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**SECTION 6.**  
**MITIGATION STRATEGIES**

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## INTRODUCTION

This section of the Regional Hazard Mitigation Plan outlines all of the goals and strategies that will be implemented at the regional, county, and municipal level. It should be noted that all goals and implementing strategies relating to the individual counties were based on elements of each respective jurisdictions' 2010/2011 plan. All strategies relating to regional initiatives were developed through this planning process. The modifications of these plan elements was based on the direction and input of the Regional and County MACs and a range of stakeholders (see Appendix B). All actions have been updated and are intended to reflect the current needs and desires of the Regional Mitigation Advisory Committee and their respective jurisdictions. The mitigation strategies developed through the planning process will be implemented at the regional, county, and in some cases, municipal level. Pender County will take the lead in undertaking all strategies outlined within this plan relating to the region overall, with support and assistance from Brunswick and New Hanover Counties, as well as all participating jurisdictions.

As the MACs worked through the development of this action plan, the group focused on six primary mitigation focus areas for the region, as well as each participating jurisdiction. These focus areas define the various aspects of mitigation, and provide guidance toward the development of a truly comprehensive solution to mitigation planning.

1. Prevention Mechanisms include regulatory methods such as planning and zoning, building regulations, open space planning, land development regulations, and stormwater management.
2. Property Protection actions diminish the risk of structural damage through acquisition of land, relocation of buildings, modifying high-risk structures, and floodproofing high-risk structures.
3. Natural Resource Protection can soften hazard impacts through mechanisms such as erosion and sediment control or wetlands protection.
4. Emergency Services measures include warning, response capabilities, critical infrastructures protection, and health and safety maintenance.
5. Structural Mitigation controls natural hazards through projects such as reservoirs, levees, diversions, channel modifications and storm sewers.
6. Public Education includes providing hazard maps and information, outreach programs, real estate disclosure, technical assistance and education.

## 2010/2011 MITIGATION PROGRESS REPORTS

### *Public Participation*

All participating jurisdictions work very closely with citizens to provide programs and support that will improve each County's resiliency to natural disasters. Over the last five years, each county has taken significant steps to improve upon existing emergency service functions and programs. The public was an integral part in carrying out all of these efforts. All issues relating to emergency management policy and programs have been thoroughly discussed with the respective County Board of Commissioners and Town/City Councils. In more specific terms, the public has been involved in discussions relating to regulatory tools, mitigation, and emergency services through County Planning Board and Board of Commissioners meetings. All meetings involving these two bodies are locally advertised and open to the public. Through this Hazard Mitigation Plan update, the Regional MAC intends to expand public outreach efforts, as outlined in the updated strategies.

### *Monitoring and Evaluation*

Brunswick, New Hanover, and Pender Counties, as well as participating municipal jurisdictions, have and will continue to utilize the information within this document for day-to-day planning efforts. Through monitoring the status of each jurisdiction's existing Mitigation Plan, each County has improved upon the data utilized throughout this document. Each County's administration maintains a dialogue with their respective County Board of Commissioners and municipal representatives regarding mitigation/ emergency management issues, and provides the public with information when deemed necessary.

### *Incorporation of Mitigation Plan into Other Planning Mechanisms*

Over the last five years, Brunswick, New Hanover, and Pender Counties, as well as all participating jurisdictions, have made several land development policy amendments. The information and strategies outlined within each County's existing HMP were factored into discussions during the development of these documents. This coordination ensures that information outlined in the hazard mitigation plan is carrying over into land use policy. Additionally, each County and pertinent municipal jurisdictions reviewed their Flood Damage Prevention Ordinances to ensure compliance with current standards, including review and adoption of updated Flood Insurance Rate Maps. All entities also considered the HMP during decisions relating to capital expenditures such as infrastructure improvements.

### *Mitigation Strategy Progress*

Over the last five years, each jurisdiction participating in this update process have implemented strategies at both the County and municipal levels. Through these implementation efforts, each jurisdiction has strengthened their respective mitigation programs, as well as improved the resiliency of their respective community. A comprehensive status report of each participating jurisdictions existing mitigation actions is provided in Appendix G of the plan.

*Review of Possible Alternatives for Mitigation Program Expansion*

Refer to Appendix H for a summary regarding Community Rating System (CRS) Step 7.

**MITIGATION STRATEGIES**

The overall hazard mitigation planning effort is focused on providing the region and each participating jurisdiction with an action plan that will strive toward the achievement of the goals outlined below. In order to establish this plan, the Regional MAC decided that the best approach would be to define goals to guide the development of strategies developed through this plan. In taking this approach, the goals as defined in each communities' 2010/2011 plan have been redefined. The overall intent is consistent; however, the language and content of the statements has been slightly modified as outlined in the mitigation action status report (see Appendix G).

The following provides definitions of how goals and implementing strategies relate to one another:

- Goals – A broad based statement of intent that establishes the direction for the Regional Hazard Mitigation Plan. Goals state desired outcomes for the overall implementation process.
- Implementing Strategies – A project specific strategy aimed at mitigation and involving a specific entity, interest, and funding mechanism.

As noted, goals are statements of desirable future conditions that are to be achieved. They are broad in scope and assist in setting community priorities. The following goals will provide the basis for the implementation strategies that will be included in this section, some of which are already being administered and implemented locally. These goals take into account the strategic goals outlined within each participating jurisdictions' existing plan.

1. Work to improve existing local government policies and codes to reduce the impacts of natural hazards.
2. Design and implement specific mitigation measures to protect vulnerable public and private properties.
3. Increase the protection of critical facilities and infrastructure from hazard threats through retrofit projects for existing facilities, reconstruction projects on parcels where an existing building and/or foundation has been partially or completely demolished or destroyed, and innovative design standards for new facilities.
4. Enhance public education programs to promote community awareness of natural hazards and the hazard mitigation techniques available to reduce their impact.

5. Improve stormwater management through enhanced local government programs, policies, and practices.
6. Enhance each county's storm evacuation procedures through increased intergovernmental coordination between the Counties, the participating municipalities, and the State of North Carolina.
7. Increase the County's emergency management capabilities through sustained system and technology improvements.
8. Promote volunteer involvement in emergency preparedness and response through increased citizen awareness and training activities.

Tables 6-1 to 6-4 outline all implementing strategies developed through the Southeastern NC regional planning process. The tables also provide guidance relating to funding sources, priority, and a variety of other information required to effectively implement the plan.

The actions in the following tables have been ranked based on a cost-benefit review conducted by the Regional MAC through the planning process. Each implementing action has been provided a priority of low, medium, or high based on this review. The following provides a breakdown of the factors utilized to conduct this cost benefit review:

1. High Priority – Highly cost-effective, administratively feasible and politically feasible strategies that should be implemented in fiscal years 2016/2017 and 2017/2018 and be continued.
2. Medium Priority – Strategies that have at least two of the following characteristics (but not all three) and should be implemented in fiscal years 2017/2018 to 2018/2019:
  - Highly cost-effective; or
  - Administratively feasible, given current levels of staffing and resources; or
  - Are politically popular and supportable given the current environment.
3. Low Priority – Strategies that have at least one of the following characteristics (but not two or three) and should be implemented in the next five(5) years (by the end of 2019/2020):
  - Highly cost-effective; or
  - Administratively feasible, given current levels of staffing and resources; or
  - Are politically popular and supportable given the current environment.

Strategies will be implemented earlier if resources are available. It should also be noted that projects or initiatives given low priority may be ultimately contingent upon grant funding.

The following tables provide a detailed breakdown of specific mitigation strategies that will aid the region and all participating jurisdictions in furthering the goals discussed throughout this section of the plan. These implementing strategies are intended to address activities to be achieved over the next five years. Subsequent to this period, the MAC will revisit these actions as outlined within Section 7, Plan Maintenance. The implementing strategies have been broken down into independent sections including: Regional mitigation strategies, Brunswick County mitigation strategies, New Hanover County mitigation strategies, and Pender County mitigation strategies. In many cases, there are also strategies developed for implementation by participating municipal jurisdictions.

It should be noted that in devising the strategies outlined in this section, the Regional MAC took the following factors into consideration:

- The strategy will solve the problem it is intended to solve, or begin to develop a solution.
- The strategy meets at least one community mitigation goal.
- The strategy complies with all laws and regulations.
- The strategy is cost-beneficial.
- The community implementing the strategy has (or will have) the capability to do so.
- The strategy is environmentally sound.
- The strategy is technically feasible.
- The strategy will further the County's standing in the NFIP.

The overriding consideration in deciding whether a strategy should be established and/or maintained was whether the project or initiative was cost-beneficial. The MAC reviewed each potential statement based on the overall benefit in relation to the financial and staff resources required for implementation.

