

**TOWN OF GUILDERLAND
RESOLUTION NO.5 OF 2025
(ADOPTING 2025 ALBANY COUNTY HAZARD MITIGATION PLAN)**

WHEREAS the Town Board of the Town of Guilderland recognizes the threat that natural hazards pose to people and property within the Town; and

WHEREAS Town staff have been involved in preparing a multi-hazard mitigation plan, hereby known as 2025 Albany County Hazard Mitigation Plan (Plan) in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS the Plan identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the Town from the impacts of future hazards and disasters; and

WHEREAS adoption by the Town Board demonstrates their commitment to hazard mitigation and achieving the goals outlined in the Plan.

NOW, THEREFORE, BE IT RESOLVED that the Town Board of the Town of Guilderland adopts the 2025 Albany County Hazard Mitigation Plan. This Plan, approved by the Town Board, may be edited or amended after submission for review, but will not require the Town to re-adopt any further iterations. This only applies to this specific Plan and does not absolve the Town from updating the Plan in 5 years.

This resolution was unanimously adopted by the Town Board of the Town of Guilderland at a special meeting held on July 15, 2025.

Dated: July 15, 2025

Lynne Buchanan, Town Clerk

Town of Guilderland

This section presents the jurisdictional annex for the Town of Guilderland for the 2025 Albany County Hazard Mitigation Plan (HMP). It includes information and guidance intended to assist public and private entities in reducing losses from future natural hazard events. This jurisdictional annex focuses on actions that can be implemented prior to a natural hazard event to reduce adverse impacts to people and property; it is not intended to serve as guidance for what to do when a natural hazard event occurs or how to recover following a natural hazard event. This jurisdictional annex provides an overview of the community and its critical facilities, evaluates the community's vulnerability to various natural hazards, assesses the community's existing capability to mitigate natural hazards, and identifies actions that could be implemented to mitigate natural hazard risks and, ultimately, reduce damages to people and property resulting from natural hazard events.

1 CONTACT INFORMATION

The primary contacts for Albany County regarding this Jurisdictional Annex are identified as follows:

- Primary: Peter G. Barber, Town Supervisor
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Town of Guilderland Website: <https://www.townofguilderland.org>

2 COMMUNITY SNAPSHOT

2.1 Demographics

The 2020 Census estimated that 36,848 people live in the Town of Guilderland. The Town of Guilderland's population has increased by 4.4% since the 2010 Census (35,303). The median age in the Town of Guilderland is 41 years, and 18.8% of the population is over the age of 65. The median household income in the Town of Guilderland is \$94,606.

Approximately 4.9% of the population in the Town is under 5 years old, and 18.8% of the population is over 65 years old. Approximately 8.4% of the residents of the Town have a disability (excluding any institutionalized residents and active-duty military members) some of whom have health problems that make them more vulnerable to extreme heat or cold. Approximately 5.2% of the Town's population is below the poverty level.

2.2 Location & Land Characteristics

The Town of Guilderland is located in the central-northwest border of Albany County, just west of the City of Albany. The Town of Guilderland covers approximately 58.79 square miles. The properties within the Town of Guilderland have a total assessed value of approximately \$4,454,205,987, which is distributed across a variety of property classes.

Major transportation corridors in the Town of Guilderland include two interstate highways, I-87 and I-90. Both of the highways run through the Town of Guilderland and meet in the City of Albany, north of Crossgates Mall, which is a large mall on the edge of Guilderland. U.S. Route 20 also runs through the Town. Key water features within the Town of Guilderland include the Hunger Kill stream and the Normans Kill Creek.

2.3 Governing Body

A town supervisor and four council people govern the Town of Guilderland.

2.4 Recent and Anticipated Future Development

According to a review of 239 Referrals since the last County HMP (2018), several new developments have been approved or proposed within the Town. The proposals that the Town received are summarized in Table 2-1 below. 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 only specified in one proposal (Marc Johnson Garage Variance). Additionally, building permits that have been issued for the Town between 2018 to 2022 are summarized in Table 2-2 below, based on data from the Capital District Regional Planning Commission (CDRPC). These developments may affect the Town's vulnerability to the hazards identified in this HMP.

Table 2-1. Developments from 2018 to 2023

Project Name	Project Location	Consideration	Date
Winding Brook Dr. Multi-Family PUD	Winding Brook Drive., across from YMCA	Request to rezone 26.7 acre site to PUD to construct a 52-unit multi-family development in 13 town home style buildings.	1/25/2018
Hotel Devco	1645 Western Ave.	Variances requested for 8 signs where 2 are permitted, for 585 sq. ft. where 50 sq. ft. is permitted and to allow signage over 20' high.	1/25/2018
Guilderland Towing	4503 Western Turnpike	Special use permit request for a towing service operation and temporary storage of disabled vehicles.	2/15/2018
Cellco Partnership (d/b/a Verizon Wireless) Wireless Communication Facility	Albany County ROW near the intersection of Strawberry Lane and Schoolhouse Rd.	Special use permit for the installation of a replacement utility pole (43') with small cell antenna.	2/15/2018
Greg's Towing and Repair, Inc.	5670 Depot Rd.	Special use permit request to operate a towing facility.	2/15/2018
Miron Holdings, LLC	60 & 62 Railroad Ave.	Special use permit for the redevelopment of the former Miron Lumber site. The applicant proposes construction of a +/- 65,000 sq. ft. warehouse/office, new parking areas, concrete sidewalks, asphalt driveways, and delivery loading docks. The existing buildings will be demolished. The proposed project is located on two parcels, which will be merged into one with a lot line adjustment.	2/15/2018
Michael Coles	3555 East Lydius St.	Subdivision review to develop two parcels with single family residences. The overall subdivision will consist of 3 separate parcels; one is currently developed with a single-family residence and is not considered part of the project.	2/15/2018
Jeff Smolen	5640 Depot Rd., Voorheesville	Special use permit to construct a new 10,000 sq. ft. steel building as a cold storage facility on a 12.48-acre lot, with the possibility of constructing additional cold storage buildings on the parcel in the future. *ACPB reviewed this project in November 2014 and September 2015.	3/15/2018

Project Name	Project Location	Consideration	Date
Dutch Country Connections, LLC	4459 Western Turnpike, Altamont	Special use permit for a retail sales lot to sell shades, outdoor furniture, storage barns, gazebos, swing sets, and related items, and host a weekend farmers' market.	3/15/2018
John Seminary	3771 Western Turnpike, Altamont	Request to subdivide a 27.76-acre lot into 2 parcels. Lot 2 (+/- 8 acres) will be conveyed to Victoria Acres Equine Facility, Inc. No additional structures or utilities for either lot are proposed at this time.	3/15/2018
Luciano Wine and Liquor	1871 Western Ave., Albany	Special use permit for the conversion of a retail space to a liquor store.	4/19/2018
Crossgates Mall Sign Variance	1 Crossgates Mall Road	Variance request for a 225 sq. ft. sign for 110 Grill at Crossgates Mall, where 50 sq. ft. is permitted in the General Business District.	4/19/2018
Encore Renewable Energy	3928 Western Tpke., Altamont	Special use permit to develop a 3.55 MW AC solar generation facility, which will include 13,410 solar PV panels, 78 inverters, and a transformer interconnection into the utility grid.	4/19/2018
Carman Ridge Apartments	3760 Carman Rd.	Construction of a two-story, 9,595 sq. ft. apartment building with 14 units.	4/19/2018
Evolution Site Services, LLC Telecommunication Facility	4263 Western Turnpike, Altamont	Special use permit for a telecommunication facility and a use variance to allow the telecommunication facility in a residential zone.	4/19/2018
Town of Guilderland Local Law 4: Transit Oriented Development District	Town of Guilderland, designated TOD district area surrounding Crossgates Mall	Adoption of Local Law No. 4 (2018) for the establishment of the Transit Oriented Development (TOD) District.	5/14/2018
David Hosler Garage Variance	115 Rt. 146, Altamont	Variance request for the placement of a garage in the side yard. * ACPB reviewed the site plan for this property in 4/2014.	5/14/2018
100 Acre Wood Vineyard	4730 Western Tpke.	Special use permit for the construction and operation of a farm winery.	5/14/2018

Project Name	Project Location	Consideration	Date
Roman Jewels	1717 Western Avenue	Installation of a new sign with flood lighting within 20 ft. of the right-of-way. In the Local Business District, monument signs are required to be a minimum of 20 feet from the street right-of-way line.	6/21/2018
Albany Med EmUrgentCare	5 New Karner Rd.	Variance to allow four signs where two are allowed and for square footage to exceed 50 sq. ft.	6/21/2018
2831 Curry Road Solar Garden	2831 Curry Road	Special use permit to install a 600 KW solar garden.	6/21/2018
Glenwood & 20 Microcell	1434 Western Ave.	Installation of a small cell antenna on the roof and base station equipment next to 1434 Western Ave.	7/19/2018
Pilarinos Real Estate, LLC	1709 and 1715 Western Ave.	Special use permit to demolish a building to create additional parking on a parcel adjacent to Capital City Diner. The curb cut for 1715 Western Ave. will be closed and the existing driveways on the diner site will be utilized for access. A variance is also requested to permit 80 parking spaces where 71 spaces are allowed.	8/16/2018
Jennifer Nickel	2020 Western Ave.	Special use permit to change the use of Suite #1 at 2022 Western Ave. from an existing doctor's office to a healing arts center and yoga studio. *ACPB reviewed rezoning and site plans for this site in October 2017.	8/16/2018
Niagara Mohawk Power Corporation Fence	642 Rt. 146, Altamont	Installation of an 8 ft. tall security fence topped with 1 ft. of barbed wire around an existing substation.	8/16/2018

Project Name	Project Location	Consideration	Date
Hiawatha Land Development, LLC	6025 & 6051 State Farm Rd.	Special use permit for the construction of 256 senior independent living apartments within five buildings at the location of the existing Hiawatha Trails Golf Course. 260 surface parking spaces and 58 garage parking spaces are proposed, with 119 banked parking spaces. A variance is requested to permit the building height to exceed 2.5 stories. The 3-story portion of the building will make up 80.4% and the 4-story portion will make up 19.6% of the total building perimeter. Approximately 20 acres of land will be dedicated to the Town of Guilderland for conservation and open space purposes.	8/16/2018
Franchi Scavio	1801 Western Ave.	Amendment of Special Use Permit #9-85 to remove a condition prohibiting restaurant use and allow the operation of Paesan's Pizza and Restaurant.	8/16/2018
Hiawatha Land Development, LLC	6025 & 6051 State Farm Rd.	Special use permit for the construction of 256 senior independent living apartments within five buildings at the location of the existing Hiawatha Trails Golf Course. 260 surface parking spaces and 58 garage parking spaces are proposed, with 119 banked parking spaces. A variance is requested to permit the building height to exceed 2.5 stories. The 3-story portion of the building will make up 80.4% and the 4-story portion will make up 19.6% of the total building perimeter. Approximately 20 acres of land will be dedicated to the Town of Guilderland for conservation and open space purposes.	9/20/2018
Hudson Birch 678, LLC Minor Subdivision	678 Altamont Voorheesville Rd. (NYS Rte. 156)	Subdivision of 20 acres into two lots. Lot 1 will be 3.83 acres and will include the existing single-family dwelling. Lot 2 will be 16.22 acres.	9/20/2018
Breitenbach 2 Lot Subdivision	865 Township Rd. (NYS Rt. 146)	Minor subdivision of 52 acres into two parcels. Lot 1 will be 7.43 acres, and Lot 2 will be 44.54 acres and will include the existing single-family dwelling.	9/20/2018

Project Name	Project Location	Consideration	Date
Carman Ridge Apartments II Subdivision and Site Plan	3800 Carman Rd., Schenectady	Site plan for the construction of two, 8-unit apartment buildings which will include a two lot minor subdivision. Lot 1 will be 1.51 acres and contain the proposed apartment buildings. Lot 2 will consist of 0.71 acres for future commercial use. The existing retail building and associated structures will be demolished and removed. An easement will be granted to Carman Realty, LLC across Lot 1 to connect SR 146 and the apartment buildings with the shopping center located behind the site.	9/20/2018
Black Creek Estates Subdivision	NYS Rte. 146/ Hurst Rd.	Proposed conservation subdivision creating 20 single family lots and stormwater management areas. 23.7 acres of open space will be located within conservation easements.	9/20/2018
Carman Ridge Apartments II Variance	3800 Carman Rd., Schenectady	Request for variances associated with the development of two, 8-unit apartment buildings (case #10-180903117), including setback variances for the proposed building and associated garages, a reduced buffer to the adjacent General Business district, light pole height, and exceedance of permitted number of parking spaces.	9/20/2018
Preserve at West Creek	6517 and 6521 Vosburgh Rd.	Site plans to construct a multiresidential apartment complex with 112 units in 14 buildings. * ACPB reviewed rezoning for a portion of this parcel in January 2017 from General Business (GB) to Multiple Residence (MR) and General Business (GB).	9/20/2018
Monolith Solar	200 Kemozek Lane, Voorheesville	Special use permit to install a 650 KW solar system on a vacant parcel with an access road.	9/20/2018
Ryan Cappello/ MTSG LLC Can Redemption Center	4449 Western Turnpike, Altamont (corner of SR 20 & SR 158)	Special use permit to convert a pre-existing, nonconforming repair shop into a bottle redemption center.	10/18/2018
French's Hollow Minor Subdivision	6312 French's Hollow Rd.	Subdivide a +/- 1.8-acre lot into two residential lots. Lot #1 will be +/- 37,000 sq. ft. and Lot #2 will be +/- 40,000 sq. ft. The existing outbuildings will be demolished. The lots will be serviced with public water and onsite wastewater treatment.	10/18/2018

Project Name	Project Location	Consideration	Date
2123 & 2115 Western Ave. Rezone	2123 & 2115 Western Ave.	Request to rezone two parcels located at 2115 and 2132 Western Ave. from a Business Non-Retail Professional (BNRP) Zone District to a General Business (GB) Zone District. The applicant intends to develop the site with a car wash and other commercial use, such as a bank.	11/15/2018
Infamous Graphics Variance	1561 Western Ave.	Variance request to permit a freestanding sign within 6 ft. of a public right-of-way where a minimum setback of 20 ft. is required.	11/15/2018
Marc Johnson Garage Variance	5940 State Farm Rd.	Variance to expand a 24' x 24' residential garage into a 50' x 44' garage with driveway access to State Route 155. A variance is requested to allow the proposed addition within 100 feet of the top of the bank of a watercourse (Blackhouse Creek) and allow construction within the 100-year (Zone A) FEMA floodplain.	12/20/2018
Infamous Graphics/Hamilton Square	2080 Western Avenue	Variance request to permit a sign replacement of an existing plaza sign greater than 50 sf	1/17/2019
Inferno Pizza Shop		Amendment to a previously granted special use permit to allow for additional parking spaces. *ACPB reviewed in August 2016	2/25/2019
Broadway Auto Clinic		Special Use Permit/Variance request to permit the construction of a 7118 s.f. credit union in a GB zone. Variance requested for setback to a residential zone, portion of parking spaces to be in a front setback and the drive aisle of the credit union located within a required buffer to a residential zone.	2/25/2019
Rapp Road Development, LLC		Subdivision/Site Plan Review for 222 units across five buildings on a 19.68 acre site.	2/25/2019
Bates Subdivision		2 lot subdivision of 118 acres	2/25/2019

