

**NC COASTAL RESOURCES COMMISSION**  
**August 29-30, 2012**  
**Sea Trail Golf Resort and Convention Center**  
**Sunset Beach, NC**

The State Government Ethics Act mandates that at the beginning of any meeting the Chair remind all the members of their duty to avoid conflicts of interest and inquire as to whether any member knows of any conflict of interest or potential conflict with respect to matters to come before the Commission. If any member knows of a conflict of interest or potential conflict, please state so at this time.

**Wednesday, August 29<sup>th</sup>**

- 1:00 Coastal Resources Advisory Council Meeting (Salon 2&3)** Ray Sturza, Chair
- 3:00 OCEAN HAZARDS COMMITTEE (Salon 2&3)** Lee Wynns, Chair  
Ted Tyndall  
Mike Lopazanski
- Update on Sandbag Enforcement Prioritization (*CRC-12-21*)
  - Review of Previously Proposed Amendments to 15A NCAC 7H .0308(a)(2) & 15A NCAC 7H .1705 – Sandbags (*CRC-12-27*)
- 5:00 PUBLIC HEARING** Bob Emory, Chair
- 15A NCAC 7H .0304(1)(a) AECs Within Ocean Hazard Areas –Erosion Rates
  - Fiscal Note - 15A NCAC 7H .0304(1)(a) AECs Within Ocean Hazard Areas
- 6:00 EXECUTIVE COMMITTEE MEETING (Salon 2&3)** Bob Emory, Chair

**RECESS**

**Thursday, August 30<sup>th</sup>**

- 8:30 COMMISSION CALL TO ORDER\* (Salon 2&3)** Bob Emory, Chair
- Roll Call
  - Approval of June 20-21, 2012 & June 21, 2012 Closed Session Meeting Minutes
  - Executive Secretary's Report (*CRC-12-22*)
  - Chairman's Comments
- 8:45 Coastal Resources Advisory Council Report** Ray Sturza
- 9:00 Legislative Update - H819 Coastal Management Policies** Braxton Davis
- Sea-Level Policy
  - Residential Structures Setbacks
  - Cape Fear River AEC Study
  - Inlet Hazard Areas Study
- 9:45 Ocean Hazards** Lee Wynns
- Ocean Hazards Committee Report
- 10:45 BREAK**
- 11:00 PUBLIC INPUT AND COMMENT** Bob Emory, Chair
- 11:15 Sea-Level Rise** Tancred Miller
- Discussion of Potential DCM Sea-Level Rise Activities
- 12:00 LUNCH**

- 1:15 Land Use Planning Process**
- 7B Guidelines Review Committee Recommendations (*CRC-12-23*) John Thayer
  - Internal Review of Policies
- 2:00 Estuarine Shoreline**
- Estuarine Shoreline Stabilization – DENR Action Plan (*CRC-12-24*) Daniel Govoni

**ACTION ITEMS**

- 2:30 CRC Rule Development**
- Temporary Rules 15A NCAC 7H .0306 – Replacement of Single Family or Duplex Residential Dwellings (*CRC-12-25*) Mike Lopazanski
  - Draft 15A NCAC 7M .1300 Sea-Level Rise Policy & Fiscal Analysis (*CRC-12-26*) Tancred Miller

- 4:00 Coastal Habitat Protection Plan**
- Approval of 2012 CHPP Annual Report (*CRC-12-28*) Jimmy Johnson

**Land Use Plan Certifications and Amendments**

- Town of Southern Shores LUP Certification (*CRC-12-29*) John Thayer
- Pender County LUP Update Certification (*CRC-12-30*)
- Town of Swansboro LUP Amendment Certification (*CRC-12-31*)
- City of Jacksonville LUP Amendment Certification (*CRC-12-32*)
- Camden County LUP Amendment Certification (*CRC-12-33*)

- OLD/NEW BUSINESS** Bob Emory, Chair
- Nominations Committee - CRC Appointed Advisory Council Representatives Bob Emory

**5:00 ADJOURN**

Executive Order 34 mandates that in transacting Commission business, each person appointed by the governor shall act always in the best interest of the public without regard for his or her financial interests. To this end, each appointee must recuse himself or herself from voting on any matter on which the appointee has a financial interest. Commissioners having a question about a conflict of interest or potential conflict should consult with the Chairman or legal counsel.

*\* Times indicated are only for guidance. The commission will proceed through the agenda until completed.*



N.C. Division of Coastal Management  
[www.nccoastalmanagement.net](http://www.nccoastalmanagement.net)

Next Meeting:  
 November 14-15, 2012



North Carolina Department of Environment and Natural Resources  
Division of Coastal Management

Beverly Eaves Perdue  
Governor

Braxton C. Davis  
Director

Dee Freeman  
Secretary

**MEMORANDUM**

**CRC-12-21**

**TO:** Ocean Hazards Committee  
**FROM:** M. Ted Tyndall  
**DATE:** August 15, 2012  
**SUBJECT:** Update on Sandbag Enforcement Priorities

At the February CRC meeting, staff presented a review of the reassessment of the sandbag enforcement priorities. The reassessment was based on the original 2008 sandbag inventory conducted by staff. Priorities for enforcement actions were essentially based on multiple factors including structure condition, location, amount of sand and vegetative cover, and impedance to public trust. Enforcement actions have been taken and are ongoing. Fortunately, as a result of extensive efforts by coastal municipalities, successful beachfill projects have changed an already dynamic oceanfront landscape, changing which sandbag structures are the worst offenders, requiring staff to adapt accordingly.

As a result of these efforts to “shore-up” the beach, it became extremely difficult to determine where enforcement actions needed to focus. Staff’s takeaway message from the February meeting was to focus on those structures that have major impact on the public’s access, but while doing so, continue to work towards removal of those structures that have become unnecessary due to a storm protection project, large-scale beach nourishment project or an inlet relocation project.

The most recent evaluation of sandbags along the coast revealed that the most egregious structures impacting public trust rights are now located along the eastern end of Ocean Isle Beach. For example, one particular stretch of the beach is essentially impassable daily during mid- to high-tide conditions causing a major impact on the general public’s use and access in that area. Similarly, these bags are completely exposed, uncovered and unvegetated.

If you recall, the Commission approved for public hearing rule changes to 15A NCAC 7H.0308 eliminating the “one time per structure” sandbag limitation in communities pursuing a beach fill or inlet relocation project. If this change becomes effective, Staff would propose that it begin making determinations that certain bags have become unnecessary, are in violation of the rules, and need to be removed. It is hopeful, that with a rule change, property owners would be less reluctant to remove their unnecessary temporary control structures knowing they could get new sandbags if they once again became imminently threatened.

As always, staff is cautious not to bring site-specific issues to the Commission while still providing you with necessary and pertinent information on the subject. This is an effort to ensure that the quasi-judicial authority of the Commission for any variances, contested cases or declaratory rulings is not prejudiced. Staff looks forward to the discussion with the Committee.



North Carolina Department of Environment and Natural Resources  
Division of Coastal Management

Beverly Eaves Perdue  
Governor

Braxton C. Davis  
Director

Dee Freeman  
Secretary

CRC-12-27

August 14, 2012

**MEMORANDUM**

**TO:** Ocean Hazards Committee

**FROM:** Mike Lopazanski

**SUBJECT:** Review of Previously Proposed Amendments to 15A NCAC 7H .0308(a)(2) & 15A NCAC 7H .1705 – Sandbags

As you recall, the Ocean Hazard AEC Committee had considered suggestions generated through a series of meetings with sandbag stakeholders for the future management of temporary erosion control structures. At your August 2011 meeting, the Committee discussed the merits of various proposals, including a Staff proposal to extend the time limits for the use of sandbags in a manner similar to amendments made in 2009 for Inlet Hazard Areas. During the discussion of the Committee report, the full Commission voted to move ahead with the Staff recommended changes. At the October 2011 CRC meeting, the Commission approved for public hearing Staff's proposal for amendments to 15A NCAC 7H .0308(a)(2) & 7H .1705 governing the use of sandbags as temporary erosion control structures.

Since that time, the CRC has had several discussions about the management of sandbags and the Division began reassessing sandbag structure enforcement priorities. Due to the possibility of further amendments to the sandbag rules, staff delayed sending the proposed amendments to public hearing until the Commission had an opportunity to discuss the revised enforcement priorities.

Attached are amendments to 7H .0308(a)(2) General Use Standards and 7H .1705 Specific Use Standards for Emergency General Permits regulating the use of sandbags as temporary erosion control measures as they were approved for public hearing. The time limit for the use of sandbags is proposed for extension from five years to eight years if located in a community actively pursuing a beach fill or inlet relocation project. The "one time per structure" limitation is also proposed to be removed provided that the structure once again becomes imminently threatened and is located in a community that is actively pursuing a beach fill or inlet relocation project. The proposed amendments also include an expansion of the activities a community could be actively pursuing that would warrant an extended permit time limit to include an inlet stabilization project in accordance with G.S. 113A-

115.1 (CAMA amendment associated with terminal groin legislation). No changes are proposed for structures located outside of areas seeking a beach fill, inlet relocation or inlet stabilization project, where the two and five-year timeframes would remain. No changes are proposed for the provisions under which sandbags would need to be removed (i.e., the structure is not imminently threatened due to beach fill, inlet relocation or stabilization project).

Unless there are further amendments proposed by the Committee, Staff will be recommending that the Commission reaffirm the amendments approved in October 2011 for public hearing. I will review the amendments in detail at the Committee meeting in Sunset Beach.

1 **15A NCAC 07H .0308 IS PROPOSED FOR AMENDMENTS AS FOLLOWS:**

2  
3 **15A NCAC 07H .0308 SPECIFIC USE STANDARDS FOR OCEAN HAZARD AREAS**

4 (a) Ocean Shoreline Erosion Control Activities:

5 (1) Use Standards Applicable to all Erosion Control Activities:

- 6 (A) All oceanfront erosion response activities shall be consistent with the general policy  
7 statements in 15A NCAC 07M .0200.
- 8 (B) Permanent erosion control structures may cause significant adverse impacts on the value  
9 and enjoyment of adjacent properties or public access to and use of the ocean beach, and,  
10 therefore, are prohibited. Such structures include bulkheads, seawalls, revetments, jetties,  
11 groins and breakwaters.
- 12 (C) Rules concerning the use of oceanfront erosion response measures apply to all oceanfront  
13 properties without regard to the size of the structure on the property or the date of its  
14 construction.
- 15 (D) All permitted oceanfront erosion response projects, other than beach bulldozing and  
16 temporary placement of sandbag structures, shall demonstrate sound engineering for their  
17 planned purpose.
- 18 (E) Shoreline erosion response projects shall not be constructed in beach or estuarine areas  
19 that sustain substantial habitat for fish and wildlife species, as identified by natural  
20 resource agencies during project review, unless mitigation measures are incorporated into  
21 project design, as set forth in Rule .0306(i) of this Section.
- 22 (F) Project construction shall be timed to minimize adverse effects on biological activity.
- 23 (G) Prior to completing any erosion response project, all exposed remnants of or debris from  
24 failed erosion control structures must be removed by the permittee.
- 25 (H) Erosion control structures that would otherwise be prohibited by these standards may be  
26 permitted on finding that:
- 27 (i) the erosion control structure is necessary to protect a bridge which provides the  
28 only existing road access on a barrier island, that is vital to public safety, and is  
29 imminently threatened by erosion as defined in provision (a)(2)(B) of this  
30 subchapter;
- 31 (ii) the erosion response measures of relocation, beach nourishment or temporary  
32 stabilization are not adequate to protect public health and safety; and
- 33 (iii) the proposed erosion control structure will have no adverse impacts on adjacent  
34 properties in private ownership or on public use of the beach.
- 35 (I) Structures that would otherwise be prohibited by these standards may also be permitted  
36 on finding that:

- 1 (i) the structure is necessary to protect a state or federally registered historic site  
2 that is imminently threatened by shoreline erosion as defined in provision  
3 (a)(2)(B) of this subchapter; and
- 4 (ii) the erosion response measures of relocation, beach nourishment or temporary  
5 stabilization are not adequate and practicable to protect the site; and
- 6 (iii) the structure is limited in extent and scope to that necessary to protect the site;  
7 and
- 8 (iv) any permit for a structure under this Part (I) may be issued only to a sponsoring  
9 public agency for projects where the public benefits outweigh the short or long  
10 range adverse impacts. Additionally, the permit shall include conditions  
11 providing for mitigation or minimization by that agency of any unavoidable  
12 adverse impacts on adjoining properties and on public access to and use of the  
13 beach.
- 14 (J) Structures that would otherwise be prohibited by these standards may also be permitted  
15 on finding that:
- 16 (i) the structure is necessary to maintain an existing commercial navigation channel  
17 of regional significance within federally authorized limits; and
- 18 (ii) dredging alone is not practicable to maintain safe access to the affected channel;  
19 and
- 20 (iii) the structure is limited in extent and scope to that necessary to maintain the  
21 channel; and
- 22 (iv) the structure shall not adversely impact fisheries or other public trust resources;  
23 and
- 24 (v) any permit for a structure under this Part (J) may be issued only to a sponsoring  
25 public agency for projects where the public benefits outweigh the short or long  
26 range adverse impacts. Additionally, the permit shall include conditions  
27 providing for mitigation or minimization by that agency of any unavoidable  
28 adverse impacts on adjoining properties and on public access to and use of the  
29 beach.
- 30 (K) The Commission may renew a permit for an erosion control structure issued pursuant to a  
31 variance granted by the Commission prior to 1 July 1995. The Commission may  
32 authorize the replacement of a permanent erosion control structure that was permitted by  
33 the Commission pursuant to a variance granted by the Commission prior to 1 July 1995 if  
34 the Commission finds that:
- 35 (i) the structure will not be enlarged beyond the dimensions set out in the permit;
- 36 (ii) there is no practical alternative to replacing the structure that will provide the  
37 same or similar benefits; and

- 1 (iii) the replacement structure will comply with all applicable laws and with all rules,  
2 other than the rule or rules with respect to which the Commission granted the  
3 variance, that are in effect at the time the structure is replaced.
- 4 (L) Proposed erosion response measures using innovative technology or design shall be  
5 considered as experimental and shall be evaluated on a case-by-case basis to determine  
6 consistency with 15A NCAC 7M .0200 and general and specific use standards within this  
7 Section.
- 8 (2) Temporary Erosion Control Structures:
- 9 (A) Permittable temporary erosion control structures shall be limited to sandbags placed  
10 landward of mean high water and parallel to the shore.
- 11 (B) Temporary erosion control structures as defined in Part (2)(A) of this Subparagraph shall  
12 be used to protect only imminently threatened roads and associated right of ways, and  
13 buildings and their associated septic systems. A structure ~~shall be~~ is considered  
14 imminently threatened if its foundation, septic system, or right-of-way in the case of  
15 roads, is less than 20 feet away from the erosion scarp. Buildings and roads located more  
16 than 20 feet from the erosion scarp or in areas where there is no obvious erosion scarp  
17 may also be found to be imminently threatened when site conditions, such as a flat beach  
18 profile or accelerated erosion, increase the risk of imminent damage to the structure.
- 19 (C) Temporary erosion control structures shall be used to protect only the principal structure  
20 and its associated septic system, but not appurtenances such as pools, gazebos, decks or  
21 any amenity that is allowed as an exception to the erosion setback requirement.
- 22 (D) Temporary erosion control structures may be placed seaward of a septic system when  
23 there is no alternative to relocate it on the same or adjoining lot so that it is landward of  
24 or in line with the structure being protected.
- 25 (E) Temporary erosion control structures shall not extend more than 20 feet past the sides of  
26 the structure to be protected. The landward side of such temporary erosion control  
27 structures shall not be located more than 20 feet seaward of the structure to be protected  
28 or the right-of-way in the case of roads. If a building or road is found to be imminently  
29 threatened and at an increased risk of imminent damage due to site conditions such as a  
30 flat beach profile or accelerated erosion, temporary erosion control structures may be  
31 located more than 20 feet seaward of the structure being protected. In cases of increased  
32 risk of imminent damage, the location of the temporary erosion control structures shall be  
33 determined by the Director of the Division of Coastal Management or their designee.
- 34 (F) Temporary erosion control structures may remain in place for up to two years after the  
35 date of approval if they are protecting a building with a total floor area of 5000 sq. ft. or  
36 less and its associated septic system, or, for up to five years for a building with a total  
37 floor area of more than 5000 sq. ft. and its associated septic system. Temporary erosion

1 control structures may remain in place for up to five years if they are protecting a bridge  
2 or a road. The property owner shall be responsible for removal of the temporary structure  
3 within 30 days of the end of the allowable time period.

4 (G) Temporary sandbag erosion control structures may remain in place for up to ~~five~~ eight  
5 years from the date of approval if they are located in a community that is actively  
6 pursuing a beach nourishment project, ~~and for up to eight years from the date of approval~~  
7 or if they are located in an Inlet Hazard Area adjacent to an inlet for which a community  
8 is actively pursuing an inlet relocation ~~project~~ or stabilization project in accordance with  
9 G.S. 113A-115.1 For purposes of this Rule, a community is considered to be actively  
10 pursuing a ~~beach nourishment or nourishment,~~ or inlet relocation or stabilization project  
11 if it has:

- 12 (i) an active CAMA permit, where necessary, approving such project; or  
13 (ii) been identified by a U.S. Army Corps of Engineers' Beach Nourishment  
14 Reconnaissance Study, General Reevaluation Report, Coastal Storm Damage  
15 Reduction Study or an ongoing feasibility study by the U.S. Army Corps of  
16 Engineers and a commitment of local or federal money, when necessary; or  
17 (iii) received a favorable economic evaluation report on a federal project or,  
18 (iv) is in the planning stages of a project that has been designed by the U.S. Army  
19 Corps of Engineers or persons meeting applicable State occupational licensing  
20 requirements and has been initiated by a local government or community with a  
21 commitment of local or state funds to construct the project and the identification  
22 of the financial resources or funding bases necessary to fund the beach  
23 ~~nourishment or nourishment,~~ inlet relocation or stabilization project.

24 If beach ~~nourishment or nourishment,~~ inlet relocation or stabilization is rejected by the  
25 sponsoring agency or community, or ceases to be actively planned for a section of  
26 shoreline, the time extension is void for that section of beach or community and existing  
27 sandbags are subject to all applicable time limits set forth in Part (F) of this  
28 Subparagraph.

29 (H) Once the temporary erosion control structure is determined by the Division of Coastal  
30 Management to be unnecessary due to relocation or removal of the threatened structure, a  
31 storm protection project constructed by the U.S. Army Corps of Engineers, a large-scale  
32 beach nourishment ~~project or project,~~ an inlet relocation or stabilization project, it shall  
33 be removed by the property owner within 30 days of official notification from the  
34 Division of Coastal Management regardless of the time limit placed on the temporary  
35 erosion control structure.

36 (I) Removal of temporary erosion control structures ~~shall not be~~ is not required if they are  
37 covered by dunes with stable and natural vegetation.

- 1 (J) The property owner shall be responsible for the removal of remnants of all portions of  
2 any damaged temporary erosion control structure.
- 3 (K) Sandbags used to construct temporary erosion control structures shall be tan in color and  
4 three to five feet wide and seven to 15 feet long when measured flat. Base width of the  
5 structure shall not exceed 20 feet, and the height shall not exceed six feet.
- 6 (L) Soldier pilings and other types of devices to anchor sandbags shall not be allowed.
- 7 (M) An imminently threatened structure may be protected only once, regardless of ~~ownership~~  
8 ownership, unless the threatened structure is located in a community that is actively  
9 pursuing a beach nourishment project, or in an Inlet Hazard Area and in a community that  
10 is actively pursuing an inlet relocation or stabilization project in accordance with (G) of  
11 this Subparagraph. Existing temporary erosion control structures ~~located in Inlet Hazard~~  
12 ~~Areas~~ may be eligible for an additional eight year permit extension provided that the  
13 structure being protected is still imminently threatened, the temporary erosion control  
14 structure is in compliance with requirements of this Subchapter and the community in  
15 which it is located is actively pursuing a beach nourishment, an inlet relocation or  
16 stabilization project in accordance with Part (G) of this Subparagraph. In the case of a  
17 building, a temporary erosion control structure may be extended, or new segments  
18 constructed, if additional areas of the building become imminently threatened. Where  
19 temporary structures are installed or extended incrementally, the time period for removal  
20 under Part (F) or (G) of this Subparagraph shall begin at the time the initial erosion  
21 control structure is installed. For the purpose of this Rule:
- 22 (i) a building and septic system shall be considered as separate structures.
- 23 (ii) a road or highway shall be allowed to be incrementally protected as sections  
24 become imminently threatened. The time period for removal of each section of  
25 sandbags shall begin at the time that section is installed in accordance with Part  
26 (F) or (G) of this Subparagraph.
- 27 (N) Existing sandbag structures may be repaired or replaced within their originally permitted  
28 dimensions during the time period allowed under Part (F) or (G) of this Subparagraph.
- 29 (3) Beach Nourishment. Sand used for beach nourishment shall be compatible with existing grain  
30 size and ~~type, in accordance with 15A NCAC 07H .0312. Sand to be used for beach nourishment~~  
31 ~~shall be taken only from those areas where the resulting environmental impacts will be minimal.~~
- 32 (4) Beach Bulldozing. Beach bulldozing (defined as the process of moving natural beach material  
33 from any point seaward of the first line of stable vegetation to create a protective sand dike or to  
34 obtain material for any other purpose) is development and may be permitted as an erosion  
35 response if the following conditions are met:
- 36 (A) The area on which this activity is being performed shall maintain a slope of adequate  
37 grade so as to not endanger the public or the public's use of the beach and shall follow the

1 pre-emergency slope as closely as possible. The movement of material utilizing a  
2 bulldozer, front end loader, backhoe, scraper, or any type of earth moving or construction  
3 equipment shall not exceed one foot in depth measured from the pre-activity surface  
4 elevation;

5 (B) The activity shall not exceed the lateral bounds of the applicant's property unless he has  
6 permission of the adjoining land owner(s);

7 (C) Movement of material from seaward of the mean low water line will require a CAMA  
8 Major Development and State Dredge and Fill Permit;

9 (D) The activity shall not increase erosion on neighboring properties and shall not have an  
10 adverse effect on natural or cultural resources;

11 (E) The activity may be undertaken to protect threatened on-site waste disposal systems as  
12 well as the threatened structure's foundations.

13 (b) Dune Establishment and Stabilization. Activities to establish dunes shall be allowed so long as the following  
14 conditions are met:

15 (1) Any new dunes established shall be aligned to the greatest extent possible with existing adjacent  
16 dune ridges and shall be of the same general configuration as adjacent natural dunes.

17 (2) Existing primary and frontal dunes shall not, except for beach nourishment and emergency  
18 situations, be broadened or extended in an oceanward direction.

19 (3) Adding to dunes shall be accomplished in such a manner that the damage to existing vegetation is  
20 minimized. The filled areas shall be immediately replanted or temporarily stabilized until planting  
21 can be successfully completed.

22 (4) Sand used to establish or strengthen dunes shall be of the same general characteristics as the sand  
23 in the area in which it is to be placed.

24 (5) No new dunes shall be created in inlet hazard areas.

25 (6) Sand held in storage in any dune, other than the frontal or primary dune, may be redistributed  
26 within the AEC provided that it is not placed any farther oceanward than the crest of a primary  
27 dune or landward toe of a frontal dune.

28 (7) No disturbance of a dune area shall be allowed when other techniques of construction can be  
29 utilized and alternative site locations exist to avoid unnecessary dune impacts.

30 (c) Structural Accessways:

31 (1) Structural accessways shall be permitted across primary dunes so long as they are designed and  
32 constructed in a manner that entails negligible alteration on the primary dune. Structural  
33 accessways shall not be considered threatened structures for the purpose of Paragraph (a) of this  
34 Rule.

35 (2) An accessway shall be conclusively presumed to entail negligible alteration of a primary dune  
36 provided that:

37 (A) The accessway is exclusively for pedestrian use;

**Draft Amendments October 26, 2011**

- 1 (B) The accessway is less than six feet in width;
- 2 (C) The accessway is raised on posts or pilings of five feet or less depth, so that wherever
- 3 possible only the posts or pilings touch the frontal dune. Where this is deemed
- 4 impossible, the structure shall touch the dune only to the extent absolutely necessary. In
- 5 no case shall an accessway be permitted if it will diminish the dune's capacity as a
- 6 protective barrier against flooding and erosion; and
- 7 (D) Any areas of vegetation that are disturbed are revegetated as soon as feasible.
- 8 (3) An accessway which does not meet Part (2)(A) and (B) of this Paragraph shall be permitted only if
- 9 it meets a public purpose or need which cannot otherwise be met and it meets Part (2)(C) of this
- 10 Paragraph. Public fishing piers shall not be deemed to be prohibited by this Rule, provided all
- 11 other applicable standards are met.
- 12 (4) In order to avoid weakening the protective nature of primary and frontal dunes a structural
- 13 accessway (such as a "Hatteras ramp") shall be provided for any off-road vehicle (ORV) or
- 14 emergency vehicle access. Such accessways shall be no greater than 10 feet in width and shall be
- 15 constructed of wooden sections fastened together over the length of the affected dune area.

16 (d) Building Construction Standards. New building construction and any construction identified in .0306(a)(5) and  
17 07J .0210 shall comply with the following standards:

- 18 (1) In order to avoid danger to life and property, all development shall be designed and placed so as to
- 19 minimize damage due to fluctuations in ground elevation and wave action in a 100-year storm.
- 20 Any building constructed within the ocean hazard area shall comply with relevant sections of the
- 21 North Carolina Building Code including the Coastal and Flood Plain Construction Standards and
- 22 the local flood damage prevention ordinance as required by the National Flood Insurance Program.
- 23 If any provision of the building code or a flood damage prevention ordinance is inconsistent with
- 24 any of the following AEC standards, the more restrictive provision shall control.
- 25 (2) All building in the ocean hazard area shall be on pilings not less than eight inches in diameter if
- 26 round or eight inches to a side if square.
- 27 (3) All pilings shall have a tip penetration greater than eight feet below the lowest ground elevation
- 28 under the structure. For those structures so located on or seaward of the primary dune, the pilings
- 29 shall extend to five feet below mean sea level.
- 30 (4) All foundations shall be adequately designed to be stable during applicable fluctuations in ground
- 31 elevation and wave forces during a 100-year storm. Cantilevered decks and walkways shall meet
- 32 this standard or shall be designed to break-away without structural damage to the main structure.

33  
34 *History Note: Authority G.S. 113A-107(a); 113A-107(b); 113A-113(b)(6)a.,b.,d.; 113A-124;*  
35 *Eff. June 1, 1979;*  
36 *Filed as a Temporary Amendment Eff. June 20, 1989, for a period of 180 days to expire on*  
37 *December 17, 1989;*  
38 *Amended Eff. August 3, 1992; December 1, 1991; March 1, 1990; December 1, 1989;*  
39 *RRC Objection Eff. November 19, 1992 due to ambiguity;*  
40 *RRC Objection Eff. January 21, 1993 due to ambiguity;*

**Draft Amendments October 26, 2011**

1                    *Amended Eff. March 1, 1993; December 28, 1992;*  
2                    *RRC Objection Eff. March 16, 1995 due to ambiguity;*  
3                    *Amended Eff. April 1, 1999; February 1, 1996; May 4, 1995;*  
4                    *Temporary Amendment Eff. July 3, 2000; May 22, 2000;*  
5                    *Amended Eff. July 1, 2009; April 1, 2008; February 1, 2006; August 1, 2002.*  
6  
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1 15A NCAC 07H .1705 IS PROPOSED FOR AMENDMENT AS FOLLOWS:

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15A NCAC 07H .1705 SPECIFIC CONDITIONS

(a) Temporary Erosion Control Structures in the Ocean Hazard AEC.

- (1) Permittable temporary erosion control structures shall be limited to sandbags placed landward of mean high water and parallel to the shore.
- (2) Temporary erosion control structures as defined in Subparagraph (1) of this Paragraph shall be used to protect only imminently threatened roads and associated right of ways, and buildings and their associated septic systems. A structure ~~shall be~~ **is** considered imminently threatened if its foundation, septic system, or, right-of-way in the case of roads, is less than 20 feet away from the erosion scarp. Buildings and roads located more than 20 feet from the erosion scarp or in areas where there is no obvious erosion scarp may also be found to be imminently threatened when site conditions, such as a flat beach profile or accelerated erosion, increase the risk of imminent damage to the structure.
- (3) Temporary erosion control structures shall be used to protect only the principal structure and its associated septic system, but not appurtenances such as pools, gazebos, decks or any amenity that is allowed as an exception to the erosion setback requirement.
- (4) Temporary erosion control structures may be placed seaward of a septic system when there is no alternative to relocate it on the same or adjoining lot so that it is landward of or in line with the structure being protected.
- (5) Temporary erosion control structures shall not extend more than 20 feet past the sides of the structure to be protected. The landward side of such temporary erosion control structures shall not be located more than 20 feet seaward of the structure to be protected or the right-of-way in the case of roads. If a building or road is found to be imminently threatened and at increased risk of imminent damage due to site conditions such as a flat beach profile or accelerated erosion, temporary erosion control structures may be located more than 20 feet seaward of the structure being protected. In cases of increased risk of imminent damage, the location of the temporary erosion control structures shall be determined by the Director of the Division of Coastal management or designee.
- (6) Temporary erosion control structures may remain in place for up to two years after the date of approval if they are protecting a building with a total floor area of 5000 square feet or less and its associated septic system, or for up to five years for a building with a total floor area of more than 5000 square feet and its associated septic system. Temporary erosion control structures may remain in place for up to five years if they are protecting a bridge or a road. The property owner shall be responsible for removal of the temporary structure within 30 days of the end of the allowable time period.

1 (7) Temporary sandbag erosion control structures may remain in place for up to five eight years from  
2 the date of approval if they are located in a community that is actively pursuing a beach  
3 nourishment project, and up to eight years from the date of approval or if they are located in an  
4 Inlet Hazard Area adjacent to an inlet for which a community is actively pursuing an inlet  
5 relocation project, or stabilization project in accordance with G.S. 113A-115.1 For purposes of  
6 this Rule, a community is considered to be actively pursuing a beach nourishment or nourishment,  
7 inlet relocation or stabilization project if it has:

- 8 (A) an active CAMA permit, where necessary, approving such project, or  
9 (B) been identified by a U.S. Army Corps of Engineers' Beach Nourishment Reconnaissance  
10 Study, General Reevaluation Report, Coastal Storm Damage Reduction Study, or an  
11 ongoing feasibility study by the U.S. Army Corps of Engineers and a commitment of  
12 local or federal money, when necessary; or  
13 (C) received a favorable economic evaluation report on a federal project; or  
14 (D) is in the planning stages of a project that has been designed by the U.S. Army Corps of  
15 Engineers or persons meeting applicable State occupational licensing requirements and  
16 has been initiated by a local government or community with a commitment of local or  
17 state funds to construct the project and the identification of the financial resources or  
18 funding bases necessary to fund the beach nourishment or nourishment, inlet relocation  
19 or stabilization project.

20 If beach nourishment or nourishment, inlet relocation or stabilization is rejected by the sponsoring  
21 agency or community, or ceases to be actively planned for a section of shoreline, the time  
22 extension is void for that section of beach or community and existing sandbags are subject to all  
23 applicable time limits set forth in Subparagraph (6) of this Paragraph.

24 (8) Once the temporary erosion control structure is determined by the Division of Coastal  
25 Management to be unnecessary due to relocation or removal of the threatened structure, a storm  
26 protection project constructed by the U.S. Army Corps of Engineers, a large scale beach  
27 nourishment project or project, an inlet relocation or stabilization project, it shall be removed by  
28 the permittee within 30 days of official notification by the Division of Coastal Management  
29 regardless of the time limit placed on the temporary erosion control structure.

30 (9) Removal of temporary erosion control structures shall not be is not required if they are covered by  
31 dunes with stable and natural vegetation.

32 (10) The property owner shall be responsible for the removal of remnants of all portions of any  
33 damaged temporary erosion control structure.

34 (11) Sandbags used to construct temporary erosion control structures shall be tan in color and 3 to 5  
35 feet wide and 7 to 15 feet long when measured flat. Base width of the structure shall not exceed  
36 20 feet, and the height shall not exceed 6 feet.

37 (12) Soldier pilings and other types of devices to anchor sandbags shall not be allowed.

**Draft Amendments October 26, 2011**

1 (13) Excavation below mean high water in the Ocean Hazard AEC may be allowed to obtain material  
2 to fill sandbags used for emergency protection.

3 (14) An imminently threatened structure may be protected only once regardless of ~~ownership~~  
4 ownership, unless the threatened structure is located in a community that is actively pursuing a  
5 beach nourishment project, or in an Inlet Hazard Area and in a community that is actively  
6 pursuing an inlet relocation or stabilization project in accordance with Subparagraph (7). Existing  
7 temporary erosion control structures ~~located in Inlet Hazard Areas~~ may be eligible for an  
8 additional eight year permit extension provided that the structure being protected is still  
9 imminently threatened, the temporary erosion control structure is in compliance with requirements  
10 of this Subparagraph and the community in which it is located is actively pursuing a beach  
11 nourishment, an inlet relocation or stabilization project in accordance with Subparagraph (7) of  
12 this Paragraph. In the case of a building, a temporary erosion control structure may be extended,  
13 or new segments constructed, if additional areas of the building become imminently threatened.  
14 Where temporary structures are installed or extended incrementally, the time period for removal  
15 under Subparagraph (6) or (7) shall begin at the time the initial erosion control structure is  
16 installed. For the purpose of this Rule:

17 (A) a building and septic system shall be considered as separate structures.

18 (B) a road or highway shall be allowed to be incrementally protected as sections become  
19 imminently threatened. The time period for removal of each section of sandbags shall  
20 begin at the time that section is installed in accordance with Subparagraph (6) or (7) of  
21 this Rule.

22 (15) Existing sandbag structures may be repaired or replaced within their originally permitted  
23 dimensions during the time period allowed under Subparagraph (6) or (7) of this Rule.

24 (b) Erosion Control Structures in the Estuarine Shoreline, Estuarine Waters, and Public Trust AECs. Work  
25 permitted by this general permit shall be subject to the following limitations:

26 (1) no work shall be permitted other than that which is necessary to reasonably protect against or  
27 reduce the imminent danger caused by the emergency or to restore the damaged property to its  
28 condition immediately before the emergency;

29 (2) the erosion control structure shall be located no more than 20 feet waterward of the imminently  
30 threatened structure. If a building or road is found to be imminently threatened and at increased  
31 risk of imminent damage due to site conditions such as a flat shore profile or accelerated erosion,  
32 temporary erosion control structures may be located more than 20 feet seaward of the structure  
33 being protected. In cases of increased risk of imminent damage, the location of the temporary  
34 erosion control structures shall be determined by the Director of the Division of Coastal  
35 Management or designee.

36 (3) fill material used in conjunction with emergency work for storm or erosion control in the Estuarine  
37 Shoreline, Estuarine Waters and Public Trust AECs shall be obtained from an upland source.

1 (c) Protection, Rehabilitation, or Temporary Relocation of Public Facilities or Transportation Corridors.

2 (1) Work permitted by this general permit shall be subject to the following limitations:

3 (A) no work shall be permitted other than that which is necessary to protect against or reduce  
4 the imminent danger caused by the emergency or to restore the damaged property to its  
5 condition immediately before the emergency;

6 (B) the erosion control structure shall be located no more than 20 feet waterward of the  
7 imminently threatened structure or the right-of-way in the case of roads. If a public  
8 facility or transportation corridor is found to be imminently threatened and at increased  
9 risk of imminent damage due to site conditions such as a flat shore profile or accelerated  
10 erosion, temporary erosion control structures may be located more than 20 feet seaward  
11 of the facility or corridor being protected. In cases of increased risk of imminent damage,  
12 the location of the temporary erosion control structures shall be determined by the  
13 Director of the Division of Coastal Management or designee;

14 (C) any fill materials used in conjunction with emergency work for storm or erosion control  
15 shall be obtained from an upland source except that dredging for fill material to protect  
16 public facilities or transportation corridors shall be considered in accordance with  
17 standards in 15A NCAC 7H .0208;

18 (D) all fill materials or structures associated with temporary relocations which are located  
19 within Coastal Wetlands, Estuarine Water, or Public Trust AECs shall be removed after  
20 the emergency event has ended and the area restored to pre-disturbed conditions.

21 (2) This permit authorizes only the immediate protection or temporary rehabilitation or relocation of  
22 existing public facilities. Long-term stabilization or relocation of public facilities shall be  
23 consistent with local governments' post-disaster recovery plans and policies which are part of their  
24 Land Use Plans.

25  
26 *History Note:* Authority G.S. 113-229(c1); 113A-107(a),(b); 113A-113(b); 113A-118.1;  
27 Eff. November 1, 1985;  
28 Amended Eff. April 1, 1999; February 1, 1996; June 1, 1995;  
29 Temporary Amendment Eff. July 3, 2000; May 22, 2000;  
30 Amended Eff. May 1, 2010; August 1, 2002. Temporary Amendment Eff. July 3, 2000; May 22,  
31 2000.

**NC COASTAL RESOURCES COMMISSION (CRC)**

**June 20-21, 2012**

**NOAA/NCNERR Auditorium**

**Beaufort, NC**

**Present CRC Members**

Bob Emory, Chair

Joan Weld, Vice Chair

Lee Wynns

Pat Joyce (absent 6/21)

Renee Cahoon

Charles Elam

David Webster

Ed Mitchell (absent 6/20)

Jerry Old

Bill Peele

Veronica Carter

Melvin Shepard

Jamin Simmons

**Present CRAC Members**

Bob Shupe

Charles Jones

Tim Tabak

Ray Sturza

Kristen Noble

Dave Weaver

Steve Myers

Missy Baskervill

W.H. Weatherly

Bill Morrison

Anne Deaton

Wayne Howell

Webb Fuller

J. Michael Moore

Harry Simmons

Bert Banks

Judy Hills

Bryant Buck

Tracy Skrabal

Spencer Rogers

Lee Padrick

Boyd Devane

**Present Attorney General's Office Members**

Jennie Hauser

Christine Goebel

Amanda Little

**CALL TO ORDER/ROLL CALL**

Bob Emory called the meeting to order reminding the Commissioners of the need to state any conflicts due to Executive Order Number One and also the State Government Ethics Act. The State Government Ethics Act mandates that at the beginning of each meeting the Chair remind all members of their duty to avoid conflicts of interest and inquire as to whether any member knows of any conflict of interest or potential conflict with respect to matters to come before the Commission. If any member knows of a conflict of interest or a potential conflict of interest, please state so when the roll is called.

Angela Willis called the roll. No conflicts were reported. Based upon this roll call, Chairman Emory declared a quorum.

## VARIANCES

Weber (CRC VR-12-03) Emerald Isle, Oceanfront Setback  
Amanda Little

Amanda Little of the Attorney General's Office appeared and presented argument on behalf of the Division of Coastal Management. Petitioner George Weber was present and represented himself.

Petitioner proposes to construct a roof over an existing oceanfront deck located at 2205 Ocean Drive in Emerald Isle. On March 13, 2012 the Town of Emerald Isle Local Permit Officer denied petitioner's application based on the proposed development being inconsistent with 15A NCAC 07H .0306(a)(8)(D) which states in pertinent part that, "No portion of a building or structure, including roof overhangs and elevated portions that are cantilevered, knee braced or otherwise extended beyond the support of pilings or footing, extends oceanward of the landward-most adjacent building or structure". Ms. Little reviewed the stipulated facts for the variance request. Staff and Petitioner agree on three of the four variance criteria. Staff disagrees with Petitioner on the second statutory criteria which must be met in order to grant the variance. Staff disagrees that there is any specific location, size or topographical condition peculiar to this property. However, Staff does acknowledge that the petitioners are being penalized due to their neighboring house to the east that is noticeably landward of the predominant line of development along this area of beach.

George Weber stated he understands the purpose of the regulations and is not going to go oceanward. All of the homes that you see were built in approximately 1979 with the exception of the home to my east. It was built nine years after my home was built and was built more landward than any of the other homes in this area. The overhang will protect my property. The deck and carpet take a beating because of the sun. Additionally, our home is the only home in the area that does not have a covered porch.

**Renee Cahoon made a motion to support Staff's position that strict application of the applicable development rules, standards or orders issued by the Commission cause the Petitioner unnecessary hardships. Melvin Shepard seconded the motion. The motion passed with ten votes in favor (Webster, Joyce, Simmons, Wynns, Peele, Weld, Shepard, Old, Cahoon, Elam) (Carter abstained).**

**Renee Cahoon made a motion to support Petitioner's position that hardships result from conditions peculiar to the petitioner's property. Jerry Old seconded the motion. The motion passed with ten votes in favor (Webster, Joyce, Simmons, Wynns, Peele, Weld, Shepard, Old, Cahoon, Elam) (Carter abstained).**

**Renee Cahoon made a motion to support Staff's position that hardships do not result from actions taken by Petitioner. Charles Elam seconded the motion. The motion passed with ten votes in favor (Webster, Joyce, Simmons, Wynns, Peele, Weld, Shepard, Old, Cahoon, Elam) (Carter abstained).**

**Renee Cahoon made a motion to support Staff's position that the variance request will be consistent with the spirit, purpose and intent of the rules, standards or orders issued by the Commission; will secure the public safety and welfare; and preserved substantial justice. Melvin Shepard seconded the motion. The motion passed with ten votes in favor (Webster, Joyce, Simmons, Wynns, Peele, Weld, Shepard, Old, Cahoon, Elam) (Carter abstained).**

This variance request was granted.

## **LEGISLATIVE UPDATE**

Robin Smith, DENR Assistant Secretary, provided a status report on pending legislative issues. The budget proposed by the House reduced DENR's budget by another 1.7% (on top of the 2011 reduction of about 12.5%). The House proposal specified where the cuts should be taken and some of the cuts identified would be very problematic – such as cutting positions in the sedimentation program and reducing the budget for the seven Regional Offices by about \$350,000.00. The Senate proposed a budget with a 2% reduction, but in the form of a flexibility cut that did not specify where the reductions had to be taken. House and Senate conferees have been meeting to resolve the differences. In substantive legislation:

**H819** addresses sea level rise. Sea level rise added to the bill by the Senate restricted the way state agencies, including the CRC, could determine the rate of sea level rise and also limited the use of that information. The House did not concur with the Senate language, so the bill has been sent to a conference committee to work out the differences. Representative McElraft made the motion on the House floor to not concur in the Senate bill and said that her desire was to have this turned into a study of sea level rise and how to best evaluate it.

Three different bills propose to create a grandfather provision on the new oceanfront setback rules. One version of the grandfather provision appears in **S229** (the annual catchall bill that amends environmental statutes); the language incorporates a number of technical suggestions from DCM staff and reflects the way the CRC has dealt with other exceptions to the setback rules. S229 has passed the House and gone back to the Senate for concurrence. S229 also addresses the grant funds that DCM awarded to the Town of Carolina Beach for construction of an ocean pier in conjunction with the state's aquarium at Pine Knoll Shores. Since completion of Jenette's Pier in Nags Head, state participation in the construction of publically owned ocean piers has become very controversial. S 229 would allow the Town of Carolina Beach to retain coastal waterfront access grant funds for land acquisition that had originally been proposed in connection with a second state-local ocean pier project.

The Boards and Commissions Efficiency Act (**S 851**) would have made changes to a number of state boards and commissions and eliminated a significant number of smaller boards. DENR, with input from DCM, sent comments to the bill sponsor and legislative staff expressing concern about proposed changes to the CRC and CRAC. The signs seem to be that this bill will not go anywhere this session. This year's regulatory reform bill (**S810**) makes a number of amendments to the state's Administrative Procedures Act. Several provisions are new and of concern to DENR. Section 7 of the bill changes the criteria for awarding attorney's fees to a party in an administrative case to make those criteria very similar to the standards for winning a contested case. DENR thinks that it is problematic to require a state agency to pay a party's attorney's fees based simply on a finding that the state agency made an error. That is particularly a problem for permitting agencies like the CRC that may be in the middle of a three way controversy with the permit applicant on one side and someone who opposes issuance of the permit on the other. In those cases, any outcome may result in a party being entitled to attorney's fees. There is also a requirement in the bill for additional permit tracking. DENR reports annually on permit processing time (from receipt of a complete application) for many development permits; that report covers CAMA permits and coastal stormwater permits. The new provision would require the report to also show the time that a permit application is on hold for additional information.

## ACTION ITEMS

### **Land Use Plans**

#### **New Hanover County LUP Amendment (CRC 12-13)**

John Thayer stated there are four land use plan amendments before the Commission today. The first is the New Hanover County/City of Wilmington joint land use plan. Because it is a joint land use plan each of the jurisdictions can amend the plan separately without requiring a hearing by the other agency. In this request the county is requesting to redesignate four parcels on the land use plan map changing it from a resource protection designation to a transition designation. Staff has reviewed the paperwork and the amendment and found that the process has met the substantial requirements of the 7B guidelines and there are no apparent conflicts with the state or federal rules. The public has had an opportunity to provide correspondence and we have not received any. Staff recommends the certification of this amendment.

**Charles Elam made a motion to certify the New Hanover County land use plan. Joan Weld seconded the motion. The motion passed unanimously (Webster, Joyce, Simmons, Wynns, Peele, Weld, Shepard, Carter, Old, Cahoon, Elam).**

#### **Town of Topsail Beach LUP Amendment (CRC 12-14)**

John Thayer stated this is an amendment to the Topsail Beach (not North Topsail Beach as indicated on the agenda and memo) land use plan. Topsail Beach is requesting an amendment to the policy provisions in their plan related to inlet hazard areas. Staff has reviewed the request and have found that there are no conflicts with the 7B guidelines and it has met the substantive requirements. The public has had the opportunity to provide written comments and we have not received any. Staff recommends the certification of this amendment.

**Joan Weld made a motion to certify the Topsail Beach land use plan amendment. Veronica Carter seconded the motion. The motion passed unanimously (Webster, Joyce, Simmons, Wynns, Peele, Weld, Shepard, Carter, Old, Cahoon, Elam).**

#### **Town of Swansboro LUP Amendment (CRC 12-15)**

John Thayer stated the Town of Swansboro wants to expand their urban waterfront designation area in the land use plan involving several parcels and make some policy text changes within the document. Staff has reviewed this request and has not received any comments regarding the amendment. Staff has determined that it meets the substantive requirements of the 7B guidelines and recommends certification.

**Bill Peele made a motion to certify the Town of Swansboro land use plan amendment. Veronica Carter seconded the motion. The motion passed unanimously (Webster, Joyce, Simmons, Wynns, Peele, Weld, Shepard, Carter, Old, Cahoon, Elam).**

#### **Pamlico County LUP Amendment (CRC 12-16)**

John Thayer stated the Pamlico County LUP includes several municipalities including the Town of Minnesott Beach. Since it isn't a joint plan, the Town of Minnesott Beach needs to work through the County's Board of Commissioners in amending the land use plan. This amendment proposes to move some text language within a policy statement related to dry stack storage facilities in Minnesott Beach. The policy only applies to the Town of Minnesott Beach. The amendment does meet the substantive requirements and we find no apparent conflicts with state or federal rules. We have not received any comments and staff recommends certification of the Pamlico County land use plan amendment.

**Melvin Shepard made a motion to certify the Pamlico County land use plan amendment. Pay Joyce seconded the motion. The motion passed unanimously (Webster, Joyce, Simmons, Wynns, Peele, Weld, Shepard, Carter, Old, Cahoon, Elam).**

### **MINUTES**

**Melvin Shepard made a motion to approve the minutes of the April 19, 2012 and May 24, 2012 Coastal Resources Commission meetings. Jamin Simmons seconded the motion. The motion passed unanimously (Weld, Wynns, Cahoon, Elam, Webster, Old, Peele, Carter, Shepard, Mitchell, Simmons).**

### **EXECUTIVE SECRETARY'S REPORT**

DCM Director Braxton Davis gave the following report.

It has been a busy few months at since the April meeting. In your information packets there is a DCM Update Memo, we've also provided a hard copy for today's meeting. As with your last meeting, we have begun providing this as a standard part of your packets to provide a little more detail on ongoing activities at DCM in terms of permitting, enforcement, rule development, planning and Coastal Reserve activities, and we'd appreciate any feedback you might have. We are also in the process of closing out our fiscal year at the end of June and are happy to have Arthur Stadiem, our Budget Officer, back on board at DCM.

