

APPENDIX D
**COMMUNITY PROJECT
PORTFOLIO**

MAY 2022



COMMUNITY PROJECT PORTFOLIO

A critical component of the Resilient Coastal Communities Program is the identification and prioritization of a series of projects that are intended to address community vulnerabilities to coastal hazards. The enclosed list of projects, which includes infrastructure improvements (structural, non-structural, natural or nature-based solutions, or hybrid options), policy and planning efforts, and asset management actions, has been synthesized from previous local and regional planning efforts, input from the Community Action Team, and feedback from the public.

Included in this Appendix is a summary list of the proposed projects, followed by an individual sheet for each project. Each project sheet summarizes the factors that were considered in the project identification and prioritization process, including:

 <p>LOCATION</p>	<p>The geographic location and scope of the project.</p>
 <p>HAZARD(S) ADDRESSED</p>	<p>A summary of the community-specific coastal hazards that impact the project location. This can include flooding, storm surge, wind damage, or other coastal hazards.</p>
 <p>TYPE OF SOLUTION</p>	<p>A description of whether the project represents infrastructure improvements, policy and planning effort, or an asset management/mapping program.</p>  <p>A symbol is used to denote whether the project includes a natural or nature-based solution (NNBS) component.</p>
 <p>PROJECT ESTIMATED COST</p>	<p>A qualitative analysis of the total project cost, including initial engineering and construction as well as future maintenance (as available). Project cost is shown symbolically ranging from \$ to \$\$\$\$.</p>
 <p>POTENTIAL FUNDING SOURCES</p>	<p>Recommendations on potential sources to construct or otherwise implement the project, including the Resilient Coastal Communities Program and other federal and state funding sources.</p>
 <p>ESTIMATED PROJECT TIMELINE</p>	<p>An estimated timeline to complete the project, including notes on any expected delays in the timeline.</p>
 <p>PRIORITY RATING</p>	<p>A qualitative ranking of the project’s priority in the context of the entire Project Portfolio. Rankings of High, Medium, or Low are provided for each project.</p>

Each project sheet includes a proposed map of the project area and photos of potential sites to be addressed, where available.

Proposed Project Summary

CRAVEN COUNTY		RESILIENT COASTAL COMMUNITIES PROGRAM PROJECT PORTFOLIO								UPDATED MAY 2022
Project (Priority #)	Project Title	Description	Location	Anticipated Cost	Funding Status	Needs Addressed	NNBS Opportunity	Source Document	Timeline	Notes/ Project Status
1	Targeted Repetitive Flooding Drainage Assessment	Conduct regular assessments and improvements of drainage infrastructure across the County, with a focus on sites that are known to flood. Implement improvements including (but not limited to) infiltration swales, culvert and pipe replacements, retention facilities, and other options. Emphasis will be placed on natural or nature-based solutions where practicable.	County-wide	Varies based on location needs and solutions to be implemented.	Not currently funded.	Stormwater Management, Flooding	Yes	Craven County CAT.	Varies based on location needs and solutions to be implemented. Intended as ongoing program.	Initial streets identified include River Road, Streets Ferry Road, and High Bridge Road; other locations will be identified and included in the program. Program could include improvements for both stormwater treatment and floodwater retention, including identification and purchase of vacant parcels that could be used for stormwater retention.
2	Stormwater Flood Reduction Projects	Implement natural/nature-based projects at select roadway/stream crossings across the County, building upon existing efforts underway through a cost-share program with the NC Department of Agriculture.	County-wide	Varies based on location needs and solutions to be implemented.	One project funded through cost-share program (to be completed in June). Further funding TBD.	Disaster Recovery, Infrastructure Deficiency or Capacity	Yes	Craven County CAT.	Varies based on location needs and solutions to be implemented. Intended as ongoing program.	Initial locations identified include Taylor Farm Road and Smith Farm Road at Clubfoot Creek. Project is intended to address erosion control needs throughout the County.
3	CAMA Land Use Plan Update	The previous Craven County CAMA Land Use Plan (LUP) was approved in 2009. Update the CAMA LUP and incorporate the resiliency measures identified through the Resilient Coastal Communities Program into the LUP.	County-wide	Anticipated cost between \$100,000 - \$200,000, depending upon level of effort required.	Not currently funded.	Stormwater Management, Flooding, Infrastructure Deficiency or Capacity, Disaster Recovery		Craven County CAT.	Anticipated up to one year needed for plan completion.	The prior Land Use Plan was approved in 2009, but an update is needed to incorporate resilience measures identified under the RCCP, the 2017 Hurricane Matthew Resilient Redevelopment Plan, and other recent efforts.
4	Shoreline Drive Alternate Access	Work with the Town of River Bend to construct a new transportation facility (roadway on new location) to provide a second means of access to the town.	Shoreline Drive	Anticipated construction cost approximate \$2 million, based on FEMA BRIC application.	FEMA BRIC application submitted, under consideration.	Stormwater Management, Flooding, Infrastructure Deficiency or Capacity		Hurricane Matthew Resilient Redevelopment Plan - 2017; Included in public survey	A 2017 effort estimated a 1-3 year timeline.	The Town of River Bend is accessible primarily by only one road, Shoreline Drive, which floods frequently from the overtopping of a nearby canal. Determine the feasibility of designing and constructing a new road to connect the west end of Plantation Drive to Old Pollocksville Road to provide a second means of ingress/egress to the Town of River Bend.