Project Name	Project Location	Consideration	Date
BCREI NY		Special use Permit/Variance to permit the construction of a 65 unit Residential Facility Independent Living development. A variance is requested to develop a portion beyond the angle of repose.	2/25/2019
Rapp Road Development, LLC	Opposite side of Rapp Road from Crossgates Mall	Subdivision/site plan review for 222 units across five buildings on a 19.68 acre site.	3/21/2019
Rosenblum Companies-300 Great Oaks Blvd	300 Great Oaks Blvd	Rezone site to build two market rate apartment buildings with amenities for both residential and office tenants.	3/21/2019
Town of Guilderland Local Law 5 of 2019	Town-Wide	Local Law #5 of 2019 regarding small cell wireless facilities and microcell wireless facilities.	3/21/2019
Lands of Sancchethi-2 Lot Subdivision	2747 Curry Road	Subdivision Review-2 lot subdivision of 11 acres	3/21/2019
Clover Pond Vineyard	4730 Western Tpk.	Area Variance-Request to eliminate fire sprinklers in lieu of alternate protection.	3/21/2019
Crossgates Mall-Sign	1 Crossgates Mall Road	Area Variance-Installation of exterior sign exceeding 50 s.f.	3/21/2019
Stuyvesant Dental Care	1465A Western Avenue	Area Variance-Request for placement of a sign	3/21/2019
ARB Legacy Development	Western Ave and Twenty West Drive	Interpretation request-Is the proposed use allowed in the LB zone? Proposed use is a Farm Store.	3/21/2019
4557 Hurst Road	4557 Hurst Road	Request to return a split zoned parcel that is now zoned RA-20 and RA-3 classified to the original RA-3 zoning classification.	4/18/2019
Farm Stand and Winery Tasting Room	32 Fryer Lane	Special Use Permit request for a farm stand and winery tasting room.	4/18/2019
Maggie McFlys Signage	1 Crossgates Mall Road	Variance request for exterior signage in excess of 50 SF	4/18/2019
1229 Western Avenue, LLC	1229 Western Avenue	Request for special use permit and area variance in order to construct a deck to be built within 40' buffer.	4/18/2019

Project Name	Project Location	Consideration	Date
2747 Curry Road	2747 Curry Road	Variance request for width at building line. Property owner owns two parcels and wants to subdivide one. In order to construct proposed building on one of the proposed subdivisions would require a variance for lot width (4.62').	4/18/2019
1871 Western Avenue	1871 Western Avenue	Area variance for a side-yard setback to allow for the construction of an addition.	5/13/2019
1871 Western Avenue Sign	1871 Western Avenue	Area variance for signage in excess of 50 SF.	5/13/2019
Mill Hollow Two	5060 Western Tpke	Area variance request to permit the installation of a 9' high privacy fence.	5/13/2019
Rapp Road Development	Rapp Road and Gipp Road	Subdivision site plan review for 222 Units in 2 (five story) buildings. Current proposal includes dead-ending (to automobiles) Rapp Road at the Gipp Road intersection to mitigate traffic concerns. ACPB reviewed this case in March and April 2019	5/13/2019
1438 Western Ave Medical Center	1438 Western Ave.	An area variance and special use permit to enable the construction of a proposed 3600 SF medical office building.	5/13/2019
The Summit at Mill Hill	2 Mill Hill Court	An area variance for a sign in excess of 50 SF	6/20/2019
Mezzanotte Restaurant	2026 Western Ave	An area variance for an extension that encroaches into the side yard setback	6/20/2019
MA Schafer Construction	7168 Rt. 158 Altamont	Five lot subdivision of 22.5 acres	6/20/2019
Helios Energy	6604 Dunnsville Road	Special use permit for the installation of a 5 mega-watt solar array, road, and appurtenant structures. Area variance for a 7' high fence.	6/20/2019
Infamous Graphics	1704 Western Avenue	Variance request for signage modification to existing sign for LED board exceeding 50 SF.	7/18/2019
Victory Church	4755 Western Turnpike	A special use permit to allow for a foster care respite facility	8/15/2019
Lands of Harrington Subdivision	6096 Hawes Road	Subdivision of a 29.4 acre lot into a 12.7 acre lot and 17.1 acre lot.	8/15/2019

Project Name	Project Location	Consideration	Date
McDonald's	1602 Western Avenue	Modification to an existing restaurant including adding a drive-thru	9/19/2019
Erno Minor Subdivision	4931 Western Turnpike	Subdivide lot to allow for the construction of a new dwelling	9/19/2019
Great Oaks Office Parks	SE corner of the Church Road /Western Ave. Intersection (100, 200, and 300 Great Oaks Boulevard)	Rezoning a 16.3 acres from a Business Non-Retail Professional BNRP District to a Planned Unit Development District to enable the construction of 120 apartment units in two separate buildings.	11/21/2019
Spruce Plaza	1 Twenty West Drive	Request for a special use permit to allow the construction of a 14,740 SF mixed-use building, parking spaces, and landscaping	11/21/2019
2027 Western Ave. - Bank	2027 Western Ave.	Property owner applies for a special use permit to enable a major remodel of an existing building in order to re-tenant it with a Chase Bank and Drive-Thru ATM.	11/21/2019
Regal Cinemas	1 Crossgates Mall Rd.	Height variance for vertical addition to existing cinemas to allow the cinema roof height to increase by 24'.	11/21/2019
1438 Western Ave.	1438 Western Ave.	Area variance to enable additional signage quantity and area.	12/18/2019
300 Prout Lane	300 Prout Lane	The subdivision of a 43.24 acre parcel into two lots. Lot 1 would consist of 25 acres and would be conveyed to an adjoining owner. Lot 2 would consist of 18.24 acres and continued to be used as an existing horse farm.	12/18/2019
1874 and 1890 Western Ave. Albany	1874 and 1890 Western Ave. Albany	Special use permit to enable the demolition of the existing structure at 1890 Western Ave, and lot consolidation to accommodate a restriped parking lot do the Robinson Ace Hardware Store.	12/18/2019
19-27 New Karner Road	19-27 New Karner Road	An area variance and special use permit to enable the construction of a local shopping center and fast-food/drive-thru restaurant.	12/18/2019

Project Name	Project Location	Consideration	Date
31 New Karner Rd. Albany NY	31 New Karner Rd. Albany NY	An area variance to label the car wash as an accessory use on the Stewart's parcel.	12/18/2019
1st National Bank	8 New Karner Rd	A special use permit to enable an exterior lighting plan.	1/16/2020
Woodscape Dr.	271 Woodscape Dr.	Special use permit for the installation of a microcell telecommunications antenna on top of an existing utility pole.	1/16/2020
Fuller Station Road Subdivision	Fuller Station Road and W. Old State Rd.	Subdivision review for a major 100 acre subdivision consisting of 58 single-family lots and 4 open space lots. Access to the subdivision will be provided from Fuller Station and West Old state Rd.	2/25/2020
2020 Solar Code Amendments	N/A	Updated amendments to Town Code pertaining to Solar Code.	2/25/2020
Knockout Car Wash Signs	2123 Western Ave.	An area variance to enable the installation of one freestanding and one building mounted sign over the allowable .50 SF. The applicant is seeking a variance to allow for 106.3 SF of signage	2/25/2020
Chase Bank Signs	2027 Western Ave.	An area variance to enable three identification signs totaling 130 SF and three directional signs greater than 2 SF each.	4/2/2020
Fuller Station Road Subdivision	Fuller Station Road and W. Old State Rd.	Subdivision review for a major 100 acre subdivision consisting of 58 single-family lots and 4 open space lots. Access to the subdivision will be provided from Fuller Station and West Old State Rd.	4/16/2020
Otterness Minor Subdivision	6829 Dunnsville Rd.	The subdivision of one parcel into two, one on each side of a dividing road.	5/21/2020
745 Route 146 Minor Subdivision	RT. 146	The subdivision of a 6.8 acre parcel into a 2.08 acre lot and a 4.64 acre lot.	5/21/2020
Tara Kitchen	1785 Western Ave.	Amend existing special use permit form a take -out pizzeria to a sit down restaurant.	5/21/2020
McDonald's Area Variance	1602 Western Ave.	Area variance to allow sign to exceed maximum amount and square footage.	5/21/2020

Project Name	Project Location	Consideration	Date
Borrego Solar	6120 Johnson Road	An area variance and special use permit to enable a major solar array	6/18/2020
3760 Western Tpke	3760 Western Tpke	An area variance to allow construction of driveway on a parcel that currently doesn't have frontage on a public highway	6/18/2020
DJN Landscaping	3760 Western Turnpike	A special use permit to enable the construction of a cold storage building for landscaping equipment	6/18/2020
Car Wash Site Plan Amendment	2123 Western Avenue	Addition of 435sf of office space on a second floor with an exterior egress stairway.	7/16/2020
Colonial Carwash	1769 Western Ave.	An area variance to enable the replacement of existing sign with a 86SF sign.	7/16/2020
Metro Mover	4773 Western Turnpike	Special use permit to enable the expansion of an existing self storage facility.	7/16/2020
Stuyvesant Plaza Sign	147 Western Avenue	Area Variance to enable replacement of a 176sf freestanding static sign with a 240sf electronic message board display.	8/20/2020
Philips Minor Subdivision	6517 Route 158, 6495 - 6497 Route 158	Subdivision review for three lot minor subdivision. Lot 1 would consist of 4.65 acres, lot 2 would consist of 1.047 acres and lot 3 would consist of 7.689 acres.	9/17/2020
Mullen Subdivision	6575 Dunnsville Road	Two lot subdivision of 21.6 acres into a 7.1 and 14.5 acre lots	10/15/2020
5640 Depot Road Phase II	5640 Depot Road Voorheesville NY 12186	Special Use Permit to add building of the same size as the existing structure (9,720 sf) in the rear.	12/22/2020
Gleason 3 Lot Subdivision	6630 Fuller Station Road	Subdivision review for 36.6 acres of land which is currently two lots of land.	12/22/2020
Dunkin Drive-Thru Addition	2060 Western Avenue Guilderland, NY 12084	Special use permit to add a drive-thru to an existing Dunkin'	12/22/2020
Park Guilderland Suite #4	457 Rt 146 Guilderland Center	Special use permit for conversion of a yoga studio into a restaurant.	2/18/2021

Project Name	Project Location	Consideration	Date
Albany County Club Rezoning	300 Wormer Road (Northeast corner of Relyea Road and Grant Hill Road)	Rezoning for approximately 89 acres of Albany County Club vacant lands from existing R20 (Single Family Residential Districts) to proposed RA3 zone (Rural Agricultural-3 district).	2/18/2021
Dutch Hill Terrace Minor Subdivision	15 Dutch Hill Terrace	The applicant is proposing a two lot subdivision and an amendment to a previously approved minor subdivision to remove a Town Planning Board imposed note on the final plat which prohibits further subdivision of property. For the proposed subdivision to be approved the Planning Board will need to amend the previously approved final plat and remove the note from the plat.	3/18/2021
NEIP Solar	2 Van Buren Blvd	Special use permit for 15.0+/- acres of 2.375MW ground mounted photovoltaic panels as well as the associated access road, electric utility upgrades, and perimeter fencing for the solar farm.	3/18/2021
Albany County Club Rezoning	300 Wormer Road (Northeast corner of Relyea Road and Grant Hill Road)	Rezoning for approximately 89 acres of Albany County Club vacant lands from existing R20 (Single Family Residential Districts) to proposed RA3 zone (Rural Agricultural-3 district).	3/18/2021
10A and 10B New Karner Road Minor Subdivision	10 New Karner Road	Subdivision review for a two-lot minor subdivision of 4.5 acres +/- of land in the Business Non-Retail Profession District. Lot 10A would consist of 1.45 acres +/- of land and is currently undeveloped. Lot 10B would consist of 3.14 acres +/- of land and consists of an existing building with retail business.	4/15/2021
590 Route 146	590 Route 146	Area variance for conversion of barn to a special occasion facility with a dwelling unit for the caretaker.	5/20/2021
Curry Road Solar	2825 Curry Road	Special use permit to install a large-scale, ground-mounted, solar photovoltaic systems totaling 21.6+/- acres and Lot line adjustment to meet the setback requirements needed for solar panel layout.	5/20/2021

Project Name	Project Location	Consideration	Date
3397 Carman Road Area Variance & Subdivision Review	3397 Carman Road	Area variance to allow a reduction in minimum lot size on Lot #1 to 12,983 SF where 20,000 SF is required and to allow a reduction in lot width on Lot #1 to 77 ft. where 100ft is required. Two lot minor subdivision creating one new lot. Lot#1 would consist of 12,983SF and would contain an existing single-family residence with accessory buildings. Lot #2 would consist of 22,523 SF and would contain a duplex.	7/15/2021
Jimmy's Egg	1800 Western Ave	Area variance for additional building signage over 50 SF allowable for the location.	8/19/2021
Airgas	Northeastern Industrial Park (2 Van Buren Blvd)	Area variance and special use permit for the proposed storage and distribution facility, which will include storage/distribution tanks for argon and nitrogen and other accessory uses.	8/19/2021
Mueller 2-lot Minor Subdivision	4117 Western Turnpike	Area variance to subdivide the 64+/- acres property into two lots with a relief from side setback to facilitate this subdivision.	8/19/2021
Upstate Nutrition	1237 Western Ave	Special use permit for conversion of a tanning salon to a juice bar.	8/19/2021
YS Catalytic	70 Railroad Ave	Special use permit for the construction of a 14,400 SF warehouse for handling of catalytic converters.	8/19/2021
1516 Western Ave	1516 Western Ave	Area variance to permit a third sign and to exceed 50SF of sign area.	9/16/2021
1975 Western Ave	1975 Western Ave	Special use permit for change of use from bowling alley to a local shopping center.	9/16/2021
2801 Old State Road - 4 Lot Subdivision	2801 Old State Road	Subdivision review to divide the existing 6.6 acres parcel into four(4) new parcels, which will include two(2) keyhole lots.	9/16/2021
3397 Carman Road Minor Subdivision	3397 Carman Road	Two lot minor subdivision creating one new lot. Lot #1 would have an existing single-family residence with accessory building and Lot #2 would have a duplex.	9/16/2021
6185 Johnston Road - 3 Lot Subdivision	6185 Johnston Road	Subdivision review for three lot minor subdivision of 2.2 acres in the R15 zoning district.	9/16/2021

