

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

CAPE CARTERET		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	Stormwater Facility Improvements	Improve stormwater facilities on multiple Town streets, including Sutton Drive, Ardan Oaks Drive, Anita Forte Drive/Loma Linda Court, Dolphin Street, and Bogue Sound Drive. Specific stormwater improvements (grassy swales) are proposed for Sutton Drive, Ardan Oaks Drive, Anita Forte Drive/Loma Linda Court, Dolphin Street, Neptune Drive, Neptune Court, and Bogue Sound Drive.	Multiple street locations	Varies based on location needs and solution to be implemented.	Project is subject of 2021 BRIC program application; award status TBD.	Stormwater Management, Flooding	Yes	Cape Carteret CAT; included in public survey.	Varies based on location needs and solutions to be implemented. Intended as ongoing program.	Identified as top priority by CAT; project was subject of recent (2021) BRIC application (Flood Mitigation and Resiliency Project).
2	Stormwater Infrastructure Mapping	Map all stormwater infrastructure within Town limits to determine service gaps and needs.	Townwide	Expected to be low cost, depending upon level of survey effort.	Not currently funded.	Stormwater Management, Flooding		Cape Carteret CAT; included in public survey.	No proposed timeframe; may take between six months to a year to complete.	A comprehensive survey of stormwater infrastructure has (to date) not been completed. Survey (and condition assessment) needed to determine service needs.
3	Stormwater Pretreatment	Construct stormwater treatment facilities to minimize water quality impacts to Bogue Sound and Pettiford Creek at multiple locations, including Sutton Drive, Ardan Oaks Drive, Anita Forte Drive, Loma Linda Court, Dolphin Street, Neptune Drive, Neptune Court, and Bogue Sound Drive.	Multiple street locations	Varies based on location needs and solution to be implemented.	Not currently funded.	Stormwater Management, Flooding	Yes	Cape Carteret CAT; included in public survey.	Varies based on location needs and solutions to be implemented. Intended as ongoing program.	Project would build upon the improvements listed in Project #1, with the locations determined in part through the mapping completed in Project #2.
4	Living Shoreline Construction	Construct an oyster reef or living shoreline along the Bogue Sound and Deer Creek shoreline.	Bogue Sound/ Deer Creek shorelines	Dependent upon location and extent of proposed shoreline.	Not currently funded.	Stormwater Management, Flooding, Disaster Recovery, Climate Change	Yes	Cape Carteret CAT; included in public survey.	No proposed timeframe; construction may take between three and nine months, not including follow-up monitoring.	
5	Tree Canopy Replacement	Plant young trees to increase overall tree canopy within the Town and replace trees lost during storm events.	Townwide	Dependent upon extent of tree canopy to be replaced.	Not currently funded.	Disaster Recovery	Yes	Cape Carteret CAT; included in public survey.	Intended as ongoing program as funding is available.	
6	Public Engagement and Education Campaign	Engage and educate Cape Carteret residents and business owners on the impacts of storm events and other coastal hazards. This would be a continuous program to involve Town residents in the decision-making process for determining future resilience actions.	Townwide	Limited cost, primarily staff time and publication/distribution of materials.	Not currently funded.	Stormwater Management, Flooding, Infrastructure Deficiency or Capacity, Climate Change		Cape Carteret CAT.	Intended as ongoing program as funding is available.	Build on the Town's existing public engagement efforts that are conducted as part of the NWS StormReady Community program, as well as prior regional hazard mitigation planning efforts.

CAPE CARTERET		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
7	Low-impact Development Education Campaign	Educate developers, home builders, and the real estate community on low-impact development strategies.	Townwide	Limited cost, primarily staff time and publication/distribution of materials.	Not currently funded.	Stormwater Management, Flooding, Infrastructure Deficiency or Capacity, Climate Change		Identified through public feedback (write-in suggestion).	Intended as ongoing program as funding is available.	Cape Carteret is planning to update its stormwater ordinance; education campaign can be conducted in conjunction with this update.
8	Emergency Shelter Improvements	Work with Carteret County to address shelter needs and on upgrades to existing facilities.	County-wide	Dependent upon the scope of proposed improvements and shelter needs.	Not currently funded.	Infrastructure Deficiency or Capacity		Cape Carteret CAT; included in public survey.	Dependent upon the scope of the proposed improvements.	Project requires coordination with Carteret County, which is responsible for shelter facilities for the county.
9	Emergency Operations Center	Establish center for western Carteret County, to be located in a new Town municipal complex proposed at a location outside of the modeled storm surge inundation for a Category 5 storm event.	TBD	To be determined.	Not currently funded.	Infrastructure Deficiency or Capacity, Disaster Recovery		Cape Carteret 1/25/22 CAT Meeting Discussion; included in public survey.	Dependent upon the scope of the proposed improvements.	Project requires coordination with Carteret County, which is responsible for emergency operations for the county. A new development near existing White Oak Elementary School has been identified as a potential location for a new EOC.