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Project (Priority #)	Project Title	Description	Location	Anticipated Cost	Funding Status	Needs Addressed	NNBS Opportunity	Source Document	Timeline	Notes/ Project Status
5	Improve Existing/ Construct Alternate Crop Buying Facility	Work with NCDOT to elevate access roads to the current Crop Buying Facility; identify potential location for a new facility so harvested crops can still be stored during times of flooding.	8542 Main Street, Vanceboro, NC	A 2017 effort estimated a cost of \$1 million or higher, depending upon solution.	Not currently funded.	Stormwater Management, Flooding, Infrastructure Deficiency or Capacity, Disaster Recovery		Hurricane Matthew Resilient Redevelopment Plan - 2017; Included in public survey	A 2017 effort estimated a 1-3 year timeline.	Farmers are not able to take harvested crops to the storage facility, and the storage facility is not able to get stored crops out to distributors. Proposal is to elevate access roads leading to the facility out of the 100-year floodplain and identify a location outside of the SFHA where an alternate facility could be constructed and construct an alternate facility. Determine the feasibility of constructing on-site storage (e.g., silos) at farms and construct facilities at feasible locations. Outreach with farming community needed to determine the extent that facility would be used (both during and outside of disaster events).
6	Elevation of Weyerhaeuser Road	Work with NCDOT to elevate the roadway and train tracks near River Road above the floodplain to decrease the flooding risk.	Weyerhaeuser Road Near River Road and Elevated Train Tracks	A 2017 effort estimated a cost of \$1 million or higher, depending upon solution.	Not currently funded. County has continued to advise NCDOT and regional MPO of project necessity.	Stormwater Management, Flooding, Infrastructure Deficiency or Capacity, Disaster Recovery		Hurricane Matthew Resilient Redevelopment Plan - 2017; Included in public survey	A 2017 effort estimated a 1-3 year timeline.	Requires coordination with NCDOT. Roadways and road crossings on Weyerhaeuser Road flood and act as bottlenecks for water flows, resulting in inundation of the surrounding area. Elevate the roadway and railroad tracks above the floodplain and install pipes as needed to remove the bottleneck. An H&H Study should be completed as part of the project to ensure that removing the bridges, which act as bottlenecks to Swift Creek, will not adversely impact downstream areas such as New Bern.
7	Elevation of Adams Creek Road and Belangia Road Intersection	Work with NCDOT to elevate intersection or to resize culverts to prevent flooding and to ensure the fire station remains accessible.	Fire Department on Belangia Road	A 2017 effort estimated a cost of \$1 million or higher, depending upon solution.	Not currently funded.	Stormwater Management, Flooding, Infrastructure Deficiency or Capacity, Disaster Recovery		Hurricane Matthew Resilient Redevelopment Plan - 2017; Included in public survey	A 2017 effort estimated a 1-2 year timeline.	Requires coordination with NCDOT. Project is intended to alleviate flooding within area and to address emergency services response times following storm events, which can be impacted by damaged infrastructure.
8	Emergency Shelter Construction and Retrofits	New emergency shelters would be constructed and existing shelters would be brought up to code, including the installation of generators. Develop new shelter sites throughout the county to address regional needs, and consider locations for large animal sheltering needs.	Havelock High School, Creekside Elementary, Ben E. Quinn Elementary, New Bern High School, Farmlife Elementary	To be determined.	Not currently funded. State hazard mitigation funds may be used for generators.	Infrastructure Deficiency or Capacity		Combination of projects listed in the Hurricane Matthew Resilient Redevelopment Plan; Included in public survey	Dependent upon the scope of construction and the determination of new shelter sites.	The State Hazard Mitigation Program has notified the County that generators will be available, but cost increases for generators may limit the number available. When planning new shelter facilities, consideration would be given for animal and large animal sheltering needs. Uninterrupted generator service is already planned.