Acronyms provided in the funding source column of Tables 6-2 to 6-4 are defined as follows:

- GF - General Funds
- HMGP - Hazard Mitigation Grant Program
- PDM - Pre-Disaster Mitigation
- UHMA - Unified Hazard Mitigation Assistance
- PA - Public Assistance
- USACE - US Army Corps of Engineers
- NCDEQ - NC Department of Environmental Quality
- NCDOT - NC Department of Transportation
- NCDPS - NC Department of Public Safety
- NCDPH - NC Division of Public Health
- NCCE - NC Cooperative Extension
- NCFS - NC Forest Service
- ARC - American Red Cross
- SILT - Smith Island Land Trust

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**Table 6-1. Southeastern NC Regional Mitigation Strategies**

Number	Strategy	Responsible Party/Dept.
R1	Participating Counties will work together to educate citizens about the availability of their respective Special Medical Needs Registry. These efforts will involve not only education, but outreach regarding how and where to enroll appropriately to ensure that assistance can be provided in the event of a natural or man-made disaster requiring evacuation and sheltering.	<ul style="list-style-type: none"> <li>■ Participating County Emergency Management</li> <li>■ Participating County Administration</li> </ul>
R2	Emergency Management Departments for each participating County will work collectively to integrate regional response capabilities into annual exercises organized through North Carolina Emergency Management. These efforts will be focused on the sharing of available resources including: equipment, sheltering, and manpower.	<ul style="list-style-type: none"> <li>■ Participating County Emergency Management</li> <li>■ Participating County Administration</li> </ul>
R3	Participating Counties will consider all of the local and regional data, information, and strategies outlined within this plan when carrying out duties and responsibilities associated with the respective County's Local Emergency Planning Committee (LEPC).	<ul style="list-style-type: none"> <li>■ Participating County Emergency Management</li> <li>■ Participating County Administration</li> </ul>
R4	When possible, Participating Counties involved in the Community Rating System (CRS) will aim to leverage efforts regarding compliance with the program. This strategy will attempt to reduce redundancy and staff time investment in establishing and/or maintaining compliance with the updated program.	<ul style="list-style-type: none"> <li>■ Participating County Administration</li> </ul>
R5	Participating Counties will work together to ensure that the sheltering needs of each community are adequately addressed. These efforts will involve coordination between County Emergency Management Departments, NCEM, and the American Red Cross.	<ul style="list-style-type: none"> <li>■ Participating County Emergency Management</li> <li>■ NC Emergency Management</li> <li>■ American Red Cross</li> </ul>
R6	Participating Counties will work together as a regional Mitigation Advisory Committee to identify and, when possible, address drainage issues of regional significance/ concern. These efforts will also include the input and involvement of NC State Agencies.	<ul style="list-style-type: none"> <li>■ Participating County Administrations</li> <li>■ NC Department of Transportation</li> <li>■ NC Department of Environmental Quality</li> <li>■ NC Emergency Management</li> </ul>
R7	Participating Counties will work together in an effort to educate citizens about hazard mitigation and public safety issues and efforts underway throughout the Region. These efforts will involve the recruitment and engagement of volunteer groups to address a range of issues relating to mitigation and emergency response.	<ul style="list-style-type: none"> <li>■ Participating County Emergency Management</li> <li>■ Participating County Administration</li> </ul>
R8	Participating Counties will be open to establishing and maintaining mutual aid agreements focused on providing emergency assistance in the form of manpower, equipment, and sheltering in the event of a natural disaster. Resource allocation will be determined on an as needed basis.	<ul style="list-style-type: none"> <li>■ Participating County Emergency Management</li> <li>■ Participating County Administration</li> </ul>
R9	Participating Counties will work together on future regional planning efforts relating to land use, emergency management, and stormwater management.	<ul style="list-style-type: none"> <li>■ Participating County Administration</li> </ul>
R10	Participating Counties will maintain representation on the Southeastern NC Regional Mitigation Advisory Committee and will participate in the five year update of this plan.	<ul style="list-style-type: none"> <li>■ Southeastern NC Regional Mitigation Advisory Committee</li> </ul>

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**Table 6-2. Brunswick County Mitigation Strategies**

Number	Strategy	Goal Addressed (see page 6-3)	Hazard Addressed (see page 3-1)	Applicable Jurisdictions	Priority	Responsible Party/Dept.	Funding Sources
BC1	Continue to maintain a library of materials focused on educating citizens, builders, realtors and developers about the dangers associated with floodplain development. This information will also outline sound techniques for floodplain development and floodproofing of existing structures. The County will also maintain staff educated on these issues to work with prospective builders. (CRS 350)	2, 4	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	High	Brunswick Co Planning Brunswick Co Emergency Services Municipal Administrations	GF
BC2	Continue/expand efforts to partners with area utility districts to encourage proper development of regional water and sewer systems. (CRS 510)	1, 3, 5	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	High	Brunswick Co Administration Brunswick Co Sewer Districts Municipal Administrations	GF, NCDPS, NCDEQ
BC3	When possible, ensure that no public and/or critical facilities are proposed for flood hazard areas. Additionally, when siting new public/critical facilities, the information and data outlined in this plan will be factored into the decision-making process. (CRS 510, 610)	1, 3, 5	1, 2, 4, 8, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	High	Brunswick Co Administration Municipal Administrations	GF

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Number	Strategy	Goal Addressed (see page 6-3)	Hazard Addressed (see page 3-1)	Applicable Jurisdictions	Priority	Responsible Party/Dept.	Funding Sources
BC4	In coordination with participating municipal jurisdictions, continue to accept gifts/donations of land located in hazard areas or rendered unbuildable by storms or other events, for the purpose of shorefront access. (CRS 420)	1, 2, 3, 4, 5	1, 2, 4, 8, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	Moderate	Brunswick Co Administration Municipal Administrations	GF, NCDPS
BC5	In conjunction with annual EOP updates, determine if access to all critical facilities is readily available in the event of a natural hazard event. Careful consideration should be given to localized flooding issues that may restrict access along limited access thoroughfares. Where access issues are identified, establish a plan for alternative transportation. (CRS 610)	1, 2, 4, 6	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	High	Brunswick Co Emergency Operations Center Municipal Administrations	GF
BC6	Maintain County and Town Stormwater Ordinances in conjunction with land use ordinances for compatibility of EPA Phase II NPDES requirements. These efforts should also include analysis of stormwater hotspots and potential remedies for these issues. (CRS 450)	1, 2, 3, 4, 5	1, 2, 4, 8, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	High	Brunswick Co Administration Municipal Administrations	GF, NCDEQ

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Number	Strategy	Goal Addressed (see page 6-3)	Hazard Addressed (see page 3-1)	Applicable Jurisdictions	Priority	Responsible Party/Dept.	Funding Sources
BC7	Consider submitting an application to join the Community Rating System using Hazard Mitigation components to fulfill application requirements.	1, 2, 3, 4, 6	1, 2, 4, 8, 10, 11, 12	Brunswick County, Belville, Boiling Spring Lakes, Bolivia, Carolina Shores, Leland, Navassa, Northwest, Sandy Creek, Shallotte, St. James, Varnamtown	High	Brunswick Co Administration Municipal Administrations NCDPS	GF, NCDPS
BC8	Review respective Comprehensive Land Use Plans annually to ensure that the Future Land Use Maps adequately delineates portions of the County/ municipalities deemed unsuitable for development due to existing environmental conditions or other factors outlined in this plan. (CRS 510)	2, 4	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	Moderate	Brunswick Co Planning Municipal Administrations	GF, NCDPS, NCDEQ
BC9	Review and update as necessary the Flood Damage Prevention Ordinance to ensure maximum protection from flood hazard events. Additionally, jurisdictions with freeboard requirements adopted at the local level will continue to enforce these minimum standards (Brunswick County freeboard requirements is two feet above BFE). (CRS 430)	1, 2, 3, 5	1, 2, 4, 8, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	High	Brunswick Co Administration Municipal Administrations	GF, NCDPS

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Number	Strategy	Goal Addressed (see page 6-3)	Hazard Addressed (see page 3-1)	Applicable Jurisdictions	Priority	Responsible Party/Dept.	Funding Sources
BC10	Periodically evaluate local land development regulations for ability to target and direct growth to areas consistent with the land classification map, the water distribution system, and existing and future sewer systems. (CRS 430, 510)	1, 2, 4, 6	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	Moderate	Brunswick Co Administration Municipal Administration	GF
BC11	Work closely with NCDOT and the Cape Fear Regional MPO to improve road access standards and protect the integrity of significant traffic-carrying roadways throughout the County. These efforts should specifically target the issue of restriping highway intersections and lane markings for higher visibility. (CRS 510)	2, 4, 6	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	Moderate	Brunswick Co Administration Municipal Administrations NC Department of Transportation Cape Fear Regional MPO	GF, NCDOT
BC12	Continue to consider incorporating the concept of cluster subdivision development into the County's subdivision regulations. Employing this development option, if adopted, will provide for a development pattern which minimizes impacts on environmentally sensitive portions of the County, including floodplains. (CRS 430)	1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	Brunswick County	Moderate	Brunswick Co Planning Brunswick Co Administration	GF, NCDEQ

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Number	Strategy	Goal Addressed (see page 6-3)	Hazard Addressed (see page 3-1)	Applicable Jurisdictions	Priority	Responsible Party/Dept.	Funding Sources
BC13	Review rebuilding activities after major storm events to determine how revisions to existing policies and procedures could help minimize repetitive losses. (CRS 340, 510, 540)	1, 2, 4, 6	1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	High	Brunswick Co Administration Municipal Administrations	GF, NCDPS, FEMA
BC14	Maintain all FEMA Elevation Certificates, FEMA Floodproofing Certificates for non-residential structures, and where applicable, a V Zone Design Certificate for all structures built or floodproofed since application to the CRS. V Zone Design Certification must be maintained only for structures built subsequent to January 1, 2013. (CRS 310)	1, 2, 3, 4, 6	1, 2, 4, 8, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	High	Brunswick Co Planning Municipal Administrations	GF
BC15	Review written policies on water and sewer system extensions and tap on policies to ensure that the County is adequately addressing and discouraging inappropriate development in sensitive environmental areas and areas prone to flood or storm surge hazards. (CRS 360, 510)	1, 2, 3, 4, 5	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	High	Brunswick Co Administration Brunswick Co Sewer Districts Municipal Administrations	GF, Sewer Districts