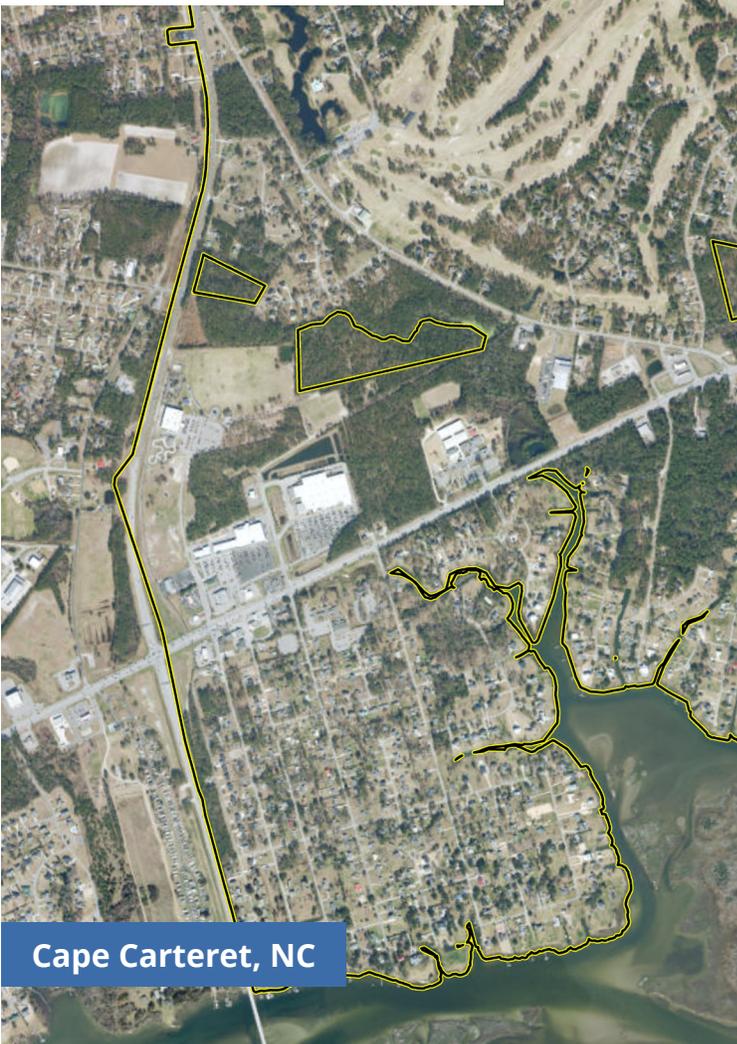
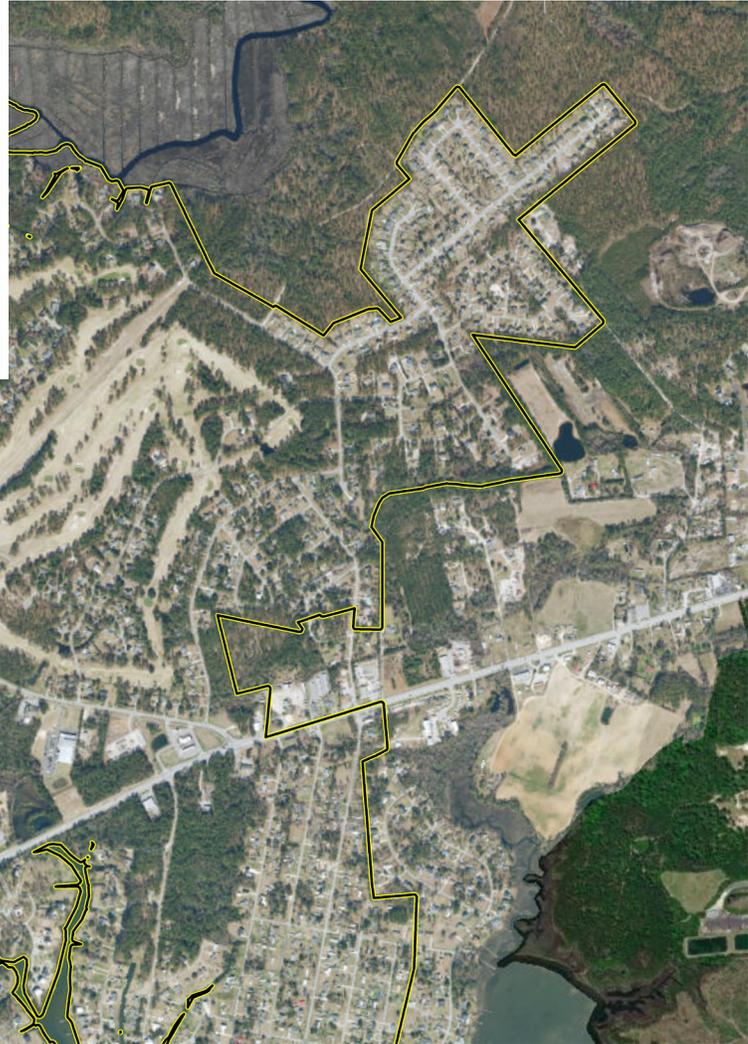
1 STORMWATER FACILITY IMPROVEMENTS	
PROJECT DESCRIPTION	Improve stormwater facilities on multiple Town streets, including Sutton Drive, Ardan Oaks Drive, Anita Forte Drive/ Loma Linda Court, Dolphin Street, and Bogue Sound Drive. Specific stormwater improvements (grassy swales) are proposed for Sutton Drive, Ardan Oaks Drive, Anita Forte Drive/Loma Linda Court, Dolphin Street, Neptune Drive, Neptune Court, and Bogue Sound Drive.
LOCATION	Multiple locations within Cape Carteret
HAZARD(S) ADDRESSED BY PROJECT	Stormwater Management/Flooding. Existing stormwater infrastructure on residential streets is impacted by coastal storm and other rainfall events, causing extensive flooding.
TYPE OF SOLUTION 	Infrastructure improvements. Construction/replacement of stormwater infrastructure at key locations throughout the Town. 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	The Town has applied for funding under the BRIC program (Flood Mitigation and Resiliency Project); the application is under consideration. Potential funding sources: Federal sources may include EDA - Investment for Public Works, National Wildlife Federation, and Economic Development Facilities. State sources may include the Rural Grant Programs, EPA – Clean Water State Revolving Fund, NCDEQ American Rescue Plan Act, 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. The project was identified as top priority by the Resilient Coastal Communities Program CAT.