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Project (Priority #)	Project Title	Description	Location	Anticipated Cost	Funding Status	Needs Addressed	NNBS Opportunity	Source Document	Timeline	Notes/ Project Status
9	Update Large Animal Response Plan	In conjunction with the County-wide shelter updates, develop an update to the County's Large Animal Response Plan. The plan would focus on "hobby" (non-farmer) animal owners to address sheltering and evacuation needs.	County-wide	To be determined.	Not currently funded.	Disaster Recovery, Infrastructure Deficiency or Capacity		Craven County CAT.	Plan development would require 6 months- 1 year, but would need to be completed in conjunction with any updates to overall County shelter plans.	Facility accessibility during/after storms would need to be considered; address logistics of how to move animals to these locations (registration process, notifications, etc.).
10	Cherry Branch-Minnesott Beach Ferry Terminal	Work with NCDOT to reconfigure the dock to ensure minimal ferry service disruption during times of high water.	Cherry Branch-Minnesott Beach Ferry Terminal	A 2017 effort estimated a cost of \$1 million or higher, depending upon solution.	Not currently funded.	Infrastructure Deficiency or Capacity		Hurricane Matthew Resilient Redevelopment Plan - 2017; Included in public survey	A 2017 effort estimated a 3-5 year timeline.	Requires coordination with NCDOT. When winds blow water into the mooring area, the water elevation rises enough to cause the angle of the automobile ramps between the ferry and the dock to become too steep to use safely. The dock should be reconfigured to allow the ramps to extend sufficiently during times of high water such that the ramp angle between the ferry and the dock accommodates vehicle entry and exit.
11	Installation of Predictive River Gauges	Install water level gauges on Swift Creek at the Weyerhaeuser Road crossing and the Neuse River at the Maple Cypress Road crossing, tying them into the County's Code Red warning system to predict riverine flooding.	Weyerhaeuser Road, Maple Cypress Road	\$51K - \$100K (2017 estimate)	Not currently funded.	Stormwater Management, Flooding		Hurricane Matthew Resilient Redevelopment Plan - 2017; Included in public survey	A 2017 effort estimated a 1-3 year timeline. May be implemented gradually as part of other infrastructure projects.	Identified as existing stream gauges in Craven County do not predict river crest heights or timing-predictive capability is the current service gap to be addressed. The project is a lower priority as the County already has some (non-predictive) gauges available.
12	Remediation of Abandoned Hog Lagoons	Identify abandoned hog lagoons for remediation and determine most appropriate remediation strategy; where possible, convert the sites to freshwater ponds.	County-wide	Varies based on site needs.	Not currently funded.	Stormwater Management, Flooding, Disaster Recovery	Yes	Craven County CAT.	Dependent upon site needs.	Abandoned hog lagoons have the potential to be breached during hurricanes, tropical storms, and other heavy rainfall events, due to lack of maintenance activities on the pond. These breaches pose a health hazard to the community and surrounding natural environment. This effort would look at ways to identify and remediate these ponds, then turn them into freshwater ponds.

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1	TARGETED REPETITIVE FLOODING DRAINAGE ASSESSMENT
PROJECT DESCRIPTION	Conduct regular assessments and improvements of drainage infrastructure across the County, with a focus on sites that are known to flood. Implement improvements including (but not limited to) infiltration swales, culvert and pipe replacements, and other options. Emphasis will be placed on natural or nature-based solutions where practicable. Initial streets identified for this program include River Road, Streets Ferry Road, and High Bridge Road. Other locations will be identified and included in the program. Program could include improvements for both stormwater treatment and floodwater retention, including identification and purchase of vacant parcels that could be used for stormwater retention.
LOCATION	County-wide; specific locations to be determined.
HAZARD(S) ADDRESSED BY PROJECT	Stormwater Management/Flooding. Existing stormwater infrastructure is impacted by coastal flooding events, including coastal storms and rainfall events.
TYPE OF SOLUTION 	Infrastructure Improvements. Construction/replacement of stormwater infrastructure at key locations throughout the County. NNBS options will be implemented as practicable.
PROJECT ESTIMATED COST	Cost varies based on solution implemented and location needs. Cost Level: \$
POTENTIAL IMPLEMENTATION FUNDING SOURCES	These projects are not currently funded or listed on the County CIP. Project is eligible for funding under Phases 3 and 4 of the Resilient Coastal Communities Program. Other Potential funding sources: Federal sources may include EDA - Investment for Public Works and Economic Development Facilities, FEMA – BRIC, and the National Wildlife Federation. State sources may include the Rural Grant Programs, NCDEQ Clean Water State Revolving Fund, NCDEQ American Rescue Plan Act (ARPA) Funding, NCDEQ Asset and Inventory Assessment Grants, and Golden Leaf Foundation Flood Mitigation Program.
PROJECT ESTIMATED TIMELINE	Timeline varies based on solution implemented and location needs. Design and construction timeline expected to vary between 3 months and 1 year per site. This is an ongoing program, to be implemented at individual sites as needs are identified.
PRIORITY RATING	High

