

An aerial photograph of a paved road winding through a dense, green forest. The road is the central focus, leading the eye from the bottom left towards the top center. The surrounding trees are thick and vibrant green, creating a textured background. The entire image is overlaid with a semi-transparent teal color.

**PROJECT
PORTFOLIO**

Project Portfolio

Utilizing feedback from the CAT, existing planning documents, and results of the Risk and Vulnerability Assessment, a long list of potential solutions to address hazards was developed over the course of the RCCP. This project list was then refined through iterative working sessions with the CAT and a prioritization methodology was applied to determine the final five highest priority projects to include in the Project Portfolio..

Projects identified include both structural and non-structural mitigation techniques that have co-benefits beyond hazard resiliency. Project prioritization was first performed by the CAT, where the group was asked during a meeting to rank their preferences for projects under four categories of solutions: infrastructure, nature-based, policy-based, and outreach/education. Following this meeting, Kleinfelder applied components of the [STAPLEE method](#) to top ranking projects, taking into account attributes of cost-benefit, internal capacity, RCCP goal alignment, and identification of a project sponsor/champion. Community members then contributed their feedback at the Holly Ridge Bee Festival and through the online Public Survey #2.

Full Project List in the **Appendix** details the projects that were identified throughout the process but were not selected for inclusion.

Each Project Profile provides information intended to support development of applications for funding opportunities. The Proposed Project Summary (**Table 13**) highlights the top five project priorities included in the Portfolio.

Table 13. Proposed Project Summary

Project	Description	Estimated Cost	Needs Addressed	Source
Emergency Operations Center Feasibility Study	Conduct a feasibility study for constructing a new building that would serve as a municipal complex encompassing the Town Hall, Police Department, newly established municipal fire department and double as the local Emergency Operations Center. The building will be built and rated for up to a Category 5 hurricane and elevated above future projected floodplain, considering NC Department of Administration’s (NCDOA) updated design and construction requirements for resiliency for public buildings and structures (as appropriate ³⁰).	\$150,000	Internal Capacity, Communication, Emergency, Preparedness	CAT
Stormwater Master Plan	Inventory existing municipality stormwater resources, conduct gap analysis of needs and current shortfalls, and planning/prioritization of future actions to address those needs (i.e., water quality, maintenance tracking, flood mitigation or floodproofing, public messaging, etc.)	\$100,000	Stormwater Management, Flooding	CAT / Holly Ridge Comprehensive Land Use Plan (2020)
Multi-Use Greenway Connection Feasibility Study	Conduct a feasibility study for designing a multi-use path/sidewalk from Holly Ridge Town Hall on N Dyson St along Ocean Rd/Hwy 50 towards Surf City. Consider feasibility of tying in to proposed Pender County portion of the East Coast Greenway Corridor. Sidewalk would include green stormwater infrastructure where suitable/feasible.	\$100,000 - \$150,000	Accessibility/Mobility, Stormwater Management, Extreme Heat	CAT

30 [NC Department of Administration Releases New Policy for State-Owned Property Development in Flood-Prone Areas to Increase Climate Resiliency](#) | NC DOA

Project	Description	Estimated Cost	Needs Addressed	Source
Green Infrastructure Suitability Analysis	<p>Perform a suitability analysis to identify parcels that are good locations for projects such as natural features, green infrastructure, or other stormwater best management practices (e.g., constructed wetlands, rain gardens, etc.), and environmental practices (e.g., community gardens, green space, increased tree canopy, etc.). Parcels within and around town will be assessed on factors like land cover, soil type, heat risk, flood risk, and other environmental factors, and conceptual design for the final select sites will be completed.</p> <p>Consider developing a partnership with the Town’s Busy Bee Committee, NC Sea Grant, and NC Coastal Federation to carry out elements of this project. The lot next to the Holly Ridge Town Hall on N Dyson St. was identified as a potential site.</p>	\$50,000 - \$150,000	Stormwater Management, Extreme Heat, Education	CAT / Stump Sound Watershed Restoration and Protection Plan (2023)
Stormwater Education & Outreach Campaign	<p>Collaborate with entities such as NC Sea Grant, NCSU Cooperative Extension, NC Coastal Federation, NC National Estuarine Research Reserve and NC Coastal Reserve, etc. to conduct a public education and outreach campaign regarding community floodplain management activities, flood insurance policies, disaster assistance in Special Flood Hazard Areas, and other site-scale ways to mitigate flooding. Outreach should also include information and resources for property owners related to ditch/ canal maintenance and options for native landscaping. This is also considered a creditable FEMA Community Rating System (CRS) activity. Consider engaging HOAs about stormwater best management practices within neighborhoods.</p>	\$35,000 - \$45,000	Stormwater Management, Education	CAT / Stump Sound Watershed Restoration and Protection Plan (2023)

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Project A.

