



9.5 TOWNSHIP OF ELK

This section presents the jurisdictional annex for the Township of Elk and includes resources and information to assist public and private sectors with reducing losses from future hazard events. This annex is not intended as guidance for actions to take during a disaster. Rather, this annex provides actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex includes a general overview of the municipality and who in the Township participated in the planning process, an assessment of the Township of Elk's risk and vulnerability, the different capabilities used in the Township, and an action plan that will be implemented to achieve a more resilient community.

9.5.1 Hazard Mitigation Planning Team

The Township of Elk followed the planning process described in Section 2 (Planning Process) in Volume I of this plan update and developed the annex over the course of several months with input from many Township departments as summarized in the table below. The primary and alternate points of contact represented the community on the 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.

The coronavirus pandemic resulted in a strain on local resources that limited some participation, but every effort was made to connect with staff and stakeholders and gain diverse input. Due to safety precautions, all meetings were held virtually.

The following table summarizes municipal officials that participated in the development of the annex and in what capacity, including the Township of Elk's hazard mitigation plan primary and alternate points of contact. Additional documentation on the municipality's planning process through Planning Partnership meetings is included in Section 2 (Planning Process) and Appendix C (Meeting Documentation).

Table 9.5-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Edward Selb, Emergency management Coordinator Address: Phone Number: 856-418-8700 Email: edselb1604ret@aol.com	Name/Title: Kevin Keen, 1 st Deputy Emergency Management Coordinator Address: Phone Number: 856-889-9863 Email: kkeen96@comcast.net
NFIP Floodplain Administrator	
Name/Title: Tony Dariano, Construction Code Official Address: Phone Number: 856-881-6525 x 130 Email: tdariano@elktownshipnj.gov	



Name	Title	Method of Participation

9.5.2 Municipal Profile

Elk Township, primarily known as an agricultural community, is made up of almost 20 square miles at the southern end of Gloucester County. It is easily accessed by major roadways in South Jersey including Route 55 and 47 that run north and south through the municipality. Elk Township was formed as a township by an act of the New Jersey Legislature on April 17, 1891, from portions of Clayton Township, Glassboro Township and South Harrison Township. The township was named for elk hunted in the area.

the township had a total area of 19.34 square miles, including 19.16 square miles of land and 0.18 square miles of water and borders Ewan Lake, Gilman Lake, and Silver Lake. Unincorporated communities, localities and place names located partially or completely within the township include Aura, Ferrell, Harding, Hardingville and Monroeville.

The municipality is governed under the township form of municipal government. The Township Committee is comprised of five members, who are elected directly by the voters at-large in partisan elections. At an annual reorganization meeting, the Township Committee selects one of its members to serve as Mayor and another as Deputy Mayor.

According to the U.S. Census, the 2010 population for the Township of Elk was 4,216. The estimated 2019 population was 4,135, a 1.9 percent increase from the 2010 Census. Data from the 2019 U.S. Census American Community Survey indicate that 3.0 percent of the population is 5 years of age or younger and 16.2 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.

9.5.3 Jurisdictional Capability Assessment and Integration

The Township of Elk performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of planning, legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of administrative and technical capabilities
- An assessment of fiscal capabilities.



- An assessment of education and outreach capabilities.
- Classification under various community mitigation programs.
- The community's adaptive capacity to withstand hazard events.

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. Annex development included reviewing planning and policy documents and surveying each jurisdiction to obtain a better understanding of their progress in plan integration and how risk reduction is supported. Areas with current mitigation integration are summarized in this jurisdictional Capability Assessment (Section 9.5.3). The updated mitigation strategy includes opportunities the Township of Elk identified for integration of mitigation concepts to be incorporated into municipal procedures.

9.5.3.1 Planning, Legal, and Regulatory Capability

Section 5 (Capability Assessment) provides an overview of the planning, legal, and regulatory capabilities. The table below summarizes the regulatory tools that are available to the Township of Elk, what is present in the jurisdiction, and code citation and date.

Table 9.5-2. Planning, Legal, and Regulatory Capability

	Jurisdiction has this? (Yes/No)	Required by State? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Individual / Department / Agency Responsible
Codes, Ordinances, & Regulations					
Building Code	Yes	Yes	Chapter 54 – Uniform Construction Codes	State and Local	Construction Official and Zoning Officer
<i>How does this reduce risk?</i> Plans for future and updated risks that could occur from areas not previously developed. The Construction Official is the chief administrator for enforcing the code.					
Zoning/Land Use Code	Yes	Yes, if the jurisdiction has a planning board	Chapter 96 – Unified Development, Municipal Code; adopted 9/7/2000	Local	Planning Board
<i>How does this reduce risk?</i> The purpose of this chapter is to regulate the nature and extent of the uses of land and of buildings and structures thereon for the purposes set forth in the Municipal Land Use Law (N.J.S.A. 40:55D-1 et seq.) and to exercise the power to zone and regulate land development granted to municipalities of the State of New Jersey. All land and every building in the Township must conform to this code. Plans for future and updated risks that could occur from areas not previously developed					
Subdivision Ordinance	Yes	Yes, if the jurisdiction has a planning board	Chapter 96, Article VI – Subdivision and Site Plans, Municipal Code; adopted 9/7/2000	Local	Planning Board
<i>How does this reduce risk?</i> The ordinance states “no development shall take place within the Township nor shall any land be cleared or altered, nor any use or change in the use of any building or other structure, nor shall any watercourse be diverted or its channel or floodplain dredged or filled, nor shall any parking areas, accessory or otherwise, or accessways thereto, be constructed, installed or enlarged, nor shall any building permit, certificate of occupancy or other required permit be issued with respect to any such structure, land or parking area, except in accordance with an approval of such development granted pursuant to this section, unless exempted in accordance with § 96-23”. Plans for future and updated risks that could occur from areas not previously developed					
Stormwater Management Ordinance	Yes	Yes	Chapter 86 – Stormwater Management, Municipal Code; adopted 8/3/2006	Local	Planning Board



	Jurisdiction has this? (Yes/No)	Required by State? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Individual / Department / Agency Responsible
<i>How does this reduce risk?</i>					
Controls the run-off from roadways and open land that could cause an impact of infrastructure. The purpose of this code is to establish minimum stormwater management requirements and controls for major development.					
Post-Disaster Recovery/ Reconstruction Ordinance	No	No	-	-	-
<i>How does this reduce risk?</i>					
Real Estate Disclosure	No	Yes	-	State	-
<i>How does this reduce risk?</i>					
Offers of flood insurance and advisory notice of potentially hazardous area					
Growth Management	No	Yes, if the jurisdiction has a planning board	-	Local	-
<i>How does this reduce risk?</i>					
Site Plan Ordinance	Yes	Yes, if the jurisdiction has a planning board	Chapter 96, Article VI – Subdivision and Site Plans, Municipal Code; adopted 9/7/2000	Local	Planning Board
<i>How does this reduce risk?</i>					
Plans for future and updated risks that could occur from areas not previously developed					
Environmental Protection Ordinance	No	Yes, depends on type of environmental areas	-	-	-
<i>How does this reduce risk?</i>					
Flood Damage Prevention Ordinance	Yes	Yes	Chapter 65 – Flood Damage Prevention, Municipal Code; adopted 12/3/2009	Federal, State, County and Local	Construction Code Official
<i>How does this reduce risk?</i>					
The purpose of this code is to promote public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas. The Construction Code Official is identified as the floodplain administrator and responsible for permit review, obtain and maintain information, and understanding the FIRM maps. For all new construction or substantial improvements, the lowest floor must be elevated to or above the BFE. The code also plans for future and updated risks that could occur from areas not previously developed.					
Wellhead Protection	Yes	No	Chapter 98 – Water, Municipal Code; adopted 10/6/2005	Local	Elk Township Municipal Utilities Authority
<i>How does this reduce risk?</i>					
Plans for future and updated risks that could occur from areas not previously developed					
Emergency Management Ordinance	No	No	-	-	-
<i>How does this reduce risk?</i>					
Climate Change Ordinance	No	No	-	-	-
<i>How does this reduce risk?</i>					
Disaster Recovery Ordinance	No	No	-	-	-
<i>How does this reduce risk?</i>					
Disaster Reconstruction Ordinance	No	No	-	-	-



