Town of Beaufort, NC
701 Front St. - P.O. Box 390 - Beaufort, N.C. 28516
252-728-2141 - 252-728-3982 fax - www.beaufortnc.org

Town of Beaufort UDO Steering Committee Meeting
10:00 AM Monday, August 04, 2025 - Virtual via Zoom
Monthly Meeting

Call to Order

Minutes Approval

1. UDO Steering Committee Draft Minutes 7.22.25

Items for Discussion and Consideration

1. Revised Coastal Resilience Overlay District Preliminary Discussion Draft

Adjourn

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Town of Beaufort UDO Steering Committee Meeting
10:00 AM Tuesday, July 22, 2025 - Train Depot, 614 Broad Street, Beaufort, NC 28516
Minutes

Call to Order

Planner Eitner called the meeting to order at 10:00am. Those in attendance were Paula Gillikin, Commissioner (UDO Steering Committee Member), Ryan Neve, Planning Board Chairman (UDO Steering Committee Member), Vic Fasolino, Planning Board Member (UDO Steering Committee Member), Kelly Cousino, White Smith Cousino (UDO Consultant), Caitlin Cameron, White Smith Cousino (UDO Consultant), Kyle Garner, Planning Director (Town Staff), Sam Bell, Town Engineer (Town Staff), and Michelle Eitner, Planner (Town Staff). There were several members of the public in the audience to observe the meeting.

Minutes Approval

1. UDO Steering Committee Draft Minutes 6.20.25

   The UDO Steering Committee meeting minutes from June 20, 2025 were approved by consensus without any changes.

Items for Discussion and Consideration

1. Decision Points - Coastal Resilience Overlay District Preliminary Discussion Draft

   Ms. Cousino began by reminding the committee that the draft Coastal Resilience Overlay District includes two subdistricts: the CR-NIZ (Coastal Resilience Non-Intensification Zone Subdistrict), which aligns with the zone identified in the CAMA plan determined by Special Flood Hazard Areas, and the CR-M (Coastal Resilience Moderate Hazard Subdistrict), which is essentially the Shaded X floodplain area. Ms. Cousino reviewed the standards in the overlay district and indicated that committee input was needed on several decision points to finalize a revised draft for the August 4th virtual meeting and subsequent joint work session with the Board of Commissioners and Planning Board.

   The committee discussed whether the overlay district standards should apply to both new development and redevelopment or only to new development. Initially, some members supported applying the standards only to new development, citing concerns about creating hardships for property owners rebuilding after storm damage.

   After extended discussion, the committee decided that Option 1 (applying standards to both new development and redevelopment) would be best, but with protection for single-family homes that are damaged. The consensus was to tie redevelopment exclusions to the existing nonconforming structure

provisions, which would allow property owners to rebuild single-family homes within their existing footprint after storm damage without triggering the new overlay requirements.

The committee confirmed that new development would include subdivisions, site plan approvals, rezonings, or complete demolition and rebuilding with a different use, while continuing an existing use in the same footprint would be considered redevelopment.

A map was presented showing unimproved parcels (completely vacant) and underimproved parcels (with less than 30% improvement value compared to land value) within the NIZ to help the committee understand development potential in the area.

The committee reviewed the proposed definition of "critical facilities" that would be prohibited from new construction in the NIZ subdistrict. They confirmed the list should include:

- Emergency service facilities
- Long-term care facilities
- Jails and detention centers
- Schools (preschool through high school)
- Emergency shelters
- Principal use telecommunication towers (with co-location on existing structures still permitted)
- Utility facilities including water supply, water treatment, and power substations

The committee agreed to explicitly exempt wastewater pump stations from the prohibition. There was also discussion of potentially exempting the airport from some overlay district requirements, but members wanted more information before making that decision.

Ms. Cameron presented the consultant team's Impervious Surface Analysis, which involved a review of existing impervious surface coverage on 31 lots both inside and outside the proposed overlay district. The committee had a lengthy discussion about impervious surface limits in the overlay district. Based on analysis of existing parcels and comparison with other coastal communities, they decided on the following limits:

- For the CR-NIZ subdistrict:
  - Residential: 30% maximum impervious surface
  - Nonresidential: 50% maximum impervious surface
- For the CR-M subdistrict:
  - Residential: 40% maximum impervious surface
  - Nonresidential: 60% maximum impervious surface

For single-family residential in both districts, the committee agreed to allow the greater of the percentage or 2,500 square feet of impervious surface.

The committee decided to exempt the Historic Waterfront Business District and the Historic Business District from impervious surface limits, as well as the R8-A District due to its unique waterfront conditions. There was discussion but no consensus on exempting projects with state stormwater permits.

The committee discussed the proposed 20-foot shoreline buffer requirement and agreed to maintain this consistent width rather than varying it based on lot size or depth. They confirmed the buffer should be left natural or planted with salt-tolerant native species.

The committee agreed to exempt the following from shoreline buffer requirements:

- R8-A zoning district
- Historic Waterfront Business District
- Historic Business District
- Marinas (principal use)
- Marine research facilities (water-dependent portions)
- Airport facilities

The committee agreed with the current draft's provisions prohibiting impervious surfaces and walls in the buffer except for specific exceptions like pedestrian trails, water-dependent access points like walkways and boat ramps, erosion control structures, and utility line penetrations.

Ms. Cousino presented information on the cost of the proposed planting requirements (approximately $5,500 per 100 linear feet) and the committee requested additions to the plant list including scientific names and information about which plants can tolerate occasional inundation.

