MUNICIPAL ANNEX | Town of Salina

Total Population (2010 Census)
31,363

Total Land (square miles)
14.7

Total Number of Buildings
14,486

Percent of Buildings in Regulatory Floodplain
1%

Number of National Flood Insurance Program (NFIP) Policies and Percent in Regulatory Floodplain
65 (25%)

Number of Repetitive Loss (RL) Properties
1

Total Agricultural Land (acres)
140.8

Harmful Algal Bloom Impacted Waterbody
No

Proposed Project Types

Structure and Infrastructure Projects, Education and Awareness Programs, and Natural Systems Protection

Mitigation Focus

Severe Storm
Severe Winter Storm

9.28 TOWN OF SALINA

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

9.28.1 Hazard Mitigation Planning Team

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

Primary Point of Contact	Alternate Point of Contact
Name: Colleen Gunnip Title: Town Supervisor Phone Number: 315-457-6661 Address: 201 School Rd, Liverpool, NY 13088 Email: cgunnip@salina.ny.us	Name: Doug Wickman Title: Staff Engineer Phone Number: 315-457-6661 Address: 201 School Rd, Liverpool, NY 13088 Email: dwickman@salina.ny.us
Floodplain Administrator	
Name: Mark Lafaver Title: Planning & Development Director Phone Number: 315-451-0492 Address: 201 School Rd, Liverpool, NY 13088 Email: mlafaver@salina.ny.us	

9.28.2 Municipal Profile

The Town of Salina is located in Onondaga County, immediately north of the City of Syracuse in western New York State. The Town of Salina has a total area of 15.1 square miles. The Town of Salina is located on the north shore of Onondaga Lake. The Town of Salina is bordered to the north by the Town of Clay, to the south by Onondaga Lake and the City of Syracuse, to the east by the Town of DeWitt, and to the west by the town of Geddes.

The Town of Salina is located on the north shore of Onondaga Lake. The Village of Liverpool is located in the Town of Salina. New York State Route 370 is an east-west highway that runs through the village. The New York State Thruway (Interstate 90) passes through the northern part of the Village. For more information, refer to Section 9.17 (Village of Liverpool). There are several communities located within the town: Elmcrest, Galeville, Liverpool, Lyncourt (hamlet), Mattydale, Hinsdale, and Long Branch. The estimated 2016 estimated population was 32,234, a 2.8 percent increase from the 2010 Census (31,363).

Data from the 2016 U.S. Census American Community Survey estimates that 5.9 percent of the town population is five years of age or younger, and 19.6 percent is 65 years of age or older. Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.

History and Cultural Resources

The Salina region was in the domain of the Onondaga tribe and later was within the Central New York Military Tract, although it was reserved for members of the Onondaga. Salina received its name in 1797, when the Surveyor General received authority to set aside a portion of the Salt Reservation for use in salt manufacture.

The Salt Reservation had been created by a treaty with the Native Americans. It extended one mile around Onondaga Lake. In 1798, the Village of Salina was chartered. It was located in what is sixteen blocks. Each block was divided into four house lots, selling according to law, for no less than forty dollars. The area now known as the Town of Salina was still part of the Townships of Manlius and Marcellus. In March 1809, the Town of Salina was organized. It included the areas now known as the Town of Geddes (formed 1848), part of Manlius and the City of Syracuse.

By 1846, it was apparent that Syracuse would soon become a city. The townspeople of Salina and Syracuse began discussing a proposed charter, which would unify the two villages. In December 1847, the act of incorporation was passed, which defined the area as "constituting a part of the Town of Salina and incorporation the Village of Salina and Syracuse." This act reduced the Town of Salina to its present boundaries.

The Alvord House is a stone farmhouse on the National Register of Historic Places.

Growth/Development Trends

Table 9.28-1 summarizes major residential/commercial development that as of December 31, 2018 and any known or anticipated major residential/commercial development and major infrastructure development that is likely to be occur within the municipality in the next five years.

Table 9.28-1. Growth and Development

Property or Development Name	Type (e.g. Res., Comm.)	# of Units / Structures	Location (address and/or Parcel ID)	Known Hazard Zone(s)	Description/Status of Development
Recent Development from 2013 to present					
Old Liverpool Point	Residential	28/1	706 Old Liverpool Rd.	NEHRP: D&E	Complete
Liverpool Crest	Residential	26/1	611 Old Liverpool Rd.	NEHRP: D&E	Being Developed
Clayton Manor	Residential	48/2	300 Clayton Manor Drive	NEHRP: D&E	Complete
Known or Anticipated Development in the Next Five (5) Years					
Former Lamb's Marine	Residential	100/8 approx.	1116-1124 Vine Street	NEHRP: D&E	Planning
Former Lemoyne Manor	Residential	66/4	629 Old Liverpool Rd.	NEHRP: D&E	Planning
Kate's Manor	Residential	30/15	7267 Oswego Road	NEHRP: D&E	Planning

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

9.28.3 Hazard Event History Specific to the Town of Salina

Onondaga County has a history of natural events as detailed in Volume I, Section 5.0 of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The Town of Salina's history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Onondaga County. Table 9.28-2 provides details regarding municipal-specific loss and damages the town experienced during hazard events. Information provided in the table below is based on reference material or local sources. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.

Table 9.28-2. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	Onondaga County Designated?	Summary of Event	Municipal Summary of Damages and Losses
April – May 2011	Severe Storms, Flooding, Tornadoes, and Straight-Line Winds (FEMA-DR-1993)	Yes	A slow moving warm front pushed northward across central New York late in the afternoon on April 25th. Severe weather developed, and in addition to reports of severe wind damage and hail, plenty of wind shear in the vicinity of the warm front allowed for a few super-cell thunderstorms and tornadoes to develop. In addition, areas of heavy rain caused significant flash flooding in several locations of central New York. On May 26, a deep upper level low pressure system shifted east from the mid-Mississippi Valley region through the afternoon and evening, allowing numerous showers and thunderstorms to develop. Many reports of large hail and damaging winds occurred in central New York.	Though the County was impacted, there were no local documented damages.
July 2, 2015	Flood	No	Residents at 311-313, 316, &315-317 Lind Ave. reported experiencing basement flooding. Others in Mattydale experienced basement flooding, according to the Codes Department, but didn't formally report it.	Damages involved losses of personal belongings and service utilities. No effort was made to estimate the value of the damages.

Notes:

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

9.28.4 Hazard Ranking and Jurisdiction-Specific Vulnerabilities

The hazard profiles in Section 5.0 (Risk Assessment) of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the hazards of greatest concern and risk to the Town of Salina. For additional vulnerability information relevant to this jurisdiction, refer to Section 5.0.

Hazard Risk Ranking

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

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

the County hazard risk/vulnerability risk ranking table as well as its individual results to reflect the relative risk of the hazards of concern to the community. The town reviewed the calculated rankings and agreed with the calculated risk rankings.

