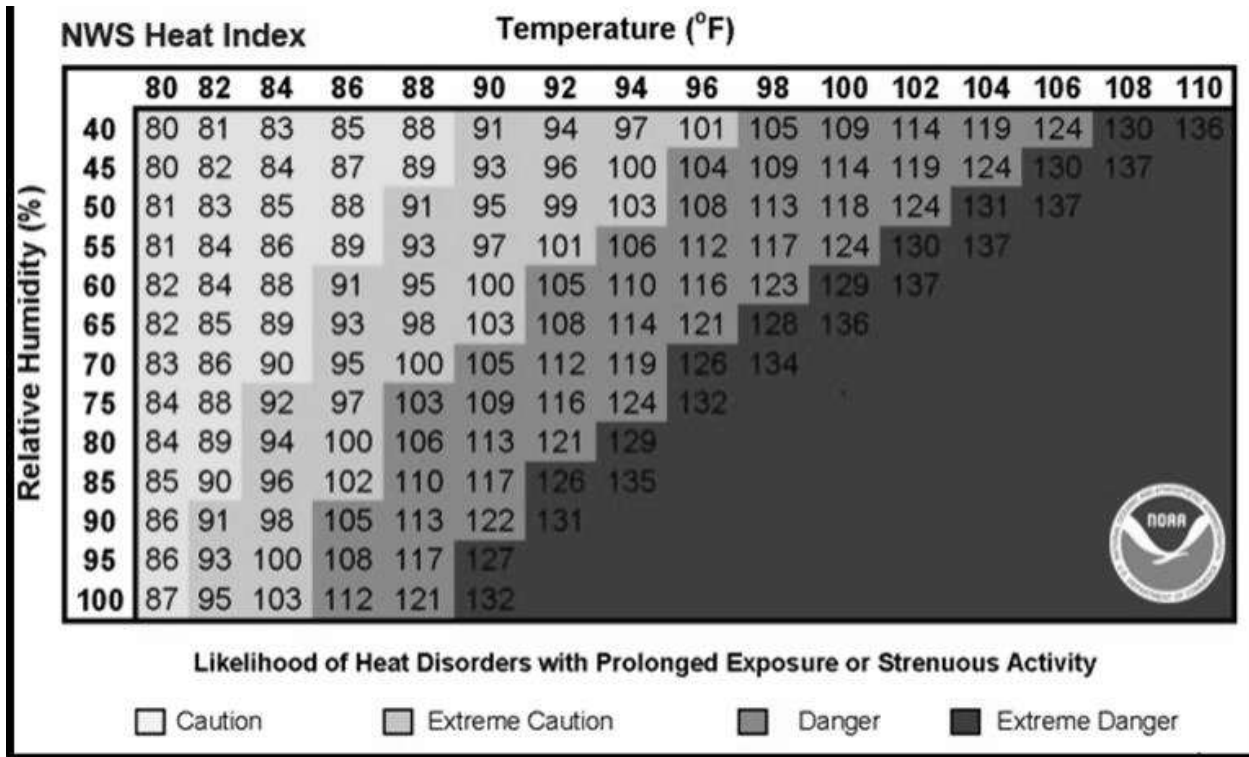
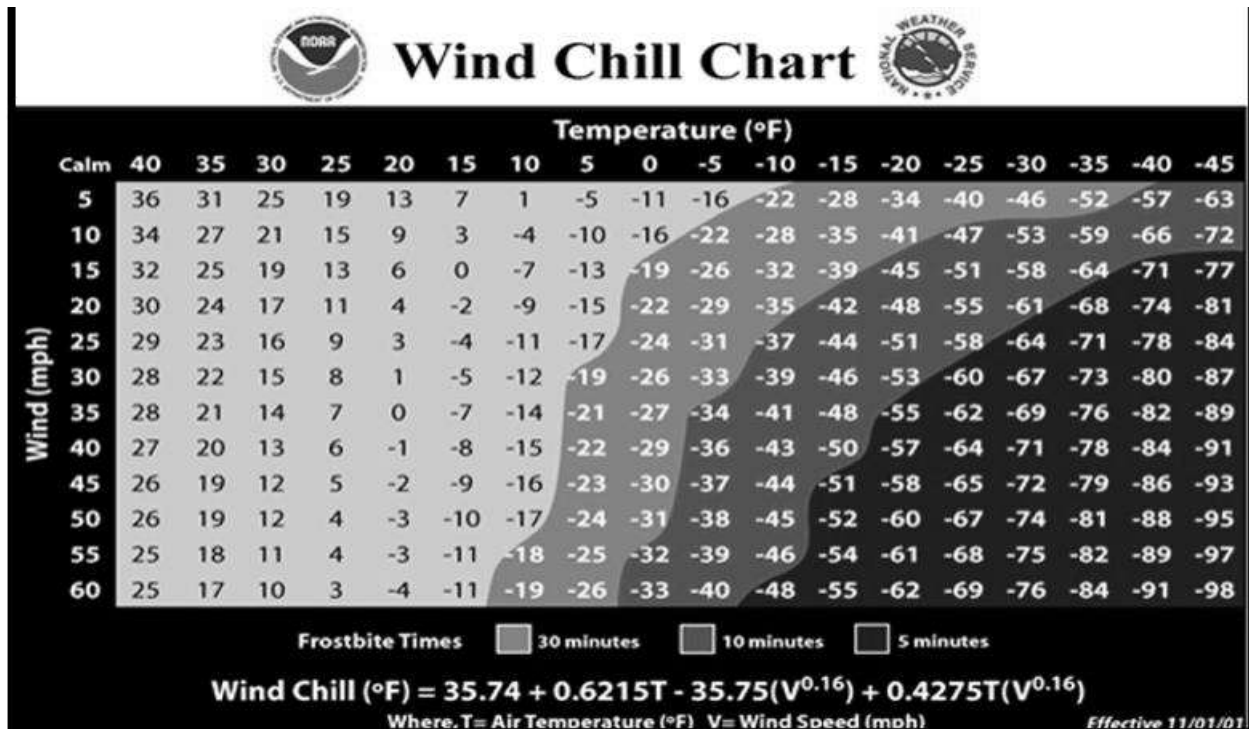


Figure 6-11. NWS Wind Chill Chart



6.4.4 *Impacts and Vulnerability*

According to the updated hazard analysis in Section 5.4, the County is highly vulnerable to extreme temperature events based on this hazard's moderate impact (moderate potential for damage to property, crops and/or people), infrequent occurrence, large extent (county-wide extent of impacts), and moderate level of preparedness. This assessment is backed by additional information in Section 5 and Section 6.4.

Extreme temperature events tend to have greater impacts on vulnerable populations, including older adults (over 65 years), young children (under 5 years), people with health problems, or people who cannot afford to sufficiently heat or cool their homes. Approximately 5.0% of the population in Albany County is under 5 years old, and 16.9% of the population is 65 years old and above. These statistics mean that approximately 21% of the population is at higher risk for greater impacts to extreme temperatures based on age (U.S. Census Bureau, 2020). Additionally, 11.7% of the families within the County are below the poverty level, and 13.8% of the County's population has a disability (U.S. Census Bureau, 2023). Extreme temperatures principally affect the health and safety of the human population, although they can also impact livestock and crops, and may also cause damage to infrastructure and property. As described in Section 6.4.1, extreme heat events can also lead to worsened health effects from air pollution, such as respiratory and cardiac problems.

Additionally, Albany County is projected to experience an increase in winter maximum temperatures, as described in Section 6.4.6. This will likely lead to increases in the freeze-thaw cycles, which can deteriorate infrastructure. However, the increase of winter temperatures could also be beneficial to agriculture, by extending the growing season in the spring.

There are multiple cooling center locations established throughout the County (Department of Health, 2024). The County recommends that residents utilize facilities such as libraries, public pools, grocery stores, and shopping centers to seek relief from extreme heat.

Albany County and its jurisdictions are particularly concerned about the impacts of extreme temperature events on vulnerable populations, such as those listed in Section 2.3.2. Senior citizens were mentioned frequently. Additionally, warmer winters can cause damage to infrastructure, such as road degradation from freeze-thaw cycles.

The County's overall vulnerability to hazards in this Hazard Mitigation Plan Update is described in Section 8.

6.4.5 *Historical Hazard Occurrences and Damage Estimates*

Table 6-12 shows the extreme temperature events that the County has experienced between 2018 and 2023, and their estimated damages.

Table 6-12. Extreme Temperature Event Records, 2018-2023

Location	Event Type	Date	Estimated Property Damage	Estimated Crop Damage
Western Albany County	Extreme Cold/Wind Chill	1/1/2018	\$0	\$0
Eastern Albany County	Cold/Wind Chill	1/1/2018	\$0	\$0
County Wide	Extreme Cold/Wind Chill	1/5/2018	\$0	\$0
Western Albany County	Cold/Wind Chill	1/13/2018	\$0	\$0
Eastern Albany County	Heat	6/18/2018	\$0	\$0
Eastern Albany County	Heat	6/30/2018	\$0	\$0
Eastern Albany County	Excessive Heat	7/1/2018	\$0	\$0
Western Albany County	Heat	7/1/2018	\$0	\$0
Eastern Albany County	Heat	7/16/2018	\$0	\$0
Eastern Albany County	Heat	8/28/2018	\$0	\$0
Eastern Albany County	Heat	8/29/2018	\$0	\$0
Eastern Albany County	Heat	9/3/2018	\$0	\$0
Western Albany County	Cold/Wind Chill	11/22/2018	\$0	\$0
Western Albany County	Extreme Cold/Wind Chill	1/20/2019	\$0	\$0
Eastern Albany County	Cold/Wind Chill	1/20/2019	\$0	\$0
Eastern Albany County	Cold/Wind Chill	1/30/2019	\$0	\$0

Location	Event Type	Date	Estimated Property Damage	Estimated Crop Damage
Western Albany County	Extreme Cold/Wind Chill	1/30/2019	\$0	\$0
Western Albany County	Cold/Wind Chill	2/1/2019	\$0	\$0
Eastern Albany County	Heat	7/19/2019	\$0	\$0
Eastern Albany County	Excessive Heat	7/20/2019	\$0	\$0
Western Albany County	Heat	7/20/2019	\$0	\$0
Eastern Albany County	Heat	7/30/2019	\$0	\$0
Eastern Albany County	Heat	8/19/2019	\$0	\$0
Western Albany County	Cold/Wind Chill	12/18/2019	\$0	\$0
Eastern Albany County	Heat	7/9/2020	\$0	\$0
Eastern Albany County	Heat	7/11/2020	\$0	\$0
Eastern Albany County	Heat	7/19/2020	\$0	\$0
Western Albany County	Heat	7/27/2020	\$0	\$0
Eastern Albany County	Heat	7/27/2020	\$0	\$0
Eastern Albany County	Heat	8/10/2020	\$0	\$0
County Wide	Cold/Wind Chill	1/28/2021	\$0	\$0
Western Albany County	Cold/Wind Chill	1/29/2021	\$0	\$0
Eastern Albany County	Heat	6/7/2021	\$0	\$0

Location	Event Type	Date	Estimated Property Damage	Estimated Crop Damage
Eastern Albany County	Heat	6/21/2021	\$0	\$0
Eastern Albany County	Heat	6/27/2021	\$0	\$0
County Wide	Heat	8/11/2021	\$0	\$0
Eastern Albany County	Excessive Heat	8/12/2021	\$0	\$0
Eastern Albany County	Heat	8/13/2021	\$0	\$0
County Wide	Heat	8/26/2021	\$0	\$0
County Wide	Cold/Wind Chill	1/14/2022	\$0	\$0
Western Albany County	Cold/Wind Chill	1/20/2022	\$0	\$0
Western Albany County	Cold/Wind Chill	1/29/2022	\$0	\$0
Eastern Albany County	Heat	7/20/2022	\$0	\$0
Eastern Albany County	Heat	7/23/2022	\$0	\$0
Eastern Albany County	Heat	7/28/2022	\$0	\$0
County Wide	Heat	8/4/2022	\$0	\$0
Western Albany County	Heat	8/7/2022	\$0	\$0
Eastern Albany County	Heat	8/30/2022	\$0	\$0
County Wide	Extreme Cold/Wind Chill	2/3/2023	\$0	\$0
Eastern Albany County	Heat	7/6/2023	\$0	\$0
Eastern Albany County	Heat	9/5/2023	\$0	\$0

Source: (NOAA National Centers for Environmental Information, 2023).

According to the FEMA National Risk Index's Expected Annual Loss (\$) Data, heat waves are expected to cause \$152,411 in annual total losses, and cold waves are expected to cause \$487,787 annual total losses (FEMA, 2023). Cold waves, as defined by FEMA's National Risk Index, are considered "a rapid fall in temperature within 24 hours and extreme low temperatures for an extended period" (FEMA, 2023). This differs slightly from the National Oceanic and Atmospheric Administration's definition of extreme cold, which is identified as "A period of extremely low temperatures or wind chill temperatures reaching or exceeding locally/regionally defined warning criteria (typical value around -35° F or colder)" (NOAA National Centers for Environmental Information, 2023).

6.4.6 *Future Potential Impacts and Relation to Climate Change*

Probability of Future Events

Based on the Albany County CEPA Results, the National Risk Index, previous Presidential Disaster Declarations, Hazard Identification and Ranking, and Historical Hazard Occurrences, the County's overall vulnerability to an extreme temperature event is high. According to the NOAA National Climate Data Center (NCEI) Albany County experienced 86 extreme temperature events between 1950 and 2023. The table below shows these statistics, as well as the annual average number of events and the percent chance of these individual extreme temperature hazards occurring in Albany County in future years (National Oceanic and Atmospheric Administration, 2023).

In the table below, cold events are defined as a period of low temperatures or wind chill temperatures reaching or exceeding locally/regionally defined advisory (typical value is -18°F or colder) conditions, and extreme cold events are defined as a period of extreme low temperatures or wind chill temperatures reaching or exceeding locally/regionally defined warning criteria (typically around -35 °F or colder). Heat events are defined as a period of heat resulting from the combination of high temperatures (above normal) and relative humidity, and excessive heat events are defined as combination of high temperatures (well above normal) and high humidity. Both heat and excessive heat events are reported in Storm Data whenever heat index values meet or exceed locally/regionally established warning thresholds (DOC, NOAA, NWS, 2021).

The probabilities are calculated using the formula $P = e / (e + y - 1) * 100\%$ where P is the probability of one or more of a given type of event occurring in a given year (e.g. the probability that there would be at least one excessive heat event in 2023), e is the total number of events over a given number of years (e.g. 1950-2023), and y is the number of years (e.g. 73 years between 1950 and 2023). In these probability calculations, the simplifying assumption has been made that these events are independent of each other – i.e. that the events are not related to one another. This assumption could be incorrect if, for example, a heat event occurred and then an excessive heat event occurred shortly afterwards, but they were both caused by the same warm spell.

Table 6-2. Probability of Future Occurrence of Extreme Temperature Events Given No Other Changes

Hazard Type	Number of Occurrences between 1950 and 2023	Rate of Occurrence or Annual Number of Events (average)	Recurrence Interval (in years) (# Years/Number of Events)	Probability of Event in Any Given Year (%)
Heat	47	.643	1.553	39.5%
Cold	31	.424	2.354	30.1%
Excessive Heat	7	.095	10.428	8.9%
Extreme Cold	1	.013	73	1.4%
ALL EXTREME TEMPERATURE EVENTS	86	1.178	0.848	54.4%

Probability listed is based on 1950-2023 data only. The actual probability may differ.

As mentioned, the table above displays the probability of future events if there are no other changes; it is solely based on historical probability. However, the County's future vulnerability to extreme temperature events can be impacted by several factors, including land use changes, population changes, mitigation actions and climate change. For example, if additional development (e.g. from increases in population) leads to areas with more pavement, those areas may see an increase in extreme heat events. Areas that experience an increase in tree cover (e.g. from changing land uses) may see a decrease in extreme heat events. Mitigation actions can also reduce the vulnerability of the County to extreme cold or extreme heat events; for example, creating warming or cooling centers, publicizing them, and offering transportation could reduce the health and safety impacts that many people feel from extreme heat and extreme cold events. Climate change is also expected to impact the frequency and severity of extreme temperature events, as described below.

Relation to Climate Change

Climate change is expected to increase the future vulnerability of the County to extreme heat events and decrease its vulnerability to extreme cold events.

Based on the U.S. Global Change Research Program's [Climate Mapping For Resilience and Adaptation tool](#), it is predicted that Albany County will experience more extreme heat (U.S. Federal Government, 2022). The County may experience 19.1 to 25.3 days per year above 90 degrees Fahrenheit by mid-century (2035-2064), compared with 4.6 days per year in modeled history (1976-2005), according to mid-level projections. Additionally, it is predicted that Albany County will experience fewer cold days. The County may experience 28.3 to 32.2 days per year with maximum temperature below

32 degrees Fahrenheit by mid-century (2035-2064), compared with 48.1 days per year in modeled history (1976-2005), according to mid-level projections.

Additionally, Albany County is projected to see increases in winter maximum temperatures, which will drive increases in freeze-thaw cycles. By mid-century, Albany County is projected to experience a 4 degree increase in winter temperatures across the County (Duffy, Filante, & Guo, 2024). This would lead to a change in the types of precipitation in winter, namely more sleet and wintry mixes instead of pure snow.

Going forward, an increased use of air conditioning associated with the rise in extreme heat events will increase demands on local power grids, which should be taken into consideration by municipalities as well as utility providers regarding future planning efforts.

6.5 Landslide

6.5.1 *Description*

A landslide is a movement of rock, debris, or earth down a slope.

Landslides can flow rapidly, striking at avalanche speeds that can travel several miles and grow as they pick up trees, boulders, cars, and other materials. Other landslides move more slowly but are capable impacting large areas (several acres), causing severe damage to homes, infrastructure, and personal property. Some of the most damaging landslides are caused by water. This could be from natural sources, such as intense short-term rainfall or long-term saturation of a slope, or from human activities, such as irrigation, oversaturating the hillsides and creating an unstable environment.

A mudflow, also known as a mudslide, is a rapidly moving mass of water and fine-grained sediment down a slope. A debris flow is the same as a mudflow but contains larger materials: mudflows contain sediment the size of sand grains and smaller, debris flows can contain boulders, trees, and any other materials that can be swept up in the current. Debris flows may start on a sloped surface but can easily impact flat areas due to how fast they can travel and their fluid-like movement. Since debris flows are composed of water and loose material, they can move more rapidly than a typical landslide, at speeds up to and exceeding 35 mph.

The destruction of vegetation and destabilization of soil that results from wildfires make soil less able to retain water and creates favorable conditions for mudslides and debris flows. In some instances, it is possible for landslides to occur along stream and river channels as well, creating significant risk of flooding, because large landslides may act as an earthen dam and cause streams to pond and back up and flood property upstream of the earthen dam.

Landslides often occur with little or no warning and pose significant risks to the natural environment, human safety, property, infrastructure, utilities, and transportation, with impacts causing injuries or fatalities (DHSES and AVAIL, 2023).

6.5.2 Location

According to the New York State Hazard Mitigation Plan (2023 Update), areas of New York that were formerly occupied by glacial lakes, i.e. the Hudson, Mohawk River, and Schoharie Valleys, are highly susceptible to erosion and landslides. Albany County contains parts of the Hudson River Valley, as well as parts of the Mohawk River Valley in the northeastern part of the County. Steep slopes carved in fine-grained glacial lake sediments especially are prone to slope failure and landslides (DHSES and AVAIL, 2023).

Areas that are commonly considered to be safe from landslides include areas that have not experienced landslides in the past, areas of minimal slope, and areas set back from the tops of slopes. Conversely, areas that are commonly considered to be more prone to landslides tend to be areas where a landslide has occurred in the past, bases of steep slopes or drainage channels, and developed hillsides where leach field septic systems are used.

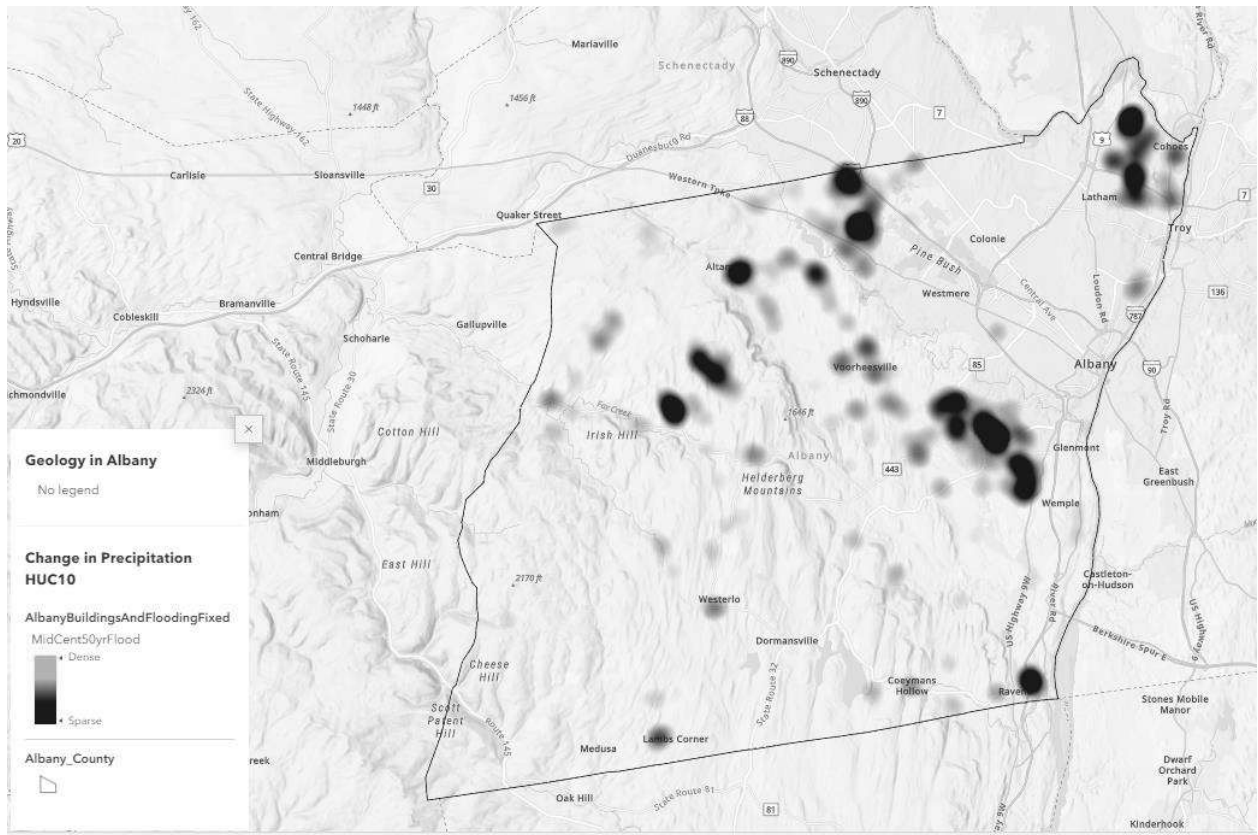
The Albany County Climate Analysis gives additional information on potential landslide locations (Guo, 2024). Areas at especially high risk of landslides include areas where Karst formations (characterized by soluble carbonate rocks like limestone) are combined with steep slopes and/or heavy precipitation. Steep slopes and Karst Formations are shown in Figure 6-12, while projected changes in precipitation are shown in Figure 6-13. The areas around Tarrytown and Callanans Corner may be at especially high risk of landslides. Steep slopes are also prevalent particularly in Southern and Central Albany County. Additionally, soils with high clay content (e.g. dark green areas in Figure 6-14) and low bulk density or low organic matter are more susceptible to landslides. These are more common in Northwest and Central Albany County, as well as in Central-Eastern Albany which is projected to see moderate increases in precipitation. More information is available in Appendix K. Figure 6-15 shows a map of landslide events in New York State, with Albany County circled in black.

