



9.46 UNKECHAUG TRIBAL NATION

This section presents the annex for the Unkechaug Tribal Nation. The Unkechaug Tribal Nation has participated in the Suffolk County Hazard Mitigation Plan to be eligible as a subgrantee for disaster assistance and mitigation grant programs. This annex includes the additional elements that the Tribal Nation must also meet as a plan participant.

9.46.1 Hazard Mitigation Plan Point of Contact

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

Primary Point of Contact	Alternate Point of Contact
Mary Treadwell, Emergency Management Coordinator 12a Abby Lane, Mastic, NY 11950 Phone: 631-395-1618 Email: uneimt@gmail.com	Veronica Treadwell, Emergency Manager 12a Abby Lane, Mastic, NY 11950 Phone: 631-902-5057 Email: vctread@yahoo.com

9.46.2 Tribal Profile

This section provides a summary of the Tribal Nation.

Population

The total population of tribal members, families, and extended relations is 450 of which approximately 250 reside on the Poospatuck Reservation.

Location

The Unkechaug (“People from beyond the hill”) Nation maintains a sovereign relationship with the State of New York, other Indian Nations in the United States and Canada and other foreign powers. The Unkechaug Nation is located on the Poospatuck (“where the waters meet”) Reservation in Suffolk County.

The Unkechaug originally inhabited the area of Long Island from Blue Point to Westhampton (Otter 42). The Poospatuck Reservation is all that remains of the original Unkechaug land base. It is located on the north side of Poospatuck Creek on the east side of Poospatuck Lane and south of Eleanor Avenue. The reservation is surrounded by the Town of Mastic. The land is flat and not very high above sea level. This would put the reservation residents at risk of any severe weather on the ocean and other water related hazards, including hurricanes, winter storms, inland flooding, ice storms, and wind storms.

Brief History

The Unkechaug Nation is among the oldest self-governing nations of indigenous people in what is now the United States and has had a relationship with the United States and State of New York, and its colonial political antecedents since earliest contact with non-indigenous people. As an American Indian Nation, predating the United State of America and the State of New York, the Unkechaug have sovereign authority to govern our territory. This authority has not been assigned or yielded to any other power, and it is the central principle of our government, that sovereign authority will not be surrendered. Since the beginning, Unkechaug time has been measured in moons and seasons, and the daily lives of our people



revolved around the land and the waters surrounding it. Our earliest history was oral, passed down by word of mouth from generation to generation, and as far back as our collective memory can reach, we are an Algonquin people who have forever lived along the shores of Eastern Long Island.

With modest resources, we have managed to build a community to help us better meet the demands of an ever expanding and intrusive world, and have used our resources to preserve who and what we are; the Unkechaug Indian Nation.

Tribal Governance

The Unkechaug Tribal Nation has sovereign authority to govern their territory. This authority has not been assigned or yielded to any other power, and it is the central principle of government, that sovereign authority will not be surrendered. The government consists of a Chief of the Unkechaug Nation, and three trustees that serve a three year term. In addition, there is a Secretary and Treasurer. This government is recognized by the State of New York in Article Ten of the State's Indian Law (Indian Law, § 150-153).

Assurances

The Unkechaug Tribal Nation will comply with all applicable Federal statutes and regulations in effect with respect to the periods for which it receives grant funding, in compliance with 44 CFR 13.11(c). The Unkechaug Tribal government will amend its plan whenever necessary to reflect changes in tribal or Federal laws and statutes as required in 44 CFR 13.11(d).

Public Involvement

As discussed in Section 3, public participation is a component of the mitigation planning process. The public must have opportunities to comment on the mitigation plan during the draft stage and prior to plan approval [44 CFR Section 201.7 (b)]. In addition, neighboring communities, local and regional agencies were involved in hazard mitigation activities as described in Section 3.

The Unkechaug Tribal Nation defines 'public' as the entire Tribal Nation. The Unkechaug Tribal Nation participated in the same public involvement strategy as all plan participants in the Suffolk County plan update. The Tribal Council was kept informed throughout the planning process by the points of contact.

The public was informed of the hazard mitigation planning effort commencement at the kick-off meeting and through press releases, new articles, and public service announcements released throughout the planning process. Copies of these announcements may be found in Appendix C.

A public website is being maintained as another way to facilitate communication between the Steering and Planning Committees and County residents and stakeholders (<http://apps.suffolkcountyny.gov/RESPOND/>). The public website contains a project overview, County and local contact information, access to the citizens survey and various stakeholder surveys, and sections of the HMP for public review and comment.

Land Use

The Unkechaug Tribal Nation does not have plans to implement major development due to the lack of open space available on the reservation.



Growth/Development Trends

No major residential/commercial development or major infrastructure development has been identified within the next five years. However, the Unkechaug Tribal Nation has identified structural projects as part of their mitigation strategy (i.e., bulkheading) with the intent of implementing these projects within the next five years.

Table 9.46-1. Growth and Development

Property Name	Type (Residential or Commercial)	Number of Structures	Location (address and/or Parcel ID)	Known Hazard Zone*	Description / Status
None at this time					

* Only location-specific hazard zones or vulnerabilities identified.

9.46.3 Natural Hazard Event History Specific to the Tribe

Suffolk County has a history of natural and non-natural hazard 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 table below presents a summary of natural events that have occurred to indicate the range and impact of natural hazard events in the Tribal Nation. Information regarding specific damages is included if available based on reference material or local sources. For details of events prior to 2008, refer to Volume I, Section 5.0 of this plan.

Table 9.46-2. Hazard Event History

Dates of Event	Event Type	FEMA Declaration # (If Applicable)	County Designated?	Summary of Damages/Losses
June 26-July 4, 2013	Severe Storms and Flooding	DR-4129	No	
February 8-9, 2013	Severe Winter Storm and Snowstorm	DR-4111	Yes - PA (Public Assistance)	
October 27-November 8, 2012	Hurricane Sandy	DR-4085	Yes – IA (Individual Assistance) and PA	Widespread damage throughout; emergency protective measures including sent out survival guides to 150 households; residents contacted regarding evacuation; shelter in community shelter; American Red Cross came with meals and supplies; 4-5 foot surge into reservation and flooded 40% of land of 55 acres; established a recovery center at 12A Abby Lane distributing Individual Assistance (IA) information and initiation process;



Dates of Event	Event Type	FEMA Declaration # (If Applicable)	County Designated?	Summary of Damages/Losses
				Debris removal; rip rap dock repairs; dock needed repair; erosion along shoreline; cars damaged; mold in homes still a problem; \$50K pruning, splitting trees/ to prep for future storms; Ceremonial area fencing was knocked down which needed replacement Partnered with churches and volunteers came in to help clean up; debris came in from other areas that floated in; Administrative costs covered (ink, paper, etc).
September 7-11, 2011	Remnants of Tropical Storm Lee	EM 3341 DR 4031	No	
August 26 – September 5, 2011	Hurricane Irene	EM 3328 DR 4020	Yes – IA and PA	Limbs/tress – 125 cubic yards deposited; Debris removal throughout tribal reservation 8/11 – 2/12
April 26 – May 8, 2011	Severe Storms, Flooding, Tornado and Straight Line Winds	DR 1993	No	
December 26-27, 2011	Severe Winter Storm and Snowstorm	DR 1957	Yes - PA	Snow removal costs incurred (not reimbursed)
September 16, 2010	Severe Storms, Tornadoes and Straight Line Wind	DR 1943	No	
March 13-31, 2010	Severe Storms and Flooding	DR 1899	Yes - PA	Public Assistance (PA) received for debris removal on right of ways; shoreline berm. PA did not cover roadway drainage repairs so the Tribe paid for repair and fixed drains themselves. 4/16/10 Period of Performance
November 12-14, 2009	Severe Storms and Flooding associated with TD Ida and Nor’Easter	DR 1869	Yes - PA	Roadway damage and debris; PA not funded.
August 8-10, 2009	Severe Storms and Flooding	DR 1857	No	
December 11-31, 2008	Severe Winter Storm	EM 3299 DR 1827	No	Snow removal incurred (not reimbursed)

EM Emergency Declaration (FEMA) IA Individual Assistance
 FEMA Federal Emergency Management Agency PA Public Assistance
 DR Major Disaster Declaration (FEMA)





9.46.4 Hazard Vulnerabilities and Ranking

The hazard profiles in Section 5.0 of this plan have detailed information regarding each plan participant’s vulnerability to the identified hazards. The following summarizes the hazard vulnerabilities and their ranking in the Unkechaug Tribal Nation. For additional vulnerability information relevant to this jurisdiction, refer to Section 5.0.