Table 9.28-3. Town of Salina Calculated Hazard Ranking

HAZARD	Drought	Earthquake	Flood	Geologic	Harmful Algal Bloom	Invasive Species	Severe Storm	Severe Winter Storm
RELATIVE RISK FACTOR	Low	Low	Medium	Low	Low	Low	High	High

Notes: The scale is based on the following hazard rankings as established in Section 5.3.
High = Total hazard priority risk ranking score of 5 and above
Medium = Total hazard priority risk ranking of 3.9 – 4.9
Low = Total hazard risk ranking below 3.8
*The municipality changed the initial ranking of this hazard based on event history, municipal experience, and feedback from the municipality

Critical Facilities Flood Risk

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

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

Table 9.28-4. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Potential Loss from 1% Flood Event	
		1% Event	0.2% Event	Percent Structure Damage	Percent Content Damage
OLP Archery Range	County Facility	X	X	11.5%	69.6%
OLP Ballfields	County Facility	X	X	14.3%	93.1%
OLP Butterfly Garden	County Facility	X	X	14.3%	92.7%
OLP Concession Stand	County Facility	X	X	20.4%	100%
OLP Dog Park	County Facility	X	X	14%	59.3%
OLP Dump	County Facility	X	X	8.1%	59.3%
OLP Gale Well	County Facility	X	X	0%	0%
OLP Hiawatha Point	County Facility	X	X	24.4%	100%
OLP Mud Lock	County Facility	X	X	3.1%	18.4%
OLP Open Skate Area	County Facility	X	X	16.7%	100%

Name	Type	Exposure		Potential Loss from 1% Flood Event	
		1% Event	0.2% Event	Percent Structure Damage	Percent Content Damage
OLP Pier	County Facility	X	X	18.9%	100%
OLP SU Boathouse	County Facility	X	X	20.9%	100%
OLP SU Boathouse	County Facility	X	X	23.4%	100%
OLP Syracuse Chargers	County Facility	X	X	18.1%	100%
OLP Utility Shed	County Facility	X	X	14%	83.2%
OLP Wedding Bridge	County Facility	X	X	12.1%	71.3%
OLP Willow Bay	County Facility	X	X	18.2%	100%
OLP Willow Bay Annex	County Facility	X	X	17.6%	100%
P.E.A.C.E., Inc. - Liverpool Head Start	Day Care	X	X	12%	19.4%
Village of Liverpool	DPW	X	X	8.6%	14.6%
Buckeye Gas Facility	Natural Gas	X	X	-	-
Buckeye Gas Facility	Natural Gas	X	X	-	-
OCWA Seventh North Pump Station	Waste Water Pump Station	X	X	-	-
WEP Brown Avenue Pump Sta	Waste Water Pump Station	X	X	7%	49.4%
WEP Ley Creek Pump Sta	Waste Water Pump Station	X	X	6.4%	43.2%
WEP Liverpool Pump Sta	Waste Water Pump Station	X	X	7.2%	50.8%
WEP Sawmill Pump Sta	Waste Water Pump Station	X	X	0%	0%
WEP Terminal Park Pump Sta	Waste Water Pump Station	X	X	17.5%	100%
OCWA Park Street Pump Station	Water Pump Station		X	-	-

Source: FEMA 2016; SOCPA 2018

Identified Issues

The municipality has identified the following vulnerabilities within their community:

- Chemicals, including solvents and petroleum, are located at points throughout the 100-year and 500-year floodplain. These facilities have not been known to flood in recent years, however there is a risk of floods occurring and chemicals polluting the waterways.
- The town's Highway Department needs to be able to respond quickly during and after natural disasters. Response time may be hindered if critical equipment and electric facilities are damaged by severe winter storms.
- PCBs are in the process of being removed from Ley Creek, which experiences recurring flooding. This process is being managed by the USEPA and is anticipated on being complete by 2022 at the earliest. Removal of the PCBs are likely to cause a shift in hydrology, potentially leading the new flood vulnerabilities in the surrounding areas.

The following vulnerabilities have been identified based on a review of the results of the risk assessment, public involvement strategy, and other available sources:

- The Mattydale area and areas along Ley Creek to Onondaga Lake are susceptible to flooding. Commercial areas and apartments are subject to flooding of Bloody Brook in the general vicinity of Old Liverpool Road.
- Lack of backup emergency generators for highway department during the time of severe winter storms.
- When PCB's have been removed from Ley Creek main branch, topographic surveys and updated hydrology surveys will be needed to determine the flood levels that will result in Mattydale from various storm recurrence intervals. A long-term plan is needed to gradually increase the level of flood protection that will be afforded in this relatively flood-prone location, particularly with recent changes in the hydrology.

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

- Interstate 81
- Mattydale had many trees with tree limbs frequently falling.
- Increased public education and dissemination of information to the general public for seasonal weather hazards.
- Increased monitoring of road conditions during severe weather events and being proactive in having alternate routes should roads become impassable?

9.28.5 Capability Assessment

This section identifies the following capabilities of the local jurisdiction:

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

Planning and Regulatory Capability

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

Table 9.28-5. Planning and Regulatory Tools

Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Planning Capability				
Comprehensive Plan	No	-	-	-
Capital Improvements Plan	Yes	Local	Town Board	Reviewed Annually
Floodplain Management / Basin Plan	Yes	County	OCDWEP	Two County Drainage Districts (Bloody Brook and Beartrap- Ley Creek; budget updated annually)
Stormwater Management Plan	Yes	County	OCDWEP	Two County Drainage Districts (Bloody Brook and Beartrap- Ley Creek; budget updated annually)

Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Open Space Plan	No	-	-	-
Stream Corridor Management Plan	Yes	County	OCDWEP	Two County Drainage Districts (Bloody Brook and Bear Trap Creek; budget updated annually)
Watershed Management or Protection Plan	No	-	-	-
Economic Development Plan	No	-	-	-
Comprehensive Emergency Management Plan	Yes	Town/County	Planning	Emergency Management and Operations Plan (2006)
Emergency Operation Plan	Yes	Town/County	Planning	Emergency Management and Operations Plan (2006)
Evacuation Plan	No	-	-	-
Post-Disaster Recovery Plan	No	-	-	-
Transportation Plan	No	-	-	-
Strategic Recovery Planning Report	No	-	-	-
Other Plans:	No	-	-	-
Regulatory Capability				
Building Code	Yes	State	Planning and Development	Chapter 121, Adopted 11/27/2006
Zoning Ordinance	Yes	Local	Town Board	Chapter 235 Adopted 7/7/1969
Subdivision Ordinance	Yes	State	Planning Board	Chapter 210 Adopted 3/8/1999
NFIP Flood Damage Prevention Ordinance	Yes	Federal	Planning and Development	Chapter 125 Adopted 5/18/1987 Amended 9/26/2016
NFIP: Cumulative Substantial Damages	No	-	-	-
NFIP: Freeboard	Yes	State	Planning and Development	State mandated BFE+2 for all construction, both residential and non-residential
Growth Management Ordinances	No	-	-	-
Site Plan Review Requirements	Yes	Local	Planning and Development	Chapter 235 Adopted 7/7/1969
Stormwater Management Ordinance	Yes	Local	Planning Board	Chapter 203 Adopted 5/29/2007
Municipal Separate Storm Sewer System (MS4)	Yes	State	Planning and Development	Chapter 132 Adopted 5/29/2007
Natural Hazard Ordinance	No	-	-	-
Post-Disaster Recovery Ordinance	No	-	-	-
Real Estate Disclosure Requirement	Yes	State	NYS Department of State, Real Estate Agent	NYS mandate, Property Condition Disclosure Act, NY Code - Article 14 §460-467

Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Other (Special Purpose Ordinances [i.e., sensitive areas, steep slope])	No	-	-	-