For today's meeting, we developed an agenda with the Executive Committee to address several important program areas. First, we will hear from Ray Sturza on the continuing, and we believe very promising, progress being made by the CRAC on understanding and improving public shoreline access. Next, as you will recall from the last meeting, the next steps on the draft sea level rise policy were for DCM staff to edit the draft to remove any language that might be unnecessarily controversial and based on comments from Commissioners over the past couple of meetings, and then to send it back to the Estuarine and Ocean Systems Subcommittee before reconsidering its release for public hearings. Today we'll hear a report from Commissioner Peele, who chairs that subcommittee, on the results of their discussions yesterday. Then we will hear from staff in DCM's Regulatory program. We wanted to provide the Commission with a basic update and general refresher on our permitting process, our focus on customer service, our new "tiered enforcement" policy and our focus on compliance assistance. There is no action item associated with this session, but we hope that you'll benefit from the opportunity to ask questions about our process and provide any feedback that you might have.

We will also have an update from John Thayer on the 7B LUP Guidelines Review, and then I will discuss efforts within DCM to strengthen our engagement with local governments and build on past experience with the LUP process. Mike Lopazanski will then update us on the status of proposed rules and then we will wrap up with presentations on a new effort within DENR to advance, where appropriate, living shorelines or preferred alternatives to traditional, vertical shoreline stabilization methods. An essential part of this involves DCM's continuing investments in shoreline mapping and analysis, and we'll get an update from Kevin McVerry on those efforts.

On another note, I have inquired about CRC appointments with the Governor's office. The two new appointments are still in process and should be announced soon. There is no news on re-appointments.

Finally, as we discussed at your last meeting, the August meeting will be held in Sunset Beach at the Sea Trail Convention Center. We are planning to then move up the coast for the November meeting and welcome suggestions for future meeting locations.

### **CHAIRMAN'S COMMENTS**

Bob Emory stated since the last meeting I have had a lot of opportunities to talk about our draft sea level rise policy. We had a productive committee meeting to move it along to the next step. Staff's edits have made it what we intended it to be which is for education, understanding and outreach. Braxton and I visited Bald Head Island to look at some of the issues they are facing down there and it was an informative and productive day.

### **CRAC REPORT**

Ray Sturza stated the CRAC worked on public beach access and coastal resource access programs. In previous meetings we have discussed the ocean access program and estuarine programs, but yesterday we took a different focus and saw a presentation from DMF that brought us up to speed on grant programs that are available for transient mariners. Money is available for the construction of docks and makes our waterways more accessible. In addition to that we had a presentation on the North Carolina Conservation Tax Credit program that allows for the donations of land. This land can be used for public access. At our next meeting we will try to put together a recommendation for the Commission. We also had a presentation from DWQ on permeable surfaces and how it affects the stormwater programs and their BMPs. DWQ has come to the conclusion that permeable surfaces, particularly permeable concrete, are being recognized as a valuable tool in addressing stormwater management. Using this new surface, the dependence on retention ponds might not be as prevalent as it has been in the past. We also heard a presentation from Spencer Rogers talking about some of the practices that are in place that were not intended to address sea level rise, but were to mitigate storm hazards, and do address changes that occur as a result of storm activity and address sea level rise.

### **PRESENTATIONS**

#### **Sea Level Rise Adaptation in North Carolina Spencer Rogers**

Spencer Rogers stated that sea level has been a controversial issue in North Carolina in recent days. One of the frustrations for me is that in one of the first college classes I had in coastal processes the first thing we addressed was sea level rise. Sea level has never been a constant and has always been changing. It has mostly been rising in my lifetime. The debate over the issues is something we handled forty years ago and not something we are dealing with today. One of the frustrations for North Carolina is that while we are being made fun of, North Carolina is way ahead of other states in dealing with sea level rise. Today I will talk about putting the Science Panel's recommendations in a perspective that may be a little easier to understand and talk about things that have been done in North Carolina to address adaptation. There are lots of issues around sea level rise and education is extremely important to understand what the risks are and what the consequences might be. I am interested in the adaptation part. Adaptation in other hazards is known as mitigation, but in terms of sea level rise it is called adaptation. Sea level rise has some pretty serious consequences and there are barriers that make it less than easy to present to the public to get them to do something. One of the problems is it is an imperceptible change. You can't go out and look at it today and see that sea level is rising. It is something that is going to occur over decades or hundreds of years. The worst consequences are way in the future. The science is far from perfect. Predicting climate over the next hundred years is not an easy process. Anybody that attempts to do it will tell you there is a

high error bar. We are used to dealing with things that are much more certain and immediate. In the case of sea level rise it is something that is 100 years in the future and the accuracy of the models is probably around 50%. The debate in science for something like this is never pretty. If somebody makes a prediction then someone else is going to try to rip it to shreds. The other issue that is unusual is that it has gotten into a political debate and it is now more a belief than a science. If you look at the various predictions that have been made over the last 20-30 years, most of the predictions center around one meter. The upper end is around two meters. The Science Panel's recommendation is one meter. This is a serious number. Anyplace in North Carolina with that much rise is going to be a pretty serious problem. But the real issue is that is in 2100 so it's not the best way to look at sea level rise. You don't have to be rocket scientist to understand tides, but it helps. Tides are driven by the sun and the moon and their relative position over time. Eighty percent of the tides are driven by the moon and the other twenty percent by the sun. If you look at the alignment of those they change the elevation of the tide. If you really want to know what the tide is doing then you have to look at astrophysics or about 20 years of tidal records in order to come up with a trend in sea level rise. It is not a trivial exercise to measure and predict trends in sea level rise. The tide range in the northern part of the state is about three feet and about five feet in the southern parts of the state. It is a significant challenge. The Science Panel has recommended a one meter prediction by 2100, which is 90 years in the future from when the report came out. This is a pretty scary number. But in terms of using that number, no one is planning for anything in 2100. Probably no one in the room is alive in 2100. So is this the most realistic way to look at a one meter rise in sea level? I think it isn't. As the CRC has done in the past, I think a better way to look at it is in a 30 year time limit which is the lifetime of a typical mortgage or for setbacks in the CRC's case. The other issue that is important is that the line that the Science Panel gave you is not a straight line. A straight line would imply that in 2010 there was going to be a drastic change in acceleration that would instantly occur. But what the Science Panel gave you and is typical in most of the climate models is a gradually accelerating rate of increase over time that is heavily loaded on the back end. If you look at what the Science Panel gave you, at the 30 year point the total amount of sea level rise suggested for planners is eight inches. Of those eight inches, only three inches of that is the acceleration. With all the controversy in North Carolina over accelerated sea level, in the next thirty years the Science Panel is telling you to plan for three inches of acceleration. To put that into annual terms, if you look at the linear rate of one meter, the rate of sea level rise per year is a stack of six nickels. The historical rate of rise at Duck is two nickels thick per year for the next thirty years. If you look at acceleration then it is a little more than three nickels thick for the next thirty years. What we are looking at in the shorter term is actually a fairly small number. If you look at what we should expect to see in sea level rise it is not something that we will ever identify on its own, but what we will see is more frequent flooding shallow water flooding and we will have slightly higher extreme flood events.

A number of things have been done over the years in North Carolina. North Carolina adopted the second oldest hurricane building code in the United States. The importance of that is that when you visualize a beach house, the picture that pops into your mind is an elevated house with under-house parking. If you came to North Carolina before the 1950s when we got seven major hurricanes, the normal construction was just like inland buildings. In the 1960s the building code Council adopted a requirement for the first 150 feet back from the ocean. They required that you be elevated on a piling foundation and that you had to be above the highest watermark. There was a major shift from on-ground construction because of what was initiated by the building code. The interesting thing to me is that there was a narrow requirement, but they wanted it eight feet tall and under house parking and it was an individual choice not because of the requirement. This has made a profound effect with houses on pilings surviving hurricanes. Another program that came in later was the National Flood Insurance Program. One issue on adaptation is building higher than the minimum

requirement. This is called freeboard. The flood insurance requirements say that you have to be at a certain elevation above sea level. A freeboard is something that an individual or a community can adopt to build higher than that. The importance of that is not well understood in part because the 100-year flood has a 1% chance in any given year is perceived to be a pretty high standard. If you look at the actual performance of those, the 100-year standard is not that high compared to most other building standards. The importance of freeboard is a safety factor that elevates you above the 100-year flood and the consequences of that are a high standard. If you look at it over the lifetime of an average building then it is a 51% risk of exceedence. If you are building a new house without freeboard then there is a 50-50 chance you will exceed it. There are a couple of things that support freeboard requirements in North Carolina. One is the Community Rating System which is part of the National Flood Insurance Program. It is designed to improve flood hazard awareness, improve preparedness, and reduce flood damage. For each foot of freeboard that a community adopts, there is a about a 1% discount for every flood insurance policy. There are 112 coastal communities in the 20 coastal counties. If we look at the freeboard requirements that have been adopted already three percent of these communities have adopted three feet, 46% of the communities have adopted two feet, and 61% of the communities have adopted greater than one foot as of March 1, 2012. On March 1, 2012 the North Carolina State Building Code adopted a one foot freeboard requirement for the entire state. This was not done for sea level rise, but for flood preparedness. There are financial incentives for individual owners to build higher than you have to. That has been built into the flood insurance program since 1976. Another thing we have done in North Carolina is used erosion rates to apply the oceanfront setback. Sea level has been rising over time and is included in the erosions. We have already added the historical rate to our erosion rates. If you look at the erosion rates in the state, half of the state is eroding at one foot per year or less. The other half of the state is eroding at more than one foot per year. Don't think that the only driver for erosion problems is sea level rise. It is actually a small part of a long-term problem. There are already flood problems and other storm issues that are out there today. The real important issue is to look locally at what the issues are and what is the best way to make adaptation for all of these hazards in the future. If we focus too much on sea level rise then we are going to miss the current problems. For the last four years we have been working intensely with the Texas coast and the follow up of Hurricane Ike. If you look at the consequences of that storm, there were 6,000 buildings before Ike and 2,000 left after the storm. You don't have to market adaptation down there. The property owners are well aware of what the consequences are because they have all of these examples next door.

### **ESTUARINE AND OCEAN SYSTEMS COMMITTEE REPORT**

Bill Peele stated CRC Chairman Emory opened the meeting by saying that he hoped the committee would agree on a version of the draft sea level rise policy to forward it to the Commission. Introductory comments were made by Braxton Davis. Braxton stated DCM would benefit from the policy by providing context for continued work on sea level rise. He also said that DCM is expected to have some expertise on sea level rise and should be able to provide information and assistance and be able to partner on local, statewide and regional sea level rise related efforts. With this policy, the Division could continue to make progress on research and monitoring, working with partners and developing educational and outreach materials. These activities are in line with ongoing efforts to address other coastal hazards. The policy would be guidance from the CRC about how to proceed on future research, education, and interactions with local governments and other stakeholders. Without the policy the staff and our partners would be somewhat uncertain of our role.

Commissioner Peele said we need to be proactive, smart and discuss multiple viewpoints and community needs. It is important to allow room for the options of those who question sea level rise and global warming. I hope that those who do not believe in sea level rise will become educated enough to allow for the possibility of it existing. How we study sea level rise is important and we need to agree on a strategy, system and parameters. We need to think about expected impact zones, develop assessment tools and record data over time. We need to think about response thresholds and adaptation strategies. We need to be prepared to address short-term and long-term infrastructure needs that are practical and affordable. This is not the time to pack up and retreat, but it is time to think about vulnerability. There are many questions such as when and where the biggest impacts will occur, but we need to education ourselves and the public on becoming prepared to face the reality that sea level rise could have more of an impact in the coming decades than it did in the last 50 years.

Tancred Miller reminded the committee of the major changes that the CRC made to the draft policy in February 2011. The one meter planning benchmark was removed from the draft. The draft policy does not contain any numbers, rates, ranges or planning benchmarks. The draft does not contain any projections of future sea levels or acceleration. The draft does not and should not have any regulatory impact. The draft will not require revision to local land use plans and will not be used for development permitting. There was little discussion about the draft and only minor changes were made by the Committee. Spencer Rogers made a motion to accept the staff's revised version, including the committee's changes, and forward it to the full Commission. Melvin Shepard seconded the motion. The motion passed by a vote of 8-0. The Committee is delivering the draft policy to the CRC with a recommendation that the CRC consider it for public comment. Please note that the committee is not recommending that the CRC take action today. Staff is seeking confirmation that whatever draft the Commission concludes with today is intended to be the public hearing draft and can be sued in preparing a fiscal analysis. If so, staff will post the new draft on the DCM website and prepare the fiscal analysis. The draft policy and fiscal analysis will appear on the CRC's August agenda as an action item to adopt for a series of public hearings.

**Renee Cahoon made a motion to accept the Committee's report on the sea level rise draft policy. Veronica Carter seconded the motion. The motion passed unanimously (Webster, Mitchell, Simmons, Wynns, Peele, Weld, Shepard, Carter, Old, Cahoon, Elam).**

## **PRESENTATIONS**

### **DCM's Regulatory Process**

#### **Customer Service Focus**

#### **Ted Tyndall**

Ted Tyndall, DCM Assistant Director, provided an update on the regulatory process and reviewed directives from the Legislature and DENR. The regulatory role is a complicated process balancing good customer service with environmental and resource protection. For years we had two sections or units called permitting and enforcement. That section is still the same today, but enforcement is now called compliance. We are trying to guide the applicant through the process to ensure project compliance. The Division is set up into four districts. There are offices in Elizabeth City, Washington, Morehead City and Wilmington. This covers all 20 coastal counties. This was set up for several reasons, but the primary one is to ensure the public has easy access to staff. It also recognizes that there are regional differences that staff in that area will have local knowledge of. We have a regulatory staff of 31. In a response to budget cuts and in an effort to streamline

government we have combined several positions. In 2007-2008 DCM had 39 staff. In 2007-2008 the economy was booming and permit numbers were high. Permit processing times were also high. This was typical across DENR. The Department held a series of listening sessions to address customer service as well as improve processing times. The result was not more rules but better enforcement of the existing rules. The Department developed four positions for compliance and enforcement to actually be out in the field and monitor projects. The Department assigned these four to DCM. In our protocol, we are out in the field everyday face to face with applicants. Violations went down as a result. DENR then expanded it across the other Divisions. Since 2008, DENR has taken a 40% cut in its budget. Secretary Freeman emphasized customer service. Processing times for Major Permits in 2011 averaged 85 days. For the first quarter of 2012, it averaged 72 days. General Permits allow for an expedited review. On average, it takes about 7 days to get a permit. The CRC has approved 17 General Permits. Coordination with state and federal agencies for a template of conditions and comments allows for an expedited review. In FY 2010-2011 staff issued 1,759 General Permits. A recent audit of the Express Permitting program was conducted and expanded into the total Major Permit program. We used the opportunity to examine our process. Processing time improvement became our commitment. One important customer service aspect is our hurricane planning and DCMs response. During Hurricane Irene the Secretary implemented the Emergency GP. It allowed for the rebuilding of storm damaged structures with no permit fee for one year. It was implemented August 29, 2011 and up to today we have issued 850 replacement permits under GP .2500. It is still valid and effective through the end of August 2012. Staff was ready. The assessment of the coast was done with local governments and staff had the Emergency GP on the streets within two days. Our staff also had permits to NCDOT for NC-12 and its bridges within a few days. DENR has implemented a new three-tiered approach to enforcement. This allows for flexibility in responding to regulatory violations and deficiencies. It gives us more latitude to look at harm and repetitive nature to be more responsive to particular violations. It is working well.

## **Major Permits**

### **Doug Huggett**

Doug Huggett, DCM Major Permit Coordinator, stated the CRC manages and is the rulemaking body for CAMA. Also under the CRC's authority is a regulatory law that precedes CAMA and that is the state Dredge and Fill Law. The state Dredge and Fill law came into effect in the late 1960s and says that any time before you do any excavation or filling within an estuarine water, tideland or coastal wetland then you have to get a permit. That permit program was established before CAMA came into effect. When CAMA came into effect in 1974 the Legislature had the foresight to realize that there were some similarities in these two permit programs and they put the authority for rulemaking under the CRC and the active management of DCM. In the CRC's rules it says the intent of the authority is not to stop development, but rather to ensure the compatibility of the development with the continued productivity and value of certain critical land and water areas. Not everyone realizes that CAMA is a balancing act. One thing that is important to understand is that CAMA, the Dredge and Fill Law and the CRC's regulations require a significant amount of coordination between DCM and other state and federal resource agencies. The State Dredge and Fill Law originally required that permit applications be submitted to appropriate state and federal agencies for review and comment. CAMA said the same thing when it was drafted. In 7J .0207 of the CRC's rules it was further codified in regulation requiring that applications be submitted to several state agencies having expertise in various criteria. Each of these reviewing agencies may make comments back to DCM as part of the permit process. Each reviewing agency may request

additional information if such information is deemed necessary for a thorough and complete review of the application. DCM is the manager of this umbrella permit program. We are not just coordinators of the application process. Just as we view DMF as an expert agency on fisheries resources, DCM is an expert agency on certain resources such as navigation, oceanfront setback requirements, sediment criteria, and coastal wetlands. 7J .0209 says DENR will make a final decision with respect to a permit application upon considering the field investigation report, the comments of all interested state agencies as well as the comments of adjacent property owners and members of the interested public. There are findings that have to be made by DCM before a permit can be issued. We have to make sure projects won't have adverse impacts to public trust rights and biological and physical functions of an estuary, we have to make sure that navigation channels are not adversely impacted, projects won't increase shoreline erosion, won't cause adverse water circulation patterns, violate water quality standards, won't cause degradation of shellfish waters, projects must have a finding that there will be a minimum adverse impact on the productivity and biological integrity of marshes, shellfish beds, SAVs, spawning areas, waterfowl habitats and erosion barriers. We have to make a determination that a project will not violate a state water quality or air quality standard. We have to make a determination that our cultural resources will not be adversely affected. We have to make sure projects are timed properly so they don't have an adverse impact on larval fish or sea turtles. We have to make sure the development is not done in such a manner that it will impede or create a significant interference with access to public trust or estuarine waters. We have regulations that we have to make sure that navigation channels will not have adverse impacts to fisheries and water quality. Maintenance excavation of existing basins and channels can only take place as long as they won't lead to a significant adverse impact to nursery areas and beds of SAV. When permitting a marina we have to make a determination that the siting of the marina will not lead to a closure or expanded closure for waters that are open to the taking of shellfish. We have to make a determination that the development will not result in a violation of any other rule, regulation or law of the state of North Carolina or local government in which the development takes place. Combine all of the things that are defined as coastal resources with all of the findings that we have to be able to make on every project before we issue a permit and think about the expertise necessary to make these determinations. Permit decisions include Major Permits, major modifications to existing permits, and permit denials. In 2006, we had 230. In general over the past 5-10 years we have been around the 175-200 range of permits issued per year. We haven't seen that much of drop off as a result of the economic downturn. We have seen a change in development type. During the time when the development was booming, we were seeing large numbers of large residential subdivisions, large marinas, new cities, and lots of commercial activity. With the economic downturn we are seeing individuals develop their properties for their own use. We are also seeing more Wildlife Resources Commission applications for boat ramps. We have seen some stimulus money projects. We have also seen an increase in beach nourishment and inlet relocation projects as local governments try to deal with the continued decrease in funding at the federal level for federally sponsored beach nourishment projects. In the first quarter of this year we have done 26 permits. Our average processing times over the last few years were higher than we need to be. We were in the 90-100 day range. We have tried some tweaks over time, but they weren't working. In early 2011 hearing the messages that were coming in and knowing the environment that we are living in now, we have implemented some more aggressive changes to the permit process to try to get the processing times down. In 2011 there was a 14-day improvement from the previous year. In the first quarter of this year there has been another 13-day improvement. Our desire is to keep doing everything we can to make this a priority and keep the downward trend going. A second part of improved customer service is not compromising the environmental protection that our process is about. We have talked to our resource agencies and they are receptive to trying to get us our comments quicker. We are also letting them know that if it is a simple

project then we may be moving forward without some agency comments if we are sure that the agency wouldn't have a problem with the project. In the past we have deferred in total to our resource agencies about their expertise. However, with the court case that was heard at the last meeting it has reiterated that we have to consider the other agency comments, but it is DCM's assessment of the validity and the logic of the objections as well as any additional information requested. This has helped take days off of the permit processing clock. There are also built in benefits to the CAMA Major Permit process. Our application process also serves as applications for four other permit programs at the state and federal level in total and three others partially. This can result in a significant time and cost savings to the applicant. DCM collects fees for both the CAMA permit and the DWQ Certification permit jointly. The collection is usually a cost savings to the applicant over what it would be if they had to pay two separate fees. DCM staff guidance to applicants is a critical part of what we do throughout the process. We also coordinate the application with local governments to ensure that the project meets zoning requirements and other enforceable policies of the local government.

### **Compliance and Tiered Enforcement (CRC 12-18)** **Roy Brownlow**

Roy Brownlow, DCM Compliance/Enforcement Coordinator, stated the Regulatory Reform Act became law on July 25, 2011. It directed the Secretary of DENR to develop a uniform policy for notification of deficiencies and violations of all the regulatory programs within the Department. Under the Act the Secretary was required to report on the development of a tiered enforcement policy to ensure that the Department's enforcement response is consistent with the type of violation and scale of environmental impacts. The Department's report was submitted to the Joint Select Regulatory Reform Committee on October 1, 2011 and included the Division's policy for implementing DENR's three tiered approach to enforcement. Pursuant to the Act the new policy became effective on February 1, 2012. Tiered enforcement is really nothing new to DCM. We have always had an approach of fair but firm enforcement. In 1985, the CRC approved an informal enforcement policy for minor development violations. We have incorporated that enforcement process into the new tiered policy. In 1989, the Director issued authority to District Managers to issue proposed civil penalty assessments. This streamlines and expedites the enforcement process. In 2007, we added four new compliance positions for enhanced monitoring as a result of CHPP. This has been successful in being proactive in preventing violations before they occur. NCGS 113A-126(d)(4) provides the eight criteria that the CRC shall consider when establishing a civil penalty. This is the same criteria that we use in assessing the appropriate level of enforcement for the nature of the violation. We give special consideration to the degree and extent of harm, duration and gravity, the effect on water quality, resources or public trust uses, willful and intentional violations and the prior record of the violator. DCM enforcement tiers are tailored as necessary to address the specific circumstances of a violation. Tier 1 is the least significant and Tier 3 may need to issue an injunction or a notice of continuing violation. Tier 2 and 3 both issue civil penalties. DCM's penalty matrix that the CRC approved in 2008 already follows this tiered level of enforcement. Tier 1 violations are issued a cease and desist or warning letter. For minor development it has to be a permissible offense. This would be development that could have received a permit if applied for prior to the work being complete. The work must still be in progress. The violator must not have had any previous violations. For major development violations, as long as it could have been issued a General Permit, the work is still in progress, the violator has not had any previous violations, and does not involve dredge and fill activity in estuarine or public trust waters or coastal wetlands. Any other violations that are de minimis in degree or harm to coastal resources would be a Tier 1 violation. While there is no civil penalty

associated with Tier 1 violations, they are assigned a case number and it will be on record. For Tier 2 violations the respondent will receive a notice of violation with the minimum amount of civil penalty under minor development violations. It has to be a permissible offense, the work is complete, and there have been no previous CAMA violations. For Tier 2 major development violations the work has to be permissible under a General or Major Permit, the work must be complete, there cannot be any previous CAMA violations, and the violation cannot involve any serious or significant dredge and fill activity in estuarine or public trust waters or coastal wetlands. Non-permissible minor/major development but resources are recoverable and restored to pre-development condition can be issued the minimum civil penalty. Tier 3 violations are continuing minor and major violations due to failure or refusal to restore or bring the development into compliance. Sometimes we have to seek an injunction to get them to restore. This usually results in a higher civil penalty. These violations are willful and intentional in nature. The violations involve significant, unauthorized dredge and fill activity within estuarine or public trust waters or coastal wetlands. If the respondent has previous CAMA violations then additional penalties are automatically tacked on. There are also situations where the violation is of such a degree, gravity or duration that significant environmental harm has been documented.

**Land Use Planning Process**  
**7B Guidelines Review – Update (CRC 12-19)**  
**John Thayer**

John Thayer, DCM AICP Manager, stated the current 7B rules became effective in August 2002. At that time the 7B guidelines were totally rewritten. CAMA calls for the CRC to review its rules every five years. Historically that has meant that there are amendments to the rules and parallel to our grant program there were another round of land use plan updates. This review effort is based on CAMA's requirement. The review was delayed for several years due to ensuring that most of the land use plans were completed rather than review the rules at the same time that the plans were in progress. The CRC's committee is made up of three CRC members and four CRAC members. Frank Rush chairs this committee. The committee has met about seven times and has reviewed the rules. At the beginning of the review process there were several assumptions. The first was that there weren't any major changes that were necessary and it would be mostly clarifications. The one exception was the possible consideration of state initiatives. There was a presumption at that time that there might be some rule work by the Commission dealing with subjects like the BIMP, working waterfronts, on-shore and off-shore wind machines, stormwater rules, estuarine shoreline mapping, and sea level rise. Additionally the assumption was that most of the issues would be addressed in a separate technical manual that helps assist the consultants and communities with updating the land use plan. When we adopted the 2002 rules, parallel to that a technical manual was prepared. Unfortunately there were a lot of gaps in the technical manual. The existing 7B guidelines do not have any definitions. One of the things that is being considered is adding a series of definitions relative to the terms that are used in the rule. Another area is public access. One of the soft spots in the planning effort by local governments is getting existing access sites to be identified and inventoried. There is also the question of access opportunities that are quasi-public or commercial in nature. There is a feeling that somehow that needs to be recognized in the land use plan process because public access isn't simply a facility that's owned, operated and managed by the governmental agency, but sometimes marinas or other facilities serve that purpose. We are trying to include the need to look at the historic and traditional access locations that aren't controlled by a governmental agency. 7B changed the most in the natural hazards area. We developed software to do a land suitability analysis. Most of the local hazard mitigation plans are

not pre-planning documents from a land use planning standpoint. Their emphasis seems to be more on post-disaster and response. Hazards are not just natural. It is also chemical storage areas and waste sites. The existing rules are silent to military interest areas. There has been some discussion on putting in language dealing with federal consistencies. We forward policy to OCRM. If they accept it then it can be used in the consistency determinations. There is an orphan paragraph in the rule that has to do with analysis. We want to clarify this and provide its own subsection. The Committee has not discussed when the plans should be updated. The current rule says within six years of the effective date of the rule the local plan is required to be updated. I know the committee would like to get closure and this will hopefully happen in one or two meetings. Then we could come to the CRC to move forward.

### **Land Use Planning Future Direction** **Braxton Davis**

Braxton Davis, DCM Director, stated the State Coastal Management programs that I have seen and worked with that have strong connections with local governments are some of the most successful and stronger coastal programs in the country. In CAMA the opening findings talk about the importance of partnering with local governments and it lays out the framework for the Minor Permit program and the land use planning program. It is a fundamental part of the philosophy of CAMA. One of the first things I wanted to do was get out and meet with the local governments. I have been more successful in meeting with beachfront communities, but I look forward to getting to all 20 coastal counties. During those meetings I have tried to emphasize the feeling amongst staff that we want to work with local communities in a supportive and cooperative way. The LPO program is the front line of the CAMA permitting process. We want to strengthen that program and support them. We also want to support the CRAC. We want to make sure they have the support to meet and get the staff support that they need. We have been talking about the future of the land use planning program. It is a good time to think about re-envisioning the future of the program as a core part of CAMA. We want to make sure the 7B review committee has a chance to finish its analysis. We also want to develop an internal analysis on plan contents and formats in the coastal communities. We would like to do some listening sessions later this fall to meet with communities and talk about how useful the planning process has been and what kind of technical assistance we can offer. We have an umbrella permitting process. What if we had an umbrella planning process? Local governments are under a number of planning requirements. There may be opportunities to blend them into our assistance on the local CAMA plan development.

### **CRC Rule Development** **Status of Proposed Rules** **Mike Lopazanski**

Mike Lopazanski stated some changes were made to the APA last year and have had a dramatic impact on the speed at which we can process rules. These changes have added a substantial amount of time. Staff has been presenting fiscal analyses for the CRC's consideration and approval which is a new part of the process. We have always done fiscal analyses, but it was more of an internal process between the Division and the Department. Now the CRC is part of the process. It is then submitted to OSBM for their review and approval. Another change is that the fiscal analysis is also part of the public hearing. This will be another new step in the process. OSBM is adding a substantial amount of time to moving rules forward. They are looking at the analysis in economic terms, but also looking at the adherence to the rule development principles. OSBM has added approximately five to seven months on top of the normal rulemaking time. What was a six to eight

month process is now taking a year to a year and a half in some cases. The amount of detail that staff is required to incorporate into the fiscal analysis is dramatically increased. Something like extending the amount of time for sandbag permits would have been simple, but it took four months to negotiate the fiscal analysis with OSBM. The erosion rate report was approved by the CRC for public hearing well over a year ago, but we spent two months developing the fiscal analysis. Since that time we have spent an additional five months refining it with OSBM. The threshold has been lowered for a substantial economic impact to \$500,000.00 for any 12 month period. This is a low trigger. When you hit that threshold there are other requirements that come into play. We have to come up with alternatives to the rule and this is where we are with the sediment criteria rule.

The sandbag rules have received approval from OSBM to notice for public hearing. We have been holding back on those until we have further discussions on sandbags in case there may be additional changes. The erosion rates were approved by OSBM and we are scheduling public hearings in each of the eight oceanfront counties. The technical standards for beachfill projects rule is considered to have substantial economic impact even though it is a savings. Since we have crossed the threshold with the sediment criteria we have to develop alternatives to the rule language for the fiscal analysis. We made some changes to the ocean erodible area and we are still working through the fiscal analysis with the Department.

**Reconsideration of 15A NCAC 07K .0214 –  
Installation & Maintenance of Regulatory Signs  
(CRC 12-17)  
Mike Lopazanski**

Mike Lopazanski stated staff suggested to the CRC that an exemption should be created for these types of structures. It was felt that the use of regulatory or informational signs occurred on a customary and regular basis and that there is little or no resource impact. Since that time there have been changes to the APA and Executive Order 70 was issued. The APA states that the following principles shall guide the drafting, adoption, modification and review of any rules and regulations.

*The rule shall only be adopted when required by federal or state law or deemed necessary by the agency to serve the public interest. Rules shall not impose undue burden on those persons or entities that must comply with the rules. Rules shall be clearly written, relevant and up to date. Rules should be based on sound, reasonably available scientific, technical, economic, and other relevant information. Agencies shall cite this information in support of regulatory proposals. Rules shall be designed to achieve their regulatory objective.*

We have reconsidered the necessity of 7K .0214 and are asking the CRC to reconsider the proposal and withdraw the rule.

**Ed Mitchell made a motion to withdraw 7K .0214. Renee Cahoon seconded the motion. The motion passed unanimously (Webster, Mitchell, Wynns, Weld, Shepard, Carter, Cahoon, Elam)(Simmons, Peele, Old absent for vote).**

## **Estuarine Shorelines**

### **Living Shorelines – Departmental Coordination Efforts (CRC 12-20)**

**Braxton Davis**

Braxton Davis stated a lot of work has been done on the issue of advancing marsh sills and other alternatives to vertical shoreline stabilization structures. There is a lot to build on. At DCM refinements to the General Permit are under development. There have been training courses and an estuarine shoreline stabilization guide for property owners has been developed. An inter-agency assessment was recently completed of permitted marsh sills. The Division of Marine Fisheries is also undertaking a number of efforts and has been an active partner. Based on continuing feedback from partners, Commissioners, CHPP Steering Committee and others, the Director of DMF and I sat down to talk about what else we could be doing to advance this concept. We asked staff to come up with a proposal to take to the Department. The Department has adopted this new strategy. There are six main tenants of this strategy. The first is to work with the CRC to look at the marsh sills General Permit and look at ways to streamline it and eliminate conditions that require other Divisions to review individual applications. We have worked out a good compromise with DMF and DWQ and these two Divisions will not require an individual review of each application. This will streamline the process within DENR. We do not recommend moving forward with rulemaking at this time until we work with DOA on their easement requirements and work with some other partners to look at the conditions on the General Permit. The second tenant is investigating the development and implementation of a comprehensive education and training effort on the benefits of alternative shoreline stabilization approaches. The third piece is looking at financial incentives and cost reductions. The fourth is to support continued staff advocacy through enhanced information, training and outreach materials on the benefits of these alternatives. We need a pre and post-hurricane study to make sure we have good baseline information on bulkheads and marsh sills and other stabilization approaches and understand how they perform under different stresses. The final piece is continuing to map, monitor, and research coastal shoreline stabilization in North Carolina. We have had a lot of ongoing investments in mapping. Our strategy was approved by the Department and the next steps are to reprogram some grant funds within the Division from NOAA to partially support staff in implementing these actions. We have established a DENR working group which will work together with partners. They have begun developing specific actions under the strategy as an implementation plan.

### **Mapping – County Comparison**

**Kevin McVerry**

Kevin McVerry, DCM GIS technician, stated I have been working on this project for about two years. Today I will explore the statistics and additional data that can be created from the shoreline by providing a comparison of three counties in North Carolina. In early 2007, DCM was interested in establishing a complete estuarine shoreline for North Carolina that can be used as a basis for examining policy language within North Carolina's ocean system and estuarine areas of environmental concern. DCM designed and created a methodology for digitizing the shoreline. Digitizing was done by DCM staff as well as faculty and students at East Carolina University who were contracted to help with the digitizing process. The last time the project was presented to the CRC was in August 2011 and at that time we still have three counties to digitize and four counties that needed to go through the QA/QC process. Carteret County was the final county to be digitized and it was completed at the beginning of this month. Over the past 10 months we have met with DCM field representatives to identify areas of the shoreline that were unable to be identified through aerial imagery. We now know that North Carolina has almost 13,000 miles of shoreline.

We digitize at a rate of about five miles of shoreline per hour. That is 2,600 hours of digitizing just to capture the shoreline. That doesn't include the time it took to capture the 26,648 bridges, piers and docks that exist in North Carolina. I was asked to do a three county comparison. So in deciding which county to choose, I wanted to get a geographically spread out region of North Carolina. Another important factor was choosing ones that were digitized using the same aerial imagery from the same year so the shorelines were subject to similar processes and it eliminated the possibility of major storm events having an effect on the shoreline and shoreline structures. Currituck, Pamlico and Brunswick Counties met the criteria and provided a range of distinct regions that exist in North Carolina. Currituck provides a look at the unique northern outer banks, Pamlico is an example of the Piedmont draining region of North Carolina where riverine waters meet the vast estuarine waters, and Brunswick looks at the southern area of our state that differs from the northern region both in geology and barrier island type. The final delineation process consists of three distinct files. The first is the linear estuarine shoreline which was categorized into five unique shoreline types. These are sediment bank, marsh, swamp forest, modified and miscellaneous. Miscellaneous shorelines are used to represent connecting lines between adjacent county boundaries and for the 20 foot upstream extent of estuarine water bodies. The next file we capture was the shoreline stabilization structures. Structures along the shoreline in addition to what those located waterward and landward of the shoreline were captured. Finally the third file was for structures over water (bridges, piers and docks).

The data for the three counties shows marsh dominates the shoreline for all three counties making up over 50% of the total shoreline. Sediment bank is the second most dominant for Brunswick County with 124 miles and for Currituck County with 83 miles. In Pamlico County swamp forest is the second most dominant shoreline type making up 56 miles of the total shoreline. Currituck County has the greatest amount of modified shoreline followed by Pamlico and then Brunswick County. DCM and other stakeholders are very interested in the amount of shoreline that has been modified and even though state permitting of shoreline structures began in the 1970s, we never knew how much of the shoreline has been modified. Out of the nearly 13,000 miles of shoreline that exists in North Carolina, just over 600 (or about 4%) miles have been modified in some way with some type of erosion control structure. DCM wanted to analyze if there was a preferred method of shoreline stabilization for each county. The preferred method for all three counties is dominated by bulkheads. Currituck County has the most stabilized shoreline, but which county has the most bridges, piers and docks? Structures in this category are recreational or commercial in use, provide direct access to the water and have a discernable length and width. Brunswick County greatly exceeds the other two counties and has well over 100 acres of structures. We also analyzed the average size of piers and docks for each county. In Brunswick County the mean size was just over 1,000 square feet compared to 750 square feet in Pamlico County and 450 square feet in Currituck County. Currituck County has the most modified shoreline, but had the least amount of shoreline structures. DCM has created a list of questions that we could answer with the shoreline data. We focused on areas that provide biological, economical, and aesthetic importance to our coastal region. How much of North Carolina's public trust waters are covered by structures? We bisected the structures with the linear shoreline so we could calculate the amount of structure that is over land and the amount that is over water. For Brunswick County 95% of the structures are over water, for Currituck County is was 91% and Pamlico County had 86% of their structures over water. We are going to continue contracting with East Carolina University to help us with our analysis. One of the examples will be looking at hot spots in the county. A hot spot is where a large amount of structures exist. This tool looks at the length of the structure and how close it is to other modified shorelines. Anyone can go to DCM's website and view the data in an interactive mapping program. The data has already been circulated to some interested parties.

**PUBLIC INPUT AND COMMENT**

No comments were received.

**CLOSED SESSION**

Joan Weld made a motion that the Commission go into closed session pursuant to NCGS 143-318.11(a)(3) to consider and give instructions to its attorney concerning litigation filed in the New Hanover County Superior Court as 09 CVS 2761 The Riggings Homeowners, Inc. v. CRC. Veronica Carter seconded the motion. The motion passed unanimously (Webster, Mitchell, Simmons, Wynns, Peele, Weld, Shepard, Carter, Old, Cahoon, Elam).

**OLD/NEW BUSINESS**

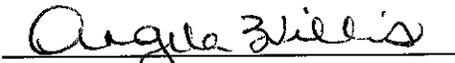
Charles Elam asked if the CRC could provide recognition to past Commissioners that have provided valuable expertise to the CRC. Chairman Emory said we could look at who has left within the past four years or so and see if there is anyone we need to recognize.

Chairman Emory stated the next meeting is scheduled for August 29-30, 2012 in Sunset Beach.

With no further business, the CRC adjourned.

Respectfully submitted,

  
\_\_\_\_\_  
Braxton Davis, Executive Secretary

  
\_\_\_\_\_  
Angela Willis, Recording Secretary



North Carolina Department of Environment and Natural Resources  
Division of Coastal Management

Beverly Eaves Perdue  
Governor

Braxton C. Davis  
Director

Dee Freeman  
Secretary

**CRC 12-22**

August 29, 2012

**MEMORANDUM**

**TO:** Coastal Resources Commission

**FROM:** Braxton Davis

**SUBJECT:** DCM Update

***Regulatory Update***

For the second quarter of the year, the Division processed 58 major permit actions (53 new permits and 5 major modifications) with an average processing time of 78.4 days. In addition, regulatory staff from the four district offices issued 580 general permits and 30 minor permits. Through the Local Permitting Officer (LPO) program, local governments issued another 192 minor permits. Unfortunately, permit receipts for the fiscal year ending June 30, 2012 were down approximately 20% from the previous year. Staff attributes the continued downward trend to the sluggish economy and partially to the activation of the Emergency General Permit (7H .2500) after Hurricane Irene (the emergency permit waived permit fees for reconstruction activities for one year). To date, almost 1,000 Emergency Permits have been issued. The Emergency GP expires today, August 29, 2012, and all work authorized by the permits must now be complete.

Notable permitting actions: The Division issued a Major Permit to the Towns of Emerald Isle and Pine Knoll Shores authorizing nourishment of sections of the beach eroded by Hurricane Irene. The permit was processed in 79 days. The Division also issued a Major Permit to Orton Plantation, LLC authorizing significant shoreline stabilization measures and design components necessary to protect the historic rice fields at Orton Plantation in Brunswick County.

Compliance and enforcement update: Regulatory staff initiated 11 new enforcement actions and closed out 7 existing cases. \$3,064 in penalties were assessed, with \$1,500 collected to date. The timeliness of obtaining compliance on adversely impacted resources and closing of violations continues to be a priority. The average life-span of a typical violation case, from the issuance of a Notice of Violation, through restoration (when applicable), and into penalty assessment and collection phases was approximately 23 days.

## ***Policy and Planning***

### *Program Administration*

Policy and Permitting staff have worked over the last several months on a revision to the Coastal Hazards Strategy section of the Division's five-year strategic plan. The revision is associated with implementation of the Beach and Inlet Management Plan, focusing on recommendations for a regional approach to beach and inlet management projects. The Division has proposed the development of a framework for regional planning and permitting of these projects by addressing guidelines and procedures for activities that could be incorporated into a regional plan. The intent is to consider beach and inlet management projects more comprehensively, rather than solely through individual permits. NOAA's Office of Ocean and Coastal Resource Management has given verbal approval of the revision and it is expected that the newly hired Shoreline Management Specialist will have a lead role in the project.

### *Rule Development*

Policy staff has continued to work with the Department, and with the Office of State Budget and Management, on fiscal analyses associated with several rules approved by the Commission for public hearing, including:

- 15A NCAC 7H .0308(a)(2) & 7H .1705 – Sandbags: Approved by OSBM.
- 15A NCAC 7H .0304 – Erosion Rates: Approved by OSBM. Public hearings scheduled in each oceanfront county (New Hanover Aug 28, Brunswick Aug 29, Hyde Sep 5, Carteret Sep 6, Currituck & Dare Sep 11, Pender Sep 13, and Onslow Sep 18).
- 15A NCAC 7H.0304 – OEA, Mad Inlet, Unvegetated Beach Designation – In development.
- 15A NCAC 7H .0312 – Sediment Criteria: In development.
- 15A NCAC 7M .1300 Sea-Level Rise Policy – Proposed for public hearing.
- 15A NCAC 7H .0306(a)(2) General Use Standards for Ocean Hazard Areas – Grandfather provision for single-family and duplex residential structures. Proposed as temporary rule.

### *Land Use Planning/Public Access*

Planning staff prioritized grant funding for the NC Public Beach and Coastal Waterfront Access Program for 2012. DCM received 31 applications for beach and estuarine access grants from 23 communities, with grant requests for more than \$2.7 million dollars. Communities prioritized for receiving \$1.3 million in funding include: Atlantic Beach, Bayboro, Edenton, Elizabeth City, Emerald Isle, Havelock, Holly Ridge, Indian Beach, Kitty Hawk, Morehead City, North Topsail Beach Wilmington and Windsor.

### *Mapping and Data Services*

DCM's online mapping websites are up to date with the most current data. The Shorelines & Setback Mapping site has recently received significant media attention with the addition of the Estuarine Shoreline Mapping Project data. Staff are also preparing maps and related information for display at upcoming erosion rate update public hearings, and assisting the Coastal Reserve with habitat mapping for each of the four National Reserve Sites (Currituck Banks, Rachel Carson, Masonboro Island, and Zeke's Island).

### *Estuarine Shoreline Mapping*

Now that the Division of Coastal Management has completed digitizing more than 12,000 miles of estuarine shoreline, including more than 26,000 coastal structures, DCM is moving ahead with a more in-depth analysis of the dataset to aid in discussions of the CRC, and for a variety of

educational and research purposes. Since other agencies have expressed interest in the mapping project, DCM has solicited their input to help guide the analysis. Specifically, DCM is seeking input on the type of shoreline information agencies would find most useful, questions regarding shorelines or structures as well as areas or regions that would benefit from more detailed analysis.

### *Clean Marina*

Six coastal marinas – Mona Black Marina, Federal Point Yacht Club and Carolina Beach State Park, all in Carolina Beach; Coinjock Marina in Coinjock, N.C.; the Boathouse in Beaufort, N.C.; and Harbor Oaks Boatamini in Carolina Beach, N.C. – have recently been certified as North Carolina Clean Marinas, a designation given to marinas that exceed the state’s environmental regulations. In addition to the six newcomers, six coastal marinas have been recertified as N.C. Clean Marinas: Cypress Landing Marina, Harbour Village Marina, Wilmington Marine Center, Joyner Marina, Southport Marina and New Bern Grand Marina.

### *Coastal Reserve Program*

#### *Research*

An alternative shoreline stabilization demonstration project was completed on the east end of the Rachel Carson Reserve as part of the Reserve’s collaborative project “Sustainable estuarine shoreline stabilization: research, education, and public policy in North Carolina” funded by the Cooperative Institute for Coastal and Estuarine Environmental Technology (CICEET). The project features a living shoreline approach constructed with all natural materials including oyster cultch and *Spartina alterniflora*. The project will be incorporated into the education and outreach activities of the Reserve to showcase an alternative shoreline stabilization technique and the importance of the two Coastal Habitat Protection Plan habitats utilized in its construction. The demonstration project was completed through a contract with the University of North Carolina at Chapel Hill’s Institute of Marine Sciences.

2012 marks the fifth consecutive year of monitoring emergent marsh vegetation to support the Reserve’s sentinel site and biological monitoring initiatives. The goal of this work is to monitor coastal fringing marshes to track changes related to climate change. Monitoring occurs at the Rachel Carson, Masonboro Island, and Zeke’s Island sites, as well as at some additional locations along the central coast during the peak growing season (July-August).

#### *Education*

The Division hosted “Coastal Management Training for N.C. Surveyors” in cooperation with the N.C. Society of Surveyors on June 15. This training provided surveyors with the opportunity to learn more about the Division of Coastal Management, including: an overview of Areas of Environmental Concern; Coastal Area Management Act (CAMA) permit types; how to prepare work plats for CAMA permits; Clean Marina and Clean Boater requirements; how to establish a riparian corridor; coastal wetland plant identification and delineation; and information on tidal datums. This event included a field trip to a coastal wetland for hands-on training. DCM staff members Whitney Jenkins, Kim Hedrick, Frank Jennings, Pat Durrett, Roy Brownlow, and Ted Tyndall spoke at the workshop. Forty-four surveyors attended the workshop with 98% reporting that they learned something new that they will apply in their work or future decisions.

The Coastal Training Program hosted “Working Together to Get Things Done – Collaborative Learning Training” on August 1 & 2. This training, sponsored by the National Estuarine Research Reserve System Science Collaborative, brought Dr. Chris Feurt to Beaufort from Maine to lead the training. Dr. Feurt’s research and experience using collaborative learning to address coastal

management challenges is synthesized in “Collaborative Learning Guide for Ecosystem Management” (2008). This training was designed to build capacity to work with people who have different priorities, viewpoints, and knowledge in order to achieve natural resource management goals. Five project groups totaling 27 people attended the training. Ninety percent of attendees reported learning something new that they will apply in their work or future decisions.

This summer, the Reserve partnered with the N.C. Maritime Museum, located in Beaufort, to offer Summer Science School for children. Three different camps provided opportunities for preschoolers and students entering kindergarten through 6th grade. Subjects including water quality, plankton, and estuarine habitats, plants and animals were taught. All of the camps included a field trip to the Rachel Carson Reserve except for preschool storytime. Sixty-three children were served through this program.

### *Stewardship*

Stewardship staff, interns, and volunteers are monitoring species of concern at the Reserve sites such as sea turtles, diamondback terrapins, and shorebirds during the summer season. Other summer field activities include visitor use monitoring, and invasive species monitoring and treatment. Staff are also working with researchers from the University of North Carolina at Wilmington to develop a data collection and statistical analysis method to track visitation at the Reserve sites. Many of the Reserve sites do not have designated access points, making it very difficult to assess visitation utilizing traditional methods. Baseline data regarding the annual number and distribution of visitors is needed to provide for effective management of the sites, including adequate protection of species of concern and providing a safe visitor experience. The Masonboro Island Reserve is serving as the pilot for the methodology.

Despite close coordination with the New Hanover County Sheriff’s Department, the Fourth of July holiday crowd at the Masonboro Island Reserve was larger and more “active” than the previous two seasons. Fifteen individuals were cited and transported off the island; approximately 20 physical confrontations occurred between visitors; and 135 injuries, both minor and serious, were treated. Sheriff’s Deputies and emergency medical staff present on site addressed these situations rapidly. The overall behavior of the crowd, the level of intoxication, and the illegal transport of people to and from the island did not appear to be moderated by the presence of law enforcement officers on the island or the surrounding waters. Masonboro.org volunteers removed nearly 4,000 pounds of trash from the island throughout the day. Reserve staff has initiated discussions with the Sheriff’s Department and other key partners with regard to a change in strategy.