Figure 6-12. Steep Slopes and Karst Formations in Albany County



Source: (Duffy, Filante, & Guo, 2024)

Figure 6-13. Change in Precipitation Projected by Project IN-CORE



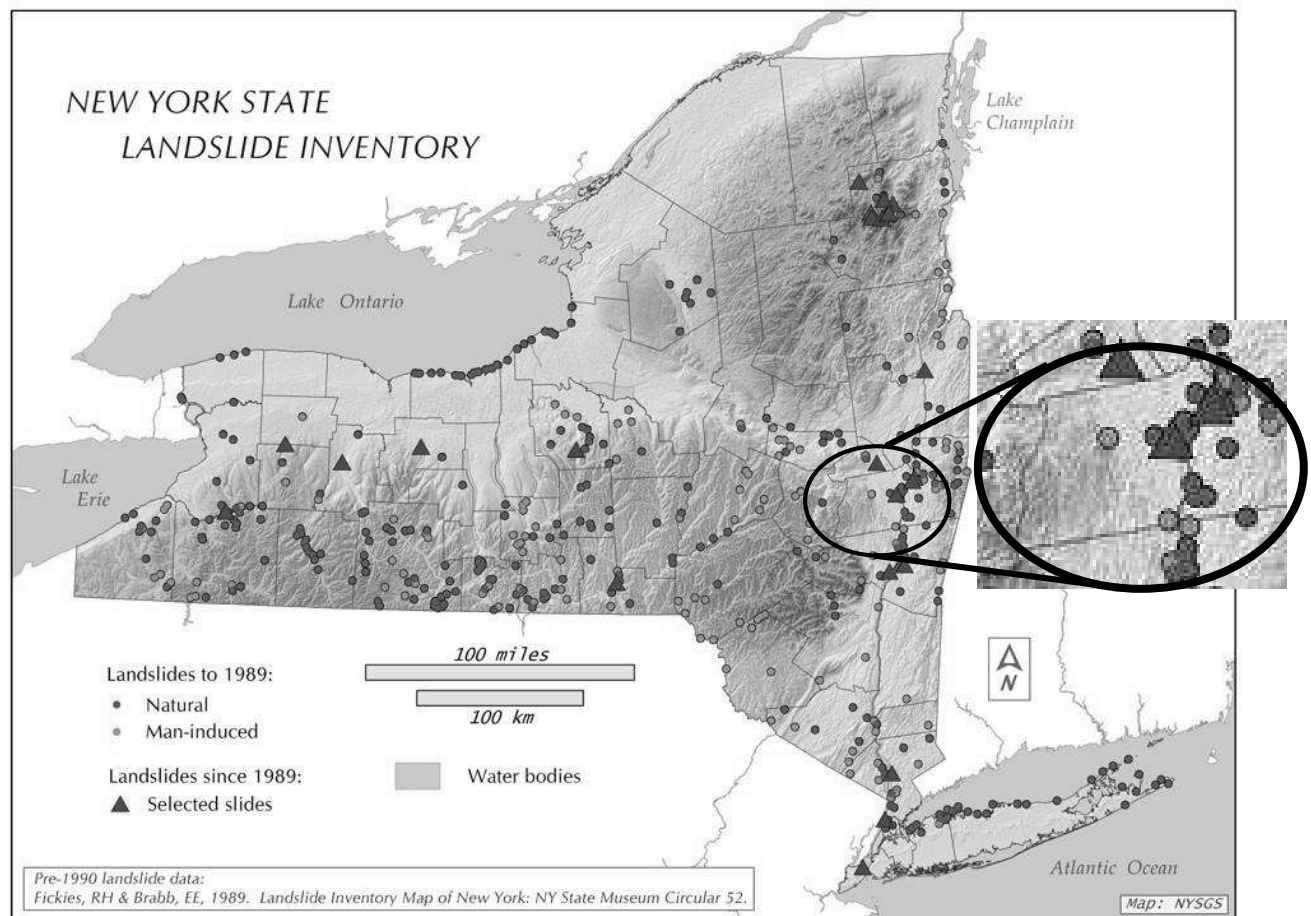
Source: (Duffy, Filante, & Guo, 2024)

Figure 6-14. Soil Composition and Landslides



Source: (Duffy, Filante, & Guo, 2024)

Figure 6-15. Landslide Events in New York State



Source: (DHSES and AVAIL, 2023). Albany County is circled in black.

6.5.3 Extent

The Landslide Risk Index Score and Landslide Expected Annual Loss Score are two measures of quantifying landslide risk and damage. According to the National Risk Index, "A Landslide Risk Index score and rating represent a community's relative risk for Landslides when compared to the rest of the United States. A Landslide Expected Annual Loss score and rating represent a community's relative level of expected building and population loss each year due to Landslides when compared to the rest of the United States" (FEMA, 2023). Albany County's Risk Index score for landslide is 90.9, which is classified as "Relatively Moderate." The County's Expected Annual Loss score for landslide is 92.4, which is also classified as "Relatively Moderate" (FEMA, 2023).

6.5.4 Impacts and Vulnerability

According to the updated hazard analysis in Section 5.4, Albany County has a low vulnerability to landslides based on this hazard's minor impact (minor potential for

damage to property, crops and/or people), rare occurrence, small extent (affects one or two problem areas within the jurisdiction), and moderate level of preparedness. This assessment is backed by additional information in Section 5 and Section 6.5.

Impacts to the County from landslide events include effects on buildings and infrastructure, people, the economy, and the natural environment. For example, landslides can damage plumbing lines, roads, manufactured homes, and buildings on slopes or hillsides in particular. They can also displace people, impact transportation, impact the provision of supplies, and cause injury and death. For the natural environment, landslides can destroy vegetation, degrade wildlife habitats, and pollute waterways.

The County's overall vulnerability to hazards in this Hazard Mitigation Plan Update is described in Section 8.

6.5.5 Historical Hazard Occurrences and Damage Estimates

Table 6-13 shows the landslide events that the County has experienced between 2018 and 2023, and their estimated damages.

Table 6-13. Landslide Event Records, 2018-2023

Location	Event Type	Date	Magnitude	Estimated Property Damage	Estimated Crop Damage
Bethlehem	Landslide	5/13/2021	-	Unknown	-

Source: (NOAA National Centers for Environmental Information, 2023).

According to the FEMA National Risk Index's Expected Annual Loss (\$) Data, landslide events are expected to cause \$178,905 in annual total losses (FEMA, 2023).

6.5.6 Future Potential Impacts and Relation to Climate Change

Probability of Future Events

Based on the Albany County CEPA Results, the National Risk Index, previous Presidential Disaster Declarations, Hazard Identification and Ranking, and Historical Hazard Occurrences, the County's overall vulnerability to a landslide remains low. According to the 2023 NY Hazard Mitigation Plan (MitigateNY) and local news reports, Albany County experienced 3 landslide events between 1950 and 2023. The table below shows these statistics, as well as the annual average number of events and the percent chance of these individual severe storm hazards occurring in Albany County in future years (Roberts, 2020; ABC News 10, 2021; All Over Albany, 2015).

The probabilities are calculated using the formula $P = e / (e + y - 1) * 100\%$ where P is the probability of one or more of a given type of event occurring in a given year (e.g. the probability that there would be at least one hail event in 2023), e is the total number of

events over a given number of years (e.g. 1950-2023), and y is the number of years (e.g. 73 years between 1950 and 2023). In these probability calculations, the simplifying assumption has been made that these events are independent of each other – i.e. that the events are not related to one another. This assumption could be incorrect if, for example, a single event was counted as both a hail event and a strong wind event.

Table 6-2. Probability of Future Occurrence of Severe Storm Events Given No Other Changes

Hazard Type	Number of Occurrences between 1960 and 2023	Rate of Occurrence or Annual Number of Events (Average)	Recurrence Interval (in years) (# Years/Number of Events)	Probability of Event in Any Given Year (%)
Landslide	3	.041	24.333	4%

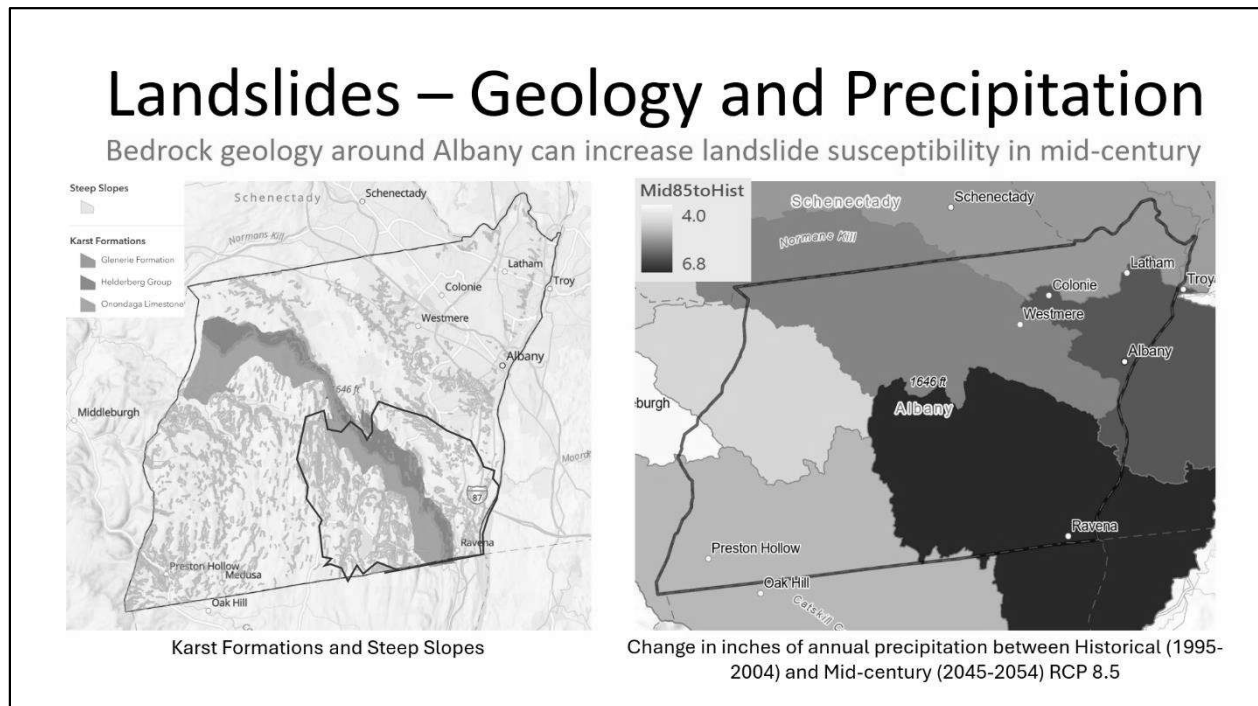
Probability listed is based on 1950-2023 data only. The actual probability may differ; for example, a hurricane has a greater than 0% probability, because there is some chance that it will occur in the future even if it has not occurred between 1950 and 2023.

As mentioned, the table above displays the probability of future events if there are no other changes; it is solely based on historical probability. However, the County's future vulnerability to landslide events can be primarily attributed to frequency of heavy precipitation events that impact the stability of steep slopes.

Relation to Climate Change

According to the Climate Impacts Group and MitigateNY, there currently is no research showing a direct link between climate change and landslide events. However, underlying conditions that impact landslides, such as bedrock stability and heavy rain events, are influenced by climate-related trends, such as temperature increases and extreme precipitation events (Mauger, et al., 2015; MitigateNY, 2023). The Albany County Climate Analysis, funded by AT&T, projected that by mid-century, the County's susceptibility to landslides could increase. This would be due to the anticipated increase in precipitation, combined with bedrock geology around Albany County, as shown in Figure 6-16. Some watersheds in Albany County are projected to experience a 7-inch increase in precipitation (Duffy, Filante, & Guo, 2024). Additionally, rising winter temperatures could increase the number of freeze-thaw cycles. This could displace rocks and potentially increase landslide susceptibility, according to the Climate Analysis (Guo, 2024).

Figure 6-16. Changing Landslide Risk Projected by Project IN-CORE



Source: (Duffy, Filante, & Guo, 2024)

7 ASSETS

7.1 People

People are Albany County's most important asset. Demographic characteristics of Albany County – including vulnerable populations and steps taken to consider such populations – are described in Section 2, the Community Engagement Plan (Appendix C), and in each jurisdictional annex (Appendix A).

7.2 Economic Assets

The County's largest sectors of the economy include 1) educational services, health care, and social assistance, 2) professional, scientific, and management, and administrative and waste management services, and 3) public administration. These and other sectors are described in more detail in Section 2.3.3.

7.3 Key Infrastructure

7.3.1 Overview

Notable infrastructure in the County includes a CSX Transportation switching yard and rail lines (carrying hazardous material), a National Grid power hub in Guilderland, dams, several large reservoirs, a gravity fed water system, and wastewater treatment plants, in addition to other infrastructure outlined below.

7.3.2 Transportation

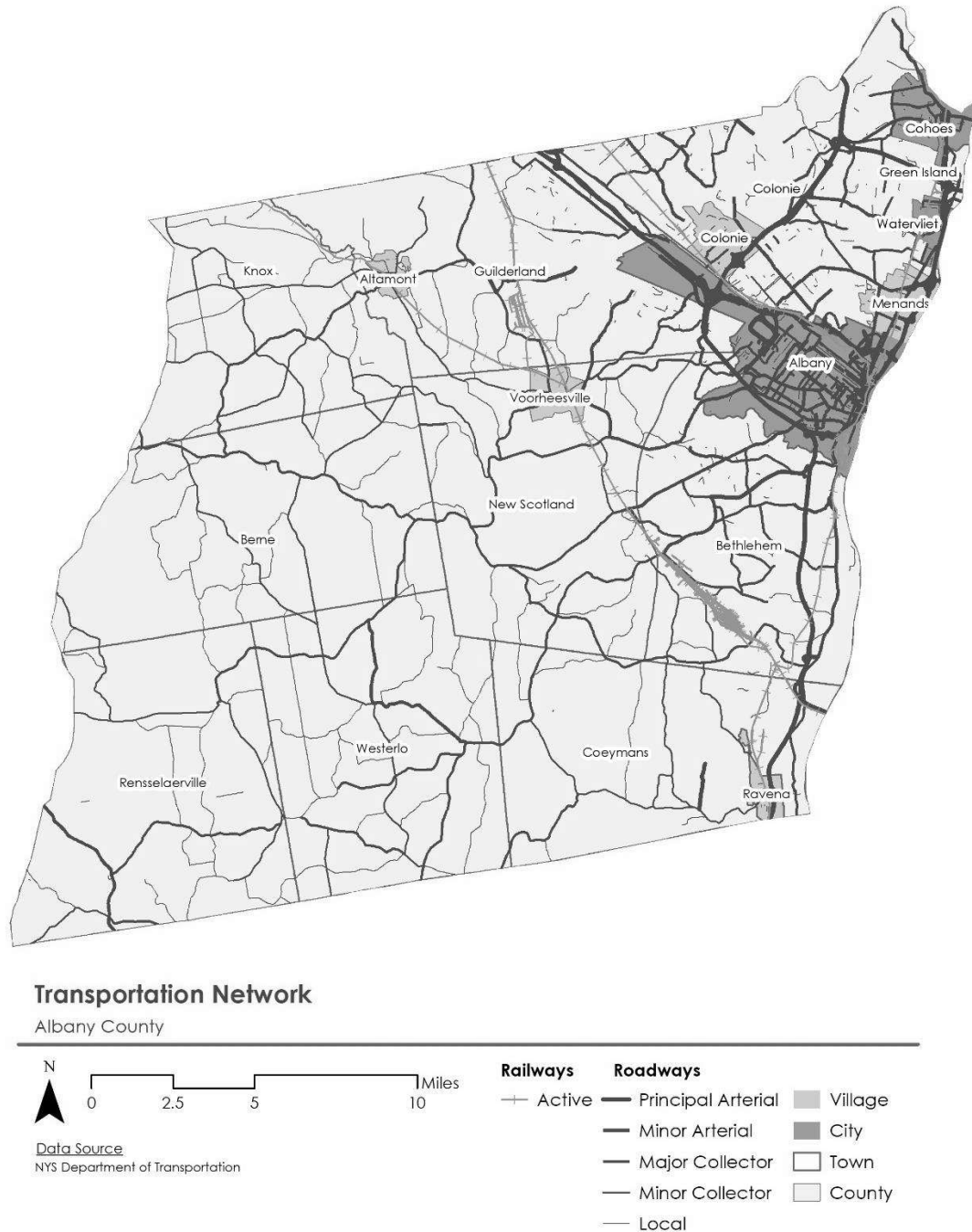
In Albany County, roadway, rail, and air transportation options are available. Albany County is serviced by Albany-Rensselaer Amtrak Station located across the Hudson River in the City of Rensselaer. The Albany-Rensselaer Station is the eighth busiest Amtrak Station in the nation (Bureau of Transportation Statistics, 2023). The station provides connections to New York City, Syracuse, Buffalo, Niagara Falls, Montreal, Toronto, Rutland, Boston, as well as minor destinations throughout the Amtrak network.

There is a Greyhound Bus Station located in the City of Albany. This bus terminal provides access to several nearby cities such as New York City, Boston, and more. Albany County has three (3) major roadways: Interstate 87, Interstate 90 and New York State Route/Interstate 787. Albany County is also serviced by an extensive regional bus transit system called the Capital District Transportation Authority (CDTA).

In terms of air transportation, Albany International Airport is the primary airport for domestic and international flights in the Capital Region. The airport facilitates commercial passengers, air freight, and private aviation. Located in the Town of Colonie, Albany International Airport is centrally located between the four (4) counties of the Capital District (Albany, Rensselaer, Saratoga, and Schenectady) and services the outlying rural areas as well.

Figure 7-1 shows the locations of the major transportation networks in Albany County.

Figure 7-1. Transportation Networks in Albany County



Data Source: NYS Department of Transportation

7.3.3 Utilities

Utilities, such as water and sewer systems, electricity and natural gas, telecommunications, and internet, can play an important role in mitigating risk to natural hazards while also serving as essential infrastructure during a hazard event. Select utilities are described below.

Potable Water

Albany County relies on water from both surface and groundwater sources within the six (6) watersheds that run through the County. The majority of the County's water supply is provided by twelve (12) community water supply systems which draw fresh water from the four (4) reservoirs located throughout the County. There are several water districts that serve the County, some of which cross municipal boundaries. There are water plants at several municipalities in the County, especially near the Hudson River.

Wastewater Facilities

The Albany County Water Purification District has two (2) wastewater treatment facilities, designated North and South. These facilities provide secondary treatment to the wastewater of eight communities in Albany County. The North Plant is located in Menands and is designed to treat 35 MGD daily. The South Plant is located in the Port of Albany-Rensselaer and is permitted to treat 29 MGD daily. The North Plant has created an innovative waste recycling and energy producing system that allows for fewer emissions and lower costs. NYSEDA has identified this project as being the first of its kind (Benjamin, 2013).

Energy and Electricity

National Grid services a large portion of Albany County with natural gas service and/or electricity (National Grid, 2024). Central Hudson Gas and Electric is another major gas and electricity supplier. The Town/Village of Green Island also has a municipal utility run by the Green Island Power Authority, which services electric customers in the Village (Village of Green Island, 2022). Power is also generated at the Bethlehem Energy Center, located in the Town of Bethlehem.

Communications

Albany County is served by a variety of communications systems, including traditional land line, fiber optic, and cellular provided by multiple companies such as AT&T, Verizon, T-Mobile, DirecTV, Spectrum, Dish Network, Ooma, US Mobile, and VoIPo. Carriers have individual plans for emergency situations during hazard events and post disaster recovery efforts. Internet providers include Spectrum, EarthLink, Verizon, HughesNet, T-Mobile, Viasat, Starlink, Hudson Valley Wireless, and more. In addition, Albany County has an extensive radio communications network that is utilized by

emergency services agencies, hospitals, law enforcement, public works, transportation and other supporting organizations.

The Albany County Sheriff's Office E911/Communications Center provides dispatch services to several entities within the County as well as other state and local law enforcement agencies as needed. It is the primary E911 answering point for six towns, three villages, and two cities. The Center also manages and administers the 911 system throughout Albany County (Albany County, 2017).

Albany County utilizes Reverse 911 and NY Alert as hazard warning systems. Reverse 911 allows the County to communicate with residents in a given geographic area via telephone in an emergency. NY Alert provides the opportunity for residents to sign up, for free, for emergency notifications via phone, email, text, or fax (New York State, 2018). Additionally, Albany County, the City of Cohoes, and the Town of Bethlehem are StormReady certified, which involves meeting several criteria related to storm preparedness, including multiple communications systems (National Weather Service, 2023).

Individual jurisdictions utilize additional mechanisms for hazard warnings, such as fire station alarms, the Integrated Public Alert & Warning System (IPAWS), Norlite (for stormwater contamination and hazardous spills), and the National Weather Service forecast office in Albany. These differ between jurisdictions and are further described in the jurisdictional annexes.

7.3.4 Critical Facilities

Infrastructure and critical facilities are those that are crucial to the health and welfare of the population. These take on a greater significance after any hazard event. These critical facilities include community lifelines, such as fire departments, EMS services, police stations, water and wastewater services, and highway garages. They also include facilities such as County buildings, City, Town and Village halls, schools, and senior centers.

A list of the County's critical facilities was compiled based on the 2018 HMP, Albany County's Climate Resiliency Plan, the Albany County Open Source Data (GIS), internet research, and recommendations from the Executive Steering Committee. Additionally, each jurisdiction provided information about critical facilities within that particular jurisdiction, as well as their vulnerabilities and protection to 1% and 0.2% annual chance flood events, as detailed in each jurisdictional annex (Appendix A). The list of critical facilities for each jurisdiction was adapted from the 2018 HMP. Then, certain key facilities were added – such as Town/Village halls, highway garages, water and wastewater facilities, schools, fire departments, EMS facilities, and facilities that house vulnerable populations – depending what was present in each jurisdiction. This list was further refined based on jurisdictional input. Jurisdictions ultimately decided what they considered to be critical facilities.

A list of critical facilities is included in each jurisdictional annex, including the County's annex (Appendix A).