Project Name	Project Location	Consideration	Date
3476 Carman Road - 3 Lot Subdivision	3476 Carman Road	Subdivision review of 1.5 acres into three(3) lots with existing single family home and vegetable stand building, with a desire to build a new single family home on Lot #3.	9/16/2021
Fitness Club	3637 Carman Road	Special use permit for conversion of existing warehouse space in a multi-tenant building to a fitness club.	11/18/2021
Miron Lumber Redevelopment	60 & 62 Railroad Ave	Special use permit for redevelopment of an industrial site for warehouse office use.	11/18/2021
4 Lot Minor Subdivision - Traditional Builders	Old State Road and Abbey Road (off of Empire Avenue)	Subdivision of 75+/- acres of land into four (4) parcels. Lot 1 to be 15.06 acres, Lot 2 to be 20.42 acres, Lot 3 to be 24.34 acres and Lot 4 to be 14.91 acres.	12/16/2021
3476 Carman Road	3476 Carman Road, Schenectady	Area variance to subdivide the property that results in reduced lot width and an accessory structure.	12/16/2021
6182 Johnston Road	6182 Johnston Road	Area variance to allow subdivision resulting in lot width and lot area.	12/16/2021
Business Consulting Office	3637 Carman Road, Schenectady	Special use permit for business consulting office.	12/16/2021
Jon Philips	6517 Rt 158 Altamont	Area variance to allow signage exceeding allowable quantity (2) and area (50 SF).	12/16/2021
Livingston Two-Lot Minor Subdivision	6180/6182 Johnston Road	Two-lot minor subdivision of 2 acres of lands in a residential Overlay district. Lot #1 is to be 0.528 acres with an existing single family dwelling and Lot #2 is to be 1.473 acres with a number of accessory buildings and single-family dwelling.	12/16/2021
Storage Yard	4304 Frederick Road	Special use permit to allow storage of equipment and roll-off containers.	12/16/2021
6199 Ostrander Road	6199 Ostrander Road	Area variance to allow storage building on an undersized lot.	12/16/2021
Mobil/Dunkin	6495-6497 Rt 158	Area variance for signage for 1) 50 SF additional for Mobil, 2) 97 SF additional & (Qty 2) for Dunkin, 3) 76 SF additional for Phillips Mini Mart, 4) Freestanding signs within 20ft setback, and 5) Freestanding signs exceeding 50SF area.	2/17/2022

Project Name	Project Location	Consideration	Date
Ronnie's	2337 Western Ave	Area variance and special use permit for expansion of Specialty Off Road Motor vehicle facility.	2/17/2022
Star Plaza Sign	2050 Western Ave	Area variance for replacement of a plaza sign with a tenant directory exceeding 50 SF.	2/17/2022
Tractor Supply	2327 Western Ave	Special use permit for new customer online pick-up drive thru in current display area.	3/17/2022
4 Lot Minor Subdivision - Traditional Builders	Old State Road and Abbey Road (off of Empire Avenue)	Subdivision of 75+/- acres of land into four (4) parcels. Lot 1 to be 15.06 acres, Lot 2 to be 20.42 acres, Lot 3 to be 24.34 acres and Lot 4 to be 14.91 acres.	3/17/2022
Barth Two Lot Minor Subdivision	185 Route 146	Subdivision review for two lot subdivision of 37 acres of land located in the Residential Overlay District (RO40). Lot 1 will consist of 4 acres along with the existing single-family dwelling and accessory buildings. Lot 2 will be 33 acres of undeveloped land.	4/22/2022
Gardner Road Minor Subdivision	Gardner Road Rte 146	Three-lot subdivision to divide 81.5 acres of land into three lots consisting of 8.95 acres (Lot & Lot 2) and 63.55 acres (Lot 3). No public water or sewer is available for the proposed lots.	5/19/2022
3852 Western Tpke	3852 Western Tpke	Special use permit to allow storage of tree service equipment.	5/19/2022
1 Alton Road - Special Use Permit	1 Alton Road	Special use permit for occupancy by tenant that services Italian ice.	5/19/2022
Woods Subdivision	843 Altamont Voorheesville Road	Subdivision review to divide the parcel into four(4) individual parcels. Lot 1 is to be 209.96 acres, Lot 2 is to be 32.16 acres, Lot 3 is to be 66.47 acres and Lot 4 is to be 15.55 acres.	6/16/2022
Riitano	6228-6230 Riitano Ln	Area variance and special use permit for amendment of garages at Independent Living Facility.	6/16/2022
Junior's Bar & Grill	2080 Western Ave	Area variance to allow installation of third sign.	7/21/2022

Project Name	Project Location	Consideration	Date
Apex at Crossgates - 222 Unit Multiple Residence Community	Southwest Corner of Rapp Road/Gipp Road	Site plan review for the construction of 192 apartments over a first level parking garage and 30 townhomes with private garages. In addition, the site includes a 6,500 SF clubhouse, outdoor pool, and recreation space. The Apex will have a lighted and landscaped walking path of the adjacent Crossgates Mall, as well as sidewalks connections to the nearby CDTA bus stop and to Western Avenue. The total impervious area on the project site will be reduced by over 10,000 SF as a part of the proposed site plan modifications.	7/21/2022
Laviano 3 Lot Minor Subdivision	1854 Western Ave	Three lot minor subdivision of 1.2 acres where Parcel A would consist of 0.45 acres, and Parcel B & Parcel C would consist of 0.35 acres each.	8/18/2022
Climate Controlled Storage	1583 Western Ave	Special use permit for construction of 93,600 +/- SF indoor climate-controlled self-storage facility.	8/18/2022
Kyle Trestick - Special Use Permit	7160 Rt 158	Special use permit for home occupation with a contractor yard for tree removal business.	8/18/2022
5640 Depot Road - Special Use Permit Amendment	5640 Depot Road	Amendment to a special use permit to include office space to a cold storage warehouse.	9/15/2022
24 unit Multiple-Residence Development	2 Crossgates Mall Rd	Site plan review for the proposed 24 unit multiple-residence community with 2,800 square feet management office and gym, along with maintenance garage on 1.54 acres in the Transit Oriented Development (TOD) District.	9/15/2022
Detailed Dog	2093 Western Ave	Special use permit for conversion of a medical office to a dog grooming facility.	9/15/2022
Sandell - Special Use Permit	310 Wayto Rd	Special use permit for construction of a pre-manufactured 10,800 SF warehouse, extension of water main to the main building, paved parking and truck maneuvering space.	9/15/2022
1210 Western Ave-Area Variance	1210 Western Ave	Area variance for the installation of one additional 4,385 SF sign.	11/17/2022

Project Name	Project Location	Consideration	Date
1672 Western Ave - Area Variance & SUP	1670-1672 Western Avenue	Area variance and special use permit for the conversion of 1,244 SF of office space into two apartments.	11/17/2022
Garage Construction	2965 W Old State Road	Special use permit for construction of a five-bay garage attached to the existing Building 3.	11/17/2022
8,000 Square Feet Medical Office Building	2500 Western Ave, 2502 Western Ave, 3 Hague Dr	Site plan review to develop an 8,000 SF one-story medical office building with parking lot, landscaping, lighting and stormwater management facility.	11/17/2022
Barth Meadows Major Subdivision	6458 Posson Rd, 183 Rt 146, 185 Rt 146, Rt 146 Rear	Subdivision review for the proposed residential cluster subdivision with 66 single-family homes with associated utilities and roadway.	12/15/2022
Gun Club Road Conservation Subdivision	100-200 Sophie Ln, 6348 Gun Club Rd, Gun Club Rd	41 lot conservation subdivision, including a water main extension to Village of Altamont and two stormwater lots.	12/15/2022
Minor Subdivision of Diamond Home Designs, LLC	Schoolhouse Rd	Two lot minor subdivision of 9.5 acres of land which was previously approved in September 2008 but has now expired.	12/15/2022
1232 Western Ave - Area Variance	1232 Western Ave	Area variance for the installation of freestanding sign within a required front setback.	1/19/2023
The Scene Sign	1671 Western Avenue	Area variance for installation of a monument sign within a required setback.	1/19/2023
Laviano Mixed-Use Building	1859-1871 Western Avenue	Special use permit for the construction of the mixed use building and an addition to the existing retail building for additional tenants in the Local Business/ Business Non-Residential Professional (LB/BNRP) zoning district. Area variance for the front yard and rear yard building setback for the proposed construction.	1/19/2023
Eggcellent	2 Alton Road	Special use permit for change of tenancy from a salon to a bubble tea shop.	1/19/2023
Golf Performance Center	5180 Western Tpke, Altamont	Special use permit for the conversion of existing restaurant to a golf performance center.	2/16/2023

Project Name	Project Location	Consideration	Date
Just Cats	2079 Western Avenue	Special use permit for conversion of a chiropractor office to a veterinary clinic.	2/16/2023
Noppa-Jonientz Two-Lot Minor Subdivision	5601 Grant Hill Road	Two-lot minor subdivision of 8.09 acres into Lot 1 consisting 3.6 acres and Lot 2 consisting 4.5 acres.	2/16/2023
1854 Western Avenue Change in Zone	1854 Western Avenue	Change in zoning from a Single-family Residential (R15) District to a Local Business (LB) District.	5/18/2023
Capital Care Kids	2558 Western Avenue	Site plan review for a proposed day care use within an existing 2,054 square feet +/- building.	5/18/2023
2123 Western Avenue - Signage	2123 Western Avenue	Area variance for the installation of a wall sign.	6/15/2023
Farm Lane Change in Zoning	6283-6285 Farm Lane	Rezoning of the parcel from Residential Overlay (RO40) District to the Rural Agricultural (RA3) District.	7/20/2023
Primark	1 Crossgates Mall	Area variance to install signage exceeding the allowed square foot.	7/20/2023
Settles Hill Road Minor Subdivision	Settles Hill Rd/Furbeck Rd/Gray Rd	Subdivision review to divide the parcel into three lots. Lot 1 and 2 will consist of 5.1 acres and Lot 3 will consist of 4.92 acres.	7/20/2023
653 Route 146 - Construction	653 Route 146 Altamont	Area variance for the construction of a detached garage exceeding the allowed height.	8/17/2023
713 Route 146 - Reconstruction	713 Route 146 Altamont	Area variance for reconstruction of a detached garage in a side setback.	8/17/2023
1840 Western Ave - Building Conversion	1840 Western Avenue	Special use permit for the conversion of second floor office space to two rental dwelling units.	8/17/2023
1854 Western Ave Change in Zone - Amendment	1854 Western Ave	Amendment to previously proposed rezoning of 1.14 acres parcel from Single Family Residential (R15) to Local Business (LB).	9/21/2023
Farm Lane Change in Zone - Amendment	6283-6285 Farm Ln Pr	Amendment to previously proposed rezoning of 35 acres from Residential Overlay (RO40) zoning district to Rural Agricultural (RA3) zoning district.	9/21/2023

Project Name	Project Location	Consideration	Date
4478 Western Turnpike - Area variance	4478 Western Turnpike Altamont	Area variance for the construction of warehouse buildings within 500 feet of the Watervliet Reservoir.	9/21/2023
PharmaCann	Executive Park Dr	Special use permit amendment for medical marijuana dispensary to include adult-use sales.	10/19/2023
REI	1 Crossgates Mall Road	Special use permit for the addition of a loading dock and dumpster enclosure and implementation of parking area improvements.	10/19/2023
Cafe Italia	2080 Western Avenue	Area variance for installation of a sign exceeding 50 SF.	10/19/2023
United Fitness Sports	1650 Western Avenue	Special use permit for the conversion of an office to a shopping center.	10/19/2023
Cold Storage Building	5640 Depot Road, Voorheesville	Special use permit to include a 3rd building for cold storage at an existing roofing contractor yard.	11/16/2023
Carman Road Senior Apartment Project	3407 Carman Road	Site plan review for the proposed 12 age restricted dwelling units in three buildings where each building will contain 4 units.	12/21/2023
Schoolhouse Luxury Townhomes	61-65 Schoolhouse Road	Site plan review for the proposed construction of 4 buildings with 2 units in each building. Dexter Lane (private) will be extended and create a 2nd entrance to Schoolhouse Road.	12/21/2023

Table 2-2. Building Permit Issuance (2018 to 2022)

Year	Building Type	Units
2018	1	32
2018	2	2
2019	1	30
2019	3-4	8
2020	1	29

Year	Building Type	Units
2020	3-4	44
2021	1	39
2021	3-4	8
2022	1	15
Total:		207

Data Source: Capital District Regional Planning Commission (<https://cdrpc.org/data/housing/>)

3 CAPABILITIES ASSESSMENT

3.1 Planning Mechanisms and Capabilities

The Town of Guilderland identified the following planning mechanisms and capabilities that can support the Town in hazard mitigation efforts. These capabilities can be used to support the mitigation strategy in several ways. For example, administrative capabilities can assist in implementing the mitigation actions as identified in the mitigation strategy. Existing building codes and land use regulations provide a foundation for mitigation planning and provide guidelines for infrastructure repair, new developments, and other actions. Educational programs may be developed further in order to more fully incorporate hazard mitigation. Table 3-1 elaborates on existing building codes, land use and development ordinances/regulations, and many other capabilities which can support hazard mitigation.