Hazard Risk/Vulnerability Risk Ranking

The table below summarizes the hazard risk/vulnerability rankings of potential hazards for the Unkechaug Tribal Nation.

Table 9.46-3. Hazard Risk/Vulnerability Risk Ranking

Hazard Ranking	Hazard type	Estimate of Potential Dollar Losses to Structures Vulnerable to the Hazard ^{a, c, e}		Probability of Occurrence ^b	Risk Ranking Score (Probability x Impact)
1	Coastal Erosion	RCV in CEHA:	\$0 ^f	Frequent	54
3	Drought	Damage estimate not available		Rare	6
3	Earthquake	500-Year MRP:	\$128,618,913	Rare	6
		2,500-Year MRP:	\$2,065,631,997		
3	Expansive Soils	Damage estimate not available		Rare	6
1	Flood	1% Annual Chance:	\$1,238,025	Frequent	36
		0.2% Annual Chance:	\$2,422,980		
NA	Groundwater Contamination (natural)	Damage estimate not available		Rare	NA
1	Hurricane	Category 1 SLOSH:	\$6,606,376	Frequent	54
		Category 2 SLOSH:	\$17,944,581		
		Category 3 SLOSH:	\$39,232,338		
		Category 4 SLOSH:	\$48,474,156		
NA	Infestation	No measurable impact to property		Rare	NA
2	Nor'Easter	100-Year RCV:	\$1,725,996,479	Frequent	48
		500-Year RCV:	\$1,596,906,895		
1	Severe Storm	100-Year RCV:	\$1,725,996,479	Frequent	48
		500-Year RCV:	\$1,596,906,895		
2	Severe Winter Storm	1% of GBS:	\$474,063	Frequent	33
		5% of GBS:	\$2,370,314		
NA	Shallow Groundwater Flooding	Damage estimate not available		Rare	NA
3	Wildfire	Estimated RCV in Interface/Intermix:	\$0	Occasional	6

- a. Building damage ratio estimates based on FEMA 386-2 (August 2001)
- b. The valuation of general building stock and loss estimates was based on the custom inventory developed for Suffolk County and probabilistic modeling results and exposure analysis as discussed in Section 5.
- c. The earthquake and hurricane wind hazards were evaluated by Census tract. The Census tracts do not exactly align with municipal boundaries; therefore, a total is reported for each Town inclusive of the Villages and the





- Tribes within the Town boundary.
- d. Frequent = Hazard event that occurs more frequently than once in 10 years; Occasional = Hazard event that occurs from once in 10 years to once in 100 years, Rare = Hazard event that occurs from once in 100 years to once in 1,000 years; None = Hazard event that occurs less frequently than once in 1,000 years
- e. The estimated potential losses for Nor'Easter and Severe Storm are from the HAZUS-MH probabilistic hurricane wind model results. See footnote c.
- f. There are sacred lands that are located in defined hazard areas and/or have experienced previous damages. The estimated potential losses to these assets cannot be quantified.

CEHA = Coastal Erosion Hazard Area
 GBS = General building stock
 MRP = Mean return period
 NA = Not applicable
 RCV = Replacement cost value

Critical Facilities

The Unkechaug Tribe has identified critical facilities as well as cultural and sacred sites as documented in Section 4 and illustrated on the map at the end of this annex.

The table below presents HAZUS-MH estimates of the damage and loss of use to critical facilities in the community as a result of a 1- and 0.2-percent annual chance flood events.

Table 9.46-4a. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Potential Loss from 1% Flood Event			Potential Loss from 0.2% Flood Event		
		1% Event	0.2% Event	Percent Structure Damage	Percent Content Damage	Days to 100-Percent ⁽²⁾	Percent Structure Damage	Percent Content Damage	Days to 100-Percent ⁽²⁾
None – see following table regarding sacred land exposure									

The Unkechaug Tribal Nations identified sacred lands. HAZUS-MH does not estimate potential exposure or loss at the parcel level. Therefore, an exposure analysis was completed to identify the amount of land exposed in the floodplain. Table 9.46-4b below summarizes results of the exposure analysis.

Table 9.46-4b. Tribal Nation Asset Exposure Analysis

Entity/Type	Tribal Nation	Total Acres of Critical Properties	Acres Exposed		% Exposed	
			1% Event	0.2% Event	1% Event	0.2% Event
Shoreline Protection	Unkechaug	0.2	0.2	0.2	100%	100%
Cemetery and historical preservation	Unkechaug	1.1	0.2	0.2	15.6%	15.6%
Pow Wow grounds	Unkechaug	1.3	0.1	0.1	8.8%	8.8%

Source: Unkechaug Tribal Nation



Other Vulnerabilities Identified

In addition to those identified above, the Tribal Nation has identified the following vulnerabilities:

The entire coastal shoreline is vulnerable to flooding and coastal erosion. Sacred sites are located along the coastal shores of Tribal lands including a cemetery, pow-wow grounds and ceremonial grounds located at “The Point” (at the eastern edge of the reservation where the Forge River and Poospatuck Creek meet).

From the shoreline inland approximately 600 feet along Abby Lane, the entire area was under 4-feet of water as a result of the flooding and surge from Hurricane Sandy in 2012. The storm surge flooding happened rapidly. Tribal members needed to be evacuated in this area. To do so, adults put children on their shoulders while walking through waist-high waters. Their ceremonial grounds at The Point were flooded.

In the southwestern portion of the Tribal Nation, along the shoreline off Poospatuck Lane, this area has been identified as vulnerable to flooding.

A gas station is located in the Nation along the shoreline. There is a concern that this property could experience flooding causing potential release of contamination from the above-ground storage tanks.



9.46.5 Capability Assessment

This section describes the Unkechaug Tribal Nation's pre- and post-disaster management policies, programs and capabilities and presents an analysis of funding opportunities to directly support mitigation. The tables below summarize the legal and regulatory capability of the Unkechaug Tribe; the administrative and technical capabilities of the Unkechaug Tribe and their fiscal capabilities.

Pre- and Post-Disaster Hazard Management Policies, Programs and Capabilities

Tribal sovereignty ensures that any decisions about the tribe with regard to their property and citizens are made by the Tribal governance. As presented earlier, the Tribal Council consists of a Chief of the Unkechaug Nation, and three trustees that serve a three year term. In addition, there is a Secretary and Treasurer. This government is recognized by the State of New York in Article Ten of the State's Indian Law (Indian Law, §150-153).

The Unkechaug Comprehensive Emergency Management Plan (CEMP) outlines the Nation's emergency management capabilities and responsibilities before, during and after an emergency. The Chief has the authority to direct and coordinate all disaster and emergency management activities and operations of the Unkechaug Indian Nation. This authority may be delegated to the Unkechaug Trustee serving as Emergency Management Coordinator. The Unkechaug Tribal Nation will utilize their facilities, equipment, supplies, personnel and resources first; however assistance may be obtained from local and county government and emergency service organizations. The Unkechaug Indian Nation utilizes the National Interagency Incident Management System (NIIMS) Incident Command System (ICS) to manage all emergencies requiring a multi-agency response.

The Unkechaug Tribal Nation seeks to promote policies, programs and activities to reduce hazard risks throughout the Nation. In the future, they would like to look towards utilizing a standard building code for all new development on the reservation. Further, the Nation is in the process of joining the National Flood Insurance Program (NFIP).

The Unkechaug Indian Nation Council is responsible for land use management of Unkechaug land and the review of land use management actions throughout the Nation.