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Number	Strategy	Goal Addressed (see page 6-3)	Hazard Addressed (see page 3-1)	Applicable Jurisdictions	Priority	Responsible Party/Dept.	Funding Sources
BC16	Consider the data and recommendations outlined in this plan when preparing updates to Capital Improvements Plans. All recommendations regarding capital expenditures will focus on siting all infrastructure and public facilities outside of the Flood Hazard Area. (CRS 510)	1, 2, 3, 4, 5	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	Moderate	Brunswick Co Administration Municipal Administrations	GF
BC17	Inventory existing lots and structures within flood hazard areas to establish baseline data regarding current state of development. These efforts will be incorporated into the comprehensive planning process. (CRS 410, 420)	1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	Low	Brunswick Co Administration Municipal Administrations	GF, NCDPS, NCDEQ
BC18	Support commercial forestry activities, provided significant adverse impacts on natural resource systems are fully mitigated. Such activities should be considered in accordance with the standards and recommendations of the US Forest Service. The County also advocates the voluntary participation of commercial forestry interests in the State of North Carolina's best management practice program for forestry management. (CRS 420)	1, 2, 3, 4	6, 9	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	High	NC Forest Service Brunswick Co Emergency Services Municipal Administrations	GF, NCFS
BC19	Continue to support beach municipalities in maintenance/protection of beaches as well as protecting shorelines under County jurisdiction. (CRS 510)	1, 2, 3, 4, 5	1, 2, 4, 8, 10, 11, 12	Bald Head Island, Caswell Beach, Holden Beach, Oak Island, Ocean Isle Beach, Sunset Beach	High	Municipal Administrations	GF, USACE

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BC20	Continue to require 404 wetlands and 100-year floodplain areas to be delineated on all preliminary subdivision plats for lands within and adjacent to the proposed subdivision. (CRS 540)	1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	Moderate	Brunswick Co Administration Brunswick Co Emergency Operations Center NCDEQ	GF, NCDPS, NCDEQ
BC21	Continue to undertake the following actions to support maintenance of safe hurricane evacuation routes: <ul style="list-style-type: none"> <li>■ Identify and support improvements to roads that serve as hurricane evacuation routes.</li> <li>■ Post evacuation routes on County and Town websites.</li> <li>■ Perform routine bridge and culvert maintenance, and raise bridges over streams that have documented flooding during significant rain events.</li> <li>■ Support the planning and implementation of regional roadways. (CRS 610)</li> </ul>	2, 4, 6	1, 2, 4, 8, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	High	Brunswick Co Emergency Operations Center Municipal Administrations	GF, NCDPS
BC22	Continue to support the US Army Corps of Engineers' regulations, the applicable guidelines of the Coastal Area Management Act, and the use of local land use ordinances to regulate development of freshwater swamps, marshes, and 404 wetlands. (CRS 510)	1, 2, 3, 4, 5	1, 2, 4, 8, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	High	Brunswick Co Administration Municipal Administrations NCDEQ	GF, NCDEQ

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BC23	Support the relocation of structures endangered by erosion, if the relocated structure will be in compliance with all applicable policies and regulations. Additionally, the issue of tax base loss should be taken into account within municipal jurisdictions. (CRS 520)	1, 2, 3, 4, 5	1, 2, 4, 8, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	High	Brunswick Co Planning NCDPS	GF, NCDPS
BC24	Continue to enforce respective flood damage prevention ordinances and participate in the National Flood Insurance Program. Subdivision regulations will be enforced – requiring elevation monuments to be set so that floodplain elevations can be more easily determined. Additionally, municipalities with freeboard requirements shall continue to enforce this standard locally. (CRS 310, 430)	1, 2, 3, 4, 5	1, 2, 4, 8, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	High	Brunswick Co Planning Brunswick Co Administration	GF
BC25	Continue to support the guidelines of the Coastal Area Management Act and the efforts and programs of the NC Department of Environmental Quality, Division of Coastal Management and the Coastal Resources Commission to protect the coastal wetlands, estuarine waters, estuarine shorelines, and public trust waters of Brunswick County. (CRS 420, 510)	1, 2, 4, 5	1, 2, 4, 8, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	Moderate	Brunswick Co Administration Municipal Administrations	GF, NCDEQ

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Number	Strategy	Goal Addressed (see page 6-3)	Hazard Addressed (see page 3-1)	Applicable Jurisdictions	Priority	Responsible Party/Dept.	Funding Sources
BC26	Continue to proactively seek out grant funding through NCEM and FEMA for mitigation of repetitive loss properties (RLPs) from future flood events. The County will maintain a list of RLPs and, on an annual basis, will apply for funding for all structures that meet cost-benefit thresholds as defined by FEMA. The County will assist all municipal jurisdictions in working through the structural mitigation grant funding process. (CRS 520)	1, 2, 5	1, 2, 4, 8, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	High	Brunswick Co Administration Municipal Administrations	GF, NCDPS
BC27	Integrate publicly acquired land into public park and greenway systems. These efforts may be carried out through update of the County Blue/Greenway system, as well as municipal planning efforts. (CRS 420, 520)	1, 2, 3, 4, 5	1, 2, 4, 8, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	Moderate	Brunswick Co Administration Municipal Administrations	GF, NCDEQ, NCDOT
BC28	Continue to enforce the NC State Building Code. Local government inspections staff will recertify the NC State Building Code as the adopted local regulation applying to all construction activities on an annual basis. Through enforcement of the NC State Building Code, jurisdictions will work to ensure that all structures, including manufactured homes, are properly anchored to minimize potential impacts stemming from a disaster event. (CRS 430)	2, 4	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	High	Brunswick Co Inspections Municipal Inspections	GF

SECTION 6. MITIGATION STRATEGIES

Number	Strategy	Goal Addressed (see page 6-3)	Hazard Addressed (see page 3-1)	Applicable Jurisdictions	Priority	Responsible Party/Dept.	Funding Sources
BC29	Consider a policy for contractors to pick up building material and building debris prior to coastal storms.	1, 2, 3, 5	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	High	Brunswick Co Administration Municipal Administrations	GF, FEMA
BC30	Continue to enforce minimum housing code to require the improvement of substandard housing. (CRS 430)	2, 4	1, 2, 4, 8, 10, 11,, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	High	Brunswick Co Administration Municipal Administrations	GF
BC31	Continue providing density credits for developments that establish perpetual easements for ecologically sensitive lands. (CRS 430, 520)	2, 4	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	Low	Brunswick Co Administration Municipal Administrations	GF

SECTION 6. MITIGATION STRATEGIES

Number	Strategy	Goal Addressed (see page 6-3)	Hazard Addressed (see page 3-1)	Applicable Jurisdictions	Priority	Responsible Party/Dept.	Funding Sources
BC32	Enhance and develop new public accesses to waterway resources in a manner as to protect sensitive environment areas from development and implement the priority recommendations contained in the Brunswick County Shoreline Access Plan. (CRS 330)	1, 2, 3, 4, 5	1, 2, 4, 8, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	Moderate	Brunswick Co Administration Municipal Administrations	GF, NCDPS
BC33	Improve Hazard Warning and Response Plan (warning and evacuating critical facilities, getting persons out of flood-prone or isolated areas, controlling vehicles on evacuation routes, evacuation of hazard materials). (CRS 610)	1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	High	Brunswick Co Emergency Operations Center Brunswick Co Administration Municipal Administrations	GF, NCDPS
BC34	Continue and expand the program to retrofit schools and other public facilities to serve as emergency shelters.	2, 4	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	Moderate	Brunswick Co Schools Brunswick Co Administration	GF, NCDPS

SECTION 6. MITIGATION STRATEGIES

Number	Strategy	Goal Addressed (see page 6-3)	Hazard Addressed (see page 3-1)	Applicable Jurisdictions	Priority	Responsible Party/Dept.	Funding Sources
BC35	Provide training for "first responders" in identifying and reporting opportunities to mitigate the effects of future disasters at both the county and municipal level. (CRS 610)	2, 4, 6	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	High	Brunswick Co Emergency Services Municipal Administration	GF, N CDPS
BC36	Work with industry to develop emergency response plans for specific industries and ensure that all plans are fully coordinated with County emergency management plans. These efforts will be carried out in conjunction with the County LEPC. (CRS 510)	2, 4	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	Unincorporated Brunswick County	Moderate	Brunswick Co LEPC Brunswick Co Emergency Services	GF
BC37	Evaluate areas with limited evacuation capacity and pursue methods of improving capacity. These efforts will be carried out with support from NCDOT and NCDPS. (CRS 610)	2, 4, 6	1, 2, 4, 8, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	High	Brunswick Co Emergency Services Municipal Administrations	GF, NCDPS

SECTION 6. MITIGATION STRATEGIES

Number	Strategy	Goal Addressed (see page 6-3)	Hazard Addressed (see page 3-1)	Applicable Jurisdictions	Priority	Responsible Party/Dept.	Funding Sources
BC38	Continue debris removal program to correct problem sites at both the County and municipal level.	1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	High	Brunswick Co Emergency Services Brunswick Co Administration Municipal Administrations	GF, NCDPS
BC39	Continue to maintain/enforce an overall cap of 5% on post-development stormwater discharge increase over pre-development conditions through the County's stormwater management program. (CRS 430)	1, 2, 3, 4, 5	1, 2, 4, 8, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	High	Brunswick Co Engineering Brunswick Co Administration Municipal Administrations	GF, NCDPS
BC40	Continue to support efforts to place spoil materials from channel maintenance and dredging on Brunswick County beaches, including each of the incorporated municipalities, as warranted.	1, 2, 3, 4, 5	1, 2, 4, 8, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	Moderate	Brunswick Co Administration Municipal Administrations	GF, NCDPS

