

APPENDIX C

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.</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

TOWN OF SWANSBORO			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 (Priority 1)	Stormwater Mapping	Map all Town stormwater drainage and treatment facilities, including underground drains. Use this mapping to determine system improvement needs. Mapping effort should incorporate available data on sea level rise scenarios and floodplain locations.	Townwide	Expected to be low cost, depending upon level of survey effort.	Not currently funded	Stormwater Management, Flooding		Swansboro CAT; included in public survey	No proposed timeframe; may take between six months to a year to complete.	Identified as top priority in CAT Meetings. Received most votes in the online public survey.
2 (Priority 1A)	Halls Creek Stream Restoration	Implement restoration projects to improve water quality and related ecosystem services along Halls Creek.	Halls Creek	Dependent upon extent of stream restoration needed.	Not currently funded	Stormwater Management, Flooding	Yes	Swansboro CAT; Included in public survey	Dependent upon the extent and scope of restoration efforts.	Mapping developed in Project #1 needed for this project.
3 (Priority 1B)	Hawkins Creek Stream Restoration	Implement restoration projects to improve water quality and related ecosystem services along Hawkins Creek.	Hawkins Creek	Dependent upon extent of stream restoration needed.	Not currently funded	Stormwater Management, Flooding	Yes	Swansboro CAT; Public input	Dependent upon the extent and scope of restoration efforts.	Included as write-in response to online survey. Mapping developed in Project #1 needed for this project.
4	Water Street Rehabilitation	Repair and replace stormwater infrastructure prior to resurfacing Water Street in downtown Swansboro. Project includes use of permeable pavers to facilitate stormwater runoff.	Water Street from West Broad Street to Church Street	Estimated cost of \$215,000 (2018 estimate).	Planned, but not currently funded	Stormwater Management, Flooding	Yes	Swansboro staff input	Intended for implementation as soon as funding available; estimated completion within 1 year.	Engineering plans have been prepared for the project.
5	Townwide Wetland Restoration Plan	Develop a town-wide wetland restoration plan, including the identification of critical wetland systems and recommendations on restoration and preservation actions to protect these systems. Include discussion about working with private property owners on wetland restoration projects.	Townwide	Expected to be low-medium cost, dependent upon level of detail to be provided in restoration plan.	Not currently funded	Stormwater Management, Flooding	Yes	Swansboro CAT	No proposed timeframe.	Build upon the 2006 Hawkins Creek Watershed Protection and Restoration Planning Study.
6	Public Engagement and Education Campaign	Engage and educate Town of Swansboro residents and business owners on the impacts of sea level rise and other climate 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		Swansboro CAT	Intended as an ongoing program as funding is available.	
7	Resize NC 24 Culvert	Work with NCDOT to increase the capacity of the culvert underneath NC 24 and improve roadway drainage facilities.	NC 24	Higher cost expected, dependent upon culvert sizing and extent of roadway repair required.	Not currently funded	Stormwater Management, Flooding		Included in public survey	No proposed timeframe.	Over half of the respondents to online survey listed this option. Requires NCDOT (owner) participation.

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1 STORMWATER MAPPING	
PROJECT DESCRIPTION	Map all Town stormwater drainage and treatment facilities, including underground drains. Use this mapping to determine system improvement needs. Mapping effort should incorporate available data on sea level rise scenarios and floodplain locations.
LOCATION	Townwide
HAZARD(S) ADDRESSED BY PROJECT	Stormwater Management/Flooding, Infrastructure Deficiency/Capacity. 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 disasters.
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 upon the level of survey effort. Cost Level: \$
POTENTIAL IMPLEMENTATION FUNDING SOURCES	This effort is not currently funded or listed on the Town CIP. Potential funding sources: Federal sources may include FEMA – BRIC, EDA - Investment for Public Works, National Wildlife Federation, and Economic Development Facilities. State sources may include the Rural Grant Programs, NCDEQ Clean Water State Revolving Fund, NCDEQ American Rescue Plan Act (ARPA), 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, but it has been identified as the Town’s top priority, as it will aid in the identification of future infrastructure improvements. This effort is anticipated to take between 3 and 9 months to complete upon receipt of project funding.
PRIORITY RATING	High. Project has been identified as the top priority under the Resilient Coastal Communities Program Phase 2.