Emergency Operations Center Feasibility Study

Project Description

The Town seeks to establish an emergency operations center (EOC) for southwestern Onslow County in Holly Ridge, to be located in a new Town municipal complex proposed at a location outside of the FEMA regulated flood zone. A feasibility study will determine scoping requirements and site suitability. Additional design, permitting, and construction are to follow. The project requires coordination with Onslow County, which is the primary entity responsible for emergency operations for the county.

Location	To be determined by feasibility study findings
Source	CAT/ Town Staff
Scoping Questions	<ul style="list-style-type: none"> • Is this project identified in a Capital Improvement Plan (CIP)? • Has Onslow County considered an alternative emergency operations center (EOC) site near Holly Ridge?
Hazard(s) Addressed by the Project	<ul style="list-style-type: none"> • Infrastructure deficiency/capacity • All Hazards: Provide emergency operational continuity during hazard events
Supporting Function	<ul style="list-style-type: none"> • Communication • Emergency preparedness • Town capacity
Type of Solution	Infrastructure improvements
Project Estimated Timeline	Feasibility study (Phase 1): 1 year <ul style="list-style-type: none"> • In future phases: • Site identification / design / permitting (Phase 2): 24-30 months; • Construction (Phase 3): 18-24 months • 4 – 5 years to complete Phases 1-3
Responsible Entity	<ul style="list-style-type: none"> • Town of Holly Ridge • Onslow County Emergency Management/EMS
Potential Partners	Onslow County Emergency Management/EMS
Existing Funding	None identified by CAT

Potential Funding Sources	<ul style="list-style-type: none"> ● Resilient Coastal Communities Program ● NC Emergency Management, Division of Emergency Management Capacity Building Competitive Grant ● Town CIP ● Onslow County CIP ● Golden Leaf ● Federal Emergency Management Agency (FEMA) Hazard Mitigation Grant Program (HMGP) [implementation]
Project Estimated Cost	<ul style="list-style-type: none"> ● Phase 1 Feasibility Study & Site Identification - \$150,000 ● Phase 2 Design & Permitting - \$500,000 - \$1M ● Phase 3 Construction - \$10M - \$50M
Anticipated Benefit	<p>High</p> <p>The building would house multiple municipal services, reduce reliance on county support, increase local emergency capacity, etc.</p>
Priority Rating	<p>CAT: 1st / 3rd Public: 3.5/5.0 Overall: High</p>

Project B.

Stormwater Master Plan

Project Description

Inventory existing municipality stormwater resources, conduct gap analysis of needs and current shortfalls, and planning/prioritization of future actions to address those needs (i.e., water quality, maintenance tracking, flood mitigation or floodproofing, public messaging, etc.)

Location	Town-wide
Source	Holly Ridge Comprehensive Land Use Plan (recommended action 3.1.D.2) / CAT
Scoping Questions	<ul style="list-style-type: none"> • What is the current status of the stormwater program? • What are the major stormwater-related issues facing the Town and residents? • What is the Town hoping to obtain through a stormwater master plan?
Hazard(s) Addressed by the Project	<ul style="list-style-type: none"> • Stormwater runoff • Flooding • Heavy rainfall
Supporting Function	<ul style="list-style-type: none"> • Public buy-in • Public input: determine what issues are most important • Funding
Type of Solution	<ul style="list-style-type: none"> • Infrastructure • Plans and policies • Ordinances • Non-regulatory programs • Capital improvement programs • Permitting programs
Project Estimated Timeline	1+ year
Responsible Entity	Town of Holly Ridge with consultant
Potential Partners	<ul style="list-style-type: none"> • Neighboring communities • NC Coastal Federation • NC Sea Grant
Existing Funding	None identified by CAT

Potential Funding Sources	<ul style="list-style-type: none"> • Resilient Coastal Communities Program • NCDEQ Local Assistance for Stormwater Infrastructure Investments Program (LASII) for planning and/or Stormwater Utilities • Other Federal and state grants (EPA, FEMA, NRCS) • Local tax base
Project Estimated Cost	\$100,000 - \$1M+ depending on scope and project focus; may be phased to span multiple years / focuses to fit within budgetary restrictions
Anticipated Benefit	<p>High</p> <p>With no plan in place for improvements, issues can only be addressed on a case-by-case basis, limiting community impact. A stormwater master plan can provide short and long-term planning for maximum benefit.</p>
Priority Rating	CAT: 2nd / 8th Public: 3.4 / 5.0 Overall: High

Project C.

