

Land Use Management Topics

For Coastal Resources Commission (CRC) Review Purposes

A CAMA land use plan affords the opportunity for a local government to address areas or issues of local concern, which may be asset-based, programmatic, regulatory, geographic, or otherwise. These issues were identified during the land use plan development process and are included herein. The issues do not necessarily directly align with the CAMA management topic structure, but are locally important nonetheless. These recommendations are not required to have associated timelines for completion or implementation, although in some cases these may be provided.

Not all of the recommendations contain specific action items, but that should not be perceived as any less a call to action. In addition, not all of the recommendations outlined herein are immediately ripe for implementation, and (as with the Future Land Use Map, or FLUM) local discretion and leadership will determine priorities and timelines. Policies that are not able to be implemented immediately will guide future development decisions on the Town-level, so that all future development will bring the reality closer to the vision. While the FLUM and policies are intended to provide guidance during land use decisions, the issuance of CAMA and development permits will be based on adopted standards in the Town's Code of Ordinances and the CRC's permitting rules that implement the Coastal Area Management Act.

Implementation

In the following pages, policies and implementation steps (actions) are identified, with relevant CAMA Topics and implementation year(s) indicated at the end of actions. Implementing actions are prioritized by time frame : short term; medium term; long term; or ongoing. The scheduling on implementing actions are as followed: short term (1-2 years), medium term (3-5 years), long term (6-10 years, and ongoing. Actions labeled as "ongoing" require constant vigilance. Where no entry is provided, the topic is not considered relevant to the CAMA Land Use Management Topics. Adherence to the established timelines listed herein will be used by the Coastal Resources Commission to track progress toward plan implementation, although it is understood that these timelines may be amended by the local government. The Town will use zoning, work planning, and other local government powers to progress the policies and actions described in this plan.

Public [Waters] Access (PA)

Management Goal:

Maximize access to the beaches and the public trust waters of the coastal region.

Planning Objectives:

The plan shall include policies that address access needs and opportunities, with strategies to develop public access and provisions for all segments of the community, including persons with disabilities. Oceanfront communities shall establish access policies for beach areas targeted for nourishment.

Land Use Compatibility (LUC)

Management Goal:

Ensure that development and use of resources or preservation of land balance protection of natural resources and fragile areas with economic development, and avoids risks to public health, safety, and welfare.

Planning Objectives:

The plan shall include policies that characterize future land use development patterns and establish mitigation concepts to minimize conflicts.

Infrastructure Carrying Capacity (ICC)

Management Goal:

Ensure that public infrastructure systems are sized, located, and managed so the quality and productivity of areas of environmental concern (AECs) and other fragile areas are protected or restored.

Planning Objectives:

The plan shall include policies that establish service criteria and ensure improvements minimize impacts to AECs and other fragile areas.

Natural Hazard Areas (NHA)

Management Goal:

Ensure that public infrastructure systems are sized, located, and managed so the quality and productivity of areas of environmental concern (AECs) and other fragile areas are protected or restored.

Planning Objectives:

The plan shall include policies that establish service criteria and ensure improvements minimize impacts to AECs and other fragile areas.

[Environmental] Water Quality (WQ)

Management Goal:

Maintain, protect, and where possible enhance water quality in coastal wetlands, oceans, and estuaries.

Planning Objectives:

The plan shall include policies that establish strategies and practices to prevent or control non-point source pollution and maintain or improve water quality.

Access to Public Trust Waters



PA 1. Continue to recognize existing private ownership, control and maintenance of current access to the beach and public trust waters.

PA 2. Expand capacity and number of no-pay parking areas for use by residents registered with the Town, as opportunities arise.

PA 3. Continue enforcement of dune protection regulations.

PA 4. Consider opportunities for town-owned accesses as opportunities arise.

PA 5. Establish criteria to determine triggers for when private structures or development has encroached upon public trust areas (i.e. – when has enough erosion occurred that

the structure is encroaching on the public beach or tidal area) and for subsequent action (removal, relocation, etc.).