1

STORMWATER FACILITY IMPROVEMENTS



Dolphin Street



Cape Carteret, NC



Anita Forte Drive

2	STORMWATER INFRASTRUCTURE MAPPING
PROJECT DESCRIPTION	Map all stormwater infrastructure within Town limits to determine service gaps and needs. A comprehensive survey of stormwater infrastructure has (to date) not been completed. A survey (and condition assessment) is needed to determine service needs.
LOCATION	Townwide
HAZARD(S) ADDRESSED BY PROJECT	Stormwater Management/Flooding. The project is intended to identify and address infrastructure deficiency issues and to enable the Town to recover as efficiently as possible from storms and other disaster events.
TYPE OF SOLUTION	Mapping effort that is intended to lead to future infrastructure improvements.
PROJECT ESTIMATED COST	Mapping effort is expected to be low cost, depending on the level of survey effort. Cost Level: \$
POTENTIAL IMPLEMENTATION FUNDING SOURCES	This effort is not currently funded or listed on the Town CIP, but could potentially be added in the future. Potential funding sources: Federal sources may include EDA - Investment for Public Works and Economic Development Facilities and FEMA – BRIC. State sources may include the Rural Grant Programs, EPA – Clean Water State Revolving Fund, NCDEQ American Rescue Plan Act, NCDEQ Asset Inventory and Assessment Grant Program, and Golden Leaf Foundation Flood Mitigation Program.
PROJECT ESTIMATED TIMELINE	There is currently no proposed timeframe for this plan; however, it is considered an urgent need. Depending upon the level of detail to be provided, this mapping effort is expected to take between six months to a year to complete.
PRIORITY RATING	High