Administrative and Technical Capability

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

Table 9.28-6. Administrative and Technical Capabilities

Resources	Is this in place? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	Yes	Planning and Development
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Maintenance programs to reduce risk	Yes	Highway Department
Mutual aid agreements	Yes	Town Fire Departments
Technical/Staffing Capability		
Planner(s) or engineer(s) with knowledge of land development and land management practices	Yes	Planning and Development and Staff Engineer
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	Yes	Planning and Development and Staff Engineer
Planners or engineers with an understanding of natural hazards	Yes	Planning and Development and Staff Engineer
NFIP Floodplain Administrator (FPA)	Yes	Director of Planning and Development
Surveyor(s)	Yes	Staff Engineer
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	Town Engineer
Scientist familiar with natural hazards	No	-
Warning systems/services	No	-
Emergency Manager	Yes	Director of Planning and Development
Grant writer(s)	Yes	Town Engineer/Town Clerk
Staff with expertise or training in benefit/cost analysis	No	-
Professionals trained in conducting damage assessments	No	-

Fiscal Capability

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

Table 9.28-7. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes- Onondaga County
Capital improvements project funding	Yes-Town Board
Authority to levy taxes for specific purposes	Yes-Town Board
User fees for water, sewer, gas or electric service	Yes-Town Board for sanitary sewers
Impact fees for homebuyers or developers of new development/homes	No
Stormwater utility fee	Yes-Town Board
Incur debt through general obligation bonds	Yes-Town Board
Incur debt through special tax bonds	Yes-Town Board
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	Yes
Open Space Acquisition funding programs	No
Other	None

Community Classifications

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

Table 9.28-8. Community Classifications

Program	Do you have this? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	3 and 4	-
NYSDEC Climate Smart Community	No	-	-
Storm Ready Certification	No	-	-
Firewise Communities classification	No	-	-
Natural disaster/safety programs in/for schools	No	-	-
Organizations with mitigation focus (advocacy group, non-government)	No	-	-
Public education program/outreach (through website, social media)	No	-	-
Public-private partnership initiatives addressing disaster-related issues	No	-	-
Other	No	-	-

Note:
N/A *Not applicable*
NP *Not participating*
- *Unavailable*

The classifications listed above relate to the community's ability to provide effective services to lessen its vulnerability to the hazards identified. These classifications can be viewed as a gauge of the community's

capabilities in all phases of emergency management (preparedness, response, recovery and mitigation) and are used as an underwriting parameter for determining the costs of various forms of insurance. The CRS class applies to flood insurance while the BCEGS and Public Protection classifications apply to standard property insurance. CRS classifications range on a scale of 1 to 10 with class 1 being the best possible classification, and class 10 representing no classification benefit. Firewise classifications include a higher classification when the subject property is located beyond 1000 feet of a creditable fire hydrant and is within 5 road miles of a recognized Fire Station.

Criteria for classification credits are outlined in the following documents:

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

Self-Assessment of Capability

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

Table 9.28-9. Self-Assessment Capability for the Municipality

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

National Flood Insurance Program

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

NFIP Floodplain Administrator (FPA)

Mark LaFaver, Director Planning and Development

National Flood Insurance Program (NFIP) Summary

The Town of Salina maintains lists/inventories of properties that have been flood damaged but does not make substantial damage estimates. The FPA noted that three residential structures were recently flooded in the July 2, 2015 flooding event, with one declared for substantial damage. No properties are currently in the process of mitigation and no properties have been listed as being interested in mitigation at this time.

The following table summarizes the NFIP statistics for the Town of Salina.

Table 9.28-10. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties	# SRL Properties	# Policies in the 1% Flood Boundary
Town of Salina	65	15	$32,362	1	0	16

Source: FEMA Region 2 2018.
(1) Policies, claims, RL, and SRL statistics provided by FEMA Region 2, and are current as of June 30, 2018. Total number of RL properties does not include SRL properties. Number of claims represents claims closed by July 31, 2018.
(2) Total building and content losses from the claims file provided by FEMA Region 2.
(3) Number of policies inside and outside of flood zones is based on latitude and longitude coordinates provided by FEMA Region 2 in the policy file. FEMA noted that for a property with more than one entry, more than one policy may have been in force or more than one Geographic Information System (GIS) specification was possible. Number of policies and claims, and claims total, exclude properties outside Onondaga County boundary, based on provided latitude and longitude coordinates.
RL Repetitive Loss
SRL Severe Repetitive Loss

Resources

The FPA is one of two staff members responsible for floodplain administration (the other is the staff engeineer). NFIP administration services and functions include permit review, inspections, record-keeping, and GIS. The town does not conduct outreach on flood hazards/risk and flood risk reductio. The FPA noted that the town does not have access to resources to determine possible future flooding conditions from climate change. The FPA does feel adequately supported and trained to fulfill their responsibilities as the municipal floodplain administrator, however the FPA would consider attending continuing education and/or certification training on floodplain management if it were offered in the County for all local floodplain administrators.

Compliance History

The Town of Salina is in good-standing in the NFIP. According to data from NYDEC, the town's last community assistance visit (CAV) took place on May 17, 2018. The town determines if additional CAV visits are necessary and schedule as needed. The town maintains compliance with and good-standing in the NFIP through the adoption and enforcement of floodplain management requirements (e.g. regulating all new and substantially improved construction in Special Hazard Flood Areas), floodplain identification and mapping, and flood insurance outreach to the community.

Regulatory

Flood Damage Prevention Ordinance: The Town of Salina Flood Damage Prevention Ordinance (Chapter 125 of the municipal code) was adopted to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

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

- Qualify for and maintain participation in the National Flood Insurance Program.

The objectives of the chapter are to:

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

The FPA noted that there are other local ordinances, plans or programs that support floodplain management and meet the NFIP requirements; for instance Site Plan Review is required. The FPA stated that the town has not considered joining the Community Rating System (CRS) program.

Integration of Hazard Mitigation into Existing and Future Planning Mechanisms

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

Existing planning initiatives developed by the town integrate hazard mitigation.

Comprehensive (All Hazard) Emergency Management and Operations Plan: The Comprehensive (All-Hazard) Emergency Operations Plan, last updated in 2006, describes how the Town of Salina will handle emergency situations and disasters within the town. This plan provides recommended guidelines which can be modified according to the emergency situation. The plan assigns responsibilities for emergency preparedness and planning and for coordinating emergency response activities and resources before, during, and after any type of emergency or disaster. The overall management goal for the plan is to coordinate emergency response efforts to save lives, reduce injuries and preserve property. Although this plan addresses emergency issues before and after an emergency, its focus is on coordinating operations during the emergency. All involved jurisdictions will use a graduated response strategy which is in proportion to the scope and severity of an emergency or disaster. The town continues to develop, enhance, and implement existing emergency plans.

Onondaga County Hazard Mitigation Plan: The Town of Salina continues to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Section 7.0 and supports County-wide initiatives identified in Section 9.1 of the County Annex.

The Town of Salina does not have a Comprehensive / Master Plan, Re-Development Plan, Open Space Plan, Watershed Management Plan, Economic Development Plan, Local Waterfront Revitalization Plan, Post-Disaster Recovery Plan, Post-Disaster Redevelopment Plan, Transportation Plan, Strategic Recovery Plan, Climate Adaptation Plan, or Resilience Plan. The town is an MS4 Regulated Community and has a formal Stormwater

Management Plan that specifies projects/actions/initiatives to reduce the volume of stormwater or to otherwise mitigate stormwater flooding. Watershed and stream Corridor Management Plans were developed in the 1970's and are updated and managed by two County Drainage Districts administed by the Onodaga County Department of Water Environment Protection.

Opportunities for Future Integration

The development of future new plans could include discussion of natural hazard risk and refer to the Countywide Hazard Mitigation Plan.

