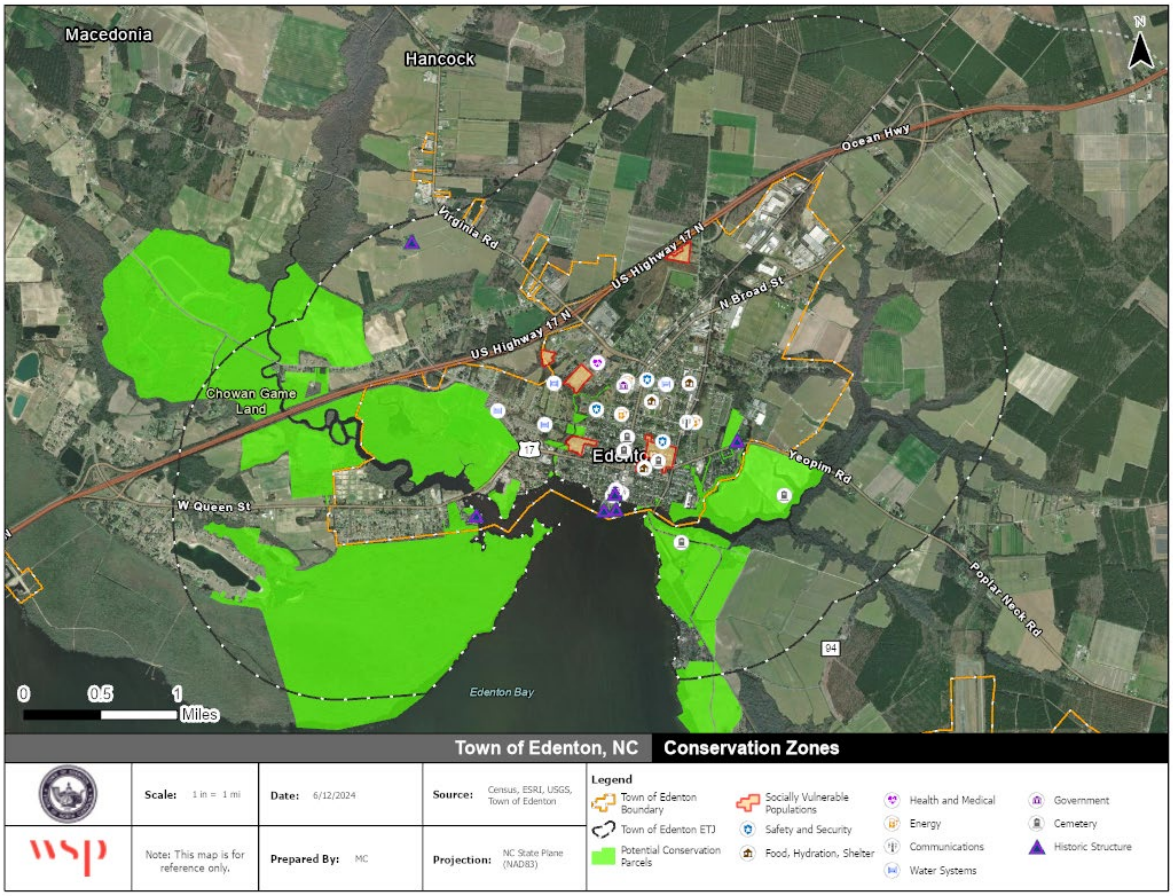
8.4 PROJECT PORTFOLIO

Project Name	Bulkhead Improvement and Erosion Reduction
Project Description	Update and expand bulkheads in known erosion areas along Water Street between Broad Street and Queen Anne Park and install erosion protection measures, possibly including rip rap and/or wetland grasses. As bulkheads are raised, they need carefully selected plantings of wetland grasses on their landward sides. Along Water Street a device for maintaining a photogenic background is called for, such as grid platforms.
Location	Water Street between Broad Street and Queen Anne Park
Source	CAT input, public survey
Scoping Questions	Where should expansions occur? What type of plantings are suitable and where should plantings occur? How and where can bulkheads be integrated with proposed erosion control measures?
Hazard(s) Addressed	Sea Level Rise, Coastal Flooding, Storm Surge, Erosion
Supporting Function	Community character, downtown, historic sites and districts
Type of Solution	Hybrid (infrastructure and nature-based)
Estimated Timeline	3-5 years
Responsible Entity	Town of Edenton, consultant support
Potential Partners	NCDEQ (DCM), USACE, NCEM
Existing Funding	None identified.
Potential Funding Sources	DCM, FEMA BRIC, FEMA HMGP, FEMA Flood Mitigation Assistance Program, USDA Watershed and Flood Prevention Operations Program
Estimated Cost	High – $450,000+/-
Anticipated Benefit	Medium – Bulkhead expansion could provide protection of Water Street and downtown, including historic sites and districts, up to a certain level of service.
Priority Rating	Medium