SECTION 6. MITIGATION STRATEGIES

Number	Strategy	Goal Addressed (see page 6-3)	Hazard Addressed (see page 3-1)	Applicable Jurisdictions	Priority	Responsible Party/Dept.	Funding Sources
BC41	Support Section 206 Lower Lockwood Folly River Aquatic Habitat Restoration Project (removal of sediment bars to increase tidal flushing and improve aquatic habitat).	1, 3, 4, 5	1, 2, 4, 8, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	High	Brunswick Co Administration	GF, NCDEQ, NCDOT
BC42	Continue implementation of EPA Phase II requirements. These efforts shall include providing oversight services to county municipalities. (CRS 450)	1, 3, 5	1, 2, 4, 8, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	High	Brunswick Co Engineering Brunswick Co Administration Municipal Administrations	GF, NCDEQ
BC43	Incorporate new FEMA digital FIRMs into the County GIS when necessary. This effort shall also include maintenance and inventory of all County land parcel data. (CRS 350, 410)	2, 4	1, 2, 4, 8, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	High	Brunswick Co Administration Municipal Administrations	GF, NCDPS

SECTION 6. MITIGATION STRATEGIES

Number	Strategy	Goal Addressed (see page 6-3)	Hazard Addressed (see page 3-1)	Applicable Jurisdictions	Priority	Responsible Party/Dept.	Funding Sources
BC44	Establish locations for flood awareness signs – show elevations of high water during/after Hurricane Floyd, the base flood, and the base flood plus 2 feet. Signs should be surveyed to serve as elevation reference marks. (CRS 330)	2, 4, 6	1, 2, 4, 8, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	Low	Brunswick Co Emergency Services Brunswick Co Administration Municipal Administrations	GF
BC45	Continue to work closely with real estate agents to ensure that prospective buyers are educated about development within a flood hazard area. The County will prepare materials for dissemination to local real estate agents to assist in this education process. Additionally, materials and information regarding mitigation and retrofitting techniques will be made available on County and municipal websites. (CRS 330)	2, 4, 6	1, 2, 4, 8, 10, 11, 12	Brunswick County, Bald Head Island, Calabash, Caswell Beach, Oak Island, Ocean Isle Beach, Southport, Sunset Beach	High	Brunswick Co Planning Brunswick Co Administration Municipal Administrations	GF, NCDPS, FEMA
BC46	Continue to expand upon the Alert Emergency Notification System available to all residents. Brunswick County Emergency Management will coordinate with all municipal jurisdictions regarding registration through the Brunswick County Emergency Notification Registration Portal. (CRS 610)	2	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	High	Brunswick Co Administration Municipal Administration	GF, NCDPS

SECTION 6. MITIGATION STRATEGIES

Number	Strategy	Goal Addressed (see page 6-3)	Hazard Addressed (see page 3-1)	Applicable Jurisdictions	Priority	Responsible Party/Dept.	Funding Sources
BC47	Establish and maintain retrofitting techniques and publicize in the public libraries, and also through citizen newsletters. (CRS 330)	2, 4	1, 2, 4, 8, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	High	Brunswick Co Emergency Services Brunswick Co Administration Municipal Administrations	GF, NCDPS
BC48	Coordinate with local churches and Spanish speaking representatives to disperse information about the hazards prevalent in the area and the steps they can take to mitigate these hazards. (CRS 330)	2, 4, 6	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	Moderate		GF, NCDPS
BC49	Maintain nuclear event preparedness. Develop a plan of action to maintain the materials and knowledge base for addressing a nuclear event, or develop preliminary measures to assist the county until the representatives arrive. This responsibility must be supported by provision of adequate funding for materials and training necessary to maintain this preparedness. These efforts should be coordinated with the County LEPC to also include addressing man-made/ technological hazards. (CRS 610)	1, 2, 3, 4, 5, 6	Man-made	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	High	Brunswick Co Emergency Services Municipal Administrations	GF, NCDPS

SECTION 6. MITIGATION STRATEGIES

Number	Strategy	Goal Addressed (see page 6-3)	Hazard Addressed (see page 3-1)	Applicable Jurisdictions	Priority	Responsible Party/Dept.	Funding Sources
BC50	Work closely with the Brunswick County Sheriff's Department on improving the County's multi-jurisdictional communications system in an effort to enhance interoperability.	1, 2, 3, 4, 6	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	High	Brunswick Co Sheriff's Office Municipal Administrations	GF, NCDPS
BC51	Monitor the status of backup generators, communications, and vehicles for all critical public facilities. In addition, develop a list of providers of emergency equipment.	1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	High	Brunswick Co Emergency Services Municipal Administrations	GF, NCDPS
BC52	Maintain fire event preparedness by ensuring fire hydrants are working properly and coordinating with the NC State Forest Service. These efforts will include the inspection of all fire hydrants. Additionally, County Emergency Services will incorporate the improvement of firefighting procedures into these efforts.	2, 4, 6	6	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	High	Brunswick Co Emergency Services Municipal Fire Departments NC Forest Service	GF, NCPDS, NCFS

SECTION 6. MITIGATION STRATEGIES

Number	Strategy	Goal Addressed (see page 6-3)	Hazard Addressed (see page 3-1)	Applicable Jurisdictions	Priority	Responsible Party/Dept.	Funding Sources
BC53	Continue to enforce and adopt water shortage response plans and water shortage ordinances for municipalities operating central water service.	1, 3, 5	9	Brunswick County, Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown	High	Brunswick County Administration Municipal Administrations	GF, NCDEQ
<b>VILLAGE OF BALD HEAD ISLAND</b>							
BC54	Continue to support the Bald Head Island Conservancy and the Smith Island Land Trust in their efforts to acquire land for open space preservation. It is the Village's desire that these properties be deed restricted and maintained in their natural state. (CRS 420)	1, 2, 3, 5	1, 2, 4, 8, 10, 11, 12	Bald Head Island	High	Bald Head Island Administration	GF, SILT
BC55	Continue to maintain a local early warning system relating to notifications regarding flooding and other man-made disasters. This effort should involve all citizens and visitors, as well as the Village's critical infrastructure system. (CRS 610)	2, 4, 6	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	Bald Head Island	High	Bald Head Island Emergency Services Brunswick County Emergency Services	GF, NCDPS
<b>TOWN OF HOLDEN BEACH</b>							
BC56	Continue to monitor and improve the town-wide water system. This effort will include: <ul style="list-style-type: none"> <li>■ Increase water pressure on west end of island by improving water availability, upsizing, or installing new lines.</li> <li>■ Relocate all critical elements of the Town's wastewater system above base flood elevation, including all pump stations and control mechanisms.</li> </ul>	1, 3, 5	6	Holden Beach	Moderate	Holden Beach Administration	GF, NCDEQ, HMGP

SECTION 6. MITIGATION STRATEGIES

Number	Strategy	Goal Addressed (see page 6-3)	Hazard Addressed (see page 3-1)	Applicable Jurisdictions	Priority	Responsible Party/Dept.	Funding Sources
<b>CITY OF NORTHWEST</b>							
BC57	Construct storm drainage piping and ditch improvements as follows: <ul style="list-style-type: none"> <li>■ 3,300 LF of ditch improvements; 1,200 LF of new ditch</li> <li>■ 2,250 LF of ditch improvements; 1,200 LF of new ditch</li> <li>■ 435 LF of ditch improvements; 2,100 LF of new ditch</li> <li>■ 300 LF of ditch improvements; 5,195 of new ditch</li> <li>■ 1,492 LF of new ditch; 1,900 LF of new ditch and piping</li> <li>■ Installation of 50 LF of RCP pipe</li> </ul>	1, 3, 5	1, 2, 4, 8, 10, 11, 12	Northwest	High	Northwest Administration	GF, NCDEQ
<b>CITY OF SOUTHPORT</b>							
BC58	Limit development adjacent to the railroad tracks.	1, 2, 3, 5	Man-made	Southport	Moderate	Southport Administration	GF
<b>TOWN OF ST. JAMES</b>							
BC59	Continue to actively participate in the Fire Wise program to reduce and remove debris that has the potential for fire hazards.	2, 4, 6	6	St. James	High	St. James Administration	GF
BC60	Continue to pursue efforts to reduce stormwater runoff by draining, in advance of major storm events, the numerous retention ponds located on golf courses to reduce the amount of localized flooding. (CRS 450)	1, 3, 5	1, 2, 4, 8, 10, 11, 12	St. James	High	St. James Administration	GF
<b>TOWN OF SUNSET BEACH</b>							
BC61	Inspect all fire hydrants within the Town's corporate limits on a revolving schedule. Through this effort, the Town will aim to inspect each hydrant a minimum of two times per calendar year.	1, 2, 3, 4, 5	6	Sunset Beach	High	Sunset Beach Fire Department Brunswick County Emergency Services	GF, NCDPS

SECTION 6. MITIGATION STRATEGIES

Number	Strategy	Goal Addressed (see page 6-3)	Hazard Addressed (see page 3-1)	Applicable Jurisdictions	Priority	Responsible Party/Dept.	Funding Sources
BC62	Maintain a pre-disaster debris management contract with a qualified provider. The Town will review and assess this contract every three years.	1, 2, 3, 4, 5	1, 2, 4, 8, 10, 11, 12	Sunset Beach	High	Sunset Beach Administration	GF
BC63	Conduct on-site fire inspections on all non-residential structures a minimum of once annually.	1, 3, 5	6	Sunset Beach	High	Sunset Beach Fire Department	GF
BC64	Maintain a staff level Public Information Officer charged with disseminating information relating to threats associated with man-made and natural disasters. The Public Information Officer's role and duties are defined within the Town's Hurricane Operations Plan.	1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	Sunset Beach	High	Sunset Beach Administration	GF
<b>TOWN OF OCEAN ISLE BEACH</b>							
BC65	Continue to maintain National Weather Service StormReady and TsunamiReady designations. (CRS 610)	1, 2, 3, 4, 6	1, 2, 4, 5, 10, 11	Ocean Isle Beach	Moderate	Ocean Isle Beach Administration Brunswick County Emergency Services	GF, NCDPS, NWS
BC66	Improve overall safety measures regarding ingress and egress from town. Initially, the town will achieve this strategy by installing five cameras at designated locations.	1, 2, 3, 4, 6	1, 2, 3, 5, 10, 11	Ocean Isle Beach	Moderate	Ocean Isle Beach Administration Brunswick County Emergency Services	GF, NCDPS