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TARGETED REPETITIVE FLOODING DRAINAGE ASSESSMENT



2	STORMWATER FLOOD REDUCTION PROJECTS
PROJECT DESCRIPTION	Implement natural/nature-based projects at select roadway/stream crossings across the County, building upon existing efforts underway through a cost-share program with the NC Department of Agriculture. Initial locations identified include Taylor Farm Road and Smith Farm Road at Clubfoot Creek.
LOCATION	County-wide; specific locations to be determined.
HAZARD(S) ADDRESSED BY PROJECT	Stormwater Management/Flooding. Address infrastructure stability and minimize flooding damage typically caused by coastal flooding events.
TYPE OF SOLUTION 	Infrastructure Improvements. Construct improvements at locations throughout the County.
PROJECT ESTIMATED COST	Cost varies based on solution implemented and location needs. Cost Level: \$\$
POTENTIAL IMPLEMENTATION FUNDING SOURCES	These projects are not currently funded or listed on the County CIP. Project is eligible for funding under Phases 3 and 4 of the Resilient Coastal Communities Program. Other Potential funding sources: Project can build upon previous partnership with the NC Department of Agriculture for cost-sharing opportunities. Other State sources may include the Rural Grant Programs, NCDEQ Clean Water State Revolving Fund, NCDEQ American Rescue Plan Act (ARPA) Funding, NCDEQ Asset and Inventory Assessment Grants, and Golden Leaf Foundation Flood Mitigation Program. Federal sources may include FEMA – BRIC and the National Wildlife Federation.
PROJECT ESTIMATED TIMELINE	Timeline varies based on solution implemented and location needs. Design and construction timeline expected to vary between 3 months and 1 year per site. This is an ongoing program, to be implemented at individual sites as needs are identified. Future monitoring may be required.
PRIORITY RATING	High

3	CAMA LAND USE PLAN UPDATE
PROJECT DESCRIPTION	The previous Craven County CAMA Land Use Plan (LUP) was approved in 2009. Update the CAMA LUP and incorporate the resiliency measures identified through the Resilient Coastal Communities Program into the LUP.
LOCATION	County-wide
HAZARD(S) ADDRESSED BY PROJECT	Stormwater Management/Flooding/Infrastructure Deficiency/Capacity/Disaster Recovery. The effort will update the CAMA LUP and incorporate the resiliency measures identified through the Resilient Coastal Communities Program (RCCP), the 2017 Hurricane Matthew Resilient Redevelopment Plan, and other recent efforts.
TYPE OF SOLUTION	Plan update.
PROJECT ESTIMATED COST	<p>Primary costs are expected to include staff time for public engagement and events , consultant procurement and management (if consultant services are utilized), and internal plan coordination and review.</p> <p>Cost Level: \$</p>
POTENTIAL IMPLEMENTATION FUNDING SOURCES	<p>The CAMA LUP update is not curenly funded in the CIP.</p> <p>Other Potential funding sources: The NCDCCM Division of Coastal Management provides technical assistance to local governments to support the planning effort.</p>
PROJECT ESTIMATED TIMELINE	Anticipated up to one year needed for plan completion.
PRIORITY RATING	High