PA 5.1. The process should consider regularly scheduled beach nourishment activities, but should also prevent the collapse of structures into the public trust beaches and ocean.

PA 5.2. Ensure new development adheres to CAMA requirements in the Ocean Hazard Area of Environmental Concern (See 15A NCAC7H .0306 for building and setback requirements)

PA 6. Continue beach nourishment and dune management in a way that distributes costs equitably based on benefits received.

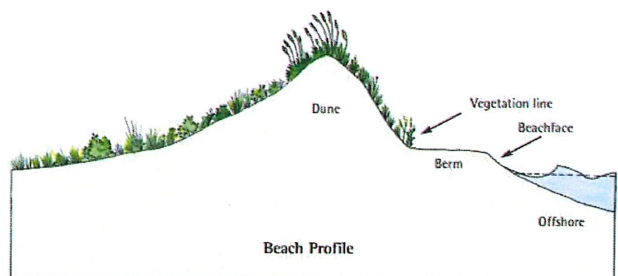
PA 6.1. Maintain beach access.

PA 6.2. Consider partnerships between the Town and civic and homeowner's associations to enhanced existing facilities (i.e., maintenance, accessibility, signage, safe crossings, sidewalks, bike parking, etc.) at beach access points or on the crossovers.

PA 6.3. Support the Southern Shores Civic Association as necessary, to maintain its handicapped accessible beach access.

Sand dunes have repeatedly proven to provide protection from waves and storm-induced erosion during infrequent but severe storms such as hurricanes.

-The Dune Book, NC Sea Grant, 2003.



Dunes form through complex interactions between sand, winds, and water.

- The Dune Book, NC Sea Grant, 2003



Beach Nourishment in Southern Shores

The town's Beach Management Plan aims to sustain the oceanfront beach along the entirety of Southern Shores, which is approximately 3.7 miles of varying widths of shoreline. The 2022 beach nourishment project was a coordinated effort with neighboring communities in Dare County to achieve cost savings. Beach nourishment requires a 5-year maintenance cycle; the 2022 project was a followup from the 2017 beach nourishment project. A vulnerability assessment determines where higher volumes of sand are necessary based on erosion and accretion rates, areas most vulnerable to storms, and beach volume density.

Beach nourishment is the only tool in North Carolina that's available to mitigate erosion along the oceanfront. It provides storm protection for private and public structures, reduces risks of erosion, encourages new vegetation growth, and supports economic development and tourism by providing a larger recreational area. Although beach nourishment provides several benefits, it is costly and does not provide a permanent solution to the erosion problem.

Sometimes, unintended consequences may occur, such as, wave pattern changes and temporary loss of habitat. Often, sand from beach nourishment often erodes faster and must be repeated periodically.

Beach nourishment in Dare County is funded by a 2% portion of Dare County's 6% occupancy tax, property and municipal service district taxes, and state and FEMA Public Assistance programs (when applicable). During the process, additional steps are taken to protect the public and wildlife. The 2022 beach nourishment project is scheduled to resume in 2023 to complete the northern portion of the project area before the tourist season begins and sea turtle nesting period begins.



Land Use Compatibility and Character



LUC 1. Encourage development/redevelopment that considers land suitability, the future land use map, and avoids impacts on environmentally fragile areas.

LUC 2. Use the future land use map, storm surge maps, flood exposure maps, wetlands assessments, and projected sea level rise and flood vulnerability data when deciding rezoning and development requests.

LUC 2.1. It is possible to approve a rezoning request or ordinance amendments that are not consistent with the Land Use Plan, however this may necessitate a land use plan amendment.

LUC 3. Preserve the low-density nature of the residential community on large (20,000+ sqft) lots, wherever possible, and keep the commercial district small and contained on the southern end of Town.

LUC 3.1. Preserve the low-density nature of the residential community, by enforcing the 20,000-square-foot minimum lot size, wherever possible, and keeping the commercial district small and contained on the southern edge of town.