Ms. Cousino provided information on Low Impact Development requirements in the overlay district, noting that developments subject to the Town's stormwater ordinance would need to use at least two LID techniques to manage at least 50% of the site's peak flow. These techniques could include bioretention swales and basins, level spreaders, permeable pavers, cisterns, pocket wetlands, and rooftop runoff mitigation.

The committee reviewed research on LID costs, noting that while upfront costs might be higher, there are often offsetting benefits like increased buildable area and comparable maintenance costs to conventional systems.

The committee discussed whether increased construction standards (like additional freeboard, impact-resistant openings, etc.) should be required in the CR-NIZ or merely incentivized throughout the overlay district. They decided to make these standards optional throughout the overlay with incentives like increased impervious surface allowances and building height adjustments.

The committee began discussing utility infrastructure in the NIZ but decided to postpone the detailed conversation to the August 4th meeting when they would have more time and could review information about the costs and considerations for infrastructure in flood-prone areas.

The meeting concluded with a review of the upcoming schedule, including a Community Conversation that afternoon, the August 4th virtual meeting, and a joint work session with the Planning Board and Board of Commissioners on August 26th.

Adjourn

The meeting adjourned by consensus at about 1:05pm.

_____

_____ Committee Staff – Approved _____

BEAUFORT NC
UNIFIED DEVELOPMENT ORDINANCE

2.7.3: Coastal Resilience Overlay District

Revised Preliminary Discussion Draft | ~~June 13, 2025~~July 28, 2025

Effect of S382 on Local Zoning Regulations

In December 2024, the North Carolina Legislature ratified Session Law 2024-57 (Senate Bill 382) which pertained primarily to disaster recovery funding for Western North Carolina communities in the wake of Hurricane Helene. However, the law also included provisions that profoundly limit the planning and zoning authority of local governments, though in what manner or to what extent exactly remains quite unclear. Nonetheless, despite the Governor's veto, the law currently stands and is codified at N.C.G.S. § 160D-601(d).

The law prohibits "downzoning" of property unless the property owner provides explicit written consent to the downzoning. It defines *downzoning* as "a zoning ordinance that affects an area of land in one of the following ways:

1. By decreasing the development density of the land to be less dense than was ***allowed under its previous usage***.
2. By ***reducing the permitted uses*** of the land that are specified in a zoning ordinance or land development regulation to ***fewer uses*** than were allowed ***under its previous usage***.
3. By creating any type of ***nonconformity*** on land not in a ***residential zoning district***, including a nonconforming use, nonconforming lot, nonconforming structure, nonconforming ***improvement***, or nonconforming ***site element***."

Prior to this change, only third parties were prohibited from initiating a rezoning of another's property, but not local government. Unfortunately, the bill used terminology that, though it may have particular meaning in a given jurisdiction, is not defined in the law or is out of logical context, leaving local governments in the state uncertain of its effect and of what it means for ongoing planning and zoning efforts. Some of these terms are highlighted above.

Response in opposition to the bill has been widespread and there appears to be significant legislative support for significant changes, clarifications, or corrections. In fact, the 2025-2026 Legislative Session has seen a number of bills filed in response to the downzoning provisions—including House Bill 281, which would restore the ability of local governments in Carteret County to initiate downzonings without property owner consent, and Senate Bill 587, which clarifies the definition of nonconformities.

As currently drafted, this proposed Coastal Resilience Overlay District implements Town policy as expressed in its Comprehensive & CAMA Land Use Plan and incorporates input and direction from the UDO Steering Committee. During its deliberations, the Committee and staff will consider whether or how to consider the 2024 bill's impact on Town authority to address urgent resilience and critical public safety goals. As noted, local government planners and attorneys have posited different interpretations of the statute since its adoption, particularly alternative constructions of the term "nonconforming," which may leave room for application of new restrictions, particularly outside of "residential zoning districts."

The UNC School of Government Coates' Canons NC Local Government Law blog provides a helpful discussion of this new law and its potential implications for local zoning (see https://canons.sog.unc.edu/2024/12/limits-on-down-zoning/).

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Article 2: Zoning Districts

2.7. Overlay Zoning Districts

2.7.3. CR-O, Coastal Resilience Overlay District

A. **Purpose**. The purpose of the Coastal Resilience Overlay District is to:

1. Achieve goals expressed in the *Beaufort Comprehensive and CAMA Land Use Plan*;
2. Implement the "Resiliency Vision" expressed in *Resilient Beaufort*;
3. Protect and improve water quality;
4. Reduce the quantity of stormwater pollutants entering local waterways;
5. Reduce shoreline erosion;
6. Preserve wildlife habitat;
7. Prepare for effects of anticipated sea level rise;
8. Reduce flooding and subsequent property damage;
9. Encourage construction of buildings that are more resistant to damage from hurricanes, high winds, flooding, and hail and to avoid ongoing or repetitive structural and infrastructure damage and costs;
10. Minimize public and private losses due to flood and related conditions in the most vulnerable areas of the Town; and
11. Promote public, health, safety, and general welfare.

B. **District Boundary**.

1. *Generally*. The Coastal Resilience Overlay District, depicted in Figure 2.7.3-1, is comprised of two subdistricts:
   (a) CR-NIZ, Non-Intensification Zone Subdistrict; and
   (b) CR-M, Moderate Hazard Subdistrict.

2. *CR-NIZ, Non-Intensification Zone Subdistrict*. This subdistrict is coterminous with the Special Flood Hazard Area.[1]

3. *CR-M, Moderate Hazard Subdistrict*. This subdistrict is coterminous with the Shaded X Zone within the Non-Special Flood Hazard Area.[2]

4. *Changes to District Boundary*. The boundary of the CR-O is expected to change over time as the Federal Emergency Management Agency (FEMA) revises the Flood Insurance Rate Maps (FIRMs). The Town may amend the UDO to reflect changes to FEMA-designated SFHAs and NSFHAs and subsequent changes to the CR-O boundary.

