9.45 SHINNECOCK INDIAN NATION

This section presents the annex for the Shinnecock Indian Nation. The Shinnecock Indian 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 Indian Nation must also meet as a plan participant.

9.45.1 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
Daniel Collins, Sr. PO Box 6001, Southampton, NY 11969 Phone: 631-384-8130 Email: Daniel@shinnecock.org	Tracey Pace, ER Team Member PO Box 6001, Southampton, NY 11969 Phone: 631-287-6474 Email: taytayrezmom@yahoo.com

9.45.2 Tribal Profile

This section provides a summary of the Indian Nation.

Population

According to the U.S. Census (2010) the total population on the Shinnecock Indian Nation Reservation is 662.

Location

The Shinnecock Indian Nation Reservation is located on the south shore of Suffolk County surrounded by the Shinnecock Bay.

Brief History

The Shinnecock Nation, a federally recognized Indian Nation, is among the oldest self-governing tribes of Indians in the United States and has been a state-recognized tribe for over 200 years. In 1978, the tribe applied for Federal Recognition, and in 2003, was placed on the Bureau of Indian Affairs' "Ready for Active" list. On December 15, 2009, the Bureau of Indian Affairs issued a finding of preliminary recognition for the tribe. Final federal recognition was accomplished on October 1, 2010.

Since the beginning, Shinnecock 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 Algonquian people who have forever lived along the shores of Eastern Long Island.

Scientists say we came here on caribou hunts when the land was covered with ice. But our creation story says we were born here; that we are the human children of the goddess who descended from the sky. It was she, the story goes, who caused the land to form beneath her feet from the back of Great Turtle, Deer to spring forth from her fingertips, Bear to roar into awakening, Wolf to prowl on the first hunt. It was she

who filled the sky with birds, made the land to blossom and the ponds and bays to fill with fish and mollusks. And when all was done, the Shinnecock, the People of the Stony Shore, appeared in this lush terrain. We are still here.

As coastal dwellers, we continue to prize the bounty of the sea, the shellfish, the scaly fish, which for thousands of years provided the bulk of our diet. We were whalers, challenging the mighty Atlantic from our dugout canoes long before the arrival of the big ships, long before the whaling industry flourished in the 19th century.

In the 1700's, we became noted among the northeastern coastal tribes for our fine beads made from the Northern quahog clam and whelk shells (wampum).

Traditionally, decisions concerning the welfare of the tribe were made by consensus of adult male members. Seeking to shortcut the consensus process in order to more easily facilitate the outright theft of Shinnecock Indian lands, the Town of Southampton devised a three member trustee system for the Shinnecock people. This system of tribal government was imposed by the New York State legislature in February of 1792. Since April 3, 1792, the Shinnecock Indians made an annual trek up to the Southampton Town Hall the first Tuesday after the first Monday in April to elect three tribal members to serve a one-year term as Trustees. That came to a halt in April of 2007, when the Shinnecock exercised their sovereign right as an ancient Indian Nation and returned to one of its basic Traditions: it bypassed the State and the Town and for the first time since 1792 held its leadership elections at home, where they will forever remain.

Despite setbacks, we have managed to build a community to help us better meet the demands of an ever-expanding and intrusive world. In addition to the Shinnecock Presbyterian church building and its Manse, our infrastructure includes a tribal community center, a health and dental center, a family preservation and Indian education center, a museum, and playgrounds for our children.

At the present moment, our annual Powwow is the economic development project of record for the Shinnecock Nation. Revived in 1946 as a benefit for our church, the Powwow has evolved into an event that hosts thousands of visitors and that helps supports both our church and tribal budgets. But we are at the mercy of the weather. A rainy Labor Day Weekend means a difficult year ahead of us. We are now exploring Indian Gaming as a means of attaining the much needed self-sufficiency that will enable us to perform the sacred duties laid out for us by the Ancestors - to protect, manage and maintain the Shinnecock Indian Nation.