7.3.5 Dams

High Hazard Potential Dams (HHPDs)

According to the NYSDEC Division of Water Bureau and Flood Protection and Dam Safety, there are four hazard classifications of dams in New York State. The dams are classified in terms of potential for downstream damage if the dam were to fail. The hazard classifications are as follows:

- Low Hazard (Class A) is a dam located in an area where failure is likely to damage nothing more than isolated buildings, undeveloped lands, or township or county roads and/or will cause no significant economic loss or serious environmental damage. Failure or operation problems would result in no probable loss of human life. Losses are principally limited to the owner's property.
- Intermediate Hazard (Class B) is a dam located in an area where failure may damage isolated homes, main highways, and minor railroads, interrupt the use of relatively essential public utilities, and cause significant economic loss or serious environmental damage. Failure or operation problems would result in no probable loss of human life but can cause economic loss, environmental damage, disruption of lifeline facilities, or impact other concerns. Class B dams are often located in predominantly rural or agricultural areas but may also be located in areas with population and significant infrastructure.
- High Hazard (Class C) is a dam located in an area where failure may cause loss of human life; serious damage to homes, industrial, or commercial buildings; essential public utilities; main highways or railroads; and will cause extensive economic loss. This is a downstream hazard classification for dams in which excessive economic loss (urban area including extensive community, industry, agriculture, or outstanding natural resources) would occur as a direct result of dam failure.
- Negligible or No Hazard (Class D) is 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. (NYSDEC Division of Water) (FEMA, 2004)

In Albany County, there are forty-one (41) dams according to the National Inventory of Dams (U.S. Army Corps of Engineers, 2023). Of these, fourteen (14) are categorized as "low hazard," twelve (12) as "significant hazard", and fifteen (15) as "high hazard." This differs somewhat from the data from the New York State Inventory of Dams, which lists a total of 109 dams in the County, 13 being high hazard (New York State Department of Environmental Conservation, 2024). For this Hazard Mitigation Plan, data from both inventories was collected and compared.

To be eligible for a High Hazard Potential Dam (HHPD) Grant through FEMA, a dam must be classified as “high hazard potential” in the National Inventory of Dams, but it also must be classified as “high hazard” by the state dam safety agency in the state in which the dam is located. This applies to fifteen dams in Albany County, as indicated in Table 7-1.

Table 7-1 displays the High Hazard Potential Dams in Albany County, and Figure 7-2 displays the dams in Albany County and their classifications. All High Hazard Potential Dams in the County have an Emergency Action Plan, and were referenced in the completion of the plan. HHPD worksheets are included in the jurisdictional annexes of the municipalities in which the dams are located. They are also included in Appendix H.

Table 7-1. High Hazard Potential Dams in Albany County

Dam Name	Jurisdiction where Located	Owner	Federal ID	Latitude	Longitude	Year Completed	Construction Type	Primary Purpose	Date of Last EAP Revision	NYS Inventory of Dams Classification	National Inventory of Dams Classification
Loudonville Reservoir Dam	City of Albany, Town of Colonie*	ALBANY WATER BOARD	NY16092	42.68139	-73.7569	1936	Earth	Water Supply	12/1/2021	High	High
Basic Creek Dam	Town of Westerlo	ALBANY WATER BOARD	NY00084	42.47722	-74.0144	1928	Earth	Water Supply	6/30/2023	High	High
Rensselaer Lake Dam (also known as Six Mile Waterworks)	City of Albany	ALBANY WATER BOARD	NY01334	42.69611	-73.8322	1850	Earth	Recreation	6/1/2023	High	High
Alcove Dam	Town of Coeymans	ALBANY WATER BOARD	NY00093	42.4675	-73.9317	1929	Earth	Water Supply	6/1/2023	High	High
Vly Creek Reservoir Dike (also known as Vly Reservoir)	Town of New Scotland	TOWN OF BETHLEHEM	NY00097	42.61556	-73.9556	1957	Earth	Water Supply	11/30/2023	High	High
Altamont Main Reservoir Dam	Town of Knox	VILLAGE OF ALTAMONT	NY00126	42.69278	-74.0769	1898	Earth	Water Supply is decommissioned but it still holds some water.	8/28/2020	High	High
Watervliet Upper Dam	Town of Colonie	CITY OF WATERVLIET	NY01356	42.74083	-73.7192	1912	Earth	Flood Control and Storm Water Management	1/31/2022	High	High
Myosotis Lake Dam	Town of Rensselaerville	EDMUND NILES HUYCK PRESERVE, INC.	NY00670	42.51889	-74.1458	1933	Rockfill, Earth	Recreation, Water Supply	1/10/2023	High	High

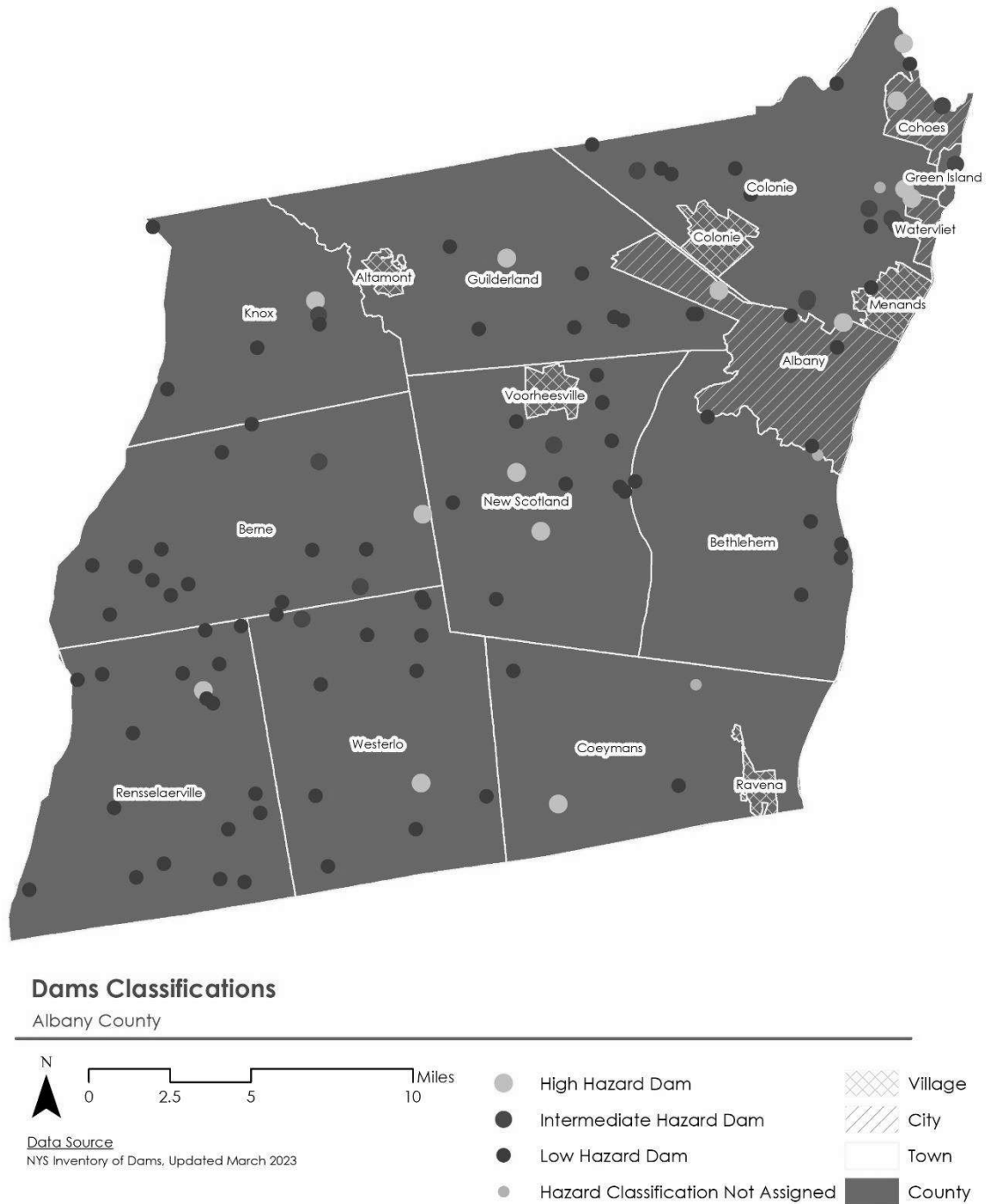
Dam Name	Jurisdiction where Located	Owner	Federal ID	Latitude	Longitude	Year Completed	Construction Type	Primary Purpose	Date of Last EAP Revision	NYS Inventory of Dams Classification	National Inventory of Dams Classification
Vly Creek Reservoir Dam	Town of New Scotland	TOWN OF BETHLEHEM	NY00096	42.58917	-73.9411	1957	Earth	Water Supply	11/30/2023	High	High
Watervliet Lower Dam	Town of Colonie	CITY OF WATERVLIET	NY01357	42.73658	-73.7148	1912	Buttress	Flood Control and Storm Water Management	1/31/2022	High	High
Crescent - Dam A	Town of Colonie	NEW YORK POWER AUTHORITY	NY00171	42.8057	-73.7188	1912	Concrete	Hydroelectric	12/30/2020	High**	High
Crescent - Dam B	Town of Colonie	NEW YORK POWER AUTHORITY	NY00171S002	42.8065	-73.7222	1912	Concrete	Hydroelectric	12/14/2017	High**	High
Helderberg Lake Dam	Town of Berne	HELDERBERG LAKE ASSOCIATION	NY00276	42.59722	-74.0125	1944	Concrete Gravity, Earth	Recreation, Water Supply	2/13/2023	High	High
Cohoes Reservoir #3 Dam	City of Cohoes	CITY OF COHOES	NY01314	42.78028	-73.7233	1885	Earth	Water Supply	2/24/2023	High	High
Normanskill I (Watervliet Reservoir Dam)	Town of Guilderland	CITY OF WATERVLIET	NY00088	42.7113	-73.9607	1916	Buttress	Hydroelectric, Water Supply	11/21/2022	High	High

Sources: National Inventory of Dams (U.S. Army Corps of Engineers, 2023), NYSDEC Foil Request (NYS Department of Environmental Conservation, 2024), NYS Inventory of Dams (New York State Department of Environmental Conservation, 2024)

*The Loudonville Reservoir Dam is located partially in the City of Albany and partially in the Town of Colonie. The HHPD worksheet for this dam can be found at the end of the City of Albany's jurisdictional annex.

**** The National Inventory of Dams lists three Crescent Dams – A, B, and C – located in Albany County, with dams A and B being high hazard. The NYS Inventory of Dams lists just one Crescent Dam, in Saratoga County, with the dam being high hazard. This discrepancy is likely due to the fact that there are multiple Crescent Dam structures located within the same area, on the border between Albany and Saratoga Counties. In this Hazard Mitigation Plan, Crescent Dams A and B are included as separate dams, with both being high hazard.**

Figure 7-2. Hazard Classification of Dams in Albany County



Source: NYS Inventory of Dams (March 2023)

Dams Outside Albany County

Dams outside of Albany County also pose a flood concern. For example, there are high hazard potential dams located in all of the Counties surrounding Albany County, including Schoharie County, Schenectady County, Saratoga County, Rensselaer County, and Greene County (U.S. Army Corps of Engineers, 2023).

New York State Canal Corporation

The New York State Canal Corporation manages the New York State Canal system, which includes four historic canals: the Erie, Champlain, Oswego, and Cayuga – Seneca. Spanning 524 miles, the waterway links the Hudson River with the Great Lakes, the Finger Lakes and Lake Champlain. The canals form the backbone of the Erie Canalway National Heritage Corridor and connect hundreds of unique communities. In addition, the Canal system includes both the Erie Canalway and Champlain Canalway Trails that are now part of the 750-mile Empire State Trail.

The Canal Corporation is a subsidiary of the New York Power Authority.

The Canal Corporation provides Emergency Action Plans (EAP) for the Canal Corporation owned High and Intermediate Hazard dams/water impounding structures to affected public and private entities for that specific structure, in accordance with NYS Dam Safety regulations and dam safety engineering best practices. Within each EAP is an inundation map (s) delineating the potential flood levels and areas, if there was an emergency at a specific dam structure. These inundation maps are part of each respective EAP for that dam structure. Annually the list of EAP plan holders, emergency contacts, and the inundation maps are reviewed by the Canal Corporation and the New York Power Authority for updates and improvements. Updates to the plans, emergency contacts, and inundation map (s) are completed prior to the annual outreach meeting, which is conducted by the Canal Corporation and the New York Power Authority for the EAP plan holders.

Requests to review EAP plan(s) affecting Albany County should be made to the Albany County Director of Emergency Management.

New York Power Authority

The New York Power Authority (NYPA) owns and operates the Crescent and Vischer Ferry Power Projects on the Mohawk River. These hydroelectric facilities are authorized under Federal Energy Regulatory Commission (FERC) licenses. Albany County is identified as a stakeholder for Crescent and Vischer Ferry Power Project Emergency Action Plan (EAP). NYPA hosts an annual Crescent and Vischer Ferry Power Projects Coordination Meeting with stakeholders and conducts an annual EAP phone drill where the contacts on the notification flow chart are tested. NYPA also conducts a functional and tabletop exercise in accordance with FERC guidelines with stakeholders to test the Crescent and Vischer Ferry Power Projects' EAP.

7.3.6 Emergency Shelters

Emergency shelters are another type of asset. Appendix I of the 2018 HMP identified potential sites that could be used as emergency shelters, including, but not limited to, fire stations, schools, churches and town halls (see <https://www.albanycounty.com/home/showpublisheddocument/1180>). While a formal list of emergency shelters is not included as part of the 2024 HMP update, many jurisdictions took sheltering capacity into account while identifying critical facilities.

Additionally, several facilities in the County act as cooling and warming centers during times of extreme heat and extreme cold. A list of cooling centers can be found on the Department of Health's website at:

<https://www.health.ny.gov/environmental/weather/cooling/>. Lists of warming centers and homeless shelters are released by the County, municipalities, and/or local media. In the City of Albany, the Capital District Transportation Authority offers free rides to homeless individuals going to shelters on a Code Blue night, if individuals identify which shelter they want to go to (Mitchell, 2023). Code Blue nights occur when sub-freezing temperatures or heavy snowfalls are expected. Shelter organizations in the City have also had shuttles that drive around searching for individuals who may need shelter during extreme cold (Starr, 2024). Residents should stay tuned for updates from the County and their local jurisdictions, as these locations are subject to change.

7.3.7 Health and Social Infrastructure

Albany County has 4 hospitals in the City of Albany, as detailed in the 2023 Albany County Climate Resiliency Plan (Albany County, 2023). Additional medical facilities are located throughout Albany County. Furthermore, nonprofits, schools, faith communities, state and County agencies, and others provide needed services to vulnerable populations and others. For example, there are approximately 50 food pantries across the County, according to The Food Pantries Food Connect Map (The Food Pantries, 2021). Homeless shelters also provide refuge to individuals experiencing homelessness in the County, both during natural hazards and on a regular basis. The Department of Social Services provides assistance with purchasing food, heating, and many other benefits. Albany County – NY Connects provides services for older adults, people with disabilities, and others who might need long term care services. These are a few examples of the many organizations and agencies providing social services to residents in the County.

7.3.8 Additional Infrastructure

While they may be considered assets, high hazard potential dams and dams outside Albany County pose threats to the County. These are described in Section 6.1.1. Additionally, recent and proposed developments are described in Section 2.4 and in the jurisdictional annexes.

Albany County also has numerous government facilities including municipal offices, department of public works (DPW) properties, post offices, and courthouses. Several of these are identified in the critical facilities lists in each jurisdiction's annex (Appendix A).

7.4 Historic and Cultural Resources

Albany County is home to many historic and cultural resources. A few of these are described below.

7.4.1 *Governor Nelson A. Rockefeller Empire State Plaza*

Empire State Plaza is a massive complex of several state government buildings. The Plaza is located in the City of Albany's downtown region, occupying ninety-eight (98) acres of land. The plaza is a substantial local employer and a significant visitor attraction, and contains approximately fifteen (15) buildings. Other uses of the Plaza include a modern art collection, the New York State Museum, Library and Archives, various memorials, an observation deck, a performing arts center, and a convention center (NYS Office of General Services, 2024).

7.4.2 *New York State Capitol Building*

The New York State Capitol Building is located in the heart of the City of Albany next to the Empire State Plaza. The building was built by hand using solid masonry and was completed in 1899. The building has experienced a fire that destroyed much of the western side of the Capitol. Since its restoration it has been declared a National Historic Landmark. The building is a key part of the State Government, an important historic landmark, and a visitor attraction.

7.4.3 *Port of Albany-Rensselaer*

The Port of Albany-Rensselaer is a transportation hub located on the Upper Hudson River and lies within the City of Albany, with facilities in Albany, Rensselaer, and Bethlehem. This port was established over three hundred (300) years ago, since the city was founded. The port facilitates access from the Hudson River to the canal system, as well as major interstate highways, cargo rail line, and Albany International Airport.

The port has several large-scale facilities including 4,200 feet of wharf length on the Albany side, 20 acres of open storage, and 20 miles of standard gauge switching railroad. The Port is in the process of becoming the first offshore wind tower manufacturing facility in the U.S. While wind turbines and towers will not be erected at the Port itself, towers will be manufactured and temporarily stored at the Port until they are ready for shipment. In addition, by around 2016 more than 1,600 windmill blades had passed through Port en route to other destinations (Port of Albany, 2024).

The facilities and products passing through the port can be seen as a potential risk to the waterfront area. The area is also somewhat prone to natural hazards such as flooding, landslides, extreme temperatures, severe thunderstorm events, and earthquakes.

7.4.4 Historical Resources

Albany County is home to several other historical sites, including the Cedar Hill Schoolhouse (listed on the National Register of Historic Places), the Ravena-Coeymans Historical Society's Exhibit Space and archives, the Exhibit Spaces for the Berne Historical Society, the Exhibit Spaces of the New Scotland Historical Society, King's Place, the M.B. Earl Store, the Mynderse-Frederick House, the Saddlemire Homestead, and Ten Broeck Mansion (Albany County History Collaborative, 2016). The Albany County Historical Association and historical societies in several locations within the County focus on historical preservation, promotion, and education. Other historical and cultural resources within Albany County include the Shaker Heritage Society, the USS Slater, the Van Schaick Mansion, and the U.S. Army Watervliet Arsenal (Albany County, 2024).

7.5 Natural Environment

Water resources are described in Section 2.1.3. The river basins that intersect Albany County – and the associated ponds, lakes, creeks, rivers, and aquifers – provide a significant asset to the County in the form of drinking water, recreation, and other uses. Some of these water resources have measures to protect them, such as wellhead protection areas or legislation about watercourses, as described in Section 4.3 and in each jurisdictional annex. The County also has numerous parks and natural areas that increase the value of life in the County.

7.6 Additional Assets

Additional Jurisdiction/Public Identified Vulnerabilities are included in the jurisdictional annexes (Appendix A). These include essential businesses, large employment centers, senior living facilities, historic and cultural resources, natural resources, and other assets that are deemed important to be protected from natural hazards, but not classified as critical facilities. Each jurisdiction ultimately decided what assets were important enough to include in their lists of additional assets and vulnerabilities.

8 IMPACTS AND OVERALL HAZARD VULNERABILITY

8.1 Background

Albany County's vulnerability to each hazard (flood, severe storm, extreme temperatures, drought, and landslide) is detailed in Section 6. This section contains information about the County's vulnerability to these hazards overall, including damage estimates from historical hazards. Vulnerability of each jurisdiction to each hazard profiled is described in Section 4.1 of each jurisdictional annex (Appendix A), with damage estimates from historical hazards described in Section 4.2 of the annexes. The assets that are particularly important to each jurisdiction, their vulnerabilities to hazards, and the impacts on assets from these hazards are described in Section 5 and Section 6 of each jurisdictional annex.

8.2 Vulnerability Summary

8.2.1 *Summary of Vulnerability and Impacts*

As addressed in Sections 5 and 6, Albany County is highly vulnerable to floods, moderately vulnerable to drought, highly vulnerable to severe storms, and highly vulnerable to extreme temperatures, and somewhat vulnerable to landslides. In the future, the County's level of vulnerability to each of these hazards may be affected by climate change, land use, and population changes, as described in Section 6. Climate change is expected to increase the County's future vulnerability to flood events, change the types of severe storm events that the County is vulnerable to, increase the County's future vulnerability to drought events, and increase the County's future vulnerability to extreme heat events while decreasing its vulnerability to extreme cold events. Climate-related trends, such as temperature increases and precipitation events, also affect the underlying conditions that impact landslides, potentially making the County more vulnerable to landslides.

The current level of vulnerability to each hazard varies depending on the jurisdiction, and is further addressed in Section 6 of each jurisdictional annex (Appendix A). Each jurisdiction's ranking of vulnerability to each hazard is detailed in Table 8-1.

Table 8-1. Vulnerability of Jurisdictions to Hazards Profiled (Self-Described)*

Jurisdiction	Flood	Drought	Severe Storm	Extreme Temperatures	Landslide	Other
Albany, City of	Moderate	Moderate	High	High	Low	N/A
Altamont, Village of	Moderate	Low	High	Moderate	N/A	N/A
Berne, Town of	Moderate	Moderate	High	Moderate	Moderate	N/A

Jurisdiction	Flood	Drought	Severe Storm	Extreme Temperatures	Landslide	Other
Bethlehem, Town of**	Moderate	Low	High	High	High	N/A
Coeymans, Town of	Moderate	Moderate	High	Moderate	N/A	N/A
Cohoes, City of	Moderate	N/A	Moderate	N/A	N/A	N/A
Colonie, Town of	Moderate	Moderate	High	High	Moderate	Wildfire: Low
Colonie, Village of	Moderate	Moderate	High	High	Moderate	N/A
Green Island, Village of	Low	N/A	Moderate	Moderate	N/A	N/A
Guilderland, Town of	High	High	High	Low	Moderate	Erosion: High
Knox, Township of	Moderate	High	High	High	Low	N/A
Menands, Village of	Moderate	Moderate	High	Moderate	Low	N/A
New Scotland, Town of	High	Moderate	Moderate	Moderate	Low	N/A
Ravena, Village of	High	N/A	High	Moderate	N/A	N/A
Rensselaerville, Town of	High	Low	High	Moderate	Moderate	Wildfire – Moderate
Voorheesville, Village of	Moderate	Moderate	Moderate	Moderate	Low	N/A
Watervliet, City of	Moderate	High	High	High	Moderate	N/A
Westerlo, Town of	Low	Low	Moderate	Moderate	Low	Wildfire – Low
Albany County Overall	High	Moderate	High	High	Low	N/A

*N/A signifies a hazard that was not profiled by that particular jurisdiction. See the jurisdictional annexes for further details.

** Signifies jurisdictions where representatives ranked the hazards slightly differently than listed here. The results listed in the table are the result of a vulnerability assessment completed by each jurisdiction (see Section 5.4).