2

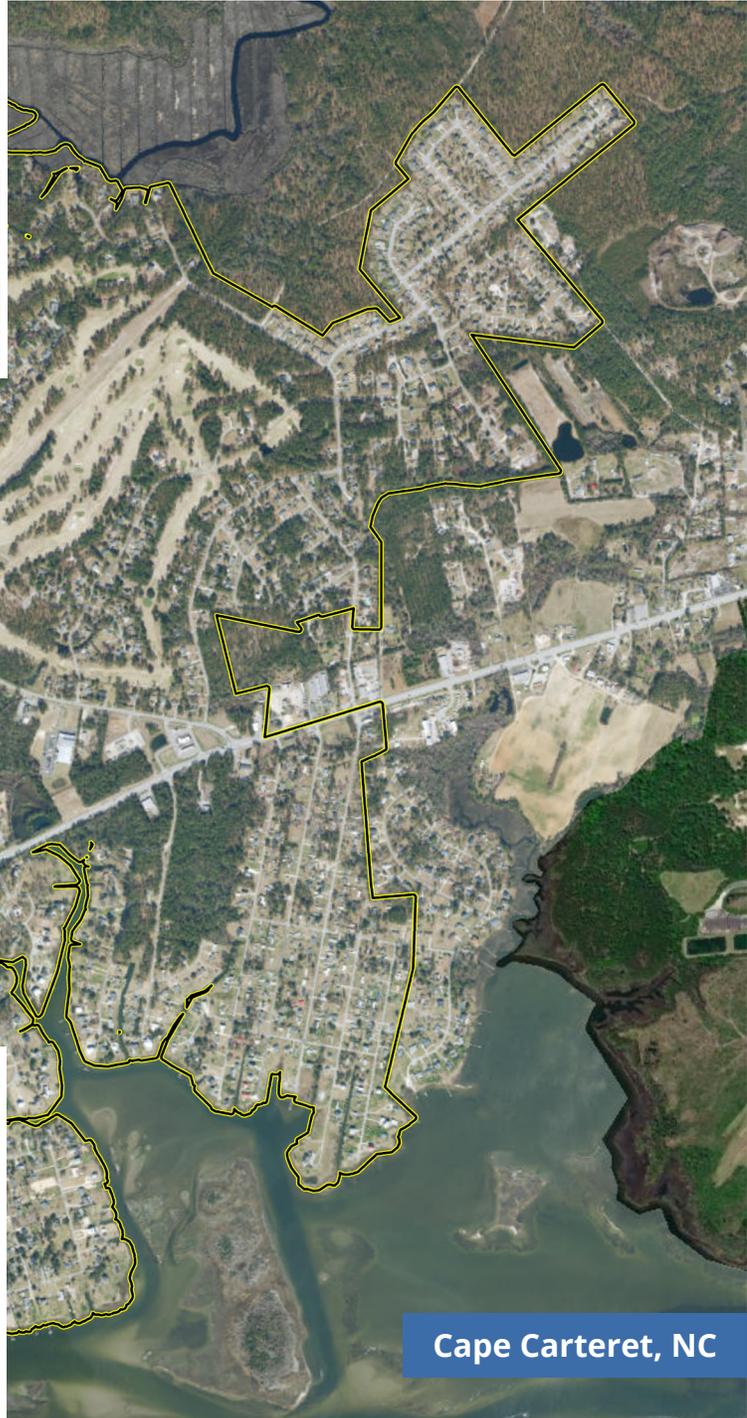
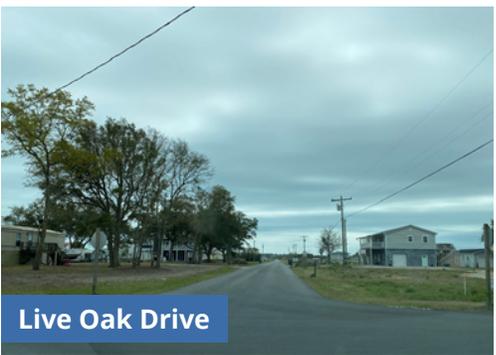
STORMWATER INFRASTRUCTURE MAPPING



3	STORMWATER PRETREATMENT
PROJECT DESCRIPTION	Construct stormwater treatment facilities to minimize water quality impacts to Bogue Sound and Pettiford Creek at multiple locations, including Sutton Drive, Ardan Oaks Drive, Anita Forte Drive, Loma Linda Court, Dolphin Street, Neptune Drive, Neptune Court, and Bogue Sound Drive. Project would build on the work done by mapping the stormwater system and facility improvements. A survey and condition assessment needed to determine service needs.
LOCATION	Multiple street locations within Cape Carteret.
HAZARD(S) ADDRESSED BY PROJECT	Stormwater Management/ Flooding. Existing stormwater treatment infrastructure on residential streets is impacted by coastal storm and other rainfall events.
TYPE OF SOLUTION 	Infrastructure improvements. Construction/replacement of stormwater treatment infrastructure at key locations throughout the Town. 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	The project is not currently funded in the Town CIP but could be added to the CIP in the future. Potential funding sources: Federal sources may include EDA - Investment for Public Works, National Wildlife Federation, and Economic Development Facilities and FEMA – BRIC. State sources may include Rural Grant Programs, EPA – Clean Water State Revolving Fund, NCDEQ American Rescue Plan Act, 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