Tribal Governance

The Trustee system of tribal government was approved by the New York State legislature in February of 1792. Since April 3, 1792, Shinnecock Indians have gone to the Southampton Town Hall the first Tuesday after the first Monday in April to elect three tribal members to serve a one- year term as Trustees. In April of 2007, the Shinnecock Indian Nation exercised its sovereign right as an ancient Indian Nation and returned to one of its basic Traditions: it bypassed the Southampton Town Hall and for the first time since 1792 held its leadership elections at home, where they will remain.

On December 10, 2013, the Shinnecock Indian Nation changed its history by electing a seven-member Council of Trustees as its governing body. The new governing body will serve two year terms and includes two females for the first time in Shinnecock history.

Assurances

The Shinnecock Indian 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 Shinnecock Indian 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)]. For this planning effort, the Shinnecock Indian Nation has defined "public" as the General Council and entire community. The public was informed of the hazard mitigation planning effort at Tribal meetings, General Council meetings, public sessions and newsletters.

Growth/Development Trends

Throughout time the Shinnecock Nation has been committed to preserving our ancestral homeland and its natural environment. The following table summarizes major residential/commercial development and major infrastructure development that are identified for the next five (5) years on the Reservation. Refer to the map at the end of this annex which illustrates the hazard areas along with the location of potential new development.

Table 9.45-1. Growth and Development

New Development/Potential Development						
Property Name	Type (Residential or Commercial)	Number of Structures	Address	Parcel ID	Known Hazard Zone*	Description/Status
	Education	1			SLOSH	Early learning center
	Government	1			SLOSH	Tribal Office
	Government	1			SLOSH	Administration

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

9.45.3 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 and Tribes. The table below presents a summary of natural events that have occurred to indicate the range and impact of natural hazard events in the Indian 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 6-8, 2013	Record Heavy Rain	N/A	N/A	Roadway flooding, erosion, flooding of sacred areas
April 12, 2013	High Winds	N/A	N/A	Downed trees, blocked roadways and debris
February 8-9, 2013	Severe Winter Storm and Snowstorm	DR-4111	Yes - PA (Public Assistance)	Snow removal and plowing issues, personnel overtime costs, and equipment
October 27-November 8, 2012	Hurricane Sandy	DR-4085	Yes – IA (Individual Assistance) and PA	Loss of power for entire reservation, evacuation of tribe members, downed trees and debris
August 26 – September 5, 2011	Hurricane Irene	EM 3328 DR 4020	Yes – IA and PA	Flooding, erosion, damaged roadways, evacuations, four homes severely flooded, flooding of sacred areas
December 26-27, 2011	Severe Winter Storm and Snowstorm	DR 1957	Yes - PA	Snow removal and plowing issues, personnel overtime costs, and equipment
March 13-31, 2010	Severe Storms and Flooding	DR 1899	Yes - PA	Flooding, erosion, damaged roadways, flooding of sacred areas
November 12-14, 2009	Severe Storms and Flooding associated with TD Ida and Nor'Easter	DR 1869	Yes - PA	Flooding, erosion, damaged roadways, flooding of sacred areas

Damage Estimates indicated as high (> 30% total replacement cost), medium (15-29% TRC), or low (<15% TRC)
IA = Individual Assistance
PA = Public Assistance