Two low-flow tide gates and nine flashboard risers were installed at the Buckridge Coastal Reserve. The pre-existing canal system within the Reserve was draining freshwater wetlands and introducing saltier water to the interior of the Reserve. This project, funded by the Clean Water Management Trust Fund, preserves the outstanding resource waters of the Alligator River, restores the natural hydrology of the Reserve, and helps the ecosystem better cope with rising sea levels.

### *Staff News*

We are pleased to announce that Matt Slagel has been hired for the position of Shoreline Management Specialist at DCM. Starting on September 24, Matt will be working across the Division on beachfront and estuarine shoreline management and technical issues.

**GENERAL ASSEMBLY OF NORTH CAROLINA  
SESSION 2011**

**SESSION LAW 2012-202  
HOUSE BILL 819**

AN ACT TO STUDY AND MODIFY CERTAIN COASTAL MANAGEMENT POLICIES.

The General Assembly of North Carolina enacts:

**SECTION 1.** G.S. 113A-103(2) reads as rewritten:

"(2) "Coastal area" means the counties that (in whole or in part) are adjacent to, adjoining, intersected by or bounded by the Atlantic Ocean (extending offshore to the limits of State jurisdiction, as may be identified by rule of the Commission for purposes of this Article, but in no event less than three geographical miles offshore) or any coastal sound. The Governor, in accordance with the standards set forth in this subdivision and in subdivision (3) of this section, shall designate the counties that constitute the "coastal area," as defined by this section, and his designation shall be final and conclusive. On or before May 1, 1974, the Governor shall file copies of a list of said coastal-area counties with the chairmen of the boards of commissioners of each county in the coastal area, with the mayors of each incorporated city within the coastal area (as so defined) having a population of 2,000 or more and of each incorporated city having a population of less than 2,000 whose corporate boundaries are contiguous with the Atlantic Ocean, and with the Secretary of State. By way of illustration, the counties designated as coastal-area counties under this subdivision as of July 1, 2012, are Beaufort, Bertie, Brunswick, Camden, Carteret, Chowan, Craven, Currituck, Dare, Gates, Hertford, Hyde, New Hanover, Onslow, Pamlico, Pasquotank, Pender, Perquimans, Tyrrell, and Washington. The said coastal-area counties and cities shall thereafter transmit nominations to the Governor of members of the Coastal Resources Commission as provided in G.S. 113A-104(d)."

**SECTION 2.(a)** Article 7 of Chapter 113A of the General Statutes is amended by adding a new section to read:

**"§ 113A-107.1. Sea-level policy.**

(a) The General Assembly does not intend to mandate the development of sea-level policy or the definition of rates of sea-level change for regulatory purposes.

(b) No rule, policy, or planning guideline that defines a rate of sea-level change for regulatory purposes shall be adopted except as provided by this section.

(c) Nothing in this section shall be construed to prohibit a county, municipality, or other local government entity from defining rates of sea-level change for regulatory purposes.

(d) All policies, rules, regulations, or any other product of the Commission or the Division related to rates of sea-level change shall be subject to the requirements of Chapter 150B of the General Statutes.

(e) The Commission shall be the only State agency authorized to define rates of sea-level change for regulatory purposes. If the Commission defines rates of sea-level change for regulatory purposes, it shall do so in conjunction with the Division of Coastal Management of the Department. The Commission and Division may collaborate with other State agencies, boards, and commissions; other public entities; and other institutions when defining rates of sea-level change."

**SECTION 2.(b)** The Coastal Resources Commission and the Division of Coastal Management of the Department of Environment and Natural Resources shall not define rates of sea-level change for regulatory purposes prior to July 1, 2016.



**SECTION 2.(c)** The Coastal Resources Commission shall direct its Science Panel to deliver its five-year updated assessment to its March 2010 report entitled "North Carolina Sea Level Rise Assessment Report" to the Commission no later than March 31, 2015. The Commission shall direct the Science Panel to include in its five-year updated assessment a comprehensive review and summary of peer-reviewed scientific literature that address the full range of global, regional, and North Carolina-specific sea-level change data and hypotheses, including sea-level fall, no movement in sea level, deceleration of sea-level rise, and acceleration of sea-level rise. When summarizing research dealing with sea level, the Commission and the Science Panel shall define the assumptions and limitations of predictive modeling used to predict future sea-level scenarios. The Commission shall make this report available to the general public and allow for submittal of public comments including a public hearing at the first regularly scheduled meeting after March 31, 2015. Prior to and upon receipt of this report, the Commission shall study the economic and environmental costs and benefits to the North Carolina coastal region of developing, or not developing, sea-level regulations and policies. The Commission shall also compare the determination of sea level based on historical calculations versus predictive models. The Commission shall also address the consideration of oceanfront and estuarine shorelines for dealing with sea-level assessment and not use one single sea-level rate for the entire coast. For oceanfront shorelines, the Commission shall use no fewer than the four regions defined in the April 2011 report entitled "North Carolina Beach and Inlet Management Plan" published by the Department of Environment and Natural Resources. In regions that may lack statistically significant data, rates from adjacent regions may be considered and modified using generally accepted scientific and statistical techniques to account for relevant geologic and hydrologic processes. The Commission shall present a draft of this report, which shall also include the Commission's Science Panel five-year assessment update, to the general public and receive comments from interested parties no later than December 31, 2015, and present these reports, including public comments and any policies the Commission has adopted or may be considering that address sea-level policies, to the General Assembly Environmental Review Commission no later than March 1, 2016.

**SECTION 3.(a)** Notwithstanding Article 7 of Chapter 113A of the General Statutes and rules adopted pursuant to that Article, the Coastal Resources Commission shall not deny a development permit for the replacement of a single-family or duplex residential dwelling with a total floor area greater than 5,000 square feet based on failure to meet the ocean hazard setback required under 15A NCAC 07H .0306(a)(2) if the structure meets all of the following criteria:

- (1) The structure was originally constructed prior to August 11, 2009.
- (2) The structure as replaced does not exceed the original footprint or square footage.
- (3) The structure as replaced meets the minimum setback required under 15A NCAC 07H .0306(a)(2)(A).
- (4) It is impossible for the structure to be rebuilt in a location that meets the ocean hazard setback criteria required under 15A NCAC 07H .0306(a)(2).
- (5) The structure is rebuilt as far landward on the lot as feasible.

**SECTION 3.(b)** No later than October 1, 2012, the Coastal Resources Commission shall adopt temporary rules consistent with the provisions of subsection (a) of this section. Notwithstanding G.S. 150B-19(4), the rules adopted by the Commission pursuant to this section shall be substantively identical to the provisions of subsection (a) of this section. The temporary rules shall remain in effect until permanent rules that replace the temporary rules become effective.

**SECTION 4.** The Coastal Resources Commission shall study the feasibility of creating a new Area of Environmental Concern for the lands adjacent to the mouth of the Cape Fear River. In studying this region, which shall at least encompass the Town of Caswell Beach and the Village of Bald Head Island, the Commission shall consider the unique coastal morphologies and hydrographic conditions not found elsewhere along the coast. As part of this study, the Commission shall collaborate with the Town of Caswell Beach, the Village of Bald Head Island, and landowners within and immediately adjacent to these two municipalities to identify regulatory concerns and develop strategies for creating a more efficient regulatory framework. If the Commission deems action is necessary to preserve, protect, and balance the economic and natural resources of this region, the Commission shall work to eliminate overlapping Areas of Environmental Concern in these areas and instead incorporate appropriate

development standards into one single Area of Environmental Concern unique to this location. The Commission shall report its findings, including any proposed actions the Commission deems appropriate, to the Secretary of Environment and Natural Resources, the Governor, the President Pro Tempore of the Senate, the Speaker of the House of Representatives, and the Environmental Review Commission on or before December 31, 2013.

**SECTION 5.** The Coastal Resources Commission shall study the feasibility of eliminating the Inlet Hazard Area of Environmental Concern and incorporating appropriate development standards adjacent to the State's developed inlets into the Ocean Erodible Area of Environmental Concern. If the Commission deems action is necessary to preserve, protect, and balance the economic and natural resources adjacent to inlets, the Commission shall consider the elimination of the inlet hazard boxes; the development of shoreline management strategies that take into account short- and long-term inlet shoreline oscillation and variation, including erosion rates and setback factors; the development of standards that account for the lateral movement of inlets and their impact on adjacent development and habitat; and consideration of how new and existing development standards, as well as existing and proposed development, are impacted by historical and ongoing beach and inlet management techniques, including dredging, beach fill, and engineered structures such as groins and jetties. As part of this study, the Commission shall collaborate with local governments and landowners affected by the Commission's Inlet Hazard Areas to identify regulatory concerns and develop strategies for creating a more efficient regulatory framework. The Commission shall report its findings, including any proposed actions the Commission deems appropriate, to the Secretary of Environment and Natural Resources, the Governor, the President Pro Tempore of the Senate, the Speaker of the House of Representatives, and the Environmental Review Commission on or before January 31, 2015.

**SECTION 6.** This act is effective when it becomes law.

In the General Assembly read three times and ratified this the 3<sup>rd</sup> day of July, 2012.

s/ Bill Rabon  
Presiding Officer of the Senate

s/ Thom Tillis  
Speaker of the House of Representatives

This bill having been presented to the Governor for signature on the 3<sup>rd</sup> day of July, 2012 and the Governor having failed to approve it within the time prescribed by law, the same is hereby declared to have become a law. This 3<sup>rd</sup> day of August, 2012.

s/ Karen Jenkins  
Enrolling Clerk



North Carolina Department of Environment and Natural Resources  
**Division of Coastal Management**

Beverly Eaves Perdue, Governor

Braxton C. Davis  
Division Director

Dee Freeman, Secretary

*Memorandum*

CRC-12- 23

To: Coastal Resources Commission

From: John A. Thayer Jr. AICP Manager, Local Planning & Public Access Programs

Date: August 14, 2012 (CRC Mtg. 8/30/2012)

Reference: 7B Review Sub-committee Recommendations

**Overview:** The 7B Review Sub-committee was created by the CRC in 2010 to satisfy CRC priorities and to address the requirements of Section 113A-107 of the CAMA Act that calls for the review of Land Use Plan rules every five (5) years. The current 7B LUP Guidelines became effective in August of 2002 and the majority of local governments have completed land use plans under the revised guidelines.

The Review Committee was originally comprised of eight (8) members, three from the CRC- Charles (Boots) Elam, Ed Mitchell and Bill Peele; and five from the CRAC- Frank Rush, Christine Mele, Lee Padrick, Dara Royal, and Tim Tabak. Frank Rush has been the acting Chairman. Missy Baskerville has replaced Christine Mele on the CRAC and Dara Royal has resigned from the CRAC.

This memo provides the Committees overarching recommendation as well as other comments, findings and suggestions agreed to at the committee's July 26<sup>th</sup> and August 8, 2012 meetings.

**Findings and Recommendations:**

1. Since the 7B Review Process has not formally included consultation with local governments and other stakeholders, recommendations to the CRC regarding rule making are not appropriate at this time. Instead the Subcommittee recommends that comments on the preliminary draft amendments be solicited from local governments during the "listening sessions"

*Attachment A provides preliminary edits to 7B, which are intended to be clarifications for discussions with local governments and other stakeholders. Attachment B provides corresponding notes and comments for the preliminary draft edits.*

2. A principle consideration during the Subcommittee's discussions was that for many issues and clarifications, updating the 'Technical Manual Guide for the Land Use Plan Guidelines and Process' would be a preferable approach to more extensive rule making.

400 Commerce Avenue, Morehead City, North Carolina 28557  
Phone: 252-808-2808 \ FAX: 252-247-3330 \ Internet: [www.nccoastalmanagement.net](http://www.nccoastalmanagement.net)

3. The committee also considered but dropped "Sea Level Rise" (SLR) language. Several approaches were discussed including only adding an "assessment" requirement as part of the background analysis of existing and emerging conditions without requiring the adoption of SLR policy.
4. The Subcommittee believes that it is important for local governments to update their plans periodically. Possible requirements relative to frequency or circumstance were discussed, but the issue was not resolved. It was recognized that there were several approaches that should be discussed with local governments. Deciding on the "update" this question may affect what rule clarifications and amendments that are made to 7B. (Attachment C provides is a memo: "When does the Plan have to or need to be updated?")
5. The Division should develop guidance for local governments on how to facilitate amending major sections or elements of the plan without requiring a comprehensive update of the whole document.
6. There is a need to address the important (un-citable) paragraph concerning plan analysis, which is the final paragraph in '(d) Plan for the Future', by rewording and clarifying analysis requirements under a new subsection entitled '(d)(5) Future Land Use Plan Analysis'. The original paragraph includes three (3) specific analysis requirements, which are the primary basis for the proposed additional sub-section. (See Attachment A, subsection '(5) Future Land Use Plan Analysis', page #12. *Orphan paragraph struck-out at top of page.*)
7. There is a need to develop a local assessment for "policy use" in DCM federal consistency determinations. Adjustments are needed to recognize NOAA's "Routine Program Change" requirements and process. Suggested amendments would require local governments to assess their policy statements for "suitability" in federal versus state consistency determinations. (See Attachment A, '(e) Tools For Managing Development' (1) and (5) page #13)

Following the proposed listening sessions with local governments, consultants, state agencies and other stakeholders, the Subcommittee believes the results can be brought back to the CRC for discussion and potentially to a reconstituted subcommittee for review.

For additional background, Attachment D provides a complete set of minutes for all but the August 8<sup>th</sup> committee meeting (conference call to address minor edits and approve recommendations).

#### **Attachments**

- A. Suggested 7B Clarifications (Strike-out & underlined dated August 14, 2012)
- B. Clarification Notes for Changes Made to Subchapter 7B- CAMA Land Use Planning
- C. Memo 7B Sub-Committee Mtg. July 15<sup>th</sup>: "When does the Plan have to or need to be updated?"
- D. Copies of all 7B sub-committee minutes

**ATTACHMENT A**  
**PRELIMINARY DRAFT**  
**SUBCHAPTER 7B – CAMA LAND USE PLANNING**  
**SECTION .0600 - INTRODUCTION**

**15A NCAC 07B .0601 AUTHORITY**

This Subchapter establishes the rules that local governments shall follow in developing and adopting a Coastal Area Management Act (CAMA) Land Use Plan.

*History Note: Authority G.S. 113A-107(a); 113A-110; 113A-124;  
Eff. August 1, 2002.*

**15A NCAC 07B .0602 EXAMPLES**

Examples included in this Rule are for illustrative purposes and neither represents a prioritization nor a limitation of issues.

*History Note: Authority G.S. 113A-107(a); 113A-110; 113A-124;  
Eff. August 1, 2002.*

**15A NCAC 07B.0603 DEFINITIONS**

This section is provided to clarify terms used and guidance in the interpretation and implementation of the regulations throughout the 07B Subchapter.

- (a) Adaptive Risk Management Approach. Recognition that there are potentially significant risks from natural and manmade hazards and that the accuracy of risk assessment will improve over time. The approach aims to ensure planning and investment decisions, regarding public infrastructure, as well as health and safety, take into account the expected design life of the asset's design and location, thereby avoiding or minimizing associated impacts.
- (b) Build – Out or Holding Capacity. Build-out is the amount of development an area can support based on the policies and implementation strategies outlined within the Land Use Plan (LUP) recognizing existing and planned infrastructure. In contrast the holding capacity of the plan comprises the Future Land Use Map (FLUM) or diagram of the planning area, the FLUM designation descriptions, policies, and implementation or action strategies without the limitation of existing or planned infrastructure. Neither build-out or holding capacity are based on projections of growth or trends or growth rates unless tied to such criteria formally part of policy.
- (c) Density and Intensity. Persons or housing units per unit of or area of land. Used to describe the character of structures and use activities including the size, scale, bulk (floor area ratio), amount of open space, or traffic generation characteristics. The intensity of use in non-residential categories is characterized by identifying parameters that are common to the type of development that generally prevails or is promoted within each category. Examples include percentage of impervious surface, or its converse the percentage of open space, or un-paved setback areas; the height of buildings; amount of traffic generated; visual impact in terms of aesthetics considerations (defined character); external impacts associated with noise, glare, odor, and even air pollution.
- (d) Design Life. The projected life (in years) of a component of infrastructure under normal environmental conditions before replacement or major rehabilitation is expected. The age of a system is also a factor. Types of public infrastructure with a design life include, but are not limited to roads, bridges, intersections, water/sewer plants, water/sewer lines, water towers, sewer lift stations, storm water systems, storm water retention basins, and public buildings and schools.
- (e) Future Land Use Map/Land Classification Map/Diagram. This map is intended to illustrate future land use proposals. The designations provided and described also serve as policy to be used in conjunction with other text policy. It should be consistent with and linked to the plan's text policies, having the same long-term planning perspective as the rest of the Plan.
- (f) Goal. A goal is a direction setter. It is a vision statement of an ideal future end, condition or state related to the public health, safety, or general welfare toward which planning and planning implementation measures are directed. A goal is a general expression of community values and therefore, is abstract in nature and generally

not quantifiable, time dependent, or suggestive of specific actions for its achievement. Goals by definition should be expressed as ends, conditions, or states and not as actions.

- (g) Implementation Measure or Action Statement. A procedure, program or technique that carries out land use plan policy. Each policy should have at least one corresponding implementation measure. One statement can be applicable to multiple policies.
- (h) Infrastructure Carrying Capacity. The amount of population and development that can be served by public facility systems (wastewater, water, transportation) without significant system degradation or breakdown.
- (i) Joint Land Use Plan. A land use plan prepared by a municipality in conjunction with the county or other municipalities. A joint plan requires a public hearing of local adoption to be held by the county and all municipalities. In lieu of a joint plan, a municipality may either fold into the county plan, which requires less participation and relies on a county public hearing for local adoption, or a municipality may be authorized to prepare its own plan.
- (j) Objective. A specific end, condition, or state that is an immediate step toward attaining a goal. It should be achievable and when possible, measureable, and time specific. An objective may only pertain to one particular aspect of a goal or it may be one of several successive steps toward one or more goal. Consequently, there may be more than one objective for each goal.
- (k) Planning Boundary. The local government's county boundary or corporate limits and extra-territorial jurisdiction (ETJ). For purposes of the land use plan, the planning boundary shall also include areas within the anticipated 30-yr growth boundary that are currently outside of the corporate limits or ETJ.
- (l) Plan Proposal. A description of how development policies affect a given area such as a neighborhood, township or geographic area. Local governments can express plan proposals in the form of a more focused neighborhood plan diagram linked to specific policies.
- (m) Policy. A specific statement that guides decision-making. It indicates a clear commitment of the local legislative body. A policy should be based on a plan's goals and objectives as well as the analysis of data. A policy is effectuated by implementation measures.
- (n) Principle. An assumption, fundamental rule of doctrine guiding plan policies, proposals, standards and implementation measures. Principles should be based on community values, generally accepted planning doctrine, current technology, and the plan's goals and objectives.
- (o) Quasi-Institutional Land Use. Often also stated as quasi-public or semi-public uses: Term used to denote essential public service or infrastructure, not under the direct control of the local government. Often, though the service/use is commercial or private, there are only one or a few choices as to provider. Examples may include: Private or commercial utilities such as sewer, water, oil and gas pipelines, power, telecommunications, hospitals, schools and colleges; other examples may include aquariums, arboretums, art galleries, historic sites, libraries, museums, and zoos. Such structures or use activities may include those owned or operated by nonprofit or other similar public service programs.
- (p) Self-Directing Policy Statement. A policy to guide local government action that is not an expectation of the private sector or state and federal government.
- (q) Standard/Criteria. A rule or measure establishing a level of quality or quantity that should be compiled with or satisfied. Standards or criteria can define the abstract terms of goals, objectives, and policies with concrete specifications.
- (r) Traditional or Historic Public Access. An area or facility that is or has been used by the general public to access public trust waters, even if general public access is not its intended or sole purpose. Locations may or may not be under the control of local, state, or federal governments.
- (s) Working Waterfront. A non-residential facility that requires direct access to public trust waters. This includes uses that are water dependent facilities that offer access to or support facilities for recreation, commerce, research, and other public uses (including military). Examples include, but are not limited to commercial fishing dockage and processing facilities, boat construction and repair facilities, marinas, recreational fishing piers and for hire recreational fishing/boating operators, aquaculture, maritime commerce, marine transportation facilities including commercial ports.

**SECTION .0700 – CAMA LAND USE PLANNING REQUIREMENTS**

**15A NCAC 07B .0701 PLANNING OPTIONS**

(a) Each county within the coastal area may prepare and adopt a CAMA Land Use Plan that meets the planning requirements adopted by the Coastal Resources Commission (CRC). The CRC shall prepare and adopt a CAMA Land Use Plan for each county that chooses not to prepare and adopt a CAMA Land Use Plan. Municipalities may develop individual CAMA Land Use Plans if:

- (1) the County delegates this authority to the municipality; or
- (2) the CRC grants this authority upon application from a municipality that is currently enforcing its zoning ordinance, its subdivision regulations and the State Building Code within its jurisdiction.

(b) The minimum types of plans presumed for municipalities, based on population, growth rates and the presence of Areas of Environmental Concern (AECs) are illustrated in Figure 1. In addition, community characteristics other than those listed in Figure 1, such as extent of growth and resource protection issues (e.g., water quality concerns), shall be considered when determining the type of plan to be prepared.

Figure 1: TYPES OF CAMA PLANS PRESUMED FOR MUNICIPALITIES

		AREAS OF ENVIRONMENTAL CONCERN (AECs)		
POPULATION	GROWTH RATE*	OCEAN HAZARD AREAS	NON-OCEAN HAZARD AREAS**	DO NOT MEET STATUTORY THRESHOLD IN §113A-110 (c) ***
≥ 5,000	N/A	Minimum Core Plan Presumed	Minimum Core Plan Presumed	Fold into County CAMA Land Use Plan
≥ 2,500	HIGH	Minimum Core Plan Presumed	Minimum Core Plan Presumed	Fold into County CAMA Land Use Plan
>1,000 and <2,500	HIGH	Minimum Core Plan Presumed	Minimum Core Plan Presumed	Fold into County CAMA Land Use Plan
<1,000	HIGH	Minimum Core Plan Presumed	Core or Workbook Plan	Fold into County CAMA Land Use Plan
≥ 2,500	MODERATE	Minimum Core Plan Presumed	Core or Workbook Plan	Fold into County CAMA Land Use Plan
<2,500	MODERATE	Minimum Core Plan Presumed	Core or Workbook Plan	Fold into County CAMA Land Use Plan
≥ 2,500	LOW	Minimum Core Plan Presumed	Core or Workbook Plan	Fold into County CAMA Land Use Plan
<2,500	LOW	Minimum Core Plan Presumed	Core or Workbook Plan	Fold into County CAMA Land Use Plan

 Minimum Core Plan Presumed    
  Core or Workbook Plan    
  Fold into County CAMA Land Use Plan

\* GROWTH RATE – 5 year Average (Source: Office of State Planning)

High ≥ 18.4%

Moderate > 9.2% and < 18.4%

Low ≤ 9.2%

\*\* Estuarine Waters, Coastal Shorelines, Public Trust Areas, and Coastal Wetlands

\*\*\* 113A-110 (c) provides that municipalities may develop individual plans if (1) the County delegates this authority to the municipality or (2) the CRC grants this authority upon application from a municipality that is currently enforcing its zoning ordinance, its subdivision regulations and the State Building Code within its jurisdiction.

## (c) Types of Plans

- (1) Workbook plan: This is a simplified CAMA Land Use Plan that addresses the following elements:
- (A) statement of community concerns, aspirations and vision;
  - (B) existing land use map;
  - (C) land suitability analysis;
  - (D) local growth and development policies addressing each Management Topic and applicable Areas of Environmental Concern; and
  - (E) future land use map.

The Division of Coastal Management (DCM) shall provide a workbook plan template to municipalities preparing this type of plan containing all required data and examples of policy alternatives.

- (2) Core plan: This plan addresses all of the plan elements in Rule .0702 of this Section (Elements of CAMA Core and ~~Advanced Core~~ Land Use Plans) in a complete and thorough manner. This type of plan is the standard CAMA Land Use Plan required for all 20 coastal counties.
- (3) ~~Advanced core plan: The plan prepared by local governments that, due to consideration of specific local conditions, elect to exceed the core plan requirements in two or more areas. This plan also may be used to help meet the requirements of other planning programs, such as the Environmental Protection Agency's (EPA) Phase II Stormwater requirements or hazard mitigation plans, that address the CAMA goals, or to address issues of local concern, (i.e. location of a new industry or redevelopment after storm events.)~~

(d) Counties preparing a CAMA Land Use Plan shall prepare a core plan at a minimum.

(e) Municipalities that contain AECs may prepare a Workbook Plan or Core Plan, ~~or Advanced Core Plan~~, depending on the presumptive type of plan shown in Figure 1. However, the type of plan to be prepared may change depending on needs that are identified in the scoping process described in 15A NCAC 07L. Municipalities with Ocean Hazard AECs that choose to plan shall prepare a minimum of a Core Plan. Municipalities with only Non-Ocean Hazard AECs that choose to plan shall prepare a Core Plan if they meet the population and growth rate thresholds as shown in Figure 1. Municipalities with only Non-Ocean Hazard AECs that choose to plan and are at or below the population and growth rate thresholds shown in Figure 1 may prepare a Core Plan or a Workbook Plan.

(f) A County shall accept a municipality's locally adopted policies for inclusion in the County CAMA Land Use Plan for the municipality's jurisdiction if requested to do so by any municipality not preparing an individual CAMA Land Use Plan. Inclusion of a municipality's adopted policies shall occur either at the time of County CAMA Land Use Plan preparation or a subsequent County CAMA Land Use Plan amendment. The municipality's policies are limited to its jurisdiction and may differ from the County's policies.

(g) Municipalities may seek CRC certification for these plans if all requirements found in 15A NCAC 07B and G.S. 113A-110 are met.

*History Note: Authority G.S. 113A-107(a); 113A-110; 113A-124;  
Eff. August 1, 2002.*

#### **15A NCAC 07B .0702 ELEMENTS OF CAMA CORE AND ~~ADVANCED CORE~~ LAND USE PLANS**

(a) Organization of the Plan. The elements in this Rule provide general direction for development of the CAMA Core ~~and Advanced Core~~ Land Use Plans. A detailed Table of Contents shall be included and if the local government does not follow the outline described in this Rule, a matrix shall also be included that shows the exact location of the following required elements.

- (1) Definitions. Active terms and if used, in the LUP, planning concepts such as smart growth, sustainable development, and low impact development, shall be defined and included.

(b) Community Concerns and Aspirations:

- (1) Significant existing and emerging conditions: The plan shall include a description of the dominant growth-related conditions that influence land use, development, water quality, and other environmental concerns in the planning area.
- (2) Key issues: The plan shall include a description of the land use and development topics most important to the future of the planning area. At a minimum, this description shall include public access, land use compatibility, infrastructure carrying capacity, natural hazard areas, water quality,

and local areas of concern as described in Subparagraph (d)(3) (Land Use Plan Management Topics) of this Rule.

- (3) A community vision: This shall consist of a description of the general physical appearance and form that represents the local government's plan for the future. The community vision shall include statements of general objectives to be achieved by the plan. These objectives shall serve as the foundation for more specific objectives and policies stated elsewhere in the CAMA Land Use Plan. The objectives shall include changes that the local government feels are needed to achieve the planning vision.

(c) Analysis of Existing and Emerging Conditions within the planning jurisdiction. The purpose of this element is to provide a sound factual and analytical base that is necessary to support the land use and development policies included in the plan. The analysis shall be based upon the best available data or mapping information from state, federal and local sources. This element shall describe the following:

- (1) Population, Housing, and Economy. The plan shall include an analysis and discussion of the following data and trends:
- (A) Population:
- (i) Permanent population growth trends using data from the two most recent decennial Censuses;
  - (ii) Current permanent and seasonal population estimates;
  - (iii) Key population characteristics;
  - (iv) Age, and;
  - (v) Income, and;
  - (vi) Projections. 30-year projections of permanent and seasonal population, in five year increments.
- (B) Housing stock:
- (i) Estimate of current housing stock, including permanent and seasonal units, tenure, and types of units (single-family, multifamily, and manufactured); and
  - (ii) Building permits issued for single-family, multifamily, and manufactured homes since last plan update.
- (C) Local economy: Employment by major sectors and description of community economic activity.
- ~~(D) Projections. Short term (five and ten year) and long term (20 year) projections of permanent and seasonal population.~~
- (2) Natural systems analysis. The purpose of the natural systems analysis is to describe and analyze the natural features and environmental conditions of the planning jurisdiction, and to assess their capabilities and limitations for development. This analysis shall include:
- (A) Mapping and analysis of natural features. The 14 8-digit hydrological units delineated by the Natural Resources Conservation Service shall be used as the basic unit of analysis of natural features. Maps of the following natural features shall be developed with data provided by DCM or other state agencies for analysis and plan development. These maps may be reproduced and included in the CAMA Land Use Plan at the option of the local government. If the maps are not included in the plan, they shall be made available to the public:
- (i) Areas of Environmental Concern (AECs);
  - (ii) Soil characteristics, including limitations for septic tanks, erodibility, and other factors related to development;
  - (iii) Environmental Management Commission (EMC) water quality classifications (SC, SB, SA, HQW, and ORW) and related use support designations, and Division of Environmental Health (DEH) shellfish growing areas and water quality conditions;
  - (iv) Flood and other natural hazard areas;
  - (v) Storm surge areas;
  - (vi) Non-coastal wetlands including forested wetlands, shrub-scrub wetlands and freshwater marshes;
  - (vii) Water supply watersheds or wellhead protection areas;
  - (viii) Primary nursery areas, where mapped;

- (ix) Environmentally fragile areas, such as, but not limited to wetlands, natural heritage areas, areas containing endangered species, prime wildlife habitats, or maritime forests; and
  - (x) Additional natural features or conditions identified by the local government.
- (B) Composite map of environmental conditions:
- (i) Composite map of environmental conditions: The plan shall include a map that shows the extent and overlap of natural features listed in Part (c)(2)(A) of this Rule and, based on the local government's determination of the capabilities and limitations of these features and conditions for development, shows the location of the following three categories of land:
    - (I) Class I – land containing only minimal hazards and limitations that may be addressed by commonly accepted land planning and development practices;
    - (II) Class II – land containing development hazards and limitations that may be addressed by methods such as restrictions on types of land uses; special site planning; or the provision of public services; and
    - (III) Class III – land containing serious hazards for development or lands where the impact of development may cause serious damage to the functions of natural systems.
  - (ii) The CAMA Land Use Plan shall describe or list the features or conditions selected by the local government for inclusion in each class.
- (C) Environmental conditions. The plan shall provide an assessment of the following environmental conditions and features and discuss their limitations or opportunities for development:
- (i) Water quality:
    - (I) Status and changes of surface water quality, including impaired streams from the most recent N.C. Division of Water Quality Basinwide Water Quality Plans, 303(d) List and other comparable data;
    - (II) Current situation and trends on permanent and temporary closures of shellfishing waters as determined by the Report of Sanitary Survey by the Shellfish Sanitation Section of the N.C. Division of Environmental Health;
    - (III) Areas experiencing chronic wastewater treatment system malfunctions; and
    - (IV) Areas with water quality or public health problems related to non-point source pollution.
  - (ii) Natural hazards:
    - (I) Areas subject to storm hazards such as recurrent flooding, storm surges and high winds;
    - (II) Areas experiencing significant shoreline erosion as evidenced by the presence of threatened structures or public facilities; and
    - (III) Where data is available, estimates of public and private damage resulting from floods and wind that has occurred since the last plan update.
    - (IV) At a minimum, identify and discuss the risk assessment found in the local Hazard Mitigation Plan.
  - (iii) Natural resources:
    - (I) Environmentally fragile areas (as defined in Part (c)(2)(A)(ix) of this Rule) or areas where resource functions may be impacted as a result of development; and
    - (II) Areas containing potentially valuable natural resources. These may include, but are not limited to the following: beach quality sand deposits, protected open space, and agricultural land, that may be impacted or lost as a result of incompatible development.
- (3) Analysis of Land Use and Development. The purpose of the analysis of land use and development is to describe and quantify existing patterns of land uses, identify potential land use and land

use/water use conflicts, determine future development trends, and project future land needs. The plan shall include the following mapping and analysis of existing land use:

- (A) A map of land including the following: Residential, commercial, industrial, institutional, public, dedicated open space, agriculture, forestry, and undeveloped land uses, confined animal feeding operations, military facilities, and waste disposal sites and undeveloped; and the 8 digit hydrological units delineated in the natural systems analysis.
- (B) The land use analysis shall include the following:
- (i) Table that shows estimates of the land area allocated to each land use;
  - (ii) Description of any land use conflicts, including those from natural and manmade hazards. Examples include airfields (military, commercial, and private), protected air space, waste dump sites, large fuel storage facilities, and nuclear and other power plants;
  - (iii) Description of any land use – water quality conflicts, including brownfield sites;
  - (iv) Description of development trends using indicators. These development trends may shall include, but are not limited to the following: residential and non-residential building permits and platted but un-built lots; and
  - (v) Location of areas expected to experience development during the five years following plan certification by the CRC and a description of any potential conflicts with Class II or Class III land identified in the natural systems analysis.
- (C) Historic, cultural, and scenic areas designated by a state or federal agency or by local government. These areas and sites shall be located on either the existing land use map or a separate map; and
- (D) Projections of future land needs. The analysis shall include short term (five and ten-year) and long term (20-year) 30-year projections, in five year increments, of residential, commercial, industrial, and public recreation/open space land area needed to accommodate the planning jurisdiction's projected future permanent and seasonal population (population projections as defined in Part (c)(1)(D) of this Rule (Analysis of Existing and Emerging Conditions). The projections of land needs may be increased up to 50% to allow for unanticipated growth and to provide market flexibility. Coastal counties and municipalities that are classified as Tier 1 based on the NC Department of Commerce Article 3J County Tier Designations For local governments experiencing low or no growth (as shown in Figure 1 in 15A NCAC 07B .0701), the projections of land needs may consider economic strategies in the final calculations.
- (4) Analysis of Community Facilities. The purpose of the analysis of community facilities is to evaluate existing and planned design life, capacity, location, and adequacy of key community facilities that serve the community's existing and planned population and economic base; that protect important environmental factors such as water quality; and that guide land development in the coastal area. This analysis shall include:
- (A) Public and private water supply and wastewater systems. The analysis of water and sewer systems shall include a description and map(s) of existing public and private systems, including existing condition and capacity; location of pipelines, documentation of any overflows, bypasses, or other problems that may degrade water quality or constitute a threat to public health; existing and planned service areas; and future needs based on population projections. If any required information is not available for private systems, the local government shall ~~so state in the plan and this factor may be eliminated from the provide assumptions for analysis.~~
  - (B) Transportation systems. The analysis of the transportation system shall include a map showing: the existing highway system; any segments deemed by the North Carolina Department of Transportation (NCDOT) as having unacceptable service levels; highway facilities on the current thoroughfare plan; and facilities on the current transportation improvement program; rail systems; and airport facilities. The analysis shall also assess the impact of planned highway ~~or~~ and other transportation facilities on growth levels and development patterns.
  - (C) Storm water systems. The analysis of public and permitted private storm water systems shall include identification of existing drainage problems in the planning area; identification of water quality issues related to point-source discharges of storm water

runoff; and an overview of potential storm water system requirements for local governments subject to the EPA's Storm Water Phase II Final Rules.

- (D) Beach and Estuarine Shoreline Access. The analysis of waterfront access shall include a description and map(s) of available public and commercial access facilities and sites and categorization as improved or unimproved. Also include: boat ramps, marinas, ports, working waterfronts, parking, canoe and kayak launches, and traditional/historic access sites.
- (E) Other facilities. The local government may ~~shall~~ include additional facilities and services such as solid waste and health and safety a description and map(s) of hospitals, schools, parks, police and fire, libraries, waste disposal sites, military operations, communication towers, and energy generating facilities, in the analysis.
- (5) Land Suitability Analysis. The purpose of the land suitability analysis is to determine the planning area's supply of land suited for development based on the following considerations: natural system constraints, compatibility with existing land uses and development patterns, the existing land use and development criteria of local, state, and federal agencies and the availability and capacity of water, sewer, stormwater management facilities, and transportation systems. The analysis shall include a land suitability map showing vacant or under-utilized land that is suitable for development. The following factors shall be considered to assess land suitability:
- (A) Water quality;
- (B) Land Classes I, II, and III summary environmental analysis;
- (C) Proximity to existing developed areas and compatibility with existing land uses;
- (D) Potential impact of development on areas and sites designated by local historic commissions or the North Carolina Department of Cultural Resources as historic, culturally significant, or scenic;
- (E) Land use and development requirements of local development regulations, CAMA Use Standards and other applicable state regulations, and applicable federal regulations; and
- (F) Availability of community facilities, including water, sewer, stormwater and transportation.
- (G) Natural and Manmade Hazard Areas
- (6) Review of Current CAMA Land Use Plan. The purpose of the review of the current CAMA Land Use Plan is for the local governing body to review its success in implementing the policies and programs adopted in the plan and the effectiveness of those policies in achieving the goals of the plan. The review shall include consideration of the following factors:
- (A) Consistency of existing land use and development ordinances with current CAMA Land Use Plan policies;
- (B) Adoption of the land use plan's implementation measures by the governing body; and
- (C) Efficacy of current policies in creating desired land use patterns and protecting natural systems.
- (d) Plan for the Future. This element of the plan is intended to guide the development and use of land in the planning jurisdiction in a manner that achieves its goals for the community and CAMA. ~~Policies affecting AECs shall also be used in making CAMA permit decisions.~~ The plan for the future includes the local government's goals, land use and development policies, and future land use map:
- (1) Land use and development goals. The following shall be considered in the development of the plan's goals:
- (A) Community concerns and aspirations identified at the beginning of the planning process; and
- (B) Needs and opportunities identified in the analysis of existing and emerging conditions.
- (2) Policies:
- (A) Policies included in the land use plan shall be consistent with the goals of the CAMA, shall address the CRC management topics for land use plans, and comply with all state and federal rules. The CAMA Land Use Plan shall demonstrate how the land use and development goals, policies and future land use map, as required in Subparagraph (d)(4) of this Rule, will guide the development and use of land in the planning jurisdiction in a manner that is consistent with the specific management goal(s), planning objective(s) and land use plan requirements of each Management Topic. Policy statements are encouraged to be developed for the planning area as well as smaller geographic areas or

neighborhood planning districts, as appropriate, to facilitate policy use and implementation.

- (B) The plan shall contain a description of the type and extent of analysis completed to determine the impact of CAMA Land Use Plan policies on the management topics; a description of both positive and negative impacts of the land use plan policies on the management topics; and a description of the policies, methods, programs and processes to mitigate any negative impacts on applicable management topics.
- (C) The plan shall contain a statement that the governing body either accepts state and federal law regarding land uses and development in AECs or, that the local government's policies exceed the requirements of state and federal agencies. Policies affecting AECs shall also be used in making CAMA permit decisions. If local policies exceed the State and Federal requirements, the CAMA Land Use Plan shall identify which policies exceed these requirements and to what extent. References to if the governing body intends to rely on Federal and State laws and regulations may be included if intended to meet the implementation requirements of Part (e) "Tools for Managing Development, but are not sufficient to satisfy the Land Use Plan Management Topic requirements. to be used as policy statements, it shall reference these in the plan.
- (3) Land Use Plan Management Topics. The purposes of the CRC management topics are to insure that CAMA Land Use Plans support the goals of CAMA, to define the CRC's expectations for the land use planning process, and to give the CRC a substantive basis for review and certification of CAMA Land Use Plans. Each of the following management topics (Public Access, Land Use Compatibility, Infrastructure Carrying Capacity, Natural Hazard Areas, Water Quality, and Local Areas of Concern) includes three components: a management goal, a statement of the CRC's planning objective, and requirements for the CAMA Land Use Plans:
- (A) Public Access:
- (i) Management Goal: Maximize public access to the beaches and the public trust waters of the coastal region.
  - (ii) Planning Objective: Develop comprehensive policies that provide beach and public trust water access opportunities for the public along the shoreline within the planning jurisdiction. Policies shall address access needs and opportunities, include strategies to develop public access, and identify feasible funding options.
  - (iii) Land Use Plan Requirements:
    - (I) Land use plan policies on ocean and public waterfront access shall establish local criteria for frequency and type of public access facilities. These policies shall contain provisions for public waterfront access for all segments of the community, including persons with disabilities. and
    - (II) Oceanfront communities shall establish access criteria for beach areas targeted for nourishment.
    - (III) Potential public water access sites shall be identified including historic and traditional water and beach access, parking, canoe and kayak launches, boat ramps, marinas, and working waterfronts.
- (B) Land Use Compatibility:
- (i) Management Goal: Ensure that development and use of resources or preservation of land minimizes direct and secondary environmental impacts, avoids risks to public health, safety and welfare and is consistent with the capability of the land based on considerations of interactions of natural and manmade features and hazards.
  - (ii) Planning Objective:
    - (I) Adopt and apply local development policies that balance protection of natural resources and fragile areas with economic development, while recognizing natural and manmade hazards.
    - (II) Policies shall provide direction to assist local decision making and consistency for zoning, divisions of land, and public and private projects.
  - (iii) Land Use Plan Requirements:

- (I) Establish building intensity and density criteria, such as floor area ratio and units per acre, consistent with the land suitability analysis, for each land use designation on the Future Land Use Map.
  - (II) Recognize manmade hazards in each designation on the Future Land Use Map and identify local mitigation concepts that address manmade hazards. Examples include: fire, crime, hazardous material and fuel storage, noise, traffic, and airport flight zones.
  - (III) Establish local mitigation criteria and concepts. These may include, but are not limited to the following: cluster subdivision design, enacting local buffers, impervious surface limits, and innovative storm water management alternatives.
- (C) Infrastructure Carrying Capacity:
- (i) Management Goal: Ensure that public infrastructure systems are appropriately sized, located and managed so the quality and productivity of AECs and other fragile areas are protected or restored.
  - (ii) Planning Objective: Establish level of service policies and criteria for infrastructure consistent with Part (c)(3)(D) (Projections of Future Land Needs) of this Rule.
  - (iii) Land Use Plan Requirements:
    - (I) Identify/establish service area boundaries for existing and future infrastructure.
    - (II) Correlate future land use map categories designations with existing and planned infrastructure ~~such as~~ including wastewater, water infrastructure and transportation.
    - (III) Establish policy for public, quasi-institutional, and commercial infrastructure and facilities, to include criteria/requirements for need, location, capacity, and long-term maintenance and operation of the facilities, as applicable. Examples include: police, fire, schools, parks, hospitals, water, package treatment plants, energy production and transmission, fossil fuel pipelines, and airports.
- (D) Natural Hazard Areas:
- (i) Management Goal: Conserve and maintain barrier dunes, beaches, flood plains, and other coastal features for their natural storm protection functions and their natural resources giving recognition to public health, safety, and welfare issues.
  - (ii) Planning Objective:
    - (I) Develop policies that minimize threats to life, property, and natural resources resulting from development located in or adjacent to hazard areas, such as those subject to erosion, high winds, storm surge, flooding, or sea level rise.
    - (II) To institutionalize an adaptive risk-based approach to managing natural and manmade hazard impacts to assist local land use policy, zoning, local rule development, and hazard planning.
    - (III) Ensure that the designing and upgrading of the public and other institutional infrastructure taking into account the design life of the asset recognizing natural hazards.
  - (iii) Land Use Plan Requirements:
    - (I) Develop location, density, and intensity criteria for new, existing development and redevelopment including public facilities and infrastructure so that they can better avoid or withstand natural hazards.
    - (II) Incorporate State Hazard Mitigation Plan policies and actions that meet the Management Goals and Planning Objectives.
    - (III) Establish policy towards addressing abandoned facilities, development restoration and reclamation, of existing and potential brownfield areas.
    - (IV) Correlate existing and planned development with existing and planned evacuation infrastructure.

- (E) Water Quality:
- (i) Management Goal: Maintain, protect and where possible enhance water quality in all coastal wetlands, rivers, streams and estuaries.
  - (ii) Planning Objective: Adopt policies for coastal waters within the planning jurisdiction to help ensure that water quality is maintained if not impaired and improved if impaired.
  - (iii) Land Use Plan Requirements:
    - (I) Devise policies that help prevent or control nonpoint source discharges (sewage and storm water) such as, but not limited to the following: impervious surface limits, vegetated riparian buffers, natural areas, natural area buffers, and wetland protection.
    - (II) Establish policies and land use categories aimed at protecting open shellfishing waters and restoring closed or conditionally closed shellfishing waters.
- (F) Local Areas of Concern:
- (i) Management Goal: Integrate local concerns with the overall goals of CAMA in the context of land use planning.
  - (ii) Planning Objective: Identify and address local concerns and issues, such as cultural and historic areas, scenic areas, economic development, downtown revitalization or general health and human services needs.
  - (iii) Land Use Plan Requirements: Evaluate local concerns and issues for the development of goals, policies and implementation strategies. These may include timelines and identification of funding options.

(4) Future land use map. This map depicts application of the policies for growth and development, and the desired future patterns of land use and land development with consideration given to natural system constraints and infrastructure policies. The local government including municipalities folding into a county plan shall include such designations and descriptions of land uses and development as are required to accurately illustrate the application of its policies.

(A) At a minimum, the map shall show the following:

- (i) 8-digit hydrological units encompassed by the planning area;
- (ii) areas and locations planned for conservation or open space;
- (iii) areas and locations planned for future growth and development ~~with descriptions of the following characteristics:~~
  - (i) ~~predominant and supporting land uses that are encouraged in each area;~~
  - (ii) ~~overall density and development intensity planned for each area; and~~
  - (iii) ~~infrastructure required to support planned development in each area~~
- (iv) areas in existing developed areas for infill, preservation, and redevelopment;
- (v) the service area boundary, which illustrates existing and planned infrastructure, including major roads, water, and sewer, and other major facilities;
- (vi) 30 year planning boundary, including all corporate limits and existing and planned ETJ boundaries.
- (vii) the local government may use additional or more detailed categories designations if required to depict its land use policies. The use of sub geographic areas or small area or neighborhood planning boundaries is encouraged.

(B) At a minimum, the designation descriptions shall include the following:

- (i) description of compatible, predominant, and supporting land uses and activities
- (ii) description of incompatible land uses and activities;
- (iii) description of the following characteristics: overall density and development intensity planned for each area (ranges are acceptable); infrastructure required to support planned development in each area; and
- (iv) acreage total for each designation area.

The local government may use additional or more detailed categories if required to depict its land use policies. If the future land use map shows development patterns or land uses that are not consistent with the natural systems analysis, or the land suitability analysis, then the plan shall include a description of the steps that the local government shall take to mitigate the impacts. In addition, the plan shall include an estimate of the cost of any community facilities or services that shall be extended or developed. The amount of land allocated to various uses shall be calculated and compared to the projection of land needs. The amount of land area thus allocated to various uses may not exceed projected needs as delineated in Part (c)(3)(D) of this Rule (Projections of Future Land Needs).

(5) Future Land Use Plan Analysis. Analysis of the plan policy statements, implementation statements, and Future Land Use Map shall be provided as indicated below. The Division of Coastal Management (DCM) shall provide written guidance to assist with the analysis.

- (A) Consistency with Management Topics. Indicate how the policy statements and Future Land Use Map designations will guide development consistent with the specific management goal(s), planning objective(s) and land use plan requirements of each Management Topic.
- (B) Comparison with Existing Conditions.
  - (i) Indicate how Existing Land Uses are allocated within the Future Land Use Map designations;
  - (ii) Indicate how the Future Land Use Map compares to the Environmental Constraints Map and the Land Suitability Analysis Map. If the Future Land Use Map shows development patterns or land uses that are not consistent with the natural systems analysis, or the land suitability analysis, then the plan shall include a description of the steps that the local government shall take to mitigate the impacts. Federal and State laws and regulations are not to be used as mitigation.
  - (iii) Assess the compatibility of existing zoning districts with the Future Land Use Map designations;
  - (iv) Indicate the consistency of local ordinances with policy and implementation statements;
  - (v) Identify conflicts with other adjacent local government plans and State and Federal government rules and LUP policy statements, implementation statements, and the Future Land Use Map. Examples include differing policies concerning annexation and a disputed service area boundary.
  - (vi) Indicate the amount of existing and planned development and infrastructure, as depicted on the Future Land Use Map and in the policy and implementation statements that will be located in natural and manmade hazard areas.
- (C) Build-Out and Fiscal Impacts.
  - (i) Calculate the amount of land allocated to each Future Land Use Map designation. Indicate how the Future Land Use Map meets the Projected Land Needs for residential, commercial, industrial, institutional, and public recreation/open space for the future permanent and seasonal population. The amount of land allocated to various uses shall be calculated and compared to the projection of land needs. The amount of land area thus allocated to various uses may not exceed projected land needs as delineated in Part (c) (3) (D) of this Rule (Projections of Future Land Needs);
  - (ii) In addition, the plan shall include an estimate of the cost of existing and planned infrastructure, including major roads, water, and sewer and any additional community facilities or services that shall be extended or developed to accommodate future growth as depicted on the Future Land Use Map and in the policy and implementation statements.
- (D) Federal Consistency Assessment. The plan shall include an assessment of each policy statement, implementation statement, and future land use designation description as to its suitability for federal versus state consistency purposes. Statements/descriptions using

the terms "encourage" or "support" or self-directing local government action are not considered suitable for federal consistency.