Multi-Use Greenway Connection Feasibility Study

Project Description

Conduct a feasibility study for designing a multi-use path/sidewalk from Holly Ridge Town Hall on N Dyson St along Ocean Rd/NC-50 towards Surf City, NC. The approximate length of the multi-use path varies based on the proposed start and end points.

The multi-use path will provide a critical connection between socially vulnerable populated neighborhoods and grocery stores, jobs, recreation opportunities, and other local amenities. The multi-use path will incorporate bioswales and green stormwater infrastructure where possible.

Consider tying the study into the proposed Pender County portion of the East Coast Greenway Corridor.

Location	Proposed segments are from Town Hall (N Dyson St), south along NC-50 to the Onslow-Pender County line, and beyond to the intersection of Highway 210; and from Town Hall along Sound Rd south to Morris Landing, NC. See image below.
Source	CAT
Scoping Questions	<ul style="list-style-type: none"> • What preliminary scoping has already been done for this project? • Will the cross section for the path fit within the available ROW and if not, can sufficient ROW be acquired to support the project and meet its intent? • Can the roadway cross section be modified in addition to adding the multi-use pathway to decrease speeding behavior? • Can this multi-use corridor serve alternative community needs such as serving as a utility corridor for future needs (electricity capacity, data conduits, etc.)?
Hazard(s) Addressed by the Project	<ul style="list-style-type: none"> • Stormwater • Flooding • Extreme heat
Supporting Function	<ul style="list-style-type: none"> • Multimodal transportation and access • Safety • Reduced heat island effect • Active living and recreational opportunities • Stormwater management
Type of Solution	<ul style="list-style-type: none"> • Feasibility Study and Planning • Transportation infrastructure

Project Estimated Timeline	<ul style="list-style-type: none"> • Feasibility study and planning: 9 – 12 months • In future phases: <ul style="list-style-type: none"> • Engineering & Design: 18 – 24 months • Construction: 24 – 26 months
Responsible Entity	<ul style="list-style-type: none"> • Town of Holly Ridge • Onslow County Planning Department (with consultant and town support)
Potential Partners	<ul style="list-style-type: none"> • Eastern Carolina Council of Governments • NC Division of Federal Highway Administration • Cape Fear Cyclists • Greater Topsail Area Chamber of Commerce • NC Department of Transportation Integrated Mobility Division • Surf City, NC • Morris Landing, NC • Pender County
Existing Funding	Town of Holly Ridge is committed to providing an approximate 30% match of \$4.2M to advance planning, preliminary and final engineering, public bidding, and contractor selection.
Potential Funding Sources	<ul style="list-style-type: none"> • Resilient Coastal Communities Program • Federal Highway Administration (FHWA) Safe Streets 4 All (SS4A) Planning and Implementation Grants • USDOT Rebuilding American Infrastructure with Sustainability and Equity (RAISE) • USDOT Reconnecting Communities and Neighborhoods Grant • USDOT Rural Surface Transportation Grant • USDOT INFRA Grant • North Carolina Land and Water Fund
Project Estimated Cost	<p>Planning (only): \$100,000 - \$150,000</p> <p>In future phases:</p> <ul style="list-style-type: none"> • Engineering: \$1.5M-\$2M • Construction: \$14M-\$16M • Maintenance: \$100K-\$150K
Anticipated Benefit	<p>High</p> <p>A new path will create a safe passage for pedestrians who are currently using state roads to get to work, school, and recreation. Using alternative modes of transportation reduces vehicular traffic and tailpipe emissions, increases mobility options, expands access to amenities, and promotes a healthy lifestyle.</p> <p>The project will incorporate stormwater runoff mitigation measures to alleviate some flooding.</p>
Priority Rating	<p>CAT: 4th / 7th</p> <p>Public: 4.0 / 5.0</p> <p>Overall: High</p>

Project D.

Green Infrastructure Suitability Analysis

Project Description

Perform a suitability analysis to identify parcels that are good locations for projects such as natural features, green infrastructure, or other stormwater best management practices (e.g., constructed wetlands, rain gardens, etc.), and environmental practices (e.g., community gardens, green space, increased tree canopy, etc.). Parcels within and around town will be assessed on factors like land cover, soil type, heat risk, flood risk, and other environmental factors, and conceptual design for the final select sites will be completed.