9.45.4 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 Shinnecock Indian 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 Shinnecock Indian 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)
3	Coastal Erosion	RCV in CEHA:	$0[f]	Frequent	54
11	Drought	Damage estimate not available		Occasional	6
12	Earthquake	500-Year MRP:	$23,645,311	Rare	6
		2,500-Year MRP:	$312,044,365		
13	Expansive Soils	Damage estimate not available		Rare	6
1	Flood	1% Annual Chance:	$3,560,365	Frequent	36
		0.2% Annual Chance:	$12,233,323		
8	Groundwater Contamination (natural)	Damage estimate not available		Rare	NA
4	Hurricane	Category 1 SLOSH:	$4,834,626	Frequent	54
		Category 2 SLOSH:	$62,877,046		
		Category 3 SLOSH:	$186,112,761		
		Category 4 SLOSH:	$262,219,460		
10	Infestation	No measurable impact to property		Rare	NA
1	Nor'Easter	100-Year RCV:	$1,716,566,622	Frequent	48
		500-Year RCV:	$62,864,372		
6	Severe Storm	100-Year RCV:	$1,716,566,622	Frequent	48
		500-Year RCV:	$62,864,372		
5	Severe Winter Storm	1% of GBS:	$2,536,444	Frequent	33
		5% of GBS:	$12,682,218		
9	Shallow Groundwater Flooding	Damage estimate not available		Rare	NA
7	Wildfire	Estimated RCV in Interface/Intermix:	$425,442,397	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 Shinnecock 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]
Oyster Project	Tribal	A	X				11.8	51.0	
Tribal office	Tribal		X						

Source: HAZUS-MH 2.1
Note: x = Facility located within the flood boundary.
Please note it is assumed that wells have electrical equipment and openings are three-feet above grade.
(1) HAZUS-MH 2.1 provides a general indication of the maximum restoration time for 100% operations. Clearly, a great deal of effort is needed to quickly restore essential facilities to full functionality; therefore this will be an indication of the maximum downtime (HAZUS-MH 2.1 User Manual).
(2) In some cases, a facility may be located in the DFIRM flood hazard boundary; however HAZUS did not calculate potential loss. This may be because the depth of flooding does not amount to any damages to the structure according to the depth damage function used in HAZUS for that facility type.

Other Vulnerabilities Identified

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

Coastal erosion, tidal flooding and storm surge are a high hazards of concern for the Nation. Westwoods is used for Tribal ceremonies and is vulnerable to coastal erosion and flooding. The evacuation routes within the Nation regularly experience flooding as a result of insufficient drainage (Middle Gate and West Gate Roads). There are homes located off Cemetery Road and Old Point Road that experience repetitive flooding. In addition, there is a sacred burial ground located off Cemetery Road vulnerable to coastal erosion and coastal flooding.

The Shinnecock Indian Nation 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. Indian Nation Asset Exposure Analysis

Entity/Type	Tribal Nation	Total Acres of Critical Properties	Acres Exposed (acres)		% Exposed	
			1% Event	0.2% Event	1% Event	0.2% Event
Area of Flooding and Cemetery	Shinnecock	28.0	28.0	28.0	100%	100%
Westwoods	Shinnecock	41.1	2.94	3.3	7.2%	8.1%
Sacred Burial Ground	Shinnecock	8.9	8.2	8.8	91.2%	98.0%

Source: Shinnecock Tribal Nation

9.45.5 Capability Assessment

This section describes the Shinnecock Indian 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 Shinnecock Tribal Nation; their administrative and technical capabilities 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 seven-member Tribal Council is the Nation's governing body. The Shinnecock Nation Tribal Office is the central office for all tribal business.

The following describes the Shinnecock Indian Nation offices with capabilities related to pre- and post-disaster management and mitigation. Monthly General Council meetings are held as well as weekly public sessions to discuss lessons learned from disaster events, available resources and mitigation planning and actions

Communications Office: The Communication Director works in conjunction with the Nation's Board of Trustees, the Nation's public relations, legal, and other professional teams to define strategies and issue statements that put forth the official views, opinions and positions of the Shinnecock Indian government, and that 'speak' to the outside world in the 'voice' of the Shinnecock Nation. The Communications Director is also editor of and a contributing writer to the Shinnecock monthly tribal newsletter, Voice of the Nation. This office was involved in the public outreach aspect of this planning process.

Enrollment and Vital Records Office: The Shinnecock Indian Nation Tribal Enrollment and Vital Records Office emanates from the original Federal Recognition Office with significant responsibility for research and documentation of the basic Tribal Rolls. This office was crucial to the development and petition for federal recognition status of the Shinnecock Indian Nation based on completeness of over 1,000 individual Tribal Member historical linkages, as required by the Bureau of Indian Affairs, Department of Interior. With focus of this entity now more specifically on enrollment of qualified individuals, the important work continues as the crux of eligibility and entitlement to Tribal services and programs.