- (e) Tools for Managing Development. This element of the plan provides a description of the management tools that the local government selects and the actions to be taken to implement the CAMA Land Use Plan. It also includes a five-year schedule for implementation. It also indicates how the plan is used by the Division of Coastal Management. This element shall, at a minimum include:
- (1) Guide for land use decision-making. Describe the specific role and the status of the land use plan policies, implementation and the future land use plan map in local decisions regarding land use and development.
    - (A) Identify policy and implementation statements that only apply to local government actions that are self directing and only apply to actions that do not involve public or private development projects or rezoning and ordinance approvals.
    - (B) For a County plan that includes one or more local municipality, but is not jointly adopted, provide a description of the local process for the municipality to amend the plan.
  - (2) Existing development program. Describe the community's existing development management program, including local ordinances, codes, and policies, state and federal laws and regulations, and the role that the existing management program plays in implementing the plan. This description shall also include the community's approach to coordinating these codes and rules to implement the land use and development policies.
  - (3) Additional tools. Describe any of the following additional tools selected by the local government to implement the CAMA land use plan policies:
    - (A) Ordinances:
      - (i) Amendments or adjustments in existing development codes required for consistency with the plan;
      - (ii) New ordinances or codes to be developed;
    - (B) Capital improvements program. New, upgraded or expanded community facilities, such as but not limited to the following: water, sewer, stormwater, transportation, and other facilities, and policies regarding connections to and extensions of community facilities;
    - (C) Acquisition program. Planned acquisition of property, easements, or rights-of-way; and
    - (D) Specific projects to reach goals.
  - (4) Action plan/schedule. Describe the priority actions that will be taken by the local government to implement the CAMA Land Use Plan and specify the fiscal year(s) in which each action is anticipated to start and finish. The document shall contain a description of the specific steps that the local government plans to take to involve the public in monitoring implementation of the CAMA Land Use Plan, including the adoption of local ordinances that affect AECs. The action plan shall be used to prepare the implementation status report for the CAMA Land Use Plan.
  - (5) Use of the plan by state or federal governments. Describe how the plan policy statements, implementation statements, and Future Land Use Map (including designations) are used in the review of State permits, Federal Consistencies, and State and Federal Environmental Assessments and Environmental Impact Statements.

*History Note: Authority G.S. 113A-102; 113A-107(a); 113A-110, 113A-111, 113A-124;  
Eff. August 1, 2002;  
Amended Eff. April 1, 2003.*

**SECTION .0800 – CAMA LAND USE PLAN REVIEW AND CRC CERTIFICATION**

**15A NCAC 07B .0801 PUBLIC HEARING AND LOCAL ADOPTION REQUIREMENTS**

(a) Public Hearing Requirements. The local government shall provide documentation to DCM that it has followed the process required in G.S. 113A-110; and such notice shall include per .0802(b)(3), the disclosure of the public opportunity to provide written comment following local adoption of the Land Use Plan.

(b) Final Plan Content. The final decision on local policies and all contents of the CAMA Land Use Plan consistent with the CAMA land use planning rules shall be made by the elected body of each participating local government.

(c) Transmittal to the CRC. The local government shall provide the Executive Secretary of the CRC with as many copies of the locally adopted land use plan as the Executive Secretary requests, and a certified statement of the local government adoption action no earlier than 45 days and no later than 30 days prior to the next CRC meeting. If the local government fails to submit the requested copies of the locally adopted land use plan and certified statement to the Executive Secretary within the specified timeframe, the local government may resubmit documents within the specified timeframe for consideration at the following CRC meeting.

*History Note: Authority G.S. 113A-107(a); 113A-110; 113A-124;  
Eff. August 1, 2002.  
Amended Eff. January 1, 2007; February 1, 2006*

**15A NCAC 07B .0802 PRESENTATION TO COASTAL RESOURCES COMMISSION FOR CERTIFICATION**

~~(a) Re-Certification: If the CRC adopts new CAMA Land Use Plan rules, plans shall be updated within six years of the effective date of the new rules. If a scoping process is held, a summary shall be provided to the CRC along with the request for re-certification of the existing CAMA Land Use Plan.~~

(a) (b) Committee Designated by CRC to Review Local Land Use Plans:

- (1) The appropriate DCM District Planner shall submit a written report to the committee designated by the CRC as to the type of plan being presented, highlight any unique characteristics of the plan, identify any land use conflicts with adjacent planning jurisdictions or other state/federal agencies, identify any inaccuracy or inconsistency of items in the plan, and recommend certification, conditional certification, or non-certification.
- (2) The local government shall submit its draft Land Use Plan to the committee designated by the CRC.
- (3) The public shall have an opportunity to submit written objections, comments, or statements of support prior to action by the committee designated by the CRC. Written objections shall be received by DCM no less than 15 business days prior to the next scheduled CAMA Land Use Plan review meeting and shall be limited to the criteria for CRC certification as defined in Subparagraph (c)(3) of this Rule. Written objections shall identify the specific plan elements that are opposed. A copy of any objections shall be sent by the DCM to the local government submitting the CAMA Land Use Plan.
- (4) The local government may withdraw the submitted CAMA Land Use Plan from CRC consideration at any time before review.

(b) (e) CRC Certification:

- (1) The CRC shall certify the CAMA Land Use Plan following the procedures and conditions specified in this Rule.
- (2) Provided the locally adopted land use plan has been received by the Executive Secretary no earlier than 45 days and no later than 30 days prior to the next CRC meeting, the CRC shall certify, conditionally certify or not certify the plan at that meeting or mutually agreed upon date. If the CRC fails to take action as specified above the plan shall be certified.
- (3) The CRC shall certify plans which:
  - (A) are consistent with the current federally approved North Carolina Coastal Management Program;
  - (B) are consistent with the Rules of the CRC;
  - (C) do not violate state or federal law;
  - (D) contain policies that address each Management Topic. If a local government cannot meet any CAMA Land Use Plan requirement contained within Paragraphs (d) and (e) of 15A NCAC 07B .0702 the plan shall include a description of the analysis that was undertaken,

explain the reason(s) the requirement could not be met, and the local government's alternative plan of action to address the CAMA Land Use Plan requirements. If such description(s) are not included in the plan, it shall not be certified; and

- (E) contain a local resolution of adoption that includes findings which demonstrate that policy statements and the Future Land Use Plan Map (FLUP) have been evaluated, and determine that no internal inconsistencies exist.

~~(c)~~ (d) Non- Certification: If the plan is not certified the CRC shall within 30 days inform the local government as to how the plan might be changed so certification can be granted. Until the plan is certified, the pre-existing certified CAMA Land Use Plan shall remain in effect.

~~(d)~~ (e) Conditional Certification: If the plan is conditionally certified, the CRC shall within 30 days provide the local government with condition(s) that shall be met for certification. Until the condition(s) is met on a conditionally certified plan, the pre-existing certified CAMA Land Use Plan shall remain in effect. When the local government complies with all conditions for a conditionally certified plan, as determined by the Executive Secretary of the CRC, plan certification is automatic with no further action needed by the CRC.

*History Note: Authority G.S. 113A-107(a); 113A-110; 113-111; 113A-124;  
Eff. August 1, 2002.  
Amended Eff. April 1, 2008; September 1, 2006.*

## SECTION .0900 – CAMA LAND USE PLAN AMENDMENTS

## 15A NCAC 07B .0901 CAMA LAND USE PLAN AMENDMENTS

## (a) Normal Amendment Process:

- (1) The CAMA Land Use Plan may be amended and only the amended portions submitted for CRC certification. If the local government amends half or more of the policies of the CAMA Land Use Plan, a new locally adopted plan shall be submitted to the CRC. Amendments to the Future Land Use Map and/or policy statements may require updates to analysis prepared in accordance with 15A NCAC 07B. 0702(d)(5). Local public hearing and notice requirements shall be in the same manner as provided in 15A NCAC 07B .0801(a). ~~Except for Land Use Plans that were certified prior to August 1, 2002, amendments and changes to the Local Land Use Plan shall be consistent with other required elements for the local land use plan per the requirements of Rule .0702 of this Subchapter.~~
- (2) The local government proposing an amendment to its CAMA Land Use Plan shall provide to the Executive Secretary of the CRC or her/his designee written notice of the public hearing, a copy of the proposed amendment (including text and maps as applicable), and the reasons for the amendment no less than five business days prior to publication of the public hearing notice. After the public hearing, the local government shall provide the Executive Secretary or her/his designee with a copy of the locally adopted amendment no earlier than 45 days and no later than 30 days prior to the next CRC meeting for CRC certification. If the local government fails to submit the requested documents as specified above and the resolution provided in Subparagraph (5) of this Paragraph, to the Executive Secretary within the specified timeframe, the local government may resubmit the documents within the specified timeframe for consideration at the following CRC meeting.
- (3) For joint plans, originally adopted by each participating jurisdiction, each government retains its sole and independent authority to make amendments to the plan as it affects its jurisdiction.
- (4) CRC review and action on CAMA Land Use Plan amendments shall be in the same manner as provided in 15A NCAC 07B .0802 (b), (c), (d) and (e). ~~except amendments to Land Use Plans which were certified prior to August 1, 2002 are exempt from part .0802(c)(3)(D).~~
- (5) The local resolution of adoption shall include findings which demonstrate that amendments to policy statements or to the Future Land Use Plan Map (FLUPM) have been evaluated for their consistency with other existing policies.

## (b) Delegation of CRC Certification of Amendments to the Executive Secretary:

- (1) A local government that desires to have the Executive Secretary instead of the CRC certify a CAMA Land Use Plan amendment shall first meet the requirements in Subparagraphs (a)(1) through (5) of this Rule and the following criteria defined in Parts (b)(1)(A) through (D) of this Rule. The local government may then request the Executive Secretary to certify the amendment. The Executive Secretary shall make a determination that all criteria have been met, and mail notification to the local government and CRC members, no later than two weeks after receipt of the request for certification. The CRC's delegation to the Executive Secretary of the authority to certify proposed amendments is limited to amendments that meet the following criteria:
  - (A) Minor changes in policy statements or objectives for the purpose of clarification of intent;
  - (B) Modification of any map, other than the Future Land Use Map, that does not impose new land use categories in areas least suitable for development as shown on the Land Suitability Map;
  - (C) New data compilations and associated statistical adjustments that do not suggest policy revisions; or
  - (D) More detailed identification of existing land uses or additional maps of existing or natural conditions that do not affect any policies in the CAMA Land Use Plan.
- (2) If the Executive Secretary certifies the amendment, the amendment becomes final upon certification of the Executive Secretary, and is not subject to further CRC review described in 15A NCAC 07B .0802 (Presentation to CRC for Certification).

- (3) If the Executive Secretary denies certification of the amendment, the local government shall submit its amendment for review by the CRC in accordance with the regular plan certification process in 15A NCAC 07B .0802 (Presentation to CRC for Certification).
- (c) Any amendments to the text or maps of the CAMA Land Use Plan shall be incorporated in context in all available copies of the plan and shall be dated to indicate the dates of local adoption and CRC certification. The amended CAMA Land Use Plan shall be maintained as required by G.S. 113A-110(g).
- (d) Within 90 days after certification of a CAMA Land Use Plan amendment, the local government shall provide one copy of the amendment to each jurisdiction with which it shares a common border, and to the regional planning entity.
- (e) A local government that receives Sustainable Community funding from the Department pursuant to 15A NCAC 07L shall formulate and submit to the CRC for certification a CAMA Land Use Plan Amendment during its first year as a Sustainable Community.

*History Note: Authority G.S. 113A-107(a); 113A-110; 113A-124;  
Eff. August 1, 2002.  
Amended Eff. November 1, 2009; February 1, 2006.*

## **Attachment B**

### **SUBCHAPTER 7B – CAMA LAND USE PLANNING**

#### **Comments and Clarification Notes to used in Conjunction with Preliminary Draft Changes to 7B Rules Provided in Attachment A**

**8/15/2012**

#### **7B .0603 DEFINITIONS**

- This is a new subsection added to clarify terms and provide further guidance for the interpretation and implementation of the 7B rules. (pg. 1)

Terms used in the 7B rules have not previously been defined. The addition of this section is to provide context of how terms are used specifically within 7B rules. These definitions are not applicable to other state rules and do not attempt to regulate local development. Nineteen (19) terms were identified by Staff and the Committee and are included for clarification. Also see .0702 (a)(1), page 4.

#### **7B .0701 PLANNING OPTIONS**

- Clarified the basis of the growth rate as a 5 year average (pg. 3)
- Removed the option of preparing an Advanced Core Land Use Plan since it only applies to funding and confuses what is required for a Core LUP (pg. 4)

There are two changes within this section. The growth rate was clarified by adding a 5 year average for the growth rate used within Figure 1, more particularly the text box. Additionally the option for an Advanced Core Land Use Plan was removed as it serves no purpose, outside of grant funding. The term is specifically related to grant funding found with the 7L – Local Planning and Management Grant Rules. Retaining the term only adds confusion as to what is required for a Core LUP.

#### **7B .0702 ELEMENTS OF CAMA CORE LAND USE PLANS**

- Definition Section added to the LUP required elements. (this information is already requested for all plans) (pg. 4)

This section was added to ensure local governments clarify the use of active terms used in their policy statements as well other buzz planning terms that are used within their LUP. Defining the use of terms such as “should” and “encourage” can enhance the use of policy statements and result in statements that are less ambiguous. Likewise requiring popular planning terms used in the local plan to be defined is needed to clarify how it is used in the local context. Noting such terms as “LID”, in the rule is intended only to provide an example of the types of buzz terms that need to be clarified. Terms that are defined in subsection .0603 (page1) are not required to be redefined for use in the plan.

### **7B .0702 (c)(1) Population, Housing, and Economy**

- Clarified and standardized the planning timeline from 20 to 30 years, and moves the existing population projections requirement to the population section. (pg. 5)

This change extends the 20 year time line to 30 years, in 5 year increments. This will allow both flexibility and better coordination for existing and future local public infrastructure planning. All planning horizon references throughout the rules have also been updated to coordinate with this change. The longer timeline will better coordinate with regional and statewide transportation projects. Note that the context of a 30 year timeline does not require a local municipality expand its planning boundary beyond its incorporated limits or extraterritorial limits (ETJ). Also see definition of "Planning Boundary" in '.0603(k)' (pg.2)

### **7B .0702 (c)(2) Natural Systems Analysis**

- Added risk assessment for natural hazard areas. (pg. 6)

The hazard section is often a weaker assessment component of the LUP. Frequently only the policy or action statements found in the separate, local Hazard Mitigation Plan (HZMP) is folded into the plan with little background analysis or discussion. This change is to ensure that that the "risk analysis" conducted for the HZMP, is also updated and incorporated into the LUP.

### **7B .0702 (c)(3) Analysis of Land Use and Development**

- Clarified that military facilities and undeveloped land uses also need to be recognized as part of the 'existing land use map' requirements. (pg.7)
- Added examples of types of natural and manmade hazards that must be considered for assessment of land use conflicts. (pg.7)
- Clarified that both residential and nonresidential development trends must be covered for assessment of current development patterns (pg.7)
- Updated the population projection section to include projection of land needs for commercial, industrial, and public recreation/open space. (pg 7)
- Added the state Tier I designations for those communities that qualify, as basis for using other approaches. (pg.7)

The changes to this section expand the land uses that need to be considered when doing a full assessment of development patterns. Military facilities were also added with the intent to include air space as well as training and other operational areas of interest.

Switching from communities being classified as slow or no growth to use of the NC Department of Commerce Tier 1 communities annual designation process is proposed. Such a designation allows greater flexibility towards analysis of land needs projections, with the addition of economic development objectives.

#### **7B .0702 (c)(4) Analysis of Community Facilities**

- Included requirement to identify design life assumptions for existing and planned community facilities and infrastructure. (pg. 7)
- Included recognition of existing and planned rail, airport, public access sites, and other facilities including military operations and communication towers in as part of the existing transportation and circulation mapping and assessment. (pg. 7-8)
- Required documentation of assumptions associated with private water and wastewater systems (pg.7)
- Added assessment of existing water access facilities and broadened access recognition to include commercial access facilities. (pg. 8)
- Clarified under 'other facilities' that community facilities are inclusive of quasi-institutional, semi-public, private, and commercial facilities (pg. 8) Also see '.0603 (o) Quasi-Institutional Land Use'. (pg. 1)

This section was clarified to recognize a broader range of community facilities including those not under government control, recognizing that such facilities, even if commercial, need to be part of the assessment process to provide a better understanding of existing and future development needs. Also see definition for 'Design Life' in '.0603(d)'. (pg. 1)

#### **7B .0702 (c)(5)(G) Land Suitability Analysis**

- Clarified that natural and man-made hazards are part of the analysis required. (pg. 8)

This clarification is to ensure that the LSA assessment recognizes manmade hazards as part of the background for addressing requirements for both the Land Use Compatibility and Natural Hazards Management Topics. Links with '.0702 (d)(3)(B)(ii)', and '(d)(3)(D)'. (pg. 9 and 10)

#### **7B .0702 (d) Plan for the Future**

- Encouraged use of small area plans and the incorporation of policy for smaller geographic areas (pg. 8 and 9)
- Subsection '(2)(C)', Clarified that deferring to State and Federal rules is allowed, but other local policy must be included to direct development and to meet management topic requirements (pg. 9)

During initial review of the 7B rules, staff noted that local governments often defer solely to State and Federal Rules (ex: Division of Coastal Management rules regarding Areas of Environmental Concern, Division of Water Quality rules regarding stormwater, and U. S Army Corps of Engineers' wetland rules) to meet the planning requirements for Management Topics, rather than providing local policies. Proposed language clarifies that deferring to State and Federal Rules may be used to meet implementation requirements, but are not sufficient to satisfy Management Topic requirements. Also see '(d)(5)(D)' and '(e)(5)'. (pg. 13)

## **7B .0702(d)(3) Land Use Management Topics**

### **Public Access**

- Provided minor reformat change to 'Land Use Requirement' section for clarification (pg. 9)
- Clarified that possible future public water access sites and existing traditional and historic access locations warrant recognition. (pg. 9) Links also to '.0603 (r) Traditional or Historic Public Access'. (pg. 2)

Also see definition for "Working Waterfront", in '.0603(s)' (pg.2)

### **Land Use Compatibility**

- Clarified that natural and manmade hazards are part of 'Land Use Compatibility' policy development and provided examples of such hazards. (pg. 9-10)

There are natural overlaps between management topics. Both natural and manmade hazards are land use compatibility issues since both involve safety issues. Also see Natural Hazards Management Topic for manmade hazards linkage.

### **Infrastructure Carrying Capacity**

- Clarified that policy consideration for public facilities, involves more than water, wastewater, and transportation. Recognized quasi-institutional and commercial infrastructure. (pg. 10) Also see link with '(c)(4) Analysis of Community Facilities', and '.0603 (o)'. (pg. 2 and pg. 7)

The need to consider an expanded range of infrastructure was identified by staff during the initial review of 7B. Inclusion of policy for not just public, but also quasi-institutional and commercial infrastructure and facilities is proposed, and would be in line with proposed edits in section (4) Analysis of Community Facilities (E) Other facilities, which would require facilities beyond just water, wastewater, stormwater, and transportation to be included in the LUP. Suggested edits also provide more definitive policy guidance, with criteria/requirements for need, location, capacity, and long-term maintenance and operation to be established.

### **Natural Hazards**

- Added adaptive risk-based approach to managing hazard impacts to clarify intent and provide a definition link to other management topics. (pg. 10) Also definition of term in '.0603(a)'. (pg 1)
- Formalized incorporating the State Hazard Mitigation Plan policies and actions into the LUPs. (pg 10)
- Addressed abandoned facilities and brownfield areas. (pg. 10)

Relative to the Land Use Management Topics section, there were a number of issues considered but not included in the suggested edits: Sea Level Rise, sustainable communities, climate change, alternative energy, low impact development, and smart growth. Incorporating Sea Level Rise into the Natural Hazard Management Topic was discussed, but was removed from consideration as the CRC's policy on

the topic evolved to focus on education and awareness. Also see comments for (c)(2) Natural System Analysis on page #2 of this attachment.

Rather than addressing such issues as Low Impact Development (LID) and smart growth in the LUP Rules, their inclusion and the local discretionary use of such concepts in the local plan was addressed in '7B. 0702 Elements of CAMA Core Land Use Plans (a) Organization of the Plan (1) Definitions.' See comments within this memo on page 1.

#### **7B. 0702(d)(4) Future Land Use Map**

- Removed the requirement of designation descriptions to be specifically included on the future land use map (pg. 11)
- Added a 30-year planning boundary for the future land use map (pg. 30)
- Clarified the requirements for minimum standards found in map designation descriptions (pg. 11-12)

Also see definition of planning boundary in '.0603(k)' (pg.2)

#### **7B .0702(d)(5) Future Land Use Analysis (new sub-section)**

- This is a new section added to the rules that replaces the 'orphan paragraph' concerning analysis and further details the analysis requirements for policy statements, implementation statements, and the future land use map. (pg. 12-13)
- Added is an assessment process for policy, implementation statements, and future land use map designations, that will be used for determining suitability for state and federal consistency purposes. (pg. 13)

In Attachment 'A', at the top of page 12 is a struck-out paragraph that DCM staff has characterized as an orphan paragraph since it is technically the continuation of the opening paragraph for '(d) Plan for the Future'. A new subsection is provided following this comment titled '7B .0702(d)(5) Future Land Use Analysis', that begins on page 12. Below is a breakdown of the struck section to illustrate important analysis and assessment requirements that are left unchanged in the proposed new section.

*The local government may use additional or more detailed categories if required to depict its land use policies. If the future land use map shows development patterns or land uses that are not consistent with the natural systems analysis, or the land suitability analysis, then the plan shall include a description of the steps that the local government shall take to mitigate the impacts.*

*In addition, the plan shall include an estimate of the cost of any community facilities or services that shall be extended or developed.*

*The amount of land allocated to various uses shall be calculated and compared to the projection of land needs. The amount of land area thus allocated to various uses may not exceed projected needs as delineated Part (c)(3)(A)(iv) of this Rule (Projections of Future Land Needs).*

Within the proposed new section where existing rule language is retained it is not underlined. Only edifications and clarifications are underlined.

The clarifications added draw from other analysis requirements and ensure compatibility with '(d) Plan for the Future', subsections below:

(2) Policies:

- (A) Policies included in the land use plan shall be consistent with the goals of the CAMA, shall address the CRC management topics for land use plans, and comply with all state and federal rules. *The CAMA Land Use Plan shall demonstrate how the land use and development goals, policies and future land use map, as required in Subparagraph (d)(4) of this Rule, will guide the development and use of land in the planning jurisdiction in a manner that is consistent with the specific management goal(s), planning objective(s) and land use plan requirements of each Management Topic.*
- (B) *The plan shall contain a description of the type and extent of analysis completed to determine the impact of CAMA Land Use Plan policies on the management topics; a description of both positive and negative impacts of the land use plan policies on the management topics; and a description of the policies, methods, programs and processes to mitigate any negative impacts on applicable management topics.*

The lack of sufficient policy impact analysis has been a major stumbling point for many of the LUPs. Admittedly, while analysis is required in the rule, guidance in preparing analysis was not sufficiently provided in the Technical Manual. This has resulted in analysis being provided after the majority of LUP work has been completed and submitted to DCM. Ideally policy impact analysis is factored into the decision-making process with alternative policy approaches being considered earlier in the planning process. This new section was developed to provide increased guidance on the issue of impact analysis. The proposed section outlines the minimum analysis to be provided while indicating that DCM shall provide written guidance to assist with the analysis. The proposed section is fairly consistent with the current guidance provided to local governments as part of the LUP review process. Further guidance will be included in a future update to the Technical Manual.

Concerning the addition of '(D)' at bottom of page 12 for Federal Consistency Assessment, NOAA's OCRM Coastal Programs Division has impressed upon the 7B subcommittee and DCM staff the need for policies to be pre-determined as "enforceable", or not, specific to their use for federal consistency. The proposed section is meant to give local governments the opportunity to provide input, while recognizing that statements applicable to federal consistency may be limited. Also see comments within this attachment for '(d)(2)(C)' on page 3.

## **7B .0702(e) Tools for Managing Development**

- Added a requirement for identifying community self-directed policy and those directed to private or public activities (pg. 13)

Also see definition of “Self-Directing Policy”, under ‘.0603(p)’. (pg. 2)

- Added the requirement to describe of how multi-jurisdiction plans will approach amendments and the process for municipalities to amend the plan (pg. 13)

The absence of a defined process for amending the LUP for multi-jurisdictional LUPs has been a deficiency in the current rules. The proposed edit requires local governments to establish an amendment process. Also see definition for “Joint Land Use Plan”, under ‘.0603(i)’. (pg. 2)

- Clarified that the local government must disclose how the plan will be used by DCM for state and federal permit consistency determinations (pg. 13)

The proposed addition of ‘(5)’ ensures that the scope of decision-making influenced by the LUP that occurs outside the local government is disclosed. This item will be further addressed in a future update to the Technical Manual.

## **7B.0802 PRESENTATION TO COASTAL RESOURCES COMMISSION FOR CERTIFICATION**

- Removed the re-certification section and renumbered the rest of the section (pg. 14)

Please see Attachment C: Memo 7B Sub-Committee Mtg. July 15<sup>th</sup>. “When does the Plan have to or need to be updated?”

## **7B .0900 CAMA LAND USE PLAN AMENDMENTS**

- Clarified that data and analysis portions may need to be updated parallel to policy or FLUM amendments. (pg. 16)
- Removed the requirements for plans certified prior to 2002 being exempt from the current rules. (pg. 16)
- Clarified that any changes to the future land use map would require a formal amendment submitted to the CRC for certification. (pg. 16)

The submittal of data and analysis in support of LUP amendment requests, as applicable, is currently addressed through discussion with the local government. The proposed edit includes the potential for required analysis update in the rule.



North Carolina Department of Environment and Natural Resources

Division of Coastal Management

Beverly Eaves Perdue, Governor

Braxton C. Davis

Dee Freeman, Secretary

Division Director

Memorandum

ATTACHMENT 'C'

To: 7B Sub-committee

From: John A. Thayer Jr. AICP Manager, Local Planning & Public Access Programs

Date: July 18, 2012 (Mtg. 7/26/2012)

Reference: When does the Plan have to or need to be updated?

**Overview:** There is much confusion with local governments and the public as to whether there is a requirement to update the local Land Use Plan (LUP) every five (5) years. This confusion stems from both the Act requiring the Commission to review the Planning Guidelines every five (5) years as well as separate Guidelines for Funding CAMA Land Use Plans found in the 7L rules that note that the state intends to fund LUP updates on a 6 year cycle with the 4<sup>th</sup> year involving a scoping process as follows:

**07L.0505 SCOPING OF PLANNING NEEDS**

*(c) Assuming federal and state appropriations remain at or close to the 2001-02 fiscal year appropriations; DENR intends to provide funds for local governments to update their CAMA land use plans every six years. In the case of existing plans, the scoping process shall take place during the fourth year after the last certification. The local government may request scoping before the fourth year if special circumstances are identified in the Implementation Status Report described in 15A NCAC 7L .0511 – Required Periodic Implementation Status Reports.*

Historically, the 7B review process has resulted in amended rules having a deadline date for being met via state grant supported amendments to local LUPs. An earlier version of 7B in the late 70's required LUP updates every 4 years and later versions every 5.

The '2002 Land Use Planning Guidelines' required an update within six (6) years from the effective date as follows:

**07B.0802 PRESENTATION TO COASTAL RESOURCES COMMISSION FOR CERTIFICATION**

*(a) Re-Certification: If the CRC adopts new CAMA Land Use Plan rules, plans shall be updated within six years of the effective date of the new rules. If a scoping process is held, a summary shall be provided to the CRC along with the request for re-certification of the existing CAMA Land Use Plan.*

Though the above language states that amending the rules requires local plan update compliance within six (6) years, when drafted, staff believes it was not intended to cover subsequent amendments, to the rules, only the new rules that became effective in August of 2002. The 7L rules are only applicable for the grant process. Unfortunately, it was not

ATTACHMENT C

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contemplated that there would be no state funding for local planning grants to assist local governments.

*Please note the above section ".0802(a) Re-certification" in the strike-out and underlined document recommends the section be deleted due to its inapplicability especially in the context of "recertification". (See page #16)*

The reason for the suggested strike out was to consider the issue afresh in both the context of any amendments resulting from this review cycle, as well as in the context of "what if the rules are not amended? When should a plan be required to be update?"

### **The Planning Process is a Continuing Process**

Communities change over time. They grow or decline. New roads and utilities are built and existing infrastructure ages. Local economies are affected by local, national, and international economic cycles. Storm events, state and federal spending, and military priorities often affect many coastal communities. Further, since the needs, hopes, and expectations of local citizens evolve and change the local plan should and most likely will change, as well.

Besides any state requirements, there are two primary reasons to amend the plan: (1) there is a need to validate the overall direction represented by the plan, or there is a need to update the information on which the plan is based, which leads to potential changes to policies, strategies, or other parts of the plan as a result. Notable examples include a new census, updated flood maps, or the need for costly public infrastructure; and (2) frequent local ordinance amendments are occurring, which lead to policy amendments that can result in significant local controversy causing the public and decision makers to question the plan's effectiveness.

The local plan also needs to be kept current because of its relationship to intergovernmental coordination efforts including: state and local Hazard Mitigation Plans, local and regional transportation planning, and other infrastructure and utility facility planning and funding whether public, quasi institutional, or commercial. One benefit often overlooked is the contribution the LUP update contributes to those local governments that participate in the Community Rating System (CRS) as part of the National Flood Insurance Program (NFIP). The more current the LUP and its efforts towards addressing coastal hazard issues is the more significant the reduction of flood insurance rates for the community. Such coordination efforts are also important the state's coastal program and broader state interest.

Currently, the 7L rule cited earlier requires local governments receiving CAMA grant funding to provide an implementation status report every two years to the CRC. These status reports include focus on the LUPs "5-year schedule for implementation items requirement per "07B 0702 (e) Tools for Managing Development".

### **CAMA Land Use Plan Amendments Section .0901**

The current rules require that if "half or more of the policies are amended" a community must undergo a complete update of their plan. (07B .0901(a)(1)) see page 16 of the 7B text document.

The current language implies all policies are equal in importance or useable for decision making. Also not recognized or addressed is the issue that over time a community may amend

its policy or the Future Land Use Plan Map (FLUPM) several or more times whereby cumulatively the documents policy can reasonably be considered to have substantially changed.

Finally, there is the issue of when a community wishes to conceptually just update their plan to include new census data and other information such as current land use or recognize new flood maps, while presuming no affect on policy. Note the intent of the rules as reflected in the analysis requirements is that there is a link between existing conditions, and projection of land need to the analysis section to support policy and the FLUPM proposals.

**What are our options?** Below is a list of options that staff would like to discuss with the committee:

- a. No change: Raises the question as to how existing language could be used related to clarifications provided in the ~~strikeout~~ underline document that proposes its removal as well as in conjunction with other options outlined in this memo.
- b. Require update or amendment based on local assessment process: Require formal local and/or state assessment process to determine whether the local LUP needs to be updated. (Ea: on a periodic basis, such as every 5 years.)
- c. Require update based on US Census: For example: within 3-4 years of the detailed information is release which is usually about 18 months following the census.
- d. Require update within ten (10) years of the last major update certification date by the CRC.
- e. Combination of 'b-d', which provides a process or procedure for waiver or an extension from meeting any deadline in the rules: There may need to be an option for some type of process where a temporary waiver or extension can be granted, from any established deadlines in the rules. One option or scenario for addressing this issue is that DCM would have the authority to waive deadlines or to formally be able to grant extensions. Examples of reasons for an extension may include: to coordinate and schedule update with Local Hazard Mitigation Plan, Local Transportation Plan, major infrastructure or capital facilities studies or if a community is faced with a lengthy recovery process from a storm or other natural or manmade disaster.

**Recommendation:** Staff believes that it is important that local governments be required to update their plans periodically. How frequently or under what circumstance is the big question? Deciding this question may significantly affect rule clarifications and/or amendments made to 7B.

Staff recommends that the above options and any others developed during the committee's meeting be part of the report on to the CRC to be forwarded and included as part of the discussions with local governments and other stakeholders.

**Attachment D**

**7B Subcommittee Agendas and Minutes**

**May 2010 through August 2012**



North Carolina Department of Environment and Natural Resources  
Division of Coastal Management

Beverly Eaves Perdue  
Governor

James H. Gregson  
Director

Dee Freeman  
Secretary

**MEMORANDUM**

**To:** 7B Review Committee  
**From:** John A. Thayer Jr., AICP, Manager CAMA Local Planning & Public Access Programs  
**Date:** May 11, 2010  
**Subject:** 7B Conference Call Agenda Friday May 14<sup>th</sup>: 1:30- 2:30 pm  
**Meet Me Call #919-250-4221**

Purpose: To review the 7B Guidelines as to issues, problems and recommendations to the CRC

**Meetings:** The primary aim of the conference call is to reach consensus on frequency of meetings and specifically initially several meeting dates. If monthly meetings were acceptable we could pick a regular monthly day. (Example: second Thursday of each month)

As for meeting locations I would suggest the primary locations would be either New Bern or Morehead City.

As for duration of meetings, should we try and keep meetings to only three 3 hours in the afternoon?

**Meeting Topics:** Consider three to four (3-4) Phase's for the review process as follows:

Phase 1: Internal Review- DCM staff provides overview of rules, process and issues that have both arisen during local plan development as well as post LUP certification. (includes Technical Manuals review)

OCRM acceptance of LUP's into State's Program and federal consistency process and issues.

Phase 2: External Perspectives- Invite other parties of interest to several meetings per general groupings:

- Local governments
- State, federal and regional agencies
- Consultants
- Interest groups: Coastal Federation, Building Industry Association, Insurance, Real estate, Sierra Club..etc.

Phase 3: Develop recommendations to discuss w/CRAC

Phase 4: Formal recommendations to CRC

## Number of meetings and for how long?

This question is to be involved to expect agreement during the conference call. It may be more appropriate to address at the first formal set down meeting suggested in June. Note what kind of meeting rhythm that is agreed to may help answer this question.

Can DCM staff and the sub-committee keep up with a schedule that is as much as a year long? For discussion purposes, the following is one scenario:

Phase 1: Internal Review- DCM staff provides overview of rules, process and issues that have both arisen during local plan development as well as post LUP certification. (includes Technical Manuals review) **Meeting 1 (June)**

OCRM acceptance of LUP's into State's Program and federal consistency process and issues. (plus any carry over from #1) **Meeting 2**

Phase 2: External Perspectives- Invite other parties of interest to several meetings per general groupings:

- Local governments **Meeting 3**
- State, federal and regional agencies **Meeting 4**
- Consultants **Meeting 5**
- Interest groups: Coastal Federation, Building Industry Association, Insurance, Real estate, Sierra Club..etc. **Meeting 6 (Nov.)**

(If longer day could be handled maybe one group AM & the other PM. May need a fuller day anyway for federal and state agencies.)

There are other options besides inviting participants, such as surveying local governments and relying on one or more CRAC meetings to cover the group. Likewise, staff could interview consultants and possibly state agencies to garner input. These approaches possibly could add meeting flexibility if not result in fewer meetings or schedule.

Phase 3: Develop recommendations to discuss w/CRAC **Meeting 7 (Feb 2011)**

Phase 4: Formal recommendations to CRC **Meeting 8-9 (April 2010)**



North Carolina Department of Environment and Natural Resources  
Division of Coastal Management

Beverly Eaves Perdue  
Governor

James H. Gregson  
Director

Dee Freeman  
Secretary

**MEMORANDUM**

**To:** 7B Review Committee: Frank Rush Chair  
Charles Elam, Christine Mele, Ed Mitchell, Lee Padrick, Bill Peele, Dara Royal,  
Tim Tabak

**From:** John A. Thayer Jr., AICP, Manager Local Planning & Public Access Programs

**Date:** May 18, 2010

**Subject:** Results of 7B Conference Call (May 14<sup>th</sup>.)

**Meetings:** Consensus was that meetings should occur on the opposite months from the CRC meetings. Doing so can avoid conflicts with CRC meeting deadlines as well as provide the committee the opportunity of briefing the CRC of the sub-committee activities.

As for duration of meetings, it was accepted to keep meetings to only three (3) hours between 1:00 pm and 4:00 pm in the afternoon on the 3<sup>rd</sup>. Tuesday of every other month, and the location being in Morehead City.

Four phases of review for the sub-committee have been tentatively identified. The group agreed to the following initial schedule of meetings through the end of the 2010:

**Phase 1: Internal Review**

June 15<sup>th</sup>: DCM staff provides overview of rules, process and issues that have arisen during local plan development as well as post LUP certification.

August 17<sup>th</sup>: Review of both 'Technical Manual' and 'Workbook Plan' guiding manuals.  
NOAA's acceptance of local LUP's into State's Program and federal consistency process and issues.

**Phase 2: External Perspectives: Two meetings to fill out the year**

October 19<sup>th</sup>: Results of DCM online survey and interviews with local governments as to experiences and issues associated with Land Use Planning

December 14<sup>th</sup>: Results of DCM staff interviews with consultants and interest groups as to experiences and issues associated with Land Use Plans Coastal Federation, Building Industry Association, Insurance, Real estate, Sierra Club.etc.

In 2011 no meeting dates have yet to be agreed on. Last of the Phase 2 review would cover results of interviews with state and federal and regional agencies as to their involvement in the LUP process including DLUP review.

Additional phases in 2011:

**Phase 3: Develop Draft Recommendations to Discuss with CRAC & CRC (Yet to be scheduled)**

**Phase 4: Formal Recommendations to CRC (Yet to be scheduled)**

**7B Sub-Committee AGENDA**  
**Morehead City DCM Office Conference Rm**  
**June 15<sup>th</sup> 2010 1:00 -4:00 pm**

**A. Introductions- lay of the land and agenda overview**

**Meeting Objective and Role of the Committee:** To acquaint committee with the Land Use Plan Requirements and issues. Ultimately the committee will be making recommendations to the CRC.

**B. Overview of CAMA Act related to Land Use Planning and Historic Perspective the Last 7B & 7L (Planning Grants Rules) Review Reflected in the Current Rules**

**C. Mini-SWOT Analysis:** Gather committees initial percepts of LUP Guidelines or local LUP's genial strengths, weakness, opportunities and threats

**D. Break**

**E. Components of the Rules, Issues and Practices**

- Types of Plans- Workbook, Core, Advance Core
- Organization of the Plan
- Community Concerns and Aspirations
- Analysis of Existing and Emerging Issues-
  - a. Population-housing projections
  - b. Natural systems analysis
  - c. Analysis of Land Use and Development- Existing Land Use Map
  - d. Analysis of Community Facilities
  - e. Land Suitability Analysis

**Break**

- Review of Current Land Use Plan
- Plan For The Future
  - f. Management Topics
    - public access
    - land use compatibility
    - infrastructure carrying capacity
    - natural hazards
    - water quality
    - and local areas of concern

***(Plan for the Future continued)***

- g. Future Land Use Map
- h. Tools for Managing Development
- i. Policy Impact Analysis
- j. Holding Capacity Analysis

**Other Issues: Sea Level Rise, State Initiatives etc.**

**F. What does the committee want to know, should staff provide some mock up language for some of the issues?**

**G. Next Meeting on August 17<sup>th</sup> in Morehead City**

***Adjourn: by 4:00 pm***

**Binders will be provided at the meeting that include the following documents**

1. Post 7B Committee Conference Call Memo (May 18<sup>th</sup>.)
2. October 2009 CRC Memo Regarding 7B Review (October 28, 2009)
3. Excerpts from the CAMA Act related to Land Use Planning
4. DCM Two Page LUP Checklist of 7B Requirements
5. 7B Land Use Planning Guidelines
6. 7L Guidelines for Funding Land Use Plans
7. Technical Manual for Coastal Land Use Planning
8. Workbook Plan Manual
9. Land Use Plan Review Team Recommendations (2000)
10. 7B Committee and DCM Staff contact information

## **7B Sub-Committee Meeting Minutes – June 15, 2010**

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The Land Use Plan (LUP) 7-B Rules Review Committee met on June 15, 2010 from 1:00 to 4:00 at the DCM Headquarters office in Morehead City.

The purpose of the meeting was to discuss the role of the committee, to give an overview of the CAMA Act as it relates to land use planning, and to give an historic perspective of the last 7B and 7L rules review and discuss how that review was ultimately reflected in the current land use plan rules. Another purpose of the meeting was to talk about current strengths and weaknesses of the Technical Manual for Coastal Land Use Planning, as well as to discuss other state initiatives and issues as it relates to land use planning such as climate change and hazard mitigation. The meeting slide presentation is incorporated into these minutes as an ATTACHMENT.

There was considerable discussion between the committee and staff regarding the current process of creating a land use plan. Currently, developing a land use plan is a two year process with the first year consisting of mostly data and information gathering, while the second year consists of policy development and policy analysis. It was recognized that because of the two year process, information and data gathered during the first year did not, in many cases, translate into good policy. It was also noted that the lack of adequate funding hindered the development of good, high quality plans.

Staff talked with the committee regarding the lack of detailed information on some of the Management Topics within the plans, such as public access. It was noted that each plan should identify all current public access facilities within a community, as well as possible future public access sites.

There was discussion that the current Technical Manual for Coastal Land Use Planning lacks detail in certain areas of the rules, particularly in areas such as community analysis, infrastructure and carrying capacity, and projection of future land needs.

It was discussed that the Land Suitability Analysis (LSA) model lacks current data and does not work well for small communities. The committee discussed the possibility of exempting certain communities from the LSA and asked staff to report back with other options to consider as a tool as it relates to the LSA. During this discussion, it was recognized that there is a need for better coordination with other agencies as it relates to gathering the latest and best available data, mapping, and hazards identification (natural and manmade).

The committee also discussed a need for more multi-jurisdictional plans and multi-functional plans. Staff noted that some cities and counties have had success in preparing joint land use plans, while other counties have had success in creating plans in which multiple small jurisdictions have participated in the planning process, and rely on the county plan for planning

## **7B Sub-Committee Meeting Minutes – June 15, 2010**

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and permitting purposes. There was also a brief discussion of the need for more land use planning educational outreach for elected officials and citizens.

At the conclusion of the meeting, the committee asked staff to report back at the next meeting with rule mock-language options to consider with regards to issues discussed, as well as consideration of other State initiatives such as working waterfronts, sustainable communities and climate change. The committee also instructed staff to provide a brief overview of the process and issues associated with LUP's enforceable policies.

The meeting adjourned at 3:45 pm.

## LAND USE PLANNING RULES REVIEW

7B Sub-Committee Meeting

June 15, 2010



### Meeting Objective:



To acquaint the committee with the Land Use Plan Requirements and the process required prior to the Coastal Resources Commission certifying a Land Use Plan (LUP).



### Meeting Agenda



1. Introductions
2. CAMA Act and Previous 7B and 7L Rules Review
3. Mini-SWOT Analysis
4. LUP Rules, Issues and Practices
5. What Else Does the Committee Want to Know?
6. Next Meeting



### Coastal Area Management Act of 1974 (CAMA)

- Cooperative State-local program
- Coastal Resources Commission (CRC)
- Land-use plans
  - Effect of land use plan
  - Planning grants



**§ 113A-101. Cooperative State-local program.**

This Article establishes a cooperative program of coastal area management between local & State governments. Local government shall have the initiative for planning. State government shall establish areas of environmental concern. With regard to planning, State government shall act primarily in a supportive standard-setting and review capacity, except where local governments do not elect to exercise their initiative. Enforcement shall be a concurrent State-local responsibility.



**§113A-111. Effect of land-use plan.**

No permit shall be issued under Part 4 of this Article for development which is inconsistent with the approved land-use plan for the county in which it is proposed. No local ordinance or other local regulation shall be adopted which, within an area of environmental concern, is inconsistent with the land-use plan of the county or city in which it is effective; any existing local ordinances and regulations within areas of environmental concern shall be reviewed in light of the applicable local land-use plan and modified as may be necessary to make them consistent therewith. All local ordinances and other local regulations affecting a county within the coastal area, but not affecting an area of environmental concern, shall be reviewed by the Commission for consistency with the applicable county and city land-use plans and, if the Commission finds any such ordinance or regulation to be inconsistent with the applicable land-use plan, it shall transmit recommendations for modification to the adopting local government.

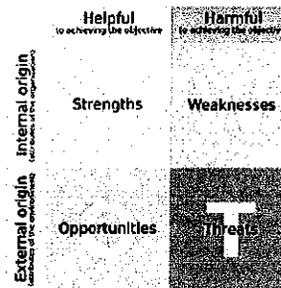


**Previous LUP Rules Review**

- **TIMELINE**
  - November 1998 - LUP Moratorium
  - March 1999 to September 2000 - Review Team Meetings
  - September 2000 - Review Team Report
  - August 2002 New 7B & 7L Rules effective
- **KEY FINDINGS**
- **RECOMMENDATIONS**



**SWOT Analysis**



## 7B CAMA LAND USE PLANNING RULES

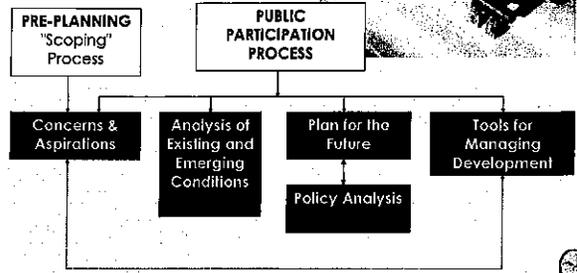
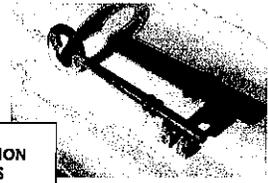


- PLANNING OPTIONS
- ELEMENTS OF CAMA CORE PLANS
  - Organization of the Plan
  - Community Concerns and Aspirations
  - Analysis of Existing and Emerging Conditions
  - Plan for the Future
  - Tools for Managing Development

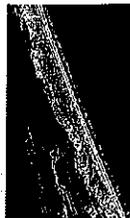


## Land Use Plan

### Key Components



## Land Use Planning 3 Basic Questions



- Where are we now?  
Existing Conditions/AECs
- Where do we want to go?  
Land Suitability Analysis/Population Projections/Future Services Demand
- How do we get there?  
Goals/Objectives/Policies/Actions  
Policy Impact Analysis



## Land Use Plan Elements

### Community Concerns and Aspirations



- Significant Existing and Emerging Conditions
- Key Issues
- Community Vision



Land Use Plan Elements

Analysis of Existing and Emerging Conditions

- Population
- Housing
- Local Economy
- Population Projections



Analysis of Existing and Emerging Conditions

ISSUES

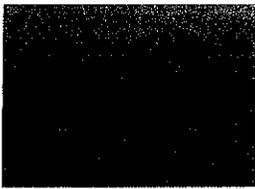
- Use of outdated data
- Need for longer term projections in 5-year increments
- Lack of compiled data translating to policy and implementation (linkage)



Land Use Plan Elements

Natural Systems Analysis

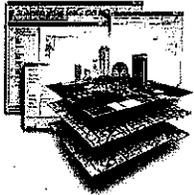
- Mapping and Analysis of Natural Features
- Assessment of Environmental Conditions
- Composite Map of Environmental Conditions



Land Use Plan

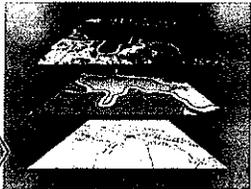
Mapping with GIS

- Explanation of GIS
- Environmental Constraints Map
- Land Suitability Analysis Map
- Ranking and Weighting Criteria
- Planning Boundary



Land Use Plan

Environmental Constraints Map



- AECs
- Soil Characteristics
- Water Quality Classes
- Flood and other Natural Hazards
- Storm Surge Areas
- Wetlands
- Water Supply Watersheds or Wellhead Protection Areas
- Environmentally Fragile Areas
- Local Natural Features

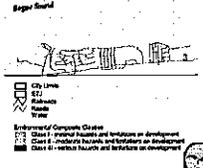


Land Use Plan

Environmental Constraints Map



- Class I – land containing only minimal hazards and limitations
- Class II – land that has certain hazards and limitations for development.
- Class III – land that has serious hazards and limitations for development or lands where the impact of development may cause serious damage to the functions of natural systems.




