

Mitigation Strategy

This section of the Plan summarizes study conclusions, outlines community goals and objectives, and describes the action plan to reduce vulnerability to the effects of natural hazards on Bald Head Island. Mitigation objectives are designed to support community goals while further defining the parameters for development of mitigation actions. Mitigation actions describe specific steps that are to be undertaken to achieve the state objectives and are intended to serve as benchmarks for evaluating progress on plan implementation.

With limited financial and staff resources to dedicate to hazard mitigation, it is essential that those hazards with the highest likelihood of occurrence and greatest potential impact receive the highest investment of Island resources.

This section of the plan takes a look at all the information that has been collected and reviewed by the HMP Steering Committee. From the data collected a series of mitigation goals has been formulated in order to reduce the vulnerability of the effects of the natural hazards that have been identified in Step #1. Each of the following strategies can be classified in one of five categories:

1. Category 1 – Prevention – activities that keep problems from getting worse and may include zoning & subdivision ordinances, floodplain regulations, stormwater management, and shoreline/fault zone setbacks.
2. Category 2 – Property Protection – protection of existing structures by modifying the building to withstand a natural hazard or removing structures from hazardous locations and may include relocation, acquisition, building elevation and windproofing.
3. Category 3 – Natural Resource Protection – activities to reduce the impacts of natural hazards by preserving and/or restoring natural areas. This may include areas such as floodplain, wetlands, and dunes. Examples of mitigation strategies are floodplain protection policies, beach and dune preservation and riparian buffers.
4. Category 4 – Structural Projects – protection to lessen the impact of a natural hazard by modifying that environment and might include levees/dams, diversions, beach nourishment, and reservoirs.
5. Category 5 – Public Information – activities that let anyone in the area know about the potential natural hazard and consists of outreach projects, real estate disclosure, warning systems and library.

Looking at the categories above the HMP Steering Committee has identified the following the goals and objectives for Hazard Mitigation:

1. Reduce personal injury, loss of life, and property damage resulting from natural hazards.
2. Reduce damage to equipment, public and private infrastructure, and public and private buildings resulting from natural hazards.
3. Continue to monitor development to ensure adherence to federal, state, and local laws and current construction standards.
4. Continue to work with the Army Corps of Engineers for future beach nourishment projects.
5. Maintain a responsive post-hurricane damage assessment team and reduce recovery time to allow residents, property owners, and visitors to promptly return to the Island.
6. Reduce post-disaster clean up, repair and construction timeframe.
7. Maintain public facilities in a proper functioning order.
8. Continued reduction of fire risk on the Island.
9. Protect the environmentally sensitive areas of Bald Head Island.

Next is a list of new policies, programs, ordinances or initiatives, assigned responsibility, and target date for completion that have been identified by the HMP Steering Committee that will mitigate natural hazards.

1. **Improve Stormwater drainage on Bald Head Island** – The Village of Bald Head Island is in the process of implementing its Stormwater Improvement Plan. This plan will help reduce the level of floodwater on the Island after a major rain event. Areas on the Island that have significant standing water following a severe rain event shall continue to be identified and addressed. *Assistant Manager, Public Works Committee, Public Works Department (present – 2006)*
2. **Maintain the Lowest Possible Residential Fire Rating** – The NC Response Rating System (formerly the ISO rating system) currently rates the Village at the lowest possible residential fire rating of six (6). The chief of Emergency Services maintains that there is adequate water supply, appropriate number of hydrants, and that hydrants are properly located to ensure sufficient fire suppression. Communications shall be updated as necessary to provide for the most efficient dispatch and response time as is possible. The necessary inventory of safety and rescue vehicles, equipment, certified personnel, and updated training shall be maintained. *Chief of Emergency Services (on-going)*

3. **Enforce the Dunes Protection Ordinance** – Prevent dune degradation by restricting access over the dune ridge thus preserving the dunes' natural barrier. *Police Department Personnel, Building Inspector (on-going)*
4. **Install 911 Phones at Central Locations and Beach Accesses** – The acquisition and installation of 911 telephones at beach accesses and other key locations in order to reduce response time to fire, medical emergencies, and safety concerns. *Chief of Emergency Services (as needed)*
5. **Offer Homeowners Free Safety and Fire Inspections** – Inspect homes upon request for safety and fire hazards and make recommendations to homeowner to improve safety and reduce fire hazard vulnerability. *Emergency Services Personnel (on-going)*
6. **Safety Training** – Provide complimentary CPR and first aid classes to the public in an effort to increase the number of persons trained in these life saving techniques. Subsequently, response time is reduced due to an increased number of trained responders. *Chief of Emergency Services, Emergency Services Personnel (on-going)*
7. **Reduce Fire Risk** – Maintain and enforce stringent outdoor burning ordinance to reduce the risk of wildfire and structural fire. *Chief of Emergency Services, Emergency Services Personnel (on-going)*
8. **Property Acquisition** – With current property values, the ability of the Village to purchase land that is located within vulnerable areas is severely limited. Therefore, non-profit organizations, such as The Smith Island Land Trust (SILT), contribute indirectly to hazard mitigation. SILT obtains, through donations or purchase, property that will remain natural and undeveloped. These properties are typically located in hazard areas. The Village will also look for opportunities to acquire, elevate, and/or demolish those repetitive loss properties that have been identified. Also, the Village will continue to monitor the availability of property which could be dedicated to or acquired by the Village. *Village Manager, Tax Administrator, Finance Director, Assistant Village Manager (on-going)*
9. **Educate Contractors and Builders on Construction Methods that can Reduce Damage from Natural Hazards** – Offer an educational resource for contractors and builders to learn new construction methods and techniques, which will reduce structural damage from a natural hazard. *Building Inspector (on-going, last Wednesday of each month)*