Research and Development Office/Grants: This entity evolves from grant writing activities for the Shinnecock Indian Nation back to 2004 to a comprehensive Grants, Research and Development Team, consisting of Shinnecock Tribal Members who engage in all aspects of grant writing for the Nation. Important projects / programs have been initiated through philanthropic development of funding relationships with a number of local and private foundations throughout New York State, as well as the Administration of Native Americans, DHHS and the Indian Community Development Block Grant Program, HUD.

Environmental Division: The Shinnecock Environmental Division currently has a work plan that with the expertise of consultants, support of the Natural Resource Committee and participation of tribal members will begin to create environmentally centered and culturally viable programs for the preservation of the Nation's land base, health, and environment. The current work plan includes, but is not limited to environmental planning and assessment, educational workshops, solid waste management plan, water quality, air quality, and an environmental regulatory framework.

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 table below summarizes the regulatory tools that are available to the Shinnecock 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					All Hazards	Council and Trustee are discussing to have building code in place for all future development.
Emergency Response Plan	No					All Hazards	Under development
Climate Change Adaptation Plan	Yes					Climate Change	Plan developed in October 2013

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Shinnecock Indian 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	Land Management / Defense Committee Natural Resources Committee Consultants
Engineer(s) or Professional(s) trained in construction practices related to buildings and/or infrastructure	Yes	Bradden Smith – Tribal Trustee
Planners or engineers with an understanding of natural hazards	No	As needed by outside consultants
Floodplain Administrator	Not Applicable	
Surveyor(s)	No	As needed by outside consultants
Personnel skilled or trained in "GIS" applications	No	As needed by outside consultants
Scientist familiar with natural hazards in the Tribe.	Yes	Tribal Council
Emergency Manager	Yes	Tracey Pace – Emergency Manager
Grant Writer(s)	Yes	Research and Development Office/Grants
Staff with expertise or training in benefit/cost analysis	No	As needed by outside consultants

Fiscal Capability

The table below summarizes financial resources available to the Shinnecock Indian Nation.

Table 9.46-7. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No/Don't Know)
Indian Housing Block Grant	Yes
Indian Community Development Block Grant	Yes
Title VI Loan Guarantee Program	Yes
Rural Innovation Fund	Yes
SBA Office of Native American Affairs	Yes
State mitigation grant programs (e.g. NYSDEC, NYCDEP)	No
Indian Health Services	Yes
Tribal Homeland Security Grants	Yes
Disaster Relief Appropriations Act of 2013	Yes
Other	

Community Classifications

The table below summarizes classifications for community program available to the Shinnecock Indian 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

The Shinnecock Indian Nation does not currently participate in the NFIP.

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 Shinnecock Indian 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.

The Indian Nation has a land management/defense committee and natural resources committee in place to ensure proper land use on Tribal lands.

A Climate Change Adaptation Plan was developed in October 2013. The planning process involved researching climate change and particularly the impacts on surface water and ocean acidification because of tribal shellfish cultivation. Another large concern was the increasing shoreline erosion which is contributing to the loss of trees. The Shinnecock Environmental Department will lead the effort to implement the plan.

The Shinnecock Indian Nation meets with the Unkechaug Indian 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 Shinnecock Indian Nation Emergency Management/Public Safety Advisory Committee directs and coordinates all disaster and emergency management activities and operations for the Tribe. This office also ensures proper maintenance procedures and testing is conducted of the generator for the Health and Family Centers.

Members of the Emergency Management/Public Safety Advisory Committee also attend Suffolk County quarterly emergency management and emergency services meetings. Members are trained in ICS 100, 200, 400 and 700.

The Emergency Management/Public Safety Advisory Committee is actively pursuing a CPR instructor course for all interested parties.