Natural Systems Analysis

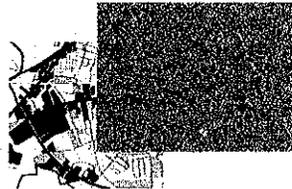
ISSUES

- Lack of analysis at the 14-digit hydrological unit level (Watershed)
- No new data created by community, just inserting data from existing sources
- Lack of compiled data analysis translating to policy and implementation (linkage)



Land Use Plan Elements

Analysis of Land Use and Development



- Existing Land Use Map
- Historic, Cultural, and Scenic Areas
- Projection of Future Land Needs



Analysis of  
Land Use and Development

ISSUES

- Clarification needed concerning vacant v/s undeveloped land inventory
- Projected Land Needs to include all land uses, not just residential
- Need for longer term projected land needs in 5-year increments
- Lack of analysis for short term development trends



Land Use Plan Elements

Analysis of  
Community  
Facilities



- Transportation
- Public and Private Water and Wastewater
- Stormwater Systems
- Other Facilities (ex: Health and Safety)



Analysis of Community Facilities

ISSUES

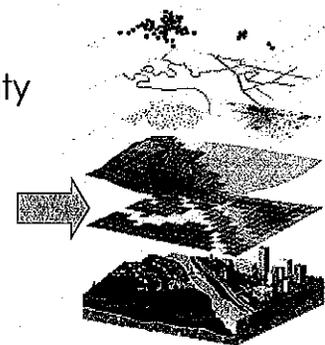
- Addressing private water & sewer systems along w/other community facilities analysis.
- Need for more detailed Transportation information
- Needed clarification concerning applicable EPA Phase II or DWQ stormwater rules
- Need for incorporation of other community facilities (inc: schools, hospitals, parks, airports, energy.....)
- Need for Public Access site inventory and to include future possible sites



Land Use Plan

Land Suitability  
Analysis Map

- Environmental Composite Map
- Proximity to Existing Developed Areas
- Cultural Resources
- Community Facilities/Infrastructure



Land Use Plan

Land Suitability Analysis Map

- Least Suitable
- Low Suitability
- Medium Suitability
- High Suitability for Development

Planning Boundary

- For County, it is un-incorporated areas, as well as municipalities which have folded into the effort
- Cities and Town boundaries at a minimum must include all incorporated territory and the ETJ boundary
- Towns may use a larger boundary for planning purposes
- Required identification of existing & future service area boundaries

What happens when multiple plans are in effect?

Examples:

- Hazard Mitigation Plan
- Comprehensive Plan
- Downtown Plan
- Waterfront Development Plan etc.
- Stormwater Management Plan
- Airport Master Plan

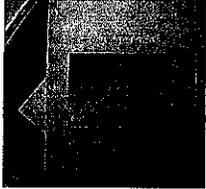
Land Suitability Analysis Map

ISSUES

- Scale of information used for the LSA model is not as effective for smaller communities
- Needed assessment of the model as an effective tool for guiding development

Land Use Plan Elements

Review of Current  
CAMA Land Use  
Plan



- Consistency with Existing Land Use and Ordinances
- Adoption of Implementation Measures
- Effectiveness of Current Policies



Review of Current CAMA Land  
Use Plan

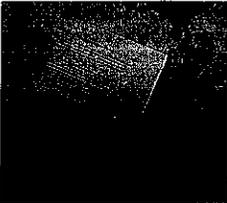
*ISSUE*

- Retool this section for a review of plans created under the 2002 rules



Land Use Plan Elements

Plan for the Future



- Land Use and Development Goals
- Policies
- Future Land Use Map



Plan for the Future

*ISSUES*

- Confusing rule language that suggests deferring to State and Federal requirements will sufficiently address Management Topics
- Need for reformatting rule section to properly cite the final paragraph – (map conflicts, costs facilities per Future Land Use Plan Map, land needs vs. FLUPM)



Land Use Plan Elements

6 Management Topics

- Public Access
- Land Use Compatibility
- Infrastructure Carrying Capacity
- Natural Hazard Areas
- Water Quality
- Local Areas of Concern



Land Use Plan  
Management Topics

Public Access

- Local criteria for frequency and type of ocean and waterfront access
- Provisions for all segments of the community, including persons with disabilities
- Criteria for beach areas targeted for nourishment



Public Access

ISSUES

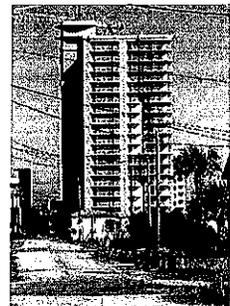
- Ensure existing sites inventoried
- Need for policy to address protection of historic/traditional access areas and working waterfronts
- Criteria



Land Use Plan  
Management Topics

Land Use  
Compatibility

- Building intensity and density criteria for each Future Land Use Plan Map designation
- Local mitigation criteria and concepts



### Land Use Compatibility

#### ISSUE

- Compatibility with hazards, including man-made hazards, needs to be addressed
- Fire, explosive and chemical risks, noise, traffic, intensive versus non intensive uses



### Land Use Plan Management Topics

#### Infrastructure Carrying Capacity

- Identify/establish service area boundaries for existing and future infrastructure
- Correlate future land use map categories with existing and planned infrastructure



### Infrastructure Carrying Capacity

#### ISSUES

- Avoidance of establishing service area boundaries
- Need to address use of package treatment and alternative systems for wastewater control
- Other community and institutional facilities need to be included



### Land Use Plan Management Topics

#### Natural Hazard Areas

- Location, density, and intensity criteria for new and existing development, redevelopment, and public facilities and infrastructure
- Correlate existing and planned development with existing and planned evacuation infrastructure



### Natural Hazard Areas

#### ISSUES

- Reliance on the local Hazard Mitigation Plan to address the Management Topic
- Sea Level Rise
- Other State Initiatives



### Land Use Plan Management Topics

#### Water Quality

- Policies that prevent or control nonpoint source discharges
- Policies and land use categories aimed at protecting open shellfishing waters and restoring those that are closed or conditionally closed



### Water Quality

#### ISSUES

- Deferring to State stormwater and other state and federal rules rather than providing local policy
- Revisit the Land Use Plan Requirement to establish policy to restore closed shellfishing waters



### Land Use Plan Management Topics

#### Local Areas of Concern

- Development of goals, policies, and implementation strategies unique to local concerns and issues



Local Areas of Concern

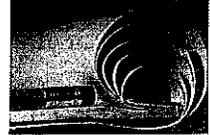
ISSUES

- Approach the Land Use Plan as a comprehensive plan that can include local area plans/sector plans
- Address emerging topics such as Sea Level Rise, Climate Change, and Alternative Energy Sources
- Better address and incorporate State initiatives



Land Use Plan

Policy Statements



- Provide clear link with goals
- Avoid deferring statements
- Use and define active terms
- Include mitigation strategies



Land Use Plan Elements

Future Land Use Map

- Land Use Designations
- Development Density and Intensity
- Supporting Infrastructure

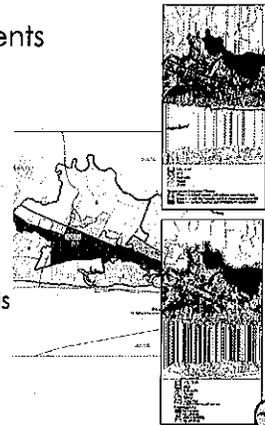


Land Use Plan Elements

Future Land Use Map

Compatible with:

- Environmental Constraints
- Land Suitability Analysis
- Projection of Future Land Needs



Land Use Plan

**Flexibility in Land Needs Projections**

- Projections of land needs may be increased up to 50% to allow for unanticipated growth and to provide market flexibility
- For local governments experiencing low or no growth, the projections of land needs may consider economic strategies in the final calculation

(Determination is based on Figure 1 in Section .0701 and for municipalities and counties classified as economically distressed by the NC Department of Commerce)



Land Use Plan

**Policy and Future Land Use Map Impact Analysis**



- 6 Management Topics
- Existing and Future Land Needs
- Existing and Future Infrastructure Needs
- Existing Zoning and other Ordinances



**Land Use Plan Analysis**



- Projections of Future Land Needs
- Build-out or "Holding Capacity" and estimated cost of additional facilities or services based on policy & the FLUPM
- Comparison of Future Land Use Map patterns and uses with the Natural Systems and Land Suitability Analysis
- Policy Impact Analysis



Land Use Plan

**Intent of Analysis**

- Density/Intensity assumptions are inseparable from infrastructure capacity assumptions. Both must be identified to facilitate policy impact analysis.
- The intent is not meant for infrastructure problems to be solved, but to disclose and demonstrate an effort was made to identify issues and assumptions; and,
- To ensure policy and implementation strategies can be considered.



Land Use Plan

Policy Impact Analysis

The plan shall contain:

- a description of the type and extent of analysis completed to determine the impact of Land Use Plan policies on the management topics;
- a description of both positive and negative impacts of the policies on the topics; and,
- a description of the policies, methods, programs and processes to mitigate any negative impacts on applicable topics.



Policy Analysis Matrix

Management Topics	Policy Benchmarks – Indicate whether policy beneficial, neutral or detrimental		
	Land Use Compatibility	Infrastructure	Water Quality
Land Use & Development Policies	• reduction in habitat loss & fragmentation related to impacts of land use & development	• water, sewer, and other key community facilities being available in required locations	• land use & development criteria & measures that abate impacts that degrade water quality
Land Use Compatibility			
Infrastructure			
Natural Hazards			
Local Concerns			



FLUP/Zoning Compatibility Matrix

	Zone		A-1	RRA	R-1	C-1
LUP Design.	Density	Intensity				
<i>Agricultural</i>	1 du/2 ac		+	--	--	--
<i>Rural</i>	1 du/1 ac	Pop per sq mile	+	+	--	--
<i>Low Density</i>	2-4 du/ac	Pop per sq mile	+	+	+	?
<i>Resort Com</i>	FAR	Hght/ft cover	?	?	--	+
<i>Mixed Use</i>	2-4 du/ac FAR	Hght/ft cover	?	?	?	+

+ Generally Consistent ? Conditionally Consistent -- Conflicts



Policy and Future Land Use Map Impact Analysis

ISSUES

- Need for more definitive guidance
- Need to incorporate GIS build-out scenario analysis, including a review of existing zoning as well as proposed future land use



Land Use Plan Elements



Tools for Managing Development

- Role of Land Use Plan in Local Decision-making
- Existing Development Program
- Implementation Tools
  - Ordinances, Capital Improvements Program, Acquisition Program, Specific Projects
- Action Plan



Tools for Managing Development

*ISSUE*

- Need to address Land Use Plan Amendments in this section, especially where municipalities are part of the County LUP



*OTHER ISSUES*

- Sea Level Rise as a Management Topic or folded into other Topics
- Identification of "enforceable policy" for purposes of state and federal consistency
- Needed update to the Technical Manual
- One size fits all
- Recognizing other planning concepts such as LID, smart growth, sustainable communities.



WHAT ELSE DOES THE COMMITTEE WANT TO KNOW?



Next Meeting  
Tuesday, August 17th



- Technical Manual and Workbook Plan Manual Overview
- NOAA's acceptance of Local LUPs into the State's Program and Federal Consistency Process and Issues Overview
- Committee Requested Items



**7B Sub-Committee AGENDA**  
**Morehead City DCM Office Conference Room**  
**October 19<sup>th</sup> 2010 1:30 -4:30 pm**

**A. Agenda Overview**

- Summation Minutes from June Sub-committee meeting and copy of power point presentation as handout.
- Comment reference canceled August Sub-committee meeting

**B. Overview of Suggested Clarifications to 7B Land Use Planning Guidelines**

Sections .0600 through .0900: Includes text box comments associated with proposed edits.

**C. Review of Mock Scenario Approaches for inclusion of Sea Level Rise (SLR) into the Guidelines**

Two approaches are provided for discussion

**D. Overview- Local LUP's and their use for federal consistency (no handout included)**

**E. Potential of Including other State Initiatives (no handout included)**

**F. Next Meeting on December 14th in Morehead City**

Discuss items for the Agenda

**Adjourn: by 4:30 pm**

*The packet for this agenda is both being provided by email and mailed out hard copy that is pre-hole punched to facilitate adding to your Sub-committee Binder. We apologize for not already providing the committee with dividers. They will be provided at the meeting.*

## 7B Sub-Committee Meeting Minutes – October 19, 2010

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The Land Use Plan (LUP) 7-B Rules Review Committee met on October 19, 2010 from 1:00 pm to 4:30 pm at the DCM Headquarters office in Morehead City.

The purpose of the meeting was to review suggested clarifications to the 7-B Land Use Planning Guidelines, review mock scenario approaches for inclusion of Sea Level Rise (SLR) into the guidelines and discuss how local LUPs are used for federal consistency purposes.

**7-B Land Use Planning Guidelines Clarifications.** It was noted that most of the suggested changes to the 7-B Guidelines are clarifications based on existing practices or direction that has been given to consultants and local governments based on the rules and not new or additional subject items.

DCM Staff presented preliminary language and edits beginning with Section 7-B .0600 – Introduction. Staff noted that a “DEFINITIONS” section needs to be included. Staff provided a few terms/phrases to be defined such as “working waterfronts”. *Staff stated that definition text would be proposed at a future meeting for these and any other terms/phrases to be defined.*

Under .701- Planning Options, staff noted that no language was proposed; however, staff identified a need to better describe the requirements of an Advanced Core Land Use Plan. Staff believes providing extra funds to local governments for inclusion of material already required by other state agencies is not sufficient to qualify an LUP as Advanced Core. *Staff stated that they would report to the committee on this issue at the next meeting; further defining the Advanced Core LUP requirements and providing examples of elements that would qualify an LUP as Advanced Core.*

Staff then presented mock rule language for Section 7-B .0702 Elements of CAMA Core and Advance Core Land Use Plans including:

Analysis of Existing & Emerging Conditions: Extending the 20 year timeline for projections to 30-years. This change will allow both flexibility and better coordination with existing local public infrastructure planning. Staff noted that throughout the rule a minimum 30 year horizon is suggested.

Natural Systems Analysis: Drawing analysis from the community’s Hazard Mitigation Plan. Staff noted that the natural hazards analysis has traditionally been weak in current plans. It was acknowledged that few Hazard Mitigation Plans have a pre-planning for disaster emphasis.

Analysis of Land Use & Development: Ensuring manmade hazards are included, with examples. Also including trends for non-residential as well as residential development.

## 7B Sub-Committee Meeting Minutes – October 19, 2010

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Analysis of Community Facilities: Recognizing private and commercial water and sewer systems and other community facilities, with analysis examples. Clarifying that transportation includes rail and airports as well as roadways. Requiring an inventory of public and commercial access sites and recognition of non-government managed traditional or historic access (example road ends).

Plan for the Future: Clarifying that deference to other State and Federal rules is allowed, but other policy must be included to direct development. Simply deferring to other State and Federal rules without additional policy is not sufficient to meet 7B requirements.

Public Access Management Topic (MT): Inventorying existing sites along with historic and traditional access areas and working waterfronts. *Staff agreed to bring back a proposed definition of "working waterfronts".*

Land Use Compatibility MT: Clarifying that manmade hazards are to be addressed under this topic.

Infrastructure Carrying Capacity MT: Clarifying that other public facilities and quasi-institutional facilities are to be addressed under this topic.

Natural Hazards MT: Strengthening linkage with Hazard Mitigation Plans.

Water Quality MT: This area in the local LUPs is usually very weak. Most communities do little more than defer to state and federal government rules to address issues. No suggestions were provided, though staff noted that they need to discuss with the Division of Water Quality (DWQ) what can reasonably be accomplished through local government LUP policies and implementation actions. *Staff will report back on this item at the next meeting.*

Future Land Use Plan Map (FLUPM): Indicating that descriptions need to address both compatible and incompatible uses.

The committee was reminded that prior to the 2002 rules, most local LUP FLUPMs provided little policy direction, instead mimicking category descriptions found in the earlier 7B rules which were ambiguous at best. For some communities this continues to be a weak area. Staff drew the committee's attention to the problem of an orphan paragraph that is difficult to locate and reference. It is found after the end of the 'Future land use map' subsection (d)(5), however it is an extension of the main section (d).

Staff broke down the orphan paragraph into three (3) parts for discussion, as follows:

"The local government may use additional or more detailed categories if required to depict its land use policies. If the future land use map shows development patterns or land uses that are not consistent with the natural systems analysis, or the land suitability analysis, then the plan shall include a description of the steps that the local government shall take to mitigate the impacts."

## 7B Sub-Committee Meeting Minutes – October 19, 2010

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"In addition, the plan shall include an estimate of the cost of any community facilities or services that shall be extended or developed."

"The amount of land allocated to various uses shall be calculated and compared to the projection of land needs. The amount of land area thus allocated to various uses may not exceed projected needs as delineated Part (c)(3)(A)(iv) of this Rule (Projections of Future Land Needs)."

Staff noted that the three (3) requirements are an extension of earlier background analysis and are important in addressing the policy impact analysis requirement in the rules. The planners stated that policy impact analysis requirements are one of the notable gaps in the Technical Manual. Committee members agreed that there is too much to digest in the orphan paragraph.

Staff presented a proposal to replace the paragraph with a new subsection header titled: Future Land Use Plan Impact Analysis. Within this subsection, existing language is folded in and broken down into separate paragraphs with additional clarifications regarding the assessment of policy statements, FLUPM designations, and implementation statements that are necessary to accomplish policy impact analysis.

Tools for Managing Development: Requiring the local government to disclose how plan policy will be used by the local government, specifying "self directing" policy not involving consistency verses policy for local and state consistency consideration. *Staff noted this addition needed to be revisited after discussion involving use of the local plan and the state and federal consistency process.*

Section .0900 Land Use Plan Amendments: Ensuring updates to background analysis discussion as part of a land use plan amendment application, as appropriate.

**Sea Level Rise (SLR) in the 7B Guidelines – Consideration of Approaches.** Staff provided an overview of two (2) example approaches for inclusion of SLR issues into the 7B Guidelines. The two approaches were described as overlapping with the first scenario adding an "assessment and disclosure" requirement as part of the background analysis of existing and emerging conditions section of the rules, and the second scenario additionally requiring the development of policy and reflection of the issue, in some manner, on the Future Land Use Plan Map.

The first approach would not mandate that specific policy and implementation statements be included in the plan. This scenario may be characterized by a self assessment process documented in the plan that is based on both locally collected and state supplied information. This approach's aim is, at a minimum, for a local thematic assessment and recognition of vulnerable facilities and infrastructure. The assessment area would be within a state provided "Sea Level Rise Influence Boundary". It is presumed that the initial boundary would be based on a shorter time line than 100 years (example: 30 to 50 years). It is also presumed that the state

## **7B Sub-Committee Meeting Minutes – October 19, 2010**

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would be in the position to provide other information, such as the results from the current FEMA SLR Storm Risk Study, scheduled to be completed in September 2011. Scenarios for each of the coastal counties will be included within the risk study. Conceptually, the assessment would be separate from the Land Suitability Analysis (LSA) and could be part of background appendices rather than within the main LUP document.

The second approach would formally add SLR into the Natural Hazards Area Management Topic (MT). Draft language reviewed illustrated text that could be added to the existing Natural Hazard Area MT. More formal inclusion of SLR into the MT would ensure the issue is on equal footing with other policy development and require some linkage or reflection on or with the FLUPM.

*After lengthy discussion, the committee asked Staff to come back with draft example language at the next committee meeting, providing language incorporating the first approach with possibly reasonable portions of the second. The committee feels more comfortable with a disclosure approach.*

**Use of LUPs for Federal Consistency.** *Due to the late hour, this item was postponed to the next meeting.*

The meeting adjourned at 4:30 pm.

## **7B Sub-Committee AGENDA**

**Upstairs Conference Room- Adjacent the Estuarine Reserve Office**

**NOAA Building, Pivers Island**

**February 23, 2011 10:00 -12:00 am**

### **A. Agenda Overview**

- Summation Minutes from October Sub-committee meeting. And comment reference canceled December Sub-committee meeting

### **B. Review of Folded in Scenario for inclusion of Sea Level Rise (SLR) into the 7B Guidelines**

### **C. Follow-up on other Clarifications to 7B Land Use Planning Guidelines (Items previously identified for revisit or follow-up)**

### **D. Next Meeting: March vs. April/May**

- Discuss items for the Agenda

**Adjourn: by 4:00 pm**

## **7B Sub-Committee Meeting Minutes – February 23, 2011**

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The Land Use Plan (LUP) 7-B Rules Review Committee met on February 23, 2011 from 10:00 am to 12:05 pm at the at DCM Coastal Reserve's upstairs conference room at their offices on Pivers Island in Beaufort. (The majority of time spent at the meeting involved discussion regarding Sea Level Rise (SLR)).

Sub-committee members in attendance: Boots Elam, Ed Mitchell, Bill Peele, Lee Padrick, Dara Royal, Tim Tabak, and Missy Baskervill (alt. Christine Mele). Staff included: Steve Underwood, John Thayer, Mike Christenbury, Maureen Will, Charlan Owens, and Tancred Miller. Other: John Manning with USACOE

The purpose of the meeting was to review suggested clarifications to the 7B Land Use Planning Guidelines, review mock scenario approaches for inclusion of Sea Level Rise (SLR) into the guidelines and discuss other issues with regards to the planning guidelines.

It was noted that most of the suggested changes to the 7B Guidelines are clarifications and not new or additional subject items.

John Thayer opened the meeting by giving a brief overview of non sea level rise related agenda items to be discussed at the meeting as follows:

- Adding definitions to section 7B .0603. The mock up list included both terms listed at the October meeting as well as others felt needed.
- Dropping references to Advanced Core Plan. A reference in guidelines serves no purpose and would be better addressed in the funding 7L Planning Grant rules.
- Reworking of the un-citable orphan paragraph under section '(d) Plan for the Future. Staff has provided citable new subsection titled 'Future Land Use Plan Analysis'.
- Folded in the new subsection '(D) Sustainable Communities Assessment', under '(d)(5) Future Land Use Plan Analysis'. As noted at the October meeting, the addition is derived to recognize principles, the NC General Assembly included as part of the legislation for the 'Sustainable Communities Task Force' in 2010. The addition does not require the adoption of policy; instead it asks for an assessment or discussion of how the local plans proposals relate to the principles.
- Dropping 7B .0802 '(a) Re Certification.' Originally related to plans certified before the effective date of 2002 Guidelines.

It was also noted that some changes were made to the 'Natural Hazards Analysis' sections to address an area within the plans have traditionally been weak. The aim was towards improved hazard analysis with closer linkage to the community's Hazard Mitigation Plan.

### Sea Level Rise (SLR)

The committee was reminded that at the October meeting staff reviewed two (2) possible overlapping approaches towards recognition of SLR in the 7B Guidelines with the 'A' option

## 7B Sub-Committee Meeting Minutes – February 23, 2011

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only adding an 'assessment' requirement as part of the background analysis of existing and emerging conditions in the plan, and the 'B' option outlined was to build upon the 'A' option's assessment to also require policy to be developed. The committee agreed to have staff fold in Option 'A', and only the non-specific to SLR text from the 'B' option into the Management Topic.

Mr. Thayer pointed out that in keeping with the 'A' approach, the 7B text provided attempts to convey that SLR assessment is not required to be part of (or incorporated into) the other background analysis for the plan or any or any other map within the LUP. That would be optional. The other required analysis can still be used to assist the SLR community self assessment how, again would not be required to be included in the main LUP document. Note what was not included from Approach 'A' was the proposed assessment of existing regulations proposal as follows:

- (D) Identify and review proposed policies, and generally review existing regulations, practices, and procedures that that may need to be modified to increase resiliency that:
- Do not allow regular re-evaluation and adjustment in accordance with changing conditions, or
  - Require planning based strictly on the past, or pin certain decisions/triggers to certain periods or seasonal patterns, and
  - Reinforce trends that increase vulnerability or reduce adaptability (e.g., development in low-lying areas such as flooding).

One committee member noted that some have issues with a specific benchmark being specified within the guidelines. Also, that the proposed 7B text on assessment did not appear optional since state would be giving the communities a scenario. Mr. Thayer noted that would be provided would be material from the FEMA's SLR Risk Study that is understood or expected to provide multiple scenarios down to a county level.

The committee discussed that the NC Coast is very different from north to south and the Science Panels SLR benchmark may need to be adjusted with regard to geography. It was discussed that the SLR mock language as proposed seemed cumbersome and needs to be more straightforward.

Steve Underwood noted that a SLR component within the LUP guidelines is expected by NOAA OCRM as part of DCM's federal grant work program. Underwood also noted the NC DOT is already accounting for SLR when planning for and constructing new bridges and highways.

Another comment was that it should recognize what communities are already doing related to flood and storm issues. Mr. Thayer commented that the section dropped from option 'A' could address that issue.

## **7B Sub-Committee Meeting Minutes – February 23, 2011**

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It was also discussed that the educational component with regard to SLR is missing from the language and that this component should take on a more prominent role with regards to the SLR issue.

Much discussion then ensued that it may be time to set aside 7B SLR language and proposals for the time being until the Coastal Resources Commission (CRC) actually adopts a SLR policy. Following a lengthy discussion, the committee then recommended that SLR language and proposals be tabled until the CRC adopts a SLR policy.

The committee then discussed when to meet again so that other 7B proposed text could be reviewed. The consensus would to meet again the first morning of the next CRC meeting in May.

The meeting adjourned at 12:05 pm.

## **AGENDA**

### **7B Sub-Committee**

Upstairs Conference Room- DCM Office

400 Commerce Avenue, Morehead City

May 18, 2011 -1:00 pm

#### **A. Agenda Overview**

- Summation Minutes from February Sub-committee meeting. (*in packet*)

#### **B. Review of Clarifications to 7B Land Use Planning Guidelines (Items previously identified for revisit or follow-up) (*in packet*)**

#### **C. Status Update of Sea Level Rise Considerations**

- CRC's preliminary policy (*in packet*)

#### **D. Federal Consistency, 7B and Local Land Use Plans**

- Current federal Office of Ocean and Coastal Resource Management (OCRM) Guidance, and possible adjustments to 7B (*in packet*)

#### **E. Next Meeting: Proposed August 18<sup>th</sup> Meeting**

- Discuss meeting date, items for the Agenda and remaining 7B review schedule

Adjourn: by 4:00 pm

## JT-Notes: 7B Sub-Committee Meeting Minutes – May 18, 2011

The Land Use Plan (LUP) 7B Rules Review Committee met on May 18, 2011 from 1:20 pm to 4:05 pm at the DCM Headquarters office in Morehead City.

Sub-committee members in attendance: Boots Elam, Ed Mitchell, Bill Peele, Frank Rush, Lee Padrick, Tim Tabak, and Missy Baskerville (alt. Christine Mele), and Christine Mele. Staff included: Steve Underwood, John Thayer, Maureen Will, Charlan Owens, and Tancred Miller. Other: David Plummer and Pam Brown with Marine Corps Camp Lejeune.

John Thayer reminded the committee members that the purpose of the meeting was to continue review of suggested clarifications to the 7B Land Use Planning guidelines, review the status of the CRC's Sea Level Rise (SLR) considerations, and discuss federal consistency review process and possible adjustments to the 7B language based on guidance from the federal Office of Ocean and Coastal Resource Management (OCRM). Mr. Thayer also recognized that the committee had visitors from Camp Lejeune that would like the opportunity to discuss possible military considerations within the 7B language.

Note that SLR related text that was tabled at last meeting has been removed from the preliminary draft proposals, however places remain titled reserved for SLR to allow for the future option to include text especially in the context of any CRC adopted policy.

John Thayer opened the meeting by giving a summation of the minutes from the February 23<sup>rd</sup> meeting and beginning discussion on the proposed Definitions section. *Mr. Thayer indicated that a definition for "Design Life" would be forthcoming.*

### Review of Clarifications to 7B Planning Guidelines

Mr. Thayer pointed out the definitions had not changed since the February 23<sup>rd</sup> version, except for dropping the term 'Sea Level Rise Assessment Study Area'; and the addition of the term 'Design Life'. Noted was that the word was added, but yet to be defined and that it would be provided at the next meeting.

Committee discussion focused primarily on "Working Waterfront", "Sustainable Community", "Quasi-Institutional Land Use" and "Planning Boundary":

#### *Working Waterfront.*

Mr. Thayer noted that the definition was derived from work completed by the NC General Assembly's Waterfront Access Study Committee (WASC). The WASC worked to address concerns related to the loss of public access to the waterfront and the loss of waterfront

## **JT-Notes: 7B Sub-Committee Meeting Minutes – May 18, 2011**

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property to support the commercial fishing industry (ex: properties with fish houses and transient slips being converted to residential condominiums and private slips).

Committee discussed the implications of defining or not defining working waterfront not including residential. Opening up the definition to include residential or mixed-use could be confused with "urban waterfront" and could potentially increase the amount of waterfront property to be inventoried; however, keeping "non-residential facility" in the definition could imply residential uses were not permitted in working waterfront designated areas.

Committee discussion stressed the need for supporting local government policies on working waterfronts, even if local policies support converting working waterfronts to other uses. Thayer noted the intent was to be inclusive recognizing that commercial uses also provide access opportunities.

Staff noted that the definition was intended to provide a context of where the term was used in 7B; and in no way did the guidelines regulate local development. Mr. Thayer offered to return at the next meeting adding a purpose and intent statement at the beginning of the definitions section. He also noted that local governments have the option providing their own definition as the term is used w/in the LUP. The committees decided leave the definition as proposed.

### *Sustainable Community.*

Mr. Thayer noted that the definition and principles were taken from state legislation creating a Sustainable Communities Task Force. The reason for the term was linked to subsection (d)(5) 'Future Land Use Plan Analysis' sub-heading '(D)'. Both were included due to it being one of the various state initiatives, along with others such as sea level rise, where staff has provided proposals.

The proposed 7B language would require a assessment discussion of how local policy may compliment the principles outlined in the legislation. The assessment would recognize the state initiative and provide background support and the option for local government applications for the various federal and state grants related to sustainability, including the Sustainable Communities component of DCM's planning grant program outlined in 7L.

Staff stated that the assessment is not worded to require the local government to include or adopt sustainable oriented policies only discuss how adopted policies relate to the principles.

Some committee members questioned the need for including this item in the 7B language as part of the coastal management program. The committee decided to remove sustainable community references from consideration in 7B.

## **JT-Notes: 7B Sub-Committee Meeting Minutes – May 18, 2011**

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### *Quasi-Institutional Land Use.*

The committee decided to remove (*drop the exclusion of*) Church references (“religious” and “house of worship”) from the definition, *since local governments may wish to include them as part of quasi-institutional land uses.*

### *Planning Boundary.*

Discussions centered on (1) the need for a planning boundary beyond the corporate limits and Extra-Territorial Jurisdiction (ETJ), (2) clarification concerning which Land Use Plan (LUP) would be applicable for areas within the planning boundary but outside the corporate and ETJ limits, and (3) the need for a 30-year time span as opposed to the 20-year term used in the current 7B language.

Mr. Thayer indicated that the planning boundary is meant to allow for coordination between the municipality, the County, and adjacent municipalities; addressing areas that may be annexed in the long term and/or where infrastructure may be extended whether within or outside of the jurisdiction.

Concerning the applicability of an LUP, permit requests or consistency reviews for annexed areas not include in a municipal LUP; they’re reviewed under the County LUP unless the area is within the town’s planning boundary. Otherwise, an LUP amendment to add the annexed lands to the municipal LUP would be required in order for the municipal LUP to be used.

Concerning the need for a 30-year time span, Mr. Thayer indicated that while communities are often updating plans before the long term is reached, that most major infrastructure, such as a sewer plant needed to be planned for longer timelines. Likewise to better coordinate regional and statewide transportation planning a longer horizon than 20 years needed to be recognized.

The Committee discussed situations where municipalities were restricted from establishing new ETJs (Pamlico County), where a municipal ETJ was reduced (Town of Bath), and where creation of a “Future Urban Growth Boundary” beyond ETJs for municipalities was found to be publicly unfavorable (Wake County). Situations where a municipality provides water beyond its corporate limits (Town of Belhaven) and a county provides sewers service within municipal limits (Brunswick County) were also discussed. The committee agreed that the 30-year boundary would not apply or be applicable to some communities, since many are land-locked. *The committee decided they could revisit later.*

### Federal Consistency, 7B and Local Land Use Plans (no memo in packet)

It was noted that a conference call with NOAA’s Office of Coastal Resource Management (OCRM) had been planned but could not be coordinated yet and efforts would continue.

## JT-Notes: 7B Sub-Committee Meeting Minutes – May 18, 2011

Steve Underwood and Mr. Thayer provided a background concerning the use of LUPs in federal consistency reviews and OCRM's insistence that policies be pre-determined as "enforceable policy" in the submittal of an LUP for OCRM review and approval. DCM planning staff is currently packaging submittals and determining the local policies that are "enforceable" for each LUP based on a definition and guidance provided by OCRM. The process is called the Routine Program Change (RPC) process.

Staff believes we need to consider including w/in 7B a local assessment that would assist DCM in identifying policies that would be enforceable for federal consistency purposes. Something could possibly be added to the Future Land Use Plan Analysis section.

Also there may need to be some recognition that state consistency is approached differently from pre-determination- federal approach...and possible by adding some text to 7B we would be formally recognizing there is a difference.

Noted was that the 7B Guidelines also had to go through the RPC process and was not completed until April of 2006. To date, the Pender County LUP is the only LUP that OCRM has accepted or approved. It took a long time, however it was used as the educational model for all submittals.

Tancred Miller reviewed the timeline for program change submittals, which include LUPs. There is a formal 60 day review period and possible review extensions entailing a negotiation process and follow-up drafts. Staff provided an estimated timeline of 12 to 18 months for federal review and approval.

*Staff stated that they would try and arrange a conference call for the next meeting and move forward with providing the committee with some mock text for discussion.*

### Military Considerations within the 7B Language (no memo)

DCM staff and committee member Christine Mele discussed a meeting they attended on Tuesday, May 17<sup>th</sup> with military representatives including the Bases Comanding Officer Colonel Zimmerman- concerning wind turbine proposals in the region. At that meeting, the military offered to have representatives from Camp LeJeune attend the 7B committee meeting to discuss military considerations that may be pertinent to local government land use planning.

David Plummer, Air Space Manager and General Designer for Marine Corps Camp LeJeune, New River, and Cherry Point and Pam Brown were present. Mr. Plummer provided an informal presentation, indicating on a map the radar ranges for the training areas and the negative "bubble" effect wind that turbines can create on radar imaging. His office is working on air mission maps that indicate "compatible" and "conditionally compatible" areas and "military exclusion zones" for wind turbine installation. While his work has been specific to land based turbines, he has been working with the Pentagon to provide guidance concerning off-shore turbines.

Mr. Plummer indicated that the Marine Corps could share the GIS mapping of the air mission footprint and could provide language assistance.

## JT-Notes: 7B Sub-Committee Meeting Minutes – May 18, 2011

Mr. Thayer indicated that language addressing "military influence areas" could be placed in the "Existing and Emerging Conditions" section of 7B. Implementation ideally could include some type of a notice process for proposals within the influence area. It was also noted that military interests for other branches of the military (ex: the Navy in Norfolk, Virginia and Air Force at Seymour Johnson in Goldsboro) should also be considered.

*DCM staff stated they could bring back some simple language for inclusion in 7B; the aim would be just a word inserted in several locations to ensure military interests were recognized.*

### Status of CRC Sea Level Rise (SLR) Considerations

Tancred Miller addressed committee questions concerning the status of Sea Level Rise policy and 7B language. The understanding is that there will be no further 7B language proposals concerning SLR until the CRC adopts a policy. The CRC policy currently being discussed focuses on education with no local government mapping requirement or policy requirement.

Mr. Underwood noted that the Division of Emergency Management (DEM) mapping effort is a good 12 months out and could be the basis for local governments to prepare basic analysis. Mr. Miller indicated that the DEM effort will provide for scenario analysis (1, 2, 3 foot rises in sea level) and visualization.

### Other

Mr. Underwood reminded the committee that staff's current position is that the proposed language to-date has been primarily clarifications to 7B and would not require a major round of LUP updates. He indicated that staff would like to move soon to hear from consultants, communities and other interested parties on the rules.

Mr. Thayer commented that there is still an issue to be discussed later as to when plans will need to be updated and what context. Currently there is no budgeted planning grant money through June of 2013, and it may be questionable after that.

The committee agreed to meet again on Thursday; June 23<sup>rd</sup>. same time and location.

The meeting adjourned at 4:05 pm.

**North Carolina Coastal Management Program  
7B LUP Guidelines & Federal Consistency**

**July 15, 2011  
1:30pm – 2:30pm**

**Call in #: 866-640-2775  
Passcode: 5544556**

**Goals of the Meeting:**

- Provide a clear understanding on the application of enforceable policies in state CZMA federal consistency reviews including the—
  - requirements for and application of enforceable policies;
  - specificity of enforceable policies
  - value added of local enforceable policies
  - review of proposed plans and enforceable policies

**Agenda**

- 1:30 Introductions and overview of agenda (Sarah)
- 1:40 Overview of 7B Guidelines review and revisions process, role of the committee in this project, and goals for the call (John)
- 1:45 Overview of CZMA enforceable policies and the review of proposed plans and policies (Kerry and Carleigh)
- 2:00 Suggested format to identify local enforceable policies for federal consistency (Kerry and Carleigh)
- 2:15 Additional questions and discussion (Kerry and Carleigh)
- 2:30 Adjourn

## **7B Sub-Committee Meeting Minutes – July 15, 2011**

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The Land Use Plan (LUP) 7B Rules Review Committee met in the Morehead City DCM conference room and via conference call on July 15, 2011 from 1:30 pm to 2:45 pm.

Sub-committee members in attendance: Ed Mitchell, Bill Peele, Tim Tabak, Christine Mele, and Dara Royal. Staff included: Mike Lopazanski, John Thayer, Tancred Miller, Maureen Will, Charlan Owens, and Mike Christenbury. Others linked in via conference call: Sara van der Schalie, Kerry Kehoe, Carleigh Rodriguez, and Randy Schneider all with NOAA Office of Ocean and Coastal Resource Management (OCRM).

John Thayer opened the meeting by giving introductions to OCRM staff. Thayer then reminded the committee members that the purpose of the meeting was to provide members with an understanding of the application of enforceable policies in states' CZMA federal consistency reviews including the requirements for and application of enforceable policies and specificity of enforceable policies. Another aim of the meeting was to discuss the review of proposed plans and enforceable policies and the value added of local enforceable policies.

For the benefit of OCRM staff, Thayer provided an overview of the 7B Planning Guidelines, plan review and revision process, and an overview of the role of the committee in this project. Thayer noted that the State has a program and not a state plan, which creates the need for local statements and policies to influence federal activity.

### Overview of Coastal Zone Management Act (CZMA) Enforceable Policies and the Review of Proposed Plans and Policies:

Sara van de Schalie then provided some background regarding the incorporation of local plans and policies as well as an overview of the relationship of inclusion of local plans or policies as part of the Federal Coastal Zone Management Act (CZMA) program for federal consistency purposes.

Kerry Kehoe and Carleigh Rodriguez, with OCRM, then discussed CZMA enforceable policies and the review of proposed plans and policies. It was noted that prior to 1990, OCRM/Coastal Programs Division (CPD) reviewed and approved local programs in their entirety. Prior to 1990, states were not required to identify specific local enforceable policies. When the CZMA was reauthorized by amendment in 1990, Congress added a definition of "enforceable policy" and the CPD started requiring states to identify specific enforceable policies during the state's submittal of updates of its program to OCRM, called Routine Program Changes (RPC).

In 1996 OCRM further codified this change to require that states identify any enforceable policies when submitting a program change including specific policies in local land use plans that the state included as part of its coastal program. This requirement means that when North Carolina certifies local Land Use Plans (LUP) and intends to use it as part of the federal

## 7B Sub-Committee Meeting Minutes – July 15, 2011

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consistency process they must identify local enforceable policies. An enforceable local policy must then be accepted by OCRM into the federal CZMA program prior to being used for federal consistency purposes. It was also noted that federal policies must be enforceable under state authority. Also noted that the local LUP document did not need to be submitted, but would be accepted as background information, however only approved enforceable policies were applicable.

Christine Mele asked what makes a policy enforceable and how enforceable policies are defined. In response, it was noted that an enforceable policy shall contain standards of sufficient specificity to guide public and private users. An enforceable policy must be clear in its intent and meaning. Mele asked if it is a large problem that local plans lack policies of a specific nature that may be considered for federal consistency purposes. Thayer responded that it is generally a problem. He noted that most local plan policies use action terms such as "should" and "strive to," or "encourage" and "support", and that many local policies are more like general goal statements than specific policy with clear intent. Likewise many other statements tend to only defer to the state or federal regulations rather than guide decision making. Thayer commented that most current policies are non-enforceable for federal consistency purposes.

It was then discussed that the state has a couple of options to consider for submitting new or revised plans and policies for federal consistency purposes. The first option is to submit only the local policy statements the state accepts as enforceable. The second option is to do the same but also submit the entire local land use plan as a non-enforceable component of the state's overall program. Another option is to submit the entire plan as a non-enforceable component of the program. Note the state is not required to submit the local plan.

If the state chooses the first or second option, a couple of approaches were suggested when considering policies for federal consistency purposes. One is to include only local policies that are more specific or more restrictive than state policies. Another approach is to include only policies that the state intends to use for federal consistency purposes. Another method to consider is to not include local policies if already handled by state regulation, thus keeping the policies for federal review fewer in number.

It is OCRM's desire to strive for a reduction in repetition, redundancy and administrative burden with excessive paperwork when trying to get local plans included in the federal program.

Kerry Kehoe noted that most local governments are not literate in CZMA requirements, which creates a need for guidance on writing policy for CZMA consistency purposes. More educational opportunities are needed, and perhaps the development of a template for local governments to utilize identifying local enforceable policy for federal consistency purposes.

## 7B Sub-Committee Meeting Minutes – July 15, 2011

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Dara Royal asked if a local government can include a policy in their plan that states that the Army Corps of Engineers must place all dredge material (sand) on the nearest beach, instead of dumping offshore (least cost of disposal)? Royal also asked if a policy such as this would be considered enforceable. Randy Schneider noted that the Army Corps of Engineers (ACOE) has certain criteria and laws to operate under, and that the ACOE would need to be consulted with to obtain an answer to that question.

Mr. Thayer then referred the committee members to the staff memo's recommendations.

He noted that currently, DCM staff is tasked with identifying the "enforceable policies" within the certified LUPs for submission to OCRM. This process is very time consuming. Staff believes this task should be incorporated into the local plan update process prior to CRC certification.

He stated that staff feels that this could be accomplished by requiring local government to assess their policy statements for "suitability" for federal versus state consistency purposes. Per the mock language provided in the memo, the term "suitable" is suggested rather than "enforceable", to recognize application of local policy for consistency purposes is approached differently by the in state verses in and federal process.

State consistency has been based on the principle that individual policies need to be used in concert with other plan policies and any determination as to enforceability for consistency determinations must be made in the context of the actual project and decision being made. For LUP's, the federal approach requires a predetermined categorization.

Also noted was that expanded guidance can also be provided in the 'Land Use Plan Technical Manual'.

The meeting adjourned at 2:45 pm.

## **AGENDA**

### **7B Sub-Committee**

Upstairs Conference Room- DCM Office

400 Commerce Avenue, Morehead City

July 26, 2012 -1:00 pm

#### **A. Agenda Overview**

- Summation Minutes from July 15, 2011 Sub-committee meeting.

#### **B. Overview of Current Version of Draft Clarifications to 7B Rules**

- Attached to memo is an updated version (dated 7/17/12) to the last version of the 7B markup (6/17/11).

The only additions to the markup document are the folding in of the previously provided suggested mock text covering: 'military interest' and 'local government self assessment of policies for federal consistency considerations'.

#### **C. When Does a Local LUP Have to or Need to be Updated?**

- Memo provided that lists options for discussion.

#### **D. Committee Recommendations to the CRC**

- Committee comments and suggestions for a report to the CRC including how to move forward with Draft 7B clarifications and the issue of when a local government needs to update the local LUP.

#### **E. Follow-up Meeting: Proposed August 8<sup>th</sup> Conference call Meeting**

- Discuss draft sub-committee memo to CRC

Adjourn: by 4:00 pm

## 7B Sub-Committee Meeting Minutes – July 26, 2012

The Land Use Plan (LUP) 7B Rules Review Committee met in the Morehead City DCM conference room on July 26, 2012 from 1:00 pm to 3:45 pm.

Sub-committee members in attendance: Ed Mitchell, Tim Tabak, Missy Baskerville, and Lee Padrick. Members not in attendance: Boots Elam, Bill Peele and Frank Rush. Staff included: Mike Lopazanski, John Thayer, Maureen Will, Charlan Owens, and Mike Christenbury. Braxton Davis attended the beginning of the meeting.

Braxton Davis opened the meeting by addressing his intentions for the LUP program as discussed at the last Coastal Resources Commission (CRC) meeting. The initial 7B Rules review is to be finalized and then an effort at a content analysis/assessment of local government LUPs is to be done followed by LUP listening sessions in the fall. The LUP program is to be looked at as a whole in order to assess how DCM can better assist local governments.

John Thayer provided an overview of the meeting agenda, indicating the need to review updates to the draft 7B edits, to discuss when plans need to be updated and the options for requiring local governments to update their LUPs, and to prepare draft committee recommendations to the CRC regarding the draft 7B edits and local government LUP update requirement. The agenda also included a proposed follow-up conference call meeting on August 8<sup>th</sup> for the committee to review the draft recommendation memo to the CRC. It was anticipated that committee members who were un-able to make this meeting would be available for the conference call meeting.

### Overview of Current Version of Draft Clarifications to 7B Rules

Thayer stated staff's position concerning the need for input by local governments and other stakeholders. Since the 7B Review Process has not formally included consultation with local governments and other stakeholders, making recommendations to the CRC regarding rule making is clearly not appropriate. Any report to the CRC should be considered suggestions and clarifications to be discussed with local governments and other stakeholders. Results/feedback from the listening sessions will be brought back to the CRC and reconstituted subcommittee for discussion.

Mike Lopazanski indicated that the State's Rules Review Committee could be provided a copy of the proposed 7B draft edits for review prior to the listening sessions. Mr. Thayer commented that a review could be helpful, though probably better timed to occur after any edits resulting from the listening sessions.

The committee agreed that the best approach to review the current draft was to go section by section and see what members wished to discuss or edit.

## 7B Sub-Committee Meeting Minutes – July 26, 2012

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### .0603 DEFINITIONS

Committee discussion focused primarily on “Density and Intensity”, “Infrastructure Carrying Capacity”, “Planning Boundary”, and “Policy and Working Waterfront” definitions:

#### *Density and Intensity.*

The last sentence is to be removed. The term “such as” is to be replaced with “for example”.

Committee discussion centered on the descriptors used to characterize density and intensity. A level of detail in line with zoning was mentioned as a negative while expanded alternatives for characterization were mentioned as a positive.

Thayer noted that characterizations of density and intensity are already addressed in the 7B Rule and in the ‘Technical Manual for Coastal Land Use Planning’. For instance, in the existing 7B Rule the term ‘density and intensity’ is specifically used in the Land Use Compatibility Management Topic and for designation descriptions on the Future Land Use Map (FLUM). A community’s defined use of the term is especially important in addressing the analysis requirements throughout the rules.

As agreed, the last sentence is to be removed and the term “such as” is to be replaced with “for example”.