Low Impact Development (LID) Strategies

Encouraging Low Impact Development (LID) strategies in new developments and public projects can help address and mitigate stormwater impacts. Bio-swales, rain gardens, stormwater planters, pervious pavements, disconnected impervious surfaces, rainwater harvesting with rain barrels and cisterns, and green ("living") roofs can help increase the retention of stormwater and improve infiltration rates. This can improve water quality in canals, Jean Guite Creek, and Currituck Sound while decreasing the impacts of new development.



LUC 3.2. The Town's current policy on Accessory Dwelling Units allows for separate living space that does not constitute a dwelling unit. This is allowed in all districts except for RS-10.

- Consider evaluation of the Town's current policy on separate living spaces and consider revisions to allowances and standards for Accessory Dwelling Units by zoning district.

LUC 4. Support Low-Impact Development strategies.

LUC 4.1. Low impact development techniques that should be supported include:

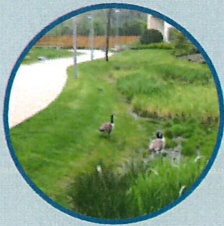
- Limiting areas of disturbance in residential and nonresidential districts.
- Innovative, green stormwater infrastructure that allows infiltration

and filtering of pollutants.

- Incorporating pervious pavements, rain gardens, bio-swales, stormwater planters, and other features in new development.
- Develop LID stormwater manual or other educational materials to support innovative site design.

Low Impact Development Techniques

Low impact development techniques can be applied at any stage of development. Typical post-development LID practices range from directing roof drainage to a rain garden or capturing in a rain barrel or cistern and retrofitting streets with features that infiltrate or capture rain water. Additional LID practices include bioretention, vegetated roof covers, grass swales, and permeable pavement.



Rain gardens slow stormwater as it travels downhill. Plants and soils are specifically chosen to clean stormwater and reduce nutrients and overall sediment loads.



Rain barrels collect and store stormwater runoff from rooftops, where it can be later used for watering lawns or gardens.



Disconnected Impervious Surfaces (DIS) is a low-cost effective way to reduce the volume and flow of stormwater runoff by directing it from impervious surfaces to graded and vegetated pervious surfaces.



Permeable pavement is designed to allow water to pass through it into the ground below where it is naturally filtered.

Land Use Compatibility and Character



LUC 5. Evaluate the impact of Short-Term Rentals relative to the desired low-density residential character of the community, with attention paid to how these affect the quality of life of year-round residents.

LUC 6. Continue to encourage commercial development primarily along US 158 and the southern end of Highway 12.

LUC 7. Continue to enforce community design standards such as regulating building height, lot coverage, building size and capacity, and other standards that preserve local character.

LUC 8. Create standards so that existing commercial sites can be redeveloped and intensified in ways that encourage a family-friendly commercial experience where people can gather, shop, etc.

LUC 8.1. Commercial standards can include the following:

- Frontage requirements

- Facade materials and articulation
- Ground level details, such as, transparent glazing, minimal blank walls, presence of canopies/awnings, etc.

Case Study: The Manteo Way of Building

The Town of Manteo encourages small scale nonresidential development with upper story residential units by providing design standards for new development. These standards include architectural standards that control external materials and fenestration patterns, public standards that require sidewalks and landscaping, and building standards that control features, configurations, and functions of the building, and frontage requirements. The Town of Manteo also has a 36' height limitation for all of its zoning districts to protect existing viewsheds and maintain its existing coastal character.

LUC 9. Enhance entryway, directional, and marker signage.

LUC 10. Monitor and preserve maritime forests.

LUC 10.1. Monitor forest cover and canopy and attempt to increase habitat quality and connectivity that is balanced with natural hazards concerns (wildfire, tree blowdowns, etc.).

LUC 10.2. Review standards for tree preservation in new development and redevelopment to ensure they protect and preserve the existing canopy and forest coverage.