C. **Applicability**.

1. The overlay district applies to all lots located within the district boundary, including those in the Town's extraterritorial jurisdiction.

2. When a lot is located in both the CR-NIZ and CR-M subdistricts, the standards applicable to each subdistrict apply on the respective portions of the lot.[3] If any portion of a structure is located in the CR-NIZ, the regulations applicable to the CR-NIZ apply to the entire structure.

3. Applicability of individual standards is specified in the paragraphs below pertaining to the particular standard.

4. When a standard applies to existing development that is proposed to be renovated, repaired, altered, or otherwise improved by more than 50% of its replacement value[4] at the time of renovation, repair, alteration, or improvement:

   (a) Replacement value of existing principal structures is determined using a qualified appraisal of the market value of the structure before the start of construction of the improvement; and

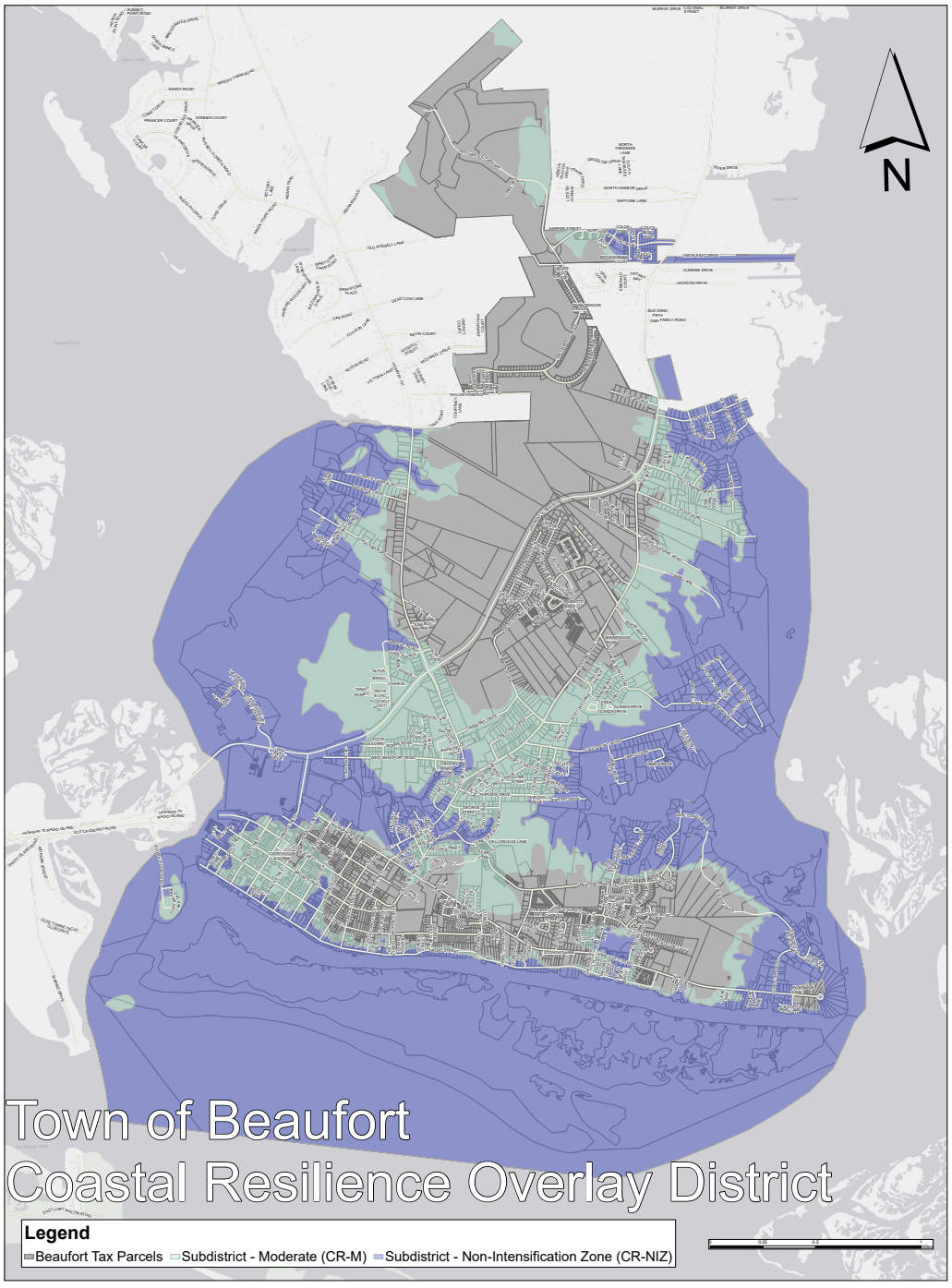
   (b) Replacement value for other improvements (e.g., vehicle accommodation areas) is determined using cost estimates prepared by a professional that typically constructs or installs the type of improvement proposed for renovation, repair, alteration, or improvement.

[1] UDO Article 12 will include the Flood Damage Prevention Ordinance's current definition of SFHA.
[2] UDO Article 12 will define NSFHA.
[3] This provision is a starting point for discussion purposes. The UDO Steering Committee will consider the applicability of the two subdistricts on split-zoned lots as well as the need to fine-tune overlay applicability according to historic and anticipated development patterns throughout the Town and ETJ.
[4] This aligns with the Town's provisions for bringing nonconforming structures into compliance with current regulations.