Impacts of these hazards on the County are described in Sections 6, 0, and 8. Key impacts of flooding on the County include damages to homes, businesses, and possessions; utility disruptions; transportation hazards and delays; losses in income; debris; relocation; and displacement. Key impacts of drought on the County include a lesser quality and quantity of drinking water, disruptions to farming, and lost time and resources from disruptions to the water supply. Key impacts of severe storms on the County include power outages, damages to infrastructure and property, transportation delays, safety hazards, water pollution, disruptions to communication systems, and lost time and income. Key impacts of extreme temperatures on the County include health effects for vulnerable populations (such as older adults, young children, people with health problems, and low-income residents), an increase in EMS calls during extreme heat events, and degradation of infrastructure from warmer winters and the freeze-thaw cycle. Key impacts of landslide on the County include potential damages to the structural integrity of buildings and other infrastructure, potential transportation disruptions, environmental degradation, and the potential of injury and death. Some jurisdictions cited other hazards of concern, such as wildfire or erosion, which can impact public safety, natural resources, and property. The public and jurisdictions were particularly concerned with the impact of hazards on older adults, as well as other vulnerable populations such as residents in low-lying areas or next to creeks, low-income residents, people with disabilities and health issues, and families with young children.

8.2.2 *County Priorities*

Taking into account the identified natural hazards, potential impacts, assets, and vulnerabilities identified above, the County has identified the following as priority areas and key vulnerabilities that it would like to address:

- Flooding and severe storms (especially the provision of shelters for individuals whose homes flood)
- Extreme temperatures (especially the effects on vulnerable populations such as homeless residents, and the provision of warming/cooling centers)
- Ensuring the adequacy of hazard warning systems

The County has not identified any changes in priorities since the 2018 HMP Update.

8.2.3 *Municipal Priorities*

Key vulnerabilities and priorities for each jurisdiction are identified in Section 6 of each jurisdictional annex (Appendix A). Common themes among jurisdictions include the following:

- Concern about older adults, as well as other vulnerable residents such as low-income residents and people with disabilities
- Concern about geographic areas affected by flooding, such as low-lying areas and areas near creeks
- Infrastructure maintenance related to flooding, and a desire for funding sources
- Concern about the electrical grid and downed power lines

- Concern about dam failure

While a few jurisdictions identified changes in priorities since the last HMP update, many jurisdictions did not. See Section 6 of each jurisdictional annex for further details.

8.2.4 *Public Priorities*

Public feedback about hazard mitigation is summarized in Section 3.4, and more information is provided in Appendix A. Common themes identified by the public include the following:

- A desire for better communication and public education about how to prepare for hazards. There was a particular desire for knowing where to go in the event of an evacuation. Other topics included how to evacuate, what to do in the event of different hazards, what resources are available, and how to prepare.
- Concern about impacts of hazards on older adults
- Concern about power outages
- Desire for additional resources and coordination for emergency services.
- Desire for additional updates to infrastructure such as drainage infrastructure, roads, and power lines

9 MITIGATION STRATEGY

9.1 Mission, Goals, and Objectives

9.1.1 Mission

The mission statement for the HMP update is:

The Hazard Mitigation Plan for Albany County forms the foundation of the County's long-term strategy to reduce disaster losses and break the cycle of disaster damage, reconstruction, and repetitive damage.

9.1.2 Goals

Albany County developed mitigation planning goals based on the risk assessment results, general vulnerabilities, and overall capabilities of the County and jurisdictions. These goals address the County's vulnerabilities to the hazards profiled in this Hazard Mitigation Plan, while providing additional benefits to the County such as protecting natural resources. Goals are broad, long-term policy and vision statements that explain what the mitigation strategy aims to achieve. They are visions for reducing or avoiding losses from the identified hazards (FEMA, 2023).

The goals and objectives stated below represent what the County hopes to achieve through the implementation of this HMP. These goals were developed based on goals identified in the 2018 HMP, and revised based on the risk assessment results and input from the Executive Steering Committee. The establishment of goals assists jurisdictions in focusing on effective and meaningful mitigation actions. Specific mitigation strategies were identified that support the goals and objectives of this plan. Strategies were adjusted based on hazard research, input from Albany County, feedback from jurisdiction representatives, and comments received during the public and stakeholder review process.

The goals for the 2024 Albany County HMP Update are as follows:

1. Minimize injury and loss of life from hazards.
2. Minimize losses to existing and future structures within hazard areas.
3. Protect natural resources, such as open space, drinking water, and recreation areas from hazards.
4. Protect cultural resources such as historic structures and museums from hazards.
5. Provide for Continuity of Government (COG) and Continuity of Operations Program (COOP) during and in the aftermath of disasters in order to ensure that the government continues to function and to minimize negative impacts from events.
6. Reduce economic impacts from hazards.

9.1.3 Objectives

To further elaborate on these goals, the County also has reviewed and either approved or modified the “objectives” from the 2018 HMP. For the purpose of this plan, “objectives” are more details and specific efforts that the County and participating jurisdictions will take to achieve the goals listed above. The 2024 Hazard Mitigation Plan Update has identified the following objectives, which are grouped under the corresponding goal:

Table 9-1. Goals and Objectives

Goal	Corresponding Objectives
Goal 1: Minimize injury and loss of life from hazards, especially vulnerable communities.	Increase public awareness of hazards in order to gain participation from the public for hazard mitigation.
	Reduce the impact on the public safety from storms that cause flooding, damaging winds, and ice.
	Reduce the risk of extreme temperatures to the public.
	Reduce the risk of transportation accidents.
Goal 2: Minimize losses to existing and future structures within hazard areas.	Reduce the impact on public and private buildings from storms that cause flooding, damaging winds, and ice.
	Reduce the risk of utility failure.
	Reduce the risk of structural collapse.
	Reduce the vulnerabilities to and from high hazard potential dams (HHPDs).
Goal 3: Protect natural resources, such as open space, drinking water and recreation areas from hazards.	Conserve and protect aquatic systems from water quality issues that arise from natural hazards, such as flooding.
	Protect and restore natural systems (such as wetlands, floodplains, hillsides, ridges and stream corridors) that mitigate losses from flooding.
	Protect recreational areas from the effects of hazards.
Goal 4: Protect cultural resources such as historic structures and museums from hazards.	Protect historical resources from the effects of hazards.
	Protect cultural resources from the effects of hazards.

Goal	Corresponding Objectives
Goal 5: Provide for Continuity of Government (COG) and Continuity of Operations Program (COOP) during and in the aftermath of disasters in order to ensure that the government continues to function and to minimize negative impacts from events.	Increase awareness in participating jurisdictions for hazards that may occur within the County and put in place the measures that will enable the County to continue to operate during and in the aftermath of disasters, while reducing long-term risk from hazards.
	Retain data on past damage from hazards
	Maintain up-to-date data regarding critical facilities and infrastructure systems for internal County use.
Goal 6: Reduce economic impacts from hazards.	Reduce the damage from drought.
	Reduce the impact of hazards on businesses.

9.2 Status of 2018 Actions

The County has implemented many actions that were identified in their 2018 HMP. Details regarding the status of the County's mitigation actions from their 2018 HMP are listed in the County's jurisdictional annex (Appendix A). 5 out of 22 actions from the County's 2018 mitigation actions were re-included in the 2024 HMP Update because they are either incomplete or on-going. The status of mitigation actions identified by individual jurisdictions in the County's 2018 HMP are summarized in each jurisdictional annex (Appendix A).

9.3 New Mitigation Actions

9.3.1 Range of Mitigation Actions Considered

County Actions Considered

In addition to actions carried over from the 2018 HMP, the County considered a comprehensive range of new mitigation actions through multiple meetings and iterations of the list of actions. First, a list of actions was developed based on the Recommended Projects section of the Albany County Climate Resiliency Plan (Albany County, 2023), as well as recommended actions to address the protection of critical facilities to the 0.2% chance (500-year) flood event or previous worst case flood event. The list includes actions to reduce the risk from hazards to existing buildings, structures and infrastructure (e.g. Vulnerability Assessment and Flood Protection for Critical Facilities), actions to limit risk to new development and redevelopment (e.g. Purchase First Street Foundation's Flood Factor Data) actions to benefit underserved communities and socially vulnerable populations (e.g. Climate Justice Corps Network), actions for alleviating data deficiencies or building up capabilities related to mitigation implementation (Build out the County's Network of Rain and Stream Gauges) and

actions spanning various types of mitigation solutions (see list below). These actions included the following:

1. Energy Resiliency Study
2. Communications and Broadband Resiliency Study
3. Increase County Capacity to Support Resilience Efforts
4. Climate Justice Corps Network
5. Purchase First Street Foundation's Flood Factor Data
6. Support Municipal Participation in FEMA's CRS Program
7. Create a Resilient Homes Program
8. Build out the County's Network of Rain and Stream Gauges
9. County-wide Culvert Analysis
10. County-wide Transportation Vulnerability Assessment
11. Increase Resilience at Municipal Facilities
12. Sea Level Rise Resilience Planning
13. Increase Resilience to Extreme Temperature Events
14. Prepare for Long-term and Large-scale Displacements
15. Expand the County-wide Trail Network
16. Create a "Green Streets Initiative"
17. Develop a County-wide Open Space Plan
18. Create a Business Resiliency Program
19. Develop a "Sustainable Albany" Campaign
20. Create a Network of Demonstration Projects
21. Advance the Resiliency Recommendations in the County Agricultural and Farmland Protection Plan.
22. Create an Agricultural Resiliency Program
23. Vulnerability Assessment and Flood Protection for Critical Facilities

These actions were then reviewed with County officials at a County Roundtable on March 26, 2024 and April 23, 2024, and a subset of them were selected for inclusion. These actions were further prioritized through a prioritization survey, as described in Section 9.3.3. Meanwhile, the County solicited feedback from stakeholders and the public on their priorities for hazard mitigation and draft mitigation actions, through various engagement activities (Appendix C). As a result, three additional mitigation actions were added to address the feedback considered. A summary of the input received and its inclusion in the plan where appropriate is described in Section 3.6.

More details on these meetings can be found in Section 3 and Appendices C through E.

Municipal Actions Considered

To develop a comprehensive range of actions for jurisdictional consideration, the project team used FEMA's Mitigation Ideas guide (FEMA, 2013), the Albany County Climate Resiliency Plan, past experience, and feedback that had been attained from the Executive Steering Committee up to that point. From this knowledge, the project team created a list of actions to suggest to jurisdictions; examples of these actions are provided in Table 9-2. The list includes actions to reduce the risk from hazards to existing buildings, structures and infrastructure (e.g. vulnerability assessment and flood protection for critical facilities), actions to limit risk to new development and redevelopment (e.g. update/enforce regulations to control floodplain development) actions to benefit underserved communities and socially vulnerable populations (e.g. installing generators), actions for alleviating data deficiencies or building up capabilities related to mitigation implementation (e.g. analyze past utility failure data) and actions spanning various types of solutions (e.g. local plans and regulations, structure and infrastructure projects, natural systems protection, and education and awareness programs).

Table 9-2. List of Mitigation Actions (Examples)

Hazard	Mitigation Action
Multiple Hazards	Increase resilience at municipal facilities and key assets, in accordance with the Albany County Climate Resiliency Plan
	Vulnerability assessment and flood protection for critical facilities
Flooding	Update/enforce local ordinances or zoning regulations to control development within floodplains
	Relocate junkyards out of floodplains so that items do not become floating projectiles during a flood
	Conduct outreach to property owners regarding buyouts
	Preliminary engineering study to identify flooding/erosion problem areas
	Upgrade undersized culverts with larger ones
	Preliminary engineering study for dam improvements
Severe Storms	Acquire a generator for critical facilities that do not have a source of backup power
	Install snow fencing or vegetative barriers along roads with snow drift/high wind impacts

Hazard	Mitigation Action
	Incorporate the regular inspection and management of hazardous trees into existing maintenance procedures
	Plan for and maintain adequate road and debris-clearing capabilities
	Update local codes to require underground wiring/utilities for new development
	Educate the public about improved planting practices near utility lines
Extreme Temperatures	Analyze past utility failure data to measure the number of home and critical infrastructure impacted and create a plan to reduce impacts
	Work with partners to implement and promote a tree planting program in areas that have fewer trees
	Improve viability of emergency shelter to provide a cooling or warming station
	Expand capabilities to transport people to shelters, heating centers, or cooling centers when needed
Drought	Add air conditioning to school buildings
	Raise awareness of strategies, assistance, and funding resources for reducing agricultural operations' risk to drought
	Develop and publicize resources for water conservation measures
	Plant drought-resistant vegetation
Landslide	Implement/improve water conservation measures in public water system (metering, leak detection/repair, etc.)
	Plant vegetation or install armoring on steep/eroding slopes
	Develop an open space preservation plan
	Control development in landslide areas and create setback requirements
	Encourage the use of erosion control and stormwater management best management practices (BMPs) for construction projects
	Direct stormwater away from potential landslide location(s)

During the jurisdictional interviews, jurisdictional representatives identified risks to their jurisdictions from natural hazards; critical facilities and particularly vulnerable populations that may be at risk; top priorities that they wanted to address in the HMP; current capabilities and opportunities to expand and improve capabilities to achieve hazard mitigation; and status updates for actions identified in the previous (2018) HMP. Then, with the help of the project team, jurisdictions brainstormed actions to address the vulnerabilities and opportunities for expansion identified. This brainstorming process included consideration of the example mitigation actions in Table 9-2, as needed, with guidance from the project team. Finally, actions that tied in most closely with the vulnerabilities identified by each jurisdiction were selected for inclusion in the plan. If

included as new mitigation actions, the example actions were expanded upon and tailored to each jurisdiction based on the jurisdiction's unique context, challenges, and opportunities.

Based on the comprehensive range of actions identified through these processes, and the prioritization strategies identified in Section 9.3.3 (including a cost-benefit review), jurisdictions were given the opportunity to review the suggested list of mitigation actions and determine which ones to keep, revise, discard, or add.

9.3.2 Proposed Mitigation Actions for HMP Update

The proposed new mitigation actions for the County and each municipality are listed in the jurisdictional annexes (Appendix A).

9.3.3 Mitigation Action Prioritization

Both County and municipal mitigation actions were prioritized using a tool adapted from the US Climate Resilience Toolkit's Steps to Resilience Framework, found at <https://toolkit.climate.gov/image/1694>. The criteria for analysis included: Ability to Increase Resilience, Economic Feasibility, Low Environmental Impact, and Ability to Implement.

Table 9-3 illustrates the process used to prioritize actions in the mitigation strategy. This process was followed for each action in each jurisdiction, in order to assign a priority to each action. After each action was assigned a priority, jurisdictions were given the opportunity to review the priorities listed and adjust them if desired.

Table 9-3. New Mitigation Action Prioritization Process

Mitigation Action ID	Mitigation Action Name	Ability to Increase Resilience	Economic Feasibility	Low Environmental Impact	Ability to Implement	Total Score	Priority
S1 (Example)	Additional Generators	3	2	2	2	9	Medium

Note: Feasibility/effectiveness is rated as follows: 1 = Poor, 2 = Moderate, 3 = Good. Priority is determined as follows based on total score: 4-6 = Low, 7-9 = Medium, 10-12 = High.

This analysis constitutes a benefit-cost review, as Ability to Increase Resilience, Low Environmental Impact, and Ability to Implement were considered benefits of the actions, while Economic Feasibility took into account the costs of the actions. Additionally, for each new mitigation action, a narrative form of estimated benefits and a more detailed measure of the cost was included. The estimated benefits took into account factors such as structures and infrastructure protected by the action, people protected from injury and loss of life, ecosystem benefits, and quality of life benefits. The costs of each action were estimated using three categories: Low: <\$10,000, Medium: \$10,000-\$100,000, and High: >\$100,000. Jurisdictions assessed whether the costs are reasonable compared to the proposed benefits and excluded actions if the costs did not seem reasonable.

For County actions, in addition to the above evaluation to prioritize the proposed mitigation actions, County departments were invited to participate in a survey to rank mitigation actions, as described in Section 7.3 of the County annex. The results are shown in the County's annex.

10 PLAN IMPLEMENTATION AND MAINTENANCE

10.1 Background

As outlined by FEMA, the Hazard Mitigation Plan will need to change to stay up to date as conditions change, new details become available, or actions progress over time.

Key components of the plan maintenance process include:

- Monitoring: Tracking implementation of the plan over time.
- Evaluating: Assessing how well the plan meets its stated purpose and goals.
- Updating: Reviewing and revising the plan at least once every 5 years (FEMA, 2023).

10.2 Plan Implementation, Monitoring, Evaluation, and Updates

The Office of the County Executive will take the lead on implementing, monitoring, evaluating, and updating the plan. The Sustainability Policy Analyst in the Office of the County Executive will be the main contact for the plan. Support will be provided by the Albany County Department of Economic Development, Conservation, and Planning; Albany County Department of Public Works, Albany County Department of General Services, and organizations such as Pine Bush Preserve, Albany County Stormwater Coalition, and the Albany County Soil and Water Conservation District. The following is a general strategy and will be continuously developed as needed throughout the 5 years until the next plan update.

10.2.1 Plan Monitoring and Implementation

Each jurisdiction's new mitigation actions will be implemented and administered in accordance with each jurisdictional annex (Appendix A), as well as the New Mitigation Actions Spreadsheet (Appendix I). The New Mitigation Actions Spreadsheet includes information about the office, department, or agency responsible for implementing and administering each of the identified mitigation actions. It also includes potential funding sources and the expected time frame for completion upon project initiation. Additional potential funding sources are listed in Section 10.5 as a reference to the County and individual municipalities. Carryover actions from the 2018 Hazard Mitigation Plan Update will be implemented in accordance with each jurisdiction's Status of 2018 Actions table as detailed in each jurisdictional annex.

Additionally, Albany County will engage in regular coordination and communication with County departments and municipalities about the actions identified in each jurisdictional annex. The Office of the County Executive will put together an internal action committee with County departments, which will meet on an as-needed basis. This can include County entities such as the Department of Economic Development, Conservation and Planning; DPW; and DGS. It may also include external partners such

as the Pine Bush Preserve, SWCD, and Stormwater Coalition. Additionally, the Office of the County Executive will maintain a list of jurisdictional contacts, hold quarterly meetings with jurisdictions, and have a shared spreadsheet where municipalities can update the status of their actions. The Sustainability Policy Analyst in the Office of the County Executive, along with two grant administrators at the County, will monitor potential funding sources related to the actions in the Hazard Mitigation Plan and communicate them to County departments and municipalities as they become available. Furthermore, the plan will be referenced when related County policies are created and updated. The County may also assist municipalities with creating intermunicipal agreements for hazard mitigation.

10.2.2 Plan Evaluation

The Office of the County Executive or aforementioned internal action committee plans to put out a survey to municipal representatives every 6 months to evaluate the effectiveness of the plan in mitigating hazards and addressing the plan's goals. As mentioned, this evaluation strategy may be modified throughout the course of the plan evaluation period.

Criteria for evaluating the effectiveness of the plan may include:

- Where are you in terms of reaching your mitigation goals?
- Are the goals and objectives of the plan still relevant?
- Has the level of risk or impacts changed since the last update?
- What is the status of your previous mitigation plan? When does the plan expire? Did your jurisdiction adopt the plan?
- Are there enough resources (funds, people, or programs) to carry out the plan?
- What outcomes can you reference to show progress? Were any of them different from what you expected?

These criteria are subject to modification, for example, if the Executive Steering Committee or jurisdictions feel that these criteria should be changed as more insights are gained during plan evaluation.

10.2.3 Plan Updates

In addition to the potential updates that may occur within the 5-year period, through the monitoring and evaluation process as discussed above, the County will update the Hazard Mitigation plan at least once every 5 years in accordance with FEMA guidelines. These plan updates will follow the entire planning process, as outlined by FEMA (FEMA, 2023):

- Convene a planning team and complete stakeholder and public outreach.
- Identify new plans, studies, reports and technical information that pertain to the County's vulnerabilities.
- Validate or update the hazard list.
- Update hazard profiles to include events that occurred since the last plan.

- Validate or update community capabilities.
- Validate or update community assets.
- Update the risk assessment based on the above.
- Update the mitigation strategy based on the new risk assessment.
- Address changes in development and changes in priorities.
- Document and describe the plan update process.

The Policy Analyst or Sustainability Coordinator, within the Office of the County Executive, will take the lead in the update process. These individuals will reach out to County departments and municipalities as needed, for input and coordination. If the County decides to utilize an external consultant, the Office of the County Executive will put together an RFP about 18-24 months before the plan expires.

If a major disaster event occurs, the Office of the County Executive will reconvene the Executive Steering Committee and/or internal action committee, and work with the Sheriff's Office and Emergency Management, to assess if and how the plan should be revised.

Questions to consider during the update period may include:

- How has the planning area changed since the last update, including assets?
- What worked well for the planning process last time?
- What might need to change?
- Are there other stakeholders or members of the public you can engage?
- What new data would be most helpful to inform the plan update?
- Have there been any recent major disaster events? (FEMA, 2023)

10.3 Incorporation into Planning Mechanisms

There is not currently documentation of ways that the previous HMP Update was incorporated into planning mechanisms at the County level. However, there has been consistent communication and collaboration between the County and jurisdictions relating to hazard mitigation and emergency management, especially relating to funding opportunities. This occurs through the County Executive's Office and through the County Sheriff's Office. Additionally, many mitigation actions in the County's Hazard Mitigation Plan were inspired by recommendations of the Albany County Climate Resiliency Plan (Albany County, 2023).

Going forward, elements of the HMP will be considered as the County and municipalities undertake future development, comprehensive planning, and emergency preparedness efforts. The approved HMP will also serve as an important resource for developing and/or updating emergency operations plans and procedures throughout Albany County. Table 10-1 summarizes methods for incorporating the HMP update into existing and future planning mechanisms and opportunities at the County level, and at the municipal level where relevant. Additional detail is given in Section 3 of each jurisdiction's annex (including the County's annex), which lists individual

jurisdiction's existing capabilities related to hazard mitigation, opportunities to integrate the mitigation plan into other planning mechanisms for each jurisdiction, the process that will be followed to do so, and opportunities for each jurisdiction to expand and improve the identified capabilities to achieve mitigation. All of these actions will help expand and improve upon these existing capabilities so that they reduce risk and better support hazard mitigation.