The Unkechaug Tribal Nation has been proactive in reducing hazard risks on the Reservation. In 2009, the Nation retained a marine contractor to construct a properly engineered erosion control riprap revetment along portions of their shoreline to mitigate the erosive effects of storm waves. However, Tribal finances will not allow for the necessary improvement of the existing structure or to continue the protection to other areas to protect other critical areas.

In 2009, the Long Island Indian Nations (Shinnecock Indian Nation and Unkechaug Indian Nation), with assistance from the Homeland Security and Public Safety Training Consortium of the Schenectady County Community College, prepared a Community Emergency Preparedness Guide to ensure residents are informed and prepared for any type of disaster.

In 2010, in cooperation with the New York State Office of Emergency Management, the Unkechaug Tribal Nation conducted a hazard analysis using the automated program, HAZNY (Hazards New York).

In 2010, the Unkechaug Indian Nation applied for a U.S. Housing and Urban Development Imminent Threat Grant to address health and safety issues along the shoreline of the Reservation. A report was



prepared in support of this application which outlines the additional work needed to stabilize the shoreline.

According to their CEMP, the Unkechaug Indian Nation Emergency Planning Committee annually conducts a risk reduction workshop for the Unkechaug Indian Nation community to encourage their involvement in the risk reduction program. The Unkechaug Indian Nation Emergency Planning Committee will meet bi-annually to identify specific hazard reduction actions that could be taken for those hazards determined by the hazard analysis to be most significant.

A new community center, built to withstand hurricane-force winds, is still under construction. This new facility will serve as a potential shelter, as well as hold the tribal offices, medical facility, after-school program and daycare, and library. However, this community center cannot support sheltering of Tribal members long-term and it cannot shelter the entire Tribal population.

The Emergency Managers maintain their CPR training and are Narcon trained.

In 2011, the Tribe participated in a five-day training event with the Seneca Tribe. For eight-hours per day, members of the Unkechaug Tribe were trained on how to work with outside agencies if an emergency/disaster occurs. They were taught how to develop press releases and materials for Tribal members, what equipment would be needed and how to use the Incident Command System.

In response to Hurricane Sandy, in 2012, the Tribal Emergency Operations Center was activated and support was provided to residents. In advance of the storm, emergency preparedness guides were distributed to 150 households and residents were contacted regarding evacuation and available sheltering. A recovery center was established where support was provided on the Individual Assistance program.

This following tables identify the following capabilities of the Tribe:

- 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 Unkechaug Tribal Nation seeks to promote policies, programs and activities to reduce hazard risks throughout the Nation. In the future, they would like to look towards utilizing a standard building code for all new development on the reservation. Further, the Nation is in the process of joining the National Flood Insurance Program (NFIP).

Though the Nation operates under a tribal government, Town of Brookhaven and Suffolk County Office of Emergency Management are the current jurisdictions that assist the Nation when needed. The Nation falls under historic preservation rules, bringing about challenges with land management and use.

The table below summarizes the regulatory tools that are available to the Unkechaug Tribal Nation and indicates whether or not it provides capabilities pre-disaster, post-disaster or both. In addition, some of the plans listed support or facilitate hazard mitigation or loss reduction.



Table 9.46-5. Planning and Regulatory Tools

Tool / Program (code, ordinance, plan)	Do you have this?	Capability		Effect on Loss Reduction		Hazard Impacted	Description, Code Citation and Comments
		Pre-Disaster	Post-Disaster	Support	Facilitate		
Building Code	No						Considering to have building code in place for future development
Emergency Response Plan	Yes	√	√	√	√	All Hazards	
Shoreline Management Plan	Yes	√		√	√	Coastal erosion, Hurricane, Severe Storms, Flood	Coastal Erosion Technical Analysis (December 2010)



Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Unkechaug Tribal Nation.

Table 9.46-6. Administrative and Technical Capabilities

Staff/ Personnel Resources	Available (Y or N)	Department/ Agency/Position
Planner(s) or Engineer(s) with knowledge of land development and land management practices	Yes	As needed by outside consultants
Engineer(s) or Professional(s) trained in construction practices related to buildings and/or infrastructure	Yes	As needed by outside consultants
Planners or engineers with an understanding of natural hazards	Yes	As needed by outside consultants
Floodplain Administrator	Not Applicable	
Surveyor(s)		
Personnel skilled or trained in “GIS” applications		
Scientist familiar with natural hazards in the municipality.		
Emergency Manager	Yes	Tribal Trustee and Emergency Management Coordinator
Grant Writer(s)	Yes	Tribal Board Member
Staff with expertise or training in benefit/cost analysis		

Fiscal Capability

The table below summarizes financial resources available to the Unkechaug Tribal Nation.

Table 9.46-7. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No/Don't Know)
Community Services Block Grants (U.S. Department of Health and Human Services)	The Nation has administered these grants for 20 years under the New York State Department of State
Unkechaug Nation Community Development Corporation 501c3	Certified public accountant who takes care of the funding and budget
HUD Grant	Received grant in the 1980's to rehab homes on the reservation



Community Classifications

The table below summarizes classifications for community program available to the Unkechaug Tribal Nation.

Table 9.46-8. Community Classifications

Program	Classification	Date Classified
Community Rating System (CRS)	NP	
Building Code Effectiveness Grading Schedule (BCEGS)	N/A	
Public Protection	N/A	
Storm Ready	NP	
Firewise	NP	

N/A = Not applicable. NP = Not participating. - = Unavailable. TBD = To be determined.

The classifications listed above relate to the community’s ability to provide effective services to lessen it’s 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
- The ISO Mitigation online ISO’s Public Protection website at <http://www.isomitigation.com/ppc/0000/ppc0001.html>
- The National Weather Service Storm Ready website at <http://www.weather.gov/stormready/howto.htm>
- The National Firewise Communities website at <http://firewise.org/>

National Flood Insurance Program

Unkechaug Nation is currently going through the process of joining the NFIP.

Loss History and Mitigation

Hurricane Sandy resulted in 8 to12 structures being damaged. FEMA conducts the Substantial Damage Estimates. Funding through New York Rising is being sought out for mitigation projects at 4 to 5 properties that would like to be elevated. At this time because of the Unkechaug’s classification, only Public Assistance (PA) funding is made available in the aftermath of a disaster.

Planning and Regulatory Capabilities

Though the Nation operates under a tribal government, Town of Brookhaven and Suffolk County Office of Emergency Management are the current jurisdictions that assist the Nation. The Nation falls under





historic preservation rules, bringing about challenges with land management and use. Financial restrictions inhibit the Unkechaug Nation's ability to go beyond FEMA and New York State minimum requirements for floodplain management.

Once membership in the NFIP is finalized, additional regulations and ordinances can be pursued by the tribal government.

Administrative and Technical Capabilities

The Nation's current floodplain and emergency management needs are taken care of by Mary Treadwell, Veronica Treadwell, and Wendy Samuels.

The NFIP administration services and functions to be provided by the Unkechaug Nation at this time are unknown. In the future, being able to install natural barriers and bulkheading along the shore would be something of interest.

Mortgages cannot be obtained by Tribal members. Instead, there are retail agreements/loans on the homes on the Reservation; homes cannot be bought and sold.

Additional training and support is needed for the NFIP Floodplain Administrator to better understand the impacts and how the Unkechaug Nation is able to implement NFIP.

Public Education and Outreach

Since the Unkechaug Nation is awaiting membership in NFIP, the biggest push at this moment is on community outreach. Being able to get the true message out about flood risk and NFIP is important.

The NFIP administration services and functions to be provided by the Unkechaug Nation at this time are unknown. In the future, being able to install natural barriers and bulkheading along the shore would be something of interest.

Actions to Strengthen the Program

The land of the Reservation is held in trust for the Nation, however individual homeowner's cannot obtain flood insurance. This concept is very confusing and disheartening as the Nation finalizes its membership in the NFIP.

The biggest barrier to implementing the floodplain management program for the Unkechaug Nation will be outside resources and bureaucracy. Additional information on floodplain management would be welcomed. Funding would allow further training which currently is only possible if hosted in/by Suffolk County.