Regulatory and Enforcement (Ordinances)

Existing Integration

The town has multiple ordinances pertaining to the mitigation of hazards. These ordinances include the Establishment of Boards (see Operational and Administration below), Flood Damage Prevention Ordinance, Stormwater Management and Erosion and Sediment Control Ordinance, Zoning Ordinance, Subdivision of Land Ordinance, and the New York State Fire Prevention and Building Code. The municipal Code and ordinances are available on the town website: http://www.salina.ny.us/content/departments/planning/

Zoning Ordinance: The Town of Salina Zoning Ordinance (Chapter 235 of the municipal code) most recently updated in 1998, establishes regulations for site plan and special permit approval that relate to storm water pollution prevention plans (SWPPP) and the compliance with flood hazard regulations. In addition, the Zoning Ordinance references the Stormwater Management and Erosion and Sediment Control Ordinance (Chapter 203).

Subdivision of Land Ordinance: The Town of Salina Subdivision Ordinance (Chapter 210 of the municipal code) was established so that subdivision and development of land for residential, commercial, industrial or other uses shall be guided and regulated in such a manner as to meet the following requirements for orderly and harmonious growth and to protect the interests of the public health, safety and welfare:

- Land to be subdivided or developed shall be of such character that it can be used safely for building purposes without danger to health or peril from fire, flood or other menace.
- Proper provision shall be made for drainage, water supply, sewerage and other needed utility services and improvements.
- All proposed development shall be so laid out and of such size as to be in harmony with the development pattern of the neighboring properties.
- The proposed streets shall compose a convenient system conforming to the Official Map and shall be properly related to the proposals shown on the Comprehensive Plan and shall be of such width, grade and location as to accommodate the prospective traffic, to facilitate fire protection and to provide access of firefighting equipment to buildings.
- Proper provision shall be made for open spaces for parks and playgrounds; and future development or redevelopment shall bear a fair share of the capital costs to the town for municipal improvements servicing such development.

Stormwater Management and Erosion and Sediment Control Ordinance: Adopted in 2007, this ordinance establishes minimum stormwater management requirements and controls to protect and safeguard the general health, safety, and welfare of the residence in the Town of Salina. The purpose of the ordinance includes the following:

- Meet the requirements of minimum control measures 4 and 5 of the SPDES general permit for stormwater discharges from municipal separate stormwater sewer systems (MS4s), Permit No. GP-02-02 or as amended or revised;
- Minimize increases in stormwater runoff from land development activities in order to reduce flooding, siltation, increases in stream temperature, and streambank erosion and maintain the integrity of stream channels; and
- Minimize increases in pollution caused by stormwater runoff from land development activities which would otherwise degrade local water quality

Opportunities for Future Integration

The Planning Board and ZBA could also be provided with access to NYSDEC and the Army Corps of Engineers (USACE) for assistance in decision making.

Operational and Administration

Existing Integration

The town has established a Planning Board, Zoning Board of Appeals, Fire Prevention Bureau, and Code Enforcement Staff to support land use decisions, public health and safety, and assure compliance with regulations and ordinances.

Planning Board: The Town of Salina Planning Board is comprised of five members and meets on the 1st and 3rd Tuesday of each month (unless otherwise posted on the schedule) starting at 7:00 PM. All meetings are held at the Town Hall, 201 School Road, Liverpool, NY.

Zoining Board: The Town of Salina Zoning Board of Appeals is comprised of five members and meets on the 1st and 3rd Monday of each month, starting at 7:00 PM. All meetings are held at the Town Hall, 201 School Road, Liverpool, NY.

Mutual Aid Agreements: The Town of Salina works to create, enhance, and maintain mutual aid agreements with neighboring communities.

Stream Cleaning: The Town of Salina supports programs offered by the Onondaga County SWCD to assist in the removal of debris, log jams, etc. in flood vulnerable stream sections. As identified in the 2006 Beartrap-Ley Creek Drainage District Study, the town continue to support existing Beartrap-Ley Creek District channel maintenance and inspection programs within Ley Creek – Main Stem to ensure that debris does not accumulate in the watercourse. The Ley Creek Main stem flows through the City of Syracuse and the Towns of Salina and Dewitt. The town supports the monitoring of future development within the overbanks of the Beartrap Creek to ensure preservation of these natural overbanks for flood storage and minimize flooding along this reach.

Stormwater Management: The Highway Department, the Planning, Development, and Code Enforcement Department and the Staff Engineer perform stormwater management functions, such as maintenance of drainage facilities. The Town of Salina participates in and encourages multi-jurisdictional MS4 activities, works to add additional and update existing stormwater drainage, and maintains existing stormwater drainage and floodways.

Highway Department: The Town of Salina works to increase the ability of the Highway Department to maintain the safe flow of traffic during severe storm event with such activities as updating or replacement of existing equipment and maintaining personnel during storms.

The Town of Salina has a municipal planner and a contract planning firm. Planning Board Engineers review subdivision plans and site plans and advise the board relative to NFIP mapping information and MS4 regulations

primarily relative to redevelopment requirements. The Director of Code Enforcement and staff engineer performs NFIP Floodplain Management functions. The town does not have staff, nor does it contract with firms that have experience with Benefit-Cost Analysis or Substaintial Damage Estimates; however the town does have staff or contracts with firms that have experience in preparing grant applications for mitigation projects.

Opportunities for Future Integration

The Planning Board and the Zoning Board of Appeals could be more proactive rather than reactive to applications. Staff could receive additional training regarding natural hazard risk.

Funding

Existing Integration

Pre-disaster mitigation funds will be available upon FEA approval of this plan, along with other funding available through the state and federal sources, such as the NYS Department of Conservation (Climate Smart Communities Grants, Water Quality Improvements Program, Trees for Tribes), NYS Environmental Facilities Corporation (Wastewater Infrastructure Engineering Planning, Clean Water Revolving Loan Fund, Green Innovation Grant Program), New York State Energy Research and Development Authority (Clean Energy Communities Program), and Empire State Development.

Opportunities for Future Integration

The town could supplement allocated municipal funding for mitigation projects by applying for grant funding.

Education and Outreach

Existing Integration

The Town of Salina operates a municipal website (http://www.salina.ny.us/) posts information regarding upcoming community events and important municipal decisions. The website provides information related to current project information and links to related ordinances (see Regulatory and Enforcement). The town provides alerts and notifications to its residents through the town Facebook page, Twitter account, Instagram account, and Youtube account.

Opportunities for Future Integration

The town could expand the information available on the municipal website to include additional hazards. The town could develop education/outreach programs in relation to the various hazards that could impact the community, such as floods, severe storm, and severe winter storms. The town will also provide a link to the Onondaga County HMP website. Lastly, the town will consider adding in text to the municipal newsletter with tips on hazard safety.

Sheltering, Evacuation, and Temporary Housing

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

Temporary and Permanent Housing

The Town of Salina has identified the following potential sites for the placement of temporary housing for residents displaced by a disaster:

- Town Park

- Town Hall Property (201 School Rd. Liverpool)

The town has not identified potential sites suitable for relocating houses of the floodplain and/or building new homes once properties in the floodplain are acquired.

Evacuation and Sheltering Needs

The Town of Salina has not identified potential sites suitable for designated emergency shelters:

The town has established evacuation routes/evacuation procedures. The New York State Thruway is a major East/West route that includes four entrances and exits in the Town of Salina. This route along with Cold Springs Road, Onondaga Lake Parkway, Old Liverpool Road, 7th North Street, Factory Ave. and Court Street can be utilized.