3

STORMWATER PRETREATMENT



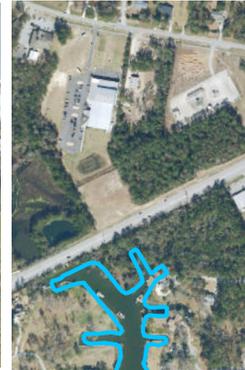
4	LIVING SHORELINE CONSTRUCTION
PROJECT DESCRIPTION	Construct an oyster reef or living shoreline along the Bogue Sound and Deer Creek shoreline.
LOCATION	Bogue Sound/Deer Creek shorelines
HAZARD(S) ADDRESSED BY PROJECT	Storm Surge Flooding, Shoreline/Beach Erosion. The program is intended to address flooding due to coastal storm events and storm surge.
TYPE OF SOLUTION 	Infrastructure improvements
PROJECT ESTIMATED COST	Project cost dependent upon solution selected for implementation. Cost Level: \$\$
POTENTIAL IMPLEMENTATION FUNDING SOURCES	This effort is not currently funded or listed on the Town CIP. The engineering design and construction of the project is eligible for funding under Phases 3 and 4 of the Resilient Coastal Communities Program. Potential funding sources: Federal sources may include NOAA - Coastal & Estuarine Land Conservation Program, NOAA - National Coastal Resilience Fund, National Wildlife Federation, and USFWS – National Coastal Resilience Fund. State sources may include EPA - Clean Water State Revolving Fund, Z. Smith Reynolds Foundation, and NCDWR Water Resources Development Project Grants.
PROJECT ESTIMATED TIMELINE	There is currently no proposed timeline for the project. Once funded, construction of a living shoreline can take between 3 and 9 months, with follow-up project site monitoring for up to five years following completion.
PRIORITY RATING	Medium