4	SHORELINE DRIVE ALTERNATE ACCESS
PROJECT DESCRIPTION	Work with the Town of River Bend to construct a new transportation facility to provide a second means of access to the Town. The Town is accessible primarily by only one road, Shoreline Drive, which floods frequently from the overtopping of a nearby canal. Determine the feasibility of designing and constructing a new road to connect the west end of Plantation Drive to Old Pollockville Road to provide a second means of ingress/egress to the Town of River Bend.
LOCATION	Shoreline Drive
HAZARD(S) ADDRESSED BY PROJECT	Stormwater Management/Flooding. The project is to address flooding impacts and provide alternative community access.
TYPE OF SOLUTION	Infrastructure Improvements
PROJECT ESTIMATED COST	<p>The FEMA – BRIC Application estimated the construction cost at \$2,343,216. Final project costs will depend on several variable, including when the project is advertised for bids.</p> <p>Cost Level: \$\$\$\$</p>
POTENTIAL IMPLEMENTATION FUNDING SOURCES	<p>The County applied for funding under the BRIC program; the application is under consideration.</p> <p>Other Potential funding sources: Federal sources may include EDA - Investment for Public Works and Economic Development Facilities, and National Wildlife Federation. State sources may include the Rural Grant Programs, NCDEQ Clean Water State Revolving Fund, NCDEQ American Rescue Plan Act (ARPA), and Golden Leaf Foundation Flood Mitigation Program.</p>
PROJECT ESTIMATED TIMELINE	Project development, right-of-way, and construction of the project is anticipated to take 3-5 years upon initiation. The schedule is dependent upon receipt of adequate funding and the new location route that is identified.
PRIORITY RATING	High

4 SHORELINE DRIVE ALTERNATE ACCESS



Images courtesy of Town of River Bend (FEMA BRIC application).

5	IMPROVE EXISTING/CONSTRUCT ALTERNATE CROP BUYING FACILITY
PROJECT DESCRIPTION	Work with NCDOT to elevate access roads to the current Crop Buying Facility; identify potential location for a new facility so harvested crops can still be stored during times of flooding. Farmers are not able to take harvested crops to the storage facility, and the storage facility is not able to get stored crops out to distributors. Proposal is to elevate access roads leading to the facility out of the 100-year floodplain, identify a location outside of the SFHA where an alternate facility could be constructed, and then design and construct an alternate facility. Determine the feasibility of constructing on-site storage (e.g., silos) at farms and construct facilities at feasible locations.
LOCATION	8542 Main Street, Vanceboro, NC
HAZARD(S) ADDRESSED BY PROJECT	Stormwater Management/ Flooding, Infrastructure Capacity/ Deficiency. The project addresses flooding impacts to a facility that is key to the County's economic structure.
TYPE OF SOLUTION	Infrastructure improvements, including access roadway improvements and/or construction of a new facility.
PROJECT ESTIMATED COST	<p>Project cost will be dependent on associated roadway design and implementation. No detailed project cost has been estimated.</p> <p>Cost Level: \$\$\$\$</p>
POTENTIAL IMPLEMENTATION FUNDING SOURCES	<p>The project is not currently funded.</p> <p>Potential funding sources: Federal sources may include EDA - Investment for Public Works and Economic Development Facilities, and National Wildlife Federation. State sources may include the Golden Leaf Foundation Open Grants Program and NCDEQ American Rescue Plan Act (ARPA).</p>
PROJECT ESTIMATED TIMELINE	Access road improvements are likely to take 1-3 years upon receipt of funding and the solution identified. Construction of a new facility is dependent upon site selection and the scope of the facility to be constructed.
PRIORITY RATING	Medium

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IMPROVE EXISTING/CONSTRUCT ALTERNATE CROP BUYING FACILITY



Image courtesy of Craven County.

6	ELEVATION OF WEYERHAEUSER ROAD
PROJECT DESCRIPTION	Work with NCDOT to elevate the roadway and train tracks near River Road above the floodplain to decrease the flooding risk. The roadways and road crossings on Weyerhaeuser Road flood and act as bottlenecks for water flows, resulting in inundation of the surrounding area. Elevate the roadway and railroad tracks above the floodplain to remove the bottleneck. An H&H study should be completed as part of the project to ensure that removing the bridges, which act as bottlenecks to Swift Creek, will not adversely impact downstream areas such as New Bern.
LOCATION	Weyerhaeuser Road near River Road and Elevated Train Tracks
HAZARD(S) ADDRESSED BY PROJECT	Stormwater Management/ Flooding. The project addresses regional flooding impacts caused by inadequate infrastructure.
TYPE OF SOLUTION	Infrastructure Improvements
PROJECT ESTIMATED COST	<p>Project cost will be dependent on associated roadway design and implementation. No detailed project cost has been estimated.</p> <p>Cost Level: \$\$\$\$</p>
POTENTIAL IMPLEMENTATION FUNDING SOURCES	<p>Infrastructure is under the jurisdiction of NCDOT. Potential funding may include funding from NCDOT as assigned through the department’s prioritization process.</p> <p>Other Potential funding sources: Federal sources may also include FEMA – BRIC and EDA - Investment for Public Works and Economic Development Facilities, and National Wildlife Federation. State sources may include the Rural Grant Programs, NCDEQ Clean Water State Revolving Fund, NCDEQ American Rescue Plan Act (ARPA), and Golden Leaf Foundation Flood Mitigation Program.</p>
PROJECT ESTIMATED TIMELINE	Roadway improvements are likely to take 1-3 years upon receipt of funding and the solutions identified.
PRIORITY RATING	Medium