	Jurisdiction has this? (Yes/No)	Required by State? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Individual / Department / Agency Responsible
<i>How does this reduce risk?</i>					
Other	No	No	-	-	-
Codes, Ordinances, & Regulations Connection to Mitigation and Safe Growth					
<ul style="list-style-type: none"> Prior to, zoning changes, or development permitting, does the jurisdiction review the hazard mitigation plan and other hazard analyses to ensure consistent and compatible land use? Yes. Thorough review before issuing permits for construction. Does the zoning ordinance discourage development or redevelopment within natural areas including wetlands, floodways, and floodplains? Yes. Does it contain natural overlay zones that set conditions? Yes Does the ordinance require developers to take additional actions to mitigate natural hazard risk? Yes Do rezoning procedures recognize natural hazard areas as limits on zoning changes that allow greater intensity or density of use? Yes Do the ordinances prohibit development within, of filling of, wetlands, floodways, and floodplains? Yes Do the subdivision regulations restrict the subdivision of land within or adjacent to natural hazard areas? Yes Do the subdivision regulations restrict the subdivision of land within or adjacent to natural hazard areas? Yes Do the regulations provide for conservation subdivisions or cluster subdivisions in order to conserve environmental resources? Yes Do the regulations allow density transfers where hazard areas exist? Unknown When updating ordinances, is hazard mitigation considered? Yes 					
Planning Documents					
Master Plan	Yes	Yes – County Yes/No - municipality	Comprehensive Master Plan, adopted 1978; Reexamination July 2016	Local	Land Use Board
<i>How does this reduce risk?</i> Plans for future and updated risks that could occur from areas not previously developed					
Capital Improvement Plan	No	Allowed	-	-	-
<i>How does this reduce risk?</i>					
Disaster Debris Management Plan	No	No	-	-	-
<i>How does this reduce risk?</i>					
Floodplain Management or Watershed Plan	No	No	-	-	-
<i>How does this reduce risk?</i>					
Stormwater Management Plan	No	No	-	-	-
<i>How does this reduce risk?</i>					
Stormwater Pollution Prevention Plan	Yes	Yes	Chapter 86 Adopted 4/01/2021	Local	Public Works
<i>How does this reduce risk?</i> Controls the run-off from roadways and open land that could cause an impact of infrastructure					
Urban Water Management Plan	No	No	-	-	-
<i>How does this reduce risk?</i>					
Habitat Conservation Plan	No	No	-	-	-
<i>How does this reduce risk?</i>					
Economic Development Plan	No	No	-	-	-
<i>How does this reduce risk?</i>					
Shoreline Management Plan	No	No	-	-	-



	Jurisdiction has this? (Yes/No)	Required by State? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Individual / Department / Agency Responsible
<i>How does this reduce risk?</i>					
Community Wildfire Protection Plan	No	No	-	-	-
<i>How does this reduce risk?</i>					
Community Forest Management Plan	No	No	-	-	-
<i>How does this reduce risk?</i>					
Transportation Plan	No	No	-	-	-
<i>How does this reduce risk?</i>					
Agriculture Plan	No	No	-	-	-
<i>How does this reduce risk?</i>					
Climate Action/ Resiliency Plan	No	No	-	-	-
<i>How does this reduce risk?</i>					
Tourism Plan	No	No	-	-	-
<i>How does this reduce risk?</i>					
Business/ Downtown Development Plan	No	No	-	-	-
<i>How does this reduce risk?</i>					
Other	No	No	-	-	-
Planning Connection to Mitigation and Safe Growth					
<ul style="list-style-type: none"> Do budgets limit expenditures on projects that would encourage development in areas vulnerable to natural hazards? Yes Do infrastructure policies limit extension of existing facilities and services that would encourage development in areas vulnerable to natural hazards? Yes Do budgets provide funding for hazard mitigation projects identified in the County HMP? No Does the future land use map clearly identify natural hazard areas? Plan Yes Do the land use policies discourage development or redevelopment with natural hazard areas? Yes Does the plan provide adequate space for expected future growth in areas located outside natural hazard areas? Yes Does the transportation plan limit access to hazard areas? Yes Is transportation policy used to guide growth to safe locations? yes Are transportation systems designed to function under disaster conditions (e.g., evacuation)? Yes Are environmental systems that protect development from hazards identified and mapped? No Do environmental policies maintain and restore protective ecosystems? Unknown Do environmental policies provide incentives to development that is located outside protective ecosystems? Unknown 					
Response/Recovery Planning					
Emergency Operations Plan	Yes	Yes	April 2021	Local	Office of Emergency Management
<i>How does this reduce risk?</i>					
Guidance and plans for response, recovery and future planning					
Strategic Recovery Planning Report	No	No	-	-	-
<i>How does this reduce risk?</i>					
Threat & Hazard Identification & Risk Assessment (THIRA)	No	No	-	-	-



	Jurisdiction has this? (Yes/No)	Required by State? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Individual / Department / Agency Responsible
<i>How does this reduce risk?</i>					
Post-Disaster Recovery Plan	No	No	-	-	-
<i>How does this reduce risk?</i>					
Continuity of Operations Plan	No	No	-	-	-
<i>How does this reduce risk?</i>					
Public Health Plan	No	No	-	-	-
<i>How does this reduce risk?</i>					
Other	No	No	-	-	-
Response/Recovery Planning Connection to Mitigation and Safe Growth					
<ul style="list-style-type: none">Does your EOP cover short-term response and long-term recovery to address communications, evacuation, and housing necessary for identified hazards? Yes					

9.5.3.2 Development and Permitting Capability

The table below summarizes the capabilities of the Township of Elk to oversee and track development.

Table 9.5-3. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Yes/No	Comment
Do you issue development permits? <ul style="list-style-type: none">If yes, what department is responsible?If no, what is your process for development?	No	Submission of plan to joint land use board with public input and review
Are permits tracked by hazard area? (For example, floodplain development permits.)	Yes/No	If yes, provide details
Do you have a buildable land inventory? <ul style="list-style-type: none">If yes, describe.If no, quantitatively describe the level of buildout in the jurisdiction.	No	What is the level of buildout in the Township?

9.5.3.3 Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Township of Elk and their current responsibilities which contribute to hazard mitigation.