4

LIVING SHORELINE CONSTRUCTION



Boat Launch on Bogue Sound



Boat Ramp & Park Area

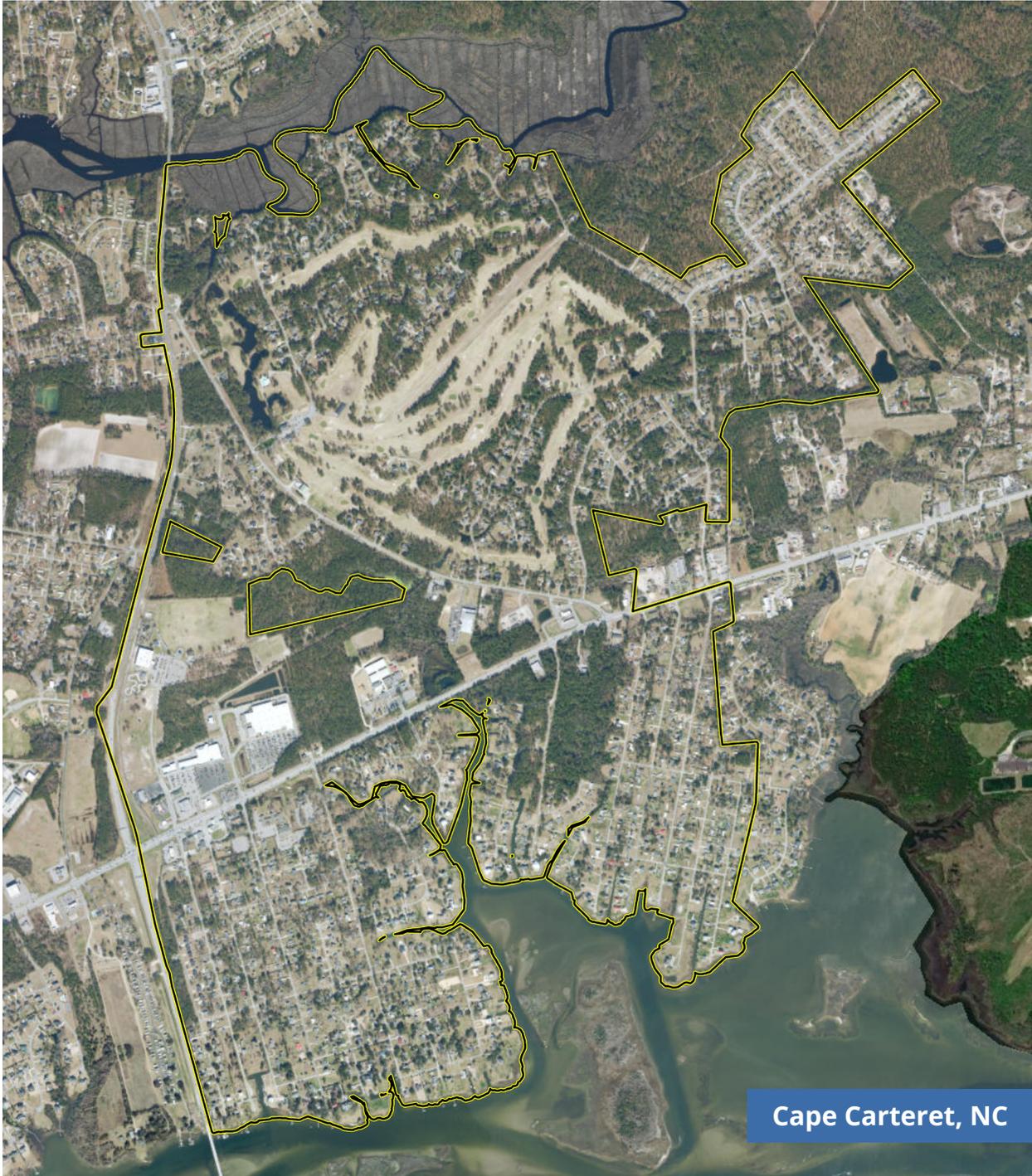


Area of Potential Shoreline Stabilization

5	TREE CANOPY REPLACEMENT
PROJECT DESCRIPTION	Plant young trees to increase overall tree canopy within the Town and replace trees lost during storm events.
LOCATION	Townwide
HAZARD(S) ADDRESSED BY PROJECT	Disaster Recovery. The project is intended to facilitate ecosystem recovery following storm events.
TYPE OF SOLUTION 	Natural resources restoration program
PROJECT ESTIMATED COST	Project cost is dependent upon the extent of tree canopy that is being replaced. Cost Level: \$
POTENTIAL IMPLEMENTATION FUNDING SOURCES	This effort is not currently funded or listed on the Town CIP but could potentially be added in the future. Potential funding sources: Funding may be available through state or private grant programs, such as the Golden Leaf Foundation and the NC Urban Forest Council Legacy Tree Fund. North Carolina has also issued grant funding to remove and replace nuisance tree species throughout the state.
PROJECT ESTIMATED TIMELINE	This is proposed as an ongoing program, focused on replacing trees as they are lost following storm events.
PRIORITY RATING	Medium

5

TREE CANOPY REPLACEMENT



Cape Carteret, NC

6	PUBLIC ENGAGEMENT AND EDUCATION CAMPAIGN
PROJECT DESCRIPTION	Engage and educate Cape Carteret residents and business owners on the impacts of storm events and other coastal hazards. This would be a continuous program to involve Town residents in the decision-making process for determining future resilience actions. Build on the Town’s existing public engagement efforts that are conducted as part of the NWS <i>StormReady</i> Community program, as well as prior regional hazard mitigation planning efforts.
LOCATION	Townwide
HAZARD(S) ADDRESSED BY PROJECT	Stormwater Management/Flooding, Climate Change. Project is to educate the community on the impacts of current and future anticipated flooding and the Town’s stormwater management needs as well as the impacts of climate change on the community.
TYPE OF SOLUTION 	Non-regulatory program, specifically an ongoing public engagement and education program for community residents and business owners.
PROJECT ESTIMATED COST	Primary costs are expected to include staff time for public engagement and events and for the publication/distribution of online and printed education materials. Cost Level: \$
POTENTIAL IMPLEMENTATION FUNDING SOURCES	This effort is not currently funded or listed on the County CIP but could potentially be added in the future. Potential funding sources: Partnerships with non-governmental organizations may provide opportunities to fund the public engagement and education effort. The NC Office of Environmental Education website provides information on potential education grants.
PROJECT ESTIMATED TIMELINE	There is currently no proposed timeframe for this effort but is recommended to begin in the next year to encourage continued engagement. The program would be an ongoing effort.
PRIORITY RATING	Medium