SECTION 6. MITIGATION STRATEGIES

**Table 6-3. New Hanover County Mitigation Strategies**

<b>Number</b>	<b>Strategy</b>	<b>Goal Addressed (see page 6-3)</b>	<b>Hazard Addressed (see page 3-1)</b>	<b>Applicable Jurisdictions</b>	<b>Priority</b>	<b>Responsible Party/Dept.</b>	<b>Funding Sources</b>
NHC1	Maintain the County's Continuity of Operations Plan (COOP) by ensuring that updates are completed in accordance with current New Hanover County policy. Currently, the county updates the plan where appropriate through the county's web-based management platform. The County Emergency Management Department will assist participating municipalities in development of their own respective COOP, as necessary.	1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	New Hanover County, Carolina Beach, Kure Beach, Wilmington, Wrightsville Beach	High	New Hanover Co Emergency Management New Hanover Co Administration Municipal Administrations	GF, NCDPS
NHC2	Continue to expand and improve upon bolstering the county's IT/GIS systems against both man-made and natural hazard threats. This effort will involve the identification and elimination of known vulnerabilities and periodic updates of the GIS mapping system. Through this effort, the county will attempt to expand the scope of this effort to potentially involve and address issues associated with the local business community. (CRS 410, 320)	1, 3, 5	1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12	New Hanover County, Carolina Beach, Kure Beach, Wilmington, Wrightsville Beach	High	New Hanover Co Information Technology New Hanover Co Administration	GF
NHC3	Continue to maintain generators installed at all shelter facilities and other critical facilities through a routine maintenance schedule. Additionally, the county will aim to install permanent generators at critical facilities identified through this planning effort, if feasible.	2, 4, 6	1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12	New Hanover County, Carolina Beach, Kure Beach, Wilmington, Wrightsville Beach	High	New Hanover Co Emergency Management New Hanover Co Property Management	GF, NCDPS, ARC
NHC4	Continue to implement the Rip Current Awareness Program to promote rip current awareness within the county by partnering with various beach services and the National Weather Service. Emphasis should be placed on educating children, the local public and tourists. (CRS 330)	2, 4	11	Carolina Beach, Kure Beach, Wilmington, Wrightsville Beach	High	Municipal Administrations	GF

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Number	Strategy	Goal Addressed (see page 6-3)	Hazard Addressed (see page 3-1)	Applicable Jurisdictions	Priority	Responsible Party/Dept.	Funding Sources
NHC5	New Hanover County has established a capital project fund to assist with drainage projects located within the unincorporated county. Projects are identified, prioritized, and implemented as necessary to improve drainage to benefit affected property owners. Where required, projects are coordinated with the NC Department of Environmental Quality and the United States Army Corps of Engineers. (CRS 510)	1, 2, 4, 5, 6	1, 2, 4, 8, 10, 11, 12	New Hanover County	Moderate	New Hanover Co Engineering New Hanover Co Administration	GF, NCDPS, PDM, UHMA, NCDEQ, USACE
NHC6	Continue to enforce the NC State Building Code. Local government inspections staff will recertify the NC State Building Code as the adopted local regulation applying to all construction activities on an annual basis. Through enforcement of the NC State Building Code, jurisdictions will work to ensure that all structures, including manufactured homes, are properly anchored to minimize potential impacts stemming from a disaster event. (CRS 430)	2, 4	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	New Hanover County, Carolina Beach, Kure Beach, Wilmington, Wrightsville Beach	High	New Hanover Co Inspections Municipal Inspections	GF
NHC7	Assist in securing funding to retrofit/elevate wastewater pumping stations located in the 100-year floodplain. These infrastructure components routinely flood during flooding and storm surge events. (CRS 510, 520)	1, 3, 5	1, 2, 4, 8, 10, 11, 12	New Hanover County, Carolina Beach, Kure Beach, Wilmington, Wrightsville Beach	Moderate	New Hanover Co Engineering New Hanover Co Administration Municipal Administrations Cape Fear Public Utility Authority	GF, NCDPS, PDM, UHMA
NHC8	Continue to work closely with the US Department of Agriculture to carry out the county-wide Beaver Management Program. (CRS 510)	1, 3, 5	1, 2, 4, 8, 10, 11, 12	New Hanover County, Carolina Beach, Kure Beach, Wilmington, Wrightsville Beach	Moderate	New Hanover Co Engineering New Hanover Co Administration Municipal Administrations	GF, NCDEQ
NHC9	Adopt updated Flood Insurance Rate Map data and Flood Damage Prevention Ordinance. Continue to evaluate Flood Damage Prevention Ordinance to ensure most effective floodplain management practices are being implemented. (CRS 350, 410)	1, 2, 3, 4, 5	1, 2, 4, 8, 10, 11, 12	New Hanover County, Carolina Beach, Kure Beach, Wilmington, Wrightsville Beach	High	New Hanover Co Planning Municipal Administrations	GF, NCDPS

SECTION 6. MITIGATION STRATEGIES

Number	Strategy	Goal Addressed (see page 6-3)	Hazard Addressed (see page 3-1)	Applicable Jurisdictions	Priority	Responsible Party/Dept.	Funding Sources
NHC10	The New Hanover County Engineering Department will review and revise the Stormwater Ordinance as necessary to address the current conditions located throughout the county. Existing drainage, which is an integral part of stormwater management, is being addressed under NHC5. (CRS 450)	1, 3, 5	1, 2, 4, 8, 10, 11, 12	New Hanover County, Wilmington	Moderate	New Hanover Co Engineering Wilmington Planning	GF, NCDPS
NHC11	Update existing vulnerability analysis on all critical facilities identified through the county inventory. (CRS 510)	1, 3, 5	1, 2, 4, 8, 10, 11, 12	New Hanover County	Moderate	New Hanover Co Emergency Management New Hanover Co Engineering New Hanover Co Administration New Hanover Co Property Management	GF, NCDEQ
NHC12	Identify opportunities for acquisition, elevation, retrofitting, and/or reconstruction of hazard prone properties. Continue to notify repetitive loss property owners to see if they are interested in participating in future programs. (CRS 520)	1, 2, 3, 4, 5	1, 2, 4, 8, 10, 11, 12	New Hanover County, Carolina Beach, Kure Beach, Wilmington, Wrightsville Beach	High	New Hanover Co Administration New Hanover Co Emergency Management New Hanover Co Planning New Hanover Co Soil and Water Conservation Municipal Administrations	GF, HMGP, PDM, UHMA
NHC13	Continue to implement the county's public awareness campaign emphasizing the economic benefits of participation in the CRS program. The primary focus of this effort is to educate citizens about the hazards associated with floodplain development. (CRS 330)	1, 2, 3, 4, 5	1, 2, 4, 8, 10, 11, 12	New Hanover County, Carolina Beach, Kure Beach, Wrightsville Beach	High	New Hanover Co Planning New Hanover Co Administration New Hanover Co Communications and Outreach Municipal Administrations	GF, FEMA
NHC14	Continue to conduct a public awareness campaign regarding potential hazards of urban/wildfire interface. (CRS 330)	1, 2, 3, 4, 5	6	New Hanover County, Carolina Beach, Kure Beach, Wilmington, Wrightsville Beach	High	New Hanover Co Fire Services New Hanover Co Emergency Management New Hanover Co Planning Municipal Administrations NC Forest Service	GF, FEMA, NCFS
NHC15	Continue to encourage standards for Firewise Communities/USA into the subdivision review process.	1, 2, 3, 5	6	New Hanover County, Carolina Beach, Kure Beach, Wilmington, Wrightsville Beach	High	New Hanover Co Fire Services New Hanover Co Planning New Hanover Co Emergency Management	GF