Table 9.5-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comments (available staff, responsibilities, support of hazard mitigation)
Administrative Capability		
Planning Board	Yes	The Combined Planning and Zoning Board of Adjustment reviews land development applications for major and minor subdivisions and site plans, variances, and design change requests.
Zoning Board of Adjustments	Yes	See Above



Resources	Available? (Yes/No)	Comments (available staff, responsibilities, support of hazard mitigation)
Planning Department	Yes	See Above
Mitigation Planning Committee	No	-
Environmental Board/Commission	Yes	Environmental Commission Committee
Open Space Board/Committee	No	-
Economic Development Commission/Committee	Yes	Economic Development Committee
Public Works/Highway Department	Yes	The Public Works Department maintains the Township Owned Roadways, recreational fields, municipal buildings and properties, as well as managing waste and recycling services.
Construction/Building/Code Enforcement Department	Yes	The Construction Department enforces building codes and approves construction permits.
Emergency Management/Public Safety Department	Yes	Office of Emergency Management
Warning Systems / Services (mass notification system, outdoor warning signals)	Yes	Police Department Early Warning System
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	Public Works maintains township-owned roadways, recreational fields, municipal buildings, and properties.
Mutual aid agreements	Yes	Neighboring fire departments
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	No	-
Other	No	-
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	Boch Planners & Associates
Engineers or professionals trained in building or infrastructure construction practices	Yes	Boch Planners & Associates
Planners or engineers with an understanding of natural hazards	Yes	Boch Planners & Associates
Staff with expertise or training in benefit/cost analysis	No	-
Professionals trained in conducting damage assessments	Yes	Boch Planners & Associates; Construction Department
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	No	-
Scientist familiar with natural hazards	No	-
Surveyor(s)	No	-
Emergency Manager	Yes	OEM Coordinator
Grant writer(s)	No	-
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	No	-
How do your administrative/technical capabilities contribute to risk reduction in your community?		
<ul style="list-style-type: none"> Mitigate potential risk and survey for potential future risks. 		



9.5.3.4 Fiscal Capability

The table below summarizes financial resources available to the Township of Elk.

Table 9.5-5. Fiscal Capabilities

Financial Resources	Are these accessible or eligible to use for mitigation? (Yes/No) If yes, please describe. If no, can this be used to support in the future?
Community development Block Grants (CDBG, CDBG-DR)	No
Capital improvements project funding	no
Authority to levy taxes for specific purposes	Yes, tax increases
User fees for water, sewer, gas or electric service	N/A
Impact fees for homebuyers or developers of new development/homes	N/A
Stormwater utility fee	N/A
Incur debt through general obligation bonds	Yes, if required
Incur debt through special tax bonds	Yes, if required
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state funding programs	Yes, if allocated
Open Space Acquisition funding programs	No
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No
Fiscal Connection to Mitigation and Safe Growth	
<ul style="list-style-type: none"> How do your fiscal capabilities contribute to risk reduction in your community? Limited due to property taxes Do budgets limit expenditures on projects that would encourage development in areas vulnerable to natural hazards? Yes Do infrastructure policies limit extension of existing facilities and services that would encourage development in areas vulnerable to natural hazards? Yes Do budgets provide funding for hazard mitigation projects identified in the County HMP? No 	

9.5.3.5 Education and Outreach Capability

The table below summarizes the education and outreach resources available to the Township of Elk.

Table 9.5-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comments (available staff, responsibilities, etc.)
Public information officer or communications office	Yes	Through County OEM
Personnel skilled or trained in website development	No	-
Hazard mitigation information available on your website	No	-
Social media for hazard mitigation education and outreach	No	-



Outreach Resources	Available? (Yes/No)	Comments (available staff, responsibilities, etc.)
Citizen boards or commissions that address issues related to hazard mitigation	Yes	OEM Working Group
Other programs already in place that could be used to communicate hazard-related information	Yes	Elk Township Newsletter
Warning systems for hazard events	Yes	Through County OEM
Natural disaster/safety programs in place for schools	Yes	-
Other	No	-

9.5.3.6 Community Classifications

The table below summarizes classifications for community programs available to the Township of Elk.

Table 9.5-7. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	N/A	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	-	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	-	-	-
Sustainable Jersey	No	N/A	N/A
StormReady Certification	No	N/A	N/A
Firewise Communities classification	No	N/A	N/A

Note:

N/A Not applicable
NP Not participating
- Unavailable

9.5.3.7 Adaptive Capacity

Adaptive capacity is defined as “the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences” (IPCC 2014). In other words, it describes a jurisdiction’s current capabilities to adjust to, protect from, or withstand a future hazard event, future conditions, and changing risk. The table below summarizes the adaptive capacity for each hazard of concern and the jurisdiction’s rating.

Table 9.5-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak*
Coastal Erosion and Sea Level Rise	Moderate
Dam/ Levee Failure	Moderate
Disease Outbreak	Moderate
Drought	Moderate



Hazard	Adaptive Capacity - Strong/Moderate/Weak*
Earthquake	Moderate
Extreme Temp	Moderate
Flood	Moderate
Geologic	Moderate
Hazmat	Moderate
Hurricane	Moderate
Invasive Species	Moderate
Nor'Easter	Moderate
Severe Storm	Moderate
Severe Winter Storm	Strong
Wildfire	Moderate
Utility Failure	Moderate

*Strong = Capacity exists and is in use, Moderate = Capacity may exist; but is not used or could use some improvement, Weak = Capacity does not exist or could use substantial improvement.

9.5.4 National Flood Insurance Program (NFIP) Compliance

The table below provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the NFIP.

Table 9.5-9. NFIP Summary

NFIP Topic	Comments
Flood Vulnerability Summary	
<ul style="list-style-type: none"> # NFIP Policies: 11 # RL properties: 1 # SRL properties: 0 # RL/SRL mitigated: 0 	<ul style="list-style-type: none"> Total premium in force: \$4,887 # claims filed: 8 Total loss payments: \$ 53,920.61
Describe areas prone to flooding in your jurisdiction.	Need
Do you maintain a list of properties that have been damaged by flooding?	Need
Do you maintain a list of property owners interested in flood mitigation, and if so, how many are interested in (elevation or acquisition)?	Need
How do you make Substantial Damage determinations? <ul style="list-style-type: none"> How many were declared for recent flood events in your jurisdiction? 	Need
Detail any RiskMAP projects currently underway in your jurisdiction.	Need
Do your flood hazard maps adequately address the flood risk within your jurisdiction? <ul style="list-style-type: none"> If not, state why. 	Need
NFIP Administration	



NFIP Topic	Comments
What local department is responsible for floodplain management?	Construction Code Official
Are any staff certified floodplain managers (CFMs) or is a consultant retained?	Need
Provide an explanation of who in your municipality provides NFIP administration services (permit review, GIS, education/outreach, inspections, engineering capability).	Permit review, understanding of BFE and floodway data, education and outreach to residents, and understanding FEMA maps
What specific training or support does your floodplain management staff need to support its floodplain management program?	Need
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	Need
Do you have access to resources to determine possible future flooding conditions from climate change?	Need
NFIP Compliance	
List any outstanding NFIP compliance violations.	Need
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	8/2/1994
What is the local law number or municipal code of your flood damage prevention ordinance? What is the date that your flood damage prevention ordinance was last amended?	Chapter 65 December 3, 2009
Does your floodplain management program meet or exceed minimum requirements? <ul style="list-style-type: none">If exceeds, in what ways?	The current ordinance does not meet the minimum state requirements for new construction or substantial improvements in the floodplain. It currently requires properties to have the first floor at or above the base flood elevation.
Are there other local ordinances, plans, or programs (site plan review, consideration of flood risk reduction when granting height variances) that support floodplain management and meeting the NFIP requirements?	Need
Does your jurisdiction participate in CRS? <ul style="list-style-type: none">If yes, is your jurisdiction interested in improving its CRS Classification?If no, is your jurisdiction interested in joining the CRS program?	No

Source: FEMA September 16, 2019; NJDEP - 2021

Notes:

RL—Repetitive Loss; SRL—Severe Repetitive Loss; NA—Not applicable

9.5.5 Growth/Development Trends

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to understanding a jurisdiction's overall risk to its hazards of concern. The table below summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development.



Table 9.5-10. Recent and Expected Future Development

Type of Development	2016		2017		2018		2019		2020		2021	
Number of Building Permits for New Construction Issued Since the Previous HMP* (within regulatory floodplain/ outside regulatory floodplain)												
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single Family	46	-	26	-	14	-	23	-	17	-	14	-
Multi-Family	-	-	-	-	-	-	-	-	-	-	-	-
Other (commercial, mixed-use, etc.)	-	-	-	-	-	-	-	-	-	-	-	-
Total Permits Issued	46		26		14		23		17		14	
Property or Development Name	Type of Development		# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development			
Recent Major Development and Infrastructure from 2015 to Present												
None identified												
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years												
None identified												

SFHA Special Flood Hazard Area (1% annual chance flood event)

* Only location-specific hazard zones or vulnerabilities identified.