LUC 10.3. Consider establishing or enhancing ordinances related to heritage tree and maritime forest preservation.

LUC 11. Continue protecting valuable historic resources.

LUC 11.1. Consider becoming a Certified Local Government. Certified Local Governments are eligible for grant funding for activities such as (1) architectural or archaeological survey, (2) National Register funding, (3) preservation planning, (4) design standards, (5) architectural plans or feasibility studies, and (6) occasionally, physical restoration and stabilization.



Pine Knoll Shores: Tree Preservation and Protection:

The Town of Pine Knoll Shores has a tree preservation ordinance that prohibits subdivision of land that has been timbered or clear-cut for 3 years. There are also standards requiring landscape plans and tree plantings that help maintain a lush urban tree canopy. This includes standards for preservation of heritage or specimen trees.



Lot cleared in Southern Shores for residential structure.

Infrastructure Carrying Capacity and the Natural Environment



ICC 1. Maintain long range plans for public infrastructure systems to ensure that these systems are appropriately sized, located and managed to deliver the services the community needs while protecting adjacent environmental resources.

ICC 2. Discourage the filling of coastal wetlands.

ICC 3. Allow hard armoring (seawalls, bulkheads, rock vetments, modification, etc.) of natural shoreline in canals. Nature-based or habitat-enhancing armoring is preferred. Relocation or removal of structures is beneficial to the natural environment, but is not required.

ICC 4. Continue to prohibit hard armoring of the oceanfront (currently prohibited by the Town and the State).

ICC 5. Create a more formalized and proactive public education program relating to the natural environment, especially the maritime forest, local wildlife, and environmental

uniqueness and identity of the area. Convey this information explicitly via signage, public education, and proactive communication. This might also involve pursuing and achieving certain designations like Tree City, Wildlife Sanctuary, or Bee Town at a community-wide level.

Coastal Wetlands

Coastal wetlands provide clean drinking water, flood protection, recreational opportunities, and more. They also provide important habitat for recreational fishing. According to a 2009 Status of Wetlands in the US study, conducted by the U.S. Fish and Wildlife Service, 80,000 acres of coastal wetlands were lost from 2004 to 2009 due to erosion, subsidence, sea level rise, development, and drainage.

Coastal wetlands are essential when it comes to providing storm protection especially for a coastal community like Southern Shores. During Hurricane Sandy, wetlands protected areas of the East Coast from more than \$625 million in direct flood damages.



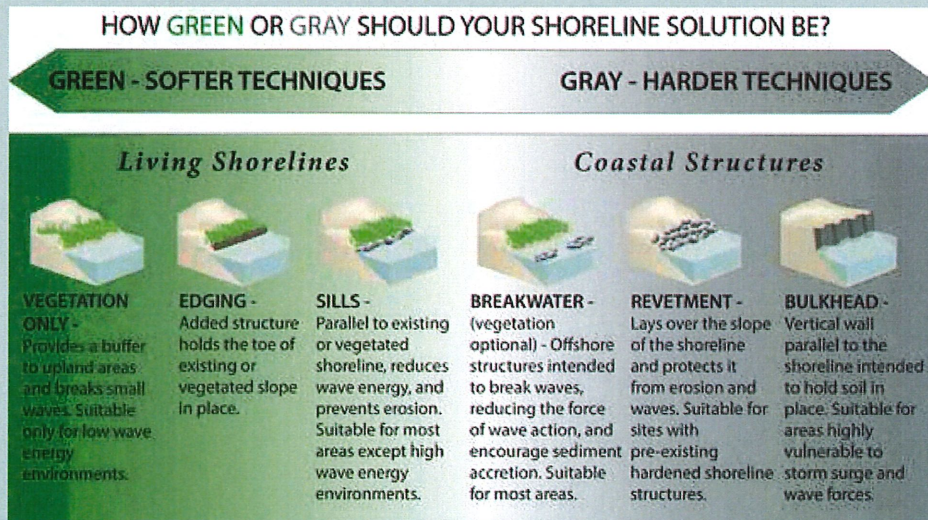
Living Shorelines versus Hardened Shorelines

As the pressure rises to make shorelines resilient, the debate of living shorelines versus more typical methods such as bulkheads arises. Marsh sill and similar living shorelines are a less common but more beneficial shoreline stabilization technique, because they are more cost-effective, provide habitats, and have been shown to outperform bulkheads during storm events. Hardened shorelines protect less efficiently, at the cost of habitat loss and potential to increase erosion on neighboring properties.

