

CRS 510 Floodplain Management

2021 Progress Report on Implementation of Credited Plan

Date: August 1, 2021

Name of Community: New Hanover County

Name of Plan: Southeastern North Carolina Hazard Mitigation Plan

Date Adopted: March 15, 2021

5-year CRS Expiration Date: May 24, 2022

1. Availability of Plan

Copies of the plan are available for review at the New Hanover County Department of Emergency Management and Department of Planning & Land Use. The plan is available for viewing on the Emergency Management website at the following link:

https://em.nhcgov.com/wp-content/uploads/2021/06/20210107_SENC_RHMP_FINAL-1.pdf

2. Dissemination of Report:

This report was prepared by Planning, Emergency Management, Engineering, Strategy, Resilience and Recovery, and Cape Fear Public Utility Authority staff after conducting an analysis of implementation strategies specifically related to floodplain management. After review and approval by the County Manager, the 2021 progress report will be shared with the New Hanover County governing body. The report will be submitted to the media through the county's Communications & Outreach office, and the public may obtain this report from the New Hanover County Planning & Land Use Department's website.

3. Review of Each Mitigation Action:

The Southeastern NC Hazard Mitigation Plan is a regional, multi-jurisdictional plan with each county having its own subsection of implementation strategies. New Hanover County has 41 mitigation strategies, and the following tables provide a status update of those strategies pertinent to New Hanover County's floodplain management program.

New Hanover County Mitigation Action 5	Support implementation of Stormwater Services projects as identified through system-wide assessments at the watershed-by-watershed level. This includes support for stream cleaning, debris management and removal, animal impediments, and other projects as identified to include natural and man-made structures to improve drainage and mitigate risk to life and damage to property.
Review of Mitigation Action:	Structure for Stormwater Services program in the unincorporated areas of the county implemented on 7/01/2020. Continue partnership with USDA on the Countywide Beaver Management program.

New Hanover County Mitigation Action 6	Support and implement training and resources to enforce the NC State Building Code and applicable Fire Code and other safety lifeline codes and ordinances to ensure that all structures, including manufactured homes, are properly anchored, built to minimize potential impacts stemming from a disaster event, and provide technology to support public safety communication lifeline assets.
Review of Mitigation Action:	Enforcement of the NC State Building Code and Fire Code continues on an ongoing basis. During 2020, NHC began implementation of Section 510 in Fire Code – Emergency Responder Radio Coverage to enhance public safety lifeline communication efforts.

New Hanover County Mitigation Action 7	Secure funding to retrofit/elevate wastewater pumping stations located in the 100-year floodplain. These infrastructure components routinely flood during flooding and storm surge events.
Review of Mitigation Action:	<p>CFPUA has mapped all systems, plants and infrastructure in GIS which are in floodplains and could be subject to future SLR. Pump station life-cycle is significantly less than the SLR projection timelines in the 2013 Pilot Study (50, 100 years). As such, current pump station upgrades and future pump stations are designed with flooding and SLR in mind. CFPUA has completed other pump station projects since 2013 that similarly addressed flood elevations as part of an overall upgrade.</p> <p>CFPUA has also initiated an Unmanned Aerial Vehicle (UAS/drone) program which will map elevations of all infrastructure (primarily pump stations) to aid with necessary data. That program is operational.</p>

New Hanover County Mitigation Action 9	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.
Review of Mitigation Action:	Updated Flood Insurance Rate Maps and the Flood Damage Prevention Ordinance were adopted by the Board of County Commissioners on July 9, 2018. The Flood Damage Prevention Ordinance was incorporated as Article 9 of the Unified Development Ordinance upon its adoption in 2020. Staff regularly evaluates best practices in floodplain management for the consideration and implementation of potential amendments to the ordinance.

New Hanover County Mitigation Action 10	New Hanover County Engineering Department will undertake revising the Stormwater Ordinance to address the current conditions located throughout the county.
Review of Mitigation Action:	The revised Stormwater Ordinance was adopted on June 2020 and will be incorporated into the UDO in 2021.