9.5.6 Jurisdictional Risk Assessment

The hazard profiles in Section 4 (Risk Assessment) provide detailed information regarding each plan participant's vulnerability to the identified hazards. Section 4.1 (Identification of Hazards of Concern), Section 4.2 (Methodology and Tools), and Section 4.4 (Hazard Ranking) provide a detailed summary for the Township of Elk's risk assessment results, and data used to determine the hazard ranking are discussed later in this section.

Hazard area extent and location maps provided below illustrate the probable areas impacted within the jurisdiction. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps were only generated for those hazards that can be clearly identified using mapping techniques and technologies and for which the Township of Elk has significant exposure. The maps also show the location of potential new development, where available.



Figure 9.5-1. Township of Elk Hazard Area Extent and Location Map 1

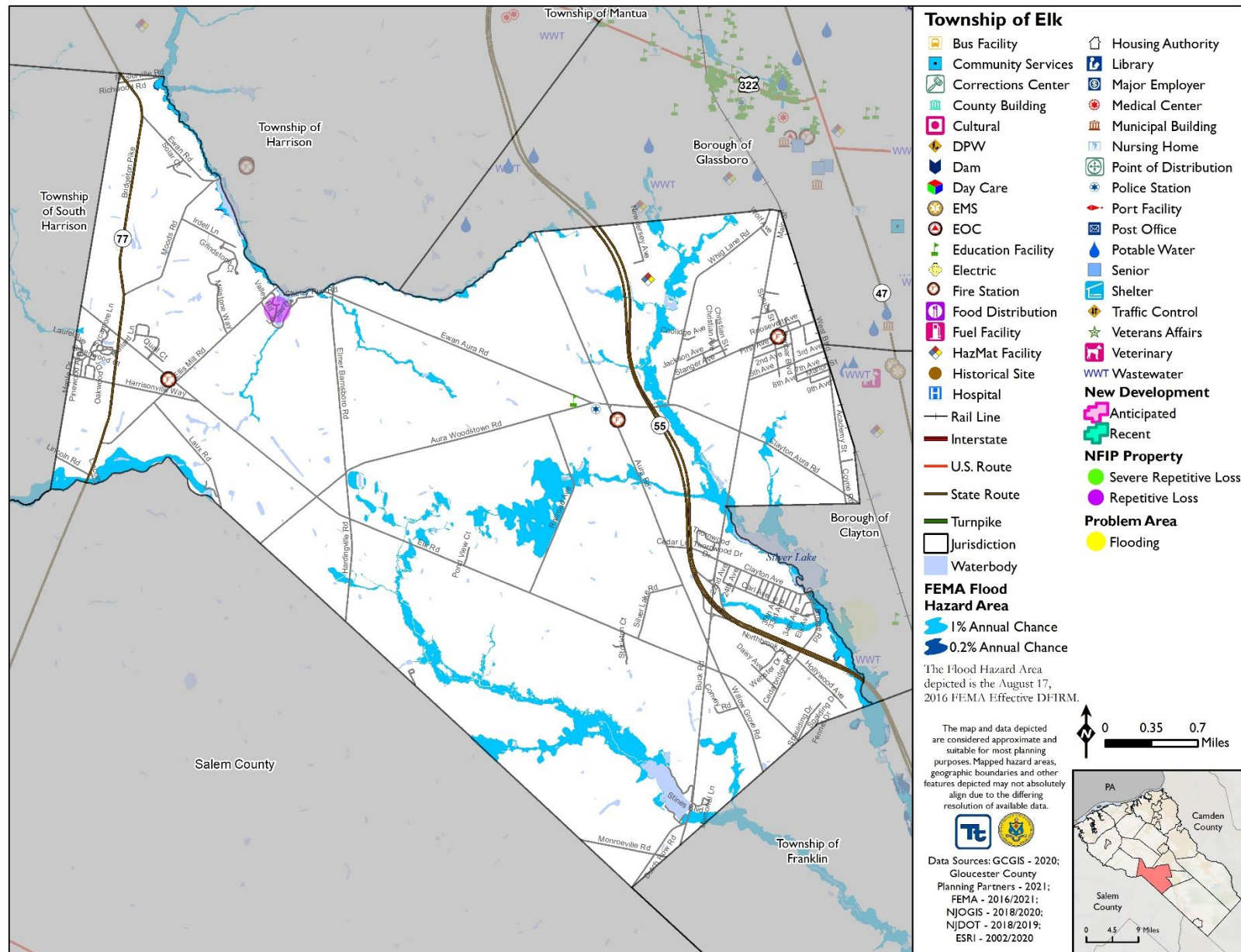




Figure 9.5-2. Township of Elk Hazard Area Extent and Location Map 2

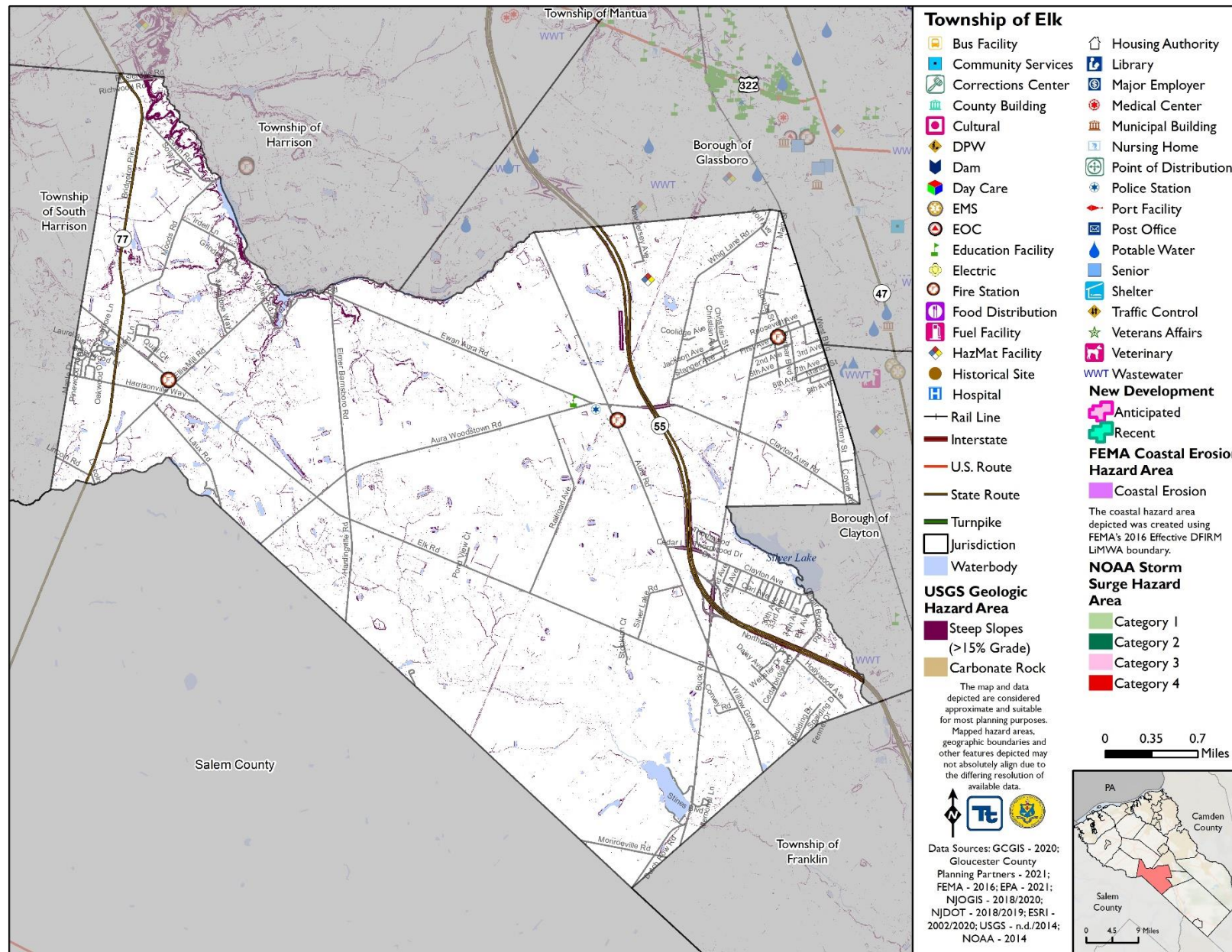




Figure 9.5-3. Township of Elk Hazard Area Extent and Location Map 3

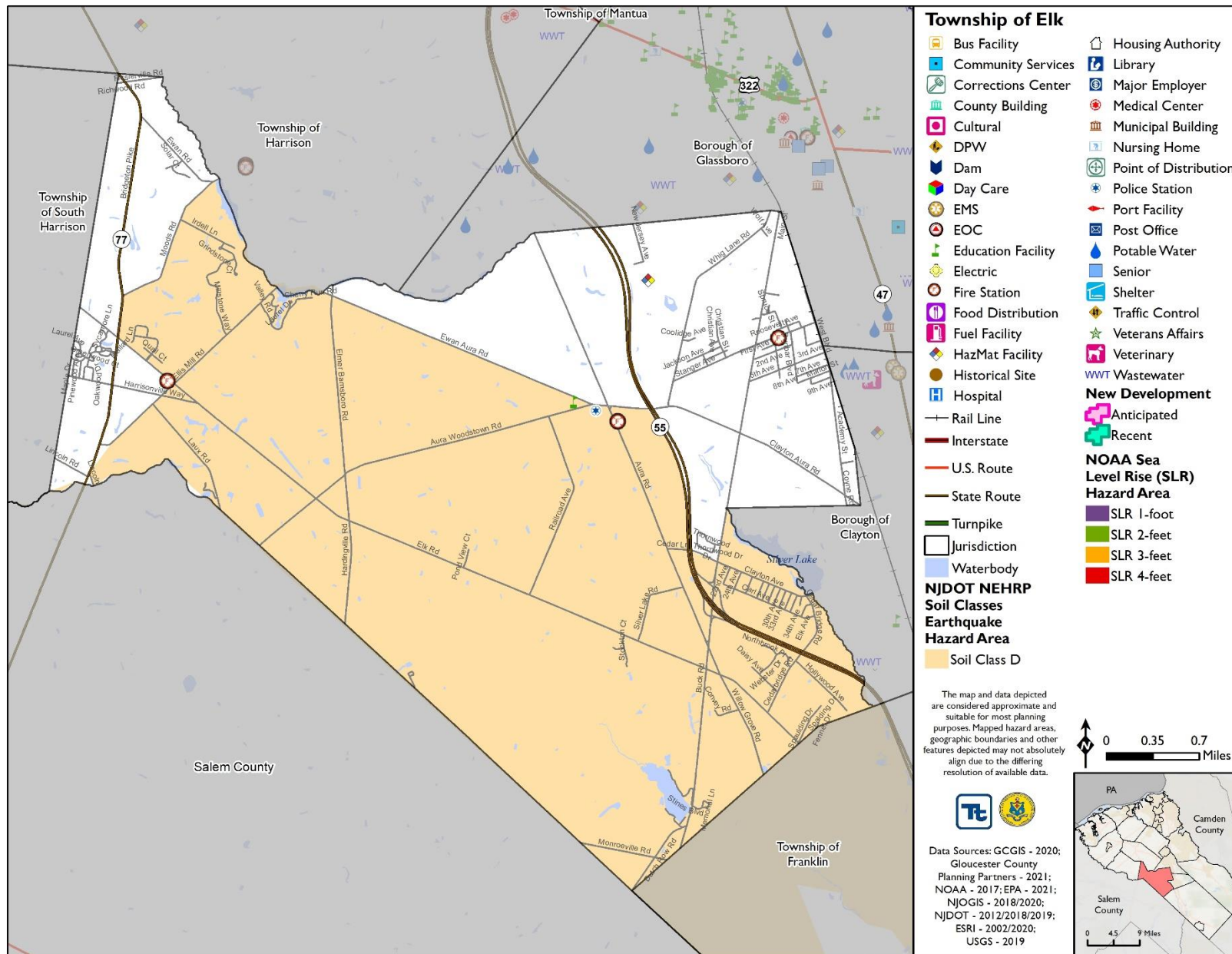
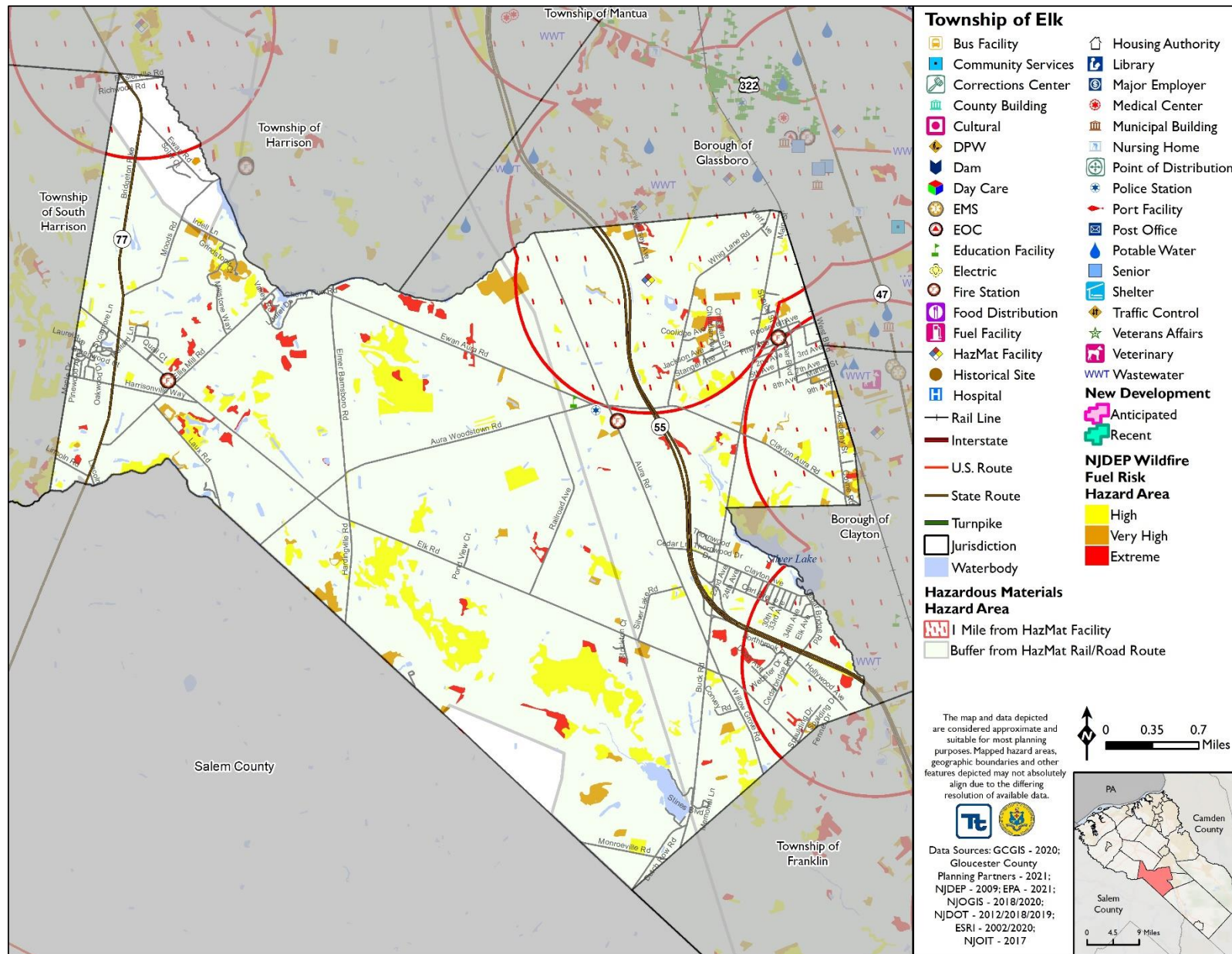