An Opoid Overdose Prevention Program will be offered in April 2014 to non-medical personnel. This training will prevent heroin overdoses by teaching personnel how to correctly preforming rescue breathing and correctly administer Naloxone or Narcan.

"Zones" are currently being established within the reservation to assist public safety response during emergencies. Reference markers are also being installed at all residences and facilities to ensure efficient and timely response of emergency personnel.

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

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.

Proposed Hazard Mitigation Initiatives for the Plan Update

The Shinnecock Indian 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 9.45-10 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.

The Shinnecock Indian Nation will actively pursue funding through FEMA Hazard Mitigation Assistance grant programs among others to secure funding to implement the identified actions. The Emergency Management/Public Safety Advisory Committee and General Council will continue to meet regularly to discuss mitigation, risk reduction, training and grant opportunities. The Nation will also continue to meet with the Unkechaug Indian Nation to maintain a working relationship and discuss collaboration and support.

Table 9.45-9. 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
S-1	Road and drainage improvements – especially along evacuation routes (Middle Gate and West Gate Roads)	Existing	Flood, Severe Storm, Hurricane	O-16	Tribe	High	High	FEMA HMA Grant Programs	Short	High	SIP
S-2	Parking lot paving improvements	Existing	Flood, Severe Storm, Hurricane	O-16	Tribe	Medium	Medium	FEMA HMA Grant Programs	Short	High	SIP
S-3	Home elevations off Cemetery Road	Existing	Flood, Severe Storm, Hurricane	O-2	Tribe	High	High	FEMA HMA Grant Programs	Short	High	NRP
S-4	Protect historic/sacred sites from natural hazards	Existing	All hazards	O-3, O-5, O-16	Tribe	High	High	FEMA HMA Grant Programs	Short	High	SIP
S-5	Join the National Flood Insurance Program	New and Existing	Flood, Severe Storm, Hurricane	O-7	Tribe	High	Low	Tribal resources	Short	High	LPR
S-6	Support and participate in county led initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically: • 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
S-7	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.										

	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: S-1
Mitigation Action/Initiative: Road drainage improvements – notably along evacuation routes

Assessing the Risk	
Hazard(s) addressed:	Flood, Severe Storm, Hurricane
Specific problem being mitigated:	Flooding occurs along many roadways due to insufficient drainage – notably along evacuation routes such as Middle Gate and West Gate Roads
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Improve drainage
	2. Elevate the roadways
	3. Do nothing
Action/Project Intended for Implementation	
Description of Selected Action/Project	Install culverts to improve storm water drainage along evacuation routes such as Middle Gate and West Gate Roads
Action/Project Category	Structure and Infrastructure Project
Objectives Met	5, 8, 13
Applies to existing, future, or not applicable	Existing
Benefits (losses avoided)	Road closures, inhibiting emergency access, inhibiting evacuation to high ground
Estimated Cost	High
Priority*	High
Plan for Implementation	
Responsible Organization	Council of Trustees
Local Planning Mechanism	Emergency Response Plan
Potential Funding Sources	FEMA HMA
Timeline for Completion	Short
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: S-1
Mitigation Action/Initiative: Road drainage improvements – notably along evacuation routes

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Evacuation route
Property Protection	1	Evacuation route
Cost-Effectiveness	1	Evacuation route, persons lives
Technical	1	Technically feasible
Political	1	Supported by Council
Legal	1	Authorized by Council
Fiscal	1	Fiscally sound
Environmental	1	Supports environment
Social	1	Supported by Tribe members
Administrative	0	Outside assistance will be needed
Multi-Hazard	1	Supports multiple hazards
Timeline	1	Improvements are needed ASAP
Agency Champion	1	General Council
Other Community Objectives	1	Supports
Total	13	
Priority (High/Med/Low)	HIGH	

Action Number: S-2
Mitigation Action/Initiative: Tribal Facilities Parking Lot Improvements