#### *Infrastructure Carrying Capacity.*

Thayer noted that general assumptions are acceptable and need to be disclosed when determining infrastructure demands and that formal analysis prepared by an engineer is not required.

As agreed, the last sentence in the definition paragraph is to be removed.

#### *Planning Boundary.*

Committee discussion centered on the potential for conflicts when a municipality’s 30 year planning boundary extends into the county, outside of existing municipal limits and Extra-Territorial Jurisdiction (ETJ).

Thayer noted that the county LUP would continue to apply for an area within the planning boundary but outside of municipal limits and ETJ until such time as the municipal limits or ETJ expanded to encompass the area. If a municipal limit or ETJ is expanded to an area not covered under its LUP, the county LUP applies until the local LUP is amended. A planning boundary provides flexibility for a municipality to plan for anticipated growth and infrastructure demands outside its current jurisdiction and can facilitate intergovernmental coordination. Often Town

## 7B Sub-Committee Meeting Minutes – July 26, 2012

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services like sewer and water exist or are expected to be provided outside of their corporate boundaries. A planning boundary beyond existing limits is to be considered, however it may not apply to all municipalities.

### *Policy.*

As agreed, the last four sentences in the definition paragraph are to be removed.

### *Working Waterfront.*

Discussion noted that the term has been defined as a “non-residential facility”.

### .0702 ELEMENTS OF CORE CAMA LAND USE PLANS

Thayer provided an overview of recent edits to this section that have been introduced since the last meeting, which are highlighted in yellow. Recognition of military facilities and operations has been included in the analysis of existing land use and development. Consideration of natural and manmade hazards has been incorporated in the land suitability analysis. A Federal Consistency Assessment requiring local governments to assess policy and implementation statements and FLUM designation descriptions as to their suitability for federal and state use consistency purposes has been added to the Future Land Use Plan Analysis section.

A review of the entire section was conducted. The following additional edits were agreed to:

On .0702(a)(1) Definitions, the word “if” is to be inserted, clarifying that terms and concepts “if” used shall be defined and included within the plan. Also, the last sentence in the paragraph is to be removed.

On .0702(c)(1)(D) Projections, the underline and strikethrough text is to be removed due to being a double edit.

On .0702(d)(3)(A) Public Access (iii) Land Use Plan Requirements: (I), keep “on ocean and public waterfront access”

Mr. Thayer reminded the committee that the ‘struck-out’ orphan paragraph at the end of ‘(d)(4) Future Land Use Map’, includes three (3) specific analysis requirements that needed further edification and clarification which is the primary basis of the proposed additional subsection ‘(5) Future Land Use Plan Analyses’, (A) through (C). In this new section, where the text is the same as the ‘struck-out’ paragraph, it is not underlined.

The new (D), under subsection (5) is the mock text discussed at the last meeting covering local assessment of policy regarding its use for federal consistency purposes.

## **7B Sub-Committee Meeting Minutes – July 26, 2012**

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### When Does a Local LUP Have to or Need to be Updated?

Thayer indicated that no update is required in the current rules, although a six (6) year time frame associated with grant funding is mentioned in the 7L Rule. No planning grant funds are anticipated to be available in the near future. He provided a review of the updating options outlined in the staff memo and discussed a possible incremental "element" update approach.

Thayer addressed timing situations in which updates to a local government LUP would be desirable: every 10 years when U. S. Census data is available, every 5 years in concert with a Hazard Mitigation Plan, or at such time as other local planning initiatives (ex: a development ordinance, Capital Improvement Plan or Transportation Plan) are being undertaken.

The Land Use Plan Amendment process was discussed. The amendment timeline is a minimum of approximately 90 days if local governments involve Planning Board review and provide the required 30 day notices for a public hearing of local adoption at the Board of Commissioners/Council meeting and meet the minimum 30 day requirement for being on the next available CRC meeting. Thayer pointed out that the DCM Director has limited authority to review and approve an LUP amendment and that any time efficiency for approval by the Director versus the CRC would be minimal, usually only a week or two difference.

Ed Mitchell indicated a preference for not mandating local governments to update their LUPs, instead letting local governments decide when they need to update. Maintaining and investing in DCM staff resources to assist local governments was mentioned as a preferred approach.

The committee and staff discussed the concept of the local government updating individual elements of the plan over time rather than the whole document. Staff noted that currently 7B section .0702 has five (5) elements: (a) Organization of the Plan; (b) Community Concerns and Aspirations; (c) Analysis of Existing and Emerging Conditions...; (d) Plan for the Future; and, (e) Tools for Managing Development.

Providing an opportunity for local governments to amend topical elements such as the Natural & Man-made Hazards Management Topic parallel with a local Hazard Mitigation Plan, or the Infrastructure Carrying Capacity Management parallel with a local or regional transportation plan could be a possible approach and should be discussed with local governments.

### Committee Recommendations to the CRC

Ed Mitchell indicated that while the sub-committee has reviewed major change options to the 7B Rules, such as the addition of Sea Level Rise and Sustainable Development sections, it has chosen not to include these items and has opted to focus on clarifications. He indicated that

## **7B Sub-Committee Meeting Minutes – July 26, 2012**

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the 7B subcommittee is now interested in getting local government perspectives on the 7B rules and proposed edits.

### Follow-up meeting – August 8<sup>th</sup> Conference Call

DCM staff will put together a draft memo outlining a 7B subcommittee recommendation to the CRC for discussion at the August 8<sup>th</sup> conference call meeting.

Options for local government LUP updates are to be discussed further on the conference call meeting.

The meeting adjourned at 3:45 pm.



North Carolina Department of Environment and Natural Resources  
Division of Coastal Management

Beverly Eaves Perdue  
Governor

Braxton C. Davis  
Director

Dee Freeman  
Secretary

**CRC-12-24**

August 15, 2012

**MEMORANDUM TO:** Coastal Resources Commission  
**FROM:** Daniel Govoni  
**SUBJECT:** Estuarine Shoreline Stabilization

The Division of Coastal Management (DCM) and the Division of Marine Fisheries (DMF) have been working with the Department of Environmental and Natural Resources (DENR) to establish a Department-level strategy to streamline permitting and develop other actions to facilitate the use of “living shorelines”. In May of this year the Department agreed to promote living shorelines with emphasis on several areas, including: a) the investigation of potential financial incentives and cost reductions for living shorelines, b) the continuation of advocacy and public awareness by DCM staff, c) expanded education and outreach efforts, d) the development of a pre- and post- storm research project that will study the effectiveness and stability of riprap sills versus bulkheads, e) the continuation of mapping, monitoring and research efforts, and e) the streamlining of the General Permit for the construction of riprap sills. DCM and DMF have created an interagency team consisting of three staff members from each Division to develop an implementation plan. The implementation team has met twice to discuss the following:

#### **Financial Incentives and Cost Reductions**

The implementation team discussed the potential for using Community Conservation Assistance Program (CCAP) funds provided by the Division of Soil and Water Conservation, for the construction of riprap sills. Because riprap sills are considered a Best Management Practice, CCAP cost-sharing is a possibility for property owners who are located in counties that participate in the CCAP. As an additional incentive the implementation team also discussed the possibility of reducing permit fees for living shorelines.

### **Living Shoreline Advocacy and Public Awareness**

The implementation team discussed actions that would ensure that staff will continue to advocate living shorelines at appropriate sites, including staff distribution of outreach materials to applicants. DCM also expressed a desire to conduct annual living shoreline awareness workshops for marine contractors, property owners and consultants. DMF has agreed to write a future "Fish Eye News" article on living shorelines and other habitat enhancement techniques. Additionally, DCM will continue to feature estuarine shoreline stabilization in future issues of the CAMAgram.

### **Conduct Pre- and Post- Storm studies on Riprap Sills versus Bulkheads; and Continued Mapping/Monitoring/Research**

DCM intends to conduct a pre- and post- storm study of riprap sills and bulkheads in collaboration with DMF (and possibly other partners) in an effort to determine how well these structures function during different storm scenarios. The implementation team discussed the possibility of using Coastal Recreational Fishing License money to help facilitate this study. DCM has recently completed an estuarine shoreline mapping effort for the entire North Carolina coast, and will soon be collaborating with East Carolina University to conduct a more in depth analysis of this data. The implementation team will be investigating the incorporation of any additional data to help support these studies.

### **Streamlining the GENERAL PERMIT 15A NCAC 7H .2700 FOR THE CONSTRUCTION OF RIPRAP SILLS FOR WETLAND ENHANCEMENT IN ESTUARINE AND PUBLIC TRUST WATERS**

The current General Permit for the construction of riprap sills requires coordination with DMF, the Division of Water Quality (DWQ), the Department of Administration's State Property Office and the U.S. Army Corps of Engineers (USACOE) before issuance. This process can take significantly more time than other general permits. There has been an ongoing effort to modify the General Permit to remove the more time-consuming conditions, particularly those involving individual agency coordination, which may lead to a more streamlined General Permit process. For example, DMF has recently agreed that there is no longer a need for DMF review of each potential riprap sill General Permit. Also, DWQ has recently revised and re-issued a General Water Quality Certification that no longer requires written concurrence for riprap sill projects that receive a CAMA General Permit. DCM staff will soon be contacting the State Property Office and the Attorney General's office to discuss the possibility of further streamlining their participation in the CAMA General Permit review process. Additionally, discussions will be initiated with the USACOE in the near future to discuss their coordination requirement. Currently the USACOE does not have a corresponding Regional General Permit that coincides with the CAMA General Permit .2700. This lack of a corresponding Regional Permit means that the USACOE will be required to issue an Individual Permit for riprap sill projects covered by a CAMA General Permit. This USACOE Individual Permit can take significantly more time than the CAMA Major Permit process.

The implementation team intends to create a two-year Implementation Plan and will have this finalized soon for Department approval. Additional updates to the Coastal Resources Commission will be provided as appropriate. I look forward to discussing these actions at the upcoming meeting.



North Carolina Department of Environment and Natural Resources  
Division of Coastal Management

Beverly Eaves Perdue  
Governor

Braxton C. Davis  
Director

Dee Freeman  
Secretary

CRC-12-25

August 10, 2012

**MEMORANDUM**

**TO:** Coastal Resources Commission

**FROM:** Mike Lopazanski

**SUBJECT:** Temporary Rules - 15A NCAC 7H .0306(a)(2) – Replacement of Single-Family or Duplex Residential Structures

As a result of passage of House Bill 819 and it subsequently becoming law (SL2012-202), the CRC is required to adopt temporary rules allowing for the replacement of single-family or duplex residential structures that cannot meet the setback criteria of 15A NCAC 7H .0306(a)(2). SL2012-202 specifically targets single-family or duplex residential structures greater than 5,000 square feet which are currently required to be set back from the first line of stable, natural vegetation 120 feet or 60 times the shoreline erosion rate, whichever is greater. In order to qualify for the exemption, the structure being replaced cannot exceed its original footprint or square footage, must meet a minimum setback of 60 feet or 30 times the erosion rate, whichever is greater, and must be located as far landward on the lot as feasible. The provision would only apply to single-family or duplex residential structures constructed prior to August 11, 2009.

The draft amendments to 15A NCAC 7H .0306(a)(2) are attached as a new section (L). Ordinarily, the Commission does not adopt temporary rules, and should not do so unless adherence to the full notice and hearing requirements of NC Administrative Procedures Act (G.S. 150B-21.2) would be contrary to the public interest (for example, due to a serious and unseen threat to public health, or where necessary to meet new requirements of federal or state law). Here, SL2012-202 directs the Commission to adopt temporary rules that are “substantively identical to the provisions of Section 3.(a) of this Act” and that they “shall remain in effect until permanent rules...become effective.”

The NC APA requires the Commission to hold at least one public hearing prior to adopting a temporary rule, notify interested parties of the Commission’s intent to adopt temporary rules, and accept written comment for at least 15 days prior to adopting the temporary rule. While SL2012-202 requires the Commission to adopt temporary rules by October 1, 2012, the Bill was not ratified until July 3, 2012 (the last day of the legislative session) and did not become law until August 3<sup>rd</sup>. The

dates of these actions made it difficult for the Commission to initiate temporary rulemaking and still meet the public hearing and noticing requirements of the APA within that time period. However, SL2012-202 prohibits the CRC from denying a permit to replace a structure which meets the above criteria. Not meeting the October 1, 2012 deadline will therefore not have any detrimental effect on property owners seeking to replace structures as described.

Staff recommends that the Commission initiate temporary rulemaking at this (August) meeting. The Division will then schedule the required public hearing during October, in time for adoption of the temporary rule by the Commission at your November meeting. Given the timelines imposed upon the Rules Review Commission by the APA, the temporary rule will likely become effective the first week of December. Staff also intends to request that the CRC initiate permanent rulemaking at the November meeting, as the APA requires that process to be completed within 270 days of adoption of the temporary rule.

I look forward to discussing the draft rule language as well as the temporary rulemaking process at the upcoming meeting in Sunset Beach.

**SUBCHAPTER 7H – STATE GUIDELINES FOR AREAS OF ENVIRONMENTAL CONCERN**

**15A NCAC 07H .0306 GENERAL USE STANDARDS FOR OCEAN HAZARD AREAS**

(a) In order to protect life and property, all development not otherwise specifically exempted or allowed by law or elsewhere in the CRC's Rules shall be located according to whichever of the following is applicable:

(1) The ocean hazard setback for development is measured in a landward direction from the vegetation line, the static vegetation line or the measurement line, whichever is applicable. The setback distance is determined by both the size of development and the shoreline erosion rate as defined in 15A NCAC 07H .0304. Development size is defined by total floor area for structures and buildings or total area of footprint for development other than structures and buildings. Total floor area includes the following:

- (A) The total square footage of heated or air-conditioned living space;
- (B) The total square footage of parking elevated above ground level; and
- (C) The total square footage of non-heated or non-air-conditioned areas elevated above ground level, excluding attic space that is not designed to be load bearing.

Decks, roof-covered porches and walkways are not included in the total floor area unless they are enclosed with material other than screen mesh or are being converted into an enclosed space with material other than screen mesh.

(2) With the exception of those types of development defined in 15A NCAC 07H .0309, no development, including any portion of a building or structure, shall extend oceanward of the ocean hazard setback distance. This includes roof overhangs and elevated structural components that are cantilevered, knee braced, or otherwise extended beyond the support of pilings or footings. The ocean hazard setback is established based on the following criteria:

- (A) A building or other structure less than 5,000 square feet requires a minimum setback of 60 feet or 30 times the shoreline erosion rate, whichever is greater;
- (B) A building or other structure greater than or equal to 5,000 square feet but less than 10,000 square feet requires a minimum setback of 120 feet or 60 times the shoreline erosion rate, whichever is greater;
- (C) A building or other structure greater than or equal to 10,000 square feet but less than 20,000 square feet requires a minimum setback of 130 feet or 65 times the shoreline erosion rate, whichever is greater;
- (D) A building or other structure greater than or equal to 20,000 square feet but less than 40,000 square feet requires a minimum setback of 140 feet or 70 times the shoreline erosion rate, whichever is greater;
- (E) A building or other structure greater than or equal to 40,000 square feet but less than 60,000 square feet requires a minimum setback of 150 feet or 75 times the shoreline erosion rate, whichever is greater;
- (F) A building or other structure greater than or equal to 60,000 square feet but less than 80,000 square feet requires a minimum setback of 160 feet or 80 times the shoreline erosion rate, whichever is greater;
- (G) A building or other structure greater than or equal to 80,000 square feet but less than

100,000 square feet requires a minimum setback of 170 feet or 85 times the shoreline erosion rate, whichever is greater;

- (H) A building or other structure greater than or equal to 100,000 square feet requires a minimum setback of 180 feet or 90 times the shoreline erosion rate, whichever is greater;
- (I) Infrastructure that is linear in nature such as roads, bridges, pedestrian access such as boardwalks and sidewalks, and utilities providing for the transmission of electricity, water, telephone, cable television, data, storm water and sewer requires a minimum setback of 60 feet or 30 times the shoreline erosion rate, whichever is greater;
- (J) Parking lots greater than or equal to 5,000 square feet requires a setback of 120 feet or 60 times the shoreline erosion rate, whichever is greater; and
- (K) Notwithstanding any other setback requirement of this Subparagraph, a building or other structure greater than or equal to 5,000 square feet in a community with a static line exception in accordance with 15A NCAC 07J .1200 requires a minimum setback of 120 feet or 60 times the shoreline erosion rate in place at the time of permit issuance, whichever is greater. The setback shall be measured landward from either the static\_vegetation line, the vegetation line or measurement line, whichever is farthest landward.

**(L) Notwithstanding any other setback requirement of this Subparagraph, replacement of single-family or duplex residential structures with a total floor area greater than 5,000 square feet shall be allowed provided that the structure meets the following criteria:**

- (i) the structure was originally constructed prior to August 11, 2009;**
- (ii) the structure as replaced does not exceed the original footprint or square footage;**
- (iii) the structure as replaced meets the minimum setback required under Subpart (a)(2)(A) of this rule; and**
- (iv) it is not possible for the structure to be rebuilt in a location that meets the ocean hazard setback criteria required under Subpart (a)(2) of this rule;**
- (v) the structure is rebuilt as far landward on the lot as feasible.**

- (3) If a primary dune exists in the AEC on or landward of the lot on which the development is proposed, the development shall be landward of the crest of the primary dune or the ocean hazard\_setback, whichever is farthest from vegetation line, static vegetation line or measurement line, whichever is applicable. For existing lots, however, where setting the development landward of the crest of the primary dune would preclude any practical use of the lot, development may be located oceanward of the primary dune. In such cases, the development may be located landward of the ocean hazard setback but shall not be located on or oceanward of a frontal dune. The words "existing lots" in this Rule shall mean a lot or tract of land which, as of June 1, 1979, is specifically described in a recorded plat and which cannot be enlarged by combining the lot or tract of land with a contiguous lot(s) or tract(s) of land under the same ownership.
- (4) If no primary dune exists, but a frontal dune does exist in the AEC on or landward of the lot on which the development is proposed, the development shall be set landward of the frontal dune or landward of the ocean hazard setback whichever is farthest from the vegetation line, static\_vegetation line or measurement line, whichever is applicable.

- (5) If neither a primary nor frontal dune exist in the AEC on or landward of the lot on which development is proposed, the structure shall be landward of the ocean hazard setback.
- (6) Structural additions or increases in the footprint or total floor area of a building or structure represent expansions to the total floor area and shall meet the setback requirements established in this Rule and 15A NCAC 07H .0309(a). New development landward of the applicable setback may be cosmetically, but shall not be structurally, attached to an existing structure that does not conform with current setback requirements.
- (7) Established common-law and statutory public rights of access to and use of public trust lands and waters in ocean hazard areas shall not be eliminated or restricted. Development shall not encroach upon public accessways nor shall it limit the intended use of the accessways.
- (8) Beach fill as defined in this Section represents a temporary response to coastal erosion, and compatible beach fill as defined in 15A NCAC 07H .0312 can be expected to erode at least as fast as, if not faster than, the pre-project beach. Furthermore, there is no assurance of future funding or beach-compatible sediment for continued beach fill projects and project maintenance. A vegetation line that becomes established oceanward of the pre-project vegetation line in an area that has received beach fill may be more vulnerable to natural hazards along the oceanfront. A development setback measured from the vegetation line provides less protection from ocean hazards. Therefore, development setbacks in areas that have received large-scale beach fill as defined in 15A NCAC 07H .0305 shall be measured landward from the static vegetation line as defined in this Section. However, in order to allow for development landward of the large-scale beach fill project that is less than 2,500 square feet and cannot meet the setback requirements from the static vegetation line, but can or has the potential to meet the setback requirements from the vegetation line set forth in Subparagraph (1) and (2)(A) of this Paragraph a local government or community may petition the Coastal Resources Commission for a “static line exception” in accordance with 15A NCAC 07J .1200 to allow development of property that lies both within the jurisdictional boundary of the petitioner as well as the boundaries of the large-scale beach fill project. This static line exception shall also allow development greater than 5,000 square feet to use the setback provisions defined in Part (a)(2)(K) of this Rule in areas that lie within the jurisdictional boundary of the petitioner as well as the boundaries of the large-scale beach fill project. The procedures for a static line exception request are defined in 15A NCAC 07J .1200. If the request is approved, the Coastal Resources Commission shall allow development setbacks to be measured from a vegetation line that is oceanward of the static vegetation line under the following conditions:
  - (A) Development meets all setback requirements from the vegetation line defined in Subparagraphs (a)(1) and (a)(2)(A) of this Rule;
  - (B) Total floor area of a building is no greater than 2,500 square feet;
  - (C) Development setbacks are calculated from the shoreline erosion rate in place at the time of permit issuance;
  - (D) No portion of a building or structure, including roof overhangs and elevated portions that are cantilevered, knee braced or otherwise extended beyond the support of pilings or footings, extends oceanward of the landward-most adjacent building or structure. When the configuration of a lot precludes the placement of a building or structure in line with the landward-most adjacent building or structure, an average line of construction shall be determined by the Division of Coastal Management on a case-by-case basis in order to determine an ocean hazard setback that is landward of the vegetation line, a distance no less than 30 times the shoreline erosion rate or 60 feet, whichever is greater;

- (E) With the exception of swimming pools, the development defined in 15A NCAC 07H .0309(a) is allowed oceanward of the static vegetation line; and
- (F) Development is not eligible for the exception defined in 15A NCAC 07H .0309(b).

(b) In order to avoid weakening the protective nature of ocean beaches and primary and frontal dunes, no development is permitted that involves the removal or relocation of primary or frontal dune sand or vegetation thereon which would adversely affect the integrity of the dune. Other dunes within the ocean hazard area shall not be disturbed unless the development of the property is otherwise impracticable, and any disturbance of any other dunes is allowed only to the extent allowed by 15A NCAC 07H .0308(b).

(c) Development shall not cause irreversible damage to historic architectural or archaeological resources documented by the Division of Archives and History, the National Historical Registry, the local land-use plan, or other sources.

(d) Development shall comply with minimum lot size and set back requirements established by local regulations.

(e) Mobile homes shall not be placed within the high hazard flood area unless they are within mobile home parks existing as of June 1, 1979.

(f) Development shall comply with general management objective for ocean hazard areas set forth in 15A NCAC\_07H .0303.

(g) Development shall not interfere with legal access to, or use of, public resources nor shall such development increase the risk of damage to public trust areas.

(h) Development proposals shall incorporate measures to avoid or minimize adverse impacts of the project. These measures shall be implemented at the applicant's expense and may include actions that:

- (1) minimize or avoid adverse impacts by limiting the magnitude or degree of the action,
- (2) restore the affected environment, or
- (3) compensate for the adverse impacts by replacing or providing substitute resources.

(i) Prior to the issuance of any permit for development in the ocean hazard AECs, there shall be a written acknowledgment from the applicant to DCM that the applicant is aware of the risks associated with development in this hazardous area and the limited suitability of this area for permanent structures. By granting permits, the Coastal Resources Commission does not guarantee the safety of the development and assumes no liability for future damage to the development.

(j) All relocation of structures requires permit approval. Structures relocated with public funds shall comply with the applicable setback line as well as other applicable AEC rules. Structures including septic tanks and other essential accessories relocated entirely with non-public funds shall be relocated the maximum feasible distance landward of the present location; septic tanks may not be located oceanward of the primary structure. In these cases, all other applicable local and state rules shall be met.

(k) Permits shall include the condition that any structure shall be relocated or dismantled when it becomes imminently threatened by changes in shoreline configuration as defined in 15A NCAC 07H .0308(a)(2)(B). The structure(s) shall be relocated or dismantled within two years of the time when it becomes imminently threatened, and in any case upon its collapse or subsidence. However, if natural shoreline recovery or beach renourishment takes place within two years of the time the structure becomes imminently threatened, so that the structure is no longer imminently threatened, then it need not be relocated or dismantled at that time. This condition shall not affect the permit holder's right to seek authorization of temporary protective measures allowed under 15A NCAC 07H .0308(a)(2).

*History Note: Authority G.S. 113A-107; 113A-113(b)(6); 113A-124;  
Eff. September 9, 1977;  
Amended Eff. December 1, 1991; March 1, 1988; September 1, 1986; December 1, 1985;  
RRC Objection due to ambiguity Eff. January 24, 1992;*

*Amended Eff. March 1, 1992;*

*RRC Objection due to ambiguity Eff. May 21, 1992;*

*Amended Eff. February 1, 1993; October 1, 1992; June 19, 1992;*

*RRC Objection due to ambiguity Eff. May 18, 1995;*

*Amended Eff. August 12, 2009; April 1, 2007; November 1, 2004; June 27, 1995.*



CRC-12-26

North Carolina Department of Environment and Natural Resources  
Division of Coastal Management

Beverly Eaves Perdue  
Governor

Braxton C. Davis  
Director

Dee Freeman  
Secretary

August 15, 2012

**MEMORANDUM**

**TO:** Coastal Resources Commission  
**FROM:** Tancred Miller  
**SUBJECT:** Draft Sea-Level Rise Policy and Fiscal Analysis, 15A NCAC 7M.1300

At the June meeting of the Estuarine and Ocean Systems Committee, staff presented proposed additional changes to the draft sea-level rise policy. After a short discussion and a few additional changes, the committee voted unanimously to approve the draft and recommend that the Commission consider it for public hearing. The committee chair made that recommendation to the Commission on June 21<sup>st</sup>, making it clear that the committee was not requesting a decision at the June meeting. Staff then presented the draft to the Commission, highlighting the changes that were made.

The Commission requested that a fiscal analysis for public hearing be prepared based on this version of the draft. That analysis has been prepared and is attached. Since the draft policy is entirely non-regulatory, does not require any party to act, and does not restrict any activity, staff finds that the likely fiscal impact is zero. If the Commission decides to send the draft policy to public hearing, you will also be required to approve the fiscal analysis for public hearing. Staff will provide a review of the fiscal analysis at the August meeting.

S.L. 2012-202 (H819) directs the Commission to do an update to the N.C. Sea-Level Rise Assessment Report by March 2015, as well as environmental and economic cost-benefit analyses. The law also prohibits the Commission from defining any rates of sea-level change for regulatory purposes prior to July 1, 2016. The draft policy does not define rates and is entirely non-regulatory, and the Division has not been advised that the law precludes proceeding with the policy.

Should the Commission decide to approve the draft policy and fiscal analysis for public hearing, staff proposes to hold a minimum of three hearings, at least one of which would be in conjunction with a regular Commission meeting.

As a result of ongoing review of the draft policy, staff will present and discuss two more potential revisions to the draft for the Commission's consideration. The proposed changes are shown on the attachment.

Attachments: Draft Sea-Level Rise Policy  
Fiscal Analysis

# DRAFT CRC Sea-Level Rise Policy – August 15, 2012

## 15A NCAC 07M.1301 DECLARATION OF GENERAL POLICY

The Coastal Resources Commission (hereafter referred to as the “Commission”) is charged under the Coastal Area Management Act (CAMA) with the protection, preservation, orderly development, and management of the coastal area of North Carolina. To that end, the Commission is specifically charged with the protection of certain rights and values, which include ensuring the protection of public trust resources and access to those resources, preserving the quality and optimum use of water resources, managing land use and development to minimize environmental damage, and preserving private property rights.

The Commission finds that global sea-level rise is occurring and presents a gradual but significant coastal hazard along the coast of North Carolina. While uncertainties exist with any kind of forecast or projection, continued or accelerated sea-level rise is expected to intensify the challenges that the Commission faces in protecting public trust resources including the estuarine system, coastal sounds and inlets, and barrier dune systems and beaches.

While sea-level rise can be difficult to perceive in the short-term, ~~it is a ubiquitous coastal threat that gradually intensifies~~ it presents a gradual threat that may intensify other coastal hazards such as flooding, storm surge, shoreline erosion, and shoreline recession. Sea-level rise can also pose a threat to freshwater resources and quality, private property and development, tourism and economic vitality, historic and cultural resources, agriculture, forestry, and public property and infrastructure.

The goal of this policy is to establish a framework for improved understanding of the potential impacts of sea-level rise, and for supporting planned adaptation and resilience to rising sea levels. Planned adaptation can help to minimize economic, property and natural resource losses, minimize social disruption and losses to public trust areas and access, and lessen the need for disaster recovery spending.

*History Note: Authority G.S. 113A-102; 113A-106; 113A-107; 113A-124*

## 15A NCAC 07M.1302 DEFINITIONS

As used in this Section:

1. “Accommodate” means designing development and property uses such that their function is not eliminated as sea level rises.
2. “Conservation measures” are non-regulatory tools that can include easements, land acquisition, habitat restoration and similar measures.
3. “Planned adaptation” means taking a proactive and deliberate approach to promoting resiliency of communities, economies and ecosystems, by identifying hazards and vulnerabilities and designing and implementing measures to adjust to, or relocate from, rising seas. ~~before a foreseeable hazard forces a response.~~
4. “Relative sea-level rise” means an increase in the average surface height of the oceans over a long period of time that may be caused by an absolute increase in the water level, by sinking of the land at the water’s edge, or by a combination of the two.

5. “Resilience” is the ability of communities, economies and ecosystems to withstand, recover from, or adjust to disruptive influences without collapse.
6. “Sea-level rise” means a long-term increase in the average surface height of the oceans.
7. “Shoreline erosion” refers to the chronic or episodic landward migration of a shoreline caused by the loss or displacement of sediment.
8. “Shoreline recession” means the long-term landward migration of the average position of a shoreline.
9. “Subsidence” is the sinking or decrease in land elevation over time.

*History Note: Authority G.S. 113A-102; 113A-107; 113A-124*

### **15A NCAC 07M.1303 POLICY STATEMENTS**

(a) The Commission will promote public education of the impacts associated with rising sea levels and measures to adapt to changing shorelines.

(b) The Division of Coastal Management shall be responsible for providing the Commission, local governments, and coastal residents information on sea-level rise trends, research, projections, implications, and adaptation options through ongoing collaboration with federal and other state agencies and the scientific community. Based on this information, the Commission should provide an assessment of sea-level rise to the twenty coastal counties at least every five years for their consideration in local land-use and hazard mitigation planning.

(c) Relative sea-level rise is not uniform across the State’s coastal zone, and the differences are amplified by topographical variations and regional subsidence. As a result, specific adaptation measures might not be appropriate for all communities in the coastal zone, or at the same time. The Commission encourages coastal communities to consider regional trends and projected rates of sea-level rise in hazard mitigation, local land use, and development planning. The Commission also supports the development of scientific data and the advancement of adaptation measures that are tailored to different regions of the coast.

(d) As sea level rises, intertidal areas are being flooded at greater frequency and to greater depths, spurring the natural, landward migration of coastal habitats. In order to maintain their ecological functions, fisheries habitats and coastal wetlands may migrate landward to keep pace with rising waters. In consultation with appropriate resource protection agencies and stakeholders, the Commission should consider conservation and regulatory measures to enhance the resilience of natural systems and habitats.

(e) The Commission has the responsibility to assist local governments with land-use planning guidance and support. Due to the technical nature of sea-level rise science and varying needs for adaptation strategies, the Commission shall, to the best of its ability, provide local governments with scientific data to support local education and planning efforts. The Division may also provide financial assistance for local adaptation planning and implementation as available.

(f) It is in the State’s interest to invest in long-term sea-level rise research and monitoring, as such investments will contribute to enhanced natural, economic, and societal resilience, and reduced future losses and disruption. The Commission will actively support state, federal, and private efforts to fund data collection, research, monitoring, and utilization of results.

(g) In order to minimize the impacts of hazards, disruption and losses associated with rising water levels, the Commission encourages new private development and public infrastructure be designed and constructed to accommodate projected sea-level rise impacts within the structure's design life.

*History Note: Authority G.S. 113A-102; 113A-106; 113A-107; 113A-110; 113A-112; 113A-124*

DRAFT

**Fiscal Analysis**

**SEA-LEVEL RISE POLICY**

**T15A NCAC 07M.1300-1303**

DRAFT

Prepared by

Tancred Miller, Coastal Policy Analyst  
NC Division of Coastal Management  
(252) 808-2808

August 2012

## Basic Information

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Agency	DENR, Coastal Resources Commission (CRC), Division of Coastal Management (DCM)
Rule Title	Sea-Level Rise Policy
Citation	T15A NCAC 07M.1300-1303
Proposed Action	Subchapter 7M contains the Coastal Resources Commission's generally applicable objectives and policies for land and water uses in the coastal area. T15A NCAC 7M .1300 is a new Section under which the CRC proposes to adopt a policy to address sea-level rise.
Agency Contact	Tancred Miller Tancred.Miller@ncdenr.gov (252) 808-2808, ext. 224
Authority	G.S. 113A-102; 113A-106; 113A-107; 113A-110; 113A-112; 113A-124
Impact Summary	De minimis State government: None. Local government: None. Substantial impact: None. Federal government: None. Private Sector: None.
Necessity	This action is being proposed in order to define and codify the agency's responsibilities and framework for working with public and private stakeholders, and internally to address sea-level rise. Adoption of this policy will serve the public interest by setting a direction for the Commission in response to sea-level rise. This action is consistent with the CRC's mandate under the NC Coastal Area Management Act for protecting the public's right and ability to access coastal shorelines, for considering strategies to minimize damage to the natural environment, and for preserving property and property rights.

## Summary

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The sea-level rise policy is a non-regulatory means by which the CRC recognizes a need to respond to and plan for a global phenomenon that may have widespread implications for coastal North Carolina. The policy does not by itself establish new permitting requirements or specific use standards. The policy does not limit or prohibit development activity, or in any way modify any of the agency's existing regulations or development standards. The policy declares the agency's guiding principles for proactively fulfilling its legislative mandate under the Coastal Area Management Act (CAMA). Since the policy has no permitting or regulatory effect, and does not allocate, encumber or commit resources outside of the agency's normal course of business, the fiscal impact is zero. The proposed text is located in Appendix A.

The proposed effective date of this proposal is April 1, 2013.

## **Introduction**

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The U.S. Environmental Protection Agency (EPA) reports that among U.S. states North Carolina has the third-most amount of land at risk to sea-level rise (Titus & Richman, 2001). According to the EPA, sea level along the U.S. Mid-Atlantic and Gulf coasts rose five to six inches more than the global average in the last century, due to land subsidence in these areas. Various national and state-level reports have concluded that sea level rose between eight and fourteen inches in North Carolina over the past century, and that an equal or greater amount of rise is likely in the current century. The CRC is responsible under CAMA for protecting the public's right and ability to access coastal shorelines, for guiding growth and development to minimize damage to the natural environment, and for preserving private property rights. Under this authority, the CRC is recognizing the potential threats associated with sea-level rise, much like other coastal hazards such as storms, flooding and erosion.

## **Purpose of Policy**

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The proposed policy sets a direction for the CRC in their management response to sea-level rise. The policy describes the resources and uses that are vulnerable to sea-level rise, and expresses the CRC's intention to take action in the form of education and outreach, as well as continuous re-assessments as the science of climatology and monitoring evolves. The policy defines the language that will be used in discussing sea-level rise and will help to clarify the types of actions being considered. The policy is consistent with, and will help to fulfill, the goals set out for the Commission in G.S. §113A-102(b).

## **Description of the Proposed Policy**

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The proposed policy contains three sections—a declaration of general policy, a definitions section and specific policy statements.

The policy does not mandate any specific actions or responses by the CRC or any other party. In addition, the policy does not prevent any local government or other party from taking any actions that are currently permissible, and does not create any loss of use or opportunity. The policy does not expand the CRC's jurisdiction or make any additional parties subject to the agency's permitting authority.

The declaration of general policy, 7M.1301, begins with the CRC's charge under CAMA, and lays out the necessity for the policy. In this section, the CRC recognizes sea-level rise as a hazard and a threat to land, property, and uses of private and public trust resources. The section identifies the additional complications from sea-level rise that the CRC will face in fulfilling its statutory management functions. This section states that the intent of the policy is to establish a framework for supporting planned adaptation to sea-level rise. This section does not establish fees, permitting or planning requirements, or require any parties to take any specific action; therefore, the fiscal impact of this section is zero.

The definitions section, 7M.1302, simply defines unusual terms and clarifies the intended meaning of terms that are used in the context of this policy as they could have different meanings in other situations. This section does not establish any fees, permitting or planning requirements, or require any parties to take any specific action; therefore, the fiscal impact of this section is zero.

The policy statements section, 7M.1303, contains eight distinct policy statements:

7M.1303(a) states the CRC's commitment to promoting public education about the potential impacts of sea-level rise. This statement does not commit the CRC to allocating resources to this endeavor. DCM staff will incorporate educational efforts into the normal course of business, using normally-available staff levels and resources. The fiscal impact of this statement on the agency and other parties is zero.

7M.1303(b) indicates that the CRC will provide sea-level trend assessments, research, projections, and adaptation options to the coastal counties for their information, and to use at their discretion. DCM will provide an updated assessment about every five years by working with an all-volunteer team of scientists. The report itself has been, and will continue to be sent electronically to the counties, precluding the need for printing and distribution costs. This activity is mandated by Session Law 2012-202 and must be performed even in the absence of this proposed policy; therefore, including the activity in the policy does not affect the work that agency is committed to doing and does not add any additional cost. The fiscal impact of this statement on the agency and other parties is therefore zero.

7M.1303(c) recognizes that there are regional differences in the local rates of sea-level rise due to differences in the rate of land subsidence. The CRC uses this statement to encourage, but not require, coastal communities to consider local and regional rates of historic and projected sea-level rise in their planning and development decisions. Since communities are not required to take any action, the fiscal impact of this statement on the agency and other parties is zero.

7M.1303(d) describes some of the potential impacts of sea-level rise on the natural environment, and states that the CRC may consider conservation and regulatory measures to protect natural systems. This statement does not introduce any fees or require any parties to take any specific action; therefore, the fiscal impact is zero.

7M.1303(e) signals the CRC's intent to support local communities with planning guidance, technical support and scientific data. DCM will provide guidance and support through existing policy and planning staff. The statement does not commit the CRC to providing financial resources or support unless funds are appropriated or granted to the CRC for that purpose. In the absence of any expectation of such funding, the fiscal impact of this statement cannot be determined. Moreover, any funds that become available for this purpose would be allocated through other provisions of the CRC's rules; therefore, the fiscal impact of this policy statement is zero.

7M.1303(f) affirms the CRC's support for scientific research and monitoring that leads to a better understanding of sea-level rise. The statement is not a commitment of funding from the CRC or any agency or institution; therefore, the fiscal impact of this statement is zero.

7M.1303(g) encourages property owners, developers and infrastructure planners to consider potential sea-level rise and the expected lifespan of structures in the design and construction of new, private development and public infrastructure. Since the statement does not require them to do so, there is no fiscal impact.

### **Affected Parties**

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No parties will experience any regulatory or fiscal impact as a result of the proposed policy. The policy is intended as guidance, not regulation, and does not require any parties to take any specific actions or incur any new costs. In addition, the policy does not prohibit any local government or other party from taking any actions that are currently permissible, and does not create any loss of use or opportunity.

### **Division of Coastal Management**

While the policy directs the Division to incorporate sea-level rise into its education and outreach activities, this is consistent with the existing mission of the agency to raise awareness and provide technical assistance on coastal hazards, development-related issues and environmental stewardship. Incorporation of sea-level rise into these existing activities will not require additional staff or reallocation of existing funding.

### **NC Department of Transportation**

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Pursuant to G.S. 150B-21.4(a1), the agency reports that the proposed policy will not affect environmental permitting or compliance costs for the NC Department of Transportation (NCDOT).

## **Anticipated Effects**

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Based upon the preceding explanations, the agency concludes that the proposed policy will not have any fiscal impact on unit of government, business, the private sector, or any other party.

### Benefits

The impacts associated with sea-level rise are long-term and are not expected to be realized in the near future. However, the far-reaching nature of the impacts requires awareness of the potential for these impacts and how they may affect local governments, private property owners, and public trust resources. The establishment of a sea-level rise policy will allow the Coastal Resources Commission to continue to monitor this coastal hazard and convey information to coastal communities, enabling them to make informed decisions as conditions warrant. Given the nature of sea-level rise impacts, failure to maintain awareness could put public and private assets at risk, necessitating much costlier responses in the future.

### Costs

This proposal does not establish any fees, permitting or planning requirements, or require any parties to take any specific action; therefore, the fiscal impact is zero.

### Substantial Impact Declaration:

The proposed rule change does not have a substantial economic impact.



North Carolina Department of Environment and Natural Resources  
Division of Coastal Management

Beverly Eaves Perdue  
Governor

Braxton C. Davis  
Director

Dee Freeman  
Secretary

CRC-12-28

August 14, 2012

**MEMORANDUM**

**TO:** Coastal Resources Commission  
**FROM:** Mike Lopazanski  
**SUBJECT:** Approval of CHPP 2012 Annual Report

The Coastal Resources, Environmental Management, and Marine Fisheries commissions adopted the NC Coastal Habitat Protection Plan (CPP) in December of 2004. The second iteration of the plan and updated recommendations were approved by the commissions, as well as the Wildlife Resource Commission in 2010.

The Fisheries Reform Act requires the commissions with membership on the CHPP Steering Committee report by September 1<sup>st</sup> each year to the Environmental Review Commission, and as of 2012, to the Joint Legislative Commission on Governmental Operations on their progress in implementing the Coastal Habitat Protection Plan. The attached document provides details of the progress made by the respective commissions and their supporting agencies, the Department, other DENR agencies, and agencies within the NC Department of Agriculture and Consumer Services, in implementing the CHPP during year beginning in September 2011 and ending in August 2012. Jimmy Johnson, DENR's CHPP Coordinator, will be at the upcoming meeting in Sunset Beach to present highlights of the report for Commission approval.

**NORTH CAROLINA'S COASTAL HABITAT PROTECTION PLAN**  
**2011 - 2012**  
**ANNUAL REPORT**

TO THE  
ENVIRONMENTAL REVIEW COMMISSION  
AND THE  
JOINT LEGISLATIVE COMMISSION ON GOVERNMENTAL OPERATIONS  
OF THE  
NORTH CAROLINA GENERAL ASSEMBLY  
FROM  
NORTH CAROLINA MARINE FISHERIES COMMISSION,  
NORTH CAROLINA COASTAL RESOURCES COMMISSION,  
NORTH CAROLINA ENVIRONMENTAL MANAGEMENT COMMISSION, AND  
NORTH CAROLINA WILDLIFE RESOURCES COMMISSION  
AND  
NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

September 2012

**Introduction**

## **Fisheries Reform Act**

The North Carolina General Assembly established the Coastal Habitat Protection Plan program within the North Carolina Department of Environment and Natural Resources (DENR) with passage of the Fisheries Reform Act of 1997. The Act (General Statute or G.S. 143B-279.8) requires preparation of Coastal Habitat Protection Plans (CHPPs) for critical fisheries habitats in the coastal area. The Act states “[t]he goal of the Plans shall be the long-term enhancement of coastal fisheries associated with each coastal habitat.” Within DENR, the Divisions of Marine Fisheries, Water Quality, and Coastal Management are designated as the lead agencies for implementing the CHPP program. Many other DENR agencies also participate in CHPP work. By law the CHPP must describe and evaluate the functions, values, status, and trends of all habitats, identify existing and potential threats, and recommend actions to protect and restore the habitats.

## **Role of the Commissions**

The Coastal Resources, Environmental Management, and Marine Fisheries commissions adopted the CHPP in December of 2004. The CHPP was adopted, along with implementation plans were adopted by each of the three original commissions in June and July 2005 (see [Implementing the North Carolina Coastal Habitat Protection Plan 2005](#)). The second iteration of the plan and updated recommendations were approved by these same commissions, as well as the Wildlife Resource Commission in 2010. Rule making and policy actions taken by all three commissions are to comply “...to the maximum extent practicable” with the plan.

The commissions with membership on the CHPP Steering Committee are to report by 1 September each year to the Environmental Review Commission, and as of 2012, to the Joint Legislative Commission on Governmental Operations on their progress in implementing the Coastal Habitat Protection Plan. This document reports on the progress made by the respective commissions and their supporting agencies, as well as other DENR agencies and agencies within the North Carolina Department of Agriculture and Consumer Services, in implementing the CHPP during year beginning in September 2011 and ending in August 2012. Attachment 1 lists the members of the CHPP Steering Committee for the 2011-2012 year.

## **North Carolina Coastal Habitat Protection Plan (CHPP)**

The CHPP focuses on six basic fish habitats: water column, shell bottom, submerged aquatic vegetation (SAV), wetlands, soft bottom, and hard bottom. A chapter is devoted to each type. Each of the habitat chapters is organized to provide the information specified in the Act.

The CHPP describes the functions of habitats necessary for production of economically important fish stocks and the links between those habitats and various life history stages of the fish. The CHPP also discusses the various types of threats to the habitats upon which productive coastal fisheries depend. Moreover, the plan summarizes the institutional structures for management of fisheries habitat, adjacent lands, water quality, and fisheries in eastern North Carolina. Finally, the plan includes numerous management recommendations for the Coastal Resources, Environmental Management, Marine Fisheries and Wildlife Resources Commissions, DENR and its other agencies and others to implement in order to address the identified threats.

The CHPP also identifies four primary goals which help to focus available resources on habitat protection. The four goals are: Improve effectiveness of existing rules and programs protecting coastal fish habitats; Identify, designate and protect strategic habitat areas; Enhance habitat and protect it from physical impacts; and Enhance and protect water quality. These goals are each broken down into

recommendations with each recommendation having a series of action items associated with it. These action items are the key component to the two year CHPP Implementation Plan.

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# Annual Highlights

## September 2011 – August 2012 CHPP Accomplishments

### Goal 1: Improve effectiveness of existing rules and programs protecting coastal fish habitats

- Shellfish closure maps are complete and available on the DMF website, and our shellfish classifications GIS data is available on NC One Map.
- DMF staff regularly attends festivals and outreach events to educate the public on DMF activities including habitat conservation, the oyster shell recycling program, and the life history, habitat use, and threats to important fishery species.
- DMF's Fish Eye News web-based publication featured articles addressing CHPP implementation, obstacles to anadromous fish spawning migrations, endocrine disrupting chemicals, and beach water quality (see <http://portal.ncdenr.org/web/mf/fish-eye-news-0811>).
- The DMF habitat section hosted Operation Medicine Drop events in both Morehead City and Wilmington, and supported another event in Manteo to educate the public on proper disposal methods of unwanted medications to keep endocrine disrupting chemicals out of our waterways.
- The National Estuarine Research Reserve (NERR) implemented an education and outreach campaign focusing on estuaries and sea level rise in the Albemarle-Pamlico system funded by the Albemarle-Pamlico National Estuary Program (APNEP).
- Estuarine Shoreline Stabilization workshops were held April 24 (Beaufort) & May 2, 2012 (Wilmington) and emphasized the importance of fringing marsh habitats and explained alternatives to vertical control structures. The same workshop was hosted in Nags Head in September 2011 as part of the education and outreach campaign funded by APNEP. The "Weighing Your Options: How to Protect Your Property from Shoreline Erosion" booklet was distributed at the workshops.
- A realtor workshop on Estuarine Shoreline Stabilization is being developed and will be approved for four continuing education credits by the NC Real Estate Commission. It will be offered in 2013.
- The CHPP habitats are addressed during Reserve K-12 student field trips, teacher/educator workshops, summer public field trips, and summer camps conducted by the NERR. Discussions include why these habitats are important to coastal North Carolina and how they benefit plants and animals.
- An activity booklet titled "Our Living Estuaries" was produced in 2011 through funding from a Cooperative Institute for Coastal and Estuarine Environmental Technology (CICEET) grant. CHPP habitats are included in the booklet.
- DCM has completed mapping of the estuarine shoreline resulting in a digital representation of the shoreline by type, modifications, and an inventory of structures. The Division will be contracting with East Carolina University to assist in further analysis of the project data to identify regional development trends along the shoreline and to better understand the distribution of coastal structures and natural resources.
- New coastal buffer rule changes effective July 1, 2011 affect construction of single family residences on existing lots (lots of two acres in size or less that were platted and recorded in the appropriate county Register of Deeds prior to Aug 1, 2000). The rule is applicable to Neuse and Tar-Pamlico counties of Beaufort, Hyde, Carteret, Craven, Dare, Onslow, Pamlico and Washington.