Figure 9.5-4. Township of Elk Hazard Area Extent and Location Map 4





9.5.6.1 Hazard Event History

Gloucester County has a history of natural hazard events as detailed in Section 4 (Risk Assessment) 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 Township of Elk's history of federal declarations (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Gloucester County. The table below provides details regarding municipal-specific loss and damages the Township experienced during hazard events since the last hazard mitigation plan update. Information provided in the table below is based on reference material or local sources.

Table 9.5-11. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
February 15, 2015	Cold/Wind Chill	No	The center of an arctic air mass brought some of the lowest wind chills and temperatures of the winter season to New Jersey. Wind chill factors were recorded as low as 22 degrees below zero, with actual temperatures reaching -2°F.	No significant impact
June 23, 2015	Severe Storm (DR-4231-NJ)	Yes	In Gloucester County, the Red Cross opened two comfort stations. Wind damage was most severe between Greenwich Township and Mantua Township. Lightning struck a refinery in Paulsboro, causing a loss of power and off-gas. In Wenonah, wind damage knocked down several massive oak trees. In Mantua, the microburst knocked down an estimated 2,800 trees and 100 poles. The Township's Fire Department building was severely damaged. Wind also knocked down power poles in East Greenwich along Kings Highway. Roads throughout East Greenwich were impassable. Damage was estimated at \$10 million.	No significant impact
January 22 – 24, 2016	Severe Winter Storm and Snowstorm (DR-4264-NJ)	Yes	Snow totals in Gloucester County included 21 inches in Deptford, 20.9 inches in Pitman, 17.5 inches in Turnersville, 14.5 inches in Williamstown, and one foot in Mullica Hill.	No significant impact
March 6, 2018	Winter Storm	No	Gloucester County was hit with isolated heavy snow, with totals ranging from five inches in Pitman to 6.5 inches in West Deptford.	No significant impact
January 20, 2020 – Present	Covid-19 Pandemic (EM-3451-NJ) (DR-4488-NJ)	Yes	Between March 1, 2020 and March 15, 2021, Gloucester County reported 21,065 confirmed cases of COVID-19, and 530 total fatalities.	On-going coordination with Gloucester County and State of NJ. Police officer overtime due to COVID illness within police department.
September 1-3, 2021	Remnants of Hurricane Ida (DR-4614)	Yes	On September 1st, Gloucester County and surrounding areas received a tornado warning issued by the NWS telling people to move indoors, to stay away from windows and avoid traveling. Shortly after, the tornado touched down in Mullica Hills, Woodbury Heights, Deptford, and West Deptford. It was a confirmed EF-3 tornado with	No significant impact



Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
			winds of up to 150 mph. Over 90,000 residents were without power statewide. In addition to the devastating tornado, the County experienced rainfall totals ranging from 1.6 inches to 2 inches. The Delaware River at Washington Street (just north of Gloucester County) crested 9.69 feet on September 1st (moderate flood stage).	

9.5.6.2 Hazard Ranking and Vulnerabilities

The hazard profiles in Section 4.1 (Hazards of Concern) of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the Township of Elk's risk assessment results and data used to determine the hazard ranking.

Hazard Ranking

This section provides 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 4 (Risk Assessment) 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 4.4 (Hazard Ranking), each participating jurisdiction can have differing degrees of risk exposure and vulnerability compared with Gloucester County as a whole. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the Township of Elk. The Township of Elk reviewed the county hazard risk/vulnerability risk ranking table, including municipal-specific results, to reflect the relative risk of the hazards of concern to the community.

During the review of the hazard/vulnerability risk ranking, the Township agreed with the calculated rankings for the municipality.

Table 9.5-12. Hazard Ranking Input

Coastal Erosion / Sea Level Rise	Dam / Levee Failure	Disease Outbreak	Drought	Earthquake	Extreme Temperature	Flood	Geologic	Hazardous Materials
Low	Medium	Low	Medium	Low	Medium	Low	Low	High

Hurricane / Tropical Storm	Invasive and Nuisance Species	Nor'Easter	Severe Weather	Severe Winter Weather	Wildfire	Utility Failure
Low	Low	Medium	High	Medium	Low	Medium

Note: The scale is based on the hazard rankings established in Section 4.4 (Hazard Ranking) and modified as appropriate during review by the jurisdiction.



Critical Facilities

The table below identifies critical facilities in the community located in the 1-percent and 0.2-percent floodplain and presents Hazus estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.

Table 9.5-13. Potential Flood Losses to Critical Facilities

Name	Type	Lifeline?	Exposure		Comment
			1% Event	0.2% Event	
No critical facilities in the floodplain					

Source: Gloucester County Planning Partners - 2021; HIFLD - 2020; EPA - 2021; FEMA 2016

9.5.6.3 Identified Issues

After review of the Township of Elk's hazard event history, hazard rankings, jurisdiction specific vulnerabilities, hazard area extent and location, and current capabilities, the Township of Elk has identified the following vulnerabilities within their community:

- The Township's flood damage prevention ordinance requires update.
- The Township lacks a stand-alone Disaster Debris Management Plan.
- Lack of backup power for two fire stations.
- Dam replacement process for Lake Garrison has begun including engineering and funding.

Specific areas of concern based on resident response to the citizen survey include:

- Filled-in pond located on Hollywood Ave., surrounding area of pond floods.
- Flooding at end of street and basements throughout the street on Douglas in the Lawns section of Elk Twp.

9.5.7 Mitigation Strategy and Prioritization

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

9.5.7.1 Past Mitigation Initiative Status

The following table indicates progress on the community's mitigation strategy identified in the 2016 HMP. 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 are discussed in the 'Capability Assessment' presented previously in this annex.