Bulkheads work by halting shoreline erosion at a fixed point through a vertical wall-like structure. Vegetated structures or living shorelines such as marsh sills mimic natural shorelines. They help disperse wave energy and collect sediment and water to prevent erosion, all while creating a habitat that has many of the functions as a natural shoreline.

Unfortunately, current regulations and permitting processes do not encourage living shorelines, and in some ways favor hardened structures. For example, permitting processes for bulkheads are as quick as one to two days, and can often be done on-site. Fortunately, North Carolina recently adopted a streamlined permitting process for living shorelines that makes permitting them as quick as it is for bulkheads. This is an important step in encouraging the use of living shorelines rather than bulkheads.

This graphic shows the spectrum of stabilization options. Projects on the left side of this continuum represent more "natural", "green", and "living" shoreline stabilization techniques, and projects on the right represent "gray" and "harder" shoreline stabilization techniques. Often the least intrusive intervention is most desirable.



Water Quality



WQ 1. Encourage the use of Low Impact Development (LID), vegetative buffers to filter stormwater, impervious surface limits, and innovative stormwater management alternatives to reduce runoff and to improve environmental water quality.

WQ 1.1. Current regulations provide incentives for nonresidential uses to increase their lot coverage from 60% to 67% if permeable pavement is used.

- Consider similar incentives to encourage permeable pavement and other LID features for residential properties. (i.e., lot coverage credit/bonus).

WQ 2. Establish a septic system monitoring program to identify underperforming or malfunctioning septic systems and ensure remediation by the property owner.

WQ 3. Establish a consistent water quality monitoring program at key

locations in the canals and the sound and identify and remediate point and non-point sources of pollution.

WQ 4. Allow use of package system when traditional systems are environmentally infeasible.

WQ 4.1. Follow best practices and state requirements for package systems (management, operations, etc.)

Southern Shores Civic Association

The Southern Shores Civic Association is a non-profit community civic association that has been managing and preserving green spaces in the town since 1976. The association takes great pride in caring for the community. In previous years, it was brought to the organization's attention that there were water quality issues that existed in Currituck Sound.

In response, the members of the association began to monitor water quality in the canals and the Currituck Sound. These results were posted at specific locations (e.g., Wading Beach, etc.).

Case Study: Town of Nags Head Septic Monitoring Program

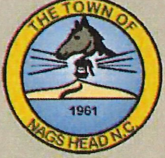
Nearly 80% of properties in Nags Head are serviced by on-site septic systems. Higher rate of sea level rise, heavy rainfall, and more intense storms make these systems more susceptible to fail. According to the Coastal Studies Institute, there should be at least 1 1/2 feet of dry soil under a septic system to allow proper drainage and dispersal of nutrients. Older systems have less space than that available now, especially since groundwater levels have increased by a foot in Dare County.

To mitigate these issues, the Town of Nags Head offers free septic system inspections to homeowners that have conventional septic systems that are sized less than 3000 gallons per day. If the findings show the system needs pumped or repaired, staff assists with the necessary permitting and offers financial assistance. Additionally, property owners can receive a credit on their water account for having the system pumped. The town also offers low-interest loans for those who need to make repairs but are unable to do so without financial assistance. The maximum loan amount is \$ 12,000 with 2.5% rate and can be paid back over a thirty-six month period.

WE CAN HELP YOUR ON SITE SEWAGE SYSTEM.