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STORMWATER MAPPING



Front Street

Swansboro, NC

2	HALLS CREEK STREAM RESTORATION
PROJECT DESCRIPTION	Implement restoration projects to improve water quality and related ecosystem services along Halls Creek.
LOCATION	Halls Creek: the specific section of Halls Creek to be determined through further analysis.
HAZARD(S) ADDRESSED BY PROJECT	Stormwater Management/ Flooding. The project is intended to address regional flooding impacts and water quality concerns by restoring sections of Halls Creek.
TYPE OF SOLUTION 	Waters of the U.S. restoration project/ecosystem renewal.
PROJECT ESTIMATED COST	Cost dependent upon the stream length to be restored and the scope of the restoration. Cost Level: \$\$
POTENTIAL IMPLEMENTATION FUNDING SOURCES	The project is 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. Potential funding sources: Federal sources may include NOAA - National Coastal Resilience Fund (NCRF), USFWS – National Coastal Resilience Fund, National Wildlife Federation, and DOI National Coastal Wetlands Conservation. State sources may include NCDEQ Clean Water State Revolving Fund, NCDEQ Drinking Water State Revolving Fund, and NCDWR – Water Resources Development Project Grants.
PROJECT ESTIMATED TIMELINE	Overall timeline dependent upon the stream length to be restored and the scope of effort. Design and construction timeline expected to vary between 6 months and 2 years upon receipt of project funding. Further engineering analysis and design is needed to identify the appropriate sections for restoration. Future monitoring may be required.
PRIORITY RATING	High

HALLS CREEK STREAM RESTORATION



3	HAWKINS CREEK STREAM RESTORATION
PROJECT DESCRIPTION	Implement restoration projects to improve water quality and related ecosystem services along Hawkins Creek.
LOCATION	Hawkins Creek; the specific section of Hawkins Creeks to be determined through further analysis.
HAZARD(S) ADDRESSED BY PROJECT	Stormwater Management/ Flooding. The project is intended to address regional flooding impacts and water quality concerns by restoring sections of Hawkins Creek.
TYPE OF SOLUTION 	Waters of the U.S. restoration project/ecosystem renewal.
PROJECT ESTIMATED COST	Cost dependent upon the stream length to be restored and the scope of the restoration. Cost Level: \$\$
POTENTIAL IMPLEMENTATION FUNDING SOURCES	The project is 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. Potential funding sources: Federal sources may include NOAA - National Coastal Resilience Fund (NCRF), USFWS – National Coastal Resilience Fund, National Wildlife Federation, and DOI National Coastal Wetlands Conservation. State sources may include NCDEQ Clean Water State Revolving Fund, NCDEQ Drinking Water State Revolving Fund, and NCDWR – Water Resources Development Project Grants.
PROJECT ESTIMATED TIMELINE	Overall timeline dependent upon the stream length to be restored and the scope of effort. Design and construction timeline expected to vary between 6 months and 2 years upon receipt of project funding. Further engineering analysis and design is needed to identify the appropriate sections for restoration. Future monitoring may be required.
PRIORITY RATING	High