Table 9.5-14. Status of Previous Mitigation Actions

#	2016 Action Description	Responsible Party	What is the status? (e.g., In Progress, No Progress, Ongoing Capability, or Completed) If in progress or completed, please describe the funding source, cost and who is implementing.	If you did not complete the action, should the action be included in the 2022 HMP (i.e., there is still a need, this is still a priority)?		
				Yes/No	If Yes, please describe the original problem (i.e., hazard, location, historic losses)	If Yes, identify the responsible department/person to implement the project.
MJ-1	Determine current need and options for mitigation at Lake Garrison.	Municipal OEM, Lake Garrison Association, Gloucester County DPW, NJDEP	In Progress	Yes	Hazardous release of large volume on water if dam fails	Municipal OEM, Lake Garrison Association, Gloucester County DPW, NJDEP
MJ-2	Determine current need and options for mitigation at Lake Gilman.	Municipal OEM, Lake Gilman Association, Gloucester County DPW, NJDEP	In Progress	Yes	Hazardous release of large volume on water if dam fails	Municipal OEM, Lake Garrison Association, Gloucester County DPW, NJDEP
MJ-3	Risk assessment - Hackney Dam, 431 Richwood Road, County Road / Route 609.	Municipal OEM, Harrison Township	In Progress	Yes	Hazardous release of large volume on water if dam fails	Municipal OEM, Harrison Township Gloucester County DPW, NJDEP
MJ-4	Risk assessment - dam on Silver Lake on Route 608.	Municipal OEM, Clayton Borough	In Progress	Yes	Hazardous release of large volume on water if dam fails	Municipal OEM, Silver Lake Association, Clayton Borough Gloucester County DPW, NJDEP
MJ-5	Risk assessment - Ewan Lake Dam.	Municipal OEM, Harrison Township	In Progress	Yes	Hazardous release of large volume on water if dam fails	Municipal OEM, Harrison Township Gloucester County DPW, NJDEP
M-1	Identify and pursue outreach and education opportunities to inform municipal residents, businesses, and property owners regarding: • Current hazards and risks	Municipal OEM	Ongoing Capability	No	-	-



#	2016 Action Description	Responsible Party	What is the status? (e.g., In Progress, No Progress, Ongoing Capability, or Completed) If in progress or completed, please describe the funding source, cost and who is implementing.	If you did not complete the action, should the action be included in the 2022 HMP (i.e., there is still a need, this is still a priority)?		
				Yes/No	If Yes, please describe the original problem (i.e., hazard, location, historic losses)	If Yes, identify the responsible department/person to implement the project.
	• Changing conditions and actions that may reduce / increase risk to include monitoring and maintenance of privately owned dams • Best practices for hazard mitigation at the individual or property level.					
M-2	Prioritize critical facilities and complete site and facility surveys to identify vulnerabilities and potential mitigation measures.	Municipal OEM and Facility Managers	Ongoing Capability	No	-	-
M-3	Prioritize recurrent drainage problem areas and initiate data collection to track unreimbursed damages and related response and recovery expenses.	Municipal OEM and Public Works	In Progress/Ongoing	No	-	-
M-4	Conduct regular Municipal Working Group meetings consistent with the plan maintenance program and the Municipal Adoption Resolution.	Municipal OEM and Working Group	Ongoing Capability	No	-	-
M-5	Install permanent backup emergency power generator at Fire Station 39-1 (CF-4).	Municipal OEM	In Progress	Yes	No Back-up generator, Lack of funds	Municipal OEM
M-6	Install permanent backup emergency power generator at Fire Station 39-2 (CF-5).	Municipal OEM and Fire Department	In Progress	Yes	No Back-up generator, Lack of funds	Municipal OEM
M-7	Follow-up with landowner of Hackney Dam located on Richwood Road and County Route 609 re: potential mitigation options.	Municipal OEM and Hackney Dam Owners	In Progress	Yes	Unable to locate owners of property	Municipal OEM and Hackney Dam Owners
M-8	Address identified Repetitive Flood Loss Properties.	Floodplain Administrator	Ongoing Capability	No	-	-



9.5.7.2 Additional Mitigation Efforts

In addition to the mitigation initiatives completed in Table 9.2-14, the Township of Elk identified the following mitigation efforts completed over the last five years:

- MJ-1, Update, 6/04/2021 Dam has been reviewed and certified for NJDEP Dam Management through 2021, 2022. Replacement needed. Failure may impact major county highway #553, north-south corridor through Gloucester/Salem Counties and further.
- Lake Gilman Dam is a high hazard dam and was replaced about 10 years ago

9.5.7.3 Proposed Hazard Mitigation Initiatives for the HMP Update

The Township of Elk participated in a mitigation action workshop in August 2021 and was provided the following FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards: FEMA 551 'Selecting Appropriate Mitigation Measures for Floodprone Structures' (March 2007) and FEMA 'Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards' (January 2013).

The table below indicates the range of proposed mitigation action categories.

Table 9.5-15. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Coastal Erosion / Sea Level Rise	X	X			X	X	X			X
Dam / Levee Failure	X	X			X	X	X			X
Disease Outbreak	X	X			X	X	X			X
Drought	X	X			X	X	X			X
Earthquake	X	X			X	X	X			X
Extreme Temperature	X	X			X	X	X			X
Flood	X	X		X	X	X	X			X
Geologic	X	X			X	X	X			X
Hazardous Materials	X	X			X	X	X			X
Hurricane / Tropical Storm	X	X			X	X	X			X
Invasive and Nuisance Species	X	X			X	X	X			X
Nor'Easter	X	X			X	X	X			X
Severe Weather	X	X		X	X	X	X			X
Severe Winter Weather	X	X			X	X	X			X
Wildfire	X	X			X	X	X			X
Utility Failure	X	X			X	X	X			X

Note: Section 6 (Mitigation Strategy) provides for an explanation of the mitigation categories.

The table below (Table 9.5-16) summarizes the comprehensive range of specific mitigation initiatives the Township of Elk 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 (Mitigation Strategy), 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 9.5-17 provides a summary of the prioritization of all proposed mitigation initiatives for the HMP update.

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Table 9.5-16. Proposed Hazard Mitigation Initiatives and Associated Priority

Project Number	Mitigation Initiative Name	Description of Problem and Solution	New or Existing Assets?	Hazard(s) to be Mitigated	Goals Met	Estimated Timeline	Lead and Support Agencies	Potential Funding Sources	Estimated Benefits	Estimated Costs	Priority	Mitigation Category	CRS Category
2022-T. Elk-001	Backup Power at Critical Facilities	<p>Problem: The two fire stations in the Township do not have backup power – Aura Volunteer Fire Company and Ferrell Volunteer Fire Company. Both facilities provide essential services to the community. If backup power was available, the facilities could serve as heating/cooling centers for residents.</p> <p>Solution: The Township will identify the appropriate size generators to purchase for both fire stations. Once identified, the natural gas generators will be purchased at installed.</p>	New	All	1, 2, 6	Within 1 year	Township Fire Department, Township Committee	FEMA HMGP and Assistance to Firefighters Grants, Municipal Budget	Ensures continuity of operations; provides a shelter for residents	\$50,000+	High	SIP	PP, ES
2022-T. Elk-002	Outreach Program Enhancement	<p>Problem: The current education and outreach program in place consists of a municipal website and social media accounts. However, the current program is in need of enhancement and need the ability to reach out to residents without internet access.</p> <p>Solution: The Township Office of Emergency Management will reevaluate the current</p>	New and Existing	All	1, 2, 3, 6	Within 6 months	Township Committee, Township Emergency Management	Municipal Budget	Increases education and outreach	Staff Time	High	LPR	PR, PI, ES



Project Number	Mitigation Initiative Name	Description of Problem and Solution	New or Existing Assets?	Hazard(s) to be Mitigated	Goals Met	Estimated Timeline	Lead and Support Agencies	Potential Funding Sources	Estimated Benefits	Estimated Costs	Priority	Mitigation Category	CRS Category
		outreach program and identify additional methods to use, including pamphlet distributions in tax bills. Information to include will focus on emergency preparedness for hazards of concern including hurricanes, tornadoes, and snowstorms.											
2022-T. Elk-003	Dam Feasibility Study	<p>Problem: There are several dams located in the Township – Lake Garrison Dam, Hackney Dam and Ewan Lake Dam. All three dams are privately owned and identified as a significant hazard. The Township does not have details on the dams.</p> <p>Solution: Working with the dam owners, the Township will initiate a feasibility study on the dams to provide technical information about the dams and provide guidance to the Township and owners to make decisions.</p>	Existing	Dam Failure	1, 2, 3, 7	Within 1 year	Township Engineer, Dam Owners, NJDEP if needed	HHPD Grant Program, NJDEP Dam Safety, Dam Owner	Identify any vulnerabilities of dams, increase awareness	\$10,000+	High	SIP	PP, ES
2022-T. Elk-004	Lake Garrison Dam	<p>Problem: On June 4, 2021, the dam was reviewed and certified by NJDEP. It was determined that the dam needs to be replaced. If failure was to occur, it can impact County Highway 553, the north/south corridor through</p>	Existing	Dam/Levee Failure	1, 2, 3, 7	Within 5 years	Township Engineer, NJDEP, dam owner	FEMA HHPD, Municipal Budget	Protect areas located in the area of the dam	\$1 million	High	SIP	PP, ES