Table 3-1. Planning Mechanisms & Capabilities

Planning Mechanism	In Place? (Yes/No)	Notes (Does the plan address hazards? Can the capability be used to implement mitigation actions? When was it last updated?)
Administration		
Maintenance Programs	Yes	Maintenance to prevent flooding of local roads -- Extensive ditching program to keep water flowing freely, crews go out during storms to check for problems.
Mitigation Planning Committee	No	
Mutual Aid or Shared Services Agreements	Yes	Highway Department collaborates with other highway departments, EMS department has mutual aid with neighboring communities, Fire as well
Planning Board	Yes	
Zoning Board	Yes	
Other		
Development Approvals		
Building Code	Yes	NYS 2020 Building Code
Fire Department ISO Rating	Yes	Available upon request. Each firehouse has its own # 1-914-216-9090
Site Plan Review Requirements	Yes	Chapter 280 of Town Code

Planning Mechanism	In Place? (Yes/No)	Notes
		(Does the plan address hazards? Can the capability be used to implement mitigation actions? When was it last updated?)
Other		
Funding Resources		
Authority to Levy Taxes	Yes	
Capital Improvement Project Funds	Yes	Reserves set aside for different purposes
Federal Funding Programs (i.e., USDA, FEMA, others)	No	Looking into this
General Obligation Bonds and/or Special Tax Bonds	Yes	General Obligation Bonds
Impact Fees for New Development	Yes	Fee for parkland
State Funding Programs (i.e., NYSEFC, NYSOGR, NYSDEC, others)	Yes	If needed
Utility Fees (i.e., water, sewer, stormwater, gas, electric)	Yes	Water/Wastewater department has sewer and water connection fees and sewer mitigation fee
Other	Yes	Chapter 177: Flood Damage Prevention
Land Use Regulations		
Density Controls	Yes	Part of Chapter 280 and 247 (single family)
Flood Insurance Rate Maps	Yes	
NFIP Participant / Floodplain Ordinance	Yes	See "Floodplain Administrator" row below (under "Staff Positions")
Hillside Development Regulations	Yes	Chapter 280
Open Space Preservation	Yes	Part of subdivision regulations, Town adopted Conservation Easement program recently
Stormwater Management Regulations	Yes	Signatory on Albany County Intermunicipal Agreement for Storm Water Management
Streambank Setback Regulations	Yes	Chapter 280
Subdivision Regulations	Yes	Chapter 247
Zoning Ordinance	Yes	Chapter 280
Other		
Natural Resources		

		Notes
Planning Mechanism	In Place? (Yes/No)	(Does the plan address hazards? Can the capability be used to implement mitigation actions? When was it last updated?)
Forest/Vegetation Management	Yes	Chapter 201. Native Tree Preservation and Protection
Stream Corridor Management	Yes	Watercourse Setbacks (in Chapter 280)
Stream Dumping Regulations	Yes	Chapter 241 (Stormwater Management) addresses illicit discharges, Chapter 236: Dumping and Rubbish
Urban Forestry and Landscape Management	Yes	Tree Preservation Committee
Watershed Management	Yes	Chapter 280, Chapter 241, Chapter 201, Chapter 236 (Dumping) address watershed management
Wetland Regulations	Yes	Chapter 181: Freshwater Wetlands
Other	Yes	Chapter 280-35: Residential cluster/conservation development and open space/parkland Chapter 251 Article XVI. Conservation Easement Agreement Exemption Chapter 150: Community Choice Aggregation Program
Plans		
Capital Improvement Plan	Yes	
Comprehensive Emergency Management Plan	Yes	2001 – Does not address hazards or mitigation
Comprehensive Plan	Yes	2001 (currently in process of updating)
Continuity of Operations Plan	Yes	
Economic Development Plan	Yes	2016 - Zoning and land use code
Other		
Programs/Organizations		
Climate Smart Community	Yes	Registered
Local Emergency Preparedness/Disaster Response Organizations	Yes	
Local Environmental Protection Organizations	Yes	
National Weather Service StormReady Certification	No	Albany County is certified

Planning Mechanism	In Place? (Yes/No)	Notes
		(Does the plan address hazards? Can the capability be used to implement mitigation actions? When was it last updated?)
Outreach Programs	Yes	See below
Partnerships with private entities addressing mitigation or disaster response	Yes	Crossgates Mall / Schools with Town Police Department
School Programs or Adult Educational Programs	Yes	At Town Hall, Parks and Recreation reaches out to school programs (general education), Senior Services does adult educational programs and provides heating/cooling assistance
Other		
Staff Positions		
Civil Engineer	Yes	Town engineer on staff, Town-designated engineers for land-use review and certain grant projects
Code Enforcement Officer	Yes	Jackie Coons is chief building and zoning inspector, supervises 3 code enforcement officers, chief fire inspector
Emergency Manager	Yes	
Floodplain Administrator	Yes	Jackie Coons
Planner/GIS Coordinator	Yes	Ken Kovalchik (Planner), Mansi Parmar (GIS)
Other		
Technical Abilities		
Grant Writing	Yes	
Hazard Information Centers	Yes	Currently utilize website and email for hazard information
Hazard Warning Systems	Yes	Nixle – hazard warning system, fire sirens
Other		Police mobile unit, Cooling Centers

The Town's HMP update will be incorporated into and referenced by future updates of the plans, policies, ordinances, programs, studies, and reports listed in Table 3-1. In particular, the Town should review Table 3-1 when completing updates to the Comprehensive Plan and amendments to the Zoning Code. As part of this review, the Town may strategize opportunities for building the hazard mitigation mechanisms and capabilities currently marked "No" in the table (where feasible) by designating lead agencies in charge of closing such gaps, connecting with partners and technical support resources, establishing a timeline and next steps, estimating costs, and applying for grant funding when necessary. In an update to the Comprehensive Plan, this

process may result in the development and inclusion of detailed proposed action items and implementation frameworks that address gaps in hazard mitigation mechanisms and capabilities. In an amendment to the Zoning Code, this process may result in the modification of existing laws or the drafting and adoption of new laws to address gaps in hazard mitigation mechanisms and capabilities.

Furthermore, the Town would like to expand and improve the capabilities listed in Table 3-1 in the following ways:

- o Aging infrastructure – addressing issues like erosion, culverts, etc. Grant funding is limited so there is a lot of catch-up to do. The Town would like more extensive funding to address these issues.

Additional strategies to expand and improve hazard mitigation capabilities are detailed in Section 10 of the main body of the HMP.

3.2 Integration of Planning Efforts

The Town of Guilderland understands the importance of considering an integrated approach when developing municipal plans, policies, programs, and regulations. The Town intends to reference the 2025 Albany County HMP as part of the process for future updates to the plans, policies, programs, and regulations listed in Table 3-1, above, and for creating new regulations as applicable. In particular, the Town is updating its comprehensive plan; in this plan update, there is a subcommittee dealing with climate change and resiliency, and the Town is looking to incorporate hazard mitigation into this plan. This may include adding hazard mitigation as an agenda item at Town Board meetings where local laws are being developed or updated, including hazard mitigation considerations in any templates used to make new laws, adopting an ordinance that all new local laws need to consider hazard mitigation if applicable, or simply making local officials aware of the need to consider hazard mitigation in any plan updates. Additionally, the Town of Guilderland may use the local laws assessment (included in Section 4 of the main body of the HMP) to reference hazard mitigation related regulations that other jurisdictions in the County have adopted, and consider implementing similar regulations if desired. All of these actions will help expand and improve upon these existing capabilities so that they reduce risk and better support hazard mitigation.

4 HAZARD IDENTIFICATION AND RISK ASSESSMENT

4.1 Profiled Hazards

In this HMP Update, the County reviewed multiple natural hazards, and determined to profile five natural hazards: flooding, severe storm, drought, extreme temperatures, and landslide. Descriptions of each of these hazards are included in Section 6 of the main body of the HMP.

The Town of Guilderland has opted to add the following hazards to their annex. Town representatives gave the following reasons for this inclusion:

- Erosion – Added because the Town experiences significant erosion issues along waterways such as Normanskill and its tributaries (e.g. Black Creek and Bozenkill). This undermines tree root structures, causes trees to fall into streams, sometimes alters the course of streams, and could impact Town-owned land with walking trails. It also can cause flooding issues. More intense severe storms have caused increased erosion issues.

Aside from the exception listed above, the Town of Guilderland profiled the same hazards as Albany County.

The hazard analysis criteria used to evaluate the Town's vulnerability to each natural hazard are summarized in Table 4-1, and the results are presented in Table 4-2. All rankings were completed subjectively, with the guidelines detailed in Table 4-1.

Table 4-1. 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 jurisdiction	Well Prepared	4 to 5	Low
2	Moderate	Infrequent	A significant portion of the jurisdiction	Moderately Prepared	6 to 8	Moderate
3	Major	Regular	The entire jurisdiction	Not Prepared	9 to 12	High

*Frequency is defined roughly as follows:

- Rare – Every 15 years or less
- Infrequent: Less than once a year but greater than once every 15 years
- Regular: Approximately yearly or multiple times a year

Table 4-2. Hazard Vulnerability by Event

Hazard Event	Impact (Damage to property, crops, people, etc.)	Frequency of Occurrence	Extent of Impacts	Level of Preparedness	Overall Vulnerability	Jurisdiction Rank	Notes (Anticipated Future Changes)
Flooding (Riverine, Coastal, Urban, Flash, Ice Jam, Dam or Levee Break, Other)	3	3	2	2	10 – High	3	Becoming more frequent with climate change and aging infrastructure
Drought	3	3	3	2	11 – High	1	Affected by growing Town population's demand on water system, especially from watering lawns.

Hazard Event	Impact (Damage to property, crops, people, etc.)	Frequency of Occurrence	Extent of Impacts	Level of Preparedness	Overall Vulnerability	Jurisdiction Rank	Notes (Anticipated Future Changes)
Severe Storm (Hail, Ice Storms, Wind, Thunderstorms and Lightning, Winter Storms, Hurricane, Tropical Storms, Tornado, Power Outage)	2	3	3	2	10 – High	2	Becoming more frequent with climate change
Extreme Temperatures (Cold Wave, Heat Wave, Air Pollution Effects)	1	3	1	1	6 – Low	6	Extreme heat becoming more frequent with climate change.
Landslide	2	3	1	2	8 – Moderate	5	Becoming more frequent
Erosion	2	3	2	2	9 – High	4	Becoming more frequent with climate change and aging infrastructure

4.2 Hazard Event History

A complete history of natural hazard events within the County – based on NOAA's Severe Storm Database – is included in Section 6 of the main body of the HMP. The following is a subset of events that occurred specifically within the Town. These records informed the development of mitigation actions by demonstrating which hazards have historically had the greatest impact on the Town.

Table 4-3. Hazard Event Records, 2018-2023

Event Type	Date	Magnitude	Estimated Property Damage	Estimated Crop Damage
Thunderstorm Wind	5/4/2018	50	0	0
Thunderstorm Wind	7/20/2019	50	0	0
Thunderstorm/Wind	7/30/2019	50	0	0
Thunderstorm/Wind	8/10/2020	50	0	0
Thunderstorm Wind	10/7/2020	50	0	0
Thunderstorm Wind	5/16/2022	50	0	0
Thunderstorm Wind	7/9/2023	50	0	0
Hail	9/7/2023	.88	0	0
Thunderstorm Wind	9/7/2023	50	0	0
Total			\$0	\$0

Note: The table above lists only the hazard events that were recorded as occurring specifically within the Town. For records of County-wide hazard events, see the Albany County Annex. Units for magnitude are expressed as the following: Hail: inches, Thunderstorm Wind: knots.

4.3 Floodplain Statistics

Key water features in the Town are described in Section 2.2 of this annex. FEMA provides flood insurance rate maps for the municipality and GIS data on the spatial location of floodplains. The 1% annual chance (100-year) flood event area generally corresponds with areas that are at high risk of flooding, and the 0.2% annual chance (500-year) flood event area generally corresponds with areas that are at moderate risk of flooding. Out of the 57.5 square miles in the Town, approximately 8.97% are located within the 1% annual chance flood event area and approximately 9.97% are located within 0.2% annual chance flood event area (inclusive of the 1% flood event area). The estimated number and structure value of parcels in the municipality that intersect mapped floodplains are summarized in Table 4-5. There are 515 parcels in the Town located within the 1% annual chance flood event area, with an estimated total structure value of \$222,447,582. Inclusive of these parcels in the 1% annual chance flood event area, there are 590 parcels in the Town located within the 0.2% annual chance flood event area, with an estimated total structure value of \$238,754,982.

Table 4-4. Summary of Areas in Floodplains*

Total Area (square miles)	Percent of Total Area in 1% Annual Chance Floodplain	Percent of Total Area in 0.2% Annual Chance Floodplain
57.5	8.97%	9.97%

* 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. The area within the Village of Altamont was excluded from the Town's area in the creation of this table.

Table 4-5. Estimated Number and Structure Value of Parcels within Mapped Floodplains

Property Class	Number of Parcels in 1% Annual Chance Floodplain	Approx. Structure Value* in 1% Annual Chance Floodplain	Number of Parcels in 0.2% Annual Chance Floodplain**	Approx. Structure Value* in 0.2% Annual Chance Floodplain**
Unclassified	3	\$0	3	\$0
Agricultural	32	\$4,515,000	34	\$4,652,200
Residential	284	\$66,222,000	340	\$77,859,900
Vacant	102	\$385,700	107	\$442,700
Commercial	21	\$89,838,654	25	\$91,544,154
Recreation and Entertainment	11	\$7,319,328	11	\$7,319,328
Community Services	8	\$46,014,500	13	\$48,784,300
Industrial	2	\$4,093,700	2	\$4,093,700
Public Services	7	\$3,850,000	10	\$3,850,000
Parks and Open Space	45	\$208,700	45	\$208,700
Total	515	\$222,447,582	590	\$238,754,982

*Structure Value for each parcel was estimated by subtracting Land Assessed Value from Total Assessed Value. If the entire parcel or a subset of the parcel was contained within the floodplain, the structure on that parcel was included regardless of the structure's location on the parcel.

** The 0.2% Annual Chance Floodplain in this table includes the area in the 1% Annual Chance Floodplain.

4.4 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 (<https://www.fema.gov/flood-insurance>).

Communities that participate in the NFIP adopt floodplain ordinances. If an NFIP-insured structure incurs damage costs that are over 50% of its market value, the owner must comply with the local floodplain regulations and the flood provisions of the International Codes 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.

Additionally, under the NFIP, all damaged structures within the Special Flood Hazard Area (SFHA), whether they are insured or uninsured, must be assessed to determine the extent of the damage. If the cost to repair the structure is 50% or more of the market value, the structure is considered "Substantially Damaged." Furthermore, for structures that undergo reconstruction, rehabilitation, addition, or other improvements, the improvements are considered "Substantial Improvements" when the cost of the improvements equals or exceeds 50 percent of the market value of the structure. For both Substantially Damages and Substantially Improvements, the owner of the structure must comply with the local floodplain regulations and the flood provisions of the International Codes when repairing or rebuilding the structure when repairing or rebuilding the structure.

For more information on FEMA's requirements for substantial damage and substantial improvement, including guidance for uninsured structures, refer to FEMA's Substantial Damage Quick Guide and Understanding Substantial Damage Job Aid (<https://www.fema.gov/fact-sheet/substantial-damage-quick-guide>).

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:

1. Creates safer environments by reducing loss of life and decreasing property damage;
2. Allows individuals to minimize post-flood disaster disruptions and to recover quicker (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
3. Lessens the financial impacts on individuals, communities, and other involved parties (<https://www.fema.gov/flood-insurance>).

The Town of Guilderland currently participates in the NFIP (community ID 360010A), and its current FIRM(s) became effective on 3/16/15. FIRMs are available via FEMA's Flood Map Service Center (<https://msc.fema.gov/portal/home>). Digital FIRM data is also available for Albany County via FEMA's National Flood Hazard Layer Viewer, which was referenced during the development of this annex. 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).

The Town's local law governing floodplain development and NFIP compliance is located in Chapter 177: Flood Damage Prevention. The Town's adopted building codes also support NFIP compliance; these are located in Chapter 171: Fire Prevention and Building Construction. After a flood event, the Town requires structures to comply with the substantial improvement and substantial damage provisions of their floodplain management regulations. The floodplain administrator is responsible for granting or denying floodplain development permits in accordance with the provisions of this law. The Town will continue to comply with the NFIP by enforcing floodplain management requirements and regulating new development in special flood hazard areas, among other required duties. Staff capabilities to implement the NFIP and local floodplain regulations are listed in Table 3-1 of this annex.