Interstate Route 81 is a major North/South Route that includes three entrances and exits in the Town of Salina, including one with the Thruway. This route can also be utilized along with state/county highways including Route 57, Morgan Road, Electronics Parkway, Henry Clay Boulevard, Vine Street, Buckley Road, and Brewerton Road.

9.28.6 Mitigation Strategy and Prioritization

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

Past Mitigation Initiative Status

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

Table 9.28-11. Status of Previous Mitigation Actions

Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if project status is complete)		Next Steps 1. Project to be included in 2019 HMP or Discontinue 2. If including action in the 2019 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
TSA-1a	Where appropriate, support retrofitting of structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority. Identify facilities that are viable candidates for retrofitting based on cost-effectiveness versus relocation. Where retrofitting is determined to be a viable option, consider implementation of that action based on available funding.				No Progress	Cost Level of Protection Damages Avoided; Evidence of Success		1. Discontinue 2. 3. No longer a priority
TSA-1b	Where appropriate, support purchase, or relocation of structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority. Identify facilities that are viable candidates for relocation based on cost-effectiveness versus retrofitting. Where relocation is determined to be a viable option, consider implementation of that action based on available funding.				No Progress	Cost Level of Protection Damages Avoided; Evidence of Success		1. Discontinue 2. 3. No longer a priority
TSA-2	Conduct and facilitate community and public education and outreach for residents and businesses to include, but not be limited to, the following to promote and effect natural hazard risk reduction: • Provide and maintain links to the Onondaga County HMP website, and regularly post notices on the municipal homepage referencing the Onondaga County HMP webpages. • Prepare and distribute informational letters to flood vulnerable property owners and neighborhood associations, explaining the availability of mitigation grant funding to mitigate their properties, and instructing them on how they can learn more and implement mitigation. • Use the town email notification systems and newsletters to better educate the public on flood insurance, the availability of mitigation grant funding, and personal natural hazard risk reduction measures. • Work with neighborhood associations, civic and business groups to disseminate information on flood insurance and the availability of mitigation grant funding. Municipal outreach activities to be supported by the County, as identified at County initiative OC-0.							
	See above.				Ongoing Capability	Cost Level of Protection Damages Avoided; Evidence of Success		1. Discontinue 2. 3. Ongoing capability
TSA-3						Cost		1. Discontinue

Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if project status is complete)		Next Steps 1. Project to be included in 2019 HMP or Discontinue 2. If including action in the 2019 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
	Continue to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Section 7.0				Ongoing Capability	Level of Protection VBV-4Damages Avoided; Evidence of Success		2. 3. Ongoing capability
TSA-4	Maintain compliance with and good-standing in the NFIP including adoption and enforcement of floodplain management requirements (e.g. regulating all new and substantially improved construction in Special Hazard Flood Areas), floodplain identification and mapping, and flood insurance outreach to the community. Further meet and/or exceed the minimum NFIP standards and criteria through the following NFIP-related continued compliance actions identified as Initiatives TS-1a, 1b, 2, 8, and 10 through 22.				Ongoing Capability	Cost Level of Protection Damages Avoided; Evidence of Success		1. Discontinue 2. 3. Ongoing capability
TSA-5	Continue to develop, enhance, and implement existing emergency plans.				Ongoing Capability	Cost Level of Protection Damages Avoided; Evidence of Success		1. Discontinue 2. 3. Ongoing capability
TSA-6	Create/enhance/ maintain mutual aid agreements with neighboring communities.				Ongoing Capability	Cost Level of Protection Damages Avoided; Evidence of Success		1. Discontinue 2. 3. Ongoing capability
TSA-7	Support County-wide initiatives identified in Section 9.1 of the County Annex.				Ongoing Capability	Cost Level of Protection Damages Avoided; Evidence of Success		1. Discontinue 2. 3. Ongoing capability
TSA-8						Cost		1. Discontinue

Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if project status is complete)		Next Steps 1. Project to be included in 2019 HMP or Discontinue 2. If including action in the 2019 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
	Support/Participate in the Stream Team program offered by the Onondaga County SWCD, to assist in the removal of debris, log jams, etc. in flood vulnerable stream sections.				Ongoing Capability	Level of Protection Damages Avoided; Evidence of Success		2. 3. Ongoing capability
TSA-9	Participate in and encourage multi-jurisdictional MS4 activities				Ongoing Capability	Cost Level of Protection Damages Avoided; Evidence of Success		1. Discontinue 2. 3. Ongoing capability
TSA-10	Build new town highway building in area outside of 100-year flood area				No Progress	Cost Level of Protection Damages Avoided; Evidence of Success		1. Discontinue 2. 3. No longer a priority
TSA-11	Add additional and update existing storm water drainage.				Ongoing Capability	Cost Level of Protection Damages Avoided; Evidence of Success		1. Discontinue 2. 3. Ongoing capability
TSA-12	Maintain existing Storm water drainage and Floodways				Ongoing Capability	Cost Level of Protection Damages Avoided; Evidence of Success		1. Discontinue 2. 3. Ongoing capability
TSA-13	Increase the ability of highway to maintain the safe flow of traffic during severe storm event with such activities as updating or replacement of existing equipment and maintaining personnel during storms.				Ongoing Capability	Cost Level of Protection Damages Avoided;		1. Discontinue 2. 3. Ongoing capability

Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if project status is complete)		Next Steps 1. Project to be included in 2019 HMP or Discontinue 2. If including action in the 2019 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Evidence of Success		
TSA-14	Implement a total GIS system for all applicable town operations to better identify where to limit future development or redevelopment and maintain a clearer picture impacts on existing town operations.				No Progress	Cost Level of Protection Damages Avoided; Evidence of Success		1. Discontinue 2. 3. No longer a priority
TSA-15	As identified in the 2006 Beartrap-Ley Creek Drainage District Study, the confluence of the Ley Creek North and South Branches, and the nearby Sanders Creek 'bottleneck' from Townline Road to the confluence with Ley Creek – North Branch and Ley Creek – South Branch. Support a detailed survey within the area to allow for a more precise determination of the limits of flooding impacts because the Beartrap-Ley Creek Drainage Study (2006) was based on 10-foot contours and the inundation mapping created may be conservative. The Ley Creek Main stem flows through the City of Syracuse and the Towns of Salina and Dewitt.				No Progress	Cost Level of Protection Damages Avoided; Evidence of Success		1. Include in 2019 HMP 2. 3.
TSA-16	As identified in the 2006 Beartrap-Ley Creek Drainage District Study, continue to support existing Beartrap-Ley Creek District channel maintenance and inspection programs within Ley Creek – Main Stem to ensure that debris does not accumulate in the watercourse. The Ley Creek Main stem flows through the City of Syracuse and the Towns of Salina and Dewitt.				Ongoing Capability	Cost Level of Protection Damages Avoided; Evidence of Success		1. Discontinue 2. 3. Ongoing capability
TSA-17	As identified in the 2006 Beartrap-Ley Creek Drainage District Study, continue to support existing maintenance and inspection activities of Beartrap Creek and its culverts to ensure they remain clear of debris, structurally sound and operable.				Ongoing Capability	Cost Level of Protection Damages Avoided; Evidence of Success		1. Discontinue 2. 3. Ongoing capability
TSA-18	As identified in the 2006 Beartrap-Ley Creek Drainage District Study, support the monitoring of future development within the overbanks of				Ongoing Capability	Cost Level of Protection		1. Discontinue 2.

Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if project status is complete)		Next Steps 1. Project to be included in 2019 HMP or Discontinue 2. If including action in the 2019 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
	the Beartrap Creek to ensure preservation of these natural overbanks for flood storage and minimize flooding along this reach.					Damages Avoided; Evidence of Success		3. Ongoing capability
TSA-19	As identified in the 2006 Beartrap-Ley Creek Drainage District Study, along Teall Brook, widen channel and/or reroute just upstream of the underground piped section at East Hampton Place to increase conveyance capacity of the channel up to the underground section. Two alternatives are summarized in the Beartrap-Ley Creek Drainage District Study (2006) from a 2003 report: 1) Remove the bridge at the north end of the Norwood Park athletic fields near Eastridge Drive and widen the channel throughout the length of Norwood Park area; 2) Reroute and cover the existing channel in the area of the Norwood Park athletic fields and widen the remainder of the channel within the Norwood Park area. The 2006 study indicates these improvements would result in limited reductions in water surface elevation upstream but would still be valid for small storm events (5-year or less) but will not provide adequate conveyance of the design event.							
	See above				No Progress	Cost Level of Protection Damages Avoided; Evidence of Success		1. Include in 2019 HMP 2. 3.
TSA-20	The Beartrap-Ley Creek Drainage District is flat and heavily urbanized making the lowest areas extremely vulnerable to rain-event flooding that approach or exceed 10-year storms. Conduct /support a more detailed topographic study in the identified critical areas in the 2006 Beartrap-Ley Creek Drainage District Study to determine which individual properties are most at risk to assist with determining mitigation actions.				Ongoing Capability	Cost Level of Protection Damages Avoided; Evidence of Success		1. Discontinue 2. 3. Ongoing capability
TSA-21	Determine if a Community Assistance Visit (CAV) or Community Assistance Contact (CAC) is needed, and schedule if needed.				Ongoing Capability	Cost Level of Protection Damages Avoided; Evidence of Success		1. Discontinue 2. 3. Ongoing capability
TSA-22	Participate in regional, county and/or state level projects and programs to develop improved structure and facility inventories and hazard datasets to support enhanced risk assessment efforts. Such programs may include developing a detailed inventory of critical facilities based upon FEMA's Comprehensive Data Management System (CDMS) which could be used for various planning and emergency management purposes including: • Support the performance of enhanced risk and vulnerability assessments for hazards including flooding, earthquake, wind, and land failure. • Support state, county and local planning efforts including mitigation (including updates to the State HMP), comprehensive emergency management, debris management, and land use. Improved structural and facility inventories could incorporate flood, wind and seismic-specific parameters (e.g. first floor elevations, roof types, structure types) based on FEMA-154 "Rapid Visual Screening of Buildings for Potential Seismic Hazards" methodologies, or "Rapid Observation of Vulnerability and Estimation of Risk - ROVER. It is recognized that							

Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if project status is complete)		Next Steps 1. Project to be included in 2019 HMP or Discontinue 2. If including action in the 2019 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
	these programs will likely need to be initiated and supported at the Regional and/or State level, and will likely require training, tools and funding provided at the regional, state and/or federal level.							
	See above.				No Progress	Cost		1. Include in 2019 HMP
						Level of Protection		2.
						Damages Avoided; Evidence of Success		3.

Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

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

- The Town of Salina has performed ongoing maintenance projects to reduce the impact of flooding but has not identified specific mitigation projects/activities that have been completed but were not identified in the previous mitigation strategy in the 2013 Plan.

Proposed Hazard Mitigation Initiatives for the Plan Update

The Town of Salina participated in a mitigation action workshop on January 14, 2019 and was provided the following FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards: FEMA 551 'Selecting Appropriate Mitigation Measures for Floodprone Structures' (March 2007), FEMA 'Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards' (January 2013), and the Onondaga County 2019 Plan Update Mitigation Catalog.

Table 9.28-12 summarizes the comprehensive-range of specific mitigation initiatives the Town of Salina would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

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

Table 9.28-13 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.

Table 9.28-12. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem	Description of Solution	Critical Facility (Yes/No)	Environmental and Historic Preservation (EHP) Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
T. Salina-1	Chemical storage facilities located near Ley Creek	1, 2, 5	Flooding	**Problem**: Chemicals, including solvents and petroleum, are located at points throughout the 100-year and 500-year floodplain. These facilities have not been known to flood in recent years, however there is a risk of floods occurring and chemicals polluting the waterways	**Solution**: Ensuring that chemical storage locations within the Town of Salina's portion of the Ley Creek floodplain will withstand recurring flood events. The Town of Salina will contact businesses that may use chemicals/solvents and work with them to protect themselves and the surrounding community. These facilities and businesses may include: - Solvents and Petroleum -Liverpool Pump Station (Onondaga County) - Sawmill Pump Station (Onondaga County) - Ley Creek Pump Station (Onondaga County) - Lyons Transportation Lines, Inc - Stroehmann Bakeries, Inc. - Stadium International Trucks - Pilot Travel Center #380 - American Tw Truck - Olde Mill Associates	No	No	Within 5 years	Town Supervisor, Engineer, and Floodplain Administrator	$10,000	Increase flood awareness with businesses in the town; enhance relationships with businesses	Municipal Budget	Medium	EAP	PI

Table 9.28-12. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem	Description of Solution	Critical Facility (Yes/No)	Environmental and Historic Preservation (EHP) Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				- Tom's Performance Automotive - Schilling Forge Inc											
T. Salina-2	Securing backup generator for highway facilities	1, 3	Flood, Severe Storm, Severe Winter Storm	**Problem**: The town's Highway Department needs to be able to respond quickly during and after natural disasters. Response time may be hindered if critical equipment and electric facilities are damaged by severe winter storms.	**Solution**: Implement a plan to ensure that the Highway Department's electrical facilities and communication systems will withstand severe winter storm events. Of particular focus are available emergency backup generators, which would be useful to help ensure continuity of operations during sever winter storm events.	Yes	No	2-3 years	Town Highway Department and Engineer	$50,000	Continuity of operations; continuous power during emergencies	FEMA HMGP and FMA	High	SIP	PP
T. Salina-3	Updating Ley Creek flood hydrological surveys upon PCB removal		Flooding	**Problem**: PCBs are in the process of being removed from Ley Creek, which experiences recurring flooding. This process is being managed by the USEPA and is anticipated on being complete by 2022 at the earliest. Removal of the PCBs are likely to cause a shift in hydrology, potentially leading the new flood vulnerabilities in the surrounding areas.	**Solution**: When PCB's have been removed from Ley Creek main branch,	No	No	1 year	Ley Creek County Drainage District, Lower Ley Creek Superfund Site (No. NYD986913580) in cooperation with the Town of Salina	$2.75 million	Removal of PCB contamination will reduce the area of the 100-year flood; protect homes and businesses from future flood events	Ley Creek County Drainage District, Lower Ley Creek Superfund Site (No. NYD986913580)	High	SIP, NSP	SP, NR

Table 9.28-12. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem	Description of Solution	Critical Facility (Yes/No)	Environmental and Historic Preservation (EHP) Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				topographic surveys and updated hydrology surveys are needed to determine the flood levels that will result in Mattydale from various storm recurrence intervals. A long-term plan is needed to gradually increase the level of flood protection that will be afforded in this relatively flood-prone location, particularly with recent changes in the hydrology.										

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

Acronyms and Abbreviations:

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

Potential FEMA HMA Funding Sources:

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

Timeline:
The time required for completion of the project upon implementation

Cost:
The estimated cost for implementation.