~~(b)~~5. When an existing detached single-family house that is damaged or destroyed by fire, flood, wind, or other natural disaster or event beyond the owner's reasonable control, the house may be repaired and restored to its pre-event dimensions on the pre-event footprint if it meets all applicable building codes.[5]

[5] This is a current provision in the Town's LDO (see Section 11, Paragraph D.6).

Figure 2.7.3-1: Coastal Resilience Overlay District Boundary



D. **Allowed Uses**. Any use allowed by a lot's base zoning district may be established in the CR-O pursuant to its required approval procedure, except that new critical facilities[6] are prohibited in the CR-NIZ subdistrict.[7]

E. **Impervious Surface Coverage**.[8]

[6] UDO Chapter 12 will propose the following definition of *critical facility*~~, which is from FEMA's *Design Guide for Improving Critical Facility Safety from Flooding and High Winds* (FEMA 543)~~: ~~"Critical facilities commonly include all public and private facilities that a community considers essential for the delivery of vital services and for the protection of the community. They usually include emergency response facilities (fire stations, police stations, rescue squads, and emergency operation centers [EOCs]), custodial facilities (jails and other detention centers, long-term care facilities, hospitals, and other health care facilities), schools, emergency shelters, utilities (water supply, wastewater treatment facilities, and power), communications facilities, and any other assets determined by the community to be of critical importance for the protection of the health and safety of the population. The adverse effects of damaged critical facilities can extend far beyond direct physical damage. Disruption of health care, fire, and police services can impair search and rescue, emergency medical care, and even access to damaged areas."~~ Public or private structures or other improvements essential for the delivery of vital services and for the protection of the community. In Beaufort, critical facilities include only the following ***principal*** uses: Fire stations, police stations, rescue squads, and emergency operations centers; hospitals, long-term care facilities, and other healthcare facilities where the occupants may not be sufficiently mobile to evacuate in an emergency; emergency shelters; jails and other detention centers; preschools, elementary schools, and secondary schools; water supply facilities, wastewater treatment facilities (excluding wastewater pump and lift stations), power substations, and natural gas gate stations; and telecommunications towers unless no feasible alternative location for the tower exists."

[7] Note paragraph (d)(2) in N.C.G.S. § 160D-601 regarding new State law limitations on reducing "permitted uses" to "fewer uses than were allowed under its previous usage."

[8] Currently, the only zoning district that limits impervious surface coverage is RS-5. The limit is 50%. As proposed here, lots zoned RS-5 and located in the CR-O would be subject to a more restrictive impervious surface limit (if the lot contains a residential use). ~~The Steering Committee should discuss potential exemptions from these limits or different limits for certain zoning districts (e.g., HBD and HWBD; or keeping RS-5 at the current 50% limit).~~ **Carteret County** does not limit impervious surface coverage, but other cities/towns in the region do. **Morehead City** has a 40% limit in most zoning districts except the Commercial Marina District where the limit is 50% and the two downtown districts where there is no limit. **Atlantic Beach** also has a 40% limit in most districts, except the least intensive residential district (1 acre lot size) where the limit is 10% and the two most intensive commercial districts where the limit is 75%. **Pine Knoll Shores** has a 35% limit in residential districts and a 25% limit in Special Flood Hazard Areas and "any other lot in residential property districts R-1, R-2, R-3, and R-4 with a seasonal high water table of 24 inches or less to grade." Finally, **Emerald Isle** requires a minimum percentage of "natural/vegetated area" in most zoning districts (35% in residential districts and 15% in commercial/mixed use districts). In Craven County, **New Bern** does not regulate impervious surface coverage, but **Havelock** regulates it in most zoning districts. The limits in residential districts range from 30% to 50%, except in the most rural district (5 acre minimum lot area) where it is 10%. Where regulated in other districts, the limit is 50%. In Onslow County, **Swansboro** does not regulate impervious surface or lot coverage but does require landscaping and buffers and regulates for maximum building area. In Dare County, **Duck** regulates lot coverage by zone; residential zones are limited to 30% lot coverage with up to 35% for enhanced stormwater management. Commercial zones lot coverage ranges from 50% to 60%. "Large Residences" are defined and are additionally required to maintain a 20% vegetative lot coverage (10% natural vegetation). **Nags Head** regulates lot coverage by zone; residential zones are limited to 30% + 300 sf or 33%, whichever is greater. Commercial and Mixed Use zones are increasingly permissive with lot coverage ranging from 40 to 55%. For lots abutting shoreline, lot coverage is limited to 30% within the estuarine area. Lot coverage increases are incentivized for increase stormwater measures and permeable

1. *Applicability*. All lots in the CR-O are subject to this Section, except as provided in 2.7.3.E.2, Exemptions.[9]

2. *Exemptions*. Lots located in the following zoning districts are exempt from the impervious surface coverage limitation:

   (a) H-BD;

   (b) H-WBD; and

   (c) R-8A.

   ~~1.~~

3. *CR-NIZ Subdistrict*.

   (a) ~~All~~ Lots located in the CR-NIZ that contain a residential use other than a detached single-family house are limited to a maximum 30% impervious surface coverage.[10]

   (b) Lots located in the CR-NIZ that contain a detached single-family house are limited to a maximum impervious surface coverage of 2,500 square feet or 30% of the lot area, whichever is greater.

   ~~2.~~(c) Lots located in the CR-NIZ that contain a non-residential use or a mixture of uses are limited to a maximum 50% impervious surface coverage.

4. *CR-M Subdistrict*.