Project Map(s)

Project Name	Conservation Zones
Project Description	Establish conservation zoning along unbuilt waterfront lots and lots prone to flooding.
Location	Undeveloped waterfront and flood prone properties in Town of Edenton and ETJ
Source	CAT input, public survey
Scoping Questions	How should conservation areas be defined? What types of development regulations should be applied in these areas (e.g. setbacks, cluster development, etc.)?
Hazard(s) Addressed	Sea Level Rise, Riverine & Coastal Flooding, Storm Surge, Erosion
Supporting Function	Natural floodplain functions
Type of Solution	Policy and Regulations
Estimated Timeline	2-3 years
Responsible Entity	Planning Department, Administration, Edenton/Chowan Recreation Department
Potential Partners	Chowan County, Albemarle Regional Council of Government, Conservation Trust of North Carolina, Land Trust Alliance – North Carolina
Existing Funding	Staff time.
Potential Funding Sources	None identified.
Estimated Cost	Low – Conservation zoning could be established during the next land use plan update utilizing staff time.
Anticipated Benefit	Medium – Conservation zoning preserves open space while maintaining development values, which can reduce stormwater runoff, protect natural resources, and limit exposure to known hazard areas. Recreational and natural uses can be encouraged.
Priority Rating	Medium

Project Map(s)



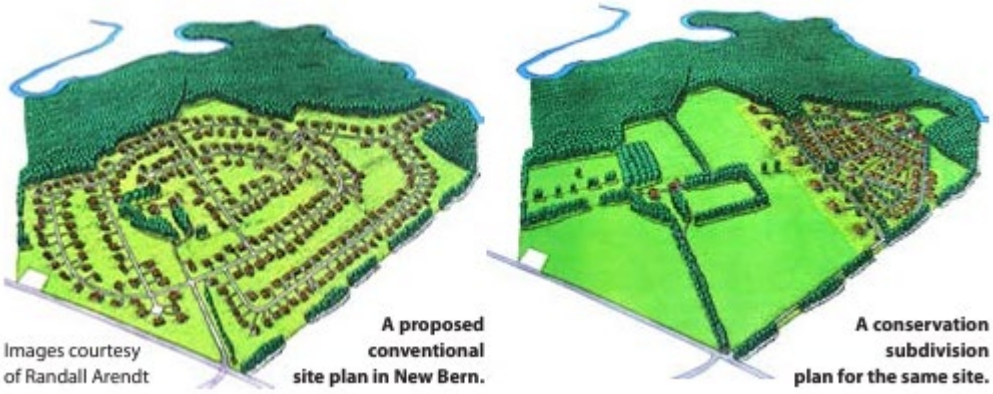


Image Source: Conservation Subdivision Handbook; A Guide for North Carolina Communities in the Use of Conservation Design for Land Use Planning. https://www.ncufc.org/uploads/Conservation_subdivision.pdf

Project Name	Construct Living Shorelines
Project Description	Construct living shorelines along the mouth of Queen Anne Creek and along Hayes Farm shoreline.
Location	Waterfront areas along Edenton Bay and Queen Anne Creek
Source	CAT input
Scoping Questions	What areas should be prioritized for living shorelines?
Hazard(s) Addressed	Sea Level Rise, Riverine & Coastal Flooding, Storm Surge, Erosion
Supporting Function	Community character, downtown, historic sites and districts
Type of Solution	Nature Based Solution
Estimated Timeline	5+ years
Responsible Entity	Planning Department, Administration
Potential Partners	North Carolina Coastal Federation; The Nature Conservancy, NCDEQ/DCM, NCEM
Existing Funding	None identified.
Potential Funding Sources	DCM, North Carolina Coastal Federation, NOAA's National Coastal Resilience Fund, FEMA BRIC, FEMA HMGP
Estimated Cost	High – $1,250,000+/-
Anticipated Benefit	Medium – Living shorelines filter pollutants from stormwater runoff, protect against erosion and flooding, and provide aesthetic and ecosystem benefits.
Priority Rating	High