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ELEVATION OF WEYERHAEUSER ROAD



Weyerhaeuser Road Causeway

Weyerhaeuser Road over Neuse River

7	ELEVATION OF ADAMS CREEK ROAD AND BELANGIA ROAD INTERSECTION
PROJECT DESCRIPTION	Work with NCDOT to elevate intersection or to resize culverts to prevent flooding and to ensure the fire station remains accessible.
LOCATION	Fire Department on Belangia Road.
HAZARD(S) ADDRESSED BY PROJECT	Stormwater Management/ Flooding. The project addresses regional flooding impacts caused by inadequate infrastructure.
TYPE OF SOLUTION	Infrastructure Improvements
PROJECT ESTIMATED COST	<p>Project cost will be dependent on associated roadway design and implementation. No detailed project cost has been estimated.</p> <p>Cost Level: \$\$\$\$</p>
POTENTIAL IMPLEMENTATION FUNDING SOURCES	<p>Infrastructure is under the jurisdiction of NCDOT. Potential funding may include funding from NCDOT as assigned through the department’s prioritization process.</p> <p>Other Potential funding sources: Federal sources may also include FEMA – BRIC and EDA - Investment for Public Works and Economic Development Facilities, and National Wildlife Federation. State sources may include the Rural Grant Programs, NCDEQ Clean Water State Revolving Fund, NCDEQ American Rescue Plan Act (ARPA), and Golden Leaf Foundation Flood Mitigation Program.</p>
PROJECT ESTIMATED TIMELINE	Roadway improvements are likely to take 1-3 years upon receipt of funding and the solutions identified.
PRIORITY RATING	Medium

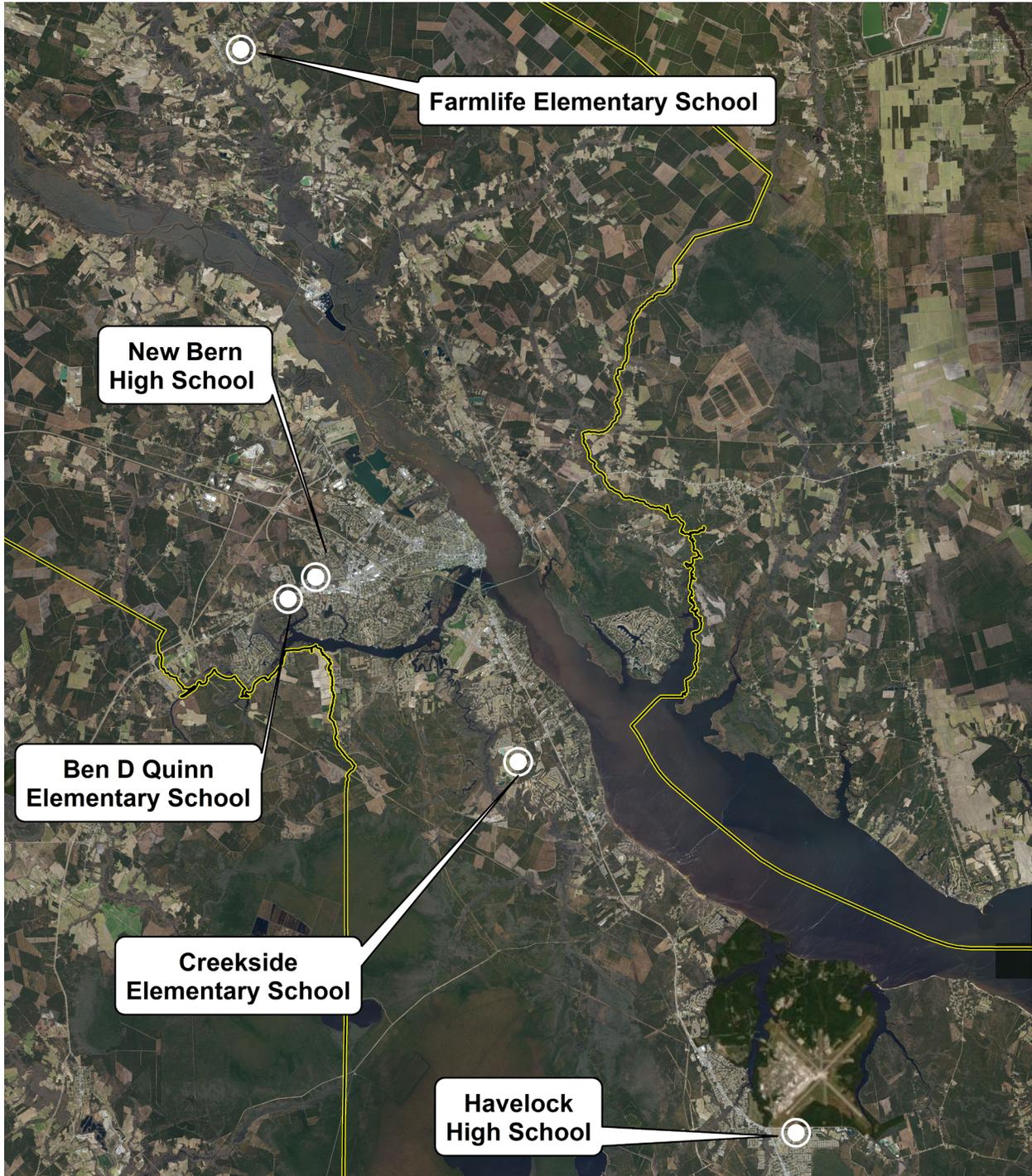
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ELEVATION OF ADAMS CREEK ROAD AND BELANGIA ROAD INTERSECTION