SECTION 6. MITIGATION STRATEGIES

<b>Number</b>	<b>Strategy</b>	<b>Goal Addressed (see page 6-3)</b>	<b>Hazard Addressed (see page 3-1)</b>	<b>Applicable Jurisdictions</b>	<b>Priority</b>	<b>Responsible Party/Dept.</b>	<b>Funding Sources</b>
NHC16	Continue to research funding options for the installation of sewer in portions of the county that still rely on septic systems.	1, 3, 5	1, 2, 4, 8, 10, 11, 12	New Hanover County, Carolina Beach, Kure Beach, Wilmington, Wrightsville Beach	High	New Hanover Co Engineering New Hanover Co Administration New Hanover Co Health Department Municipal Administrations Cape Fear Public Utility Authority	GF, NCDEQ, NCDPS
NHC17	Use all available tools to disseminate a range of information including but not limited to natural hazard awareness, evacuation orders, and man-made events. (CRS 330)	2, 4	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	New Hanover County, Carolina Beach, Kure Beach, Wilmington, Wrightsville Beach	High	New Hanover Co Emergency Management New Hanover Co Administration New Hanover Co Communications and Outreach	GF
NHC18	Continue to enforce additional land use regulations in Special Flood Hazard Areas, Areas of Environmental Concern through implementation of Zoning Ordinance, Subdivision Ordinance, Flood Damage Prevention Ordinance, and CAMA Minor Permitting Program. (CRS 430, 510)	1, 2, 3, 5	1, 2, 4, 8, 10, 11, 12	New Hanover County, Carolina Beach, Kure Beach, Wilmington, Wrightsville Beach	High	New Hanover Co Planning Municipal Administrations	GF
NHC19	Following a storm event, take advantage of opportunities to acquire or purchase land located in storm hazard areas which are rendered unbuildable or have sustained substantial damage, as funding is available. The property should satisfy objectives including, but not limited to, the conservation of open space and scenic areas and the provision of public water access. (CRS 520)	1, 2, 3, 5	1, 2, 4, 8, 10, 11, 12	New Hanover County, Carolina Beach, Kure Beach, Wilmington, Wrightsville Beach	High	New Hanover Co Administration New Hanover Co Planning New Hanover Co Soil and Water Conservation New Hanover Co Parks and Gardens Municipal Administrations	GF, HMGP, UHMA, NCDPS
NHC20	Conduct new assessments of hazard areas periodically to address changes to floodplain, shoreline, and inlet conditions caused by natural and man-made forces. This effort will be carried out through periodic Hazard Mitigation, Comprehensive Land Use, Parks & Recreation, and Greenway Master planning efforts. (CRS 410)	1, 3, 5	1, 2, 4, 8, 10, 11, 12	New Hanover County, Carolina Beach, Kure Beach, Wilmington, Wrightsville Beach	High	New Hanover Co Planning New Hanover Co Administration New Hanover Co Engineering New Hanover Co Parks and Gardens Municipal Administrations	GF, NCDPS, NCDEQ
NHC21	Consider developing innovate approaches to floodplain management including density tradeoffs, cluster development regulations, and additional opportunities for land donation and dedication. (CRS 510)	1, 2, 3, 5	1, 2, 4, 8, 10, 11, 12	New Hanover County	High	New Hanover Co Planning New Hanover Co Administration	GF, NCDEQ

SECTION 6. MITIGATION STRATEGIES

Number	Strategy	Goal Addressed (see page 6-3)	Hazard Addressed (see page 3-1)	Applicable Jurisdictions	Priority	Responsible Party/Dept.	Funding Sources
NHC22	Continue to maintain annual review process for New Hanover County Health Department's (NHCHD) Preparedness Plan to include the NHCHD Emergency Response, Community Containment, Mass Prophylaxis, Pandemic Influenza, Medical Countermeasure Plans, and the Response Plans Development Review policy and the Epidemiology (EPI) Team Policy.	2, 3, 4, 6	Man-made	New Hanover County, Carolina Beach, Kure Beach, Wilmington, Wrightsville Beach	High	New Hanover Co Health Department New Hanover Co Emergency Management Municipal Administrations	GF
NHC23	Continue to require and provide National Incident Management System (NIMS) training for county personnel which includes ICS 100, ICS 200, ICS 300, ICS 400, IS 700, and IS 800.	1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	New Hanover County, Carolina Beach, Kure Beach, Wilmington, Wrightsville Beach	High	New Hanover Co Emergency Management New Hanover Co Administration New Hanover Co Human Resources Municipal Administrations	GF
NHC24	Continue to sustain radio communications system through maintenance contracts and system upkeep, as funding is available. (CRS 610)	1, 2, 3, 5, 6	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	New Hanover County, Carolina Beach, Kure Beach, Wilmington, Wrightsville Beach	High	New Hanover Co Emergency Management New Hanover Co Administration Municipal Administrations	GF, NCDPS
NHC25	Encourage new property owners, contractors, real estate agents, builders, developers, and architects to become familiar with NFIP land use and building standards and principles for quality redevelopment and safe housing development through written materials. These materials are available through local building inspections departments, local library branches, and online. (CRS 320, 330, 350)	1, 2, 3, 5	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	New Hanover County, Carolina Beach, Kure Beach, Wilmington, Wrightsville Beach	High	New Hanover Co Planning Municipal Administrations	GF
NHC26	Continue public outreach efforts to educate the community about disaster preparedness for all hazards significant to New Hanover County. (CRS 320, 330, 350)	1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	New Hanover County, Carolina Beach, Kure Beach, Wilmington, Wrightsville Beach	High	New Hanover Co Emergency Management New Hanover Co Communications and Outreach Municipal Administrations	GF, NCDPS

SECTION 6. MITIGATION STRATEGIES

Number	Strategy	Goal Addressed (see page 6-3)	Hazard Addressed (see page 3-1)	Applicable Jurisdictions	Priority	Responsible Party/Dept.	Funding Sources
NHC27	Incorporate information regarding Emergency Response and Re-Entry policies and procedures and relevant emergency response actions the public can take using emergency management outreach and communication procedures as outlined in the Emergency Operations Plan. All entities should be clear regarding all responsibilities outlined in the Emergency Operations Plan.	1, 2, 3, 5, 6	1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12	New Hanover County, Carolina Beach, Kure Beach, Wilmington, Wrightsville Beach	High	New Hanover Co Emergency Management New Hanover Co Communications and Outreach Municipal Administrations	GF
NHC28	Maintain a website which provides information about the Regional Hazard Mitigation Plan and relevant mitigation measures the public can take. (CRS 330)	2, 4	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	New Hanover County, Carolina Beach, Kure Beach, Wilmington, Wrightsville Beach	High	New Hanover Co Emergency Management New Hanover Co Communications and Outreach Municipal Administrations	GF
NHC29	Continue working with the NC Department of Transportation and participating jurisdictions to improve road visibility and maintain evacuation routes in the event of a natural or man-made disaster. (CRS 610)	2, 4, 6	1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12	New Hanover County, Carolina Beach, Kure Beach, Wilmington, Wrightsville Beach	High	New Hanover Co Emergency Management Municipal Administrations Wilmington Urban Area Metropolitan Planning Organization	GF, NCDPS
NHC30	Publicize on county/municipal websites maps of evacuation routes which will facilitate the evacuation of all coastal portions of the county in case of a hazardous event. (CRS 330)	2, 4, 6	1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12	New Hanover County, Carolina Beach, Kure Beach, Wilmington, Wrightsville Beach	High	New Hanover Co Emergency Management New Hanover Co Communications and Outreach Municipal Administrations	GF, NCDPS
NHC31	Work with the various county/municipal fire departments to assure adequate fire prevention and protection during fire events. Part of this responsibility is dependent upon each department's ability to maintain the materials and a knowledge base for addressing such events. This responsibility must be supported by provision of adequate funding for the continuing education and materials necessary to maintain this preparedness.	1, 2, 3, 4, 5, 6	6	New Hanover County, Carolina Beach, Kure Beach, Wilmington, Wrightsville Beach	High	New Hanover Co Emergency Management New Hanover Co Fire Services Municipal Fire Departments	GF

SECTION 6. MITIGATION STRATEGIES

Number	Strategy	Goal Addressed (see page 6-3)	Hazard Addressed (see page 3-1)	Applicable Jurisdictions	Priority	Responsible Party/Dept.	Funding Sources
NHC32	Assist with procurement of additional emergency generators for wastewater pump stations within the floodplain. Assign fixed or portable generators as appropriate for site location.	1, 3, 5	1, 2, 4, 8, 10, 11, 12	New Hanover County, Carolina Beach, Kure Beach, Wilmington, Wrightsville Beach	Moderate	New Hanover Co Administration Municipal Administrations Cape Fear Public Utility Authority	GF, NCDPS, FEMA
NHC33	Maintain vegetation-free perimeter buffers around groundwater well sites, pump stations, and drinking water storage tanks to mitigate wildfire hazards to critical infrastructure. (CRS 420, 510)	1, 3, 5	6	New Hanover County, Carolina Beach, Kure Beach, Wilmington, Wrightsville Beach	Moderate	New Hanover Co Administration Municipal Administrations Cape Fear Public Utility Authority	GF, NCDPS, NCDEQ
NHC34	Continue to enforce and adopt water shortage response plans and water shortage ordinances for municipalities operating central water service.	1, 3, 5	9	New Hanover County, Carolina Beach, Kure Beach, Wilmington, Wrightsville Beach	High	New Hanover Co Health Department New Hanover Co Planning Municipal Administrations Cape Fear Public Utility Authority	GF, NCDEQ
NHC35	Work with industry to develop emergency response plans for specific industries and ensure that all plans are fully coordinated with County emergency management plans. These efforts will be carried out in conjunction with the County LEPC. (CRS 510)	2, 4	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	Unincorporated New Hanover County	Moderate	New Hanover Co LEPC New Hanover Co Emergency Management Wilmington Business Development Wilmington Chamber of Commerce	GF
<b>CITY OF WILMINGTON</b>							
NHC36	Maintain internal policies and procedures to support City employees in responding to emergency situations. Policies and procedures will include, but will not be limited to, an Inclement Weather Policy. (CRS 610)	1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	Wilmington	High	Wilmington Administration	GF
NHC37	Continue to provide training for City personnel through FEMA's Emergency Management Institute (EMI) including ICS 100, ICS 200, ICS 300, ICS 400, ICS 700, and IS 800.	1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	Wilmington	High	Wilmington Administration	GF
NHC38	Partner with the County to incorporate hazard mitigation educational materials in existing communication vehicles such as city newsletters and city/county websites. (CRS 330, 610)	1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	Wilmington	High	Wilmington Administration New Hanover County Emergency Management	GF