New Hanover County Mitigation Action 11	Update and maintain existing impact and vulnerability analysis on hazard areas to address changes to floodplain, shoreline, and inlet conditions caused by natural and man-made forces and all locally identified key resources and critical facilities that are identified through the county and municipal inventories.
Review of Mitigation Action:	<p>Completed initial Threat/Hazard Identification Risk Analysis (THIRA) in 09/2020. Annual updates and collaboration with relevant stakeholders will occur beginning in 2021.</p> <p>The county performs annual surveys of approximately 130 cross-shore transects along the county’s ocean front shoreline, emphasizing the coastal storm damage reduction (CSDR) project templates for Wrightsville Beach, Carolina Beach, and Kure Beach. The volumetric calculations are used to assess annual shoreline morphological changes supporting (CSDR) maintenance schedules. The county’s annual and quarterly coordination of inlet management projects are orchestrated through engineering, surveying and dredging elements of the private sector as well as with state and federal agencies.</p> <p>In addition to periodic master planning initiatives, the county regularly assesses changes to floodplain, shoreline, inland flooding and inlet conditions caused by natural and man-made forces following disasters.</p>

New Hanover County Mitigation Action 12	Identify and leverage resources and outreach opportunities to reduce and mitigate current and future risk for persons located in hazard prone properties, including, but not limited to, acquisition, elevation, retrofitting, and the conservation of open space and scenic areas and provision of public water access.
Review of Mitigation Action:	The county sends annual notices to repetitive loss and severe repetitive loss property owners to educate them of potential options available for assistance to include access to acquisition, elevation, and/or retrofitting of properties. Applications for support have been submitted to the HMGP Program following Hurricanes Florence and Dorian.

New Hanover County Mitigation Action 13	Enhance CRS programming awareness for the community, focusing on hazard awareness with floodplain development, benefits of, and resources available with participation in the CRS program.
Review of Mitigation Action:	Public information concerning the economic benefits of participation in the CRS has been created and is available on the county's website. This information is also included on a mailing sent to all residents who own property in Special Flood Hazard Areas in New Hanover County.

New Hanover County Mitigation Action 14	Develop, conduct, deliver, and maintain multi-media all-hazard outreach programming to increase public awareness, preparedness, response, recovery, and mitigation efforts which are inclusive to all populations within the County.
Review of Mitigation Action:	Numerous outreach efforts to include ReadyNHC, integration with non-English speaking populations, and children have been implemented. The County maintains NHCTV to help share messaging, has a strong social media presence, and incorporates numerous print and radio partners in messaging efforts. Agencies participate in numerous public safety agency outreach efforts centric to fire prevention, crime prevention, and disaster preparedness efforts. The County works with 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 these written materials. These materials are available through local building inspections departments, local library branches, and online. NFIP educational materials are maintained within the applicable departments, local library branches, and online. The County maintains access to the Southeast Regional Hazard Mitigation Plan on several websites for situational awareness for participating partners and the public.

New Hanover County Mitigation Action 16	Continue to explore technology, resources, and funding options to implement installation of sewer service in portions of the county that still rely on septic systems, particularly in areas that are subject to repetitive flooding.
Review of Mitigation Action:	Structure for Stormwater Services Program in the unincorporated areas of the county implemented on 7/1/2020. This project connects with NHC5 and is specific to sewer service.

New Hanover County Mitigation Action 21	Research, develop, and implement innovative and best practice approaches to floodplain management including density tradeoffs, cluster development regulations, and additional opportunities for land donation and dedication.
Review of Mitigation Action:	The New Hanover County Unified Development Ordinance continues to limit density in Special Flood Hazard Areas, retain Conservation Overlay District standards, and allow cluster development through performance zoning.

New Hanover County Mitigation Action 32	Procure additional emergency generators for wastewater pump stations within the floodplain. Assign fixed or portable generators as appropriate for site location.
Review of Mitigation Action:	Supports collaboration and coordination with CFPUA. This project also aligns with NHC3.

New Hanover County Mitigation Action 38	Develop, educate, execute, and fund processes and projects which include fortified areas of refuge in new building and retrofit projects and to strengthen critical infrastructure and key resource sites from natural and man-made hazards.
Review of Mitigation Action:	Critical infrastructure needs have been considered and incorporated into the new Government Center building which is currently under construction. Additional opportunities will be considered on an on-going basis.

4. Implementation - Why any objectives were not reached or why implementation is behind schedule:

All applicable mitigation strategies were either complete, in progress, or ongoing.

5. Recommendations for New Projects or Revised Recommendations:

Some of the recommended new projects and priorities include:

- Advocating for and seeking funding for projects to elevate portions of I-40 and I-95;
- Advancing strategy for stormwater management on a watershed basis through the full implementation of the Stormwater Services division to provide maintenance of stormwater conveyances and capital improvement drainage projects in the unincorporated area;
- Advancing projects to increase community resilience by increasing the overall stock of affordable and workforce housing outside of the flood zone.