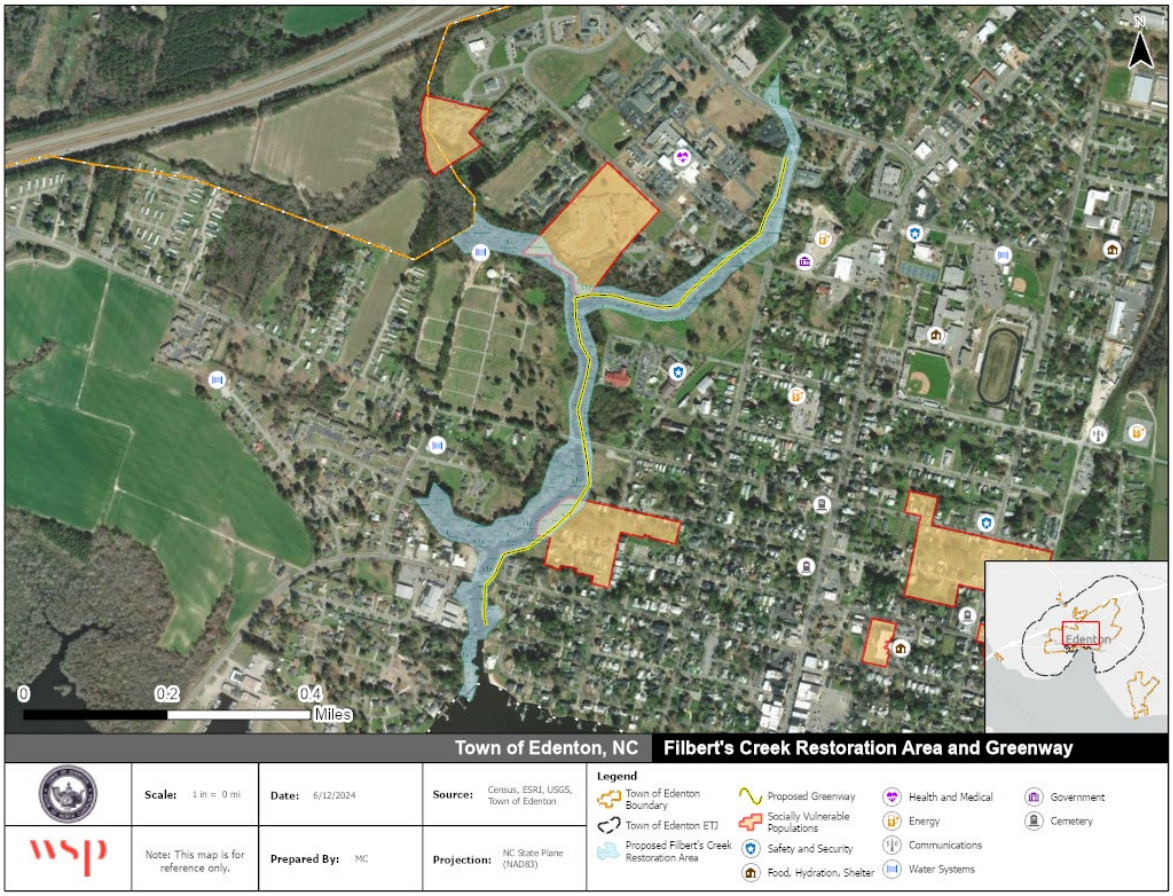
Project Map(s)

Project Name	Court Street Stormwater and Water Quality
Project Description	Update parking lot drainage with an appropriately planted drainage ditch to capture and treat run off from the parking lot behind downtown where runoff collects and causes flooding on Court Street.
Location	Court Street between Church Street and Water Street
Source	CAT input
Scoping Questions	What would be the best design to solve the flooding problem
Hazard(s) Addressed	Stormwater Flooding
Supporting Function	Stormwater, historic sites and districts
Type of Solution	Hybrid Infrastructure and Nature-Based
Estimated Timeline	2-3 years
Responsible Entity	Public Works Department, Administration
Potential Partners	Chowan County, private property owners, NCEM
Existing Funding	None identified.
Potential Funding Sources	Water/Sewer Fund, DCM RCCP, FEMA BRIC, North Carolina Land and Water Fund: Innovative Stormwater Program, Golden LEAF Foundation
Estimated Cost	High – $275,000+
Anticipated Benefit	High – Project would reduce stormwater flooding and improve water quality. Trees in downtown streetscaping could benefit if water is channelled to them.
Priority Rating	Medium

Project Map(s)