Consider developing a partnership with the Town's Busy Bee Committee, NC Sea Grant, and NC Coastal Federation to carry out elements of this project. The lot next to the Holly Ridge Town Hall on N Dyson St. was identified as a potential site.

Location	The suitability analysis will be completed at a town-wide scale to identify locations that would benefit from a natural feature or environmental practice. Once the initial desktop analysis is completed, site investigations will occur for specific parcels that were identified as candidates for development.
Source	CAT / Stump Sound Watershed Restoration and Protection Plan
Scoping Questions	<ul style="list-style-type: none">• What type of information is readily available (flood, heat risk, stormwater infrastructure, etc.)?• How will community input be gathered and incorporated into the analysis?
Hazard(s) Addressed by the Project	<ul style="list-style-type: none">• Flooding• Extreme heat• Severe weather, hurricanes, heavy rainfall, drought
Supporting Function	<ul style="list-style-type: none">• Stormwater management• Urban heat island reduction• Community space and recreation
Type of Solution	Planning & concept design
Project Estimated Timeline	1 year
Responsible Entity	Town Planning Department with consultant

Potential Partners	<ul style="list-style-type: none"> • Planning Board • Holly Ridge Public Works Department • NC Coastal Federation
Existing Funding	None identified by the CAT
Potential Funding Sources	<ul style="list-style-type: none"> • Resilient Coastal Communities Program • NC DEQ 205(j) WQ Management Planning Grant • EPA/NCDEQ 319 Grants • NCDEQ/DWI Water Resources Development Grant Program • North Carolina Land and Water Fund • NC Wildlife Resources Commission Partners for Green Growth program • Golden Leaf Foundation
Project Estimated Cost	\$50,000 - \$150,000
Anticipated Benefit	<p>Medium</p> <p>Projects will be advanced to a conceptual stage that will promote nature-based solutions with a variety of co-benefits. These may include:</p> <ul style="list-style-type: none"> • Flood mitigation • Urban heat island reduction • Water quality treatment for stormwater runoff • Community space development • Increased green space
Priority Rating	<p>CAT: 1st / 2nd</p> <p>Public: 3.0/5.0</p> <p>Overall: Medium</p>

Project E.

Stormwater Outreach & Education Campaign

Project Description

Collaborate with partners such as NC Sea Grant, NCSU Cooperative Extension, NC Coastal Federation, NC National Estuarine Research Reserve, and NC Coastal Reserve to develop and conduct a comprehensive outreach and education campaign regarding community floodplain management and stormwater management.

The campaign would focus on 1) raising awareness about flood risks, 2) providing materials and tools to prepare for and recover from a flood event (i.e., developing a flood preparedness plan, information on flood insurance policies and disaster assistance in Special Flood Hazard Areas, etc.) and 3) sharing site-scale methods to mitigate flooding (i.e., ditch/canal maintenance, native landscaping).

During this process, the Town and partnering organizations will identify stakeholders (homeowners, renters, business, advocacy groups) and deploy specific strategies for education and outreach. An educational & outreach campaign qualifies as a Community Rating System (CRS) activity.³¹

Location	Town-wide and regional
Source	CAT
Scoping Questions	<ul style="list-style-type: none"> • Has any organization or Town conducted an outreach campaign on stormwater in the past? • What is an effective method for communication? • What are topics that residents are interested in specifically?
Hazard(s) Addressed by the Project	<ul style="list-style-type: none"> • Flooding • Hurricanes / tropical storms • Severe weather and heavy rainfall
Supporting Function	<ul style="list-style-type: none"> • Communication • Preparedness • Public Education
Type of Solution	Educational & outreach program
Project Estimated Timeline	12 months to capture seasonal messaging and educational components throughout the year.

³¹ [FEMA Community Rating System](#)

Responsible Entity	Town of Holly Ridge, with consultant support
Potential Partners	<ul style="list-style-type: none"> • NC Sea Grant • NC Coastal Federation • NCSU Cooperative Extension • NC National Estuarine Research Reserve • NC Coastal Reserve
Existing Funding	None identified by the CAT
Potential Funding Sources	<ul style="list-style-type: none"> • Resilient Coastal Communities Program • EPA Environmental Education grants • NCDOJ Environmental Enhancement Grant (EEG)
Project Estimated Cost	\$35,000 - \$45,000
Anticipated Benefit	<p>Medium-High Benefit.</p> <p>A community that is well-informed about the risks of flooding and the tools available for mitigation and recovery is better suited to recover after a flooding event. Building community is a key part of resilience.</p>
Priority Rating	<p>CAT: 1st / 2nd</p> <p>Public: 2.8/5.0</p> <p>Overall: Low</p>