Table 10-1. Planning Mechanism Incorporation

Mechanism	How the HMP Will be Incorporated
Emergency Planning	Hazard risk assessment, vulnerability data, and mitigation actions included in the HMP will be reviewed during emergency planning. The County will work with the Sheriff's office on developing a general emergency management plan or disaster mitigation plan.
Annual Budget	Mitigation actions will be considered when setting the annual budgets for the County and all participating jurisdictions. Policy staff from the County Executive's Office and staff from the Division of Management and Budget will collaborate on this.
Legislative Review	Mitigation actions that have significant costs or relate to general County improvements will pass through the legislative process for approval before being implemented.
Climate Action Plan	Mitigation actions from Hazard Mitigation Plan will be assessed during the development of the County's forthcoming Climate Action Plan, and incorporated into the plan as appropriate.
Grant Applications and Other Funding Opportunities	The County regularly reviews potential funding sources to apply for. The County Executive Office will keep a lookout for funding opportunities for both County mitigation actions and municipal mitigation actions. They will email funding resources to municipal leaders, emergency management groups, and County departments when these funding sources arise. Data and maps from the HMP will be used as supporting documentation in grant applications. Mitigation actions included in the Plan will be heavily considered during application submission and fund allocation.
Capital Improvement Planning	The County Executive Office will collaborate with the Division of Management and Budget to review the availability of funding for mitigation actions, review current and future projects for hazard vulnerability, and incorporate hazard resistant construction standards into the design and location of potential projects as appropriate.
Site Plan Review	The County Executive Office will share the HMP with the County Planning Board and relevant organizations. Additionally, the County will evaluate whether to add a line to the 239 review process related to compliance and consideration of the HMP. If implemented, this change will be included in any resources related to site plan review (e.g. online resources) and communicated with jurisdictions.

Mechanism	How the HMP Will be Incorporated
Land Use Regulations	The County Executive Office will coordinate with local, county, state, and federal agencies regarding land use regulations that may relate to Hazard Mitigation Planning. The County has a general mailing list of organizations, and can share the HMP with these organizations and send updates and information as needed.
Other County Policies	The County Executive Office will evaluate potential policy language updates that may be completed in order to emphasize HMP efforts. Additionally, the County Executive Office will provide the Hazard Mitigation Plan as a resource to the County Legislature when policies that relate to hazard mitigation are being developed or updated. If applicable, the Executive Office will mention what specific part of the HMP could apply to the draft law or policy.
County Capacity	As resources permit, County departments will implement items in the County's mitigation action titled "Increase County Capacity to Support Resilience Efforts." This includes increases in staff capacity, County processes, and more to increase resilience to natural hazards.
Intermunicipal Agreements	The County Executive Office will encourage jurisdictions to create Intermunicipal Agreements (IMAs) to implement mitigation actions as necessary. The County may develop a list of resources for jurisdictions in creating these IMAs.
Jurisdictional Planning Mechanisms	The County Executive Office will remind jurisdictions of the HMP and encourage them to comply and align with the HMP when they are updating zoning ordinances, comprehensive plans, economic development plans, site plan review, and emergency management plans. Jurisdictions will incorporate the HMP into planning mechanisms as described in the jurisdictional annexes.

10.4 Public Involvement

The Executive Steering Committee will keep the public informed about hazard mitigation planning efforts, actions, and projects that occur within the County. Multiple opportunities for public involvement were incorporated into the completion and review of this HMP Update (as described in Section 3 and the Community Engagement Plan in Appendix C). In addition, the County will continue to seek future public participation after the plan has been approved, through a general interactive website that would provide information about the plan. This may be a County website or an individual website about the hazard mitigation plan. The website may have an interactive component such as a story map with the profiled hazards, and/or a place for the public to submit feedback. Additional information will be communicated through the County's media team, including social media updates. The County will seek out ways to further facilitate the participation of vulnerable populations in public engagement activities, gathering ideas as needed from Appendix C (Community Engagement Plan: sections 1.4 and 1.5), the Local Emergency Managers' Meeting Feedback Summary

(Appendix E, page 51), and Sections 2.3.2 and 8.2 of this HMP. Public outreach efforts will be documented in future plan updates.

Section 8 of each jurisdictional annex details each participating jurisdiction's plans to continue to seek future public participation after the plan has been approved.

10.5 Potential Funding Sources

The Disaster Mitigation Act of 2000 requires that state, local, tribal, and territorial governments prepare natural hazard mitigation plans as a condition of future funding. With a FEMA approved Hazard Mitigation Plan, communities will be eligible to apply for funding through FEMA Hazard Mitigation Assistance and Resilience Grant programs, identified below.

10.5.1 *FEMA Hazard Mitigation Assistance and Resilience Grant Programs*

A list of some key Hazard Mitigation Assistance and Resilience Grant Programs established by FEMA is included below.

- Building Resilient Infrastructure and Communities (BRIC) Program – supports a broad array of hazard mitigation projects to reduce risks from disasters and natural hazards. Examples of project types include construction projects, plan creation and updates, project scoping, education and awareness, gathering feedback from community members, management costs, and many more.
- Flood Mitigation Assistance (FMA) Program – provides funding to reduce or eliminate the risk of repetitive flood damage to buildings insured under the National Flood Insurance Program (NFIP).
- Hazard Mitigation Grant Program (HMGP) – provides funding to communities to rebuild in a way that reduces, or mitigates, future natural disaster losses in their communities. Supports a broad array of hazard mitigation projects.
- Hazard Mitigation Grant Program Post Fire (HMGP Post Fire) – provides funding to help communities implement hazard mitigation measures focused on reducing the risk of harm from wildfire.

Additional FEMA HMA programs include the Pre-Disaster Mitigation Program (PDM), which was largely replaced by BRIC, and Safeguarding Tomorrow Revolving Loan Fund Program, which is administered through individual states. For a summary of eligibility activities by program type for HMGP, HMGP Post Fire, BRIC, and FMA, see page 72 of the Hazard Mitigation Assistance Program and Policy Guide:

https://www.fema.gov/sites/default/files/documents/fema_hma-program-policy-guide_032023.pdf (FEMA, 2023).

In addition, several other funding sources may potentially be utilized for mitigation actions in this plan, in addition to municipal and county budgets. Other possible funding sources are outlined below. This is not an exhaustive list but is a starting place for sources that may fit the mitigation actions identified in the plan. These funding sources will not

be appropriate for all the mitigation actions identified. For each mitigation action, municipalities should select potential sources from this list, visit the associated website and/or other materials to determine suitability, and look for additional sources if desired. Additional lists of funding sources are identified below.

10.5.2 Additional Federal Resources

A list of some key additional federal resources is included below. For additional resources, see FEMA's Mitigation Resource Guide:

https://www.fema.gov/sites/default/files/documents/fema_mitigation-resource-guide.pdf

- FEMA Rehabilitation of High Hazard Potential Dam (HHPD) Grant Program – provides grants for the rehabilitation of eligible high hazard potential dams, in the form of technical, planning, design, and construction assistance. High Hazard Potential Dams are classified in the National Inventory of Dams, and refer to any dam whose failure or mis-operation will cause loss of human life and significant property destruction.
- FEMA Fire Management Assistance Grant – provides funding for the mitigation, management, and control of fires on publicly or privately owned forests or grasslands that threaten to cause a major disaster.
- FEMA Emergency Management Performance Grant (EMPG) – provides federal funds to states to assist state, local, territorial, and tribal governments in preparing for all hazards.
- EPA Environmental Justice Small Grants (EJSG) – awards grants that support community-driven projects designed to engage, educate, and empower communities to better understand local environmental and public health issues and develop strategies for addressing those issues, building consensus in the community, and setting community priorities. The grants can be used for education and outreach about hazard mitigation efforts.
- USDA/NRCS Emergency Watershed Protection Program – offers technical and financial assistance to help local communities mitigate imminent hazards to life and property caused by floods, fires, windstorms, and other natural occurrences that impair a watershed. Example activities include removing debris from stream channels, road culverts, and bridges; reshaping and protecting eroded streambanks; correcting damaged or destroyed drainage facilities; establishing vegetative cover on critically eroding lands; repairing levees and structures; repairing conservation practices; and purchasing floodplain easements.
- USDA Housing Preservation Grant Program – provides grants to sponsoring organizations for the repair or rehabilitation of low-income and very low-income housing.
- USDA Rural Development Water and Environmental Programs (WEP) – provide technical assistance, loans, grants, and loan guarantees for drinking water,

sanitary sewer, solid waste, and storm drainage facilities in rural areas and cities and towns of 10,000 or less. Often, these projects meet flood mitigation goals.

- USDA Rural Development Community Facilities Loan/Grant Program – Funding to develop essential community facilities in rural areas
- USDA Rural Development Water & Waste Disposal Loan/Grant Program – Funding for drinking water systems, sanitary sewage disposal, sanitary solid waste disposal, and stormwater drainage in eligible rural areas.
- Economic Development Administration Disaster Recovery – facilitates the delivery of federal economic development assistance to support long-term community economic recovery planning and project implementation, redevelopment and resiliency. Examples include updating critical water infrastructure needed to protect local businesses from flooding.
- USACE Continuing Authorities Program* – technical assistance that allows the USACE to plan, design, and implement certain types of water resources projects, such as streambank and shoreline protection, hurricane and storm damage reduction projects, and flood damage reduction projects.
- USACE Floodplain Management Services (FPMS) Program* – range of technical services and planning guidance needed to support effective floodplain management.
- USACE Small Flood Control* – technical assistance to plan, design and construct certain small flood control projects that have not already been specifically authorized by Congress. Both structural (levees, channels, or dams, for instance) and nonstructural (floodproofing or evacuation, for example) solutions are considered.
- EPA Smart Growth Support – grant funding and technical assistance to help local governments make their communities more attractive, economically stronger, socially diverse, and more resilient to climate change.
- EPA Clean Water State Revolving Fund (CWSRF) – provides a permanent source of low-cost financing for a wide range of water quality infrastructure projects.
- EPA Greening America's Communities* – helps cities and towns develop an implementable vision of environmentally friendly neighborhoods that incorporate innovative green infrastructure, hazard mitigation, and other sustainable/resilient design strategies.
- NRCS Watershed and Flood Prevention Operations (WFPO) Program – helps governments protect and restore watersheds. This includes watershed projects for the purpose of flood prevention and other goals. Funding supports watershed projects ≤ 250,000 acres. Agricultural benefits, including rural communities, must be ≥ 20% of the total benefits for the project. Projects must have a local sponsor.
- NRCS Watershed Rehabilitation Program (REHAB) – helps project sponsors rehabilitate aging dams that are reaching the end of their design life and/or no

longer meet federal or state safety criteria or performance standards. Since 1948, NRCS has assisted local sponsors in constructing over 11,850 dams.

- USFWS National Coastal Wetlands Conservation Grants (NCWCG) - provides grants of up to \$1 million to coastal and Great Lakes states, as well as U.S. territories to protect, restore and enhance coastal wetland ecosystems and associated uplands. Eligible projects include the acquisition of real property interest in coastal lands or waters and the restoration, enhancement, or management of coastal wetlands ecosystems.
- NFWF National Coastal Resilience Fund (NCRF) -- Restores, increases and strengthens natural infrastructure to protect coastal communities while also enhancing habitats for fish and wildlife. Invests in conservation projects that restore or expand natural features such as coastal marshes and wetlands, dune and beach systems, oyster and coral reefs, forests, coastal rivers and floodplains, and barrier islands that minimize the impacts of storms and other naturally occurring events on nearby communities.
- Congressional Earmark Funds -- Funding requested through the federal government for specific congressional district, locality, or state.
- DOT Bipartisan Infrastructure Law (BIL) Funding - Provides a variety of grant funding programs for infrastructure investment, including in roads, bridges, mass transit, water infrastructure, resilience, safety, broadband, and more.
- US Bureau of Reclamation WaterSMART Drought Response Program - Provides assistance to water managers to develop and update comprehensive drought plans, and to implement projects that will build long-term resiliency to drought.
- USGS Landslides Hazards Program - Provides grant assistance to local governments to support communication, planning, coordination, mapping, assessments, and data collection of landslide hazards.
- NRCS Conservation Innovation Grants (CIG) - supports the development of new tools, approaches, practices, and technologies to further natural resource conservation on private lands.
- NOAA Coastal and Marine Habitat Restoration Grants | NOAA Fisheries - supports restoration projects that use a habitat-based approach to rebuild productive and sustainable fisheries, contribute to the recovery and conservation of protected resources, promote healthy ecosystems, and yield community and economic benefits.
- FEMA Emergency Operations Center (EOC) Grant Program - Supports flexible, sustainable, secure, strategically located, and fully interoperable EOCs with a focus on addressing identified deficiencies and needs.
- DOT Safe Streets and Roads for All (SS4A) Grant Program - Provides funding to prevent roadway deaths and serious injuries.
- DOT Highway Safety Improvement Program (HSIP) - Federal-aid program with the purpose to achieve a significant reduction in traffic fatalities and serious injuries on all public roads.
- FMA Swift Current Program – provides funding to mitigate buildings insured through the National Flood Insurance Program (NFIP) after a major disaster declaration following a flood-related disaster event to reduce risk against future flood damage.

** Denotes a technical assistance program rather than straight funding.*

10.5.3 New York State Funding Resources

A list of some key funding resources administered by New York State is included below. There may be additional resources not on this list that jurisdictions may wish to pursue.

- CDBG Public Infrastructure and Community Planning – Eligible projects for NYS CDBG Public Infrastructure may include the repair or replacement of existing systems, construction of new systems, or expansion of existing systems into areas previously unserved. Funding categories include Public Infrastructure, Public Facilities, and Community Planning. This includes CDBG-MIT for declared disaster areas.
- DEC Water Quality Improvement Project (WQIP) Program – There are eight project types under the WQIP Program. These include Wastewater Treatment Improvement, Non-Agricultural Nonpoint Source Abatement and Control, Vacuum Trucks in Municipal Separate Storm Sewer System (MS4) Areas, Land Acquisition for Source Water Protection, Salt Storage, Dam Safety Repair/Rehabilitation, Aquatic Connectivity Restoration, and Marine District Habitat Restoration. See the project website for funding/match/eligibility/and attachment requirements.
- NYS EFC Water Infrastructure Improvements Grant (WIIA) - projects include water quality infrastructure projects at municipally-owned sewage treatment works OR municipally-owned public water systems for construction, replacement or repair of infrastructure; or compliance with environmental and public health laws and regulations related to water quality.
- NYS EFC Wastewater Infrastructure Engineering Planning Grant (EPG) - planning activities to determine the scope of water quality issues, evaluation of alternatives, and the recommendation of a capital improvement project. In addition, the costs to conduct an environmental review for the recommended alternative are eligible. Design and construction costs are not eligible. Requires a 20% local match.
- NYS EFC Intermunicipal Grants Program (IMG) – funds drinking water and wastewater projects that serve multiple municipalities. Examples include a shared water quality infrastructure project or the interconnection of multiple municipal water systems.
- NYS EFC Green Innovation Grant Program – funds projects that improve water quality and mitigate the effects of climate change through the implementation of one or more of the following green practices: Green Stormwater Infrastructure, Energy Efficiency, Water Efficiency and Environmental Innovation. See website for details of funding/matching/requirements for each category.
- NYS Hazard Mitigation Revolving Loan Fund (NYS HM RLF) – provide hazard mitigation assistance for local governments to reduce risks from natural hazards

and disasters. Priorities for the first year of the program include disadvantaged, underserved, and socially vulnerable areas; cost-share for existing hazard mitigation projects; flood risk reduction; social stabilization; infrastructure retrofit; generators; and projects that are not eligible under other HMA grants due to not passing a benefit cost analysis.

- DOS Smart Growth Comprehensive Planning Grant Program – This program advances the preparation of municipal comprehensive plans, new or updated zoning regulations, or area plans (e.g. transit-oriented development plans or downtown/hamlet area plans) that support smart growth principles. Smart growth principles include development in areas with adequate infrastructure, protection of historic and natural resources, planning for equity, development of clean energy, and more.
- NYS Climate Smart Communities Program – helps local governments take action to reduce greenhouse gas emissions and adapt to a changing climate. Includes funding for various actions incorporating mitigation and climate resiliency into existing local policies, comprehensive planning with sustainability elements, certain transportation infrastructure upgrades, creating a heat emergency plan, and more. The list of actions eligible for competitive funding can be found at <https://climatesmart.ny.gov/actions-certification/actions/>
- DASNY State and Municipal Facilities Program – Funding for projects that support community and economic development
- NYSDEC Urban and Community Forestry Grants – Funding for improving urban and community forest health and increasing the sustainability of forestry programs. Eligible projects include: tree inventories, management plans, tree planting, maintenance, and education programming.
- NYSDOT Bridge NY – Funding for bridge/culvert rehabilitation or replacement
- NYSDOT Consolidated Local Street and Highway Improvement Program (CHIPS) – Funding for municipalities to support the construction and repair of highways, bridges, highway-railroad crossings, and other facilities that are not on the State highway system.
- NYSEFC Clean Water State Revolving Fund – provides interest-free or low-interest rate financing for wastewater and sewer infrastructure projects to municipalities throughout New York State. Eligible projects include: construction or restoration of sewers and wastewater treatment facilities, stormwater management, landfill closures, and habitat restoration and protection projects.
- NYSEFC Drinking Water State Revolving Fund (DWSRF) – Financing for drinking water projects. Eligible projects include treatment plants, distribution mains, and storage facilities. May also apply to dam improvements, if the dam impoundment holds water that is then used for drinking water purposes (after treatment).

- NYSOCR Community Development Block Grant (CDBG) Program – Financial assistance to eligible cities, towns, and villages with populations under 50,000 and counties with an area population under 200,000 to develop viable communities by providing affordable housing and suitable living environments, as well as expanding economic opportunities, principally for persons of low and moderate income.
- NYS Environmental Protection Fund (EPF) - awards funds for open space; parks, recreation, and historic preservation; and solid waste.
- NYSDEC Trees for Tribs Program - Provides funding to plant trees and shrubs along tributaries (small creeks and streams that flow into larger rivers and lakes) in New York State. These plantings have the goal of decreasing erosion, reducing flooding damage, improving wildlife and stream habitat, and protecting water quality.
- The Nature Conservancy's Climate Resilience Grant Program – Provides funding for conservation and climate adaptation projects, including land acquisition projects on lands adjacent to floodplains and shorelines, and projects that build organizational capacity.

10.6 Additional State and Federal Resources

The following are examples of additional resources available to jurisdictions to assist with hazard mitigation. Some of these resources relate primarily to emergency preparedness and response, rather than hazard mitigation.

- Emergency Warnings – NY Alert is available to all residents. Residents need to set up an account and sign-in to set up their preferences to receive messages.
- Emergency Plans – In addition to County assistance, the NYS OEM provides direct technical assistance to the municipalities with writing their emergency plans and annexes. Municipalities have worked with Dave Alder from the NYS OEM in the past.
- Intermunicipal Agreements – The Office of the State Comptroller has published guidance on shared service agreements, with related resources (Division of Local Government and School Accountability, 2009). The NYS Office of Emergency Services and DHSES may also be able to assist municipalities with creating intermunicipal shared service agreements or provide further direction.
- Army Reserve Resources – The Army Reserve can provide resources during and after emergencies, including transporting people to safety, clearing roads and debris, pumping floodwater, and more. Municipalities are encouraged to meet with their local Army Reserve centers before a disaster strikes. A nearby Army Reserves office is located in Horseheads NY. More information can be found on the Army Reserve Website (U.S. Army Reserve, 2022) (U.S. Army Reserve, 2023).

11 WORKS CITED

- ABC News 10. (2021, May 13). *Homes safe for now after sudden landslide Wednesday, Bethlehem officials say*. Retrieved from News 10:
<https://www.news10.com/news/local-news/homes-safe-for-now-after-sudden-landslide-wednesday-bethlehem-officials-say/>
- Albany County. (2017). *Law Enforcement*. Retrieved from Albany County, NY:
<https://www.albanycounty.com/government/county-sheriff/law-enforcement>
- Albany County. (2022). *County Emergency Preparedness Assessment (CEPA)*. NYS Homeland Security and Emergency Services.
- Albany County. (2023). 239 Referrals.
- Albany County. (2023). *Albany County Climate Resiliency Plan*. Bergmann Associates. Retrieved from <https://www.albanycounty.com/government/county-executive/albany-county-climate-resiliency-plan>
- Albany County. (2024, February 19). *Historic Albany County*. Retrieved from <https://www.albanycounty.com/our-county/historic-albany-county>
- Albany County History Collaborative. (2016). *Historical Sites*. Retrieved from Albany County History Collaborative: <http://www.albanycountyhistory.org/historical-sites/albany-county-sites/>
- All Over Albany. (2015, April 20). *Normanskill blocked by landslide*. Retrieved from All Over Albany: <http://alloveralbany.com/archive/2015/04/20/normanskill-blocked-by-landslide-state-of-emergenc>
- Barton & Loguidice. (2018). *Albany County Hazard Mitigation Plan Update*.
- Benjamin, I. (2013, October 30). Albany County Sewer District's cogeneration plant cuts emissions, energy costs. *The Record*. Retrieved February 19, 2024, from <https://www.troyrecord.com/2013/10/30/albany-county-sewer-districts-cogeneration-plant-cuts-emissions-energy-costs/>
- Borunda, A. (2023, September 6). Extreme heat makes air quality worse—that's bad for health. *NPR*. Retrieved from <https://www.npr.org/2023/09/06/1198007014/extreme-heat-makes-air-quality-worse-thats-bad-for-health>
- Bureau of Transportation Statistics. (2023). *Amtrak Ridership*. Retrieved February 6, 2024, from U.S. Department of Transportation: <https://www.bts.dot.gov/browse-statistical-products-and-data/state-transportation-statistics/amtrak-ridership>
- Department of Environmental Conservation. (2023, August 2). *Drinking Water Source Protection Program (DWSP2) Climate Change Newsletter*. Retrieved from NYSDEC Bulletins: <https://content.govdelivery.com/accounts/NYSDEC/bulletins/365ed45>
- Department of Health. (2024, August). *Cooling Centers*. Retrieved from Department of Health:

https://apps.health.ny.gov/statistics/environmental/public_health_tracking/tracker/#/CCList

DHSES and AVAIL. (2023). Retrieved from MitigateNY: <https://mitigateny.org/>

DHSES and AVAIL. (2023). *2023 New York State Hazard Mitigation Plan*. Retrieved from Mitigate NY: <https://mitigateny.org/>

Division of Local Government and School Accountability. (2009). *Shared Services in Local Government*. Albany: NYS Comptroller. Retrieved from <https://www.osc.ny.gov/files/local-government/publications/pdf/shared-services-in-local-government.pdf>

DOC, NOAA, NWS. (2021, July 26). *Directives*. Retrieved from NWS NOAA: <https://www.nws.noaa.gov/directives/sym/pd01016005curr.pdf>

Duffy, K., Filante, J., & Guo, S. (2024, September 4). *Climate Resilient Communities from AT&T*.

FEMA. (1997). *Multi-Hazard Identification and Risk Assessment: A Cornerstone of the National Mitigation Strategy*. Federal Emergency Management Agency.

FEMA. (2001). *Understanding Your Risks: Identifying Hazards and Estimating Losses*. Federal Emergency Management Agency.