According to NFIP claims data provided by FEMA, there are 2 repetitive loss properties in the Town of Guilderland. Repetitive loss properties are properties that have had at least two paid flood losses of more than \$1,000 each in any 10-year period since 1978.

4.5 Considerations for Future Hazards

The Town also considered future changes in hazards due to climate change, population changes, land use, and other factors. They identified the following concerns:

- Storms and landslides are becoming more frequent. For example, storms (e.g. thunderstorms) have gotten more intense & dropped more rain in a shorter period of time. As the intensity of storms continues to increase and infrastructure continues to age, additional problems related to storms sewers, culverts, water infrastructure, and erosion will increase the need to upgrade infrastructure.
- Aging infrastructure is worsening the risk of flooding.
- As the Town continues to grow, single-family homes sprinkling lawns in the summer has a huge impact on water demand. Water treatment plants keeping up with this will be an issue.
- Climate change is increasing the risk of multiple hazards.

These concerns were taken into consideration when developing the mitigation strategy. The effects of climate change and other factors on future hazard events in Albany County are covered in more detail in Section 6 of the main body of the HMP.

5 ASSETS AND VULNERABILITIES

5.1 Critical Facilities

FEMA defines a critical facility as one that provides services and functions essential to a community, especially during and after a disaster. Critical facilities should remain accessible and functional before, during and after disasters. Additionally, critical facilities include those that requires a special emergency response in the event of hazardous incidents, such as buildings that store hazardous materials. Examples of critical facilities include community lifelines, such as fire departments, EMS services, police stations, water and wastewater services, medical facilities, highway garages, and hazardous materials. They also include facilities such as Town halls, schools, and senior centers. In the hazard mitigation planning process, each jurisdiction ultimately decided which facilities they consider to be critical facilities for their community.

Table 5-1 denotes the name, type, and location of the critical facilities within the Town of Guilderland, and any particular vulnerabilities of note. More information about hazard vulnerability, including the vulnerability of community assets to natural hazard events, is included in Section 8 of the main body of the HMP. Additional vulnerabilities by location are assessed in the HAZUS analysis, included in the appendices of the HMP

*Table 5-1. Critical Facilities**

[Table redacted due to sensitive content]

Per 2022 NYS Hazard Mitigation Planning Standards, jurisdictions must identify all of their critical facilities, determine the facilities' exposure to a 1% and 0.2% annual chance flood event, and document if the facilities are protected to a 0.2% annual chance flood event or previous worst case flood event (whichever is greater). For facilities that do not meet this level of protection, the jurisdiction must either include an action to meet or exceed this criterion or explain why it is not feasible to do so.

As indicated in Table 5-1, it is unknown whether several of the Town's critical facilities are protected to a 0.2% annual chance (500-year) flood event or previous worst case flood event (whichever is greater). The Town has included an action in Section 7.2: New Mitigation Actions related to these critical facilities. Section 9 of the main body of the HMP provides additional detail on how the County and local municipalities may assess critical facilities' level of protection to the 1% and 0.2% annual chance flood event.

5.2 High Hazard Potential Dams

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. A High Hazard Potential Dam is a dam located in an area where dam 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.

The Town of Guilderland has one (1) high hazard potential dam located in the municipality: Normanskill (also known as Watervliet Reservoir Dam). Information on this dam is included in Table 5-2, as well as in the High Hazard Potential Dam Worksheet at the end of this annex. High Hazard Potential Dams can be an asset as well as pose risks to the jurisdiction and neighboring jurisdictions. Additional information about high hazard potential dams and their impacts is included in Sections 6 and 7 of the main body of the HMP, as well as in Appendix H.

Table 5-2. High Hazard Potential Dams in the Town of Guilderland

Dam Name	Owner	Federal ID	Year Completed	Construction Type	Primary Purpose	Date of Last EAP Revision
Normanskill (Watervliet Reservoir Dam)	City of Watervliet, NY	NY00088	1916	Buttress	Hydroelectric	11/21/2022

Source: National Inventory of Dams (U.S. Army Corps of Engineers, 2023), NYSDEC Foil Request (NYS Department of Environmental Conservation, 2024)

5.3 Additional Jurisdiction/Public Identified Vulnerabilities

In addition to critical facilities, it is important to take a holistic approach to identifying assets in the jurisdiction and how they may be vulnerable to the hazards identified in the HMP. Examples of other assets considered include:

- People (residents, workers, visiting populations, and socially vulnerable populations like seniors, individuals with disabilities, lower-income individuals, etc.)
- Other structures (community centers, historic places, planned capital improvement)
- Economic assets (major employers, primary economic sectors, key infrastructure like telecommunications networks)
- Natural, historic and cultural resources (areas of conservation, beaches, parks, critical habitats)
- Critical facilities and infrastructure (hospitals, law enforcement, water, power)
- Community activities (major local events such as festivals or economic events like farming or fishing)

Aside from critical facilities listed in Table 5-1, the Town of Guilderland has identified the following additional assets for consideration in hazard mitigation planning and included the following notes:

Additional Assets:

[Information redacted due to sensitive content]

6 SUMMARY OF HAZARD IMPACTS AND VULNERABILITIES

6.1 Flood

The Town of Guilderland has ranked their overall vulnerability to flood events as high, as indicated in Table 4-2. According to Town representatives, flood events occur regularly in the jurisdiction and affect a significant portion of the jurisdiction, causing major damage. The Town feels they are moderately prepared for flood events.

Information on flood event records (Section 4.2 of this annex), high hazard potential dams (Section 5.2), floodplain statistics (Section 4.3), and participation in the NFIP (Section 4.4) are described above, illustrating the impact of flooding on critical facilities and other structures. The Town is particularly concerned about the impacts of flooding on Johnston Road, Nott Road Park, rural residents whose septic systems are located in the floodplain, and aging pipes and culverts.

Future vulnerability to flood events is determined by many factors, such as climate change, land use, and population changes, as well as the implementation of mitigation and adaptation strategies. Climate change is expected to increase the Town's future vulnerability to flood events. These trends are further described in Section 4.1 of this annex and in Section 6 of the main body of the HMP.

6.2 Severe Storm

The Town of Guilderland has ranked their overall vulnerability to severe storm events as high, as indicated in Table 4-2. According to Town representatives, severe storms occur regularly in the jurisdiction and affect the entire jurisdiction, causing moderate damage. The Town feels they are moderately prepared for severe storm events.

Records of severe storm events are described in Section 4.2 of this annex. Impacts to the Town 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. Damages to the Town's critical infrastructure or primary transportation routes would be particularly impactful to residents.

Future vulnerability to severe storm events is determined by many factors, such as climate change, land use, and population changes, as well as the implementation of mitigation and adaptation strategies. The Town notes that thunderstorms have already gotten more intense and have dropped more rain in a shorter period of time. Climate change is expected to change the types of severe storm events that the Town is vulnerable to, likely making the Town more vulnerable to severe thunderstorm, windstorm, and hail events and less vulnerable to heavy snow, ice storms, winter storms and winter weather. These trends are further described in Section 4.1 of this annex and in Section 6 of the main body of the HMP.

6.3 Drought

The Town of Guilderland has ranked their overall vulnerability to drought events as high, as indicated in Table 4-2. According to Town representatives, drought events occur regularly in the jurisdiction and affect the entire jurisdiction, with the potential to cause major damage. The Town feels they are moderately prepared for drought events.

The Town is particularly concerned about the impacts of drought on residents who rely on private wells, some of which cannot get water year-round. There is a need to alleviate the high iron content in these wells. The Town is also concerned about the potential impact of droughts on the Watervliet Reservoir, which is the primary source of drinking water for the Town. A drought would impact the water quality of this reservoir, plus the intake of dams. Invasive species like water chestnut may also worsen water quality in the Reservoir, which would compound the impacts of drought. Certain critical facilities related to water or wastewater would also be impacted by a drought, such as the Guilderland Water/Wastewater Department, the NE Industrial Park Water Plant and Sewer Plant, and the Nott Road Sewer Plant.

Future vulnerability to drought events is determined by many factors, such as climate change, land use, and population changes, as well as the implementation of mitigation and adaptation strategies. Climate change is expected to increase the Town's future vulnerability to drought events. These trends are further described in Section 4.1 of this annex and in Section 6 of the main body of the HMP.

6.4 Extreme Temperatures

The Town of Guilderland has ranked their overall vulnerability to extreme temperature events as low, as indicated in Table 4-2. According to Town representatives, extreme temperature events occur regularly in the jurisdiction and affect one or two problem areas within the jurisdiction, causing minor damage. The Town feels they are well prepared for extreme temperature events.

Extreme temperature events tend to have greater impacts on vulnerable populations, including older adults (over 65 years), young children (under 5 years), individuals with health complications, and individuals who cannot afford to sufficiently heat or cool their homes. Approximately 4.9% of the population in the Town is under 5 years old, and 18.8% of the population is over 65 years old. Approximately 8.4% of the residents of the Town have a disability (excluding any institutionalized residents and active-duty military members) some of whom have health problems that make them more vulnerable to extreme heat or cold. Approximately 5.2% of the Town's population is below the poverty level. Many residents within these populations are at a higher risk of being impacted by extreme temperature events. These statistics encompass both the Village of Altamont and the rest of the Town of Guilderland. In particular, the Town is concerned about the impacts of extreme temperature events on residents who cannot afford air conditioning, and on seniors.

Future vulnerability to extreme temperature events is determined by many factors, such as climate change, land use, and population changes, as well as the implementation of mitigation and adaptation strategies. Climate change is expected to increase the Town's future vulnerability to extreme heat events and decrease its vulnerability to

extreme cold events. These trends are further described in Section 4.1 of this annex and in Section 6 of the main body of the HMP.

6.5 Landslide

The Town of Guilderland has ranked their overall vulnerability to landslide events as moderate, as indicated in Table 4-2. According to Town representatives, landslide events occur regularly in the jurisdiction and affect one or two problem areas within the jurisdiction, causing moderate damage. The Town feels they are moderately prepared for landslide events.

Landslides can impact the structural integrity of buildings, roads, and other infrastructure in the Town. They can also impact transportation flow and the provision of supplies, can degrade the natural environment, and have the potential to cause injury and death. In particular, there have been numerous landslides along Fuller Station Road, which has saturated soil from reservoir.

Future vulnerability to landslide events is determined by many factors, such as climate change, land use, and population changes, as well as the implementation of mitigation and adaptation strategies. For example, 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. These trends are further described in Section 4.1 of this annex and in Section 6 of the main body of the HMP.

6.6 Erosion

The Town of Guilderland has ranked their overall vulnerability to erosion events as high, as indicated in Table 4-2. Based on consultation with Town representatives, erosion events occur regularly in the jurisdiction and affect a significant portion of the jurisdiction, causing moderate damage. The Town is moderately prepared for erosion events.

Erosion in the Town undermines tree root structures, causes trees to fall into streams, sometimes alters the course of streams, and could impact Town-owned land with walking trails. It also can cause flooding issues. The Town experiences significant erosion issues along waterways such as Normanskill and its tributaries (e.g. Black Creek and Bozenkill). The Town is particularly concerned about tree maintenance on private property, and there is a need to educate residents.

Future vulnerability to erosion events is determined by many factors, such as climate change, land use, and population changes, as well as the implementation of mitigation and adaptation strategies. Town representatives noted that more intense severe storms have caused increased erosion issues. Climate change is likely to worsen the intensity of severe storms, as noted in Section 6.2, which will worsen the potential for erosion. Additionally, any land use changes that remove vegetation (especially along streambeds) could increase the chances of erosion.

6.7 Jurisdictional Priorities

Taking into account the identified natural hazards, potential impacts, assets, and vulnerabilities identified above, key vulnerabilities and priorities to be addressed in this HMP were identified for the Town.

Top concerns about hazard mitigation in the Town included:

- Erosion along streams – There are many erosion issues along Normanskill and tributaries, which undermine tree root structures and cause trees to fall into streams, sometimes altering course of streams (e.g. for Normanskill, Black Creek, Bozenkill). On the Normanskill below dam, the Town has a \$40K grant to address severe erosion along Normanskill (which could impact Town-owned land with walking trails) by building new retaining walls.
- *Culverts – There is a grant application to replace a culvert on a Town road under Hungerkill (a tributary of Normanskill) to address flooding. Culverts throughout town will need upgrades. There is also an issue with debris coming down creeks and plug culverts. Road repair is also needed.
- General maintenance for trees that fall in streams – The Town has been following DEC best management practices, but there is a need to educate residents. DEC: Trees for Tribs program to stabilize land
- Landslides – There have been numerous landslides along Fuller Station Road, which has saturated soil from reservoir.
- Major rail corridor (CSX) through Town – In one section, there is an issue with collapsed culverts that has caused a backup of water that floods town during storms events. There is a need for more infrastructure maintenance.

The following populations were identified as being particularly vulnerable to hazards:

- Johnston Road (in floodplain area) experiences occasional flooding from Normanskill
- Much of Nott Road Park is in floodplain
- Flooding often occurs in rural areas, especially for residents whose septic systems are located in the floodplain. Standing water and saturated soils impacts septic functionality in those areas.

The plan was revised to reflect the following changes in community priorities since the 2018 HMP Update:

- Landslides have gotten worse
- Stormwater infrastructure and piping has gotten older. Lots of pipe collapses, etc. Pipes are at the end of their life cycle
- Storms (E.g. thunderstorms) have gotten more intense & dropped more rain in a shorter period of time. One result is that this causes more water to be released from the dam and flow through streams and culverts, causing more erosion.

Additional concerns that the Town would like addressed in the plan include:

- Stuyvesant Plaza – US Route 20 near University at Albany has a culvert sizing issue (culvert underneath state roadway). The state roadway floods when rainstorms occur. This is possibly related to a sinkhole on private property. This issue has been

in place since 1970s and there is a question of who is responsible or has jurisdiction to resolve the issue.

6.8 Additional Impacts

Additional impacts of the hazards are summarized in the problem descriptions in the Town's past and new mitigation actions, as described in the following sections.

7 MITIGATION STRATEGY AND IMPLEMENTATION

7.1 Past, Completed, and Ongoing Initiatives

The Town had proposed 21 mitigation actions in the 2018 Albany County HMP Update. The status of each action is summarized below, along with the Town's decision about whether to include the action in the 2025 HMP Update. Any revisions to actions proposed in 2018 are indicated below.

Table 7-1. Status of 2018 Mitigation Actions

Name	Description	Hazard(s) Mitigated	Lead Agency	Status		Notes
				(Completed, In Progress, No Progress, Discontinued)	Carried into 2025 HMP Update? (Yes/No)	
Potential Disaster Collapsing Highway Department Garage	Town would have to replace the garage and offices of Highway Dept. Cost to do so is \$1,000,000.	Not Noted	Town of Guilderland	No Progress	Yes (included in New Mitigation Actions)	
Potential Disaster Could cause Damage to Town Equipment	The Town will explore opportunities to protect Town equipment and vehicles (such as plow trucks, front-end loaders, pickup trucks, and mechanic tools) from damage to hazards.	Not Noted	Town of Guilderland	In Progress	Yes (as revised, included in New Mitigation Actions)	Equipment numbers have increased.