Assessing the Risk	
Hazard(s) addressed:	Flood, Hurricane, Severe Storm
Specific problem being mitigated:	Tribal facilities parking lots do not have sufficient drainage and flood. Access to these facilities for residents is vital during emergencies and disasters.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Repair parking area with previous material
	2. Create a new parking area and provide bus transportation for residents to and from Tribal facilities buildings
	3. Do nothing
Action/Project Intended for Implementation	
Description of Selected Action/Project	Repave parking area with pervious material and install drainage.
Action/Project Category	Structure and Infrastructure Project
Objectives Met	5, 8, 16
Applies to existing, future, or not applicable	Existing
Benefits (losses avoided)	Inhibiting access to family services and health during rain, storm and disaster events.
Estimated Cost	High
Priority*	High
Plan for Implementation	
Responsible Organization	Council of Trustees
Local Planning Mechanism	Emergency Response Plan
Potential Funding Sources	FEMA HMA
Timeline for Completion	Short
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: S-2
Mitigation Action/Initiative: Tribal Facilities Parking Lot Improvements

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Access to vital services
Property Protection	1	Protection of critical facilities
Cost-Effectiveness	1	Persons lives
Technical	1	Technically feasible
Political	1	Council approves
Legal	1	Legal authority
Fiscal	1	Fiscally sound
Environmental	1	Supports environment with pervious material
Social	1	Community support
Administrative	1	Supports administrative responsibilities
Multi-Hazard	1	Supports multiple hazards
Timeline	1	Improvements are needed ASAP
Agency Champion	1	General Council
Other Community Objectives	1	Supports other objectives and initiatives
Total	14	
Priority (High/Med/Low)	HIGH	

Action Number: S-3
Mitigation Action/Initiative: Elevate repetitive loss structures

Assessing the Risk	
Hazard(s) addressed:	Flood, Hurricane, Severe Storm
Specific problem being mitigated:	Elevate repetitive loss residential homes
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 repetitive loss residential homes on reservation.
Action/Project Category	Structure and Infrastructure Project
Objectives Met	2, 15
Applies to existing, future, or not applicable	Existing and future
Benefits (losses avoided)	Flood damaged structures, evacuation, individual losses
Estimated Cost	Low
Priority*	High
Plan for Implementation	
Responsible Organization	Council of Trustees
Local Planning Mechanism	Mitigation Plan
Potential Funding Sources	FEMA HMA
Timeline for Completion	Short
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: S-3
Mitigation Action/Initiative: Elevate repetitive loss structures

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Structure and residents remain above base flood elevation
Property Protection	1	Structure above base flood elevation
Cost-Effectiveness	1	Proven mitigation measure
Technical	1	Proven mitigation measure
Political	1	Council support
Legal	1	Legally feasible
Fiscal	1	Fiscally sound
Environmental	1	Supports environment
Social	1	Residents support and need relief
Administrative	1	Administration feasible
Multi-Hazard	1	Multiple hazards
Timeline	1	Homeowners will dictate timeline as they are involved in process
Agency Champion	1	General Council
Other Community Objectives	1	Supports community and homeowners
Total	14	
Priority (High/Med/Low)	HIGH	

Action Number: S-4
Mitigation Action/Initiative: Protect historic and sacred sites from natural hazards

Assessing the Risk	
Hazard(s) addressed:	Coastal erosion, Hurricane, Severe Storm, Nor'Easter
Specific problem being mitigated:	Physical environment is being destroyed, grass is dying and grave sites may become compromised.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Install a bulkhead/revetment/riprap seawall
	2. Install a pump station
	3. Do nothing
Action/Project Intended for Implementation	
Description of Selected Action/Project	Install a bulkhead/revetments/riprap seawall on the southern portion of the peninsula along the western shoreline to protect historic and sacred sites from natural hazards
Action/Project Category	Structure and infrastructure project
Objectives Met	15, 16, 17
Applies to existing, future, or not applicable	Existing
Benefits (losses avoided)	Flood damage to sacred/historic site, emotional suffering of family members
Estimated Cost	High
Priority*	High
Plan for Implementation	
Responsible Organization	Council of Trustees
Local Planning Mechanism	Climate Change Adaptation Plan
Potential Funding Sources	FEMA HMA
Timeline for Completion	Short
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: S-4
Mitigation Action/Initiative: Protect historic and sacred sites from natural hazards