   (a) ~~All~~ Lots located in the CR-M that contain a residential use other than a detached single-family house are limited to a maximum 40% impervious surface coverage.

   (b) Lots located in the CR-M that contain a detached single-family house are limited to a maximum impervious surface coverage of 2,500 square feet or 40% of the lot area, whichever is greater.

pavement, and exceptions are given for shared-use drives and accommodation of alternative transportation.

[9] See discussion of N.C.G.S. § 160D-601(d) above.

[10] On a lot zoned R-8 that meets the minimum dimensional standards (8,000 sf lot area and 60 ft lot width), the minimum required setbacks constitute approximately 54% of the lot. Under the current regulations, the remaining 46% of the lot could be covered by impervious surfaces. Under this proposed standard, only about two-thirds of the remaining 46% of the lot could be covered by impervious surfaces.

~~3.~~(c) Lots located in the CR-M that contain a non-residential use or a mixture of uses are limited to a maximum 60% impervious surface coverage.

F. **Shoreline Management**.[11]

1. *Applicability*. All lots in the CR-O are subject to this Section.

2. *Hardened Shorelines*. An exis~~i~~ting hardened shoreline may:

(a) Remain in place; and

(b) Be partially or fully replaced if its location is not changed by more than two feet in either direction (waterward or landward).

3. *Conversion of Natural Shorelines*. Property owners should not convert existing natural shorelines to hardened shorelines.[12]

G. **Shoreline Buffer**.[13]

1. *Applicability*.

(a) All lots in the CR-O that have frontage along a natural waterbody must maintain or establish a shoreline buffer~~.~~ except as provided in 2.7.3.G.2, Exemptions.

(b) Where a developed lot does not meet the shoreline buffer requirements, the buffer must be established in accordance with this Section if the principal structure on the lot is improved by 50% or more of its assessed value.

(c) Where a vacant lot does not meet the shoreline buffer requirements, the buffer must be established in accordance with this Section when the lot is developed.

2. *Exemptions.*

(a) When a lot is exempt from the shoreline buffer requirement but the owner chooses to establish a buffer, plants must be selected from

[11] These provisions mainly apply in CR-NIZ since that's the primary CR-O subdistrict along the shoreline.
[12] Typically, a regulatory document should avoid language encouraging, rather than requiring, a particular action. However, Town staff and the consultant team feel this is the best approach for this particular provision until the Town completes the estuarine shoreline management plan recommended in the CAMA Land Use Plan since shoreline hardening is the best solution in certain instances. The shoreline management plan would identify the areas where the Town should prohibit and allow hardened shorelines. Once it is complete, the Town could consider revisions to this provision in the CR-O.
[13] See discussion of N.C.G.S. § 160D-601(d) above and note that compliance incentives could include reduced setbacks or an increased building height limit.

the Acceptable Plant Lists in Table 2.7.3-1, Table 2.7.3-2, Table 2.7.3-3, and Table 2.7.3-4.

(b) Lots located in the following zoning districts are exempt from the requirement to maintain or establish a shoreline buffer:

(1) R-8A;

(2) B-W;

(3) H-BD; and

(4) H-WBD.

(c) Lots containing or proposed to contain the following uses are exempt from the requirement to maintain or establish a shoreline buffer:

(1) Marinas;[14]

(2) Water-dependent marine research facilities;[15]

(3) Working docks;[16] and

~~(c)~~(4) Airports.

~~2.~~3. *Buffer Width.* A shoreline buffer must be at least 20 feet in width, measured landward from the mean high water line.

~~3.~~4. *Existing Vegetation*. Where vegetation naturally exists along a shoreline, it must remain undisturbed except as otherwise provided in this Section.

~~4.~~5. *Planting Requirements*.

[14] The current LDO definition of *marina* is "*any publicly or privately owned dock, basin, or wet boat storage facility constructed to accommodate more than ten boats and providing any of the following services: permanent or transient docking spaces, dry storage, fueling facilities, haul-out facilities, and repair service.*"

[15] UDO Article 12 will propose the following definition of *water dependent use*: "A use or portion of a use that requires location on a waterbody due to the intrinsic nature of its operations. A water-dependent use must need physical access to a surface water body to operate and cannot be located away from the water without loss of function."

[16] UDO Article 12 will propose the following definition of *working dock*: "A dock, pier, or wharf that is actively used for marine-related commercial, industrial, or institutional operations, including loading and unloading of goods or passengers, seafood landing and processing, fueling of vessels, vessel maintenance and repair, charter operations, and other water-dependent activities. A working dock is distinguished from recreational or residential docks by its function, facilities, and frequency of use in support of maritime commerce or water-based livelihoods."

(a) Lots without existing vegetation must meet the planting requirements in this Paragraph. Lots with existing vegetation that does not meet the standards in this Paragraph must supplement with additional plantings.

(b) New plantings must be:

(1) ~~Indigenous~~ Native to ~~the immediate area~~North Carolina;

(2) Arranged in a natural random pattern; and

(3) Selected from the ~~featured plant list in *NC Coastal Landscaping: A Native Plant Guide*~~ Acceptable Plant Lists in Table 2.7.3-1, Table 2.7.3-2, Table 2.7.3-3, and Table 2.7.3-4.~~17~~

(c) The use of turf grass within a shoreline buffer is prohibited.

(d) The planting requirement per 100 linear feet is:

(1) Three ~~canopy~~ medium or large trees of 3-inch caliper with a minimum of two different species;

(2) Five ~~understory~~ small trees of 2-inch caliper with a minimum of three different species;

(3) Eighteen shrubs or vines, 3-gallon pots with a minimum of four different species; and

(4) Twenty-five grasses ~~and palms~~, 1-gallon pots with a minimum of five different species.