Joining the Community Rating System (CRS) poses a particular problem for the Unkechaug Nation.

There is not enough money for homes to be raised. Only newly constructed homes would be elevated.



Integration of Hazard Mitigation into Existing and Future Planning Mechanisms

It is the intention of the Tribe to continue to incorporate hazard mitigation planning and natural hazard risk reduction as an integral component of ongoing operations. The following textual summary and table identify relevant planning mechanisms and programs that have been/will be incorporated into Tribal procedures, which may include former mitigation initiatives that have become continuous/on-going programs and may be considered mitigation “capabilities”:

The Unkechaug Comprehensive Emergency Management Plan (CEMP) outlines the Nation’s emergency management capabilities and responsibilities before, during and after an emergency. The Emergency Managers have the authority to declare a state of emergency and direct and coordinate all disaster and emergency management activities and operations of the Unkechaug Indian Nation. The Emergency Managers keep the Chief informed. The Chief informs the Trustees.

The Unkechaug Tribal Nation completed a comprehensive needs assessment as a joint venture with Stony Brook University School of Social Welfare. This assessment covered community safety and health and housing issues. The Emergency Managers are currently reviewing the results and updating their assessment by going door-to-door to determine progress on positive changes made to the Tribe to improve living conditions and safety.

The Unkechaug Tribal Nation will utilize their facilities, equipment, supplies, personnel and resources first; however assistance may be obtained from local and county government and emergency service organizations. The Unkechaug Indian Nation utilizes the National Interagency Incident Management System (NIIMS) Incident Command System (ICS) to manage all emergencies requiring a multi-agency response.

The Emergency Managers meet daily to monthly to discuss hazard mitigation topics such as ways to obtain more training and secure funding to implement mitigation actions. The Emergency Managers regularly check FEMA and other federal agency websites for grant funding opportunities.

The Unkechaug Tribal Nation meets with the Shinnecock Tribal Nation quarterly to discuss how the two tribes can support each other. At these meetings, risk reduction is often a topic discussed and how the Tribes can mitigate their natural hazard risks.

The Unkechaug Tribal Nation seeks to promote policies, programs and activities to reduce hazard risks throughout the Nation. In the future, they would like to look towards utilizing a standard building code for all new development on the reservation. Further, the Nation is in the process of joining the National Flood Insurance Program.

9.46.6 Mitigation Strategy and Prioritization

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

Completed Mitigation Initiatives

This is the first hazard mitigation plan for the Unkechaug Tribe; therefore they did not have any previous actions identified in the 2008 Suffolk County Hazard Mitigation Plan. However, the Unkechaug Tribal Nation has been active in incorporating mitigation planning and reducing natural hazard risk on Tribal land.



In 2009, the Nation retained a marine contractor to construct a properly engineered erosion control riprap revetment along portions of their shoreline to mitigate the erosive effects of storm waves. However, Tribal finances will not allow for the necessary improvement of the existing structure or to continue the protection to other areas to protect other critical areas.

In 2009, the Long Island Indian Nations (Shinnecock Indian Nation and Unkechaug Indian Nation), with assistance from the Homeland Security and Public Safety Training Consortium of the Schenectady County Community College, prepared a Community Emergency Preparedness Guide to ensure residents are informed and prepared for any type of disaster.

In 2010, in cooperation with the New York State Office of Emergency Management, the Unkechaug Tribal Nation conducted a hazard analysis using the automated program, HAZNY (Hazards New York).

In 2010, the Unkechaug Indian Nation applied for a U.S. Housing and Urban Development Imminent Threat Grant to address health and safety issues along the shoreline of the Reservation. A report was prepared in support of this application which outlines the additional work needed to stabilize the shoreline.

According to their CEMP, the Unkechaug Indian Nation Emergency Planning Committee annually conducts a risk reduction workshop for the Unkechaug Indian Nation community to encourage their involvement in the risk reduction program. The Unkechaug Indian Nation Emergency Planning Committee will meet bi-annually to identify specific hazard reduction actions that could be taken for those hazards determined by the hazard analysis to be most significant.

Proposed Hazard Mitigation Initiatives for the Plan Update

The Unkechaug Tribal Nation identified mitigation initiatives they would like to pursue in the future. 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 Tribal priorities.

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 9.46-10 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.

The Unkechaug Tribal Nation will actively pursue funding through FEMA Hazard Mitigation Assistance grant programs among others to secure funding to implement the identified actions. The Unkechaug Tribal Nation Emergency Managers will continue to meet regularly (daily to monthly) to discuss risk reduction and mitigation and continue to seek training and grant funding opportunities. The Nation will also continue to meet with the Shinnecock Tribal Nation to ensure they are working together and discuss how they can support each other. The Unkechaug Tribal Nation would like to improve their relationships and increase communication with the Town of Brookhaven and County so they may be kept informed on grant opportunities and receive technical assistance.



Table 9.46-9. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category
U-1	Improve stormwater drainage on Abby Lane and Poospatuck Lane.	Existing	Flood, Severe Storm, Hurricane	O-15, O-17	Tribe	High	High	FEMA HMA Grant Programs	Short	High	SIP
U-2	Install bulkheading along waterfront areas.	Existing	Coastal erosion, Hurricane, Severe Storm	O-5	Tribe	High	High	FEMA HMA Grant Programs	Short	High	SIP/NSP
U-3	Preserve the shoreline and land.	Existing	All hazards	O-5	Tribe	High	High	FEMA HMA Grant Programs	On-going	High	NSP
U-4	Elevate four to five homes as identified during the NY Community Rising program	Existing	Flood, Hurricane, Severe Storm	O-2, O-16	Tribe	High	High	NY Community Rising Program	Short	High	SIP
U-5	Create a program to label homes for emergency services. By creating a program like this, it will increase the 9-1-1 technical capabilities of the Tribal Nation.	Existing	All hazards	O-12, O-13, O-16	Tribe	High	Low	FEMA HMA Grant Programs	On-going	High	EAP
U-6	Complete shoreline stabilization project as outlined in the 2010 Coastal Erosion and Hazard Technical Analysis report.	Existing	Coastal erosion, Hurricane, Severe Storm	O-5	Tribe	High	High (\$475,200)	FEMA HMA Grant Programs	Short	High	SIP/NSP
U-7	Consider alternative energy sources such as wind and solar power.	Both	All hazards	O-16	Tribe	High	High	FEMA HMA Grant Programs	Long	High	SIP/NSP



U-8	Create and post evacuation route signage.	Existing	All hazards	O-1, O-12, O-13	Tribe	High	Medium	FEMA HMA Grant Programs	Short	High	EAP
U-9	Establish back-up power for 12A Abby Lane. This location serves as the post-Sandy emergency operations center because the Community Center is not finished.	Existing	All hazards	O-16	Tribe	Medium	Medium	FEMA HMA Grant Programs	Short	High	SIP
U-10	Purchase fire equipment and pumping trucks to equip the Tribe to fight local fires until outside emergency services arrives	Both	All hazards	O-16	Tribe	High	High	Emergency services grants	Short	High	SIP
U-11	Conduct study to determine how to revitalize the fishing industry in the Forge River and Poospatuck Creek	Not applicable	Coastal Erosion, Severe Storms	O-3, O-5, O-8	Tribe/ NYSDEC	High	High	EPA, NYSDEC	Short	High	NSP
U-12	Move electrical overhead wiring underground	Both	All hazards	O-12, O-13, O-15, O-16	Tribe	High	High	FEMA	Short	High	SIP
U-13	<p>Support and participate in county led initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically:</p> <ul style="list-style-type: none"> • Mitigation Education for Natural Disasters (natural hazard awareness and personal scale risk reduction/mitigation public education and outreach program) • Build Local Floodplain Management and Disaster Recovery Capabilities (enhanced floodplain management, and post-disaster assessment and recovery capabilities) • County-Wide Debris Management Plan • Jurisdictional Knowledge of Mitigation Needs of Property Owners (improved understanding of damages and mitigation interest/activity of private property owners) • Create a Multi-Jurisdictional Seismic Safety Committee in Suffolk County (build regional, county and local capabilities to manage seismic risk, both pre- and post-disaster) • Alignment of Mitigation Initiatives through all levels of Government (effort to build State and Federal level recognition and support of the County and local hazard mitigation planning strategies identified in this plan). 										