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Supports emotional well-being of family members and Tribe
Property Protection	1	Project will prevent future loss of land and thus protect property
Cost-Effectiveness	1	Proven mitigation measure
Technical	1	Technically sound proven mitigation measure
Political	1	Council support
Legal	1	Legally feasible
Fiscal	1	Fiscally sound
Environmental	1	Supports environment
Social	1	Residents support and needed relief
Administrative	1	Emergency Management personnel will administer and outside assistance is needed
Multi-Hazard	1	Multiple hazards
Timeline	1	Dependent upon funding
Agency Champion	1	General Council
Other Community Objectives	1	Supports community and homeowners
Total	14	
Priority (High/Med/Low)	HIGH	

Action Number: S-5
Mitigation Action/Initiative: Join the National Flood Insurance Program

Assessing the Risk	
Hazard(s) addressed:	Flood, Hurricane, Severe Storm
Specific problem being mitigated:	Join the National Flood Insurance Program
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Join the National Flood Insurance Program
	2. Provide Flood Insurance for homeowners
	3. Do nothing
Action/Project Intended for Implementation	
Description of Selected Action/Project	Join the National Flood Insurance Program to provide Tribal members the opportunity to obtain flood insurance.
Action/Project Category	Local Plans and Regulations
Objectives Met	1, 17
Applies to existing, future, or not applicable	Existing and Future development
Benefits (losses avoided)	Residential flooding
Estimated Cost	Medium
Priority*	Medium
Plan for Implementation	
Responsible Organization	Council of Trustees
Local Planning Mechanism	Climate Change Adaptation Plan
Potential Funding Sources	New York State, FEMA HMA, NFIP
Timeline for Completion	Short
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: S-5
Mitigation Action/Initiative: Join the National Flood Insurance Program

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Supports residents emotional well-being
Property Protection	0	
Cost-Effectiveness	1	Low cost project/initiative
Technical	0	
Political	1	Council support
Legal	1	Legally feasible
Fiscal	0	Low cost project
Environmental	1	Supports environment
Social	1	Homeowner support
Administrative	0	Emergency Management personnel and Council will administer
Multi-Hazard	1	Multiple hazards
Timeline	1	Dependent upon funding
Agency Champion	1	General Council
Other Community Objectives	1	Supports community and homeowners
Total	10	
Priority (High/Med/Low)	High	

Table 9.45-10. 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
S-1	Road drainage improvements – notably along evacuation routes	1	1	1	1	1	1	1	1	1	0	1	1	1	1	13	High
S-2	Tribal Facilities Parking Lot Improvements	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
S-3	Elevate repetitive loss structures	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
S-4	Protect historic/sacred sites from natural hazards	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
S-5	Join the National Flood Insurance Program	1	0	1	0	1	1	0	1	1	0	1	1	1	1	10	High
S-6	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
S-7	Work with County and PSEG (formerly LIPA) to identify roads within the	1	1	1	1	1	1	1	0	1	1	1	1	1	0	12	High

	jurisdiction that are considered "critical", and to be the first priority for clearing after an event involving downed power lines.																

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

9.45.7 Future Needs To Better Understand Risk/Vulnerability

A more detailed study of the coastal erosion issues may be required. The Climate Change Adaptation Plan recommends that further research needs to be conducted regarding sea level rise.

9.45.8 Hazard Area Extent and Location

Hazard area extent and location maps have been generated for the Shinnecock Indian Nation that illustrate the probable areas impacted within the Nation. 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 Shinnecock Indian Nation has significant exposure. These maps are illustrated in the hazard profiles within Section 5.4, Volume I of this Plan.

9.45.9 Additional Comments

None at this time.