Name	Description	Hazard(s) Mitigated	Lead Agency	Status	
				(Completed, In Progress, No Progress, Discontinued)	Carried into 2025 HMP Update? (Yes/No)
Potential Disaster Destroying Structures at Guilderland Transfer Station	Cost for Town to rebuild the buildings are:	Not Noted	Town of Guilderland	No Progress	Yes (included in New Mitigation Actions)
	Building 1 (Office/Garage): \$300,000				
	Building 2 (Recycling Shed): \$50,000				
	Building 3 (Guard Shed): \$25,000				
	Building 4 (Dump Booth): \$25,000				
Potential Disaster Collapsing Golf Course Buildings	Cost for the Town to rebuild or replace structures:	Severe Storm	Parks and Recreation	In progress	Yes (included in New Mitigation Actions)
	Building 1 (Club House): \$2 million				
	Building 2 (Pro Shop): \$1 million				
	Building 3 (Maintenance Garage): \$100,000				
	Building 4 (Pump House): \$100,000				
	Building 5 (Pavilion): \$500,000				
Potential Disaster Collapsing Dwelling at 700 Arthur Place	Town would have to replace rental property. Cost - \$750,000	Severe Storm	Parks and Recreation	No Progress	Yes (included in New Mitigation Actions)
					The Town put a roof on clubhouse, pavilion was updated.

Name	Description	Hazard(s) Mitigated	Lead Agency	Status	
				(Completed, In Progress, No Progress, Discontinued)	Carried Into 2025 HMP Update? (Yes/No)
Farmhouse Rental Property	Farmhouse Rental Property: Potential disaster destroying rental property	Severe Storm	Parks and Recreation	No Progress	Yes (included in New Mitigation Actions)
					Route 146 house on old hawk farm
Dicaprio Park	Potential disaster destroying structures at Dicaprio Park	Severe Storm	Parks and Recreation	No Progress	Yes (included in New Mitigation Actions)
Keenholts Park	Potential disaster destroying Keenholts Park pump station and maintenance facilities	Severe Storm	Parks and Recreation	No Progress	Yes (included in New Mitigation Actions)
Nott Road	Potential disaster destroying structures in Nott Road Park	Severe Storm	Parks and Recreation	No Progress	Yes (included in New Mitigation Actions)
Tawasentha Park	Potential disaster collapsing or destroying Pool house, chemical building, and pump house	Severe Storm	Parks and Recreation	No Progress	Yes (included in New Mitigation Actions)

Name	Description	Hazard(s) Mitigated	Lead Agency	Status		Notes
				(Completed, In Progress, Discontinued)	Carried into 2025 HMP Update? (Yes/No)	
Walden Pond Dam	Potential disaster could cause town to replace or repair dam Inspect Walden Pond Dam annually for risk of dam failure or other potential issues.	Flood	Water Quality Highway Department	In progress	Yes (included in New Mitigation Actions)	Inspected annually
Altamont Rescue Squad Emergency Services Building	Potential disaster would cause rebuilding or repair to rescue squad building and ambulances The Town of Guilderland will partner with the Village of Altamont to solidify a plan for the new building, so that the Town and Village have a safe building for emergency services that is at low risk from hazards like storms and floods.	Not Noted	Not Noted	In progress	Yes (as revised. Included in New Mitigation Actions)	The Altamont Rescue Squad no longer exists. The Town of Guilderland EMS provides services to Village of Altamont. Village is starting to build new building.
Altamont Fire House	Potential disaster would cause town to repair and/or replace building or equipment	Not Noted	Not Noted	Discontinued	No	This structure is within the Village of Altamont, not Town of Guilderland. The building is failing and the fire department is moving.

Name	Description	Hazard(s) Mitigated	Lead Agency	Status	
				(Completed, In Progress, No Progress, Discontinued)	Carried into 2025 HMP Update? (Yes/No)
Guilderland Fire House	Potential disaster would cause replacing or repairing building and fire equipment	Not Noted	Not Noted	Discontinued	No
Western Turnpike Rescue Squad	Potential disaster would cause town to replace building or repair any ambulances inside	Not Noted	Not Noted	No Progress	Yes (included in New Mitigation Actions)
Guilderland Center Fire Station	Potential disaster would cause town to replace or repair building and fire equipment	Not Noted	Not Noted	No Progress	Yes (included in New Mitigation Actions)
Fort Hunter Fire Station	Potential disaster would cause town to replace or repair building and fire equipment	Not Noted	Not Noted	No Progress	Yes (included in New Mitigation Actions)
West mere Fire Dept	Potential disaster would cause town to replace or repair building or equipment	Not Noted	Not Noted	No Progress	Yes (included in New Mitigation Actions)
McKownville Fire Dept	Potential disaster would cause town to replace fire dept and or its equipment	Not Noted	Not Noted	No Progress	Yes (included in New Mitigation Actions)

Name	Description	Hazard(s) Mitigated	Lead Agency	Status	
				(Completed, In Progress, Discontinued)	Carried into 2025 HMP Update? (Yes/No)
Town of Guilderland Water Dept	Potential disaster to building would cause town to replace vehicles and equipment	Not Noted	Not Noted	No Progress	Yes (included in New Mitigation Actions)
Relyea Road Water Tank	Terrorism, Explosion, Structural Collapse	Not Noted	Terrorism, Explosion, Structural Collapse	No Progress	Yes (included in New Mitigation Actions)

7.2 New Mitigation Actions

In addition to the actions carried over from the 2018 HMP, the Town of Guilderland identified new mitigation actions for inclusion in the 2025 HMP Update, in conjunction with the project team. First, a list of actions was brainstormed based on the capabilities, hazard identification, impacts, and vulnerabilities described above. This included consideration to the ways that the Town could expand and improve the identified capabilities to achieve mitigation, as described in Section 3 of this annex. Then, a more comprehensive range of actions were evaluated as described in Section 9 of the main body of the HMP. Finally, actions that tied in most closely with the vulnerabilities identified by the Town were selected for inclusion in the HMP. These actions are included in the table below. (Note that in the table, CF = Critical Facility, EHP = Environmental and Historic Preservation.) The actions also help address climate change in the Town, since many of the hazards profiled in this HMP may be worsened by climate change. The effects of climate change on these hazards are described in Section 4.1 and Section 6 of this annex, as well as in Section 6 of the main body of the HMP.

Table 7-2. New Mitigation Actions*

Project #	Project Name	Goal / Objective being Met	Hazard to be Mitigated	Description of the Problem	Description of the Solution	Related to CR?	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority
T Guilderland D1	Drought Mitigation Plan	G1, G3, G5, G6	Drought	Wells in the Town and the Watervliet Reservoir are the town's primary drinking water sources, but during summer the Town relies on interconnects with City of Albany and Town of Rotterdam for their drinking water source. If both of these sources became unavailable, the Town would not have a drinking water supply. Additionally, many residents who rely on private wells cannot get sufficient water year-round.	Create a Drought Mitigation Plan with actions to reduce the probability and severity of drought. This may include identification of another backup water supply, agreements for secondary water sources, a distribution plan for emergency water supplies, a drought communication plan, water-saving actions that may be triggered when a drought is deemed likely to occur, a strategy for providing support to residents who rely on private wells as well as agricultural operations during drought, a system to issue warnings to Town residents when drought conditions are deemed likely to occur or when water supply or quality is low, and/or other actions. The municipality may take into account EPA guidance on establishing a backup water supply, found at: https://www.epa.gov/sites/default/files/2015-03/documents/planning_for_an_emergency_drinking_water_supply.pdf	No	Potentially	1 year	Planning Department	Low	This action would reduce the impact of drought on residents, workers, and visitors of the Town.	US HMGP, US BRIC, CRF, EPA EISG, US CDBG-MIT, NYS HM RLF, FEMA EMPC, Watersmart Drought Response Program	High
T Guilderland D2	Drought Education Program for Well Owners	G1, G3, G6	Drought	Many residents who rely on private wells cannot get sufficient water year-round, and many of their wells have high iron content. These problems would be worsened during a drought.	Work with the County SWCD, Cornell Cooperative Extension, universities, or other partners to educate property owners on drought-related topics, such as monitoring the quantity and quality of water in their wells, drinking water safety tips to use during drought, home water-saving techniques such as installing low-flow showerheads and water-efficient toilets and reusing water, and resources for technical assistance and grant funding for upgrading wells. Education may include workshops, mailings, media outreach, and/or website and social media posts.	No	No	1 year	Water / Wastewater	Low	Residents will be better equipped to implement behavioral and operational changes that conserve water and reduce the overall impact of drought, as well as have clean drinking water during a drought.	US HMGP, US BRIC, CRF, EPA EISG, US CDBG-MIT, NYS HM RLF, FEMA EMPC, Watersmart Drought Response Program	High
T Guilderland D3	Water Conservation Program for Landscaping	G1, G3, G6	Drought	Drought is a concern for the Town, but not all residents implement water-saving techniques. In particular, the use of sprinkler systems to water lawns can deplete water reserves quickly.	Create an incentive program for residents who minimize the use of water on their lawns. Additionally, conduct educational activities for residents about the water conservation practices on their properties, such as watering lawns at certain times of day, and about how these practices affect the water supply and other residents in the Town. Educational activities may include events (e.g., workshops or a community forum), mailings, media outreach, and/or website and social media posts.	No	No	1 year	Water / Wastewater	Low	Residents will be better equipped to implement behavioral and operational changes that conserve water and reduce the overall impact of drought.	US HMGP, US BRIC, CRF, EPA EISG, US CDBG-MIT, NYS HM RLF, FEMA EMPC, Watersmart Drought Response Program	High

Project #	Project Name	Goal / Objective being Met	Hazard to be Mitigated	Description of the Problem	Description of the Solution	Related to CFP?	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority
T Guilderland D4	Invasive Species Control for Drought Mitigation	G3, G6	Drought	There are several threats to water quality in the Watervliet Reservoir, including invasive species such as water chestnuts. These water quality issues threaten the drinking water supply for the Town, and worsens the risk of low drinking water supplies during drought.	Partner with the City of Watervliet and/or other municipal partners to obtain mechanized equipment to control invasive species such as water chestnut. Additionally, carry out other activities to control invasive species and reduce water quality issues, such as those listed in the Watervliet Reservoir Watershed Protection Study (https://hudsonwatershed.org/wp-content/uploads/2013/01/Watervliet-Reservoir-Study.pdf). This may involve funds from the Drinking Water Source Protection Program (DWSP2) and/or similar programs.	No	Potentially	3-5 years	Water / Wastewater Planning Department	Medium	Controlling invasive species will help reduce water quality issues, leading to a greater supply of clean water during droughts as well as during non-drought periods.	US HMGF, US BRIC, CRF, EPA EISG, US CDBG-MIT, NYS HM RLF, FEMA EMFG, WaterSMART, Drought Response Program, NYSDEC Invasive Species Grant Program, Hudson River Estuary Grants, US DOI Funding Guide for Invasive Species Management	Medium
T Guilderland MH1	CSX Flood Mitigation Partnership	G2, G6	Flood, Severe Storm	A major rail corridor, the CSX corridor, runs through the town. In one section of the corridor, collapsed culverts have caused backup of water that floods the town during storms events.	Partner with CSX to replace and upgrade the culverts in the problem section of the CSX corridor and maintain the infrastructure to prevent future flooding.	No	Potentially	1-3 years	Highway Department	Medium	Replacing and maintaining culverts, and property maintaining infrastructure, will help reduce flooding in the town over the long term.	US CDBG-MIT, US HMGF, US Flood Mitigation Assistance, NYS HM RLF, US BRIC, DOT BIL Grants	Medium
T Guilderland MH2	Partnerships for Culvert Upgrades on Route 20	G2, G6	Flood, Severe Storm	The culvert underneath US Route 20 near University at Albany is undersized, causing the state roadway to flood when rainstorms occur. This may be related to a sinkhole on the Burger King property nearby, which is currently being investigated.	Partner with the NYS DOT, Burger King, and others as necessary to resize and upgrade the culvert under US Route 20.	No	Potentially	1-3 years	Highway Department	Medium	This action will help reduce flooding in the town.	US CDBG-MIT, US HMGF, US Flood Mitigation Assistance, NYS HM RLF, US BRIC, DOT BIL Grants	Medium
T Guilderland F1	Town-Wide Culvert Assessments and Upgrades	G2, G5, G6	Flood	In general, culverts throughout the town are aging and in need of upgrades and resizing in some cases. In order to adequately convey stormwaters and prevent flooding. Additionally, debris travels down creeks and plugs culverts, leading to flooding issues and damage to roadways. Furthermore, there have been many pipes that have collapsed, leading to flooding, and additional stormwater infrastructure that is outdated.	Assess the condition, size, and effectiveness of culverts within the town and upgrade with new right-sized piping, where deemed necessary. Culverts should be up to applicable design standards, and should take into account flood risk, ecological impacts, and other factors. Replace additional pipes and conduct upgrades to additional stormwater infrastructure as needed.	No	Potentially	3-5 years	Highway Department	High	This action would reduce flooding in the town.	US CDBG-MIT, US HMGF, US Flood Mitigation Assistance, NYS HM RLF, US BRIC, DOT BIL Grants, DOS Smart Growth	Medium
T Guilderland MH3	Tree Management Education Program	G3, G6	Flood, Severe Storm	Trees often fall into the creeks, especially during storm events, which causes flooding in the town. The town has been following DEC best management practices on Town property, but there is a need to educate residents about best management practices.	Educate residents about best management practices to prevent trees and branches from falling into creeks. This may include educating residents about the DEC's trees for trees program and how residents and organizations can apply. Educational methods may include events or workshops, flyers, posts on social media or the website, distributing materials, or other methods.	No	No	1 year	Water/Waste water, Stormwater Management	Low	This action would help reduce the number of trees and branches that fall into creeks, reducing flooding and reducing the impact of severe storms.	US CDBG-MIT, US HMGF, US Flood Mitigation Assistance, NYS HM RLF, NYSDEC Urban and Community Forestry Grants, NYSDEC Trees for Tribes Program	High