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

Mitigation Category:

- *Local Plans and Regulations (LPR) – These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.*
- *Structure and Infrastructure Project (SIP) - These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct manmade structures to reduce the impact of hazards.*
- *Natural Systems Protection (NSP) – These are actions that minimize damage and losses, and also preserve or restore the functions of natural systems.*

- *Education and Awareness Programs (EAP) – These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities*

CRS Category:

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

Table 9.28-13. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community	Total	High / Medium / Low
T. Salina-1	Chemical storage facilities located near Ley Creek	1	1	1	1	0	0	1	1	0	1	0	1	0	0	8	Medium
T. Salina-2	Securing backup generator for highway facilities	0	1	1	1	0	1	0	0	1	1	1	1	1	0	9	High
T. Salina-3	Updating Ley Creek flood hydrological surveys upon PCB removal	1	1	1	1	0	0	0	1	1	1	1	1	1	0	10	High

Note: Refer to Section 6, which conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-14).

9.28.7 Future Needs To Better Understand Risk/Vulnerability

None at this time.

9.28.8 Staff and Local Stakeholder Involvement in Annex Development

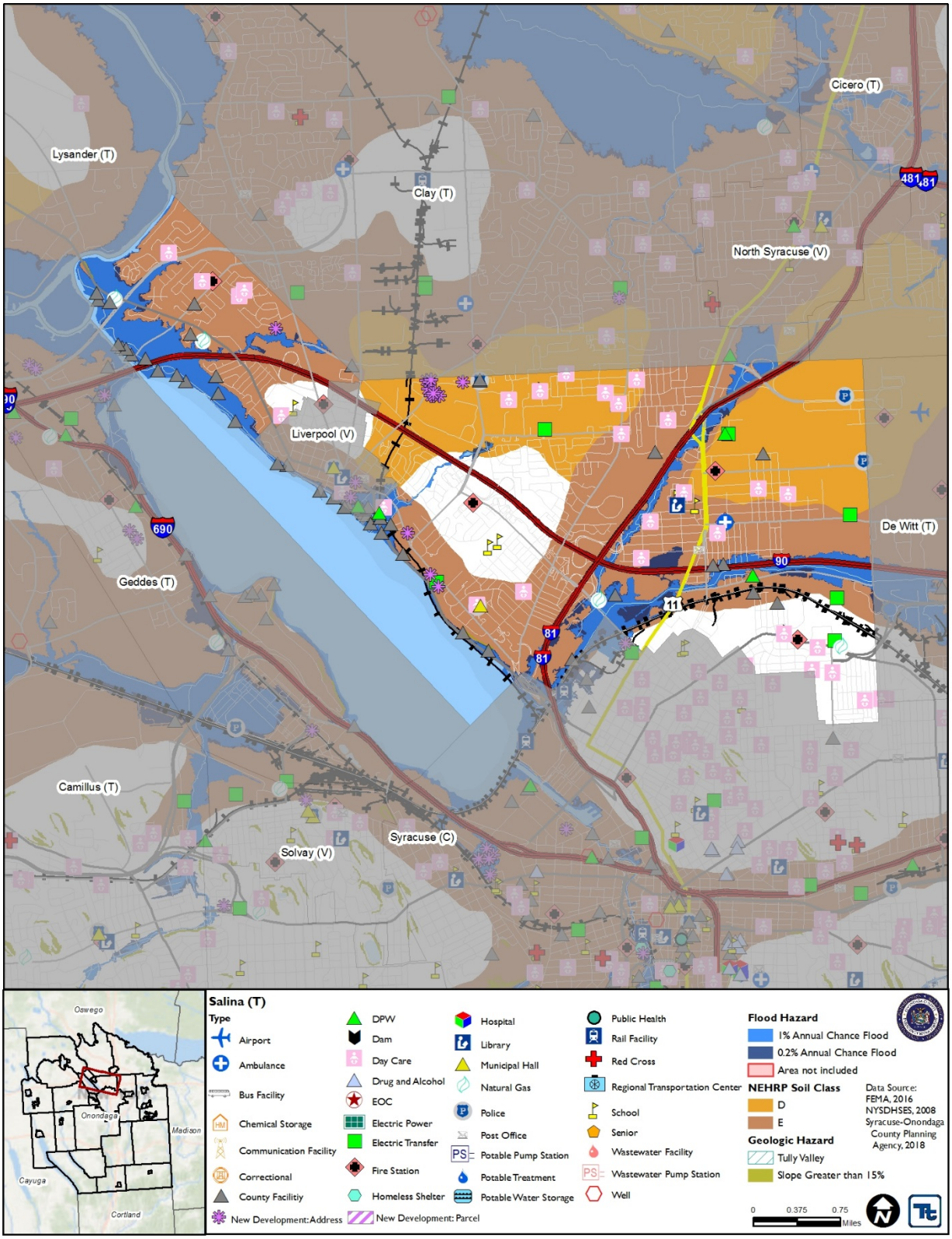
The Town of Salina followed the planning process described in Section 3 (Planning Process) in Volume I of this plan update. This annex was developed over the course of several months with input from many town departments, including: the Staff Engineer and the Planning & Development Director. The Town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

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

9.28.9 Hazard Area Extent and Location

Hazard area extent and location maps have been generated for the Town of Salina that illustrate the probable areas impacted within the municipality. These maps are based on the best available data at the time of the preparation of this plan, and are considered to be adequate for planning purposes. Maps have only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Town of Salina has significant exposure. A map of the Town of Salina hazard area extent and location is provided on the following page. This map indicates the location of the regulatory floodplain as well as identified critical facilities within the municipality.

Figure 9.28-1. Town of Salina Hazard Area Extent and Location Map



Action Worksheet			
Project Name:	Chemical storage facilities located near Ley Creek		
Project Number:	T. Salina-1		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood		
Description of the Problem:	Chemicals, including solvents and petroleum, are located at points throughout the 100-year and 500-year floodplain of Ley Creek. These facilities have not been known to flood in recent years, however there is a risk of floods occurring and chemicals polluting the waterways.		
Action or Project Intended for Implementation			
Description of the Solution:	Ensuring that chemical storage locations within the Town of Salina's portion of the Ley Creek floodplain will withstand recurring flood events. The Town of Salina will contact businesses that may use chemicals/solvents and work with them to protect themselves and the surrounding community. These facilities and businesses may include: - Solvents and Petroleum -Liverpool Pump Station (Onondaga County) - Sawmill Pump Station (Onondaga County) - Ley Creek Pump Station (Onondaga County) - Lyons Transportation Lines, Inc - Stroehmann Bakeries, Inc. - Stadium International Trucks - Pilot Travel Center #380 - American Tw Truck - Olde Mill Associates - Tom'S Performance Automotive - Schilling Forge Inc		
Is this project related to a Critical Facility?	Yes ☐	No ☒	
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	500-year	**Estimated Benefits (losses avoided):**	Increase flood awareness with businesses in the town; enhance relationships with businesses
Useful Life:	10 years	**Goals Met:**	1, 2, 5
Estimated Cost:	$10,000	**Mitigation Action Type:**	Education and Awareness Project
Plan for Implementation			
Prioritization:	Medium	**Desired Timeframe for Implementation:**	Within 6 months
Estimated Time Required for Project Implementation:	Within 5 years	**Potential Funding Sources:**	Municipal Budget
Responsible Organization:	Town Supervisor, Engineer, and Floodplain Administrator	**Local Planning Mechanisms to be Used in Implementation if any:**	Hazard Mitigation

Three Alternatives Considered (including No Action)			
Alternatives:	**Action**	**Estimated Cost**	**Evaluation**
	No Action	$0	Current problem continues
	Elevate all facilities	>$1,000,000	Many of the buildings cannot be elevated; too costly; there are other means to mitigate the properties
	Acquire all facilities	>$1,000,000	Not feasible; economic and tax loss