6

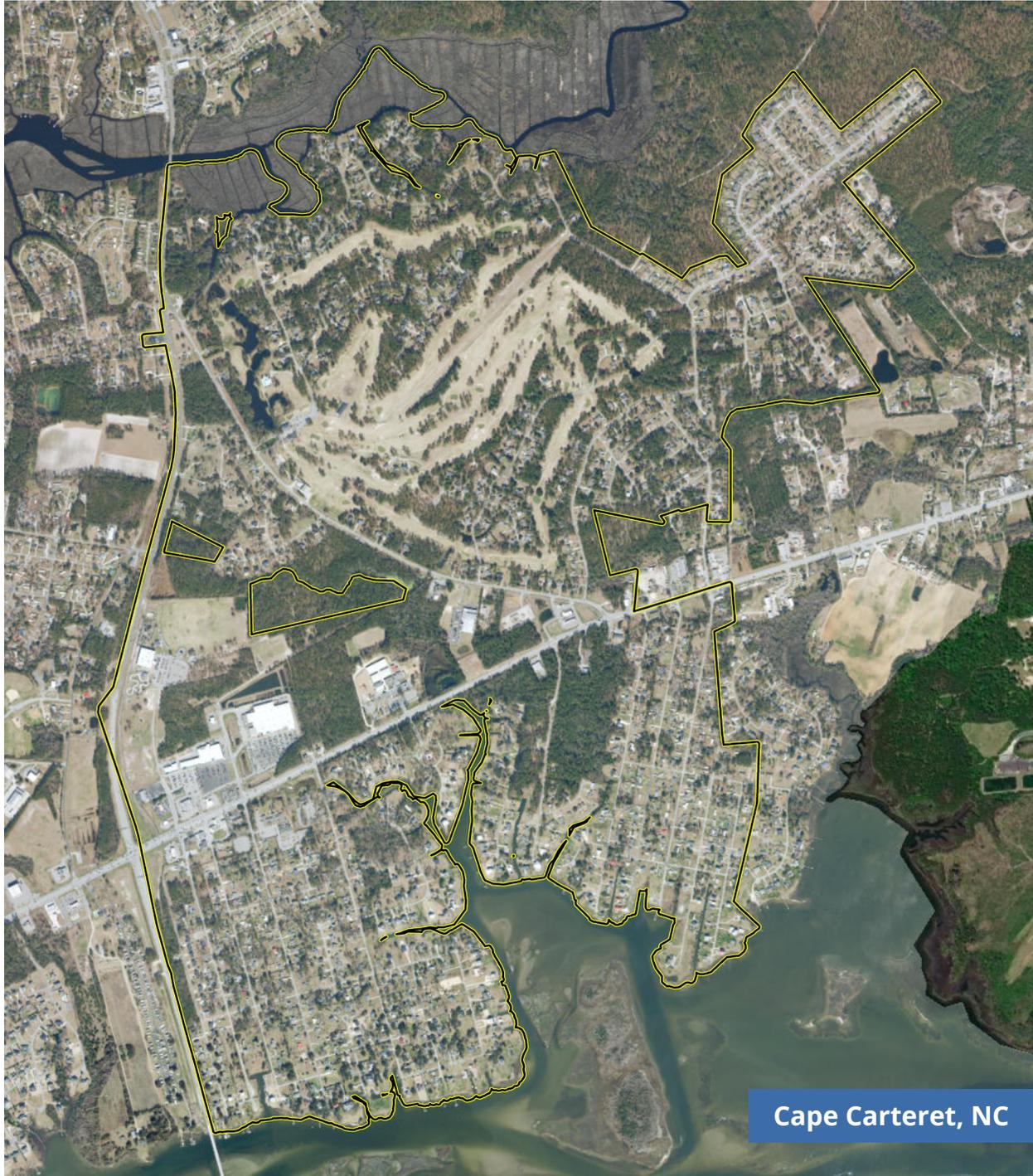
PUBLIC ENGAGEMENT AND EDUCATION CAMPAIGN



7	LOW-IMPACT DEVELOPMENT EDUCATION CAMPAIGN
PROJECT DESCRIPTION	Educate developers, home builders, and the real estate community on low-impact development strategies. Cape Carteret is planning to update its stormwater ordinance; an education campaign can be conducted in conjunction with this update.
LOCATION	Townwide
HAZARD(S) ADDRESSED BY PROJECT	Stormwater Management/Flooding, Climate Change. Project is to educate developers, home builders, and the real estate community on the impacts of current and future anticipated flooding and the role of low-impact development.
TYPE OF SOLUTION	Non-regulatory program, specifically an ongoing engagement and education program for the real estate and development community.
PROJECT ESTIMATED COST	<p>Primary costs are expected to include staff time for public engagement and events and for the publication/distribution of online and printed education materials.</p> <p>Cost Level: \$</p>
POTENTIAL IMPLEMENTATION FUNDING SOURCES	<p>This effort is not currently funded or listed on the County CIP but could potentially be added in the future.</p> <p>Potential funding sources: Partnerships with non-governmental organizations may provide opportunities to fund the targeted education effort. The NC Office of Environmental Education website provides information on potential education grants.</p>
PROJECT ESTIMATED TIMELINE	There is currently no proposed timeframe for this effort but is recommended to begin in the next year to encourage continued engagement. The program would be an ongoing effort.
PRIORITY RATING	Low