8	EMERGENCY SHELTER CONSTRUCTION AND RETROFITS
PROJECT DESCRIPTION	New emergency shelters would be constructed, and existing shelters would be brought up to code, including the installation of generators. Develop new shelter sites throughout the county to address regional needs. Consideration would also be given for large animal shelters. Uninterrupted generator service is already planned.
LOCATION	Farmlife Elementary School, New Bern High School, Ben D. Quinn Elementary School, Creekside Elementary School, Havelock High School.
HAZARD(S) ADDRESSED BY PROJECT	Infrastructure Capacity/Deficiency. Address sheltering needs during storm events.
TYPE OF SOLUTION	Infrastructure Improvements
PROJECT ESTIMATED COST	Projects are not currently included on a County CIP. Cost Level: \$\$\$
POTENTIAL IMPLEMENTATION FUNDING SOURCES	Shelter improvement projects are not currently funded. Potential funding sources: Shelter facilities would likely qualify for federal hazard mitigation funding.
PROJECT ESTIMATED TIMELINE	Timeline for implementation dependent on the scope of improvements.
PRIORITY RATING	Low

EMERGENCY SHELTER CONSTRUCTION AND RETROFITS



9	UPDATE LARGE ANIMAL RESPONSE PLAN
PROJECT DESCRIPTION	In conjunction with the County-wide shelter updates, develop an update to the County’s Large Animal Response Plan. The plan would focus on “hobby” (non-farmer) animal owners to address sheltering and evacuation needs.
LOCATION	County-wide
HAZARD(S) ADDRESSED BY PROJECT	Disaster Recovery/Infrastructure Deficiency/Capacity. Non-farm animal owners with large pets (horses, goats, etc.) tend to not have a contingency plan for during severe weather events. The plan would assist these owners with evacuation before severe weather events and/or recovery after these events.
TYPE OF SOLUTION	Planning and Mapping
PROJECT ESTIMATED COST	<p>Primary costs are expected to include staff time for plan development, internal review, and coordination with external stakeholders.</p> <p>Cost Level: \$</p>
POTENTIAL IMPLEMENTATION FUNDING SOURCES	<p>This effort is not currently funded in the County CIP.</p> <p>Other Potential Funding Sources: Federal sources may include EDA Investment for Public Works and Economic Development Facilities. State sources may include the Rural Grant Programs, EPA – Clean Water State Revolving Fund, and Golden Leaf Foundation Flood Mitigation Program.</p>
PROJECT ESTIMATED TIMELINE	There is currently no timeline for this effort.
PRIORITY RATING	Low