Project #	Project Name	Goal / Objective being Met	Hazard to be Mitigated	Description of the Problem	Description of the Solution	Related to CF?	EHP Issues Potentially	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority
T Guilderland P2	Septic System Education Program and Feasibility Study	G1, G2, G3, G6	Flood	Flooding often in rural areas, especially for residents whose septic systems are located in floodplains. Standing water and saturated soils impacts septic functionality in those areas.	Educate residents about methods for protecting septic systems. Additionally, conduct a feasibility study to explore the option of extending the Town's sewer system into problem areas.	No		1-3 years	Water/Waste water, Stormwater Management	Medium	This action would reduce the impact of flooding on rural residents with septic systems, and help improve water quality.	US CDBG-Mif, US HMGP, US Flood Mitigation Assistance, NYS HM RIF, US HUD CDBG-MIT, NYSEEC Clean Water State Revolving Fund, NYSEEC WIPA, NYSEEC WQIP, EPA Congressional Earmark Funds, Bipartisan Infrastructure Law Funding, NYS CSC	High
T Guilderland MH4	Flood Education Program for Property Owners	G1, G6	Flood, Severe Storm	When the Town experiences heavy rainfall, many residents experience issues such as flooded basements, or sump pumps that discharge into the street or backyard and create localized flooding. During these events, Town services are often strained because Town staff are required to pump basements or conduct other maintenance measures.	Conduct outreach to homeowners regarding best management practices to mitigate flood risk on their property while reducing the risk of flooding for their neighbors. For example, encourage homeowners to install rain gardens or other green infrastructure on their property, install sump pumps, install backwater valves, seal their basements, elevate building utilities, install a french drain, install a gutter system and keep gutters clean, use downspout extensions for gutters, slope yards away from homes, trim branches near basements or move landscaping away from homes, and/or other similar measures. Partner with local universities, the County SWCD, Cornell Cooperative Extension, landscaping companies, contractors, hardware stores, or others to host workshops, disseminate brochures, prepare social media posts, offer discounts on their products and services, and advertise any grants or loans available to homeowners.	No	No	1-3 years	Planning Department	Low	This action would give tools to property owners to make their properties more resilient to flooding.	BRIC, FMA, NYS HM RIF, EPA ESG, USDA Recovery, EFC, GIGP, NYS CSC	High
T Guilderland MH5/HHPD1	High Hazard Dam Mitigation Plan for Watervliet Reservoir and Watervliet Reservoir Dam	G1, G2, G3, G6	Flood, Landslide, Erosion	The Watervliet Reservoir Dam (Normanskill), a high hazard potential dam in the Town of Guilderland, and the Watervliet Reservoir, presents issues related to natural hazards. For example, saturated soil from the reservoir contributes to landslides along Fuller Station Road. Additionally, more severe storm events have caused more water to be released from the dam, causing increased flooding in culverts and causing more erosion.	Implement safety recommendations of the most recent engineering assessment for the Watervliet Reservoir Dam, as applicable. If needed, conduct an updated engineering, hydrological, ecological, and/or soils assessment(s) of the Watervliet Reservoir Dam (Normanskill) and surrounding areas, and implement recommendations of the new assessment as feasible. This assessment could identify ways to mitigate dam failure, landslides, flooding, and erosion that are related to the dam and reservoir. Collaborate with and inform stakeholders as necessary, including the dam safety agency and any affected municipalities, to ensure risk mitigation efforts align with regulatory requirements. Special attention should be paid to any risks and vulnerabilities identified in the HHPD worksheet for Watervliet Reservoir Dam, as well as in the Emergency Action Plan and Engineering Assessment.	No	Potentially	1-3 years	City of Watervliet Public Works	Medium	This action would reduce the risk of flooding, landslides, and erosion related to the Watervliet Reservoir and Watervliet Reservoir Dam.	US HMGP, US BRIC, NYS HM RIF, Flood Mitigation Assistance Program, FEMA HHPD Grant Program	Medium

Project #	Project Name	Goal / Objective being Met	Hazard to be Mitigated	Description of the Problem	Description of the Solution	Related to CFI?	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority
T Guilderland MH6	Erosion Assessments, Soil Stabilization, and Education	G3, G6	Erosion, Flood, Severe Storm	The Town experiences significant erosion issues along waterways such as Normanskill Creek and Bozenkill. This undermines tree root structures, causes trees to fall into streams, and could impact town-owned land with walking trails. It also can cause flooding issues. More intense severe storms have caused increased erosion issues.	Identify and map erosion hazard areas within the Town, then create soil stabilization plans for the areas most vulnerable to erosion. Implement stabilization techniques such as bank stabilization, sloping or grading, vegetative plantings, terracing, riprap, installing riprap or fabric, directing runoff away from areas of erosion, or others. In places where erosion occurs on private property or is influenced by surrounding landowners, educate landowners on best management practices to stabilize soils on their property and to prevent downstream erosion.	No	Potentially	3-5 years	Stormwater Management	Medium	This action would reduce the risk of erosion and landslides in the Town, and reduce the risk of flooding both in the Town and downstream.	BRIC, FMA, HMGP, America's Greening Communities program, EPA EFC Grant Program, NYS CDBG Program, NYS DOS Smart Growth program, USGS Landslides Hazards Program	Medium
T Guilderland MH7	Green Infrastructure and Conservation Site Assessments	G3, G6	Severe Storm, Erosion, Flood	Storms (e.g. thunderstorms) have gotten more intense & dropped more rain in a shorter period of time. This causes increased flooding and erosion in the Town. There are also several areas of the Town where rain over a longer time period can cause flooding, for example due to the high water table.	Conduct a hydrologic and planning assessment to identify possible sites for green infrastructure (such as bioswales, rain gardens, permeable pavements, downspout disconnection, green roofs, or others) and possible sites for land conservation. In order to help to reduce flooding and erosion that result from severe storms, implement recommendations of the assessment as feasible. The Town may also partner with other municipalities or land trusts that work on a regional basis.	No	Potentially	3-5 years	Planning, Stormwater Management	High	Implementing green infrastructure and conserving lands would reduce the potential for stormwater runoff and flooding during severe storm events, and reduce the potential for erosion.	BRIC, FMA, HMGP, America's Greening Communities program, EPA EFC Grant Program, NYS CDBG Program, NYS DOS Smart Growth program, USGS Landslides Hazards Program	Medium
T Guilderland L1	Landslide Mitigation Assessments	G1, G2, G6	Landslide	There have been numerous landslides in the Town, especially in select problem areas such as Fuller Station Road, which has saturated soil from the reservoir. Landslides have worsened since 2018.	Conduct an engineering or other appropriate assessment to determine effective and feasible ways to reduce the risk of landslides in each landslide-prone area of the Town, then implement the recommendations of the assessment as feasible. Possible approaches may include planting vegetation or installing armoring on steep or eroding slopes, road stabilization, directing stormwater away from potential landslide locations, structural bracing and reinforcement, slope stabilization, armoring slopes, relocating threatened structures, requiring stricter erosion control and stormwater practices for construction projects in landslide-prone areas, limiting development in landslide-prone areas, or other methods. Explore possible partnerships for conducting the assessment, such as Albany County SWCD, Cornell Cooperative Extension Albany, and/or local universities.	No	Potentially	3-5 years	Highway Department	High	This action would reduce the risk of landslides across the town.	BRIC, FMA, HMGP, America's Greening Communities program, EPA EFC Grant Program, NYS CDBG Program, NYS DOS Smart Growth program, USGS Landslides Hazards Program	Medium

Project #	Project Name	Goal / Objective being Met	Hazard to be Mitigated	Description of the Problem	Description of the Solution	Related to CF?	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority
T Guilderland E1	Extreme Temperature Action Plan	G1, G5	Extreme Temperatures	There are some residents in the Town who cannot afford air conditioning, making them more vulnerable to extreme heat. Additionally, seniors in the Town may be especially vulnerable to extreme heat.	Create and implement an action plan to reduce the vulnerability of residents to extreme heat and cold. Possible actions may include partnering with libraries and social service organizations to help residents obtain heating and cooling assistance through the Home Energy Assistance Program, partnering with the Albany County Rural Housing Alliance to offer additional assistance or funding for heating and cooling, increasing cooling centers in the Town, setting up transportation to the cooling centers, partnering with senior and social service agencies to advertise the availability of these centers, or other actions as necessary. As feasible, actions will be developed in partnership with residents who are most affected by extreme heat and cold.	Potentially	No	1-3 years	Planning Department, ENS	Low	This action would reduce the vulnerability of residents to extreme heat and cold events by providing them with increased options for safe and climate-controlled buildings.	US HMGP, US BRIC, EPA EISG, US CDBG-MIT, NYS HM RLF, FEMA EMPC, NYS CSC, DOS Smart Growth	Medium
T Guilderland M8	Hazard Mitigation Integration into Comprehensive Plans	G1, G2, G3, G4, G5, G6	Multiple Hazards (floods, severe storms, landslides, droughts, extreme temperatures, erosion)	The Town of Guilderland is vulnerable to floods, severe storms, landslides, droughts, and extreme temperatures.	Incorporate hazard mitigation into comprehensive plan updates, including the current comp plan update. This should include all of the hazards profiled in this HMP (floods, severe storms, landslides, droughts, extreme temperatures, and erosion).	No	No	1 year	Planning Department	Low	This action would keep hazard mitigation on the forefront of the Town's priorities, allowing for continued risk reduction in the long term.	BRIC, FMA, HMGP, NYS HM RLF, EPA's Greening America's Communities program, EPA EFC GIGP, NYS DOS Smart Growth program	High
T Guilderland F3	Vulnerability Assessment and Flood Protection for Critical Facilities	G1, G2, G5, G6	Flood	Some of the Town's critical facilities may not be protected against the 0.2% chance flood event or previous worst case flood event. This leaves these facilities vulnerable to becoming inoperable during flood events.	Conduct vulnerability assessments for the critical facilities identified in the Town's annex to this HMP update, to determine their level of protection against a 0.2% chance flood event (or previous worst case flood, if greater than the 0.2% chance flood), where unknown. If/when funding is available, protect any unprotected facilities to an 0.2% chance flood event (or previous worst case flood event, if applicable) through engineering design, building retrofits, or other measures, as necessary and feasible. These facilities are identified in Table 5-1 of the jurisdictional annex.	Yes	Potentially	3-5 years	Department of Public Works	High	This action would reduce the vulnerability of critical facilities to flood events.	DASNY State and Municipal Facilities Program, US HMGP, US BRIC, US Flood Mitigation Assistance, US HUD CDBG-MIT, NYS HM RLF, NYS CSC, FEMA EOC Grant Program	Medium

Project #	Project Name	Goal / Objective being Met	Hazard to be Mitigated	Description of the Problem	Description of the Solution	Related to CF?	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority
T Guilderland MHP	Increase Resilience at Municipal Facilities and Key Assets	G1, G2, G5, G6	Multiple Hazards (flooding, severe storms, landslides, droughts, extreme temperatures, erosion)	According to Albany County's Climate Resiliency Plan, several municipal facilities throughout the County are vulnerable to natural hazards such as flooding, severe storms, landslides, droughts, extreme temperatures, and erosion, especially older buildings and buildings that serve vulnerable populations. Some Town of Guilderland facilities may fall into this category.	Partner with Albany County to assess additional opportunities to increase resilience at critical facilities and other key assets. This may include, but is not limited to, action items detailed in the Albany County Climate Resiliency Plan page 180-197, such as: 1) Assess municipal buildings for resilient retrofit opportunities; 2) Assess municipal properties for resilient site improvements; and 3) Assess climate risks and identify proactive solutions for climate resilience at a local level. Particular facilities of interest may include, but are not limited to, the ones listed in the Climate Resiliency Plan (Chapter 3 and pages 180-197), as well as the ones listed in the Critical Facilities section. Additional Assets section, and Status of 2018 Mitigation Actions section of the Jurisdictional annex.	Yes	Potentially	3-5 years	Department of Public Works	High	This action would reduce the vulnerability of the community's critical facilities to natural hazards including storms, floods, and extreme temperatures.	DASNY State and Municipal Facilities Program, US HMGP, US BRIC, US Flood Mitigation Assistance, US HUD CDBG-MIT, NYS HM RLE, NYS CSC, FEMA EOC Grant Program	Priority Medium
T Guilderland HHPD1	High Hazard Potential Dam Mitigation Plan for Normanskill (Watervliet Reservoir Dam)	G1, G2, G3, G4, G5, G6	Flood, Severe Storm, Drought, Extreme Temperature, Landslide and Erosion	Normanskill (Watervliet Reservoir Dam) is classified by the New York State Inventory of Dams as a High Hazard Potential Dam, denoting the highest downstream hazard potential in the event of a dam failure. If the dam failed, it could cause significant flood damage.	Partner with City of Watervliet to conduct an updated engineering assessment for Normanskill (Watervliet Reservoir Dam). This assessment will identify actions that are needed to ensure dam safety and prevent potential dam failure. Implement recommended actions in collaboration with any additional stakeholders, such as the dam safety agency. Special attention should be paid to the risks and vulnerabilities identified in the HHPD worksheet for the Watervliet Reservoir Dam.	No	Maybe	3-5 years	Public Works	High	High - This action will improve public safety and reduce vulnerabilities of people, homes, businesses, and other structures that could be impacted by flooding if the dam fails.	FEMA HHPD Grant Program	Medium

*Note: CF = Critical Facility, EHP = Environmental and Historic Preservation.

7.3 Mitigation Action Prioritization

Each of the Town's proposed mitigation actions were evaluated and prioritized according to the criteria listed in Section 9 of the main body of the HMP. This includes a cost-benefit review of the proposed actions. The results are included in Table 7-3.

Table 7-3. New Mitigation Action Prioritization

Mitigation Action ID	Mitigation Action Name	Ability to Increase Resilience	Economic Feasibility	Low Environmental Impact	Ability to Implement	Total Score	Priority
T Guilderland D1	Drought Mitigation Plan	3	3	3	2	11	High
T Guilderland D2	Drought Education Program for Well Owners	2	3	3	3	11	High
T Guilderland D3	Water Conservation Program for Landscaping	2	3	3	3	11	High
T Guilderland D4	Invasive Species Control for Drought Mitigation	2	2	3	2	9	Medium
T Guilderland MH1	CSX Flood Mitigation Partnership	3	2	2	2	9	Medium
T Guilderland MH2	Partnerships for Culvert Upgrades on Route 20	3	2	2	2	9	Medium
T Guilderland F1	Town-Wide Culvert Assessments and Upgrades	3	1	2	2	8	Medium
T Guilderland MH3	Tree Management Education Program	2	3	3	3	11	High
T Guilderland F2	Septic System Education Program and Feasibility Study	3	2	3	2	10	High
T Guilderland MH4	Flood Education Program for Property Owners	3	3	3	2	11	High
T Guilderland MH5/HHPD1	High Hazard Potential Dam Mitigation Plan for Watervliet Reservoir and Watervliet Reservoir Dam	3	2	2	2	9	Medium

Mitigation Action ID	Mitigation Action Name	Ability to Increase Resilience	Economic Feasibility	Low Environmental Impact	Ability to Implement	Total Score	Priority
T Guilderland MH6	Erosion Assessments, Soil Stabilization, and Education	3	2	2	2	9	Medium
T Guilderland MH7	Green Infrastructure and Conservation Site Assessments	2	1	3	2	8	Medium
T Guilderland L1	Landslide Mitigation Assessments	2	1	2	2	7	Medium
T Guilderland ET1	Extreme Temperature Action Plan	2	3	2	2	9	Medium
T Guilderland MH8	Hazard Mitigation Integration Into Comprehensive Plans	2	3	3	3	11	High
T Guilderland F3	Vulnerability Assessment and Flood Protection for Critical Facilities	2	1	2	2	7	Medium
T Guilderland MH9	Increase Resilience at Municipal Facilities and Key Assets	2	1	2	2	7	Medium
T Guilderland HHPD1	High Hazard Potential Dam Mitigation Plan for Normanskill (Watervliet Reservoir Dam)	3	1	2	2	8	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.