	See above	New and Existing	All Hazards	All Objectives	Suffolk County, as supported by relevant Tribal leads	High (comprehensive improvements mitigation and risk-reduction capabilities)	Low-Medium (locally)	Local (staff resources)	Short	High	LRP
	Work with County and PSEG (formerly LIPA) to identify roads within the jurisdiction that are considered “critical”, and to be the first priority for clearing after an event involving downed power lines.										
U-14	See above.	Existing	Severe Storm; Severe Winter Storm; Hurricane; Nor’Easter	3, 7, 13, 14, 15, 16	PSEG, County	High	Low-Medium	Local	Short	High	LRP

Notes:

*Does this mitigation initiative reduce the effects of hazards on new and/or existing buildings and/or infrastructure? Not applicable (N/A) is inserted if this does not apply.

Acronyms and Abbreviations:

- DPW Department of Public Works
- FEMA Federal Emergency Management Agency
- FMA Flood Mitigation Assistance grant program
- HMA Hazard Mitigation Assistance grant program (including FMA, HMGP, PDM)
- HMGP Hazard Mitigation Grant Program
- N/A Not applicable
- NFIP National Flood Insurance Program
- NYSOEM New York State Office of Emergency Management
- PDM Pre-Disaster Mitigation grant program
- PSEG Public Service Electric and Gas (formerly LIPA)

Costs:

Where actual project costs have been reasonably estimated:

- Low = < \$10,000
- Medium = \$10,000 to \$100,000
- High = > \$100,000

Where actual project costs cannot reasonably be established at this time:

- Low = Possible to fund under existing budget. Project is part of, or can be part of an existing on-going program.
- Medium = Could budget for under existing work plan, but would require a reapportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.
- High = Would require an increase in revenue via an alternative source (i.e., bonds, grants, fee increases) to implement. Existing funding levels are not adequate to cover the costs of the proposed project.

Benefits:

Where possible, an estimate of project benefits (per FEMA’s benefit calculation methodology) has been evaluated against the project costs, and is presented as:

- Low = < \$10,000
- Medium = \$10,000 to \$100,000





High = > \$100,000

Where numerical project benefits cannot reasonably be established at this time:

Low = Long-term benefits of the project are difficult to quantify in the short term.

Medium = Project will have a long-term impact on the reduction of risk exposure to life and property, or project will provide an immediate reduction in the risk exposure to property.

High = Project will have an immediate impact on the reduction of risk exposure to life and property.

Timeline:

Short = 1 to 5 years

Long Term = 5 years or greater

OG = On-going program

DOF = Depending on funding

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 (NRP)* – 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.



Action Number: U-1
Mitigation Action/Initiative: Improve stormwater drainage on Abby Lane and Poospatuck Lane

Assessing the Risk	
Hazard(s) addressed:	Flood, Severe Storm, Hurricane
Specific problem being mitigated:	As a result of rain events and coastal flooding, the roadways flood on Abby Lane and Poospatuck Lane due to the inadequate stormwater drainage system. The roads are regularly damaged as a result. Further, the flooded roadways inhibit emergency services from accessing residents. There is no detour available for the residents who live along these roadways and therefore can potentially isolate this population during flood events.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<ol style="list-style-type: none"> 1. Upgrade and increase stormwater drainage capacity on Abby Lane and Poospatuck Lane. 2. Elevate the roads and all buildings 3. Do nothing
Action/Project Intended for Implementation	
Description of Selected Action/Project	Upgrade and increase stormwater drainage capacity on Abby Lane and Poospatuck Lane. Currently the stormwater system in the Nation is inadequate and the capacity needs to increase to mitigate flooding on the roadways identified.
Action/Project Category	Structure and Infrastructure Project
Objectives Met	0-15, 0-17
Applies to existing, future, or not applicable	Existing
Benefits (losses avoided)	Road closures, road damage, inhibiting emergency access, isolating population, no detours available
Estimated Cost	High
Priority*	High
Plan for Implementation	
Responsible Organization	Unkechaug Tribal Nation
Local Planning Mechanism	
Potential Funding Sources	FEMA HMA
Timeline for Completion	Short (< 5 years)
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

**Refer to prioritization table on the next page.*



Action Number: U-1
Mitigation Action/Initiative: Upgrade and increase stormwater drainage capacity on Abby Lane and Poospatuck Lane

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	This will protect the lives of the Tribal members who live along these roads. Emergency services need access to these homes during flood events and there is no detour available.
Property Protection	1	Project will prevent future road damage, and property damage
Cost-Effectiveness	1	
Technical	1	
Political	1	Support for this project from Tribal Council
Legal	1	
Fiscal	0	Funding will be needed to implement the project
Environmental	1	
Social	1	Tribal members support these drainage improvements
Administrative	0	The Tribe will need outside assistance for the implementation/construction of this project
Multi-Hazard	1	Flood, Hurricane, Severe Storm, any rain events
Timeline	1	Depends on funding
Agency Champion	1	
Other Community Objectives		
Total	11	
Priority (High/Med/Low)	High	



Action Number: U-2
 Mitigation Action/Initiative: Install bulkheading along waterfront areas

Assessing the Risk	
Hazard(s) addressed:	Coastal erosion, Hurricane, Severe Storm
Specific problem being mitigated:	Shoreline is eroding and threatening ceremonial grounds and Tribal land
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Install bulkheading
	2.
	2. Do nothing
Action/Project Intended for Implementation	
Description of Selected Action/Project	Harden the shoreline by installing bulkheading along waterfront areas (Poospatuck Creek and Forge River) to protect the shoreline from future erosion and potential further damage to Tribal land and resources.
Action/Project Category	Structure and Infrastructure Project / Natural systems protection
Goals/Objectives Met	0-5
Applies to existing, future, or not applicable	Existing
Benefits (losses avoided)	Protects ceremonial grounds, Tribal land, homes. The bulkhead will help hold back the water to prevent flooding and evacuations.
Estimated Cost	High
Priority*	High
Plan for Implementation	
Responsible Organization	Tribal Nation
Local Planning Mechanism	
Potential Funding Sources	FEMA HMA Programs
Timeline for Completion	Short (< 5 years) – depends on funding
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

**Refer to prioritization table on the next page.*



Action Number: U-2

Mitigation Action/Initiative: Harden shoreline by installing bulkheading along waterfront areas

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	This will protect the Tribal members from flooding.
Property Protection	1	Project will prevent future road damage, and property damage
Cost-Effectiveness	1	
Technical	1	
Political	1	Support for this project from Tribal Council
Legal	1	
Fiscal	0	Funding will be needed to implement the project
Environmental	1	
Social	1	Tribal members support this project
Administrative	0	The Tribe will need outside assistance for the implementation/construction of this project
Multi-Hazard	1	Flood, Hurricane, Severe Storm, Nor'Easter
Timeline	1	Depends on funding
Agency Champion	1	
Other Community Objectives		
Total	11	
Priority (High/Med/Low)	High	



Action Number: U-3

Mitigation Action/Initiative: Preserve the shoreline and land by restoring the vegetation

Assessing the Risk	
Hazard(s) addressed:	Coastal erosion, Hurricane, Severe Storm
Specific problem being mitigated:	Due to the erosion that has taken place, the Tribal land has lost native vegetation.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Restore vegetation
	2. Do nothing
	3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Plant natural shrubbery and vegetation along the shoreline.
Action/Project Category	Natural systems protection
Goals/Objectives Met	0-5
Applies to existing, future, or not applicable	Existing and future
Benefits (losses avoided)	Loss of vegetation due to erosion; Aerial photography documents the loss of soil, land and vegetation
Estimated Cost	Medium
Priority*	High
Plan for Implementation	
Responsible Organization	Tribal Nation
Local Planning Mechanism	
Potential Funding Sources	FEMA HMA Programs
Timeline for Completion	Short (< 5years; depends on funding)
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