FEMA. (2004). *Federal Guidelines for Dam Safety: Hazard Potential Classification System for Dams*. Retrieved from <https://www.ferc.gov/sites/default/files/2020-04/fema-333.pdf>

FEMA. (2013). *Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards*. Federal Emergency Management Agency. Retrieved from https://www.fema.gov/sites/default/files/2020-06/fema-mitigation-ideas_02-13-2013.pdf

FEMA. (2017). *Emergency Management Institute Course IS-393.B: Introduction to Hazard Mitigation*. Retrieved from <https://training.fema.gov/is/courseoverview.aspx?code=IS-393.b&lang=en>

FEMA. (2018). *Threat and Hazard Identification and Risk Assessment (THIRA) and Stakeholder Preparedness Review (SPR) Guide*. U.S. Department of Homeland Security. Retrieved from <https://www.fema.gov/sites/default/files/2020-04/CPG201Final20180525.pdf>

FEMA. (2020). *Flood*. Retrieved from Federal Emergency Management Agency: <https://www.fema.gov/glossary/flood>

FEMA. (2023, October 16). *Community Rating System*. Retrieved from Federal Emergency Management Agency: <https://www.fema.gov/floodplain-management/community-rating-system>

FEMA. (2023). *Declared Disasters*. Retrieved from Federal Emergency Management Agency: <https://www.fema.gov/disaster/declarations>

- FEMA. (2023, September 27). *Flood Insurance*. Retrieved from Federal Emergency Management Agency: <https://www.fema.gov/flood-insurance>
- FEMA. (2023). *Hazard Mitigation Assistance Program and Policy Guide*. Federal Emergency Management Agency. Retrieved from https://www.fema.gov/sites/default/files/documents/fema_hma-program-policy-guide_032023.pdf
- FEMA. (2023). *Landslide*. Retrieved from National Risk Index: <https://hazards.fema.gov/nri/landslide>
- FEMA. (2023). *Local Mitigation Planning Handbook*. Federal Emergency Management Agency. Retrieved from https://www.fema.gov/sites/default/files/documents/fema_local-mitigation-planning-handbook_052023.pdf
- FEMA. (2023). *National Risk Index*. Retrieved from Federal Emergency Management Agency: <https://hazards.fema.gov/nri/>
- FEMA. (2023). *National Risk Index: Albany County, NY*. Retrieved 2023, from Federal Emergency Management Agency: <https://hazards.fema.gov/nri/report/viewer?dataLOD=Counties&dataIDs=C36001>
- FEMA. (2024, February). *Community Status Book Report*. Retrieved from Federal Emergency Management Agency: <https://www.fema.gov/cis/NY.pdf>
- FEMA. (n.d.). *Understanding Scores and Ratings*. Retrieved from Department of Homeland Security: <https://hazards.fema.gov/nri/understanding-scores-ratings>
- Guo, S. (2024, September 4). *Albany County Climate Analysis*. Retrieved September 11, 2024, from <https://storymaps.arcgis.com/stories/65559b3291114ac18f078a5179073fa3>
- Horton, R., Bader, D., Rosenzweig, C., DeGaetano, A., & Solecki, W. (2014). *Climate Change in New York State: Updating the 2011 ClimAID Climate Risk Information*. Albany, New York: New York State Energy Research and Development Authority (NYSERDA).
- Ice Engineering Research Group. (2023). Retrieved from CRREL Ice Jam Database: <https://icejam.sec.usace.army.mil/ords/f?p=1001:7>
- Lamie, C., Bader, D., Graziano, K., Horton, R., John, K., O'Hern, N., & Spungin, S. (2023). *New York State Climate Impacts Assessment - 02 New York State's Changing Climate*. New York State.
- Mauger, G. S., Casola, J. H., Morgan, H. A., Strauch, R. L., Jones, B., Curry, B., . . . Snover, A. K. (2015). *State of Knowledge: Climate Change in Puget Sound*. Seattle, Washington: University of Washington.
- Mitchell, B. (2023, November 14). *CDTA offers free rides to shelters during a Code Blue*. News10. Retrieved from <https://www.news10.com/news/local-news/cdta-offers-free-rides-to-shelters-during-a-code-blue/>

- MitigateNY. (2023). *MitigateNY - Landslide*. Retrieved from MitigateNY: https://mitigateny.org/hazards_of_concern/landslide/landslide_risk_profile
- NASA. (2023, November 30). *What is Climate Change?* Retrieved from Global Climate Change: Vital Signs of the Planet: <https://climate.nasa.gov/what-is-climate-change/>
- National Academy of Sciences and The Royal Society. (2020). *Climate Change: Evidence & Causes*. The Royal Society. Retrieved from https://royalsociety.org/~media/royal_society_content/policy/projects/climate-evidence-causes/climate-change-evidence-causes.pdf
- National Drought Mitigation Center. (2023). *Types of Drought*. Retrieved from <https://drought.unl.edu/Education/DroughtIn-depth/TypesofDrought.aspx>
- National Grid. (2024). *Upstate New York Service Territory Map*. Retrieved February 19, 2024, from National Grid: <https://www.nationalgridus.com/Upstate-NY-Home/Your-Account/Service-Territory-Map-UNY>
- National Oceanic and Atmospheric Administration. (n.d.). *National Centers for Environmental Information*. Retrieved from Storm Events Database: <https://www.ncdc.noaa.gov/stormevents/choosedates.jsp?statefips=36,NEW%20YORK>
- National Oceanic and Atmospheric Administration. (2023). *Storm Events Database*. Retrieved from National Centers for Environmental Information: <https://www.ncdc.noaa.gov/stormevents/>
- National Weather Service. (2015). *Explanation of EF-Scale Ratings*. Retrieved from National Weather Service: https://www.weather.gov/hun/efscale_explanation
- National Weather Service. (2023). *Albany NY: Records, Extremes, Holidays & more*. Retrieved December 5, 2023, from National Weather Service: <https://www.weather.gov/aly/SpecialDataALB>
- National Weather Service. (2023). *NWS StormReady® Program*. Retrieved from National Weather Service: <https://www.weather.gov/stormready/>
- National Weather Service. (n.d.). *Climate*. Retrieved from <https://www.weather.gov/wrh/Climate?wfo=aly>
- New York State. (2018). Retrieved from New York Alert: <https://alert.ny.gov/>
- NOAA and NWS. (n.d.). *Beaufort Wind Scale*. Retrieved from Storm Prediction Center: <https://www.spc.noaa.gov/faq/tornado/beaufort.html>
- NOAA National Centers for Environmental Information. (2022). *Regional Snowfall Index (RSI)*. Retrieved from <https://www.ncdc.noaa.gov/snow-and-ice/rsi/>
- NOAA National Centers for Environmental Information. (2023). *Storm Events Database*. Retrieved from National Climatic Data Center: <https://www.ncdc.noaa.gov/stormevents/choosedates.jsp?statefips=36%2CNEW+YORK>

- NOAA National Centers for Environmental Information. (2024, January). *Climate at a Glance: County Time Series*. Retrieved December 1, 2023, from <https://www.ncei.noaa.gov/access/monitoring/climate-at-a-glance/county/time-series>
- NOAA, NIDIS. (2022). *Drought Early Warning*. Retrieved from Drought.Gov: <https://www.drought.gov/about/drought-early-warning>
- NYS Department of Environmental Conservation. (2024, July 5). FOIL Request: Class C Dams, Albany County, NY.
- NYS Department of Health. (2017). *Heat Vulnerability Index: Albany County, NY*. Retrieved from https://www.health.ny.gov/environmental/weather/vulnerability_index/docs/albany.pdf
- NYS DHSES. (2022). *2022 New York State Hazard Mitigation Planning Standards*.
- NYS Office of General Services. (2024). *Visit the Empire State Plaza & New York State Capitol*. Retrieved February 19, 2024, from <https://empirestateplaza.ny.gov/>
- NYSDEC. (2015). *Unique Geological Features*. Retrieved March 2016, from NYS Department of Environmental Conservation.
- NYSDEC. (2021). *Observed and Projected Climate Change in New York State: An Overview*. Retrieved from https://extapps.dec.ny.gov/docs/administration_pdf/ccnys2021.pdf
- NYSDEC. (2023). *Drought*. Retrieved from NYS Department of Environmental Conservation: <https://dec.ny.gov/environmental-protection/water/water-quantity/drought>
- NYSDEC. (2023). *John Boyd Thacher State Park - Helderberg Escarpment*. Retrieved December 4, 2023, from NYS Department of Environmental Conservation: <http://www.dec.ny.gov/john-boyd-thacher-state-park-helderberg-escarpment>
- NYSDEC Division of Water. (n.d.). *DOW TOGS 3.1.5 - Guidance for Dam Hazard Classification*. NYSDEC. Retrieved from https://extapps.dec.ny.gov/docs/water_pdf/togs315.pdf
- NYSDOS. (2024, March 1). *Hudson River Coastal Risk Areas. Geographic Data*. Geographic Information Gateway. Retrieved May 1, 2024, from <https://new-york-opd-geographic-information-gateway-nysdos.hub.arcgis.com/maps/afb09025ab99423690a74d9bae09d004/about>
- NYSERDA. (2014). *Responding to Climate Change in New York State (ClimAID)*. Retrieved 2023, from <https://www.nyserra.ny.gov/About/Publications/Energy-Analysis-Reports-and-Studies/Environmental-Research-and-Development-Technical-Reports/Response-to-Climate-Change-in-New-York>
- Port of Albany. (2024). Retrieved from Port of Albany: <https://www.portofalbany.us/>
- Rafferty, J. P. (2023, December 23). *Richter scale*. Retrieved from Britannica: <https://www.britannica.com/science/Richter-scale>

- Roberts, D. (2020, May 1). *Photos: 20 years ago a landslide crippled Bethlehem*. Retrieved from Times Union: <https://www.timesunion.com/news/slideshow/Photos-20-years-ago-a-landslide-crippled-202255.php#:~:text=In%20May%20of%202000%2C%20400,stand%2C%20the%20C alifornia%20Produce%20Marketplace>.
- Rosenzweig, C., Solecki, W., DeGaetano, A., O'Grady, M., Hassol, S., & (Eds.), P. G. (2011). *Responding to Climate Change in New York State: The ClimAID Integrated Assessment for Effective Climate Change Adaptation*. Albany, New York: New York State Energy Research and Development Authority (NYSERDA).
- Scenic Hudson. (2023). *Sea Level Rise*. Retrieved from Scenic Hudson: <https://www.scenichudson.org/our-work/climate/sea-level-rise/>
- Starr, T. (2024, January 17). Albany officials declare Cold Blue Extreme Alert. *News10*. Retrieved from <https://www.news10.com/news/albany-officials-declare-cold-blue-extreme-alert/>
- Stormwater Coalition of Albany County. (2016, January). Albany County Watersheds. Retrieved from <https://stormwateralbanycounty.org/maps-and-webmappers/>
- The Food Pantries. (2021). *The Food Pantries Food Connect Map*. Retrieved February 19, 2024, from <https://map.thefoodpantries.org/>
- TORRO. (2022). *Hail Scale*. Retrieved from The Tornado and Storm Research Organization: <https://www.torro.org.uk/research/hail/hscale>
- U.S. Army Corps of Engineers. (2023, November). *Albany County, New York*. Retrieved December 12, 2023, from National Inventory of Dams: <https://nid.sec.usace.army.mil/#/>
- U.S. Army Reserve. (2022, April 28). *U.S. Army Reserve an effective partner in disaster response*. Retrieved from U.S. Army Reserve: <https://www.usar.army.mil/News/News-Display/Article/3013373/us-army-reserve-an-effective-partner-in-disaster-response/>
- U.S. Army Reserve. (2023). *Defense Support of Civil Authorities*. Retrieved from U.S. Army Reserve: <https://www.usar.army.mil/DSCA/>
- U.S. Census Bureau. (2010). *Race*. Retrieved December 14, 2023, from [https://data.census.gov/table/DECENNIALPL2010.P1?t=Populations and People&g=050XX00US36001,36001\\$0600000_160XX00US3601517,3617332,3630521,3646536,3660675,3677684&y=2010&d=DEC Redistricting Data \(PL 94-171\)](https://data.census.gov/table/DECENNIALPL2010.P1?t=Populations and People&g=050XX00US36001,36001$0600000_160XX00US3601517,3617332,3630521,3646536,3660675,3677684&y=2010&d=DEC Redistricting Data (PL 94-171))
- U.S. Census Bureau. (2020). Retrieved December 14, 2023, from [https://data.census.gov/table/DECENNIALPL2020.P1?t=Populations and People&g=050XX00US36001,36001\\$0600000_160XX00US3601517,3617332,3630521,3646536,3660675,3677684&y=2020&d=DEC Redistricting Data \(PL 94-171\)](https://data.census.gov/table/DECENNIALPL2020.P1?t=Populations and People&g=050XX00US36001,36001$0600000_160XX00US3601517,3617332,3630521,3646536,3660675,3677684&y=2020&d=DEC Redistricting Data (PL 94-171))
- U.S. Census Bureau. (2020). *Age and Sex*. Retrieved December 15, 2023, from <https://data.census.gov/table/ACSST5Y2020.S0101?t=Age and Sex&g=050XX00US36001&y=2020>

- U.S. Census Bureau. (2020). *Occupancy Status*. Retrieved December 14, 2023, from [https://data.census.gov/table/DECENNIALPL2020.H1?g=050XX00US36001,36001\\$0600000_160XX00US3601517,3617332,3630521,3646536,3660675,3677684&y=2020&d=DEC Redistricting Data \(PL 94-171\)](https://data.census.gov/table/DECENNIALPL2020.H1?g=050XX00US36001,36001$0600000_160XX00US3601517,3617332,3630521,3646536,3660675,3677684&y=2020&d=DEC Redistricting Data (PL 94-171))
- U.S. Census Bureau. (2021). *Selected Economic Characteristics*. Retrieved December 18, 2023, from <https://data.census.gov/table/ACSDP5Y2021.DP03?q=ACSDP5Y2021.DP03&g=050XX00US36001>
- U.S. Census Bureau. (2023). *2022 American Community Survey 1-Year Estimates*. Retrieved from U.S. Census Bureau: <https://data.census.gov/all?q=disability%20albany%20county%20ny>
- U.S. Department of Homeland Security. (2023, February 9). *Power Outages*. Retrieved from Ready.gov: <https://www.ready.gov/power-outages>
- U.S. Federal Government. (2022). *Climate Mapping for Resilience and Adaptation*. Retrieved July 10, 2023, from Climate Mapping and Resilience Assessment: <https://livingatlas.arcgis.com/assessment-tool/search>
- U.S. Geological Survey. (2023). *Earthquakes*. Retrieved from <https://earthquake.usgs.gov/earthquakes/map/?extent=42.32911,-74.45984&extent=42.77524,-73.39417&range=search&timeZone=utc&search=%7B%22name%22:%22Search%20Results%22,%22params%22:%7B%22starttime%22:%221950-01-01%2000:00:00%22,%22endtime%22:%222023-12-12%22%7D%22%7D>
- U.S. Geological Survey. (n.d.). *What is a landslide and what causes one?* Retrieved from USGS.gov: <https://www.usgs.gov/faqs/what-landslide-and-what-causes-one>
- USGS. (2023). *National Land Cover Database*. Retrieved from United States Geological Survey: <https://www.usgs.gov/centers/eros/science/national-land-cover-database>
- USGS. (n.d.). *Geologic units by geographic area*. Retrieved December 5, 2023, from United States Geological Survey: <https://mrdata.usgs.gov/geology/state/geog-units.html>
- Village of Green Island. (2022). *Green Island Power Authority*. Retrieved February 19, 2024, from Village of Green Island: <https://villageofgreenisland.com/gipa/>

Local Mitigation Plan Review Tool

Cover Page

The Local Mitigation Plan Review Tool (PRT) demonstrates how the local mitigation plan meets the regulation in 44 CFR § 201.6 and offers states and FEMA Mitigation Planners an opportunity to provide feedback to the local governments, including special districts.

1. The Multi-Jurisdictional Summary Sheet is a worksheet that is used to document how each jurisdiction met the requirements of the plan elements (Planning Process; Risk Assessment; Mitigation Strategy; Plan Maintenance; Plan Update; and Plan Adoption).
2. The Plan Review Checklist summarizes FEMA's evaluation of whether the plan has addressed all requirements.

For greater clarification of the elements in the Plan Review Checklist, please see Section 4 of this guide. Definitions of the terms and phrases used in the PRT can be found in Appendix E of this guide.

Plan Information	
Jurisdiction(s)	Albany County
Title of Plan	2025 Multi-Jurisdictional Hazard Mitigation Plan Update
New Plan or Update	Update
Single- or Multi-Jurisdiction	Multi-jurisdiction
Date of Plan	3/4/2025
Local Point of Contact	
Title	Patrick Curran, Climate Policy Analyst
Agency	Albany County Executive
Address	112 State St., Room 1200, Albany, NY 12207
Phone Number	518-447-5639
Email	patrick.curran@albanycountyny.gov

Additional Point of Contact	
Title	Sergeant David Poole, Deputy Director of Emergency Management
Agency	Albany County Sheriff's Office
Address	58 Verda Ave. Clarksville, NY 12041
Phone Number	518-487-5426
Email	david.poole@albanycountyny.gov

Review Information	
State Review	
State Reviewer(s) and Title	Betsy Parmerter, Hazard Mitigation Planner, DHSES Contractor Michael Tarasoff, Planning Manager – Hazard Mitigation, DHSES Kevin Clapp, Supervisor - Hazard Mitigation Planning Scott Feuerstein, Planning Manager – Hazard Mitigation, DHSES
State Review Date	4/11/2025
FEMA Review	
FEMA Reviewer(s) and Title	Paul Hoole, Mitigation Planner
Date Received in FEMA Region	4/11/2025
Plan Not Approved	Click or tap to enter a date.
Plan Approvable Pending Adoption	4/18/2025
Plan Approved	Click or tap to enter a date.

Multi-Jurisdictional Summary Sheet

#	Jurisdiction Name	Requirements Met (Y/N)						
		A. Planning Process	B. Risk Assessment	C. Mitigation Strategy	D. Plan Maintenance	E. Plan Update	F. Plan Adoption	G. State Requirements
1	Albany County	Y	Y	Y	Y	Y	N	
2	Albany, City of	Y	Y	Y	Y	Y	N	
3	Altamont, Village of	Y	Y	Y	Y	Y	N	
4	Berne, Town of	Y	Y	Y	Y	Y	N	
5	Bethlehem, Town of	Y	Y	Y	Y	Y	N	
6	Coeymans, Town of	Y	Y	Y	Y	Y	N	
7	Cohoes, City of	Y	Y	Y	Y	Y	N	
8	Colonie, Town of	Y	Y	Y	Y	Y	N	
9	Colonie, Village of	Y	Y	Y	Y	Y	N	
10	Green Island, Village of	Y	Y	Y	Y	Y	N	
11	Guilderland, Town of	Y	Y	Y	Y	Y	N	
12	Knox, Township of	Y	Y	Y	Y	Y	N	
13	Menands, Village of	Y	Y	Y	Y	Y	N	
14	New Scotland, Town of	Y	Y	Y	Y	Y	N	
15	Ravena, Village of	Y	Y	Y	Y	Y	N	
16	Rensselaerville, Town of	Y	Y	Y	Y	Y	N	
17	Voorheesville, Village of	Y	Y	Y	Y	Y	N	
18	Watervliet, City of	Y	Y	Y	Y	Y	N	
19	Westerlo, Town of	Y	Y	Y	Y	Y	N	

Plan Review Checklist

The Plan Review Checklist is completed by FEMA. States and local governments are encouraged, but not required, to use the PRT as a checklist to ensure all requirements have been met prior to submitting the plan for review and approval. The purpose of the checklist is to identify the location of relevant or applicable content in the plan by element/sub-element and to determine if each requirement has been “met” or “not met.” FEMA completes the “required revisions” summary at the bottom of each element to clearly explain the revisions that are required for plan approval. Required revisions must be explained for each plan sub-element that is “not met.” Sub-elements in each summary should be referenced using the appropriate numbers (A1, B3, etc.), where applicable. Requirements for each element and sub-element are described in detail in Section 4: Local Plan Requirements of this guide.

Plan updates must include information from the current planning process.

If some elements of the plan do not require an update, due to minimal or no changes between updates, the plan must document the reasons for that.

Multi-jurisdictional elements must cover information unique to all participating jurisdictions.

Element A: Planning Process

Element A Requirements	Location in Plan (section and/or page number)	Met / Not Met
A1. Does the plan document the planning process, including how it was prepared and who was involved in the process for each jurisdiction? (Requirement 44 CFR § 201.6(c)(1))		
A1-a. Does the plan document how the plan was prepared, including the schedule or time frame and activities that made up the plan’s development, as well as who was involved?	Section 1 and 3	Met
A1-b. Does the plan list the jurisdiction(s) participating in the plan that seek approval, and describe how they participated in the planning process?	Sections 1.4 and 3.2	Met

Element A Requirements	Location in Plan (section and/or page number)	Met / Not Met
A2. Does the plan document an opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, and agencies that have the authority to regulate development as well as businesses, academia, and other private and non-profit interests to be involved in the planning process? (Requirement 44 CFR § 201.6(b)(2))		
A2-a. Does the plan identify all stakeholders involved or given an opportunity to be involved in the planning process, and how each stakeholder was presented with this opportunity?	Section 3.3, Appendix C section 1.11	Met
A3. Does the plan document how the public was involved in the planning process during the drafting stage and prior to plan approval? (Requirement 44 CFR § 201.6(b)(1))		
A3-a. Does the plan document how the public was given the opportunity to be involved in the planning process and how their feedback was included in the plan?	Sections 3.4, 3.6, and 8.2.4	Met
A4. Does the plan describe the review and incorporation of existing plans, studies, reports, and technical information? (Requirement 44 CFR § 201.6(b)(3))		
A4-a. Does the plan document what existing plans, studies, reports and technical information were reviewed for the development of the plan, as well as how they were incorporated into the document?	Sections 1.5 and 11	Met
ELEMENT A REQUIRED REVISIONS		
Required Revision: Click or tap here to enter text.		