Progress Report (for plan maintenance)	
Date of Status Report:	

Report of Progress:	
Update Evaluation of the Problem and/or Solution:	

Action Worksheet		
Project Name:	Chemical storage facilities located near Ley Creek	
Project Number:	T. Salina-1	
Criteria	**Numeric Rank (-1, 0, 1)**	**Provide brief rationale for numeric rank when appropriate**
Life Safety	1	Protect residents in the area from contamination of chemicals during and after a flood
Property Protection	1	Protect facilities from flood damage
Cost-Effectiveness	1	
Technical	1	
Political	0	
Legal	0	Town does not have jurisdiction over these facilities
Fiscal	1	Municipal budget / staff time
Environmental	1	
Social	0	
Administrative	1	
Multi-Hazard	0	Flood
Timeline	1	Within 5 years
Agency Champion	0	
Other Community Objectives	0	
Total	8	
Priority (High/Med/Low)	Medium	

Action Worksheet			
Project Name:	Securing backup generator for highway facilities		
Project Number:	T. Salina-2		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood		
Description of the Problem:	Town of Salina Highway Department (601 Factory Ave., Syracuse). The town's Highway Department needs to be able to respond quickly during and after natural disasters. Response time may be hindered if critical equipment and electric facilities are exposed to flood waters. Furthermore, chemicals are stored at the Highway Facility, carrying the risk of chemicals polluting the waterways.		
Action or Project Intended for Implementation			
Description of the Solution:	Implement a plan to ensure that the Highway Department's electrical facilities and communication systems will withstand severe winter storm events. Of particular focus are available emergency backup generators, which would be useful to help ensure continuity of operations during sever winter storm events.		
Is this project related to a Critical Facility?	Yes ☒	No ☐	
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	N/A	**Estimated Benefits (losses avoided):**	Continuity of operations, continuous power during outages
Useful Life:	20 years	**Goals Met:**	1, 3
Estimated Cost:	$50,000	**Mitigation Action Type:**	Structure and Infrastructure Project
Plan for Implementation			
Prioritization:	High	**Desired Timeframe for Implementation:**	Within 6 months of receiving funds
Estimated Time Required for Project Implementation:	2 to 3 years	**Potential Funding Sources:**	FEMA HMGP and FMA
Responsible Organization:	Town Highway Department and Engineer	**Local Planning Mechanisms to be Used in Implementation if any:**	Hazard Mitigation

Three Alternatives Considered (including No Action)			
Alternatives:	**Action**	**Estimated Cost**	**Evaluation**
	No Action	$0	Current problem continues
	Solar Panels	$100,000	Weather dependent; requires large amount of area to install; initial cost and maintenance is expensive
	Wind turbines	$100,000	Weather dependent; rotor of blades can be loud; visual impacts; avian/bat mortality

Progress Report (for plan maintenance)	
Date of Status Report:	
Report of Progress:	
Update Evaluation of the Problem and/or Solution:	

Action Worksheet		
Project Name:	Securing backup generator for highway facilities	
Project Number:	T. Salina-2	
Criteria	**Numeric Rank (-1, 0, 1)**	**Provide brief rationale for numeric rank when appropriate**
Life Safety	0	
Property Protection	1	Reduce or eliminate impacts of power outages on the Highway Department facility
Cost-Effectiveness	1	Benefits outweigh the costs – allows for continuity of operations during emergencies
Technical	1	Long-term solution to power outage impacts
Political	0	
Legal	1	Town has authority to implement this project
Fiscal	0	Need to seek grant funding
Environmental	0	
Social	1	
Administrative	1	
Multi-Hazard	1	Severe Storm, Severe Winter Storm and Flood
Timeline	1	To be completed within 3 years
Agency Champion	1	
Other Community Objectives	0	
Total	9	
Priority (High/Med/Low)	High	

Action Worksheet			
Project Name:	Updating Ley Creek flood hydrological surveys upon PCB removal		
Project Number:	T. Salina-3		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood		
Description of the Problem:	Portions of Mattydale, including approximately 150 homes and businesses are subject to flooding from a 100-year storm and as many as 10 homes are subject to flooding for a 10-year storm. The properties involved are north and south of the NYS Thruway, east of Route 11 and west of Townline Road. Buildings, basements, residential appliances, along with personal and business property are subject to damage. The watercourses that flood include Ley Creek and Bear Trap Creek and the topography in this area is relatively flat.		
Action or Project Intended for Implementation			
Description of the Solution:	Develop an updated hydrological model of Ley Creek from Townline Road to Onondaga Lake, focused on changes in the Ley Creek channel and floodplain. Then, develop a model of the same section of Ley Creek considering sediment that will be removed because of existing PCB contamination. Next, determine additional changes needed to accommodate a 100-year flood. The PCB removals and the removals to accommodate a 100-year flood may complement each other. Finally, complete a sediment removal construction contract to accomplish both flood protection and PCB removal objectives. One construction contract will certainly be less expensive than two.		
Is this project related to a Critical Facility?	Yes ☐	No ☒	
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	100-year storm	**Estimated Benefits (losses avoided):**	Removal of PCB contamination will reduce the area of the 100-year flood; protect homes and businesses from future flood events
Useful Life:	25 years	**Goals Met:**	1, 4
Estimated Cost:	$2.75 million	**Mitigation Action Type:**	Structure and Infrastructure Project, Natural Systems Protection
Plan for Implementation			
Prioritization:	High	**Desired Timeframe for Implementation:**	Four years
Estimated Time Required for Project Implementation:	One year	**Potential Funding Sources:**	Ley Creek County Drainage District, Lower Ley Creek Superfund Site (No. NYD986913580)
Responsible Organization:	Ley Creek County Drainage District, Lower Ley Creek Superfund Site (No. NYD986913580) in cooperation with the Town of Salina	**Local Planning Mechanisms to be Used in Implementation if any:**	None

Three Alternatives Considered (including No Action)			
Alternatives:	**Action**	**Estimated Cost**	**Evaluation**
	No Action	$0	Current problem continues
	Purchase homes and relocate residents	$7.2 million	Residents will not be willing to move; many are senior citizens; comparable row homes will be at least double the prices for purchase; too costly; residents will not be

			able to provide the local match
	Raise or floodproof structures	$1.5 million	Residents will not be willing to elevate their homes; too costly; residents will not be able to provide the local match
Progress Report (for plan maintenance)			
Date of Status Report:	January 15, 2019		
Report of Progress:	Currently testing the soils of Lower Ley Creek for the extent of PCB contamination		
Update Evaluation of the Problem and/or Solution:			

Action Worksheet		
Project Name:	Updating Ley Creek flood hydrological surveys upon PCB removal	
Project Number:	T. Salina-3	
Criteria	**Numeric Rank (-1, 0, 1)**	**Provide brief rationale for numeric rank when appropriate**
Life Safety	1	Protect residents from future flood events
Property Protection	1	Protect property from flood damage
Cost-Effectiveness	1	
Technical	1	
Political	0	
Legal	0	Many agencies involved; requires coordination between federal, state and local departments
Fiscal	0	
Environmental	1	Remove PCBs from soils, increase water quality
Social	1	
Administrative	1	
Multi-Hazard	1	Flood, Severe Storm
Timeline	1	To be completed within 5 years
Agency Champion	1	
Other Community Objectives	0	
Total	10	
Priority (High/Med/Low)	High	