- There is a strong promotional effort underway this year towards encouraging green infrastructure and low impact development techniques in new development and retrofitting existing development.
- WRC review of Wildlife Action Plan (WAP) – Habitat vulnerability sections for upcoming WAP revision are underway.
- WRC staff participated in US Department of Agriculture (USDA) multi-agency discussion on *Hydrilla* in the Albemarle Sound (March 5, 2012).
- “*Home Is Where the Habitat Is...*” posters and brochures continue to be available and distributed to the aquariums, EE Centers and through Partnership for the Sounds. Educators and guides reference these documents and the CHPP in their presentations.
- During calendar year 2011 across the eastern region of North Carolina, the NC Forest Service recorded more than 880 instances in which its agency personnel either assisted with BMP use, identified BMPs that were being used, or made recommendations for using BMPs. Work continued to develop a comprehensive, new data collection and analysis program for conducting detailed BMP site survey evaluations.
- Development of a monitoring strategy for the Albemarle-Pamlico ecosystem is underway, designed to align with APNEP’s 2012 CCMP.
- Annual NC Association of Soil and Water Conservation Districts education contest held (poster, essay, speech, computer designed poster, computer designed slideshow) – 2011-2012 contest theme was “Wetlands are Wonderful.”
- A draft report providing technical information on such issues as estuarine shoreline stabilization, water availability, monitoring and enforcement, and sanitary sewer outflows is anticipated to be released by the end of the summer of 2012. The final report is planned for release at the end of 2012.

## **Goal 2: Identify, designate and protect strategic habitat areas**

- Mapping of benthic habitat in deep estuarine bottom has occurred in current oyster sanctuary locations and proposed oyster sanctuary locations.
- The DMF bottom mapping program has mapped and sampled: Newport River, Harlowe Creek, Back Sound, Harbor areas on the Eastern side of Harkers Island, Davis Bay and other areas on the Western side of North River in Carteret County; the Lower Lockwood Folly intercoastal waterway in Brunswick County
- Region 2 SHAs were approved by the Marine Fisheries Commission. Final report is posted on the DMF website.
- Emergent marsh monitoring was initiated in three of the four NCNERR sites.
- The joint Reserve-NC Sea Grant coastal research fellowship funded a UNC-IMS graduate student examining the impact of algae on intertidal oyster reefs at the Rachel Carson Reserve in 2011.
- The SAV imagery, captured in 2007 and now fully interpreted, is housed with, and available through, NOAA or it can be accessed through the APNEP website.
- The EEP developed and proposed a comprehensive research questions framework to systematically identify and prioritize NC SAV restoration research needs. The table is intended to be used by the Restoration Subcommittee to propose a short and long-term research plan that may inform an SAV restoration strategy for the state.
- The SHA priorities are now a standard data layer incorporated into EEP River Basin Restoration Priorities plans for applicable coastal regions.

### **Goal 3: Enhance habitat and protect it from physical impacts**

- Oyster Sanctuary development is continuing at Gibbs Shoal using reef ball and rip rap provided through Coastal Recreational Fishing License (CRFL) funding.
- In the Little Creek Oyster Sanctuary (Lower Neuse River), the US Army Corps of Engineers (ACE) funded a project to compare reef ball, rip rap, reef pyramid, and concrete block material in the creation of oyster sanctuaries. The project is in the final stages of permitting.
- CRFL grant money funded one fishing reef/oyster sanctuary in each of the northern, central, and southern regions of the coast. The siting criteria included access from existing boat ramps and considered recreational fish species and oyster recruitment.
- Received CRFL funds to create two informational brochures and an educational video describing the process of building oyster reefs and how shell recycling helps oyster populations.
- As part of the shrimp FMP process, DMF updated GIS datasets of no-trawl areas and included areas that are temporarily closed through proclamations to get accurate acreage estimates of areas closed to trawling throughout the year.
- DCM has completed mapping of the estuarine shoreline including inventory of structures such as docks and piers. Data can be used in analysis of the cumulative shading impacts of these structures on SAV.
- DCM has completed mapping of the estuarine shoreline resulting in a digital representation of the shoreline by type, modifications and an inventory of structures. The Division will be contracting with East Carolina University to assist in further analysis of the project data to identify regional development trends along the shoreline and to better understand the distribution of coastal structures and natural resources.
- DCM and DMF have initiated a broader department-level effort to address estuarine shoreline stabilization that may advance the use of marsh sills and other alternative stabilization structures.
- An alternative shoreline stabilization demonstration site was installed on the Carrot Island portion of the Rachel Carson Reserve in June 2012. The demonstration project is part of the Reserve's ongoing "Sustainable Estuarine Shoreline Stabilization: Research, Education and Public Policy in North Carolina" project funded by CICEET.
- DCM management has established a detailed shoreline, for non-regulatory purpose, that can serve as a basis for analyzing policy language that has been adopted by the Coastal Resource Commission within North Carolina's estuarine and ocean system areas of environmental concern. DCM designed a methodology and rules for digitizing a complete estuarine shoreline and all structures that exist along the shoreline. The shoreline delineation methodology was designed to address issues DCM and other stakeholders face when managing the estuarine shoreline.
- The CRC continues development of a sea-level rise policy focusing on identifying specific needs for additional research, monitoring, and education, and planning assistance. The Commission is expected to send the draft policy to public hearing at its August 2012 meeting.
- A market analysis of publicly-funded outreach professionals was conducted to assess sea level rise education and outreach activities, which will be used for future coordination on sea level rise messaging and outreach.
- WRC staff selected two creeks in the Albemarle Sound region known for an historic herring run to sample weekly with boat electrofishing. A draft report of the results is currently in review.

- Work is currently underway between APNEP and Virginia's Department of Conservation and Recreation (DCR) looking at the shared waters of the Meherrin River and the Chowan River in NC as part of the Virginia Healthy Waters Initiative. This work will help local governments identify navigation and stream restoration projects.
- DSWC working with DMF to obtain SHA Region 1 and Region 2 maps in a format that is usable for local soil and water conservation districts when ranking cost share projects.
- The FS continues to work with partners at North Carolina State University (NCSU) to develop a long term monitoring study proposal which can be used to solicit and obtain necessary funds for more in depth monitoring.
- During this fiscal year, EEP has been collaborating with NCDOT to assess the potential for barrier and dam removal, specifically on a test-case basis in the Chowan River Basin. EEP presented barrier removal scenarios to the IRT and is discussing crediting strategies with members during the most recent and the upcoming bimonthly meetings.
- The EEP is using the River Herring FMP and the prioritization document River Herring Habitats (NC Environmental Defense 2010) as a basis for field assessments of obstruction removal sites in the Chowan on a test case basis. Restoration projects pursued by EEP in the Chowan will be focused in areas that promote improved fisheries habitats in addition to traditional mitigation measures.

#### **Goal 4: Enhance and protect water quality**

- DMF received two grants (from the Clean Water Management Trust Fund (CWMTF) and APNEP) and have completed the grant requirements for each. The CWMTF grant was for developing a comprehensive plan to reduce stormwater runoff at the DMF headquarters property. The APNEP grant was for a rain garden, stormwater re-route, and marsh plantings. DMF plans to seek additional funding to complete other suggestions in the plan such as cisterns.
- DCM worked with DWQ to incorporate power washing BMPs into the update of the Clean Marina BMP Manual and has included additional power washing guidance based on that input.
- DCM has developed the North Carolina Clean Boater program as an important part of the North Carolina Clean Marina program. Both programs protect coastal resources through the use of best management and operation practices. To become a North Carolina Clean Boater, boaters read "A Boaters' Guide to Protecting North Carolina's Coastal Resources."; commit to clean boating by signing the pledge card located in the Clean Boater brochure; mail a pledge card to the North Carolina Clean Boater Program office; and receive a North Carolina Clean Boater sticker to display on their vessel.
- DCM has completed mapping of the estuarine shoreline resulting in a digital representation of the shoreline by type, modifications and an inventory of structures.
- DCM has incorporated funds for Clean Marina Coordinator in the Division's 2012-2013 NOAA cooperative agreement.
- Power washing BMPs have been incorporated into the Clean Marina Manual as of June 2011.
- DWQ is continuing to issue and re-issue Phase II stormwater permits to coastal and non-coastal local jurisdictions and military bases. DWQ is working closely with them to help them design and develop programs to better control stormwater and also develop strategies to address existing impaired waters.

- Improving wastewater/stormwater management at coastal marinas has been an ongoing activity for much of 2011 and 2012.
- WRC is funding a study on endocrine disrupting chemicals and intersex fish in North Carolina waters including the Roanoke River.
- For FY 2012, ~\$212,000 funds were allocated to local soil and water conservation districts for BMP implementation. A \$125K grant received from the Environmental Enhancement Grants program in 2011 for BMP implementation in the Cape Fear, Neuse, Tar-Pamlico, and White Oak river systems. The DSWC will continue to pursue grant funds to supplement the state allocation.
- There has been no action in the coastal counties this past year regarding alternatives to waste lagoons and spray fields systems. However, an Anaerobic Digester was completed in Yadkin County. The system captures the methane and able to produce enough electricity to run the system and part of the farm itself. Individuals are exploring the possibility of replicating a similar system in the coastal counties in the future.
- The FS has organized an internal work group to address potential issues related to timber harvesting in bottomland/muck/swamp systems, regarding how to minimize water quality impacts during these operations and promote successful tree regeneration.
- Funding is available to fund one more project for the Swine Buyout Program. The project is in Craven County and the Division is awaiting an appraisal before moving forward.

## **Major Overall Accomplishments of the CHPP Implementation Plan**

After the CHPP was formally adopted in December of 2004, the commissions, their administrative divisions, and DENR also developed and adopted implementation plans during the summer of 2005 and again in 2007. These implementation plans detail more than 100 specific steps the agencies involved would take during the identified fiscal years to implement the CHPP recommendations. The accomplishments of the CHPP have been reported annually since 2006 through a CHPP Annual Report.

In 2009, the CHPP Team began reviewing and revising the original CHPP document as required by the Fisheries Reform Act of 1997. The Act mandates the review of each management plan at least once every five years. With staff from the Division of Marine Fisheries as the lead writers, a complete revision of the CHPP has been carried out over the past year and a half. Recommendations which were accomplished under the 2005 CHPP, or were no longer significant, were removed. New scientific findings and studies, which occurred over the past five years, have been included in the revised document. A number of new recommendations have been included in the re-written Plan. Also included in the 2010 CHPP are new, emerging issues affecting North Carolina's coastal habitats. These emerging issues include: pharmaceuticals and endocrine disruptors, climate change and sea level rise, energy infrastructure (oil), invasive species, and alternative energy issues. The 2010 CHPP was adopted by all four commissions in the fall of 2010 and is currently being used by each agency to direct their coastal habitat initiatives.

Overall, the 2005 CHPP and the 2010 revised CHPP have been largely successful in implementing plan recommendations. To date, the majority of accomplishments have been non-regulatory. Prior to making large management changes, positions and funding were needed to assess compliance of existing environmental rules, complete mapping of fish habitats, and educate the public on environmental issues. Multiple large grants have been awarded to state agencies and universities to conduct research or projects in support of the CHPP. Examples include DCM receiving funding for the BIMP, shoreline mapping, and the CICEET project looking at shoreline stabilization; APNEP coordinating the pooling of resources to map SAV coast wide; and universities receiving Fishery Resource Grants (FRGs) and Coastal Recreational Fishing License (CRFL) grants to collect needed habitat information. Much has been done in those areas, but work still remains.

The passing of the coastal stormwater rules marks the largest regulatory change that the 2005 CHPP influenced. It occurred through the hard work of numerous DENR staff, commissioners and CHPP supporters such as environmental NGOs. CRC also implemented sediment criteria rules for beach nourishment and other rule changes to minimize habitat impacts from water dependent activity. Regulatory changes for habitat protection tend to take longer to implement because scientific information is needed to support the change, discussions are needed among agencies, or educational outreach to stakeholders is required. Some of the new scientific information needed to support these changes is part of the 2010 CHPP.

In spite of the difficult economic times, significant progress in improving and protecting coastal habitats continues as agencies move forward with the recommendations found in North Carolina's Coastal Habitat Protection Plan. These accomplishments are noted in pages four through eight of this report. Of significant interest and accomplishment over the past year was the completion of the Strategic Habitat Area 2 (SHA2) analysis and its adoption by the MFC. This area encompasses the Pamlico Sound and its main tributaries. Also of significant note to the DMF was the ability to maintain the Oyster Sanctuary Program even through the tough economic times. Partnerships with organizations outside of state government were instrumental in maintaining this program. These partnerships attest to the importance of maintaining this very significant habitat and resource.

The Division of Coastal Management focused their efforts this past year on education extensively utilizing the National Estuarine Research Reserve system to help get the message out regarding the importance and the significance of maintaining NC's precious coastal habitats. With funding from APNEP, the Division of Coastal Management, through the Reserve implemented an education and outreach campaign focusing on the estuaries and the potential effect of sea level rise primarily in the Albemarle-Pamlico system. A large part of the education effort focused on alternatives for shoreline stabilization with several workshops being held along the coast. The NERR also produced a booklet entitled "Our Living Estuaries" which was published through a grant from the Cooperative Institute for Coastal and Estuarine Technology (CICEET) and the booklet included all of the habitats identified in the CHPP. A second booklet entitled "Weighing Your Options" was also produced in 2011 to help property owners understand shoreline stabilization options available to them, how they work, and the cost/benefits of each option through funding from a CICEET grant.

DCM also completed mapping of the estuarine shoreline. This effort resulted in a digital representation of the shoreline by type, modifications, and an inventory of structures. The Division will be contracting with East Carolina University to assist in further analysis of the project data. This analysis will identify regional development trends along the shoreline and will help to better understand the distribution of coastal structures and natural resources. DCM also secured funding for a Clean Marina Coordinator through its 2012-2013 NOAA cooperative agreement.

The Division of Water Quality made changes in the coastal buffer rules which came into effect on July, 1 of this year. These rule changes are applicable to Neuse and Tar-Pamlico counties of Beaufort, Hyde, Carteret, Craven, Dare, Onslow, Pamlico and Washington. The rule changes now allow for development that would have been prevented by previous Neuse and Tar-Pamlico Buffer rules. Affected development will still be back from the high water level a minimum of 30 feet, the maximum feasible distance back designed to minimize encroachment into the protected riparian buffer. New stormwater generated by the affected development must still be treated and flow must still diffuse through the buffer. Also in these rule changes, no septic tank or drain field may encroach on the buffer. DWQ also rewrote the chapter regarding permeable pavement in the Best Management Practices manual. This revision now clarifies the level of credit for this type of pavement and provides guidance on its proper design standards.

In preparation for the upcoming revision of its Wildlife Action Plan (WAP), the Wildlife Resources Commission's staff has completed the vulnerability sections for habitats identified in the CHPP. The WAP and the WRC's Green Growth Toolbox promote habitat conservation and help educate the citizens of North Carolina as to the importance of habitat for wildlife and fisheries. The WRC has also selected two creeks in the Albemarle Sound region which have been known for their historic herring runs to sample weekly in an effort to try and determine herring abundance in those once productive tributaries.

The interpretation of the submerged aquatic vegetation photography, which was photographed in 2007 and 2008, has been completed and the information is now available for researchers and those involved with the permitting process. NOAA personnel in Beaufort have the meta-data and color schematics are available through the APNEP website.

The Community Conservation Assistance Program (CCAP) was appropriated \$212,000 for FY 2012. These funds will be allocated to the local Soil and Water Conservation Districts for implementation of Best Management Practices (BMP). The Division of Soil and Water Conservation received an Environmental Enhancement Grant in the amount of \$125,000 for BMP implementation in the Cape Fear, Neuse, Tar-Pamlico and White Oak River basins. The Association of Soil and Water Conservation Districts held a contest during the 2011-2012 school year. The contest included posters, essays, a speech competition, a computer designed poster and a slideshow. The theme for the contest was "Wetlands are Wonderful."

During calendar year 2011, across the eastern region of North Carolina, the NC Forest Service (NCFS) recorded more than 880 instances in which its agency personnel either assisted with BMP use, identified BMPs that were being used, or made recommendations for using BMPs. Collectively these activities encompassed almost 54,500 acres across eastern North Carolina. Work continued to develop a comprehensive, new data collection and analysis program for conducting detailed BMP site survey

evaluations. BMP surveys will begin in the summer of 2012 across the state. The NCFS executed a new Memorandum of Understanding (MOU) with the Division of Land Resources regarding the inspection, monitoring, education, and enforcement of the Forest Practices Guidelines state regulations. The two agencies are working to develop an indicator list that can be referenced when agency personnel are determining if a land-disturbing activity is for forestry purposes or non-forestry purposes.

The Environmental Enhancement Program (EEP) proposed and developed a comprehensive research questions framework to systematically identify and prioritize NC SAV restoration research needs. The table is intended to be used by the SAV Restoration Subcommittee to propose short and long-term research plans that may inform an SAV restoration strategy for the state. The SHA priorities are now a standard data layer incorporated into EEP River Basin Restoration Priorities plans for applicable coastal regions. The inclusion of SHAs in the RBRP prioritizations elevates the scores for full-delivery projects sought for mitigation by EEP in target areas.

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**ATTACHMENT 1.**  
**CHPP STEERING COMMITTEE MEMBERS, 2011 – 2012**

Marine Fisheries Commission

Dr. Allyn Powell	Gloucester	<a href="mailto:apowell66@ec.rr.com">apowell66@ec.rr.com</a>
Dr. Chris Elkins	Gloucester	<a href="mailto:captchrismfc@gmail.com">captchrismfc@gmail.com</a>

Environmental Management Commission

Dr. Charles H. Peterson	Morehead City	<a href="mailto:cpeters@email.unc.edu">cpeters@email.unc.edu</a>
Mr. Tom Ellis	Raleigh	<a href="mailto:tellis3@bellsouth.net">tellis3@bellsouth.net</a>

Coastal Resources Commission

Ms. Joan Weld	Currie	<a href="mailto:jgweld@gmail.com">jgweld@gmail.com</a>
Mr. Bob Emory	New Bern	<a href="mailto:bob.emory@weyerhaeuser.com">bob.emory@weyerhaeuser.com</a>

Wildlife Resources Commission

Mr. Durwood Laughinghouse	Raleigh	<a href="mailto:dslaugh@aol.com">dslaugh@aol.com</a>
Mr. Mitch St. Clair	Washington	<a href="mailto:mitchstclair@suddenlink.net">mitchstclair@suddenlink.net</a>

## **ATTACHMENT 2.**

### **NORTH CAROLINA COASTAL HABITAT PROTECTION PLAN STEERING COMMITTEE**

North Carolina has a number of programs in place to manage coastal fisheries and the natural resources that support them. The Coastal Habitat Protection Plan (CHPP) has identified gaps in the protection provided for important fish habitats under these programs, and also notes that these habitats would benefit from stronger enforcement of existing rules and better coordination among agencies. The focus of the CHPP, per the Fisheries Reform Act of 1997, is on activities regulated by the Marine Fisheries, Coastal Resources, Environmental Management and Wildlife Resources Commissions. During the summer of 2011 each Commission and the Department of Environment and Natural Resources (DENR) adopted a fourth two-year set of plans to implement the recommendations found in the 2010 CHPP, once again with a focus on actions that could be taken based on existing resources and within the 2011-2013 budget cycle. There continues to be a basic understanding among agencies that all recommendations and their associated actions will be supported regardless of lead agency. Listed in this attachment are the agencies and their respective commissions with voting status on the CHPP Steering Committee.

#### **Department of Environment and Natural Resources**

DENR is the lead stewardship agency for the preservation and protection of North Carolina's outstanding natural resources. The Department, which has offices from the mountains to the coast, administers regulatory programs designed to protect air quality, water quality, and the public's health. Through its natural resource divisions, DENR manages fish, wildlife, forestland and wilderness areas. The DENR implementation plan focuses on coordination among the Commissions and the Department, as well as ensuring that all DENR Divisions are taking actions consistent with the goals and recommendations of the CHPP.

#### **Marine Fisheries Commission and Division of Marine Fisheries**

The Marine Fisheries Commission (MFC) and Division of Marine Fisheries (DMF) manage the commercial and recreational fisheries in North Carolina's estuarine and ocean waters. These waters, including their specific physical habitats (water column, wetlands, sea grasses, soft and hard bottoms, and shell bottoms), produce the finfish, shrimp, crabs, oysters, and other economically important species sought by fishermen, as well as the forage base that supports them. The Division implements the Commission's rules and Department initiatives. In 2010, the Shellfish Sanitation and Recreational Water Quality programs were incorporated into the DMF. With the addition of those two programs, the DMF changed its mission statement to reflect the changes: *"The Division of Marine Fisheries is dedicated to ensuring sustainable marine and estuarine fisheries and habitats for the benefit and health of the people of North Carolina."* Division staff drafted the CHPP, and they will staff many of the groups working on implementation actions. Staff in DMF district offices will also utilize CHPP information to review potential impacts of coastal development projects.

#### **Environmental Management Commission and Division of Water Quality**

The Environmental Management Commission (EMC) is responsible for adopting rules for the protection, preservation and enhancement of the State's air and water resources. The Commission oversees and adopts rules for several divisions of DENR, including the Divisions of Air Quality, Water

Resources, and Water Quality. The goal of the Division of Water Quality (DWQ) is to maintain or restore and improve the aquatic environment and to ensure compliance with state and federal water quality standards. In coordination with the CRC and MFC, and their respective staffs, the EMC and DWQ have developed specific actions to implement the CHPP recommendations.

### **Coastal Resources Commission and Division of Coastal Management**

The Coastal Resources Commission (CRC) establishes policies for North Carolina's Coastal Management Program and adopts implementing rules for both the N.C. Coastal Area Management Act (CAMA) and the N.C. Dredge and Fill Law. The commission designates areas of environmental concern, adopts rules and policies for coastal development within those areas, and certifies local land-use plans. The Division of Coastal Management (DCM) serves as staff to the CRC and works to protect, conserve, and manage North Carolina's coastal resources through an integrated program of planning, permitting, education and research. With jurisdictional authority at the interface of many of the habitats identified in the CHPP, the CRC and DCM take actions to complement those of the MFC/DMF and EMC/DWQ.

### **Wildlife Resources Commission**

The Wildlife Resources Commission (WRC) and its agency became full members of the CHPP Steering Committee and the CHPP process in the fall of 2008. The WRC has as its mission "To manage, restore, develop, cultivate, conserve, protect, and regulate wildlife resources and their habitats for the citizens of the state of North Carolina." The Wildlife Resources Commission and its staff, as it directly relates to the CHPP, manage the state's freshwater fisheries through fisheries research, fisheries management, hatchery operation and habitat conservation, administers and coordinates educational programs designed to facilitate conservation of the state's wildlife and other interrelated natural resources and the environment people share with them.

## **Attachment 3. Updates to the Two Year CHPP Implementation Plan**

### **Division of Marine Fisheries**

*Goal 1: Improve effectiveness of existing rules and programs protecting coastal fish habitats*

<b>Rec</b>	<b>Action</b>	<b>Update</b>
1.2	Develop a data system for monitoring data and mapping the closure of shellfishing waters to enhance the sharing of information among departmental divisions.	No action - Shellfish closure maps are complete and available on the DMF website, and our shellfish classifications GIS data is available on NC One map, but the IBEAM database system has been at a standstill for many years due to a lack of programmers and time at the department level.
1.3	Promote habitat conservation by creating informational materials highlighting life history, habitat use, and threats of focal species at festivals; 2) set up fish habitat displays, such as a marsh tank, for longer events; 3) seek funding for additional displays.	DMF staff regularly attends festivals and outreach events to educate the public on DMF activities including habitat conservation, the oyster shell recycling program, and the life history, habitat use, and threats to important fishery species. DMF also received additional funding through CRFL grant to reprint DMF's popular "recreational angler's guide", which is used to educate the public on the most commonly caught species highlighting their habitat use and life cycles.
1.3	Incorporate CHPP materials into current DMF outreach activities ('This Week at the Fisheries' articles, Fish Eye News, Zoo FileZ).	DMF included CHPP informational briefs and sustainability tips in issues of its 'This Week at the Fisheries' email publication. DMF also had numerous news releases related to habitat conservation and awareness.  DMF's Fish Eye News web-based publication featured articles addressing CHPP implementation, obstacles to anadromous fish spawning migrations, endocrine disrupting chemicals, and beach water quality (see <a href="http://portal.ncdenr.org/web/mf/fish-eye-news-0811">http://portal.ncdenr.org/web/mf/fish-eye-news-0811</a> ).

		<p>Protection of coastal habitat from pollutants and marine debris were featured in an ethical angling episode of ZooFileZ, which is a video series produced by the NC Zoo. Also provided a list of “Things you can do to help fish habitat” for the public on our website. Links to both topics can be found on DMF’s website at <a href="http://portal.ncdenr.org/web/mf/education/ethical-angling">http://portal.ncdenr.org/web/mf/education/ethical-angling</a>.</p> <p>The DMF habitat section hosted Operation Medicine Drop events in both Morehead City and Wilmington, and supported another event in Manteo to educate the public on proper disposal methods of unwanted medications to keep endocrine disrupting chemicals out of our waterways. Totals: Wilmington had 77 participants bring 33,908 pills/oz; Morehead City had 25 participants bring 15,513 pills/oz; Manteo had 18 participants bring 11,924 pills/oz for a combined total of 120 participants bringing in 61,345 pills/oz.</p> <p>DMF staff gave presentations on Strategic Habitat Areas and accomplishments and future plans of the CHPP at APNEP’s “State of the Sounds” symposium. DMF also presented a poster on the role of Primary Nursery Areas in protecting tidal creeks at the “Tidal Creek Summit” produced by NC and SC Sea Grant.</p>
1.3	Encourage Coastal Recreational Fishing License (CRFL) projects related to habitat education.	<p>In 2011, an educational display was funded through CRFL at the Harkers Island Waterfowl Museum, and the DMF Oyster Shell Recycling program received money for educational outreach.</p> <p>In 2012, DMF modified the grant criteria to encourage the funding of projects that increase awareness of living shoreline stabilization techniques (i.e., marsh sills) and provide financial incentives for the construction of such structures.</p>
1.4	Continue to review development issues and address environmental issues as they relate to the Coastal Area	No action.

	Management Act (CAMA) Land Use Planning Program.	
1.6	Participate in state and federal efforts to control invasive aquatic species and educate staff and partner agencies.	DMF staff serves on the NC Aquatic Weed Control Council and is working with other agencies (DWR, WRC) to find funding for developing a statewide Aquatic Nuisance Species Plan.

*Goal 2: Identify, designate and protect strategic habitat areas*

<b>Rec</b>	<b>Action</b>	<b>Update</b>
2.1a	Facilitate mapping of deep (>15 ft) estuarine bottoms, starting with lower Neuse River.	Mapping of benthic habitat in deep estuarine bottom has occurred in current oyster sanctuary locations and proposed oyster sanctuary locations. The mapping of natural benthic habitat in the lower Neuse River and Pamlico Sound is planned for late summer and fall 2012.
2.1b	Conduct cooperative DMF/NOAA research on methods for evaluating status and trends in SAV distribution and condition.	DMF supported CRFL funding for an NOAA/ECU/NCSU/APNEP SAV project. The product is expected to be a recommendation on how best to monitor SAV in North Carolina. The final report is due in fall 2012.
2.1b	Continue mapping of all shallow estuarine bottom and bottom types.	The DMF bottom mapping program has mapped and sampled: Newport River, Harlowe Creek, Back Sound, Harbor areas on the Eastern side of Harkers Island, Davis Bay and other areas on the Western side of North River in Carteret County; the Lower Lockwood Folly intercoastal waterway in Brunswick County. Currently there remains approximately 9,000 acres to be mapped in both Hyde and Brunswick Counties. Within next year, the DMF Mapping Program plans to remap some areas in Carteret, the lower New River, the back barrier areas near Oak Island, and areas near Bluff Point in Hyde County.
2.1b	Investigate SAV and shell bottom monitoring methods for trend assessments.	No action.
2.2	Complete Strategic Habitat Area (SHA) evaluation for Region 2.	Region 2 SHAs were approved by the Marine Fisheries Commission. Final report is posted on the DMF website.

2.2	Conduct ground truthing of Region 1 SHA nominations.	Three out of 20 SHA nominations in region 1 were ground truthed in July 2011. In those areas, the information used as inputs in the SHA analysis was fairly accurate upon direct observation.
2.2	Conduct ground truthing of Region 2 SHA nominations.	DMF has initiated the development of a plan for ground truthing these areas.
2.2	Conduct SHA evaluation for Region 3.	DMF is currently in the process of compiling and modifying GIS data for input into the MARXAN analysis. The region 3 SHA nominations are expected to be complete in mid 2013.
2.2	Integrate resulting criteria and information from SHA committee into DENR divisions' guidelines, policies, and rulemaking.	No action.
2.2	Study the feasibility and benefits of developing an SAV Restoration Program.	No action.
2.2	Work with DENR to include SHA priorities within EEP local watershed plans and DENR conservation planning tool.	No action.

*Goal 3: Enhance habitat and protect it from physical impacts*

<b>Rec</b>	<b>Action</b>	<b>Update</b>
3.1a	Continue expanding the oyster sanctuary program.	<ul style="list-style-type: none"> <li>-The Oyster Sanctuary Program lost \$1.5 million of state funding in 2011, but was able to make up for much of that with the grants listed below.</li> <li>-Oyster Sanctuary development is continuing at Gibbs Shoal using reef ball and rip rap provided through CRFL funding.</li> <li>-In the Little Creek Oyster Sanctuary (Lower Neuse River), the US Army Corps of Engineers (ACE) funded a project to compare reef ball, rip rap, reef pyramid, and concrete block material in the creation of oyster sanctuaries. The project is in the final stages of permitting.</li> <li>-CRFL money funded one fishing reef/oyster sanctuary in</li> </ul>

		each of the northern, central, and southern regions of the coast. The siting criteria included access from existing boat ramps and considered recreational fish species and oyster recruitment.
3.1a	Cooperate with university researchers on oyster larvae distribution and movement investigations.	No action.
3.1a	Enhance oyster shell recycling program. Discourage use of shell material for landscaping or other uses besides shellfish cultch.	Received CRFL funds to create two informational brochures and an educational video describing the process of building oyster reefs and how shell recycling helps oyster populations (to be completed by December 2012).
3.1a	Work with university researchers to monitor fish/invertebrate use of oyster sanctuaries and effect of oysters on local water quality.	No action.
3.1b	Make protection and restoration of critical fisheries habitats a priority part of the One North Carolina Naturally initiative, through incorporation of DMF data on habitat and SHAs.	No action.
3.1b	Obtain funding to restore designated streams and associated wetlands designated as anadromous fish spawning areas in the Albemarle Sound area as implementation steps for the River Herring Fishery Management Plan.	DMF submitted a proposal for a National Fish and Wildlife Foundation grant to replace culvert obstructions in the Chowan River Basin with a “fish friendly” culvert. However, the funding was denied. This process brought to DMF’s attention three major issues: 1) the high cost of replacing a single culvert (~\$300,000), 2) it is not clear what constitutes a “fish-friendly” culvert design, and 3) which culverts are priority for replacement. DMF formed an internal workgroup to address these issues. In addition, DMF initiated a discussion among multiple agencies that renewed interest in developing better stream-crossing guidelines with regard to fish passage.
3.1b	Support efforts to restore SAV.	DMF participates in the interagency SAV partnership, and one of the main goals of the group is to enhance restoration efforts.
3.2	Work with DWR to minimize conflicts between Aquatic Weed Control practices and protection of SAV habitat.	DMF has worked with WRC and DWR regarding stocking reservoirs with triploid grass carp for <i>Hydrilla</i> control.

		DMF is working toward requiring gates near the spillways to reduce the risk of escapement.
3.3	Evaluate through the fisheries management plan process the need for further restrictions of bottom-disturbing gear.	As part of the shrimp FMP process, DMF updated GIS datasets of no-trawl areas and included areas that are temporarily closed through proclamations to get accurate acreage estimates of areas closed to trawling throughout the year.
3.5b	Continue to study the feasibility and benefits of dam and barrier removal in general and for mitigation.	DMF participates in the NOAA Cape Fear River Watershed study to assess and develop an action plan to enhance conditions for anadromous fish. DMF also participates in the American Rivers Aquatic Connectivity Team, which is looking at feasible obstructions to remove.
3.4	Encourage alternatives to vertical shoreline stabilization methods.	DMF will work with DCM on a living shoreline implementation team to further encourage living shorelines (see DCM action 3.4 for details).
3.5b	Survey previously identified Albemarle Sound river herring spawning areas to estimate current condition and spawning function, and identify stream obstructions on river herring spawning streams.	In an effort to select stream obstructions that would be a priority for removal or replacement, DMF staff used GIS to compare river herring spawning data (1970's to present) to examine temporal and spatial trends. This analysis was overlaid with the culvert locations from a variety of sources including DOT and a recent survey of culverts by DMF staff in the Chowan River Basin. This information was then compared to a report produced by the Environmental Defense Fund that estimated the number of acres opened by removal or replacement of existing obstructions. As a result, three culverts were identified as potential priorities for replacement in the Pembroke and Queen Anne's Creek sub-watersheds.

*Goal 4: Enhance and protect water quality*

<b>Rec</b>	<b>Action</b>	<b>Update</b>
4.1c	Seek funding to initiate research on impacts of endocrine-disrupting chemicals to blue crabs and oysters.	No action.

4.1c	Work with the DCAS to develop and implement a drug disposal program for pharmaceuticals.	The DEA is looking into creating a federal drug disposal program.
4.5b	DMF will seek grant funding to reduce stormwater runoff from the DMF Headquarters' property through use of stormwater infiltration, rain gardens, and shoreline marsh plantings.	DMF received two grants (from the Clean Water Management Trust Fund (CWMTF) and APNEP) and have completed the grant requirements for each. The CWMTF grant was for developing a comprehensive plan to reduce stormwater runoff at the DMF headquarters property. The APNEP grant was for a rain garden, stormwater re-route, and marsh plantings. DMF plans to seek additional funding to complete other suggestions in the plan such as cisterns.
4.6c	Form workgroup to determine water quality standards necessary to support SAV habitat.	No action.

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**Division of Coastal Management**

*Goal 1: Improve effectiveness of existing rules and programs protecting coastal fish habitats*

Rec	Action	Update
1.3	DCM will incorporate CHPP into their research and education efforts.	<p>Research: See also recommendations 2.1 b and c, 3.1c, 3.4, and 3.8 below.</p> <ul style="list-style-type: none"> <li>• The NOAA NERRS Graduate Research Fellowship at the NCNERR funded the following project which began in 2011. The project examines the roles shoreline hardening and climate change has on fiddler crabs and their ability to engineer marsh ecosystems. The project will assess how this ecosystem engineering role changes based on the presence/absence of shoreline stabilization and changing water levels.</li> </ul> <p>Education</p> <ul style="list-style-type: none"> <li>• The Reserve implemented an education and outreach campaign focusing on estuaries and sea level rise in the Albemarle-Pamlico system funded by the Albemarle-Pamlico National Estuary Program (APNEP). Activities included a social media "did you know" series on estuaries and sea level rise (on DENR's Facebook &amp; Twitter accounts), a Coastal Exploration teacher workshop in Corolla in August 2011 that incorporated two new curricula on estuaries developed as part of this campaign, an estuarine shoreline stabilization workshop in Nags Head in September 2011 that emphasized the importance of fringing marsh habitats and explained alternatives to vertical control structures, and three public field experiences (estuary exploration in Kitty Hawk Bay, Kitty Hawk Woods kayak trip, and a guided Currituck Banks Boardwalk trip).</li> </ul>

		<ul style="list-style-type: none"> <li>• Estuarine Shoreline Stabilization workshops were held April 24 (Beaufort) &amp; May 2, 2012 (Wilmington) and emphasized the importance of fringing marsh habitats and explained alternatives to vertical control structures. The same workshop was hosted in Nags Head in September 2011 as part of the aforementioned education and outreach campaign funded by APNEP. The “Weighing Your Options: How to Protect Your Property from Shoreline Erosion” booklet was distributed at the workshops.</li> <li>• A realtor workshop on Estuarine Shoreline Stabilization is being developed and will be approved for four continuing education credits by the NC Real Estate Commission. It will be offered in 2013.</li> <li>• A fourth “Getting to Know Wetlands” workshop (with an emphasis on coastal wetland plant ID and delineation) will be offered in Beaufort in May 2013. This workshop was also offered in May 2011.</li> <li>• The CHPP habitats are addressed during Reserve K-12 student field trips, teacher/educator workshops, summer public field trips, and summer camps. Discussions include why these habitats are important to coastal North Carolina and how they benefit plants and animals.</li> </ul>
1.3	Distribute brochures and posters about fish, fish habitat, and fishing to be available for general distribution by DENR staff.	No action.
1.3	Provide information to focus students in K-12 understanding the biodiversity of lakes, streams, and estuaries.	An activity booklet titled “Our Living Estuaries” was produced in 2011 through funding from a Cooperative Institute for Coastal and Estuarine Environmental Technology (CICEET) grant. CHPP habitats are included in the booklet. Students read about each habitat and then

		try to match which animals and plants can be found in each.
1.4	Continue to review development issues and address environmental issues as they relate to the CAMA Land Use Planning Program.	No action.
1.5	Begin analysis of DCM's estuarine shoreline mapping project.	DCM has completed mapping of the estuarine shoreline resulting in a digital representation of the shoreline by type, modifications, and an inventory of structures. The Division will be contracting with East Carolina University to assist in further analysis of the project data to identify regional development trends along the shoreline and to better understand the distribution of coastal structures and natural resources.

*Goal 2: Identify, designate and protect strategic habitat areas*

<b>Rec</b>	<b>Action</b>	<b>Update</b>
2.1b	The National Estuarine Research Reserve (NERR) will initiate emergent wetland vegetation monitoring of sentinel sites.	Emergent marsh monitoring was initiated in three of the four NCNERR components. The data record includes 5+ years at the Rachel Carson component through a partnership with NOAA, and was initiated in 2011 for the Masonboro and Zeke's Islands components. Sediment elevation tables (SETs) and groundwater wells were installed at the Masonboro and Zeke's Islands components to complement similar infrastructure already in place at the Rachel Carson component. The overall goal of the monitoring efforts is to track the health of the marsh plant community through time and evaluate any impacts to the marsh systems due to changing water levels. The monitoring for this project is ongoing and new elements (e.g., additional SETs, groundwater wells, elevation readings) will be added as resources allow. The final report for the initial year of this project for the three components was submitted to NOAA in December 2011. Initial findings indicate that the marsh community at Zeke's

		<p>Island is unique compared to that at Rachel Carson and Masonboro Island. The plants occur at a greater density at Zeke's Island and potentially grow taller and thinner than at the other two sites. These results will be re-examined as future data are obtained.</p> <p>The emergent marsh monitoring, sediment elevation tables, and groundwater and water column monitoring are observational elements of the NERRS sentinel sites program. Two of the four NCNERR components are considered to be operational sentinel sites.</p> <p>The NCNERR received funding from the NOAA Restoration Center from 2008-2011 to examine <i>Spartina</i> marsh ecosystems and compare restored marshes to natural ones. This work was part of a five NERR partnership to identify the best metrics to monitor to determine restoration success. The final report for this project was submitted to the Restoration Center in November 2011. For the N.C. marshes examined, above ground biomass, soil organic content, and species richness were identified as the critical metrics to monitor.</p>
2.1c	Conduct research on the nursery role of SAV, oysters, and wetlands (through NERR in conjunction with UNC-IMS).	This CRFL-funded UNC-IMS led project is conducted in conjunction with the Reserve program. The project will be complete in June 2012. Progress reports are available through DMF.
2.1c	Conduct research to manage intertidal oyster reefs in a changing climate (through NERR in conjunction with UNC-IMS).	The joint Reserve-NC Sea Grant coastal research fellowship funded a UNC-IMS graduate student examining the impact of algae on intertidal oyster reefs at the Rachel Carson Reserve in 2011. This same student used the coastal research fellowship to gather seed data to secure a NOAA NERRS Graduate Research Fellowship at the NCNERR to continue the work.

Goal 3: Enhance habitat and protect it from physical impacts

<b>Rec</b>	<b>Action</b>	<b>Update</b>
3.1c	Conduct research to determine if clams can enhance eel grass growth.	This was a UNC-IMS project that was conducted in Middle Marsh at the Rachel Carson Reserve. The project is complete and results indicate that clams did enhance the resident eelgrass production.
3.1c	Support efforts to restore SAV.	Coastal Reserve and Coastal Program staff serve on the SAV partnership committee. In addition, DCM has completed mapping of the estuarine shoreline including inventory of structures such as docks and piers. Data can be used in analysis of the cumulative shading impacts of these structures on SAV.
3.2	DCM will serve as a clearinghouse for beach nourishment monitoring data and distribute reports to review agencies.	No action.
3.2	Develop minimum criteria for monitoring beach nourishment projects.	No action.
3.4	Use shoreline mapping to develop methodology to determine estuarine shoreline recession rates.	DCM has completed mapping of the estuarine shoreline resulting in a digital representation of the shoreline by type, modifications and an inventory of structures. The Division will be contracting with East Carolina University to assist in further analysis of the project data to identify regional development trends along the shoreline and to better understand the distribution of coastal structures and natural resources.
3.4	Encourage alternatives to vertical shoreline stabilization methods through permit requirements and fees (including but not limited to refining rule 15A NCAC 07H .2700 GP for Marsh Sills).	DCM & DMF have initiated a broader department-level effort to address estuarine shoreline stabilization that may advance the use of marsh sills and other alternative stabilization structures. Through a Living Shorelines Implementation Team, DCM and DMF will: <ul style="list-style-type: none"> <li>• Reduce the number of conditions associated with the Marsh Sill General Permit.</li> <li>• Develop a comprehensive education and training effort on the benefits of alternative shoreline stabilization approaches.</li> <li>• Investigate financial incentives and cost reductions</li> </ul>

		<p>for individuals seeking to utilize alternative stabilization approaches.</p> <ul style="list-style-type: none"> <li>• Support continued staff advocacy through enhanced information, training, and outreach materials on the benefits of alternative shoreline stabilization approaches.</li> <li>• Develop a pre- and post-hurricane study project that would 1) develop baseline information about constructed marsh sill projects, and 2) establish a methodology that would allow for an analysis of how well these structures functioned and/or survived during a hurricane.</li> <li>• Continue to map, monitor, and research coastal shoreline stabilization in North Carolina.</li> </ul> <p>See also Estuarine Shoreline Stabilization workshops in Recommendation 1.3.</p> <p>The marsh sill assessment project final report was issued in 2011.</p> <p>An alternative shoreline stabilization demonstration site was installed on the Carrot Island portion of the Rachel Carson Reserve in June 2012. The demonstration project is part of the Reserve's ongoing "Sustainable Estuarine Shoreline Stabilization: Research, Education and Public Policy in North Carolina" project funded by CICEET. The demonstration project is a loose oyster shell sill design with <i>Spartina alterniflora</i> plantings.</p>
3.4	Use NOAA grant to delineate estuarine shorelines; apply methods to CAMA counties.	DCM management has established a detailed shoreline, for non-regulatory purpose, that can serve as a basis for analyzing policy language that has been adopted by the Coastal Resource Commission within North Carolina's estuarine and ocean system areas of environmental concern. State resource agencies face challenges and inefficiencies directly attributed to current digital mapping

		<p>products. DCM designed a methodology and rules for digitizing a complete estuarine shoreline and all structures that exist along the shoreline. The shoreline delineation methodology was designed to address issues DCM and other stakeholders face when managing the estuarine shoreline. Digitizing was completed in June of 2012. A total of 12,581 miles of shoreline were digitized, 602 of which were modified with an erosion control structure such as a bulkhead. 26,648 bridges, piers, and docks were captured totaling 826.3 acres.</p>
3.7	<p>Develop an interagency policy for marina siting to minimize impacts to ecologically important shallow habitats such as Primary Nursery Areas (PNA), Anadromous Fish Spawning Areas (AFSA), and SAV.</p>	<p>No action.</p>
3.8	<p>Develop CRC Sea Level Rise Policy.</p>	<p>The CRC continues development of a sea-level rise policy focusing on identifying specific needs for additional research, monitoring, and education, and planning assistance. The Commission is expected to send the draft policy to public hearing at its August 2012 meeting.</p>
3.8	<p>Teach the value and function of estuarine habitats, how these habitats may be affected by sea level rise, and alternative methods (other than bulkheads) of estuarine shoreline stabilization.</p>	<p>See Estuarine Shoreline Stabilization workshops in Recommendation 1.3.</p> <p>A booklet entitled "Weighing Your Options" was produced in 2011 to help property owners understand shoreline stabilization options available to them, how they work, and the cost/benefits of each option through funding from a CICEET grant. This grant also funded research that examined the impact of bulkheads on fringing saltmarsh. The project will be complete in August 2012. Initial results indicate that small, very narrow pieces of marsh are still capable of providing many of the ecosystem services that a wide marsh can, but most of these services are lost when no marsh is present.</p> <p>Results from the marsh monitoring projects (2.1b</p>

		Recommendation above) will be translated into student and teacher activities in the coming year.
3.8	Develop a sea level rise education strategy including messages and audiences with the Coastal Training Program (CTP) and other DCM staff utilizing the information gathered from the DCM's Sea Level Rise Perception Survey, APNEP's Climate Ready Estuary Program, and existing sea level rise educational materials available through the NERRs and other programs.	<p>This strategy is in draft form and will be refined in the next year. As part of this refinement, a climate change research symposium and a workshop for educators/trainers on sea level rise messaging strategies will be held in the upcoming year.</p> <p>A market analysis of publicly-funded outreach professionals was conducted to assess sea level rise education and outreach activities, which will be used for future coordination on sea level rise messaging and outreach.</p>

*Goal 4: Enhance and protect water quality*

<b>Rec</b>	<b>Action</b>	<b>Update</b>
4.1c	Incorporate power washing best management practices (BMPs) into the Clean Marina Manual.	DCM worked with DWQ to incorporate power washing BMPs into the update of the Clean Marina BMP Manual and has included additional power washing guidance based on that input.
4.5a	Enhance DCM education efforts such as the N.C. NERR Septic Systems Workshops.	The Reserve will host a series of stormwater/Low Impact Development workshops in 2013 that incorporate the NC Watershed game that was developed by NC Coastal Federation, NC Sea Grant, and the Reserve.
4.5a	Implement Pivers Island stormwater BMP project.	Construction is scheduled for February 2013.
4.5e	Incorporate areas of high aquatic habitat value in addition to high terrestrial habitat value into the N.C. Coastal and Estuarine Land Conservation Program (CELCP).	No action.
4.5f	Develop a clean boater initiative.	DCM has developed the North Carolina Clean Boater program as an important part of the North Carolina Clean Marina program. Both programs protect coastal resources through the use of best management and operation practices. To become a North Carolina Clean Boater,

		boaters read “A Boaters’ Guide to Protecting North Carolina’s Coastal Resources.”; commit to clean boating by signing the pledge card located in the Clean Boater brochure; mail a pledge card to the North Carolina Clean Boater Program office; and receive a North Carolina Clean Boater sticker to display on their vessel.
4.7	Improve wastewater/stormwater management at coastal marinas.	No action.
4.7	Inventory docks and piers in the 20 coastal counties.	DCM has completed mapping of the estuarine shoreline resulting in a digital representation of the shoreline by type, modifications and an inventory of structures.
4.7	N.C. Clean Marina Program and Clean Vessel Act activities will emphasize the threats to fish habitat and benefits of BMPs.	No action.
4.7	Seek dedicated funding to staff DCM's Clean Marina Program and effectively implement BMPs as a non-regulatory way to improve water quality in and around marinas and docks.	DCM has incorporated funds for Clean Marina Coordinator in the Division’s 2012-2013 NOAA cooperative agreement.

**Division of Water Quality**

*Goal 1: Improve effectiveness of existing rules and programs protecting coastal fish habitats*

<b>Rec</b>	<b>Action</b>	<b>Update</b>
1.3	Conduct outreach to educate citizens about DWQ's Neuse and Tar-Pamlico riparian buffer rules and 401 Water Quality Certification program.	New coastal buffer rule changes effective July 1, 2011 affect construction of single family residences on existing lots (lots of two acres in size or less that were platted and recorded in the appropriate county Register of Deeds prior to Aug 1, 2000. The rule is applicable to Neuse and Tar-Pamlico counties of Beaufort, Hyde, Carteret, Craven, Dare, Onslow, Pamlico and Washington. It allows development that would have been prevented by previous Neuse and Tar-Pamlico Buffer rules. Development should still be back from the high water level a minimum of 30 feet, the maximum feasible distance back designed to minimize encroachment into the protected riparian buffer. New stormwater generated by the development must be treated and diffuse flow still maintained through the buffer. No septic tank or drain field may encroach on the buffer.
1.3	Provide information to focus students in K-12 understanding the biodiversity of lakes, streams, and estuaries.	A mobile car washes fact sheet has been prepared.
1.3	Implement workshops for engineers and consultants on stormwater, buffer, and 401 Water Quality Certifications.	Outreach and educational efforts for engineers, developers, local jurisdictions and the general public on stormwater rules and techniques are continuing. In addition, a rewrite of the permeable pavement chapter of the BMP manual was released. This clarifies levels of credit for such pavement and provides guidance on proper design standards.
1.4	Continue to review development issues and address environmental issues as they relate to the CAMA Land Use Planning Program.	There is a strong promotional effort underway this year towards encouraging green infrastructure and low impact development techniques in new development and retrofitting existing development.