The Town of Nags Head wants every property to have a healthy on site sewage system. That's why we're offering property owners:

FREE ON SITE SEWAGE SYSTEM INSPECTION
\$45 WATER BILL CREDIT
For residents that get a system pumped
LOW INTEREST LOANS FOR REPAIRS



Town of Nags Head
SEPTIC HEALTH INITIATIVE

SEPTIC FAILURE
DON'T LET THIS HAPPEN TO YOU!



Inspections and proper maintenance can prevent all of this! Visit nagsheadnc.gov to learn more.

Natural Hazards



NHA 1. Ensure that all stormwater management facilities and infrastructure within the Town, whether public or private, are designed, constructed and operated in a manner that, to the fullest extent possible:

NHA 1.1. Eliminates flooding without intensifying other runoff related problems.

NHA 1.2. Preserves and enhances the natural drainage systems within the Town.

NHA 1.3. Contributes to preserving and enhancing overall water quality.

NHA 1.4. Does not require power to function.

NHA 1.5. Requires minimal regular maintenance to function properly.

NHA 2. Use the future land use map and zoning as a hazard mitigation tool by preventing development intensification in high hazard areas.

NHA 3. Evaluate high hazard and/or repetitive loss properties and assess the potential to acquire these, reduce community exposure, and

provide flood protection and open space areas.

NHA 4. Use storm surge maps, flood exposure maps, and projected sea level rise and flood vulnerability data when assessing requests to intensify development in higher risk areas. Require alternative or mitigating design where appropriate.

NHA 5. Continue participation in FEMA's Community Rating System.

NHA 5.1. Use FEMA's Community Rating System "A Local Official's Guide to Saving Lives, Preventing Property Damage, and Reducing the Cost of Flood Insurance" to seek out opportunities to improve the Town's current rating.

NHA 6. Educate residents and visitors about evacuation procedures regularly.

NHA 7. Continue wildfire prevention efforts.

NHA 7.1. Educate property owners about wildfire potential and mitigation.

NHA 7.2. Continue the enforcement of the NC State Fire Prevention Code, referenced by the Town's Fire Code.



NHA 7.3. Continue enforcement of the Lot Disturbance provisions of the Town's Zoning Ordinance.

Local Concerns



LC 1. Maintain the aesthetic quality and navigability of the town-owned canal system.

LC 1.1. Maintain programs for maintenance of the town-owned canal and lagoon system maintenance that includes but is not limited to periodic dredging, control of overhanging vegetation, and debris removal.

LC 1.2. Develop a formalized plan that details under what conditions future canal maintenance shall occur, a schedule for these activities, and acquire the agreements, facilities, and equipment needed to execute this maintenance on a routine basis.

LC 2. Continue to provide high quality public facilities including, police, fire, EMS, and ocean rescue.

LC 2.1. Ensure level-of-service standards and funding to adequately protect residents, visitors, and workers year round.

LC 2.2. Continue to annually evaluate lifeguard services to assure that they meet the Town's needs.

LC 3. Support protection, maintenance, and preservation of existing parks and open spaces.

LC 3.1. Maintain a dialog with and promote civic associations and other property owners associations regarding their open space and recreational facilities. Civic events or meetings might potentially utilize private facilities for events.

LC 4. Administration and facilities

LC 4.1. Create a master plan for the Town Hall and associated operations, including identification of future expansion needs

Southern Shores Canals

Stick studied the ecology of the coastal environment and decided to transform all but one existing swamps into navigable waterways, known as lagoons. In November 1959, land reclamation began in the back of the soundside area to develop canals that would lead to the sound. First, a canal was dug from the marina to a large swamp east of Old Duck Road. A ground level bridge was created using donated material, known as Dick White Bridge. Due to the extreme width of the existing swamp, an island was created in the middle of the canal along E Dogwood Trail. The remaining swamps (except for Cypress Swamp) would become navigable lagoons that would create connections throughout Southern Shores.

and opportunities. New facilities could lead by example in exhibiting high quality design standards.