Table 2.7.3-1: Shoreline Buffer Acceptable Plant List – Medium & Large Trees

Common Name	Botanical Name	Suitable for Lowland Areas
American Holly	*Ilex opaca*	
Bald Cypress	*Taxodium distichum*	✓
Carolina Cherry Laurel	*Prunus caroliniana*	
Eastern Red Cedar	*Juniperus virginiana*	✓
Hackberry	*Celtis laevigata*	✓

~~17 Alternatively, plants could be selected from another list, such as the Audubon North Carolina Bird-Friendly Native Plants List. This list contains nearly 700 species and identifies native plants that are appropriate for the North Carolina Coastal Plain.~~

Common Name	Botanical Name	Suitable for Lowland Areas
Live Oak	*Quercus virginiana*	✓
Loblolly Pine	*Pinus taeda*	✓
Southern Magnolia	*Magnolia grandiflora*	
Southern Red Cedar	*Juniperus virginiana var. silicicola*	✓
Sweetgum	*Liquidambar styraciflua*	✓
Water Oak	*Quercus nigra*	✓

Table 2.7.3-2: Shoreline Buffer Acceptable Plant List – Small Trees

Common Name	Botanical Name	Suitable for Lowland Areas
American persimmon	*Diospyros virginiana*	
Serviceberry	*Amelanchier canadensis*	
Southern Wax Myrtle	*Morella cerifera*	✓
Tea Olive	*Osmanthus americanus*	✓
Yaupon Holly	*Ilex vomitoria*	✓

Table 2.7.3-3: Shoreline Buffer Acceptable Plant List – Shrubs & Vines

Common Name	Botanical Name	Suitable for Lowland Areas
Adams Needle	*Yucca filamentosa*	
Brownsville tree	*Baccharis halimifolia*	✓
Coral Bean	*Erythrina herbacea*	
Coral Honeysuckle	*Lonicera sempervirens*	
Dwarf Palmetto	*Sabal minor*	✓
Inkberry	*Ilex glabra*	✓
Oakleaf hydrangea	*Hydrangea quercifolia*	

Common Name	Botanical Name	Suitable for Lowland Areas
Sea oxeye daisy	*Borrichia frutescens*	✓
Seaside Goldenrod	*Solidago sempervirens*	✓
Spanish Dagger	*Yucca aloifolia*	✓
Swamp Milkweed	*Asclepias incarnata*	
Swamp Sunflower	*Helianthus angustifolius*	
Sweet Pepperbush	*Clethra alnifolia*	

Table 2.7.3-4: Shoreline Buffer Acceptable Plant List – Grasses

Common Name	Botanical Name	Suitable for Lowland Areas
Bear Grass	*Yucca filamentosa*	
Bitter Panicum	*Panicum amarum*	✓
Little Bluestem	*Schizachyrium scoparium*	
Pink Muhly Grass	*Muhlenbergia capillaris*	✓
Saltmeadow Cordgrass	*Sporobolus pumilus*	✓

~~5.~~6. *Invasive Species*.

(a) Invasive species may be removed from a shoreline buffer. Invasive species are any of those listed as Rank 1, Rank 2, or Rank 3 on the most recent North Carolina Ranked List of Invasive Plants adopted by the North Carolina Invasive Plant Council.

(b) The use of heavy equipment for vegetation removal is ~~prohibited~~discouraged. If heavy equipment is used, measures should be taken to ensure existing (non-invasive) vegetation is not damaged in the process.

(c) Herbicides may be used to eradicate invasive plant species if the removal uses best management practices included in the North Carolina Forestry Best Management Practices Manual or the N.C. State Extension publication "Accomplishing Forest Stewardship with Hand-Applied Herbicides." Alternative techniques for plant removal, such as electric weed control, are allowed.

~~6.~~7. *Prohibited Elements*. The following elements are prohibited within a shoreline buffer:

(a) Impervious surfaces; and

(b) Walls.

~~7.~~8. *Allowed Uses*. The following uses are allowed within a shoreline buffer, unless the use is part of a new critical facility that is otherwise prohibited in the CR-NIZ (see 2.7.3.D, Allowed Uses):

(a) Pedestrian trails if the trail is:

(1) Constructed of pervious material or is an elevated boardwalk;

~~(1)~~(2) Six feet or less in width and

~~(2)~~(3) Oriented generally parallel to the shoreline;

(b) A pedestrian or vehicular access if the access:

(1) Is constructed of pervious material or is an elevated boardwalk;

(2) Leads to a water-dependent use, such as a dock, pier, bridge, or boat landing; and

(3) Is six feet or less in width (for pedestrian accesses) or 15 feet or less in width (for vehicular accesses);[18]

(c) ~~Existing~~ Erosion control structures as allowed by ~~(~~2.7.3.F, Shoreline Management~~, prohibits new erosion control structures)~~;

(d) Stormwater drainage outfalls; and

(e) Utility line penetrations that:

(1) Must necessarily cross a waterway without a reasonable alternative;

(2) Are the minimum width necessary;

(3) Run generally perpendicular to the shoreline.

H. **Low Impact Development/Green Stormwater Infrastructure**.

[18] These widths align with Coastal Resources Commission Rules.

1. *Purpose.*

   (a) Low Impact Development (LID) is an ecologically friendly approach to site development and managing stormwater that aims to mitigate development impacts to land, water, and air on a site.

   (b) The approach emphasizes integration of site design and planning techniques that conserve natural systems and hydrologic functions and use or mimic natural processes for the infiltration, evapotranspiration, or reuse of stormwater and runoff on the site where it is generated.