Element B: Risk Assessment

Element B Requirements	Location in Plan (section and/or page number)	Met / Not Met
B1. Does the plan include a description of the type, location, and extent of all natural hazards that can affect the jurisdiction? Does the plan also include information on previous occurrences of hazard events and on the probability of future hazard events? (Requirement 44 CFR § 201.6(c)(2)(i))		
B1-a. Does the plan describe all natural hazards that can affect the jurisdiction(s) in the planning area, and does it provide the rationale if omitting any natural hazards that are commonly recognized to affect the jurisdiction(s) in the planning area?	Sections 5, 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1 Appendix A – Section 4.1 of each jurisdictional annex	Met
B1-b. Does the plan include information on the location of each identified hazard?	Sections 6.1.2, 6.2.2, 6.3.2, 6.4.2, 6.5.2 Appendix A – Sections 4.1 and 6 of each jurisdictional annex	Met
B1-c. Does the plan describe the extent for each identified hazard?	Sections 6.1.3, 6.2.3, 6.3.3, 6.4.3, 6.5.3 Appendix A – Sections 4.1 and 6 of each jurisdictional annex	Met
B1-d. Does the plan include the history of previous hazard events for each identified hazard?	Sections 6.1.6, 6.2.5, 6.3.5, 6.4.5, 6.5.5 Appendix A – Section 4.2 of each jurisdictional annex	Met
B1-e. Does the plan include the probability of future events for each identified hazard, including the type, location and range of anticipated intensities?	Sections 6.1.7, 6.2.6, 6.3.6, 6.4.6, 6.5.6 Appendix A – Section 6 of each jurisdictional annex	Met

Element B Requirements	Location in Plan (section and/or page number)	Met / Not Met
B1-f. For participating jurisdictions in a multi-jurisdictional plan, does the plan describe any hazards that are unique to and/or vary from those affecting the overall planning area?	Appendix A – Section 4.1 of each jurisdictional annex	Met
B2. Does the plan include a summary of the jurisdiction’s vulnerability and the impacts on the community from the identified hazards? Does this summary also address NFIP-insured structures that have been repetitively damaged by floods? (Requirement 44 CFR § 201.6(c)(2)(ii))		
B2-a. Does the plan provide an overall summary of each jurisdiction’s vulnerability to the identified hazards?	Appendix A – Sections 4 and 6 of each jurisdictional annex	Met
B2-b. For each participating jurisdiction, does the plan describe the potential impacts of each of the identified hazards on each participating jurisdiction?	Appendix A – Sections 4 and 6 of each jurisdictional annex	Met
B2-c. Does the plan address NFIP-insured structures within each jurisdiction that have been repetitively damaged by floods?	Section 6.1.5 Appendix A – Section 4.4 of each jurisdictional annex	Met
ELEMENT B REQUIRED REVISIONS		
Required Revision: Click or tap here to enter text.		

Element C: Mitigation Strategy

Element C Requirements	Location in Plan (section and/or page number)	Met / Not Met
C1. Does the plan document each participant’s existing authorities, policies, programs and resources and its ability to expand on and improve these existing policies and programs? (Requirement 44 CFR § 201.6(c)(3))		
C1-a. Does the plan describe how the existing capabilities of each participant are available to support the mitigation strategy? Does this include a discussion of the existing building codes and land use and development ordinances or regulations?	Appendix A – Section 3 of each jurisdictional annex	Met

Element C Requirements	Location in Plan (section and/or page number)	Met / Not Met
C1-b. Does the plan describe each participant's ability to expand and improve the identified capabilities to achieve mitigation?	Section 10 Appendix A – Section 3 of each jurisdictional annex	Met
C2. Does the plan address each jurisdiction's participation in the NFIP and continued compliance with NFIP requirements, as appropriate? (Requirement 44 CFR § 201.6(c)(3)(ii))		
C2-a. Does the plan contain a narrative description or a table/list of their participation activities?	Section 6.1.5 Appendix A – Section 4.4 of each jurisdictional annex	Met
C3. Does the plan include goals to reduce/avoid long-term vulnerabilities to the identified hazards? (Requirement 44 CFR § 201.6(c)(3)(i))		
C3-a. Does the plan include goals to reduce the risk from the hazards identified in the plan?	Section 9.1	Met
C4. Does the plan identify and analyze a comprehensive range of specific mitigation actions and projects for each jurisdiction being considered to reduce the effects of hazards, with emphasis on new and existing buildings and infrastructure? (Requirement 44 CFR § 201.6(c)(3)(ii))		
C4-a. Does the plan include an analysis of a comprehensive range of actions/projects that each jurisdiction considered to reduce the impacts of hazards identified in the risk assessment?	Section 9.3.1	Met
C4-b. Does the plan include one or more action(s) per jurisdiction for each of the hazards as identified within the plan's risk assessment?	Appendix A – Section 7.2 of each jurisdictional annex	Met
C5. Does the plan contain an action plan that describes how the actions identified will be prioritized (including a cost-benefit review), implemented, and administered by each jurisdiction? (Requirement 44 CFR § 201.6(c)(3)(iv)); (Requirement §201.6(c)(3)(iii))		
C5-a. Does the plan describe the criteria used for prioritizing actions?	Appendix A – Section 7.3 of each jurisdictional annex	Met

Element C Requirements	Location in Plan (section and/or page number)	Met / Not Met
C5-b. Does the plan provide the position, office, department or agency responsible for implementing/administrating the identified mitigation actions, as well as potential funding sources and expected time frame?	Section 10.5 Appendix A – Section 7.2 of each jurisdictional annex	Met
ELEMENT C REQUIRED REVISIONS		
Required Revision: Click or tap here to enter text.		

Element D: Plan Maintenance

Element D Requirements	Location in Plan (section and/or page number)	Met / Not Met
D1. Is there discussion of how each community will continue public participation in the plan maintenance process? (Requirement 44 CFR § 201.6(c)(4)(iii))		
D1-a. Does the plan describe how communities will continue to seek future public participation after the plan has been approved?	Section 10.4 Appendix A – Section 8 of each jurisdictional annex	Met
D2. Is there a description of the method and schedule for keeping the plan current (monitoring, evaluating and updating the mitigation plan within a five-year cycle)? (Requirement 44 CFR § 201.6(c)(4)(i))		
D2-a. Does the plan describe the process that will be followed to track the progress/status of the mitigation actions identified within the Mitigation Strategy, along with when this process will occur and who will be responsible for the process?	Section 10	Met
D2-b. Does the plan describe the process that will be followed to evaluate the plan for effectiveness? This process must identify the criteria that will be used to evaluate the information in the plan, along with when this process will occur and who will be responsible.	Section 10.2.2	Met
D2-c. Does the plan describe the process that will be followed to update the plan, along with when this process will occur and who will be responsible for the process?	Section 10.2.3	Met

Element D Requirements	Location in Plan (section and/or page number)	Met / Not Met
D3. Does the plan describe a process by which each community will integrate the requirements of the mitigation plan into other planning mechanisms, such as comprehensive or capital improvement plans, when appropriate? (Requirement 44 CFR § 201.6(c)(4)(ii))		
D3-a. Does the plan describe the process the community will follow to integrate the ideas, information and strategy of the mitigation plan into other planning mechanisms?	Section 10.3	Met
D3-b. Does the plan identify the planning mechanisms for each plan participant into which the ideas, information and strategy from the mitigation plan may be integrated?	Section 10.3	Met
D3-c. For multi-jurisdictional plans, does the plan describe each participant's individual process for integrating information from the mitigation strategy into their identified planning mechanisms?	Appendix A – Section 3.2 of each jurisdictional annex	Met
ELEMENT D REQUIRED REVISIONS		
Required Revision: Click or tap here to enter text.		

Element E: Plan Update

Element E Requirements	Location in Plan (section and/or page number)	Met / Not Met
E1. Was the plan revised to reflect changes in development? (Requirement 44 CFR § 201.6(d)(3))		
E1-a. Does the plan describe the changes in development that have occurred in hazard-prone areas that have increased or decreased each community's vulnerability since the previous plan was approved?	Section 2.4 Appendix A – Section 2.4 of each jurisdictional annex	Met

Element E Requirements	Location in Plan (section and/or page number)	Met / Not Met
E2. Was the plan revised to reflect changes in priorities and progress in local mitigation efforts? (Requirement 44 CFR § 201.6(d)(3))		
E2-a. Does the plan describe how it was revised due to changes in community priorities?	Sections 3.6 and 8.2 Appendix A – Section 6.5 of each jurisdictional annex	Met
E2-b. Does the plan include a status update for all mitigation actions identified in the previous mitigation plan?	Section 9.2 Appendix A – Section 7.1 of each jurisdictional annex	Met
E2-c. Does the plan describe how jurisdictions integrated the mitigation plan, when appropriate, into other planning mechanisms?	Section 10.3 Appendix A – Section 3.2 of each jurisdictional annex	Met
ELEMENT E REQUIRED REVISIONS		
Required Revision: Click or tap here to enter text.		

Element F: Plan Adoption

Element F Requirements	Location in Plan (section and/or page number)	Met / Not Met
F1. For single-jurisdictional plans, has the governing body of the jurisdiction formally adopted the plan to be eligible for certain FEMA assistance? (Requirement 44 CFR § 201.6(c)(5))		
F1-a. Does the participant include documentation of adoption?	NA	Met
F2. For multi-jurisdictional plans, has the governing body of each jurisdiction officially adopted the plan to be eligible for certain FEMA assistance? (Requirement 44 CFR § 201.6(c)(5))		
F2-a. Did each participant adopt the plan and provide documentation of that adoption?	Click or tap here to enter text.	Not Met

ELEMENT F REQUIRED REVISIONS

Required Revision:

Click or tap here to enter text.

Element G: High Hazard Potential Dams (Optional)

HHPD Requirements	Location in Plan (section and/or page number)	Met / Not Met
HHPD1. Did the plan describe the incorporation of existing plans, studies, reports and technical information for HHPDs?		
HHPD1-a. Does the plan describe how the local government worked with local dam owners and/or the state dam safety agency?	Click or tap here to enter text.	Met
HHPD1-b. Does the plan incorporate information shared by the state and/or local dam owners?	Click or tap here to enter text.	Met
HHPD2. Did the plan address HHPDs in the risk assessment?		
HHPD2-a. Does the plan describe the risks and vulnerabilities to and from HHPDs?	Click or tap here to enter text.	Met
HHPD2-b. Does the plan document the limitations and describe how to address deficiencies?	Click or tap here to enter text.	Met
HHPD3. Did the plan include mitigation goals to reduce long-term vulnerabilities from HHPDs?		
HHPD3-a. Does the plan address how to reduce vulnerabilities to and from HHPDs as part of its own goals or with other long-term strategies?	Click or tap here to enter text.	Met
HHPD3-b. Does the plan link proposed actions to reducing long-term vulnerabilities that are consistent with its goals?	Click or tap here to enter text.	Met
HHPD4-a. Did the plan include actions that address HHPDs and prioritize mitigation actions to reduce vulnerabilities from HHPDs?		
HHPD4-a. Does the plan describe specific actions to address HHPDs?	Click or tap here to enter text.	Met
HHPD4-b. Does the plan describe the criteria used to prioritize actions related to HHPDs?	Click or tap here to enter text.	Met

HHPD Requirements	Location in Plan (section and/or page number)	Met / Not Met
HHPD4-c. Does the plan identify the position, office, department or agency responsible for implementing and administering the action to mitigate hazards to or from HHPDs?	Click or tap here to enter text.	Met
HHPD Required Revisions		
Required Revision: Click or tap here to enter text.		

Element H: Additional State Requirements (Optional)

Not Reviewed by FEMA - The “Met / Not Met” designations were as determined by NYS

Element H Requirements	Location in Plan (section and/or page number)	Met / Not Met
H1. Do jurisdictions identify critical facilities, assess vulnerabilities and ensure protection to a 0.02% chance event or worst-case scenario?		
H1-a. Does the plan document the name of facility, type of facility, jurisdictional location, and exposure to a 1% (100-year) and 0.02% chance event?	Appendix J	Met
H1-b. Does the plan document those critical facilities are protected to a 0.02% flood event, or previous worst case flood event?	Appendix J	Met
H1-c. For those that do not meet this level of protection (0.02%), the plan must include an action to meet or go beyond this criterion or explain why it is not feasible to do so.	Appendix A – Section 7.2 of each jurisdictional annex Appendix J	Met
H2. Does the plan include an annex for every jurisdiction within the County’s boundaries, including the County?		
H2-a. Is there an annex for each jurisdiction seeking FEMA approval within County’s boundaries, including the County?	Appendix A	Met

Element H Requirements	Location in Plan (section and/or page number)	Met / Not Met
H2-b. Does the plan include a table in the introduction section clearly identifying all jurisdictions which are seeking FEMA approval?	Section 1.4	Met
H3. Within each jurisdictional annex, are projects developed in accordance with the NYS DHSES Proposed Projects Table?		
H3-a. Does the plan include a minimum of two (2) new or carryover (not started) proposed mitigation actions that include all information requested in the NYS DHSES LHMP Proposed Action spreadsheet?	Appendix A – Section 7.2 of each jurisdictional annex	Met
H3-b. For jurisdictions containing an SFHA, one (1) of these actions must be for a project that addresses flooding.	Appendix A – Section 7.2 of each jurisdictional annex	Met
H4. Was the draft plan posted for public comment?		
H4-a. Was the draft plan posted in full (except for discretionary sensitive information) for 30 days for public comment or the time prescribed by local law, whichever is greater.	Section 3.4.1 Appendix C	Met
H4-b. Is a description included of the efforts to gain feedback from underserved areas where residents may not have computer or internet access?	Section 3.4.1 Appendix C	Met
H4-c. Does the website clearly identify how the public can comment on the plan and include either specific contact information to send comments or a user-friendly form or survey?	Section 3.4.1 Appendix E	Met

Plan Assessment

These comments can be used to help guide your annual/regularly scheduled updates and the next plan update.

Element A. Planning Process

Opportunities for Improvement

- A2-a: The Albany County HMP presents two separate list of participating stakeholders that do not match. The first is in Appendix C, Table 2, page 3, lists. This first list is missing stakeholders that represent businesses, the largest employers, seniors, youth, and academia. The second list of stakeholders is presented in HMP Table 3-3 on page 40. The HMP can be improved if an explanation were provided that explains why the two tables, both of which list participating stakeholders, do not match. Or the tables can be edited for greater consistency. The HMP should also document how businesses, the largest employers, and other stakeholders were invited to participate in the HMP update process as a stakeholder.
- A3-a: The Albany County HMP reports on page 50, their second HMP public meeting had no public attendees. Page 47 of the HMP reports only one person from the public commented on the final draft of the HMP and only two responses were received from county employees. The HMP can be improved if the narrative added a discussion that troubleshoots potential reasons for the lack of attendance and community input. The HMP should then suggest steps that can be taken to promote better public participation.

Element B. Risk Assessment

Strengths

- Element B: Each annex includes an exemplary table in section 4.3, that reports the number and value of structures exposed to the 1% and 0.2% annual flood risk. The table is thorough, easy-to-review, and complements the description of specific geographic areas of concern reported in annex sections 6.

Opportunities for Improvement

- B1-d: Each annex can be improved if an additional column were added to each jurisdictions' hazard event table. Content of the additional column could briefly describe each hazard event, to help put the event impact into better context. Narratives of hazard events are available from the NWS NCEI website: <https://www.ncdc.noaa.gov/stormevents/choosedates.jsp?statefips=36%2CNEW+YORK> These narratives report event damages more descriptively than the Property and Crop damages columns.

The Town of Colonie annex can be improved, if the Pine Bush fire were added to the hazard event table.

- B1-f: Several jurisdictions report they have many structures exposed to flood risk. For example, the Village of Green Island annex on page 13 reports 562 parcels are in the SFHA. The City of Watervliet annex on page 16 reports 358 structures are in the SFHA, and the Village of Menands annex on page 17 reports 144 structures are in the SFHA. Many at-risk structures may suggest villages within Albany County have greater risks and vulnerabilities than the remaining town areas. The annexes can be improved if circumstances that have led to elevated risks within

villages were put into context.

B1-f: The Town of Rensselaerville annex reports the Town has an unusually large concentration of senior residents. The annex can be improved if it described the special vulnerabilities of the seniors.

The Town of Westerlo annex page 14 currently identifies veterans as a vulnerable population group without quantifying the number of veterans. The annex can be improved if the number of veterans within the Town were reported. 2022 ACS statistics for this information is available from: <https://data.census.gov/table?t=Veterans&g=060XX00US3600179851>. The ACS breaks out the total number of veterans by military event.

- B2-a: The annexes have not sufficiently quantified the number of socially vulnerable and under-represented population groups. Annexes can be improved if this information was added to their Community Snapshot and hazard profiles. Several examples follow.

Example 1: The Village of Colonie annex states on page 19, it is important for the Town to take a holistic assessment of seniors, individuals with disabilities, and lower-income individuals. Rather than report an estimated number of vulnerable persons residing in the Village, however, the village annex references the Town of Colony ACS estimates in their risk assessment for Extreme Temperatures. The annex can be improved if ACS town statistics were replaced with village statistics, which is available from ACS as a census designated place and the Village of Colonie profile: https://data.census.gov/profile/Colonie_village,_New_York?g=160XX00US3617332.

Example 2: The main HMP page 162/180 reports homeless persons are among the County's most vulnerable, which is especially true in regard to extreme temperatures. However, neither the HMP nor annexes discuss the potential causes of homelessness nor estimate the magnitude of homeless persons at risk. The HMP can be improved if it added a discussion regarding potential causes of local homelessness. Background information regarding homelessness in Albany County is available from: AlbanyNYhomeless.com and <https://caresny.org/wp-content/uploads/2023/02/Homelessness-in-Albany-ACCH-IPH-15.pdf>

Example 3: Albany County action MH15 proposes to “partner with social service agencies, emergency managers, community organizations, and the public to assess impacts of hazards on vulnerable populations such as, “residents in frequently flooded areas, low-income families and residents, people with disabilities or health issues, children & parents with young kids.” The HMP can be improved if the number of low-income persons, persons with disabilities, and youth less than 5 years were reported in the annex community snapshot and risk assessments. This information is currently missing from the HMP.

Statistics of villages and persons socially vulnerable and under-represented are available from the following ACS links:

- Altamont, Village Profile:
https://data.census.gov/profile/Altamont_village,_New_York?g=160XX00US3601517
- Colonie, Village Profile:
https://data.census.gov/profile/Colonie_village,_New_York?g=160XX00US3617332
- Green Island, Village Profile:
https://data.census.gov/profile/Green_Island_village,_New_York?g=160XX00US363052

- Menands, Village Profile:
https://data.census.gov/profile/Menands_village,_New_York?g=160XX00US3646536
- Ravena, Village Profile:
https://data.census.gov/profile/Ravena_village,_New_York?g=160XX00US3660675
- Voorheesville, Village Profile:
https://data.census.gov/profile/Voorheesville_village,_New_York?g=160XX00US3677684
- B2-b: This PRT element requires the HMP to discuss the impact of hazards on changing population patterns and migration. The American Community Survey reports 2,819 international residents have migrated into Albany County between 2020 to 2023. This is 2,000 more persons than changes attributable to natural births and deaths. Consequently, international migration is the most significant component impacting population change in Albany County. The Albany County HMP can be improved if it acknowledged and discussed the potential impact of hazardous events on international migration. Statistics association to migration patterns in Albany County are available from: <https://www.census.gov/data/datasets/time-series/demo/popest/2020s-counties-total.html>
- B2-b requires jurisdictions to describe the potential impact hazardous events may have on community assets. The Village of Green Island annex page 13 reports more than 55% of the village is located within the SFHA and has 562 structures located in the SFHA. Yet annex page 11 reports the village has a low vulnerability to flooding. The Village Green annex can be improved if an explanation were provided that explains how the 562 structures within the SFHA are protected from potential flooding risks.
- B2-c: None of the annexes currently report the number of NFIP policy holders within their jurisdiction. Each annex can be improved if this information were reported. If the number of NFIP policy holders is low, the HMP can be improved by including a mitigation action to publicize the benefits of NFIP coverage. The annexes should also consider addressing all properties at high risk of flooding rather than limiting the discussion to only NFIP policy holders who have repetitive loss properties. This number of NFIP policy holders can logically be added to section 4.4 of each annex.

Element C. Mitigation Strategy

Opportunities for Improvement

- C1-a/C1-b: Each annex says the jurisdiction will “continue to comply with the NFIP by enforcing floodplain management requirements.” However, it is not clear how participating jurisdictions are able to successfully accomplish this. All annexes are reporting it is “unknown” if any development projects submitted for the Albany County Planning Board 239 review are exposed to the 1% or .2% annual flood risk. And none of the jurisdictions are currently able to report if any of their critical facilities exposed to the 0.2% annual flood risk are protected.

The HMP and annexes can be improved if the process they follow to monitor development within the SFHA and areas exposed to the 0.2% annual flood risk were described. If a procedural gap in

FDPL enforcement exists, for example, the jurisdiction could propose to add a question to application for 239 reviews and building permits. The new question could ask, for example, if the development site is exposed to the 1% or .2% annual flood risk. When appropriate, an engineer stamp could be required to verify the site development will be protected.

Or Albany County HMP can be improved if information reported in the annex capability assessment tables were expanded so that the process jurisdictions follow to enforce provisions of the FDPL were described. The FEMA 2023 Local Mitigation Handbook suggests questions to help verify this in “Worksheet 4: Capability Assessment,” pages 205/213 to 212/220. A few suggested questions are as follows:

- Land Use Planning and Ordinances or Development Approvals: Is the local ordinances an effective measure for reducing hazard impacts? It is adequately administered and enforced? How can these capabilities be expanded and improved to reduce risk?
- Administrative: Is staffing adequate to enforce regulations? Is staff trained on hazards and mitigation? Is coordination between agencies and staff effective? How can these capabilities be expanded and improved to reduce risk?
- Education and Outreach: How widespread are education and outreach activities in your community? How can these capabilities be expanded and improved to reduce risk?
- C4-a: The Village of Green Island annex can be improved if it described if any effort has been given to protect and restore sensitive environmental areas. This is especially relevant to the Village of Green Island because 55.42% percent of the village’s land is exposed to flood risk (Annex page 13). There has been a 12.9% population increase since 2010, (annex page 1). And 13 building permits were issued from 2019 to 2020, (annex page 4).
- C4-b: The Town of Berne Project # TBerneMH5 could benefit from specifically stating that the action will ensure that this public education campaign focuses on mitigation and how to mitigate against each hazard rather than preparedness.

Element D. Plan Maintenance

Strengths

- [insert comments]

Opportunities for Improvement

- [insert comments]

Element E. Plan Update

Strengths

- [insert comments]

Opportunities for Improvement

- E1-a: The Village of Menands annex reports the Village recently adopted new zoning and site plan regulations. The Village of Menands annex can be improved if it explains the motivation of the new regulations and how they facilitate flood damage prevention.

Element G. HHPD Requirements (Optional)

To ensure Clarity, the following information on Element G is provided:

The following jurisdictions have met each of the HHPD planning requirements. The high hazard dams in these jurisdictions are eligible for HHPD grants.

- City of Albany
- Town of Colonie
- Town of Berne
- Town of Coeymans
- City of Cohoes
- Town of Guilderland
- Town of Knox
- Town of New Scotland
- Town of Rensselaerville
- City of Watervliet
- Town of Wasterlo

The high hazard dams in these jurisdictions are:

- *Rensselaer Lake Dam* – covered in the **City of Albany** Annex
- *Loudonville Reservoir Dam* – covered in **City of Albany** and **Town of Colonie** Annexes
- *Helderberg Lake Dam* – covered by in **Town of Berne** Annex
- *Alcove Dam* – covered in the **Town of Coeymans** Annex
- *Cohoes Reservoir #3 Dam* – covered in the **City of Cohoes** Annex
- *Watervliet Lower Dam* – covered in the **Town of Colonie** Annex
- *Watervliet Upper Dam* – covered in the **Town of Colonie** Annex
- *Watervliet Reservoir Dam* – covered in the **Town of Guilderland** Annex
- *Altamont Main Reservoir Dam* – covered in the **Town of Knox** Annex
- *Vly Creek Reservoir Dike* – covered in the **Town of New Scotland** Annex
- *Vly Creek Reservoir Dam* – covered in the **Town of New Scotland** Annex
- *Myosotis Lake Dam* – covered by the **Town of Rensselaerville** Annex
- *Watervliet Lower Dam* – covered in the **Town of Colonie** and the **City of Watervliet** Annex
- *Basic Creek Dam* – covered i the **Town of Westerlo** Annex
- *Crescent Lake Dam A* – This NYS owned dam is coved in the **NY State Hazard Mitigation Plan**
- *Crescent Lake Dam B* – This NYS owned dam is coved in the **NY State Hazard Mitigation Plan**

Strengths

- [insert comments]

Opportunities for Improvement

- SF: The HHPD review tool lists “Appendix A for relevant jurisdictions” in the “Location in Plan.” Appendix A simply states, “See individual file for each jurisdiction.” Citing a location that generally refers the reviewer to all the annexes is not very helpful. It would be best to cite a location that contains a comprehensive list of the dams, such as Table 7-1 of the plan.