LC 4.2. Identify and acquire areas for expansion of administrative and operational facilities.

LC 4.3. Upgrade public facilities and buildings according to current needs and capital improvement planning. Currently, this specifically includes the police department, upfit to the public works building and the Town Hall/Pitts Center complex.

LC 5. Civic gathering space

LC 5.1. Consider developing a public, civic gathering space that is accessible by automobile and non-automobile transportation networks.

LC 5.2. Expand the Pitts Center capabilities to accommodate more public events and activities.

LC 6. Minimize solid waste by encouraging waste reduction, reuse, and recycling.

LC 6.1. Continue enforcement and maintaining Town appearance by getting cans off the street and preventing overfilling.

LC 6.2. Continue to provide trash pickup, curbside recycling, large item pickup, and chipping programs.

LC 7. Establish corridor overlay landscaping and site design requirements along Hwy 158. This may involve coordination with Kitty Hawk and Dare County (Martin's Point) along shared boundaries.

 **Private Parks**

SOUTHERN SHORES CIVIC ASSOCIATION

- ◆ Sea Oats Park
- ◆ Soundview Park
- ◆ Triangle Park



CHICHAUK PROPERTY OWNERS ASSOCIATION

- ◆ Trinitie Park
- ◆ Poteskeet Park



Transportation and Mobility



MB 1. Minimize the negative impacts on the community of traffic volume and congestion.

MB 1.1. Continue to support the Mid-Currituck Bridge or other similarly oriented efforts that will reduce thru-traffic in the Town.

MB 1.2. Maintain NC 12 as a two-lane highway, with no additional through lanes or two-way continuous turn lanes, except at key commercial areas.

MB 1.3. Continue to seek a solution to minimize the impacts of seasonal traffic along residential streets and Dogwood Trail.

- Continue traffic counts on S Dogwood Trail, Hillcrest Dr., Sea Oats Trail, and Wax Myrtle Trail.
- Consider traffic calming interventions on these streets.

MB 1.4. Ensure an adequate system of roads, bridges and pathways to meet the transportation and pedestrian safety needs of the Town in a way that protects, preserves and where possible improves the environment and water quality.

MB 1.5. Enhance pedestrian connectivity, trails, and non-automobile mobility.

MB 1.6. Continue the expansion of the pedestrian trail network and bicycle route network. This may include public/private partnerships where appropriate.

- See the pedestrian priorities map on page 113.

MB 1.7. Connect multi-use paths to the Market Place and Southern Shores Crossing.

MB 1.8. Keep golf carts off of trails meant for pedestrians or bicycles.