   (c) LID techniques reduce the amount of untreated runoff discharged to surface waters by allowing stormwater to be absorbed and filtered by soil and vegetation before flowing into groundwater or surface water resources. This reduces stormwater maintenance costs and protects water quality.

   (d) Low Impact Development techniques are established to:

      (1) Aid in creating drainage systems aligned with sound engineering principles;

      (2) Reduce expenses linked to the construction and upkeep of engineered stormwater drainage systems by promoting natural drainage flow;

      (3) Establish a mechanism for development that minimizes negative impacts on the natural surroundings;

      (4) Counteract heat island effects; and

      (5) Create amenity and value and enhance the overall aesthetic of developments through incorporation of natural areas.

2. *Applicability.*[19] The use of LID techniques is required in CR-NIZ and CR-M for all new developments that are subject to Chapter 54, Stormwater.[20]

[19] See discussion of N.C.G.S. 160D-601(d) above and note that compliance incentives could include increased building height, reduced setbacks, and allowances for vegetated LID features to count towards required landscaping and/or open space.

[20] Chapter 54 applies to "new development activity in the town's corporate limits and in the town's extraterritorial zoning jurisdiction where land disturbing activity, whether part of initial development or subsequent build-out of the development, will (1) Disturb more than one acre of land in any residential zoning district, except for an individual single-family residential lot of record where the impervious surface on the lot will be less than ten percent of the surface area of the lot and no fill dirt is brought onto the lot; or (2) Disturb more than one-half an acre of land in any business or industrial zoning district."

3. *Standard*.

(a) Developments subject to this Section must use at least two LID techniques specified in 2.7.3.H.4 below to manage at least 50% of the development site's peak flow.

(b) An applicant must submit an engineer's certification verifying compliance with 2.7.3.H.3(a) above.

4. *LID Techniques*.

(a) LID techniques may include, but are not limited to, any of the following:[21]

(1) Bioretention ~~swales and basins~~cells;

(2) Level spreaders and filter strips;

(3) ~~Porous~~ Permeable pavement ~~and permeable pavers~~;

(4) ~~Cisterns and~~Rain ~~water harvesting~~;

(5) ~~Pocket~~ Stormwater wetlands; and

(6) Rooftop runoff mitigation measures, such as green roofs and rooftop gardens.

(b) LID techniques must be designed, installed, and maintained in accordance with the NCDEQ Stormwater Design Manual.

I. **Stormwater Retrofit**.[22]

1. *Applicability*.

(a) This Section offers incentives for developed lots in the CR-O that, if they were undeveloped, would be subject to Chapter 54, Stormwater,[23] but do not meet the standards in that chapter.

(b) The incentives in this Section are available when the existing development is proposed to be renovated, repaired, altered, or

[21] Revised to align with terminology used in the NCDEQ Stormwater Design Manual.
[22] N.C.G.S. § 143-214.7(b3)
[23] Chapter 54 applies to "new development activity in the town's corporate limits and in the town's extraterritorial zoning jurisdiction where land disturbing activity, whether part of initial development or subsequent build-out of the development, will (1) Disturb more than one acre of land in any residential zoning district, except for an individual single-family residential lot of record where the impervious surface on the lot will be less than ten percent of the surface area of the lot and no fill dirt is brought onto the lot; or (2) Disturb more than one-half an acre of land in any business or industrial zoning district."

otherwise improved by more than 50% of its replacement value at the time of renovation, repair, alteration, or improvement.

2. *Techniques*. Stormwater retrofit techniques must be appropriate for the site and serve to incrementally increase compliance with Chapter 54, Stormwater.

3. *Incentives*.

   (a) Table 2.7.3-5: Incentives for Stormwater Retrofits~~Table 2.7.3-1: Incentives for Stormwater Retrofits~~ specifies available incentives.

   (b) Incentives are cumulative. For example, if three improvements are used, the incentive available for each improvement may be used.

Table 2.7.3-5~~2.7.3-1~~: Incentives for Stormwater Retrofits

Improvement	Incentive
Vegetation added to existing retention/detention areas	Vegetation may count towards any landscaping required on the site
Installation of bioswales/rain gardens	Vegetation may count towards any landscaping required on the site
Installation of rainwater harvesting features	Width of shoreline buffer required by § 4.3.3 may be reduced by 1 foot for every 75 gallons[24] of rainwater harvested, up to a maximum reduction of 5 feet
Removal of curbing to route stormwater into vegetated areas	Maximum impervious surface~~lot~~ coverage may be increased by an area equivalent to the amount of impervious surface removed, up to a maximum increase of 5%
Impervious surface disconnection	Maximum impervious surface~~lot~~ coverage may be increased by an area equivalent to the amount of impervious surface removed, up to a maximum increase of 5%

[24] Rain barrels typically range in size from 55 to 95 gallons. Larger rainwater harvesting systems are available but less common, particularly in a residential application.

Improvement	Incentive
Replacement of impervious surfaces with pervious surfaces	Shoreline buffer required by § 4.3.3 may be reduced by an area equivalent to the amount of impervious surface removed, up to a maximum reduction of 750 square feet
Installation of underground stormwater control measures, such as sand filters	Maximum impervious surface~~lot~~ coverage may be increased by the area of the underground SCM, up to a maximum increase of 5%
Full compliance with Chapter 54	For developments subject to Site Plan Review, final approval may be granted ~~by staff~~during a joint meeting between the BOC and Planning Board

J. **Increased Construction Standards**.[25]

1. *Applicability*. This Section establishes incentives for development that incorporates one or more increased construction standard in new development or in existing development that is proposed to be renovated, repaired, altered, or otherwise improved by more than 50% of its replacement value at the time of renovation, repair, alteration, or improvement.