Element H. Additional State Requirements (Optional)

Not Reviewed by FEMA – comments below are from NYS

Strengths

- [insert comments]

Opportunities for Improvement

- H1-b/H1-c: None of the annexes thoroughly report whether critical facilities are protected to the 0.2% annual flood risk. The mitigation actions proposed in each annex say the “first step” to meet this requirement will be taken “after funding sources are secured.” Greater detail on the limited ca SF: The HHPD review tool lists “Appendix A for relevant jurisdictions” in the “Location in Plan.” Appendix A simply states, “See individual file for each jurisdiction.” Citing a location that generally refers the reviewer to all the annexes is not very helpful. It would be best to cite a location that contains a comprehensive list of the dams, such as Table 7-1 of the plan.
- pability of the county to address critical facilities would enhance the plan and the capabilities section.
- H1: Appendix J lists all critical facilities within Albany County. However, the review of the list can be awkward because it is inconsistently organized by participating jurisdiction. The table of critical facilities can be improved if were sorted by jurisdiction.

The Town of New Scotland annex refers readers to content that is not included in the HMP such as the Climate Resiliency Plan. Such content needs to be paraphrased and included in the HMP. The referenced content could be presented within either the Town of New Scotland annex, or an appendix to the HMP.

- H2-a: The introductory paragraph of each annex says the focus of the annex is on completing actions before a hazard event occurs, which is a commendable and valid focus. Annexes can be improved, however, if the introductory paragraph and annex content were expanded to also describe risks and vulnerabilities that are unique to the local jurisdiction. Each annex Community Snapshot is currently limited to the population change since the 2010 decennial census; the median age; the percentage of seniors 65 years and greater, and the jurisdictions’ median income. Each annex can be improved if additional demographic information was added to the Community Snapshot. This could include poverty rates, disability rates, and other statistics that have comparatively surprising high or low percentages. See comments for Technical Issues for suggestions for access to such supplemental content. Also see, Opportunity for Improvement comments for B1-f/B2-a.

Technical Issues

- There are issues with the page numbering of the Albany County HMP. Page 154 is followed by page 179. All pages after page 154 are numbered page 179. Additionally, there are page numbering issues between pages 57 – 70, such as page 51 of 107 appearing multiple times. There are also differing total page numbers listed, such as “51 of 107,” “179 of 180” and “XX of 256.” The HMP issue with page numbering should be corrected.
- The first page of the Green Island annex refers to the jurisdiction as both a village and a town. The annex introduction should clarify if Green Island is both a village and town and if so if the boundaries are coterminous.
- SF: In section 4.4 of each annex, the 2nd paragraph reads, “...and the flood provisions of the International Codes when repairing or rebuilding the structure when repairing or rebuilding the structure.” The duplicative wording should be removed.
- SF: In the Mitigation Actions Spreadsheet, the Town of Colonie lists Project # “T Colonie F2” for two separate actions. The Town of Colonie Annex also lists this project number twice. Please choose a separate project number for either the “Cohoes Crescent Road Stabilization” or “Vulnerability Assessment and Flood Protection for Critical Facilities” project.

Case	Age	Sex	Referral	Findings	Diagnosis	Comments
1	10	F	Headache	Normal	Normal	
2	12	M	Headache	Normal	Normal	
3	15	F	Headache	Normal	Normal	
4	18	M	Headache	Normal	Normal	
5	20	F	Headache	Normal	Normal	
6	22	M	Headache	Normal	Normal	
7	25	F	Headache	Normal	Normal	
8	28	M	Headache	Normal	Normal	
9	30	F	Headache	Normal	Normal	
10	32	M	Headache	Normal	Normal	
11	35	F	Headache	Normal	Normal	
12	38	M	Headache	Normal	Normal	
13	40	F	Headache	Normal	Normal	
14	42	M	Headache	Normal	Normal	
15	45	F	Headache	Normal	Normal	
16	48	M	Headache	Normal	Normal	
17	50	F	Headache	Normal	Normal	
18	52	M	Headache	Normal	Normal	
19	55	F	Headache	Normal	Normal	
20	58	M	Headache	Normal	Normal	
21	60	F	Headache	Normal	Normal	
22	62	M	Headache	Normal	Normal	
23	65	F	Headache	Normal	Normal	
24	68	M	Headache	Normal	Normal	
25	70	F	Headache	Normal	Normal	
26	72	M	Headache	Normal	Normal	
27	75	F	Headache	Normal	Normal	
28	78	M	Headache	Normal	Normal	
29	80	F	Headache	Normal	Normal	
30	82	M	Headache	Normal	Normal	
31	85	F	Headache	Normal	Normal	
32	88	M	Headache	Normal	Normal	
33	90	F	Headache	Normal	Normal	
34	92	M	Headache	Normal	Normal	
35	95	F	Headache	Normal	Normal	
36	98	M	Headache	Normal	Normal	
37	100	F	Headache	Normal	Normal	
38	102	M	Headache	Normal	Normal	
39	105	F	Headache	Normal	Normal	
40	108	M	Headache	Normal	Normal	
41	110	F	Headache	Normal	Normal	
42	112	M	Headache	Normal	Normal	
43	115	F	Headache	Normal	Normal	
44	118	M	Headache	Normal	Normal	
45	120	F	Headache	Normal	Normal	
46	122	M	Headache	Normal	Normal	
47	125	F	Headache	Normal	Normal	
48	128	M	Headache	Normal	Normal	
49	130	F	Headache	Normal	Normal	
50	132	M	Headache	Normal	Normal	
51	135	F	Headache	Normal	Normal	
52	138	M	Headache	Normal	Normal	
53	140	F	Headache	Normal	Normal	
54	142	M	Headache	Normal	Normal	
55	145	F	Headache	Normal	Normal	
56	148	M	Headache	Normal	Normal	
57	150	F	Headache	Normal	Normal	
58	152	M	Headache	Normal	Normal	
59	155	F	Headache	Normal	Normal	
60	158	M	Headache	Normal	Normal	
61	160	F	Headache	Normal	Normal	
62	162	M	Headache	Normal	Normal	
63	165	F	Headache	Normal	Normal	
64	168	M	Headache	Normal	Normal	
65	170	F	Headache	Normal	Normal	
66	172	M	Headache	Normal	Normal	
67	175	F	Headache	Normal	Normal	
68	178	M	Headache	Normal	Normal	
69	180	F	Headache	Normal	Normal	
70	182	M	Headache	Normal	Normal	
71	185	F	Headache	Normal	Normal	
72	188	M	Headache	Normal	Normal	
73	190	F	Headache	Normal	Normal	
74	192	M	Headache	Normal	Normal	
75	195	F	Headache	Normal	Normal	
76	198	M	Headache	Normal	Normal	
77	200	F	Headache	Normal	Normal	
78	202	M	Headache	Normal	Normal	
79	205	F	Headache	Normal	Normal	
80	208	M	Headache	Normal	Normal	
81	210	F	Headache	Normal	Normal	
82	212	M	Headache	Normal	Normal	
83	215	F	Headache	Normal	Normal	
84	218	M	Headache	Normal	Normal	
85	220	F	Headache	Normal	Normal	
86	222	M	Headache	Normal	Normal	
87	225	F	Headache	Normal	Normal	
88	228	M	Headache	Normal	Normal	
89	230	F	Headache	Normal	Normal	
90	232	M	Headache	Normal	Normal	
91	235	F	Headache	Normal	Normal	
92	238	M	Headache	Normal	Normal	
93	240	F	Headache	Normal	Normal	
94	242	M	Headache	Normal	Normal	
95	245	F	Headache	Normal	Normal	
96	248	M	Headache	Normal	Normal	
97	250	F	Headache	Normal	Normal	
98	252	M	Headache	Normal	Normal	
99	255	F	Headache	Normal	Normal	
100	258	M	Headache	Normal	Normal	
101	260	F	Headache	Normal	Normal	
102	262	M	Headache	Normal	Normal	
103	265	F	Headache	Normal	Normal	
104	268	M	Headache	Normal	Normal	
105	270	F	Headache	Normal	Normal	
106	272	M	Headache	Normal	Normal	
107	275	F	Headache	Normal	Normal	
108	278	M	Headache	Normal	Normal	
109	280	F	Headache	Normal	Normal	
110	282	M	Headache	Normal	Normal	
111	285	F	Headache	Normal	Normal	
112	288	M	Headache	Normal	Normal	
113	290	F	Headache	Normal	Normal	
114	292	M	Headache	Normal	Normal	
115	295	F	Headache	Normal	Normal	
116	298	M	Headache	Normal	Normal	
117	300	F	Headache	Normal	Normal	
118	302	M	Headache	Normal	Normal	
119	305	F	Headache	Normal	Normal	
120	308	M	Headache	Normal	Normal	
121	310	F	Headache	Normal	Normal	
122	312	M	Headache	Normal	Normal	
123	315	F	Headache	Normal	Normal	
124	318	M	Headache	Normal	Normal	
125	320	F	Headache	Normal	Normal	
126	322	M	Headache	Normal	Normal	
127	325	F	Headache	Normal	Normal	
128	328	M	Headache	Normal	Normal	
129	330	F	Headache	Normal	Normal	
130	332	M	Headache	Normal	Normal	
131	335	F	Headache	Normal	Normal	
132	338	M	Headache	Normal	Normal	
133	340	F	Headache	Normal	Normal	
134	342	M	Headache	Normal	Normal	
135	345	F	Headache	Normal	Normal	
136	348	M	Headache	Normal	Normal	
137	350	F	Headache	Normal	Normal	
138	352	M	Headache	Normal	Normal	
139	355	F	Headache	Normal	Normal	
140	358	M	Headache	Normal	Normal	
141	360	F	Headache	Normal	Normal	
142	362	M	Headache	Normal	Normal	
143	365	F	Headache	Normal	Normal	
144	368	M	Headache	Normal	Normal	
145	370	F	Headache	Normal	Normal	
146	372	M	Headache	Normal	Normal	
147	375	F	Headache	Normal	Normal	
148	378	M	Headache	Normal	Normal	
149	380	F	Headache	Normal	Normal	
150	382	M	Headache	Normal	Normal	
151	385	F	Headache	Normal	Normal	
152	388	M	Headache	Normal	Normal	
153	390	F	Headache	Normal	Normal	
154	392	M	Headache	Normal	Normal	
155	395	F	Headache	Normal	Normal	
156	398	M	Headache	Normal	Normal	
157	400	F	Headache	Normal	Normal	
158	402	M	Headache	Normal	Normal	
159	405	F	Headache	Normal	Normal	
160	408	M	Headache	Normal	Normal	
161	410	F	Headache	Normal	Normal	
162	412	M	Headache	Normal	Normal	
163	415	F	Headache	Normal	Normal	
164	418	M	Headache	Normal	Normal	
165	420	F	Headache	Normal	Normal	
166	422	M	Headache	Normal	Normal	
167	425	F	Headache	Normal	Normal	
168	428	M	Headache	Normal	Normal	
169	430	F	Headache	Normal	Normal	
170	432	M	Headache	Normal	Normal	
171	435	F	Headache	Normal	Normal	
172	438	M	Headache	Normal	Normal	
173	440	F	Headache	Normal	Normal	
174	442	M	Headache	Normal	Normal	
175	445	F	Headache	Normal	Normal	
176	448	M	Headache	Normal	Normal	
177	450	F	Headache	Normal	Normal	
178	452	M	Headache	Normal	Normal	
179	455	F	Headache	Normal	Normal	
180	458	M	Headache	Normal	Normal	
181	460	F	Headache	Normal	Normal	
182	462	M	Headache	Normal	Normal	
183	465	F	Headache	Normal	Normal	
184	468	M	Headache	Normal	Normal	
185	470	F	Headache	Normal	Normal	
186	472	M	Headache	Normal	Normal	
187	475	F	Headache	Normal	Normal	
188	478	M	Headache	Normal	Normal	
189	480	F	Headache	Normal	Normal	
190	482	M	Headache	Normal	Normal	
191	485	F	Headache	Normal	Normal	
192	488	M	Headache	Normal	Normal	
193	490	F	Headache	Normal	Normal	
194	492	M	Headache	Normal	Normal	
195	495	F	Headache	Normal	Normal	
196	498	M	Headache	Normal	Normal	
197	500	F	Headache	Normal	Normal	
198	502	M	Headache	Normal	Normal	
199	505	F	Headache	Normal	Normal	
200	508	M	Headache	Normal	Normal	
201	510	F	Headache	Normal	Normal	
202	512	M	Headache	Normal	Normal	
203	515	F	Headache	Normal	Normal	
204	518	M	Headache	Normal	Normal	
205	520	F	Headache	Normal	Normal	
206	522	M	Headache	Normal	Normal	
207	525	F	Headache	Normal	Normal	
208	528	M	Headache	Normal	Normal	
209	530	F	Headache	Normal	Normal	
210	532	M	Headache	Normal	Normal	
211	535	F	Headache	Normal	Normal	
212	538	M	Headache	Normal	Normal	
213	540	F	Headache	Normal	Normal	
214	542	M	Headache	Normal	Normal	
215	545	F	Headache	Normal	Normal	
216	548	M	Headache	Normal	Normal	
217	550	F	Headache	Normal	Normal	
218	552	M	Headache	Normal	Normal	
219	555	F	Headache	Normal	Normal	
220	558	M	Headache	Normal	Normal	
221	560	F	Headache	Normal	Normal	
222	562	M	Headache	Normal	Normal	
223	565	F	Headache	Normal	Normal	
224	568	M	Headache	Normal	Normal	
225	570	F	Headache	Normal	Normal	
226	572	M	Headache	Normal	Normal	
227	575	F	Headache	Normal	Normal	
228	578	M	Headache	Normal	Normal	
229	580	F	Headache	Normal	Normal	
230	582	M	Headache	Normal	Normal	
231	585	F	Headache	Normal	Normal	
232	588	M	Headache	Normal	Normal	
233	590	F	Headache	Normal	Normal	
234	592	M	Headache	Normal	Normal	
235	595	F	Headache	Normal	Normal	
236	598	M	Headache	Normal	Normal	
237	600	F	Headache	Normal	Normal	
238	602	M	Headache	Normal	Normal	
239	605	F	Headache	Normal	Normal	
240	608	M	Headache	Normal	Normal	
241	610	F	Headache	Normal	Normal	
242	612	M	Headache	Normal	Normal	
243	615	F	Headache	Normal	Normal	
244	618	M	Headache	Normal	Normal	
245	620	F	Headache	Normal	Normal	
246	622	M	Headache	Normal	Normal	
247	625	F	Headache	Normal	Normal	
248	628	M	Headache	Normal	Normal	
249	630	F	Headache	Normal	Normal	
250	632	M	Headache	Normal	Normal	
251	635	F	Headache	Normal	Normal	
252	638	M	Headache	Normal	Normal	
253	640	F	Headache	Normal	Normal	
254	642	M	Headache	Normal	Normal	
255	645	F	Headache	Normal	Normal	
256	648	M	Headache	Normal	Normal	
257	650	F	Headache	Normal	Normal	
258	652	M	Headache	Normal	Normal	
259	655	F	Headache	Normal	Normal	
260	658	M	Headache	Normal	Normal	

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第1学期									
学年	学期	科目名	単位数	曜日	時間	担当	備考	履修者数	履修率
1	1	英語	1	月	1	山田		10	100%
2	1	英語	1	火	2	山田		10	100%
3	1	英語	1	水	3	山田		10	100%
4	1	英語	1	木	4	山田		10	100%
5	1	英語	1	金	5	山田		10	100%
6	1	英語	1	土	6	山田		10	100%
7	1	英語	1	日	7	山田		10	100%
8	1	英語	1	月	8	山田		10	100%
9	1	英語	1	火	9	山田		10	100%
10	1	英語	1	水	10	山田		10	100%
11	1	英語	1	木	11	山田		10	100%
12	1	英語	1	金	12	山田		10	100%
13	1	英語	1	土	13	山田		10	100%
14	1	英語	1	日	14	山田		10	100%
15	1	英語	1	月	15	山田		10	100%
16	1	英語	1	火	16	山田		10	100%
17	1	英語	1	水	17	山田		10	100%
18	1	英語	1	木	18	山田		10	100%
19	1	英語	1	金	19	山田		10	100%
20	1	英語	1	土	20	山田		10	100%
21	1	英語	1	日	21	山田		10	100%
22	1	英語	1	月	22	山田		10	100%
23	1	英語	1	火	23	山田		10	100%
24	1	英語	1	水	24	山田		10	100%
25	1	英語	1	木	25	山田		10	100%
26	1	英語	1	金	26	山田		10	100%
27	1	英語	1	土	27	山田		10	100%
28	1	英語	1	日	28	山田		10	100%
29	1	英語	1	月	29	山田		10	100%
30	1	英語	1	火	30	山田		10	100%
31	1	英語	1	水	31	山田		10	100%
32	1	英語	1	木	32	山田		10	100%
33	1	英語	1	金	33	山田		10	100%
34	1	英語	1	土	34	山田		10	100%
35	1	英語	1	日	35	山田		10	100%
36	1	英語	1	月	36	山田		10	100%
37	1	英語	1	火	37	山田		10	100%
38	1	英語	1	水	38	山田		10	100%
39	1	英語	1	木	39	山田		10	100%
40	1	英語	1	金	40	山田		10	100%
41	1	英語	1	土	41	山田		10	100%
42	1	英語	1	日	42	山田		10	100%
43	1	英語	1	月	43	山田		10	100%
44	1	英語	1	火	44	山田		10	100%
45	1	英語	1	水	45	山田		10	100%
46	1	英語	1	木	46	山田		10	100%
47	1	英語	1	金	47	山田		10	100%
48	1	英語	1	土	48	山田		10	100%
49	1	英語	1	日	49	山田		10	100%
50	1	英語	1	月	50	山田		10	100%
51	1	英語	1	火	51	山田		10	100%
52	1	英語	1	水	52	山田		10	100%
53	1	英語	1	木	53	山田		10	100%
54	1	英語	1	金	54	山田		10	100%
55	1	英語	1	土	55	山田		10	100%
56	1	英語	1	日	56	山田		10	100%
57	1	英語	1	月	57	山田		10	100%
58	1	英語	1	火	58	山田		10	100%
59	1	英語	1	水	59	山田		10	100%
60	1	英語	1	木	60	山田		10	100%
61	1	英語	1	金	61	山田		10	100%
62	1	英語	1	土	62	山田		10	100%
63	1	英語	1	日	63	山田		10	100%
64	1	英語	1	月	64	山田		10	100%
65	1	英語	1	火	65	山田		10	100%
66	1	英語	1	水	66	山田		10	100%
67	1	英語	1	木	67	山田		10	100%
68	1	英語	1	金	68	山田		10	100%
69	1	英語	1	土	69	山田		10	100%
70	1	英語	1	日	70	山田		10	100%
71	1	英語	1	月	71	山田		10	100%
72	1	英語	1	火	72	山田		10	100%
73	1	英語	1	水	73	山田		10	100%
74	1	英語	1	木	74	山田		10	100%
75	1	英語	1	金	75	山田		10	100%
76	1	英語	1	土	76	山田		10	100%
77	1	英語	1	日	77	山田		10	100%
78	1	英語	1	月	78	山田		10	100%
79	1	英語	1	火	79	山田		10	100%
80	1	英語	1	水	80	山田		10	100%
81	1	英語	1	木	81	山田		10	100%
82	1	英語	1	金	82	山田		10	100%
83	1	英語	1	土	83	山田		10	100%
84	1	英語	1	日	84	山田		10	100%
85	1	英語	1	月	85	山田		10	100%
86	1	英語	1	火	86	山田		10	100%
87	1	英語	1	水	87	山田		10	100%
88	1	英語	1	木	88	山田		10	100%
89	1	英語	1	金	89	山田		10	100%
90	1	英語	1	土	90	山田		10	100%
91	1	英語	1	日	91	山田		10	100%
92	1	英語	1	月	92	山田		10	100%
93	1	英語	1	火	93	山田		10	100%
94	1	英語	1	水	94	山田		10	100%
95	1	英語	1	木	95	山田		10	100%
96	1	英語	1	金	96	山田		10	100%
97	1	英語	1	土	97	山田		10	100%
98	1	英語	1	日	98	山田		10	100%
99	1	英語	1	月	99	山田		10	100%
100	1	英語	1	火	100	山田		10	100%

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000
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[illegible]

Case	Age	Sex	Site	Pathologic	Survival
1	65	M	Rectum	Adenocarcinoma	10 years
2	68	M	Rectum	Adenocarcinoma	10 years
3	70	M	Rectum	Adenocarcinoma	10 years
4	72	M	Rectum	Adenocarcinoma	10 years
5	75	M	Rectum	Adenocarcinoma	10 years
6	78	M	Rectum	Adenocarcinoma	10 years
7	80	M	Rectum	Adenocarcinoma	10 years
8	82	M	Rectum	Adenocarcinoma	10 years
9	85	M	Rectum	Adenocarcinoma	10 years
10	88	M	Rectum	Adenocarcinoma	10 years
11	90	M	Rectum	Adenocarcinoma	10 years
12	92	M	Rectum	Adenocarcinoma	10 years
13	95	M	Rectum	Adenocarcinoma	10 years
14	98	M	Rectum	Adenocarcinoma	10 years
15	100	M	Rectum	Adenocarcinoma	10 years
16	102	M	Rectum	Adenocarcinoma	10 years
17	105	M	Rectum	Adenocarcinoma	10 years
18	108	M	Rectum	Adenocarcinoma	10 years
19	110	M	Rectum	Adenocarcinoma	10 years
20	112	M	Rectum	Adenocarcinoma	10 years
21	115	M	Rectum	Adenocarcinoma	10 years
22	118	M	Rectum	Adenocarcinoma	10 years
23	120	M	Rectum	Adenocarcinoma	10 years
24	122	M	Rectum	Adenocarcinoma	10 years
25	125	M	Rectum	Adenocarcinoma	10 years
26	128	M	Rectum	Adenocarcinoma	10 years
27	130	M	Rectum	Adenocarcinoma	10 years
28	132	M	Rectum	Adenocarcinoma	10 years
29	135	M	Rectum	Adenocarc	

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