10	CHERRY BRANCH-MINNESOTT BEACH FERRY TERMINAL
PROJECT DESCRIPTION	Work with NCDOT to reconfigure the dock to ensure minimal ferry service disruption during times of high water. When winds blow water into the mooring area, the water elevation rises enough to cause the angle of the automobile ramps between the ferry and the dock to become too steep to use safely. The dock should be reconfigured to allow the ramps to extend sufficiently during times of high water such that the ramp angle between the ferry and the dock accommodate vehicle entry and exit.
LOCATION	Cherry Branch-Minnesott Beach Ferry Terminal
HAZARD(S) ADDRESSED BY PROJECT	Storm Surge Flooding, Infrastructure Deficiency/Capacity. The project addresses flooding impacts to transportation infrastructure during storm events.
TYPE OF SOLUTION	Infrastructure Improvements
PROJECT ESTIMATED COST	<p>Project cost will be dependent on associated roadway design and implementation. No detailed project cost has been estimated.</p> <p>Cost Level: \$\$\$\$</p>
POTENTIAL IMPLEMENTATION FUNDING SOURCES	<p>Infrastructure is under the jurisdiction of NCDOT. Potential funding may include funding from NCDOT as assigned through the department’s prioritization process.</p> <p>Other Potential Funding Sources: Federal sources may include FEMA – BRIC and EDA - Investment for Public Works and Economic Development Facilities. State sources may include the Rural Grant Programs, NCDEQ Clean Water State Revolving Fund, and Golden Leaf Foundation Flood Mitigation Program.</p>
PROJECT ESTIMATED TIMELINE	Project improvements are expected to require an estimated 1-2 years.
PRIORITY RATING	Low

10 CHERRY BRANCH-MINNESOTT BEACH FERRY TERMINAL



11	INSTALLATION OF PREDICTIVE RIVER GAUGES
PROJECT DESCRIPTION	Install water level gauges on Swift Creek at the Weyerhaeuser Road crossing and the Neuse River at the Maple Cypress Road crossing, tying them into the County's Code Red warning system to predict riverine flooding. Existing stream gauges in Craven County do not predict river crest heights or timing.
LOCATION	Weyerhaeuser Road, Maple Cypress Road
HAZARD(S) ADDRESSED BY PROJECT	Riverine/Storm Surge Flooding. The installation of gauges will enable the County to identify and warn residents of potential flooding conditions and to determine infrastructure improvements to address these issues. Previous monitoring efforts have not provided enough data to identify infrastructure needs.
TYPE OF SOLUTION	Monitoring program
PROJECT ESTIMATED COST	<p>Cost will be dependent upon number of gauges and monitoring efforts.</p> <p>Cost Level: \$\$\$\$</p>
POTENTIAL IMPLEMENTATION FUNDING SOURCES	<p>These projects are not currently funded or listed on a County CIP.</p> <p>Potential funding sources: Partnerships with non-governmental organizations or university studies may provide opportunities to fund the implementation and short-term monitoring of monitoring gauges.</p>
PROJECT ESTIMATED TIMELINE	There is currently no proposed timeframe for the initial installation of gauges but is recommended in the next year in order to begin monitoring. Monitoring would be an ongoing effort. Some gauges are already available.
PRIORITY RATING	Low

INSTALLATION OF PREDICTIVE RIVER GAUGES



12	REMEDICATION OF ABANDONED HOG LAGOONS
PROJECT DESCRIPTION	Identify abandoned hog lagoons for remediation and determine the most appropriate remediation strategy and, where possible, convert the sites to freshwater ponds.
LOCATION	County-wide
HAZARD(S) ADDRESSED BY PROJECT	Stormwater Management/Flooding/Disaster Recovery. Hog lagoons can be breached during hurricanes, tropical storms, or heavy rainfall events which can create health hazards as well as harm natural habitats.
TYPE OF SOLUTION 	Environmental mitigation/remediation, utilizing Natural and Nature-based solutions.
PROJECT ESTIMATED COST	Cost will vary depending on the number and extent of locations identified and the remediation strategies used. Cost Level: \$\$\$
POTENTIAL IMPLEMENTATION FUNDING SOURCES	The project is not currently funded in the CIP. Potential funding sources: Federal sources may include EDA - Investment for Public Works and Economic Development Facilities, and National Wildlife Federation. State sources may include the Rural Grant Programs, NCDEQ Clean Water State Revolving Fund, NCDEQ American Rescue Plan Act (ARPA), and Golden Leaf Foundation Flood Mitigation Program.
PROJECT ESTIMATED TIMELINE	There is currently no timeline for this effort but the identification of the locations of concern can start immediately. Project timelines for each location will vary depending on the level of effort.
PRIORITY RATING	Low