Pedestrian Priorities

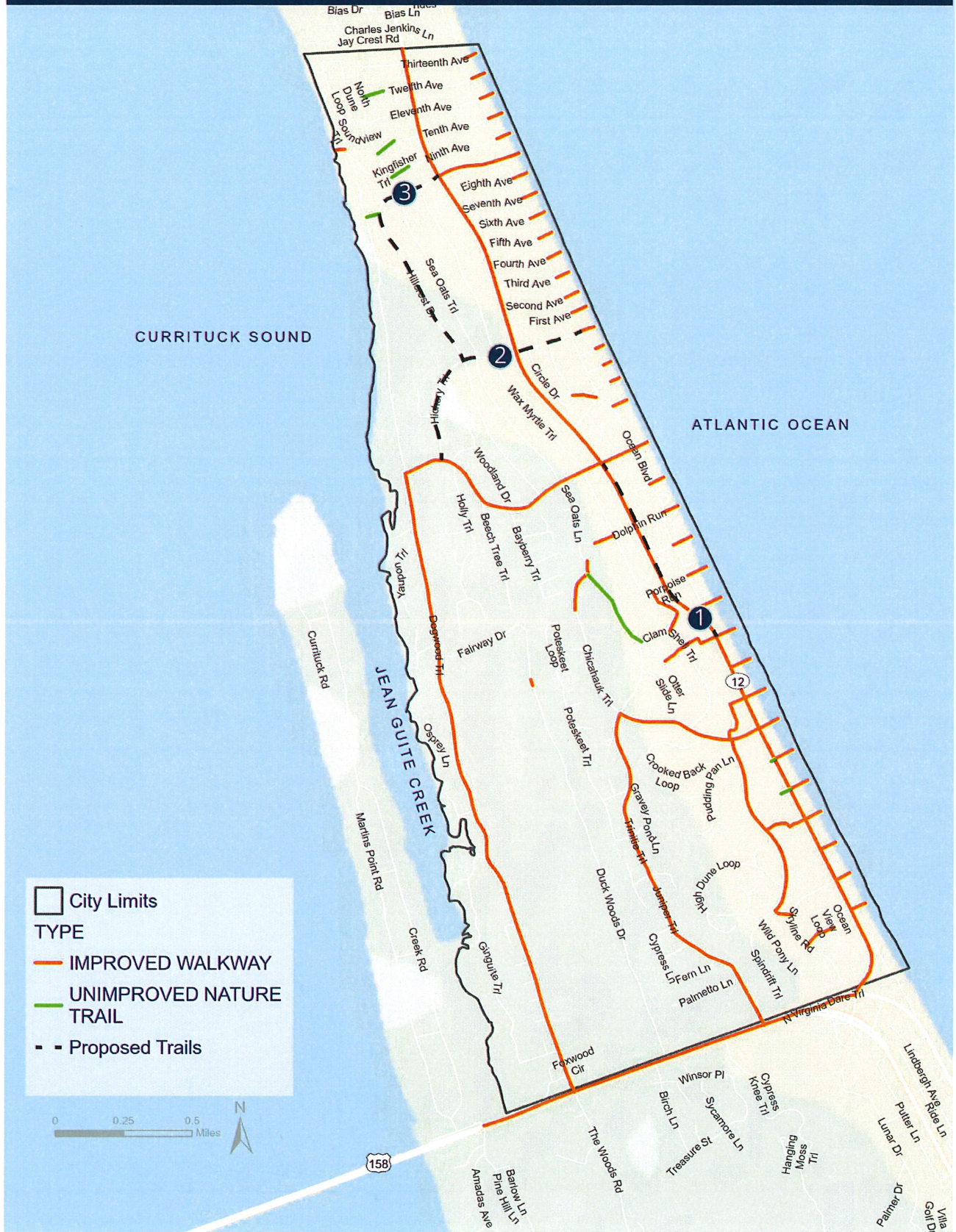
Additional pedestrian connections or safety improvements should be prioritized, including the following:

- 1 NC 12 from Triangle to E. Dogwood Trail (east side of the street)
- 2 Hickory Trail from E. Dogwood Trail to the beach access
- 3 Hillcrest Drive from Hickory Trail to NC 12



Pedestrian priorities are subject to change.

Pedestrian Priorities



Transportation and Mobility



MB 1.9. Maintain safe pedestrian facilities.

MB 1.10. Coordinate with NCDOT on pedestrian crossing enhancements along Highway 12.

MB 1.11. Continue efforts to expand multi-use paths, recreational trails, and sidewalks.

MB 2. Ensure adequate road systems, bridges, and pathways meet transportation and pedestrian needs.

MB 2.1. Maintain a formalized plan for Town road maintenance including Town-owned sidewalks, trails, and bike paths. This would address general repairs, tree root control and tree trimming, road resurfacing, crack sealing, and right-of-way clearance. This plan could also include the conditions under which private roads will be accepted into the Town's public street network.

MB 2.2. Coordinate with NCDOT for maintenance issues along Hwy 12.



Electric vehicle charging stations located at Town Hall.

MB 3. Seek out opportunities to expand the existing Electric Vehicle (EV) charging network.

MB 3.1. There are currently 2 EV charging stations located at Town Hall.

- As demand increases, the Town should incorporate EV charging stations on town-owned land or develop public-private partnerships for additional locations.