~~(a) *CR-NIZ Subdistrict*. Increased construction standards apply to new development in the CR-NIZ and to existing development that is proposed to be renovated, repaired, altered, or otherwise improved by more than 50% of its replacement value at the time of renovation, repair, alteration, or improvement.[26]~~

~~(b) *CR-M Subdistrict*. Increased construction standards are not required in the CR-M. However, this Section establishes incentives for development that incorporates one or more increased construction standard.~~

~~2. *Required Points in CR-NIZ*. Each development in the CR-NIZ must achieve at least eight points using the techniques specified in Table 2.7.3-2: Increased Construction Standards.~~

[25] These increased construction standards may be applied as a generally applicable development standard to areas beyond the overlay district, since the impacts these standards are intended to address may apply within and outside of the flood zone. The UDO Steering Committee will discuss the applicability of these proposed standards.

[26] ~~See discussion of N.C.G.S. 160D-601(d) above and note possible alternative compliance incentives.~~

~~3.~~2. *Incentives ~~in CR-M~~*. Each development ~~in the CR-M~~ that incorporates one of more of the techniques specified in Table 2.7.3-6: Increased Construction Standards~~Table 2.7.3-2: Increased Construction Standards~~ may use the incentive specified for that technique.[~~27~~] Incentives are cumulative.

Table 2.7.3-6~~2.7.3-2~~: Increased Construction Standards

Element	Description	~~Points (CR-NIZ)~~	Incentive ~~(CR-M)~~
~~Structure~~	~~Principal structure meets the minimum requirements for FORTIFIED Gold™ designation~~	~~8~~	~~Staff Site Plan Review [1], Expedited Permitting [2]~~
~~Structure~~	~~Principal structure meets the minimum requirements for FORTIFIED Silver™ designation~~	~~7~~	~~Staff Site Plan Review [1], Expedited Permitting [2]~~
~~Roof~~	~~Principal structure meets the minimum requirements for FORTIFIED Roof™ designation~~	~~6~~	~~Expedited Permitting [2]~~
Freeboard [~~3~~1]	Principal structure is elevated ~~at least 3 feet~~ above ~~base~~ the regulatory flood protection elevation (RPFE)[28]	~~4~~	Maximum ~~building~~ height may be increased by 1 foot for each 1 foot the structure is elevated above the RPFE, up to a maximum of 3 feet

[~~27~~] ~~Alternatively, incentives could be available for developments in the CR-M that achieve a certain number of points. For example, developments that achieve 8 points could receive expedited permitting and staff Site Plan Review.~~

[28] UDO Article 12 will include the Flood Damage Prevention Ordinance's current definition of RPFE.

Element	Description	~~Points (CR-NIZ)~~	Incentive ~~(CR-M)~~
Roof	Principal structure is constructed with roof materials that achieve Class 3 or Class 4 impact resistance, as defined by UL Standard 2218[29]	~~3~~	Maximum ~~lot~~ impervious surface coverage may be increased by up to 2%
Roof	Principal structure uses a hipped roof form		Maximum impervious surface coverage may be increased by up to 2%
Openings	At least 75% of the windows and doors on the principal structure are impact-resistant[30]	~~3~~	Maximum ~~lot~~ impervious surface coverage may be increased by up to 2%
Storm shutters	At least 75% of the windows on the principal structure include operable storm shutters permanently installed on the structure	~~2~~	Maximum ~~lot~~ impervious surface coverage may be increased by up to 1.5%
Attic vents	Principal structure uses ridge vents rather than gable vents or uses vents certified as resistant to wind and water intrusion	~~2~~	Maximum ~~lot~~ impervious surface coverage may be increased by up to 1.5%

[29] UL Standard 2218 primarily measures resistance to hail. This region receives very little hail so, while the UL standard is not applicable, the increased impact resistance may provide some measure of resistance to debris other than hail. Note that ASTM 7158 H classification shingles for high wind zones (150mph) is required by the NC Building and Residential Codes.

[30] The Town Building Inspector notes that impact resistant materials may be cost prohibitive. The B~~i~~uilding Code requires windows to have a minimum design pressure (DP) rating of DP50. This is a high level of wind resistance, though not necessarily impact resistance.

Element	Description	~~Points (CR-NIZ)~~	Incentive ~~(CR-M)~~
Generators	Install a generator for power generation to keep critical functions (in residential buildings, this includes refrigerator, freezer, basic lighting, and healthcare appliances) working in the event of power failure	~~2~~	Maximum ~~lot~~ impervious surface coverage may be increased by up to 1.5%
Generators	Principal structure is wired to accommodate a generator	~~1~~	Maximum ~~lot~~ impervious surface coverage may be increased by up to 1%
~~Reinforced soffits~~	~~All soffits on principal structure include additional bracing and fasteners~~	~~1~~	~~Maximum lot coverage may be increased by up to 1%~~
~~[1] Staff Site Plan Review: For structures subject to Site Plan Review, final approval may be granted by staff.~~			
~~[2] Expedited Review: Building permit applications are placed at the front of the queue.~~[31]			

[~~3~~1] This applies only in CR-NIZ since it is the only area of the CR-O with a base flood elevation.

K. ~~**Cluster Development**. *<<The next iteration of the CR-O will include provisions incentivizing or requiring cluster subdivisions in the CR-O.>>*~~

[31] ~~Town staff typically reviews and acts on complete applications within one week, so this particular incentive may offer limited benefit.~~