7.4 Mitigation Action Implementation and Administration

The Town's new mitigation actions will be implemented and administered via the lead agencies listed in Table 7-2 of this annex, using the timeframes, prioritization, and funding sources in Sections 7.2 and 7.3 as a guide. Further details about implementation of mitigation actions for all jurisdictions in Albany County, as well as a description of funding sources, are described in Sections 9 and 10 of the main body of the HMP.

8 ADDITIONAL PUBLIC INVOLVEMENT

Public input was solicited to guide the development of the HMP through two public information meetings and a community survey. A summary of the findings of these outreach activities can be found in Section 3 of the main body of the HMP. The Town of Guilderland may continue to seek public participation in hazard mitigation planning after HMP approval by including discussion of the HMP as an agenda item at public Town Board meetings and by offering opportunities for members of the public to participate in the implementation of relevant mitigation actions.

High Hazard Potential Dam (HHPD) Worksheet

A job aid for Municipalities Preparing /Amending Mitigation Plans¹
Complete a Separate Worksheet for each² state regulated HHPD in your community.

Name of the Mitigation Plan: Albany County 2025 Multi-Jurisdictional Hazard Mitigation Plan Update	Point of Contact for this Worksheet Name: Johanna Duffy Email: Jduffy@bartonandloguidice.com
Municipality where dam is located: Town of Guilderland	Name of Dam: Watervliet Reservoir Dam
Name of the Dam Owner: City of Watervliet	NYS Dam ID #: 208-1101

Dams are critical infrastructure that can be impacted by natural hazards and if they fail to operate as designed, there could be cascading consequences downstream in the inundation area and potentially to a larger area if the use of the pooled reservoir is lost or diminished.

This worksheet, when completed, will:

1. Describe the process followed for assessing the risks to /from the identified high hazard potential dam located in the municipality.
2. Describe the risks to the dam from natural hazards, and from the dam should it fail to operate as designed.
3. Describe the mitigation plan goal that covers addressing the vulnerabilities to/from HHPDs.
4. Describe one or more planned mitigation actions / projects related to a high hazard potential dam, be it with a HHPD grant or other FEMA hazard mitigation grant programs.

This worksheet is designed to be placed in the annex of the municipality with jurisdiction over the area where the dam is located. Use of this worksheet will ensure no HHPD requirement has been overlooked for the dam being assessed. Completing worksheets for each of the HHPDs in the municipality will allow FEMA to quickly confirm the municipality has a hazard mitigation plan that included all dam risks.

It is highly recommended that when the dam owner is another municipality, the worksheet should also be added to the other municipality's mitigation plan. Doing so will ensure the other municipality meets Element B1-a and C4-b for approval of their mitigation plan under the Stafford Act requirements.

General or generic discussion of high hazard dams and their risks is welcomed content in a mitigation plan. However, it is not a substitute meeting HHPD requirements 1 thru 4, as covered by this worksheet.

¹ Source: Local Mitigation Planning Policy Guide (pages 34-35 and 57), Released April 19, 2022

² This change, to include all state regulated HHPDs, per the Policy Guide went into effect with the release of the release of the Rehabilitation of High Hazard Potential Dams Grant Program Fiscal Year 2022 Notice of Funding Opportunity.

HHPD1: Did the plan describe the incorporation of existing plans, studies, reports, and technical information for HHPD?

HHPD1-a: Does the plan describe how the local government worked with the local dam owners and/or the state dam safety agency?

Describe the process followed. The local community mitigation planning lead is encouraged to coordinate with the dam owners and the state dam safety office to determine any issues/risks associated with that dam.

In the space below cite the page number in the plan that answers this question for the dam identified or use this space to answer the question.

Regular inspection and maintenance has been performed by the owner of the dam in accordance with schedule established in the Emergency Action Plan. The Emergency Action Plan in addition to an Annual Certification have been submitted to the NYSDEC Dam Safety Unit to demonstrate compliance. As part of this annual certification, the dam owner is required to notify the County Emergency Management office of any changes to the EAP.

Under the current Emergency Action Plan, under an emergency level 2 or 3 scenario (potential dam failure situation/dam failure appears imminent), the City of Watervliet (Dam Owner) is responsible for initiating the notification process to municipalities who would be affected by this failure. The state and county emergency management agencies are included on the distribution list for the EAP and will be notified during an emergency event. Additional opportunities for increased communication may be evaluated in the future, as described in HHPD2-b.

HHPD1-b: Does the plan incorporate information shared by the state and/or local dam owners?

Describe the information used in assessing the risk to/from the dam, that came from plans, reports, studies, or other technical information reviewed when preparing the mitigation plan, **while ensuring sensitive and/or personally identifiable information is protected and is not included in the plan or on this worksheet.**

Examples of plans, reports, studies or other technical information include:

- Inundation maps, emergency action plans, floodplain management plans, and/or data or summaries provided by dam breach modeling software, such as HEC=RAS, DSS-WISE HCOM, DSS-WISE Lite, FLO-2D, as well as more detailed studies.

In the space below cite the page number in the plan that answers this question for the dam identified or use this space to answer the question. Inundations maps (optional) may be attached to this worksheet.

An Emergency Action Plan was provided that contains inundation maps of the downstream area, list of affected properties, visual inspection observations, an evacuation plan with precautions, notification flow charts, EAP distribution list, and emergency contractors.

Tables 3-1, 3-2, and 3-3 in the HMP summarize jurisdictional and stakeholder participation for preparing the mitigation plan.

HHPD2: Did the plan address HHPD in the risk assessment?

HHPD2-a: Does the plan describe the risk and vulnerabilities to and from dams, including:

- (1) Potential cascading impacts of storms, seismic events, landslides, wildfires, etc. on the dam that might affect upstream and downstream flooding potential. Impacts from the loss or diminishment of the pooled reservoir created by the dam, and flooding impacts downstream.

In the space below cite the page number in the plan that answers this question for the dam identified or use this space to answer the question.

The HMP evaluates hazard profiles including severe thunderstorms/windstorms/hail, severe winter storms, flooding, ice jams, wildfires, extreme temperatures, ice storms, tornadoes, droughts, earthquakes, and landslides. The potential impacts of each natural hazard event are discussed in section 6 of the HMP.

There is no material risk to the dam from ice storms, droughts, and extreme temperatures.

This dam is a hollow core, reinforced concrete slab and buttress structure. The spillway is composed of the ungated concrete slab downstream face of the dam. This dam is vulnerable to large seismic events that could cause failure of one of or more of the 16 bays.

HHPD2-a: Does the plan describe the risk and vulnerabilities to and from dams, including:

- (2) Potential significant economic, environmental, or social impacts, as well as multi-jurisdictional impacts from a dam incident.

In the space below cite the page number in the plan that answers this question for the dam identified or use this space to answer the question.

The Emergency Action Plan includes a list of impacted residents that need to be evacuated during an emergency event. All impacted residents live in the Village of Altamont. The residents impacted would experience significant economic and social impacts if their property was damaged due to a failure.

During a sunny day breach event, Frenchs Mill Road and NY-146 area residents would be displaced and houses would require costly repairs. Areas of NY-20 will likely be flooded, however it is located in a wide floodplain so the water depths will be minimal.

The Emergency Action Plan can be requested through the dam owners, Albany County Emergency Management, municipal emergency management office, or NYS Department of Environmental Conservation.

HHPD2-a: Does the plan describe the risk and vulnerabilities to and from dams, including:

- (3) The location and size of populations at risk from this HHPD eligible dam, as well as potential impacts to institutions and critical infrastructure / facilities / lifelines.

In the space below cite the page number in the plan that answers this question for the dam identified or use this space to answer the question.

The Emergency Action Plan contains a list of Residents/Businesses/Highways at risk in the event of a dam failure and lists their downstream distance from the dam, and travel time of the breach wave to the location.

Critical facilities in the Town of Guilderland are listed in the Jurisdictional Annex - Table 5-1.

The NY-146 bridge over Normans Kill will likely become impassible with 2 feet of inundation at peak flow.

HHPD2-a: Does the plan describe the risk and vulnerabilities to and from dams, including:

- (4) The methodology and/or assumptions for risk data and inundation modeling.

In the space below cite the page number in the plan that answers this question for the dam identified or use this space to answer the question.

Section 6 of the HMP includes a history of natural hazard events and associated property damage estimates. The risk data was compiled from local records and publicly available data including the 2023 NYS Hazard Mitigation Plan, NOAA, NCDC, CMRA, USACE, and CRREL. Damage estimates were compiled using data from NOAA, FEMA National Risk Index, and NWS.

Per the EAP, A dam breach was modeled assuming the one of the 16 bays in the slab and buttress structure will fail. Inundation modeling was analyzed using the BOSS DAMBRK computer model. The assumptions made in the 1981 Flood Insurance Study were carried into the most recent analysis. Inundation maps were not provided with the EAP for this worksheet.

HHPD2-b: Does the plan document the limitations and describe the approach for addressing deficiencies, as appropriate?

If there were limitations in completing this risk assessment, document the limitations and describe the approach for addressing deficiencies.

In the space below cite the page number in the plan that answers this question for the dam identified or use this space to answer the question.

Dam-specific information about the economic, environmental, and social impacts from a dam failure, beyond those described in HHPD2-a (2), were not available. If funding resources become available, this deficiency could be addressed through a vulnerability analysis specific to the Watervliet Reservoir Dam, including an economic assessment of structures in the flood inundation map, a social assessment of potential impacts of a dam failure, and the environmental consequences of a dam failure.

Additionally, a more detailed HHPD assessment could be accomplished in the future with additional funding resources. For example, there were not sufficient funding resources available to assess the critical facilities that would be impacted by a dam failure or breach, and estimate the population at risk. This will be considered in a future iteration of the HMP.

Inundation maps were not provided for this dam which limits the assessment of impacts (economic, environmental, critical infrastructure, etc.) from a dam incident.

HHPD3: Did the plan include mitigation goals to reduce long-term vulnerabilities from HHPDs?

HHPD3-a: With a specific focus on HHPDs, does the plan must address a reduction in vulnerabilities to / from HHPDs as part of its own goals or with other long-term strategies?

Hazard mitigation goals are broad, long-term policy and vision statements. Goals do not need to mention specific actions, specific dams, or use the term "high hazard potential dam." Projects submitted for consideration for HHPD funding must be consistent with the goals and actions identified in the current, approved hazard mitigation plan.

In the space below cite the page number in the plan that answers this question for the dam identified or use this space to answer the question.

The goals of the 2018 HMP were updated based on hazard research, input from the County and local representatives, and public comments. Reducing the vulnerability to life-safety events is one of these goals. This is accomplished by strategies such as natural resource protection, updating zoning and building codes in inundation areas, property protection which could involve raising or relocation structures, maintaining readiness in response to a disaster, and educating residents and providing them with any necessary resources. In reducing vulnerabilities to the dam, there are several objectives in the HMP such as incorporating climate change as part of all county plans, ensuring effective and accurate documentation, and identifying voids in public safety infrastructure.

Section 9.1.3 identifies the goals of the HMP update.

HHPD3-b: Does the plan link a proposed action(s) to reducing long-term vulnerabilities consistent with its goals? It is recommended all vulnerabilities be described as problem statements to which a proposed action(s) is intended to mitigate.

In the space below cite the page number in the plan that answers this question for the dam identified or use this space to answer the question.

Proposed mitigation actions were developed based on the goals established in the HMP update. These actions implemented by various agencies to reduce the impact of potential hazards are listed in Table 7-2 of the Town of Guiderland Jurisdictional Annex.

In the Hazard Mitigation Plan, mitigation actions in the Town of Guiderland that address vulnerabilities to/from HHPDs include Town of Guiderland MH5: Watervliet Reservoir and Watervliet Reservoir Dam Assessments, Town of Guiderland MH4: Flood Education for Property Owners, Town of Guiderland F3: Vulnerability Assessment and Flood Protection for Critical Facilities, and Town of Guiderland MH9: Increase Resilience at Municipal Facilities and Key Assets.

HHPD4: Did the plan include actions that address HHPDs and prioritize mitigation actions to reduce vulnerabilities from HHPD?

HHPD4-a: Does the plan describe specific actions to address HHPDs? Actions such as:

- Rehabilitating/removing dams
- Adopting and enforcing land use ordinances in inundation zones
- Elevating structures in inundation zones
- Adding flood projections, such as berms, floodwalls, or floodproofing, in inundation zones.

In the space below cite the page number in the plan that answers this question for the dam identified or use this space to answer the question.

The mitigation actions outlined in the HMP include measures that can be taken to address HHPDs including structural projects to dams, natural resource protection such as watershed management and stream corridor restoration, government administration such as updating zoning and building codes in inundation areas, and property protection which could involve raising or relocation structures, or enhancing property storm protection features.

In the Hazard Mitigation Plan, mitigation actions in the Town of Guiderland that address vulnerabilities to/from HHPDs include Town of Guiderland MH5/HHPD1: Watervliet Reservoir and Watervliet Reservoir Dam Assessments, Town of Guiderland MH4: Flood Education for Property Owners, Town of Guiderland F3: Vulnerability Assessment and Flood Protection for Critical Facilities, and Town of Guiderland MH9: Increase Resilience at Municipal Facilities and Key Assets. County Albany HHPD1: High Hazard Potential Dam Mitigation Plan and C Watervliet MH9/HHPD4: Watervliet Reservoir and Watervliet Reservoir Dam Assessments also addresses vulnerabilities to/from HHPDs.

HHPD4-b: Does the plan describe the criteria used to prioritize actions related to HHPD?

In the space below cite the page number in the plan that answers this question for the dam identified or use this space to answer the question.

A cost-benefit analysis was performed for each proposed mitigation action and then assigned a priority level. The criteria used to assign a priority score include ability to increase resilience, economic feasibility, low environmental impact, and ability to implement.

The prioritization is summarized in Table 7-3 in the Town of Guilderland Jurisdictional Annex.

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?

In this space cite the page number in the plan that answers this question for the dam identified or use this space to answer the question.

Table 7-2 in the Town of Guilderland Jurisdictional Annex identifies a lead agency for all new mitigation actions.

The EAP identifies roles and responsibilities of various agencies during an emergency event.