7

LOW-IMPACT DEVELOPMENT EDUCATION CAMPAIGN

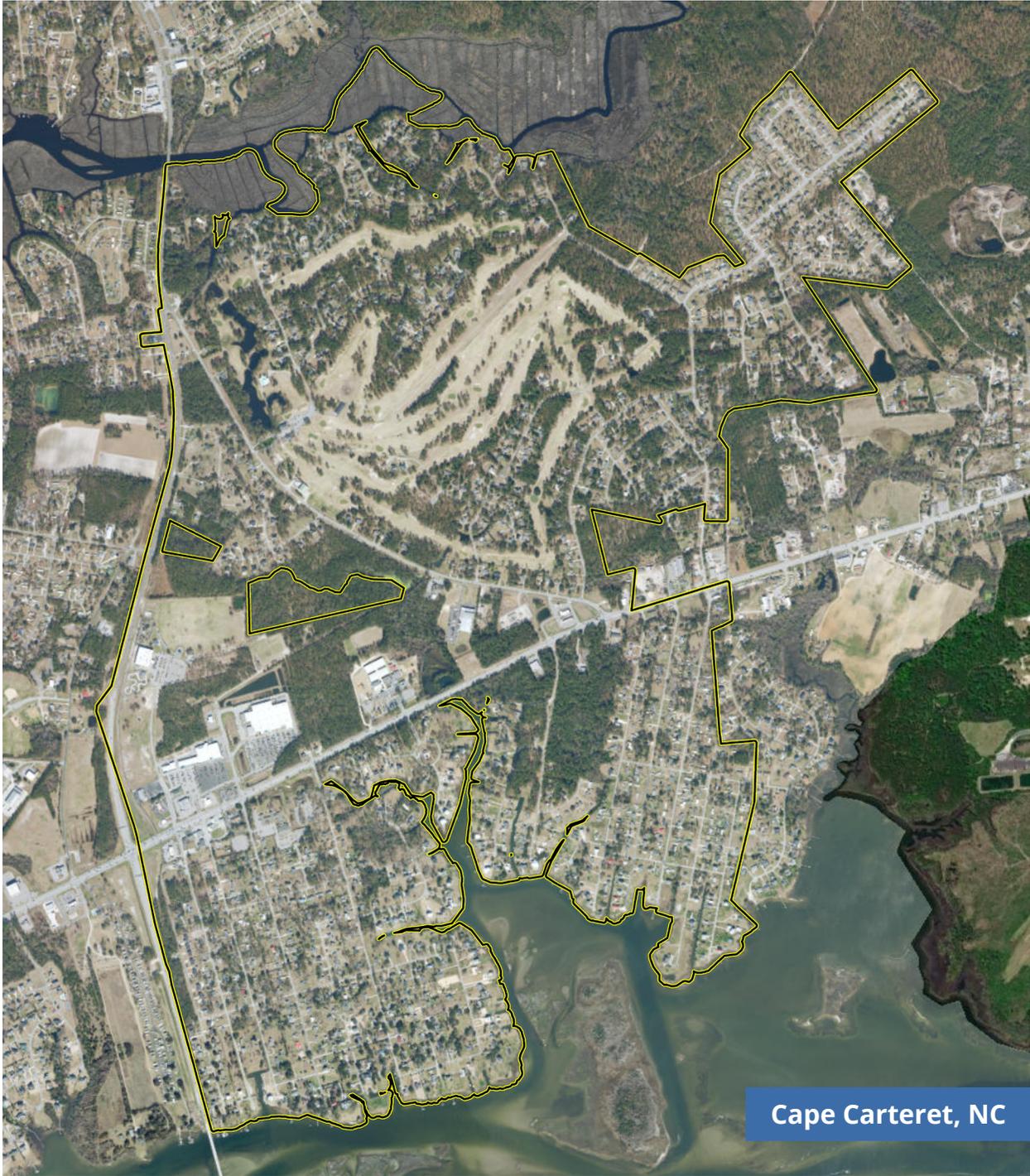


Cape Carteret, NC

8	EMERGENCY SHELTER IMPROVEMENTS
PROJECT DESCRIPTION	Work with Carteret County to address shelter needs and on upgrades to existing facilities. The project requires coordination with Carteret County, which is responsible for shelter facilities for the county.
LOCATION	County-wide
HAZARD(S) ADDRESSED BY PROJECT	Infrastructure Deficiency/Capacity, Climate Change. Address sheltering needs during storm events.
TYPE OF SOLUTION	Infrastructure Improvements
PROJECT ESTIMATED COST	Projects are not currently included on a Town or County CIP. Cost Level: \$\$
POTENTIAL IMPLEMENTATION FUNDING SOURCES	Shelter improvement projects are not currently funded. This effort could potentially be added to a Town or County CIP in the future. 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

8

EMERGENCY SHELTER IMPROVEMENTS



Cape Carteret, NC

9	EMERGENCY OPERATIONS CENTER
PROJECT DESCRIPTION	Establish center for western Carteret County, to be located in a new Town municipal complex proposed at a location outside of the modeled storm surge inundation for a Category 5 storm event. Project requires coordination with Carteret County, which is responsible for emergency operations for the county. A new development near existing White Oak Elementary School has been identified as a potential location for a new EOC.
LOCATION	To be determined
HAZARD(S) ADDRESSED BY PROJECT	Infrastructure Deficiency/Capacity. Address emergency operational continuity during storm events
TYPE OF SOLUTION	Infrastructure Improvements
PROJECT ESTIMATED COST	Construction of a new EOC is not currently included on a Town or County CIP. Cost Level: \$\$
POTENTIAL IMPLEMENTATION FUNDING SOURCES	The project is not currently funded but could potentially be added to a Town or County CIP in the future. Potential funding sources: Emergency operations facilities would likely qualify for federal hazard mitigation funding.
PROJECT ESTIMATED TIMELINE	Timeline for implementation dependent on the scope of improvements following site selection and facility design.
PRIORITY RATING	Low

EMERGENCY OPERATIONS CENTER