Project Number	Mitigation Initiative Name	Description of Problem and Solution	New or Existing Assets?	Hazard(s) to be Mitigated	Goals Met	Estimated Timeline	Lead and Support Agencies	Potential Funding Sources	Estimated Benefits	Estimated Costs	Priority	Mitigation Category	CRS Category
		<p>Gloucester and Salem Counties.</p> <p>Solution: The Township will work with NJDEP to determine next steps in replacing Lake Garrison Dam. Once determined, the Township will work with the dam owner and NJDEP to replace the dam.</p>											
2022-T. Elk-005	Update Flood Damage Prevention Ordinance	<p>Problem: The current flood damage prevention ordinance does not meet the state's recommendation for a code-coordinated flood damage prevention ordinance.</p> <p>Solution: The Borough will update the flood damage prevention ordinance using the NJ DEP's model code coordinated ordinance to create better coordination between NFIP implementation by the floodplain administrator, the New Jersey Flood Hazard Area Control Act (FHACA) implemented at the State level by the NJDEP, and the Uniform Construction Code (UCC) implemented by the Construction Official.</p>	Existing	Flood	1, 2	6 months	Floodplain Administrator; Administration	Municipal budget	Meet state and FEMA standards for flood damage prevention, reduce flood risk on new development	Staff Time	Medium	LPR	PR, PI, ES
2022-T. Elk-006	Develop Debris	Problem: The Borough lacks an adopted Disaster Debris Management Plan.	New and Existing	All Hazards	5	6 months	Public Works, OEM	Municipal budget	Increased planning for post-disaster	Staff time	Medium	LPR	PR, PI



Project Number	Mitigation Initiative Name	Description of Problem and Solution	New or Existing Assets?	Hazard(s) to be Mitigated	Goals Met	Estimated Timeline	Lead and Support Agencies	Potential Funding Sources	Estimated Benefits	Estimated Costs	Priority	Mitigation Category	CRS Category
	Management Plan	Solution: The Borough will complete and adopt the in-progress Disaster Debris Management Plan.							response and cleanup.				
2022-T. Elk-007	Floodprone Properties	<p>Problem: Frequent flooding events have resulted in damages to residential properties. These properties have been flooded as documented by paid NFIP claims. While the Borough does not have repetitive loss properties, there are other floodprone properties.</p> <p>Solution: Conduct outreach to floodprone property owners and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property-owner information and develop a FEMA grant application and BCA to obtain funding to implement acquisition/purchase/ moving/ elevating residential homes in the flood prone areas that experience frequent flooding (high risk areas).</p>	Existing	Flood, Severe Weather	1, 2	1 year	NFIP Floodplain Administrator, supported by homeowners	FEMA HMGP and FMA, Municipal Budget, NJDEP Green Acres	Reduce/ eliminate flood losses	TBD Based on Identified Project	Medium	EAP. SIP	PP, PI

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
EHP	Environmental Planning and Historic Preservation
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
BRIC	Building Resilient Infrastructure and Communities 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 9.5-17. Summary Evaluation and Action Priority

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community Objectives	Total	High / Medium / Low
2022-T. Elk-001	Backup Power at Critical Facilities																!
2022-T. Elk-002	Outreach Program Enhancement																!
2022- T. Elk-003	Dam Feasibility Study																!
2022- T. Elk-004	Lake Garrison Dam																
2022- T. Elk-005	Update Flood Damage Prevention Ordinance																
2022- T. Elk-006	Develop Debris Management Plan																
2022- T. Elk-007	Floodprone Properties																

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

! This action has been identified as being of highest importance to the municipality and an action that the municipality would like to complete as soon as funding is received.



9.5.8 Action Worksheets

The following action worksheets have been developed by the Township of Elk to aid in the submittal of grant applications to support the funding of high priority proposed actions. The State of New Jersey requires at least two projects be developed with action worksheets.

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Action Worksheet			
Project Name:	Backup Power at Critical Facilities		
Project Number:	2022-T. Elk-001		
Risk / Vulnerability			
Hazard(s) of Concern:	All Hazards		
Description of the Problem:	The two fire stations in the Township do not have backup power – Aura Volunteer Fire Company and Ferrell Volunteer Fire Company. Both facilities provide essential services to the community. If backup power was available, the facilities could serve as heating/cooling centers for residents.		
Action or Project Intended for Implementation			
Description of the Solution:	The Township will identify the appropriate size generators to purchase for both fire stations. Once identified, the natural gas generators will be purchased at installed.		
Is this project related to a Critical Facility or Lifeline?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Level of Protection:		Estimated Benefits (losses avoided):	Ensures continuity of operations; provides a shelter for residents
Useful Life:		Goals Met:	1, 2, 6
Estimated Cost:	\$50,000+	Mitigation Action Type:	Structure and Infrastructure Projects
Plan for Implementation			
Prioritization:		Desired Timeframe for Implementation:	
Estimated Time Required for Project Implementation:	Within 1 year	Potential Funding Sources:	FEMA HMGP and Assistance to Firefighters Grants, Municipal Budget
Responsible Organization:	Township Fire Department, Township Committee	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
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Backup Power at Critical Facilities	
Project Number:	2022-T. Elk-001	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	1	Benefits outweigh costs
Technical	1	Project is technically feasible
Political		
Legal		
Fiscal		
Environmental		
Social		
Administrative		
Multi-Hazard		All Hazards
Timeline		Within 1 year
Agency Champion		
Other Community Objectives		
Total		
Priority (High/Med/Low)		



Action Worksheet			
Project Name:	Floodprone Properties		
Project Number:	2022-T. Elk-007		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Weather		
Description of the Problem:	Frequent flooding events have resulted in damages to residential properties. These properties have been flooded as documented by paid NFIP claims. While the Borough does not have repetitive loss properties, there are other floodprone properties.		
Action or Project Intended for Implementation			
Description of the Solution:	Conduct outreach to floodprone property owners and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property-owner information and develop a FEMA grant application and BCA to obtain funding to implement acquisition/purchase/ moving/ elevating residential homes in the flood prone areas that experience frequent flooding (high risk areas).		
Is this project related to a Critical Facility or Lifeline?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Level of Protection:		Estimated Benefits (losses avoided):	Reduce/eliminate flood losses
Useful Life:		Goals Met:	1, 2
Estimated Cost:	TBD based on Identified Project	Mitigation Action Type:	Education and Awareness Program, Structure and Infrastructure Project
Plan for Implementation			
Prioritization:		Desired Timeframe for Implementation:	
Estimated Time Required for Project Implementation:	1 year	Potential Funding Sources:	FEMA HMGP and FMA, Municipal Budget, NJDEP Green Acres
Responsible Organization:	NFIP Floodplain Administrator, supported by homeowners	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
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Floodprone Properties	
Project Number:	2022-T. Elk-007	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	1	Benefits outweigh costs
Technical	1	Project is technically feasible
Political		
Legal		
Fiscal		
Environmental		
Social		
Administrative		
Multi-Hazard		Flood, Severe Weather
Timeline		1 year
Agency Champion		
Other Community Objectives		
Total		
Priority (High/Med/Low)		