SECTION 6. MITIGATION STRATEGIES

**Table 6-4. Pender County Mitigation Strategies**

<b>Number</b>	<b>Strategy</b>	<b>Goal Addressed (see page 6-3)</b>	<b>Hazard Addressed (see page 3-1)</b>	<b>Applicable Jurisdictions</b>	<b>Priority</b>	<b>Responsible Party/Dept.</b>	<b>Funding Sources</b>
PC1	In concert with the American Red Cross (ARC), maintain a continuously updated list of all dedicated shelter facilities.	1, 2, 3, 5	1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12	Pender County, Atkinson, Burgaw, St. Helena, Surf City, Topsail Beach, Watha	High	Pender County Emergency Management Municipal Administrations American Red Cross	GF, NCDPS, ARC
PC2	Maintain continuous contact/working relationship with electric service providers in the County to address the following (1) disaster preparedness techniques (e.g., tree trimming, vegetation planting requirements, pole replacement), (2) Identify critical electrical facilities needing retrofit or upgrade and map with elevation reference marks and, (3) communication with County officials during and immediately after a natural hazard event that results in loss of electrical power. Meet at least once per year with electric service providers in preparation for hurricane season. (CRS 510)	1, 3, 5	1, 2, 4, 8, 10, 11, 12	Pender County, Atkinson, Burgaw, St. Helena, Surf City, Topsail Beach, Watha	High	Pender County Emergency Management Electric Service Providers	GF, Electric Service Providers
PC3	Expand availability and improve effectiveness of all secondary power sources at all County and Municipal critical facilities. (CRS 420, 520)	1, 2, 3, 5	1, 2, 4, 8, 10, 11, 12	Pender County, Atkinson, Burgaw, St. Helena, Surf City, Topsail Beach, Watha	High	Pender County Emergency Management Municipal Administrations	GF, NCDPS
PC4	Support the establishment of conservation easements on all floodprone property and impose such easements on all properties acquired with public assistance funds. The county will assist municipalities in working through this process. (CRS 420)	1, 2, 4, 5	1, 2, 4, 8, 10, 11, 12	Pender County, Atkinson, Burgaw, St. Helena, Surf City, Topsail Beach, Watha	High	Pender County Planning Municipal Administrations	GF, PDM, HMGP, UHMA
PC5	Conduct an annual review of development restrictions in floodplain areas and maintain initiatives to ensure limited residential and commercial development in the floodplains and protection of critical facilities. This effort should include a review of county and municipal zoning, subdivision, and flood damage prevention regulations. (CRS 430)	1, 2, 3, 4, 5	1, 2, 4, 8, 10, 11, 12	Pender County, Atkinson, Burgaw, St. Helena, Surf City, Topsail Beach, Watha	High	Pender County Planning Municipal Administrations	GF

SECTION 6. MITIGATION STRATEGIES

Number	Strategy	Goal Addressed (see page 6-3)	Hazard Addressed (see page 3-1)	Applicable Jurisdictions	Priority	Responsible Party/Dept.	Funding Sources
PC6	Maintain all properties acquired through HMGP funding or other sources aimed at addressing natural hazard mitigation as open space in perpetuity. (CRS 520)	1, 3, 5	1, 2, 4, 8, 10, 11, 12	Pender County, Atkinson, Burgaw, St. Helena, Surf City, Topsail Beach, Watha	High	Pender County Administration Municipal Administrations	GF
PC7	Adopt and annually update capital improvements plans at the county and municipal level with an emphasis on mitigation for critical facilities including relocation and retrofiting. (CRS 510)	1, 2, 3, 5	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	Pender County, Atkinson, Burgaw, St. Helena, Surf City, Topsail Beach, Watha	Moderate	Pender County Emergency Management Municipal Administrations	GF
PC8	At the staff level, work with the NCDOT to identify and develop resolutions for local and regional drainage issues created by NCDOT facilities, including inspections of channels, retention basins, and, as needed, pursue debris removal. (CRS 450)	1, 3, 5	1, 2, 4, 8, 10, 11, 12	Pender County, Atkinson, Burgaw, St. Helena, Surf City, Topsail Beach, Watha	Moderate	Pender County Planning Municipal Administrations NCDOT	GF, NCDOT
PC9	Apply for all available funding from the Hazard Mitigation Grant Program (HMGP) and funds to assist with the mitigation of severe repetitive loss properties to relocate structures out of the floodplain. (CRS 420, 520)	1, 2, 3, 4, 5	1, 2, 4, 8, 10, 11, 12	Pender County, Atkinson, Burgaw, St. Helena, Surf City, Topsail Beach, Watha	High	Pender County Administration Municipal Administrations	GF, PDM, HMGP, UHMA
PC10	Require a finished floor elevation certificate for all development within the special flood hazard area (SFHA) within both incorporated and unincorporated portions of the County. All elevation certificates should be submitted on an official FEMA elevation certificate. No certificate of occupancy shall be issued for any development within a defined special flood hazard area without the submittal of the required elevation certificate. (CRS 310)	1, 3, 5	1, 2, 4, 8, 10, 11, 12	Pender County, Atkinson, Burgaw, St. Helena, Surf City, Topsail Beach, Watha	High	Pender County Administration Pender County Planning Municipal Administrations	GF
PC11	Continue to comply with NC State Coastal stormwater regulations. (CRS 450, 540)	1, 3, 5	1, 2, 4, 8, 10, 11, 12	Pender County, Atkinson, Burgaw, St. Helena, Surf City, Topsail Beach, Watha	High	Pender County Administration Pender County Planning Municipal Administrations	GF, NCDEQ

SECTION 6. MITIGATION STRATEGIES

Number	Strategy	Goal Addressed (see page 6-3)	Hazard Addressed (see page 3-1)	Applicable Jurisdictions	Priority	Responsible Party/Dept.	Funding Sources
PC12	Continuously maintain tax parcel information for all properties located throughout the county.	1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	Pender County, Atkinson, Burgaw, St. Helena, Surf City, Topsail Beach, Watha	High	Pender County GIS	GF
PC13	Maintain a map information service involving the following: (1) Provide information relating to Flood Insurance Rate Maps (FIRMs) to all inquirers, including providing information on whether a given property is located within a flood hazard area, (2) Provide information regarding the flood insurance purchase requirement on the county's website, (3) Maintain historical and current FIRM's, (4) Locally advertise annually in the local newspaper, (5) Provide information to inquirers about local floodplain management requirements, (6) Include in the county's newsletter (all property owners) and on the county's website a letter on flood insurance, (7) Notify property owners within a floodprone area that they are subject to flooding. (CRS 320)	1, 2, 3, 4, 5	1, 2, 4, 8, 10, 11, 12	Pender County, Atkinson, Burgaw, St. Helena, Surf City, Topsail Beach, Watha	High	Pender County Planning Pender County Emergency Management Pender County Administration Municipal Administrations	GF, FEMA
PC14	Make information regarding hazards and development regulations within the floodplains available through the following: (1) The County Planning Director will ensure that the local library maintains information relating to flooding and flood protection, (2) The County will provide a link on their website to FEMA resources addressing flooding and flood protection, and (3) materials will be made available at municipal administration buildings. (CRS 430)	1, 2, 3, 4, 5	1, 2, 4, 8, 10, 11, 12	Pender County, Atkinson, Burgaw, St. Helena, Surf City, Topsail Beach, Watha	High	Pender County Planning Pender County Emergency Management Pender County Administration Municipal Administrations	GF, FEMA

SECTION 6. MITIGATION STRATEGIES

Number	Strategy	Goal Addressed (see page 6-3)	Hazard Addressed (see page 3-1)	Applicable Jurisdictions	Priority	Responsible Party/Dept.	Funding Sources
PC15	Provide comprehensive services regarding planning and development activities within the defined SFHA. These services will include (1) Providing site specific flood and flood-related information on an as needed basis, (2) Building inspections department will maintain a list of contractors with experience in floodproofing and retrofit techniques, (3) Building inspections department will maintain materials providing an overview of how to select a qualified contractor, (4) Make site visits upon request to review occurrences of flooding, drainage, and sewer problems--if applicable, inspector should provide one-on-one advice to the property owner, (5) Provide advice and assistance regarding CRS Activity 530, (6) Advertise the availability of services annually within the local newspaper, and (7) Maintain a log of all individuals assisted through these services, including site visits. (CRS 330, 340, 350)	1, 2, 3, 4, 5	1, 2, 4, 8, 10, 11, 12	Pender County, Atkinson, Burgaw, St. Helena, Surf City, Topsail Beach, Watha	High	Pender County Planning Pender County Administration Municipal Administrations	GF, FEMA
PC16	Work with local real estate agencies to ensure that agents are informing clients when property for sale is located within an SFHA. The County will provide these agencies with brochures documenting the concerns relating to development located within flood prone areas. (CRS 330)	1, 2, 3, 4, 5	1, 2, 4, 8, 10, 11, 12	Pender County, Atkinson, Burgaw, St. Helena, Surf City, Topsail Beach, Watha	High	Pender County Planning Pender County Administration Municipal Administrations	GF
PC17	Coordinate with the Pender County School System Hazards Awareness Educational Programs to be presented by Public Safety personnel. (CRS 330)	2, 4	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	Pender County, Atkinson, Burgaw, St. Helena, Surf City, Topsail Beach, Watha	High	Pender County Emergency Management	GF
PC18	Post educational information on the County's website addressing the hazards associated with wildfires, hail, tsunamis, tornados, hurricanes, flooding, and storm surge, as well as other hazards outlined in Section 3 of this plan. (CRS 330)	2, 4	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	Pender County, Atkinson, Burgaw, St. Helena, Surf City, Topsail Beach, Watha	High	Pender County Emergency Management Municipal Administrations	GF