Figure 9.45-1. Shinnecock Indian Nation Hazard Area Extent and Location Map 1

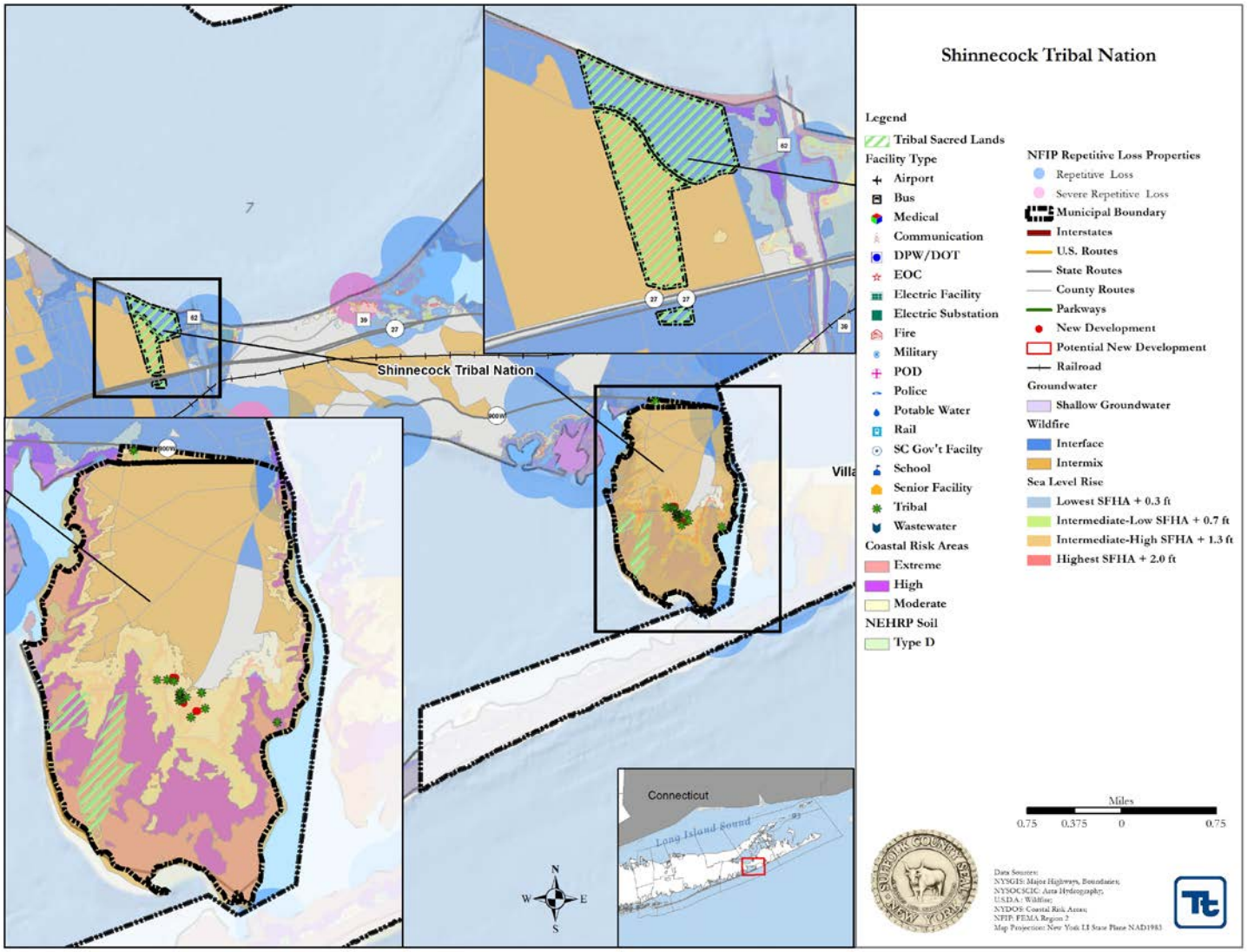

Figure 9.45-2. Shinnecock Indian Nation Hazard Area Extent and Location Map 2