HAWKINS CREEK STREAM RESTORATION



4	WATER STREET REHABILITATION
PROJECT DESCRIPTION	Repair and replace stormwater infrastructure prior to resurfacing Water Street in downtown Swansboro. Project includes use of permeable pavers to facilitate stormwater runoff.
LOCATION	Water Street from West Broad Street to Church Street
HAZARD(S) ADDRESSED BY PROJECT	Stormwater Management/Flooding, Infrastructure Deficiency/ Capacity. Water Street is subject to frequent flooding from heavy rainfall and stormwater infrastructure deficiencies.
TYPE OF SOLUTION 	Infrastructure Improvements – Construction/replacement of stormwater infrastructure along Water Street as part of the proposed removal/replacement of the asphalt paving. NNBS solutions, such as gravel parking, gravel driveway connections, and permeable pavers, will be used where feasible.
PROJECT ESTIMATED COST	<p>Construction plans have been completed. In 2018, final construction costs were estimated to be \$215,000.</p> <p>Cost Level: \$\$</p>
POTENTIAL IMPLEMENTATION FUNDING SOURCES	<p>The project is eligible for funding under Phases 3 and 4 of the Resilient Coastal Communities Program.</p> <p>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.</p>
PROJECT ESTIMATED TIMELINE	Construction timeline will be developed by the contractor but is expected to require no more than 1 year to complete.
PRIORITY RATING	High

WATER STREET REHABILITATION



5	TOWNWIDE WETLAND RESTORATION PLAN
PROJECT DESCRIPTION	Develop a town-wide wetland restoration plan, including the identification of critical wetland systems and recommendations on restoration and preservation actions to protect these systems. Include discussion about working with private property owners on wetland restoration projects. This effort can build upon the 2006 Hawkins Creek Watershed Protection and Restoration Planning Study.
LOCATION	Townwide
HAZARD(S) ADDRESSED BY PROJECT	Stormwater Management/Flooding. The effort is intended to address regional flooding by identifying the appropriate ecosystem restoration projects that would facilitate more effective stormwater management.
TYPE OF SOLUTION 	Wetland, Waters of the U.S. restoration
PROJECT ESTIMATED COST	Expected to be low-medium cost, dependent upon level of detail to be provided in restoration plan. Cost Level: \$
POTENTIAL IMPLEMENTATION FUNDING SOURCES	The development of a Town-wide Wetland Restoration Plan is not currently funded or listed on the County CIP. Individual restoration efforts are eligible for funding under Phases 3 and 4 of the Resilient Coastal Communities Program; however, the initial comprehensive plan would require other funding sources. Potential funding sources: Federal sources may include NOAA - National Coastal Resilience Fund (NCRF), USFWS – National Coastal Resilience Fund, National Wildlife Federation, and DOI – National Coastal Wetlands Conservation. State sources may include NCDEQ American Rescue Plan Act (ARPA), NCDEQ Clean Water State Revolving Fund, NCDEQ – Water Resources Development Project Grants, and NC Division of Mitigation Services.
PROJECT ESTIMATED TIMELINE	There is currently no timeframe for this effort.
PRIORITY RATING	Medium

TOWNWIDE WETLAND RESTORATION PLAN



Wetlands Along the Waterfront

Swansboro, NC

6	PUBLIC ENGAGEMENT AND EDUCATION CAMPAIGN
PROJECT DESCRIPTION	Engage and educate Town of Swansboro residents and business owners on the impacts of sea level rise and other climate hazards. This would be a continuous program to involve Town residents in the decision-making process for determining future resilience actions.
LOCATION	Townwide
HAZARD(S) ADDRESSED BY PROJECT	Stormwater Management/Flooding, Infrastructure Deficiency/Capacity, 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	<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.</p> <p>Potential funding sources: Partnerships with non-governmental organizations may provide opportunities to fund the public engagement and education effort. The N.C. 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	Medium



7	RESIZE NC 24 CULVERT
PROJECT DESCRIPTION	Work with NCDOT to increase the capacity of the culvert underneath N.C. 24 and improve roadway drainage facilities.
LOCATION	NC 24
HAZARD(S) ADDRESSED BY PROJECT	Stormwater Management/Flooding. The project addresses flooding impacts to transportation infrastructure and surrounding properties 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 will likely include funds assigned through the department’s prioritization process.</p> <p>Potential funding sources: Federal sources may include 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.</p>
PROJECT ESTIMATED TIMELINE	Project improvements are expected to require an estimated 1-3 years following receipt of project funding.
PRIORITY RATING	Low. This project was cited as a priority of over half of the respondents to the survey conducted under the Resilient Coastal Communities Program Phase 2.

RESIZE NC 24 CULVERT