**Refer to prioritization table on the next page.*



Action Number: U-3

Mitigation Action/Initiative: Protect the shoreline and land with shoreline vegetation

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	
Property Protection	1	Project will prevent future loss of land and thus protect property
Cost-Effectiveness	1	
Technical	1	
Political	1	Support for this project from Tribal Council
Legal	1	
Fiscal	0	Funding will be needed to implement the project
Environmental	1	
Social	1	Tribal members support this project
Administrative	0	The Tribe will need outside assistance for the implementation/construction of this project
Multi-Hazard	1	Flood, Hurricane, Severe Storm, Nor'Easter
Timeline	1	Depends on funding
Agency Champion	1	
Other Community Objectives	0	
Total	10	
Priority (High/Med/Low)	High	



Action Number: U-4
Mitigation Action/Initiative: Elevate four to five residential homes

Assessing the Risk	
Hazard(s) addressed:	Flood, Hurricane, Severe Storm
Specific problem being mitigated:	
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Acquire
	2. Elevate
	3. Do nothing
Action/Project Intended for Implementation	
Description of Selected Action/Project	Elevate four to five residential homes that have experienced damages as a result of historic flooding
Action/Project Category	Structure and infrastructure project
Goals/Objectives Met	0-2, 0-16
Applies to existing, future, or not applicable	Existing and future
Benefits (losses avoided)	Structural and content damage, potential health and environmental issues such as mold
Estimated Cost	High
Priority*	High
Plan for Implementation	
Responsible Organization	Private homeowners
Local Planning Mechanism	NY Community Rising program
Potential Funding Sources	NY Community Rising program
Timeline for Completion	Short (< 5 years; depends on funding)
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

**Refer to prioritization table on the next page.*



Action Number:

U-4

Mitigation Action/Initiative:

Elevate four to five residential homes

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	Project will prevent future damages to homes
Cost-Effectiveness	1	
Technical	1	
Political	1	Support for this project from Tribal Council
Legal	1	
Fiscal	0	Funding will be needed to implement the project
Environmental	1	
Social	1	Tribal members support this project
Administrative	0	The homeowners will need to work with the New York Community Rising Program to accomplish projects
Multi-Hazard	1	Flood, Hurricane, Severe Storm, Nor'Easter
Timeline	1	Depends on funding
Agency Champion	1	
Other Community Objectives	0	
Total	11	
Priority (High/Med/Low)	High	



Action Number: U-5
 Mitigation Action/Initiative: Label homes for emergency services

Assessing the Risk	
Hazard(s) addressed:	All hazards
Specific problem being mitigated:	The buildings are not labeled in terms of number and street address. This is an issue because emergency service providers coming from outside of the Nation are not familiar with the location of each address, and this causes delays in finding the correct location to provide assistance.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Label each home with their number 2. 3. Do nothing
Action/Project Intended for Implementation	
Description of Selected Action/Project	Label each building for emergency services. It will increase 911 technical capabilities. The Emergency Managers will begin with creating a spatial file using the mapping application built for the 2014 hazard mitigation plan, provide to emergency services and the Town, and then have markers made and posted throughout the Tribe.
Action/Project Category	Education and awareness program
Goals/Objectives Met	0-12, 0-13, 0-16
Applies to existing, future, or not applicable	Existing
Benefits (losses avoided)	Increased response time by emergency services; life safety
Estimated Cost	Low
Priority*	High
Plan for Implementation	
Responsible Organization	Tribe
Local Planning Mechanism	
Potential Funding Sources	FEMA HMA Grant programs
Timeline for Completion	Short (< 5 years; depends on funding for markers)
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

**Refer to prioritization table on the next page.*



Action Number:
Mitigation Action/Initiative:

U-5
 Create a program to label homes for emergency services

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	This will increase the life safety of Tribal members because emergency services will be able to find the addresses to which they are responding more quickly.
Property Protection	1	This will protect property depending up on the emergency being responded to. Emergency services will be able to find the addresses to which they are responding quicker without having to rely on encountering a Tribal member in the street for directions.
Cost-Effectiveness	1	This project will be relatively low in cost and the life safety benefits outweigh the cost.
Technical	1	
Political	1	
Legal	1	
Fiscal	0	
Environmental	0	
Social	1	
Administrative	1	
Multi-Hazard	1	All hazards
Timeline	1	Short timeframe
Agency Champion	1	
Other Community Objectives	0	
Total	11	
Priority (High/Med/Low)	High	



Action Number: U-6
 Mitigation Action/Initiative: Complete shoreline stabilization project

Assessing the Risk	
Hazard(s) addressed:	Coastal erosion, Hurricane, Severe Storm, Nor'Easter
Specific problem being mitigated:	
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Continued extension of engineered riprap seawall along 800-feet of shoreline vulnerable to coastal erosion 2. 3. Do nothing
Action/Project Intended for Implementation	
Description of Selected Action/Project	Continued extension of the engineered riprap seawall which has been placed in front of ceremonial grounds to further protect Tribal land, property and residents (800 feet of shoreline). The scope would include what is outlined in the 2010 Coastal Erosion and Hazard Technical Analysis report.
Action/Project Category	Natural systems protection / Structure and Infrastructure Project
Goals/Objectives Met	0-5
Applies to existing, future, or not applicable	Existing
Benefits (losses avoided)	Losses are documented in the 2010 report including historic hurricane and Nor'Easter events which impacted the Tribal land.
Estimated Cost	\$475,200 (based upon 2010 cost estimate)
Priority*	High
Plan for Implementation	
Responsible Organization	Tribe
Local Planning Mechanism	
Potential Funding Sources	FEMA HMA Grant Funding
Timeline for Completion	Short (< 5 years, depends on funding)
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

**Refer to prioritization table on the next page.*



Action Number: U-6

Mitigation Action/Initiative: Complete shoreline stabilization project

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	
Property Protection	1	Project will prevent future loss of land and thus protect property
Cost-Effectiveness	1	
Technical	1	
Political	1	Support for this project from Tribal Council
Legal	1	
Fiscal	0	Funding will be needed to implement the project
Environmental	1	
Social	1	Tribal members support this project
Administrative	0	The Tribe will need outside assistance for the implementation/construction of this project
Multi-Hazard	1	Flood, Hurricane, Severe Storm, Nor'Easter
Timeline	1	Depends on funding but would like to accomplish within the next five years
Agency Champion	1	
Other Community Objectives	0	
Total	10	
Priority (High/Med/Low)	High	



Action Number: U-7
Mitigation Action/Initiative: Consider alternative energy sources such as wind and solar power

Assessing the Risk	
Hazard(s) addressed:	All hazards
Specific problem being mitigated:	The Unkechaug Nation experiences power outages for extended periods of time as a result of weather events.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<ol style="list-style-type: none"> 1. Backup generator for each building 2. Consider alternative energy sources such as wind and solar power 3. Do nothing
Action/Project Intended for Implementation	
Description of Selected Action/Project	Consider alternative energy sources such as wind and solar power. The Tribe has already begun investigating this option and having three wind turbines/towers installed off-shore with backup batteries and generators should there be no wind.
Action/Project Category	Structure and infrastructure project
Goals/Objectives Met	O-16
Applies to existing, future, or not applicable	Existing
Benefits (losses avoided)	Electrical utility loss of service; life safety
Estimated Cost	High
Priority*	Medium
Plan for Implementation	
Responsible Organization	Tribe
Local Planning Mechanism	
Potential Funding Sources	FEMA, NYS, Other grant funding sources
Timeline for Completion	Long-term solution
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

**Refer to prioritization table on the next page.*



Action Number: U-7

Mitigation Action/Initiative: Consider alternative energy sources such as wind and solar power

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	1	
Technical	1	
Political	1	Support for this project from Tribal Council
Legal	1	
Fiscal	0	
Environmental	1	
Social	1	
Administrative	0	
Multi-Hazard	1	
Timeline	0	Long-term solution
Agency Champion	1	
Other Community Objectives	0	
Total	10	
Priority (High/Med/Low)	Medium	



Action Number:
Mitigation Action/Initiative:

U-8
Create and post evacuation route signage

Assessing the Risk	
Hazard(s) addressed:	All hazards
Specific problem being mitigated:	Create and post signage throughout the Nation on the evacuation routes that should be taken in the event of a hurricane or other severe weather event. Currently there is no signage available.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Create and post evacuation route signage
	2.
	3. Do nothing
Action/Project Intended for Implementation	
Description of Selected Action/Project	Create and post signage throughout the Nation on the evacuation routes that should be taken in the event of a hurricane or other severe weather event.
Action/Project Category	Education and awareness program
Goals/Objectives Met	O-1, O-12, O-13
Applies to existing, future, or not applicable	Existing
Benefits (losses avoided)	High
Estimated Cost	High
Priority*	High
Plan for Implementation	
Responsible Organization	Tribe
Local Planning Mechanism	
Potential Funding Sources	FEMA, Other emergency services grants
Timeline for Completion	Short (< 5 years, depends on funding)
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

**Refer to prioritization table on the next page.*



Action Number: U-8

Mitigation Action/Initiative: Create and post evacuation route signage

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	This will increase the life safety of Tribal members because they will have guidance to evacuation routes in the event of an emergency.
Property Protection	0	
Cost-Effectiveness	1	This project will be relatively low in cost and the life safety benefits outweigh the cost.
Technical	1	
Political	1	Support for this project from Tribal Council
Legal	1	
Fiscal	0	
Environmental	0	
Social	1	
Administrative	1	
Multi-Hazard	1	All hazards
Timeline	1	Short timeframe
Agency Champion	1	
Other Community Objectives	0	
Total	10	
Priority (High/Med/Low)	High	



Action Number: U-9
Mitigation Action/Initiative: Establish backup power for 12A Abby Lane (emergency operations center)

Assessing the Risk	
Hazard(s) addressed:	All hazards
Specific problem being mitigated:	12A Abby Lane is the emergency operations center for the Tribal Nation and it currently does not have any backup power.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<ol style="list-style-type: none"> 1. Establish backup power through the purchase and installation of a generator 4-feet above the ground (the water elevation from Hurricane Sandy) 2. Wind/solar power 3. Do nothing
Action/Project Intended for Implementation	
Description of Selected Action/Project	Establish backup power through the purchase and installation of a generator
Action/Project Category	Structure and infrastructure project
Goals/Objectives Met	0-16
Applies to existing, future, or not applicable	Existing
Benefits (losses avoided)	So the EOC can remain operational during an emergency or disaster; life safety; communication
Estimated Cost	High
Priority*	High
Plan for Implementation	
Responsible Organization	Tribe
Local Planning Mechanism	
Potential Funding Sources	FEMA, Other emergency services grants
Timeline for Completion	Short (< 5 years, depends on funding)
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

**Refer to prioritization table on the next page.*



Action Number:

U-9

Mitigation Action/Initiative:

Establish backup power for 12A Abby Lane (emergency operations center)

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	EOC can remain operational during an emergency or disaster; life safety; communication
Property Protection	1	
Cost-Effectiveness	1	Cost-beneficial project
Technical	1	
Political	1	Support for this project from Tribal Council
Legal	1	
Fiscal	0	
Environmental	0	
Social	1	
Administrative	1	
Multi-Hazard	1	All hazards
Timeline	1	Short (within the next five years)
Agency Champion	1	
Other Community Objectives	0	
Total	11	
Priority (High/Med/Low)	High	



Action Number: U-10
Mitigation Action/Initiative: Purchase fire equipment and pumping trucks to equip the Tribe to fight local fires until outside emergency services arrive.

Assessing the Risk	
Hazard(s) addressed:	All hazards
Specific problem being mitigated:	The Tribal homes are constructed of wood and are located very close to one another. If one goes on fire, the entire Nation's building stock would be at risk. Further, the responding fire services (Village of Mastic) have very large vehicles which make it difficult to navigate down Tribal roads.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Purchase equipment 2. Widen roads to accommodate larger vehicles 3. Do nothing
Action/Project Intended for Implementation	
Description of Selected Action/Project	Purchase fire equipment and pumping trucks to equip the Tribe to fight local fires until outside emergency services arrive.
Action/Project Category	Structure and infrastructure project
Goals/Objectives Met	O-16
Applies to existing, future, or not applicable	Existing
Benefits (losses avoided)	The Tribe would not have to rely solely on outside emergency services to assist which can be delayed; not find location; fire could spread too quickly causing destruction of homes and cultural resources.
Estimated Cost	High
Priority*	High
Plan for Implementation	
Responsible Organization	Tribe
Local Planning Mechanism	
Potential Funding Sources	Emergency services grants
Timeline for Completion	Short (< 5 years, depends on funding)
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

**Refer to prioritization table on the next page.*



Action Number:

U-10

Mitigation Action/Initiative:

Purchase fire equipment and pumping trucks to equip the Tribe to fight local fires until outside emergency services arrive.

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	1	
Technical	1	
Political	1	Support for this project from Tribal Council
Legal	1	
Fiscal	0	
Environmental	0	
Social	1	
Administrative	1	
Multi-Hazard	1	All hazards
Timeline	1	Short (within the next five years)
Agency Champion	1	
Other Community Objectives	0	
Total	11	
Priority (High/Med/Low)	High	



Action Number: U-11
Mitigation Action/Initiative: Conduct study to determine how to revitalize the fishing industry in the Forge River and Poospatuck Creek

Assessing the Risk	
Hazard(s) addressed:	All hazards
Specific problem being mitigated:	The fishing has declined in the waters of the Forge River and Poospatuck Creek; River has not been dredged in a long time
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Conduct study to determine next steps to revitalize fishing industry
	2. Dredge
	3. Do nothing
Action/Project Intended for Implementation	
Description of Selected Action/Project	The fishing has declined in the waters of the Forge River and Poospatuck Creek; River has not been dredged in a long time. Conduct a study to determine the next steps to revitalize the fishing industry once again in terms of a food source and source of income for the Tribe.
Action/Project Category	Natural Systems Protection
Goals/Objectives Met	0-3, 0-5, 0-8
Applies to existing, future, or not applicable	Existing
Benefits (losses avoided)	Provide food source for the Tribe once again; Economic revitalization bringing another source of income to Tribe members
Estimated Cost	High
Priority*	High
Plan for Implementation	
Responsible Organization	Tribe / NYSDEC
Local Planning Mechanism	
Potential Funding Sources	FEMA, EPA. NYS grant sources
Timeline for Completion	Short (< 5 years, depends on funding)
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

**Refer to prioritization table on the next page.*



Action Number:

U-11

Mitigation Action/Initiative:

Conduct study to determine how to revitalize the fishing industry in the Forge River and Poospatuck Creek

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	
Property Protection	0	
Cost-Effectiveness	1	
Technical	1	
Political	1	Support for this project from Tribal Council
Legal	1	
Fiscal	0	
Environmental	0	
Social	1	
Administrative	1	
Multi-Hazard	1	
Timeline	1	Short (within the next five years)
Agency Champion	1	
Other Community Objectives	0	
Total	9	
Priority (High/Med/Low)	High	



Action Number: U-12
Mitigation Action/Initiative: Move electrical overhead wiring to underground

Assessing the Risk	
Hazard(s) addressed:	All hazards
Specific problem being mitigated:	<p>The Tribal Nation was without power for up to 2 weeks as a result of Hurricane Sandy. Trees and limbs took down wires. It cost a lot of money to have the connections made to the homes once power was restored. The Tribal Nation received funding to trim and cut back trees as a result of the storm but this is a short-term solution.</p> <p>When the Tribal land was under 4-feet of water as a result of Sandy, there was the risk of Tribal members being electrocuted while being evacuated walking through waist-deep waters should a live wire have fallen.</p>
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<ol style="list-style-type: none"> 1. Backup generator for each home 2. Move overhead wires underground 3. Co-generation Plant to service the Nation
Action/Project Intended for Implementation	
Description of Selected Action/Project	Move electrical overhead wiring underground to reduce the utility outages from future storm events; protect lives.
Action/Project Category	Structure and Infrastructure
Goals/Objectives Met	0-12; 0-13; 0-15; 0-16
Applies to existing, future, or not applicable	Existing
Benefits (losses avoided)	Loss of electric utility service; life safety
Estimated Cost	High
Priority*	High
Plan for Implementation	
Responsible Organization	Tribe
Local Planning Mechanism	
Potential Funding Sources	FEMA
Timeline for Completion	Short (< 5 years, depends on funding)
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