Project Name	Filbert's Creek Restoration
Project Description	Design and build a project with the following three major components: 1. Construct a forebay near Virginia Rd and N. Granville St. to catch sediment. 2. Restore/redesign the existing constructed wetland on Filbert's Creek to maintain previous capacity and/or increase capacity. 3. Update the weir and replace the culvert on Filbert's Creek. As part of these improvements, establish the proposed greenway from Virginia Road to West Queen Street.
Location	Filberts Creek from Virginia Road to confluence with Edenton Bay
Source	CAT input, Town staff, Hurricane Matthew Resilient Redevelopment Plan
Scoping Questions	How can the existing wetland be enlarged to retain more water and provide recreational benefit
Hazard(s) Addressed	Riverine & Coastal Flooding, Stormwater Flooding, Storm Surge, Erosion
Supporting Function	Natural floodplain functions, stormwater drainage, transportation, health & safety
Type of Solution	Hybrid (infrastructure and nature-based)
Estimated Timeline	3-5 years; components of this project could be implemented in 1-2 years
Responsible Entity	Edenton Planning and Public Works Departments, Edenton-Chowan Recreation Department
Potential Partners	Soil and Water Conservation Service, DCM (NCDEQ), US Fish & Wildlife Service, NCEM, Carolina Wetlands Association
Existing Funding	Grant pending for maintenance.
Potential Funding Sources	DCM RCCP, North Carolina Land and Water Fund: Innovative Stormwater Program, USDA Watershed and Flood Prevention Operations Program, NPS Rivers, Trails, and Conservation Assistance Program, FEMA BRIC, FEMA HMGP, Golden LEAF Foundation
Estimated Cost	High – $650,000+/-
Anticipated Benefit	Medium – Flood risk reduction, protection of critical hospital infrastructure, improved infiltration, and positive impacts to water quality, supports recreation
Priority Rating	High

Project Map(s)



Project Name	East Edenton Stormwater Drainage Improvements
Project Description	Assess drainage on the east side of town and determine needed improvements to existing infrastructure. Plan and construct a wetland on the downstream end of this area, near the culvert at McMullen Ave between Phillips St and Highway 32.
Location	East Edenton along McMullen Avenue
Source	CAT input
Scoping Questions	An analysis (modeling) of the sub watershed should be performed to determine the exact cause of flooding and appropriate solutions
Hazard(s) Addressed	Stormwater Flooding, Riverine & Coastal Flooding
Supporting Function	Stormwater, transportation
Type of Solution	Hybrid (infrastructure and nature-based)
Estimated Timeline	3-5 years
Responsible Entity	Edenton Public Works, Edenton Planning
Potential Partners	Chowan County, private property owners, NCEM
Existing Funding	None identified.
Potential Funding Sources	DCM RCCP, FEMA BRIC, FEMA HMGP, North Carolina Land and Water Fund: Innovative Stormwater Program, USDA Watershed and Flood Prevention Operations Program, Golden LEAF Foundation
Estimated Cost	High – $475,000+/-
Anticipated Benefit	Medium – Drainage improvements and wetland construction would reduce flood risk and provide ecological and water quality benefits associated with natural floodplain functions.
Priority Rating	Medium

Project Map(s)

Project Name	Stormwater Infrastructure Inventory
Project Description	Conduct data collection to compile a GIS inventory of all stormwater infrastructure in town.
Location	Entire stormwater system throughout Edenton
Source	Town staff, RENA report
Scoping Questions	What infrastructure components should be inventoried? What attribute data should be collected?
Hazard(s) Addressed	Stormwater Flooding
Supporting Function	Stormwater
Type of Solution	Education, Awareness, and Incentives
Estimated Timeline	1-2 years
Responsible Entity	Public Works Department
Potential Partners	Chowan County, NCDEQ, NCAPWA
Existing Funding	None identified.
Potential Funding Sources	DCM, NCDEQ LASSII Grant
Estimated Cost	Medium – $125,000+/-
Anticipated Benefit	Low – A stormwater inventory will provide data needed to inform maintenance and improvements to the stormwater system.
Priority Rating	Low
Project Map(s)	N/A

REFERENCES

- Albemarle Regional Hazard Mitigation Plan. June 2020.
- Bryan, Michael, 2022, "US Social Vulnerability by Census Block Groups", https://doi.org/10.7910/DVN/ARBHPK, Harvard Dataverse, V2, UNF:6:sM/cBUxMDjFYmAdIA/dWBg== [fileUNF]
- Chowan County & Town of Edenton Greenways & Open Space Plan. 2003.
- Chowan County & Town of Edenton Joint Land Use Plan. August 2018.
- Edenton Town Council 2020-2030 Vision Statement.
- FEMA. Benefit-Cost Analysis Sustainment and Enhancements. Standard Economic Value Methodology Report. May 2023.
- FEMA Benefit-Cost Analysis Toolkit Version 6.0 Help.
- Hurricane Matthew Resilient Redevelopment Plan. Chowan County. May 2017.
- North Carolina Climate Risk Assessment and Resilience Plan. 2020.
- NC Division of Coastal Management. Resilient Coastal Communities Program Planning Handbook. August 2023.
- State of North Carolina Hazard Mitigation Plan. 2023.
- Town of Edenton Capital Improvements Plan. 2014-2034.
- Town of Edenton Resilience Evaluation and Needs Assessment Report. 2018.