Worksheet #5: Geographic Planning Area Policies

(COPY THIS FORM AND COMPLETE FOR EACH DESIGNATED PLANNING AREA IN YOUR COMMUNITY.)

GEOGRAPHIC PLANNING AREA: THE VILLAGE OF BALD HEAD ISLAND

Policy (includes new initiatives, continuation and support of existing policies, and recommended policy changes)	Type of Mitigation Strategy (Preventive, Property Protection, Natural Resource Protection, Structural Projects, Public Information)	Type(s) of Hazard This Policy Will Target	Funding (amount and source; local match required?)	Responsible Party/ Start & Completion Dates	Benchmarks and Indicators of Progress (Monitoring and Evaluation)	Priority Ranking (High, Medium, Low)
<i>Village of Bald Head Island Emergency Mitigation Plan (BHIEMP)</i>	<i>All</i>	<i>All</i>	<i>Local</i>	<i>EMS, Admin., Bldg. Insp., Police, Public Works</i> <i>On-going</i>	<i>Monitoring and Evaluating</i>	<i>High</i>
<i>Village of Bald Head Island Zoning Ordinance</i>	<i>All</i>	<i>All</i>	<i>Local</i>	<i>Planning Bldg. Insp.</i> <i>On-going</i>	<i>Monitoring</i>	<i>Medium</i>
<i>Village of Bald Head Island Subdivision Regulations</i>	<i>All</i>	<i>All</i>	<i>Local</i>	<i>Planning Bldg. Insp.</i> <i>On-going</i>	<i>Monitoring</i>	<i>Low</i>
<i>Village of Bald Head Stormwater Management Plan</i>	<i>All</i>	<i>Flood</i>	<i>Local</i>	<i>Planning Bldg. Insp.</i> <i>2005-2006</i>	<i>Monitoring</i>	<i>High</i>
<i>Brunswick County Land-Use Plan</i>	<i>All</i>	<i>All</i>	<i>Local</i>	<i>Planning Bldg. Insp.</i> <i>Completed 1997</i>	<i>In 2-year, 2 phase to write own plan</i>	<i>Medium</i>
<i>Maintain Lowest Residential Fire Rating</i>	<i>Preventive & Property Protection</i>	<i>Wildfire</i>	<i>Local</i>	<i>EMS, Planning & Bldg. Insp.</i> <i>On-going</i>	<i>Monitoring</i>	<i>High</i>

Source: Keeping Natural Hazards from Becoming Disasters – A Mitigation Planning guidebook for Local Governments, North Carolina Division of Emergency Management, May 2003, p.73.

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<i>Improve Stormwater drainage</i>	<i>Preventive & Property Protection</i>	<i>Hurricanes & Flooding</i>	<i>Local</i>	<i>Admin, Public Works Committee & Dept.</i>	<i>Present - 2006</i>	<i>High</i>
<i>Enforcement of Dunes Protection Ordinance</i>	<i>Preventive, Property Protection & Natural Resource Protection</i>	<i>Hurricanes & Flooding</i>	<i>Local</i>	<i>Police Dept. & Bldg. Insp.</i>	<i>On-going</i>	<i>Medium</i>
<i>Installation of 911 phones at central locations and beach accesses</i>	<i>Preventive</i>	<i>Wildfires</i>	<i>Local</i>	<i>EMS</i>	<i>As needed</i>	<i>Medium</i>
<i>Free Safety and Fire Inspections to Homeowners</i>	<i>Preventive & Property Protection</i>	<i>Wildfires</i>	<i>Local</i>	<i>EMS</i>	<i>On-going</i>	<i>Medium</i>
<i>Safety Training</i>	<i>Preventive</i>	<i>All</i>	<i>Local</i>	<i>EMS</i>	<i>On-going</i>	<i>Medium</i>
<i>Reduce Fire Risk</i>	<i>Preventive & Property Protection</i>	<i>Wildfires</i>	<i>Local</i>	<i>EMS</i>	<i>On-going</i>	<i>Medium</i>

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<i>Property Acquisition</i>	<i>Preventive & Property Protection</i>	<i>Hurricanes & Floods</i>	<i>State & Federal</i>	<i>Village Mngr, Tax Admin, Finance Dir. & Asst. Village Mngr.</i>	<i>On-going</i>	<i>Low</i>
<i>Educate Contractors & Builders on Construction Methods to reduce damage from hazards</i>	<i>Preventive & Property Protection</i>	<i>All</i>	<i>Local</i>	<i>Bldg. Insp.</i>	<i>On-going</i>	<i>Medium</i>

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