**Refer to prioritization table on the next page.*



Action Number: U-12

Mitigation Action/Initiative: Move electrical overhead wiring to underground

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	1	
Technical	1	
Political	1	Support for this project from Tribal Council
Legal	1	
Fiscal	0	
Environmental	0	
Social	1	
Administrative	1	
Multi-Hazard	1	
Timeline	1	Short (within the next five years)
Agency Champion	1	
Other Community Objectives	0	
Total	11	
Priority (High/Med/Low)	High	



Table 9.46-10. Summary of Prioritization of Actions

Mitigation Action/Project Number	Mitigation Action/Initiative	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
U-1	Improve stormwater drainage on Abby Lane and Poospatuck Lane.	1	1	1	1	1	1	0	1	1	0	1	1	1	0	11	High
U-2	Install bulkheading along waterfront areas.	1	1	1	1	1	1	0	1	1	0	1	1	1	0	11	High
U-3	Preserve the shoreline and land.	0	1	1	1	1	1	0	1	1	0	1	1	1	0	10	High
U-4	Elevate four to five homes	1	1	1	1	1	1	0	1	1	0	1	1	1	0	11	High
U-5	Create a program to label homes for emergency services. By creating a program like this, it will increase the 9-1-1 technical capabilities of the Tribal Nation.	1	1	1	1	1	1	0	1	1	0	1	1	1	0	11	High
U-6	Complete shoreline stabilization project as outlined in the 2010 Coastal Erosion and Hazard Technical Analysis report.	0	1	1	1	1	1	0	1	1	0	1	1	1	0	10	High



U-7	Consider alternative energy sources such as wind and solar power.	1	1	1	1	1	1	0	1	1	0	1	1	1	0	11	Medium
U-8	Create and post evacuation route signage.	1	0	1	1	1	1	0	1	1	0	1	1	1	0	11	High
U-9	Establish back-up power for 12A Abby Lane. This location serves as the post-Sandy emergency operations center because the Community Center is not finished.	1	0	1	1	1	1	0	0	1	0	1	1	1	0	10	High
U-10	Purchase fire equipment and pumping trucks to equip the Tribe to fight local fires until outside emergency services arrives	1	1	1	1	1	1	0	1	1	0	1	1	1	0	11	High
U-11	Conduct study to determine how to revitalize the fishing industry in the Forge River and Poospatuck Creek	0	0	1	1	1	1	0	1	1	0	1	1	1	0	9	High
U-12	Move electrical overhead wiring underground	1	1	1	1	1	1	0	0	1	0	1	1	1	0	11	High



U-13	Support and participate in county led initiatives intended to build local and regional mitigation and risk-reduction capabilities.	1	1	1	1	1	1	0	1	0	0	1	1	1	1	11	High
U-14	Work with County and PSEG (formerly LIPA) to identify roads within the municipality that are considered “critical”, and to be the first priority for clearing after an event involving downed power lines.	1	1	1	1	1	1	1	0	1	1	1	1	1	0	12	High

Note: Refer to Section 6 which contains the guidance on conducting the prioritization of mitigation actions.



9.46.7 Future Needs To Better Understand Risk/Vulnerability

An updated study of the coastal erosion issues may be needed; the last analysis was conducted in 2010 (*Coastal Erosion and Hazard Technical Analysis in Support of Imminent Threat Grant*).

9.46.8 Hazard Area Extent and Location

Hazard area extent and location maps have been generated for the Unkechaug Tribal Nation 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 Unkechaug Tribal Nation has significant exposure. These maps are illustrated in the hazard profiles within Section 5.4, Volume I of this Plan.

9.46.9 Additional Comments

None at this time.



Figure 9.46-1. Unkechaug Tribal Nation Hazard Area Extent and Location Map 1

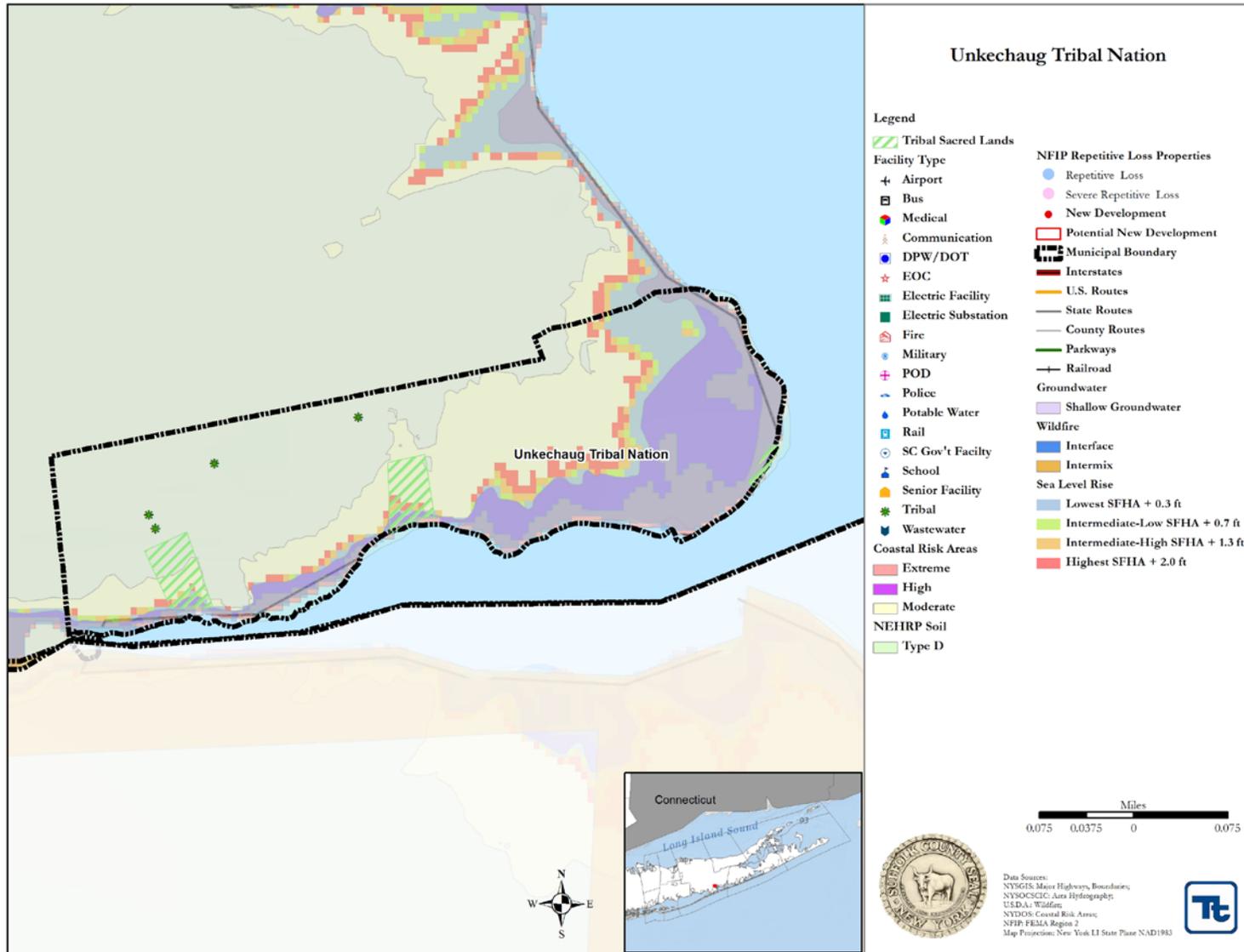




Figure 9.46-2. Unkechaug Tribal Nation Hazard Area Extent and Location Map 2