**SECTION 6. MITIGATION STRATEGIES**

<b>Number</b>	<b>Strategy</b>	<b>Goal Addressed (see page 6-3)</b>	<b>Hazard Addressed (see page 3-1)</b>	<b>Applicable Jurisdictions</b>	<b>Priority</b>	<b>Responsible Party/Dept.</b>	<b>Funding Sources</b>
PC19	Continue to rely on the Pender County Emergency Operations Plan (EOP) for effective disaster event communication. These efforts should include exercises to ensure that all municipalities are engaged and aware of their role in the emergency response process.	1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	Pender County, Atkinson, Burgaw, St. Helena, Surf City, Topsail Beach, Watha	High	Pender County Emergency Management Municipal Administrations	GF, NCDPS
PC20	Maintain a registry of special medical needs individuals who has been coordinated with the Pender County Department of Social Services. This list will include: (1) Persons on life support systems, (2) Persons dependent on electricity for medical equipment, and (3) Persons with severe mental handicap or mental illness. Coordinate with current county system and local plans. Connect with county CTY (Call Back Program). (CRS 610)	2, 4, 6	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	Pender County, Atkinson, Burgaw, St. Helena, Surf City, Topsail Beach, Watha	High	Pender County Social Services Municipal Administrations	GF, NCDPS
PC21	Work on the five year implementation of this plan. At the end of this five year period, the county will undertake efforts to update this plan including the following ten planning steps: (1) Organize to prepare the plan, (2) Involve the public, (3) Coordinate with other agencies, (4) Assess the hazard, (5) Assess the problem, (6) Set goals, (7) Review possible activities, (8) Draft an action plan, (9) Adopt the plan, and (10) Implement, evaluate, and revise.	1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	Pender County, Atkinson, Burgaw, St. Helena, Surf City, Topsail Beach, Watha	High	Pender County Administration Municipal Administrations	GF, PDM, HMGP
PC22	Continue to enforce the International Building Code, to include requiring that new structures or structures undergoing significant renovation (renovations or expansion exceeding 50% of fair market value) meet code requirements for coastal and noncoastal areas. (CRS 430)	1, 2, 3, 4, 5	1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12	Pender County, Atkinson, Burgaw, St. Helena, Surf City, Topsail Beach, Watha	High	Pender County Planning Municipal Administrations	GF

SECTION 6. MITIGATION STRATEGIES

Number	Strategy	Goal Addressed (see page 6-3)	Hazard Addressed (see page 3-1)	Applicable Jurisdictions	Priority	Responsible Party/Dept.	Funding Sources
PC23	Continue to support the NC Office of Dam Safety's efforts to monitor and inspect all dams throughout the state. The county will rely on this agency to ensure that all dam facilities, both public and private, are properly maintained and stable. (CRS 630)	1, 2, 5	1, 2, 4, 8, 10, 11, 12	Pender County, Atkinson, Burgaw, St. Helena, Surf City, Topsail Beach, Watha	High	Pender County Administration Municipal Administrations	GF
PC24	Request Hazard Mitigation Assistance (HMA) funding for the elevation/floodproofing of repetitive loss properties. (CRS 420, 520)	1, 2, 3, 5	1, 2, 4, 8, 10, 11, 12	Pender County, Atkinson, Burgaw, St. Helena, Surf City, Topsail Beach, Watha	High	Pender County Emergency Management Municipal Administrations	GF, PDM, HMGP, UHMA
PC25	Request Hazard Mitigation Assistance (HMA) funding for windproofing of critical facilities.	1, 2, 3, 5	1, 2, 4, 8, 10, 11, 12	Pender County, Atkinson, Burgaw, St. Helena, Surf City, Topsail Beach, Watha	High	Pender County Emergency Management Municipal Administrations	GF, PDM, HMGP, UHMA
PC26	Continue to maintain state approved water supply plans in municipalities operating central water service.	1, 3, 5	9	Pender County, Atkinson, Burgaw, St. Helena, Surf City, Topsail Beach, Watha	High	Pender County Public Works Municipal Administrations	GF, NCDEQ
PC27	Continue to enforce and adopt water shortage response plans and water shortage ordinances for municipalities operating central water service.	1, 3, 5	9	Pender County, Atkinson, Burgaw, St. Helena, Surf City, Topsail Beach, Watha	High	Pender County Public Works Municipal Administrations	GF, NCDEQ
PC28	Continue to seek funding sources for the elevation or retrofitting of existing sewer lift stations in an effort to reduce or eliminate the impacts from flooding. (CRS 520)	1, 3, 5	1, 2, 4, 8, 10, 11, 12	Pender County, Atkinson, Burgaw, St. Helena, Surf City, Topsail Beach, Watha	Moderate	Pender County Administration Municipal Administrations	GF, PDM, HMGP, UHMA

## SUMMARY OF CRS RATING OF STRATEGIES

All jurisdictions participating in this plan which are members of the Community Rating System (CRS) program should focus on the implementation of the following guidance. These efforts should be carried out above and beyond the strategies defined in Tables 6-2 through 6-4. All communities participating in the CRS program are identified on pages 4-10 and 4-11 of this plan.

<b>CRS Number</b>	<b>CRS Activity</b>	<b>National Average Awarded CRS Points</b>	<b>CRS Documentation</b>
310	Elevation Certificates	69	All required elevation certificates shall be kept on file within the responsible party's Building Inspections Department.
320	Map Information Service	138	The responsible party shall maintain the following information relating to the map information service: <ul style="list-style-type: none"> <li>■ A log of inquiries including: date, FIRM zone of subject property, address/location of subject property, indication that inquirer was informed of insurance purchase requirement.</li> <li>■ Records of all agencies who have inquired, or were provided information.</li> <li>■ Copies of historical and current FIRM's within the local government Planning and Inspections department.</li> <li>■ A copy of the affidavit documenting that this service was publicized in the local newspaper once annually.</li> </ul>
330	Outreach Activities	90	The responsible party shall maintain a copy of the following information: <ul style="list-style-type: none"> <li>■ A copy of the notice mailed to all property owners located within an SFHA</li> <li>■ A listing of all property owners the notice was mailed to</li> <li>■ A notice certifying the date the notices were mailed</li> <li>■ Copies of the outreach projects conducted during the year</li> </ul>
340	Hazard Disclosure	19	The responsible party shall maintain a copy of the following information relating to hazard disclosure: <ul style="list-style-type: none"> <li>■ Disclosure statements from five local real estate agents stating that it is their agencies policy to inform clients if a property is located within an SFHA</li> <li>■ A copy of the brochure that the county has disseminated to real estate agents</li> </ul>
350	Flood Protection Information	24	The responsible party shall maintain the following information regarding the provision of flood protection insurance: <ul style="list-style-type: none"> <li>■ A listing of publication dates for all materials on file at the local library</li> <li>■ A statement from the Librarian that the flood related materials are listed within the libraries resource management system</li> </ul>

SECTION 6. MITIGATION STRATEGIES

CRS Number	CRS Activity	National Average Awarded CRS Points	CRS Documentation
360	Flood Protection Assistance	53	<p>The responsible party shall maintain the following information regarding the provision of flood protection assistance program:</p> <ul style="list-style-type: none"> <li>■ Affidavit of publication for the advertisement regarding the provision of flood protection assistance</li> <li>■ A copy of the contractor's list on file in the Building Inspections Department</li> <li>■ A copy of the document outlining how to hire a contractor on file in the Building Inspections Department</li> </ul>
410	Additional Flood Data	86	<p>The responsible party shall maintain the following information regarding additional flood data:</p> <ul style="list-style-type: none"> <li>■ Develop new flood elevation, floodway delineations, wave heights, or other regulatory flood hazard data for an area not mapped in detail by the flood insurance study.</li> <li>■ Have a more restrictive mapping standard.</li> </ul>
420	Open Space Preservation	191	<p>The responsible party shall maintain the following information regarding the County's current inventory of open space parcels:</p> <ul style="list-style-type: none"> <li>■ A copy of all deed restrictions in place for all properties acquired through FEMA sponsored acquisition projects to prevent future development</li> <li>■ A map for the file showing all open space parcels within the county</li> </ul>
430	Higher Regulatory Standards	166	<p>The responsible party shall maintain the following information:</p> <ul style="list-style-type: none"> <li>■ Records of annual review by the MAC and participating jurisdictions</li> <li>■ Records of revisions to all local ordinances</li> </ul>
440	Flood Date Maintenance	79	<p>The responsible party shall maintain the following information regarding the County's flood data maintenance efforts:</p> <ul style="list-style-type: none"> <li>■ A hard copy of all digital tax parcel records maintained within the GIS</li> <li>■ A summary of what data is included within the County's GIS</li> </ul>
450	Stormwater Management	98	<ul style="list-style-type: none"> <li>■ Document at the county and municipal level, where applicable, review of development proposals for consistency with North Carolina State Coastal stormwater drainage management rules which regulate size and improve water quality</li> <li>■ Maintain documentation correspondence indicating coordination with the North Carolina Division of Water Quality</li> </ul>
510	Floodplain Management Planning	115	Maintain a current certified Pender County Multi-Jurisdictional Hazard Mitigation Plan

SECTION 6. MITIGATION STRATEGIES

<b>CRS Number</b>	<b>CRS Activity</b>	<b>National Average Awarded CRS Points</b>	<b>CRS Documentation</b>
520	Acquisition and Relocation	213	<ul style="list-style-type: none"> <li>■ Document identification of properties suitable for acquisition and relocation</li> <li>■ Actively pursue available funding to assist with property acquisition and relocation</li> </ul>
540	Drainage System Maintenance	232	<ul style="list-style-type: none"> <li>■ Maintain records of inspections conducted in concert with NCDOT and resulting actions taken to remove debris.</li> <li>■ Incorporate provisions for continuous maintenance of retention ponds into local ordinances, including debris removal</li> <li>■ Maintain records of all county and municipal stormwater projects</li> </ul>
610	Flood Warning Program	93	Provide early flood warnings to the public, and have a detailed flood response plan keyed to flood crest predictions
630	Dam Safety	66	No documentation required; State Approved Plan
<b>Total Average Points</b>		<b>1732</b>	