*Goal 2: Identify, designate and protect strategic habitat areas*

<b>Rec</b>	<b>Action</b>	<b>Update</b>
2.2	Study the feasibility and benefits of developing an SAV Restoration Program.	No action.

*Goal 3: Enhance habitat and protect it from physical impacts*

<b>Rec</b>	<b>Action</b>	<b>Update</b>
3.1c	Support efforts to restore SAV.	No action.
3.5b	Continue to study the feasibility and benefits of dam and barrier removal in general and for mitigation.	No action.

*Goal 4: Enhance and protect water quality*

<b>Rec</b>	<b>Action</b>	<b>Update</b>
4.1a	Work with the Department of Agriculture and Consumer Services to develop and implement a drug disposal program for pharmaceuticals.	No action.
4.1c	Incorporate power washing BMPs into the Clean Marina Manual.	Power washing BMPs have been incorporated into the Clean Marina Manual as of June 2011.
4.4	Provide Phase II stormwater educational & technical assistance to local governments through the DENR Runoff Pollution Campaign and through partnerships with the Division of Community Assistance and UNC's School of Government.	DWQ is continuing to issue and re-issue Phase II stormwater permits to coastal and non-coastal local jurisdictions and military bases. DWQ is working closely with them to help them design and develop programs to better control stormwater and also develop strategies to address existing impaired waters.
4.6b	Work towards developing a model framework to begin to evaluate the impact of the new coastal stormwater rules on the level of non-point source runoff pollutant concentrations.	Jordan and Falls Lake rules implementation continues with Jordan Lake local government new development programs due to begin in August 2012. In addition, a new NPDES NCG24 composting permit was released, requiring composting operations to be permitted and control and treat their runoff. This permit has a lot of waste water provisions as well.

4.6c	Form workgroup to determine water quality standards necessary to support SAV habitat.	No action.
4.7	Improve wastewater/stormwater management at coastal marinas.	Improving wastewater/stormwater management at coastal marinas has been an ongoing activity for much of 2011 and 2012.
4.8a	Support early implementation of environmentally superior alternatives to waste lagoon and spray field systems. Encourage commissions to express their support for early implementation.	No action.

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## Wildlife Resources Commission

*Goal 1: Improve effectiveness of existing rules and programs protecting coastal fish habitats*

<b>Rec</b>	<b>Action</b>	<b>Update</b>
1.3	Promote habitat conservation through the Wildlife Action Plan (Green Toolbox) and Educational Centers.	Agency review of Wildlife Action Plan (WAP) – Habitat vulnerability sections for upcoming WAP revision.
1.3	Encourage CRFL projects related to habitat education.	WRC regularly participates in the CRFL grant committee.
1.4	Continue to review development issues and address environmental issues as they relate to the CAMA Land Use Planning Program.	WRC reviews Land Use Plans when circulated for review by DCM.
1.6	Participate in state and federal efforts to control invasive aquatic species and educate staff and partner agencies.	WRC staff participated in US Department of Agriculture (USDA) multi-agency discussion on <i>Hydrilla</i> in the Albemarle Sound (March 5, 2012).

*Goal 2: Identify, designate and protect strategic habitat areas*

<b>Rec</b>	<b>Action</b>	<b>Update</b>
2.2	Conduct SHA evaluation and designation process for Pamlico Sound and tributaries (Region 2).	Completed – WRC staff participated as an advisory committee member in the SHA region 2 nomination process.
2.2	Conduct SHA evaluation and designation process for White Oak basin (Region 3).	No action – WRC staff will be part of the advisory committee for region 3 when the committee starts its work.
2.2	Integrate resulting criteria and information from SHA committee into DENR divisions' guidelines, policies, and rulemaking.	No action.
2.2	Study the feasibility and benefits of developing an SAV Restoration Program.	WRC participates in the multi-agency SAV committee and Restoration sub-committee.

*Goal 3: Enhance habitat and protect it from physical impacts*

<b>Rec</b>	<b>Action</b>	<b>Update</b>
3.1b	Obtain funding to restore streams and associated wetlands	No action.

	designated as anadromous fish spawning areas in the Albemarle Sound area as implementation steps for the River Herring Fishery Management Plan.	
3.1b	Continue to study the feasibility and benefits of dam and barrier removal in general and for mitigation.	Conducting study on the effects of small dams on fish and mussels in the Chowan, Neuse, Roanoke and Tar river basins.
3.1b	Survey previously identified Albemarle Sound river herring spawning areas to estimate current condition and spawning function, and identify stream obstructions on river herring spawning streams.	WRC staff selected two creeks in the Albemarle Sound region known for an historic herring run to sample weekly with boat electrofishing. A draft report of the results is currently in review.

*Goal 4: Enhance and protect water quality*

<b>Rec</b>	<b>Action</b>	<b>Update</b>
4.1c	Work with NC State to develop a GIS-based map of potential sources of endocrine disrupting chemicals statewide.	WRC is funding a study on endocrine disrupting chemicals and intersex fish in North Carolina waters including the Roanoke River. Funding info:  Aday, D. D., S. W. Kullman, W. G. Cope, T. J. Kwak, J. A. Rice, and J. M. Law. A Comprehensive Examination of Endocrine Disrupting Compounds and Intersex Fish in North Carolina Water Bodies. 2011–2016. NC Wildlife Resources Commission. \$493,258.

## DENR

### *Goal 1: Improve effectiveness of existing rules and programs protecting coastal fish habitats*

<b>Rec</b>	<b>Action</b>	<b>Update</b>
1.3	Develop and distribute brochures and posters about fish, fish habitat, and fishing to be made available for general distribution by DENR staff.	Distribution of the “ <i>Home Is Where the Habitat Is...</i> ” posters and brochure continue at meetings and speaking engagements.
1.3	The Department, through the Office of Environmental Education and Public Affairs will coordinate with the Zoo, Aquariums, Museum of Natural Sciences, DPR, Educational State Forests and Environmental Education Centers to integrate the relevant components of the CHPP into exhibits and programs.	“ <i>Home Is Where the Habitat Is...</i> ” posters and brochures continue to be available and distributed to the aquariums, EE Centers and through Partnership for the Sounds. Educators and guides reference these documents and the CHPP in their presentations.

### *Goal 2: Identify, designate and protect strategic habitat areas*

<b>Rec</b>	<b>Action</b>	<b>Update</b>
2.1a	Complete and disseminate photo-interpretation of 2007-08 coast-wide SAV imagery.	This action item is complete. The SAV imagery is available through APNEP and NOAA and is available on the APNEP website.

### *Goal 3: Enhance habitat and protect it from physical impacts*

<b>Rec</b>	<b>Action</b>	<b>Update</b>
3.1b	DENR review of state agency requests to the Natural Heritage Trust Fund will place a priority on those proposals that would further the protection and restoration of critical fisheries habitats.	Incorporated into the NHTF application process.
3.1b	Make protection and restoration of critical fisheries habitats a priority part of the One North Carolina Naturally initiative, such as developing conservation plans for the 20 coastal counties that identify potential conservation focus areas.	No action

3.1b	The department will assist coastal local governments in identifying navigation and stream restoration projects of particular importance to both fish and fisheries with grants from the State-Local projects program of the Division of Water Resources.	Work underway jointly between APNEP and Virginia's Department of Conservation and Recreation (DCR) looking at the shared waters of the Meherrin River and the Chowan River in NC as part of the Virginia Healthy Waters Initiative.
3.6	Provide support for ongoing marine spatial planning efforts while working with the Bureau of Ocean and Energy Management (BOEM) task force.	Support is on going through various agencies participating on the task force.

*Goal 4: Enhance and protect water quality*

<b>Rec</b>	<b>Action</b>	<b>Update</b>
4.4	Provide Phase II stormwater educational & technical assistance to local governments through the DENR Runoff Pollution Campaign and through partnerships with the Division of Community Assistance and UNC's School of Government.	No action
4.4	Pursue funding for the Community Conservation Assistance Program (CCAP) with emphasis on CHPP stormwater priorities in coastal counties.	For FY 2012, ~\$212,000 funds were allocated to local soil and water conservation districts for BMP implementation. A \$125K grant received from the Environmental Enhancement Grants program in 2011 for BMP implementation in the Cape Fear, Neuse, Tar-Pamlico, and White Oak river systems. The DSWC will continue to pursue grant funds to supplement the state allocation.
4.8a	Support early implementation of environmentally superior alternatives to waste lagoon and spray field systems. Encourage commissions to express their support for early implementation.	There has been no action in the coastal counties this past year. However, an Anaerobic Digester was completed in Yadkin County. The system captures the methane and able to produce enough electricity to run the system and part of the farm itself. Individuals are exploring the possibility of replicating a similar system in the coastal counties in the future.

## Other Agencies

*Goal 1: Improve effectiveness of existing rules and programs protecting coastal fish habitats*

<b>Rec</b>	<b>Agency</b>	<b>Action</b>	<b>Update</b>
1.1	FS	Evaluate use of forestry BMPs at logging sites.	During calendar year 2011 across the eastern region of North Carolina, the NC Forest Service recorded more than 880 instances in which its agency personnel either assisted with BMP use, identified BMPs that were being used, or made recommendations for using BMPs. Collectively these activities encompassed almost 54,500 acres across eastern North Carolina. Work continued to develop a comprehensive, new data collection and analysis program for conducting detailed BMP site survey evaluations. Initial in-woods beta testing was conducted. BMP surveys will begin in the summer of 2012 across the state.
1.2	APNEP	The Department, through the APNEP, will develop a comprehensive monitoring plan for the estuarine system.	Development of a monitoring strategy for the Albemarle-Pamlico ecosystem is underway, designed to align with APNEP's 2012 CCMP.
1.3	APNEP	Conduct outreach to educate citizens about DWQ's Neuse and Tar-Pamlico riparian buffer rules and 401 Water Quality Certification program.	No action.
1.3	DPR, APNEP, DSWC	Provide information to focus students in K-12 understanding the biodiversity of lakes, streams, and estuaries.	Annual NC Association of Soil and Water Conservation Districts education contest held (poster, essay, speech, computer designed poster, computer designed slideshow) – 2011-2012 contest theme was “Wetlands are Wonderful”; local SWCDs have done outreach to schools in their county regarding this topic (helps students to prepare ideas for contests). In addition, Envirothon program contains an “aquatic ecology” study area; teams of high school and middle school students study resource materials related to this topic in preparation for local, state and national

			competition. Coastal Envirothon held March 20, 2012; NC Envirothon held April 20 and 21, 2012. APNEP and APNEP-funded programs for educators this year have included its annual teacher institute, Shad in the Classroom curriculum, a bookmark contest, and the Estuary Essentials summer program for libraries.
1.3	FS	Enhance forestry BMP compliance with education videos, outreach projects, and guide books.	The results of the most recent BMP implementation monitoring survey study were presented across the region at various forestry meetings and conferences. The NCFS portable logging bridgemats were used on 5 sites across the region in calendar year 2011 to establish and protect stream or ditch crossings on logging sites.
1.3	WRRI	Implement workshops for engineers and consultants on stormwater, buffer, and 401 Water Quality Certifications.	Six workshops held from 2009-2011. One planned for the fall of 2012. To date, 27.25 PDH credits have been awarded to engineers and landscape architects.
1.4	NC Sea Grant	Continue to review "Inner Coast Study" development issues and address environmental issues.	A draft report providing technical information on such issues as estuarine shoreline stabilization, water availability, monitoring and enforcement, and sanitary sewer outflows is anticipated to be released by the end of the summer of 2012. The final report is planned for release at the end of 2012.
1.4	FS	The FS will revise its Memorandum of Agreement (MOA) documents with the N.C. Division of Land Resources (DLR) and the DWQ to ensure compliance monitoring and enforcement policies are consistently practiced in a timely and seamless manner. These MOAs primarily address interdivisional communication on the nine forestry performance standards known as the Forest Practice Guidelines Related to Water Quality (FPGs) and the Riparian Buffer Rules applicable to the state's river basins.	The FS executed a new Memorandum of Understanding (MOU) with DLR regarding the inspection, monitoring, education, and enforcement of the Forest Practices Guidelines state regulations. The two agencies are working to develop an indicator list that can be referenced when agency personnel are determining if a land-disturbing activity is for forestry purposes or non-forestry purposes.
1.5	FS	Develop threshold criteria for determining when a noncompliant forestry operation directly contributes	No action

		to a degradation or loss of in-stream aquatic habitat sufficient to warrant restoration or remediation of the affected water resource.	
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*Goal 2: Identify, designate and protect strategic habitat areas*

<b>Rec</b>	<b>Agency</b>	<b>Action</b>	<b>Update</b>
2.1a	APNEP	Complete and disseminate photo-interpretation of 2007-08 coast-wide SAV imagery.	Completed – map and GIS data are available at <a href="http://portal.ncdenr.org/web/apnep/resources/maps">http://portal.ncdenr.org/web/apnep/resources/maps</a> .
2.1a	APNEP	Conduct cooperative DMF/NOAA research on methods for evaluating status and trends in SAV distribution and condition.	This work is ongoing through continuing support from the SAV Partnership.
2.2	EEP	Study the feasibility and benefits of developing an SAV Restoration Program.	The EEP developed and proposed a comprehensive research questions framework to systematically identify and prioritize NC SAV restoration research needs. The table is intended to be used by the Restoration Subcommittee to propose a short and long-term research plan that may inform an SAV restoration strategy for the state. The EEP continues to participate in the SAV Partnership and the SAV Restoration Subcommittee.
2.2	EEP	Work with DENR to include SHA priorities within EEP local watershed plans and DENR conservation planning tool.	The SHA priorities are now a standard data layer incorporated into EEP River Basin Restoration Priorities plans for applicable coastal regions. The inclusion of SHAs in the RBRP prioritizations elevates the scores for full-delivery projects sought for mitigation by EEP in target areas.

*Goal 3: Enhance habitat and protect it from physical impacts*

<b>Rec</b>	<b>Agency</b>	<b>Action</b>	<b>Update</b>
3.1b	DSWC	DSWC encourage local Soil and Water Conservation Districts (SWCDs) to include Strategic Habitat Areas and other CHPP priorities in local priority ranking	DSWC working with DMF to obtain SHA Region 1 and Region 2 maps in a format that is usable for local soil and water conservation districts when ranking

		system for the Agriculture Cost Share Program and the Community Conservation Assistance Program.	cost share projects. When maps for other regions are complete, they will be shared with local offices.
3.1b	DSWC	Include Strategic Habitat Areas as a priority area for Conservation Resource Enhancement Program (CREP).	DSWC working with DMF to obtain the SHA data layers so this may be incorporated in the CREP priority areas.
3.1b	DWR	The Department will assist coastal local governments in identifying navigation and stream restoration projects of particular importance to both fish and fisheries with grants from the State-Local projects program of the Division of Water Resources.	Work underway jointly between APNEP and Virginia's Department of Conservation and Recreation (DCR) looking at the shared waters of the Meherrin River and the Chowan River in NC as part of the Virginia Healthy Waters Initiative.
3.1b	FS	The FS will work with other DENR agencies to start pre-construction water quality and water quantity monitoring of 'The Canal,' which is a tributary of the Little River that flows through the NC Forest Service's Claridge Nursery in Wayne County. The tributary will be a future NC Department of Transportation mitigation project.	The FS continues to work with partners at North Carolina State University (NCSU) to develop a long term monitoring study proposal which can be used to solicit and obtain necessary funds for more in depth monitoring.
3.1b	EEP	EEP will work with the Army Corps of Engineers, the N.C. Department of Transportation, and the Interagency Review Team (IRT) on innovative mitigation projects and an appropriate crediting system. Such projects may include the protection and restoration of SAV and oyster beds (or other degraded fish habitats), and the removal of certain dams and other aquatic organism barriers.	During this fiscal year, EEP has been collaborating with NCDOT to assess the potential for barrier and dam removal, specifically on a test-case basis in the Chowan River Basin. EEP presented barrier removal scenarios to the IRT and is discussing crediting strategies with members during the most recent and the upcoming bimonthly meetings.
3.1b	APNEP, EEP	Obtain funding to restore designated streams and associated wetlands designated as anadromous fish spawning areas in the Albemarle Sound area as implementation steps for the River Herring Fishery Management Plan.	The EEP is using the RHFMP and the prioritization document River Herring Habitats (NC Environmental Defense 2010) as a basis for field assessments of obstruction removal sites in the Chowan on a test case basis. Restoration projects pursued by EEP in the Chowan will be focused in areas that promote improved fisheries habitats in addition to traditional mitigation measures. The EEP is issuing (scheduled for May 2012) a full-delivery request-for-proposals (FDRFP) in the Chowan for a 6-acre wetland

			restoration project; added weight in the proposal scoring methodology will be given to projects that demonstrate anadromous fisheries habitat improvement.
3.5b	EEP, ACE	Continue to study the feasibility and benefits of dam and barrier removal in general and for mitigation.	Development of a dam removal modeling strategy for the Wake-Johnston Collaborative Local Watershed Plan (WJCLWP) is continuing. A new Regional Watershed Plan in the upper Neuse is under development and expands the WJCLWP area by approximately 2.5 times. Among other elements, it will include modeling and feasibility assessment for aquatic organism passage projects, with a focus on dam removals and anadromous fish passage/nursery habitat improvement.
3.5b	EEP, ACE, DWR	The department, WRR, and EEP will pursue dam removal projects where appropriate.	The EEP continues to actively participate in the NC Aquatic Connectivity Team initiative (formerly the NC Dam Removal Task Force). The EEP is working with American Rivers to modify and implement the obstruction removal prioritization tool developed by an intern from the Duke University School of the Environment.
3.1c	APNEP, EEP	Support efforts to restore SAV.	APNEP continues to provide substantial staff support for the SAV partnership, providing expertise in areas of science, communication, and education.

*Goal 4: Enhance and protect water quality*

<b>Rec</b>	<b>Agency</b>	<b>Action</b>	<b>Update</b>
4.4	DSWC	Pursue funding for the Community Conservation Assistance Program with emphasis on CHPP stormwater priorities in coastal counties.	For FY 2012, ~\$212,000 funds were allocated to local soil and water conservation districts for BMP implementation. A \$125K grant received from the Environmental Enhancement Grants program in 2011 for BMP implementation in the Cape Fear, Neuse, Tar-Pamlico, and White Oak river systems. The DSWC will continue to pursue grant funds to

			supplement the state allocation.
4.5a	Duke, NOAA	Implement Pivers Island stormwater BMP project.	Construction is scheduled for February 2013.
4.5a	FS	Minimize water quality impacts during timber harvesting.	The FS has organized an internal work group to address potential issues related to timber harvesting in bottomland/muck/swamp systems, regarding how to minimize water quality impacts during these operations and promote successful tree regeneration. This effort could involve participation by NCSU to evaluate harvested sites, determine the extent of these systems, and develop possible management recommendation and technical guidance on how best to manage, harvest, and regenerate these types of wetland forests in North Carolina.
4.5b	FS	The FS will begin long-term water quality and water quantity monitoring of Beddingfield Creek during 2007 in anticipation of implementing a 3,000+ acre watershed restoration effort in the Neuse River Basin.	This project has been de-prioritized due to other more pressing projects. Occasional visual inspections of the Beddingfield Creek drainage area are made upon Clemmons Educational State Forest with photo documentation made as needed.
4.8a	DSWC	Support early implementation of environmentally superior alternatives through the Lagoon Conversion Program.	There has been no action in the coastal counties this past year. However, an Anaerobic Digester was completed in Yadkin County. The system captures the methane and able to produce enough electricity to run the system and part of the farm itself. Individuals are exploring the possibility of replicating a similar system in the coastal counties in the future.
4.8b	DSWC	Continue implementing the Swine Buyout Program; plan to close one (possibly two) conservation easements in FY12.	Funding is available to fund one more project for the Swine Buyout Program. The project is in Craven County and the Division is awaiting an appraisal before moving forward.

## **APPENDIX 1. GLOSSARY OF ACRONYMS**

ACE	US Army Corps of Engineers
APNEP	Albemarle Pamlico National Estuary Program
CHPP	Coastal Habitat Protection Plan
CSC	CHPP Steering Committee
DCM	Division of Coastal Management
DENR	Department of Environment and Natural Resources
FS	NC Forest Service
DMF	Division of Marine Fisheries
DSWC	Division of Soil and Water Conservation
DWQ	Division of Water Quality
DWR	Division of Water Resources
EEP	Ecosystem Enhancement Program
NERR	National Estuarine Research Reserve
NOAA	National Oceanic and Atmospheric Administration
SAV	Submerged Aquatic Vegetation
WRI	Water Resources Research Institute

## **APPENDIX 2. CHPP GOALS AND RECOMMENDATIONS (DEATON ET AL. 2010)**

### ***GOAL 1. IMPROVE EFFECTIVENESS OF EXISTING RULES AND PROGRAMS PROTECTING COASTAL FISH HABITATS***

1. Continue to enhance enforcement of, and compliance with, Coastal Resources Commission (CRC), Environmental Management Commission (EMC), Marine Fisheries Commission (MFC), and Wildlife Resources Commission (WRC) rules and permit conditions.
2. Coordinate and enhance water quality, physical habitat, and fisheries resource monitoring (including data management) from headwaters to the nearshore ocean.
3. Enhance and expand educational outreach on the value of fish habitat, threats from land-use and human activities, climate change, and reasons for management measures.
4. Coordinate rulemaking and data collection for enforcement among regulatory commissions and agencies.
5. Develop and enhance assessment and management tools for addressing cumulative impacts.
6. Enhance control of invasive species with existing programs.

### ***GOAL 2. IDENTIFY, DESIGNATE, AND PROTECT STRATEGIC HABITAT AREAS***

1. Support Strategic Habitat Area assessments by:
  - a. Coordinating, completing, and maintaining baseline habitat mapping (including seagrass, shell bottom, shoreline, and other bottom types) using the most appropriate technology.
  - b. Selective monitoring of the status of those habitats, and
  - c. Assessing fish-habitat linkages and effects of land use and human activities on those habitats
2. Identify, designate, and protect Strategic Habitat Areas.

### ***GOAL 3. ENHANCE HABITAT AND PROTECT IT FROM PHYSICAL IMPACTS***

1. Expand habitat restoration in accordance with ecosystem restoration plans, including:
  - a. Creation of subtidal oyster reef no-take sanctuaries.
  - b. Re-establishment of riparian wetlands and stream hydrology.
  - c. Restoration of SAV habitat and shallow soft bottom nurseries.
  - d. Developing compensatory mitigation process to restore lost fish habitat functions.
2. Sustain healthy barrier island systems by maintaining and enhancing ecologically sound policies for ocean and inlet shorelines and implement a comprehensive beach and inlet management plan that provides ecologically based guidelines to protect fish habitat and address socio-economic concerns.
3. Protect habitat from fishing gear effects through improved enforcement, establishment of protective buffers around habitats, modified rules, and further restriction of fishing gears, where necessary.
4. Protect estuarine and public trust shorelines and shallow water habitats by revising shoreline stabilization rules to include consideration of erosion rates and prefer alternatives to vertical shoreline stabilization measures that maintain shallow nursery habitat.
5. Protect and enhance habitat for migratory fishes by:
  - a. Incorporating the water quality and quantity needs of fish in water use planning and rule making.
  - b. Eliminating or modifying obstructions to fish movements, such as dams and culverts, to improve fish passage.
6. Ensure that energy development and infrastructure is designed and sited in a manner that minimizes negative impacts to fish habitat, avoids new obstructions to fish passage, and where possible provides positive impacts.
7. Protect important fish habitat functions from damage associated with activities such as dredging and filling.

8. Develop coordinated policies including management adaptations and guidelines to increase resiliency of fish habitat to climate change and sea level rise.

**GOAL 4. ENHANCE AND PROTECT WATER QUALITY**

1. Reduce point source pollution discharge by:
  - a. Increasing inspections of discharge treatment facilities, collection infrastructure, and disposal sites.
  - b. Providing incentives for upgrading all types of discharge treatment systems.
  - c. Develop standards and treatment facilities that minimize the threat of endocrine disrupting chemicals on aquatic life.
2. Adopt or modify rules or statutes to prohibit ocean wastewater discharges.
3. Prevent additional shellfish and swimming closures through targeted water quality restoration and prohibit new or expanded stormwater outfalls to coastal beaches and to coastal shellfishing waters (EMC surface water classifications SA and SB) except during times of emergency (as defined by the Division of Water Quality's Stormwater Flooding Relief Discharge Policy) when public safety and health are threatened, and continue to phase-out existing outfalls by implementing alternative stormwater management strategies.
4. Enhance coordination with, and financial/technical support for, local government actions to better manage stormwater and wastewater.
5. Improve strategies throughout the river basins to reduce non-point pollution and minimize cumulative losses of fish habitats through voluntary actions, assistance, and incentives, including:
  - a. Improved methods to reduce pollution from construction sites, agriculture, and forestry.
  - b. Increased on-site infiltration of stormwater.
  - c. Documentation and monitoring of small but cumulative impacts to fish habitats from approved, un-mitigated activities.
  - d. Encouraging and providing incentives for low impact development.
  - e. Increased inspections of onsite wastewater treatment facilities.
  - f. Increased water re-use and recycling.
6. Improve strategies throughout the river basins to reduce non-point pollution and minimize cumulative losses of fish habitats through rule making, including:
  - a. Increased use of effective vegetated buffers.
  - b. Implementing and assessing coastal stormwater rules and modify if justified.
  - c. Modified water quality standards that are adequate to support SAV habitat.
7. Maintain adequate water quality conducive to the support of present and future aquaculture.
8. Reduce non-point source pollution from large-scale animal operations by the following actions:
  - a. Support early implementation of environmentally superior alternatives to the current lagoon and spray field systems as identified under the Smithfield Agreement and continue the moratorium on new/expanded swine operations until alternative waste treatment technology is implemented.
  - b. Seek additional funding to phase-out large-scale animal operations in sensitive areas and relocate operations from sensitive areas, where necessary.
  - c. Use improved siting criteria to protect fish habitat.



North Carolina Department of Environment and Natural Resources  
Division of Coastal Management

Beverly Eaves Perdue  
Governor

Braxton C. Davis  
Director

Dee Freeman  
Secretary

## MEMORANDUM

CRC- 12-29

**To:** Coastal Resources Commission (CRC)  
**From:** Charlan Owens, AICP, Elizabeth City District Planner  
**Date:** August 15, 2012  
**Subject:** Certification of the Town of Southern Shores Core Land Use Plan (LUP)

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**Recommendation: Certification of the Town of Southern Shores Land Use Plan based on the determination that the document has met the substantive requirements outlined within the 2002 7B Land Use Plan Guidelines and that there are no conflicts evident with either state or federal law or the State's Coastal Management Program.**

### Overview

The Town of Southern Shores is located in Dare County and is bounded by the Town of Duck to the north, the Atlantic Ocean to the east, the Town of Kitty Hawk across US 158 to the south, and the Currituck Sound and Ginguite Bay to the west. The Town has approximately 3.7 miles of shoreline along the Atlantic Ocean. In addition to the Currituck Sound and Ginguite Bay, public trust waters to the west also include Ginguite Creek and an extensive system of connecting access channels and interior canals.

The 2010 Census indicates a permanent population of 2,714 persons for Southern Shores, about 8% of the total Dare County permanent population. For 2008, the Town's projected permanent and seasonal peak population was estimated at 8,011 persons. In 2007, there were 2,310 dwelling units in the Town, with approximately two-thirds being owner occupied and one-third seasonal rentals. Approximately 2,800 dwelling units can be expected at build-out, which is estimated to occur around 2016.

The Town consists of approximately 2,175 acres. Prior to incorporation in 1979, the Town was platted as a planned residential community designed for single-family detached housing. Approximately 73% of the town is in residential use, 15% in recreation, 9% in conservation, and 3% in commercial. Commercial uses and town offices are located at the Town's southern border along US 158. The Town also has Extra-Territorial Jurisdiction (ETJ) over adjacent commercial properties on the north side of US 158, south of the Martin's Point community. Martin's Point was once part of the Town's ETJ and is included in the current Town of Southern Shores 1997 CAMA Sketch Land Use Plan Update certified on September 25, 1998. Martin's Point is no longer part of the Town's ETJ and is not included in the adopted draft LUP. Planning issues for Martin's Point are addressed in the Dare County 2009 LUP certified on February 24, 2011.

The Town desires to maintain the existing community appearance: a primarily large lot residential community interspersed with recreational facilities, beach accesses, walkways, and open spaces served by local roads with a small commercial district at its southern edge focused

on convenience shopping and services and with new development and redevelopment at a scale and of an architecture compatible with existing homes.

There are no policy statements related to the State's CAMA rules "Minimum Use Standards" that are more restrictive.

Specific to the Public Access Management Topic, public access to ocean beaches and public trust waters is not provided within the Town. Improved access points and parking areas are operated and maintained by civic associations, are considered private, and are not open to the general public. The Town does not own or control any access locations from a public street or road. The Town will continue to recognize existing private ownership, control and maintenance of current accesses and will consider acquiring title or control of access if a reasonable opportunity arises. (Policy 1 and Action Item 1-a)

The Town of Southern Shores Town Council unanimously adopted the LUP at their duly advertised public hearing on July 18, 2012.

To view the Town of Southern Shores Core LUP go to the following link and scroll down to Town of Southern Shores: [http://www.nccoastalmanagement.net/Planning/under\\_review.htm](http://www.nccoastalmanagement.net/Planning/under_review.htm)

The public was provided the opportunity to submit written comments on the LUP up to fifteen (15) business days prior to the CRC meeting (August 8<sup>th</sup>). No written comments or objections were received.



North Carolina Department of Environment and Natural Resources  
Division of Coastal Management

Beverly Eaves Perdue  
Governor

Braxton C. Davis  
Director

Dee Freeman  
Secretary

## MEMORANDUM

**CRC-12-30**

**To:** Coastal Resources Commission

**From:** Michael Christenbury, DCM Wilmington District Planner

**Date:** August 14, 2012

**Subject:** Pender County 2012 Comprehensive Land Use Plan Certification

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**Recommendation: Certification of the 2012 Pender County Comprehensive Land Use Plan based on the determination that the plan has met the substantive requirements outlined within the 2002 7B Land Use Plan Guidelines and that there are no conflicts evident with either state or federal law or the State's Coastal Management Program.**

### Background

Pender County is requesting Certification of the 2012 Pender County Comprehensive Land Use Plan. On June 22, 2006, the Coastal Resources Commission certified the 2006 Pender County Core Land Use Plan, one of the first plans to be certified under the 2002 7B land use planning guidelines. Faced with unprecedented growth in the early 2000's, Pender County decided in 2008 to write a more in-depth comprehensive land use plan. The planning process consisted of two inter-related components. The first step was to prepare the comprehensive land use plan that sets goals and policies for the future. The second step, involved updating regulatory standards and procedures and combining freestanding ordinances into a unified development ordinance (UDO). The County recognized that successful completion of both components was essential to ensure that Pender County was ready for the next wave of growth in the future.

On August 4, 2012, the N.C. Coastal Federation awarded the prestigious 2012 Pelican Award to the Pender County Commissioners and the County Planning Department for their foresight and vision in the county's land use planning. The Coastal Federation applauded the Pender County Commissioners, as well as the Planning Department for involving diverse county residents and groups in developing the Comprehensive Land Use Plan, as well as the Unified Development Ordinance. The County was honored for adopting policies that encourage low impact development (LID) techniques that greatly reduce stormwater runoff.

### Overview

Situated in southeastern North Carolina, Pender County is a large and diverse community covering 870 square miles – the 10th largest county in North Carolina. Pender County hosts six small

municipalities but the great majority of the county remains rural and unincorporated. The northern and western portions of the county consist primarily of farm and forest land with scattered, small rural communities. By contrast, the southern and eastern portions of Pender County are experiencing substantial suburban growth that is attracted to the coast, and to the growing metropolitan area around the City of Wilmington and New Hanover County. To a lesser degree, parts of Pender County are also influenced by the City of Jacksonville and the expanding Camp Lejeune Marine Corps Base just to the north in Onslow County.

## **Discussion**

Beyond the management topics noted in the 2002 7B land use planning guidelines, the Comprehensive Plan addresses a myriad of other issues and topics to help guide future growth within the county. Other topics addressed in the plan include growth management, preferred development patterns, community appearance, and cultural preservation. Additionally the plan outlines procedures for amendments to the Comprehensive Plan.

The primary focus of the County's effort was to promote consensus and build broad support for sensible development standards to guide future growth. Working with a diverse group of citizens and other interests was paramount in achieving this consensus. The plan provides the basis for the development of design standards and regulations, and recognizes the need for coordination among county departments, as well as other government agencies to address both land use issues and capital improvement projects. Moreover, the Plan embraces smart growth principles which have also been incorporated into the county's parallel developed Unified Development Ordinance (UDO).

Section III of the plan describes the six Land Use Classifications that are used to graphically depict the desired future land use pattern on the Future Land Use Maps, which act as policy. Small area plans with maps are also included in this section to provide further focus. In addition to the county-wide Future Land Use Map, sub-area Future Land Use Maps titled: Coastal Pender, Rocky Point, and the US 421 South Corridor are included in this section as well.

Appendix D within the plan includes items to satisfy specific requirements of the 7B Land Use Planning Guidelines including an extensive section which addresses policy impact analysis.

## **Summation**

Following a public hearing on July 23, 2012, the Pender County Board of Commissioners voted unanimously by resolution to adopt the 2012 Pender County Comprehensive Land Use Plan.

The public had the opportunity to provide written comments to DCM up to fifteen (15) business days (excluding holidays) prior to the CRC meeting. No written comments have been received as of the date of this memorandum.

To view the full 2012 Pender County Plan, go to the following link and scroll down to Pender County Comprehensive LUP. [http://www.nccoastalmanagement.net/Planning/under\\_review.htm](http://www.nccoastalmanagement.net/Planning/under_review.htm)



North Carolina Department of Environment and Natural Resources  
Division of Coastal Management

Beverly Eaves Perdue  
Governor

Braxton C. Davis  
Director

Dee Freeman  
Secretary

CRC 12-31

**MEMORANDUM**

**To:** Coastal Resources Commission  
**From:** Maureen Meehan, DCM Morehead City District Planner *MM*  
**Date:** August 15, 2012 (August 29-30, 2012 CRC Meeting)  
**Subject:** Amendment of the 2009 Town of Swansboro Core Land Use Plan

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**Recommendation:**

**Certification of the Town of Swansboro Core Land Use Plan Amendment with the determination that the Town has met the substantive requirements outlined in the 7B Land Use Plan Guidelines and that there are no conflicts with either state or federal law or the State's Coastal Management Program.**

**Overview**

The Town of Swansboro is requesting a future land use map amendment to their LUP, certified by the CRC on November 25, 2009. This will be the second amendment to the plan (amended June 21, 2012).

The subject property being considered for this amendment is changing the back portion of a property, which currently has both a residential and commercial designation, from Low Density Residential to Commercial. The property is located at 4178 Freedom Way (Highway 24) and is approximately 2.84 acres. The Swansboro Board of Commissioners held a duly advertised public hearing for the LUP amendment and voted unanimously, by resolution, to adopt the map amendment on June 19, 2012.

The adopted changes and proposed amendment to the LUP are outlined below:

1. FLUM Change – change of designation from Low Density Residential to Commercial. The property is flagged in the map that is attached to this memo. The subject property originally had two classifications. This amendment will make the whole parcel one classification.
2. Text Changes – future land acreages (Table 45, pg. 153) have been updated to reflect the change of designation. The amount of land that is affected did not change the forecasted needs and therefore, those figures did not need to be updated.

The public had the opportunity to provide written comments on the LUP up to fifteen business days prior to the CRC meeting, which the amendments are being considered for certification (August 8, 2012). DCM did not receive any comments.

To view the full 2009 Swansboro Land Use Plan, go to the following link [http://www.nccoastalmanagement.net/Planning/under\\_review.htm](http://www.nccoastalmanagement.net/Planning/under_review.htm).

Attachments

Attachment 1 – Town Memo

Attachment 2 – Updated Future Land Use Map (Exhibit A)

Attachment 3 – Table 45 Town of Swansboro Future Land Use Acreages

ATTACHMENT 1

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JUL 18 2012

DCM-MHD CITY

**BOARD OF COMMISSIONERS**

Scott Chadwick, Mayor  
Jim Allen, Mayor Pro Tem  
Junior Freeman, Commissioner  
Larry Philpott, Commissioner  
John Lister, Commissioner  
Gery Boucher, Commissioner



sm

**Town of Swansboro**

Friendly City by the Sea • Established 1783  
[www.swansboro-nc.org](http://www.swansboro-nc.org)

**OFFICE OF THE TOWN MANAGER**

Patrick Thomas, Town Manager  
Paula W. Webb, Town Clerk

May 9, 2012

Maureen Meehan Will  
District Planner  
NCDENR Division of Coastal Management  
400 Commerce Ave.  
Morehead City, NC 28557

Dear Ms. Will,

The Town of Swansboro is proposing an amendment to our 2009 CAMA Land Use Plan for an area of approximately 2.84 acres at 4178 Freedom Way (NC Hwy 24). The proposed amendment would affect the Future Land Use Map (Map 16), and the Town of Swansboro Future Land Use Acreages (Table 45).

The proposed amendment consists of converting the rear portion of the property from a Low Density Residential designation to a Commercial designation and adjusting the acreages shown in Table 45 to reflect the change.

Enclosed please find the public hearing notice, proposed text change, and map depicting the change to the Future Land Use Map.

Sincerely,

A handwritten signature in black ink, appearing to read "Jennifer Holland".

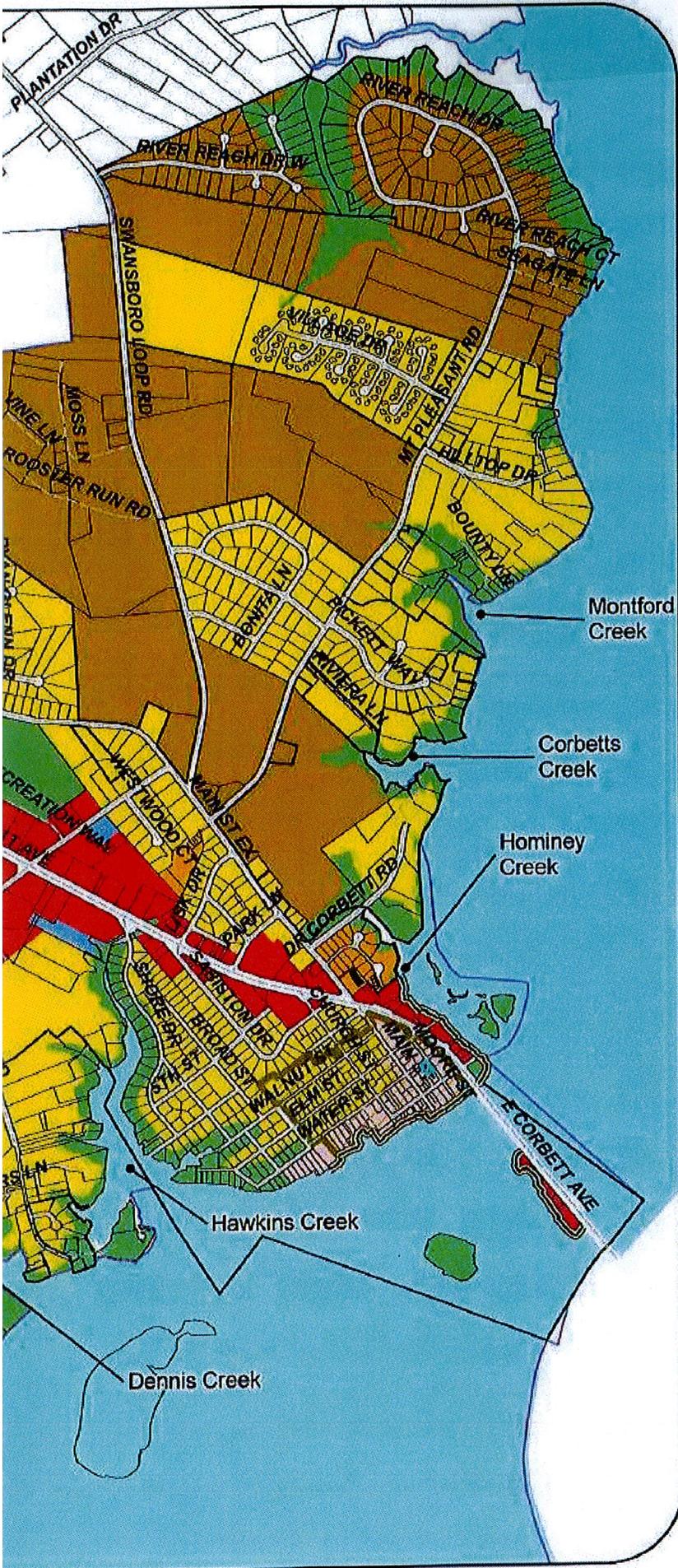
Jennifer Holland, CFM  
Planner and Unified Development  
Ordinance Administrator  
910-326-4428 ext. 126  
910-326-3101 fax  
[planner@ci.swansboro.nc.us](mailto:planner@ci.swansboro.nc.us)

**ATTACHMENT 2**



AFFECTED AREA

# Town of Swansboro Land Use Plan *Future Land Use*



## Legend

- Urban Waterfront
- Historic District
- Town Limits
- ETJ
- Planning Area
- Hydrology

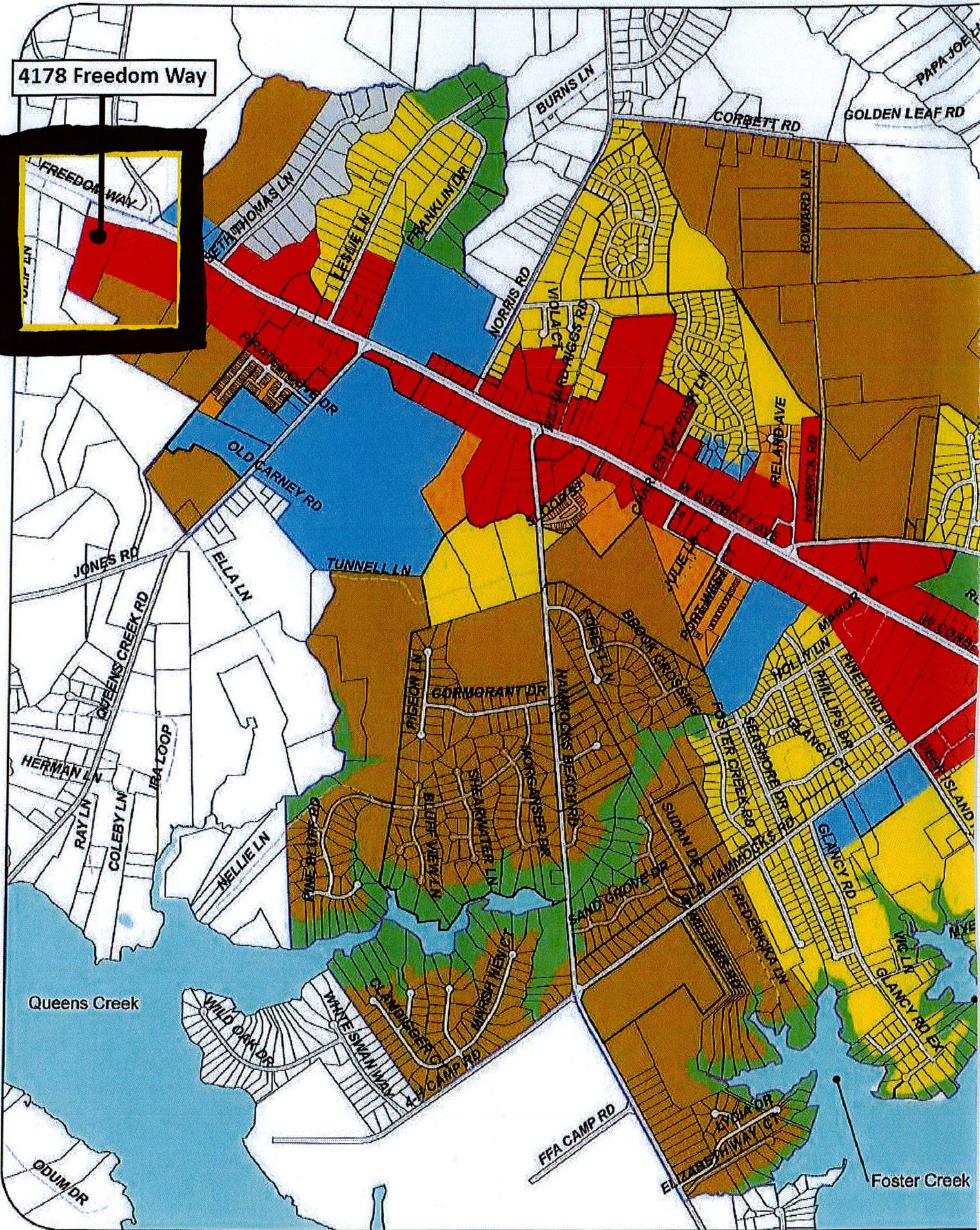
## Future Land Use

- Commercial
- Commercial Central Business
- Office & Institutional
- Light Industrial
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Conservation

1 inch = 1,400 feet

The preparation of this map was financed in part through a grant provided by the North Carolina Coastal Management Program, through funds provided by the Coastal Zone Management Act of 1972, as amended, which is administered by the Office of Ocean and Coastal Resource Management, National Oceanic and Atmospheric Administration.

4178 Freedom Way



# ATTACHMENT 3

## 3. Future Land Use Acreages

The Town believes that the future land use map and associated goals and implementing actions are consistent with the land suitability analysis. Table 45 provides a summary of the estimated future land use acreages (as delineated on Map 16, Future Land Use Map).

Table 45. Town of Swansboro Future Land Use Acreages

Land Use	Corporate Limits	ETJ	Planning Area	Total
Commercial	<del>213.37</del> 216.21	106.63	0.00	<del>320.00</del> 322.84
Commercial Central Business	17.57	0.00	0.00	17.57
Conservation	86.93	202.96	0.00	289.89
High Density Residential	42.98	25.68	0.00	68.66
Medium Density Residential	365.36	358.43	0.00	723.79
Low Density Residential	<del>125.89</del> 123.05	1,019.08	0.00	<del>1,144.97</del> 1,142.13
Office & Institutional	38.37	146.91	0.00	185.28
Light Industrial	0.00	34.69	0.00	34.69
Undesignated Planning Area	0.00	0.00	2,881.37	2,881.37
<b>Total</b>	<b>890.47</b>	<b>1,894.38</b>	<b>2,881.37</b>	<b>5,666.22</b>

Source: Holland Consulting Planners, Inc.

## 4. Land Demand Forecast/Carrying Capacity Discussion

The following table provides a forecast of land use demand. The acreage forecasts are intended to provide anticipated land use acreages through the extent of the planning period (2030). The acreage forecast are based on the population forecast provided on page 25 of the plan. The forecasts have been calculated based on the persons per acre that existed in 2005.

In reviewing these forecasts, several factors should be taken into account. As noted earlier in the plan (see pages 87 to 99 - includes carrying capacity discussion) all water and sewer services are provided through the Onslow Water and Sewer Authority. The water and sewer facilities are owned by the Town but they are under long-term lease to ONWASA. However, the Town controls sewer capacity allocations for treatment at the Swansboro Wastewater Treatment Plant. The information outlined within the section noted outlines what the current system capacities are, and how these systems will be upgraded to address projected growth trends. Additionally, non-residential growth within the Town's planning area is projected to be fairly moderate. Swansboro lies in very close proximity to the City of Jacksonville, which provides citizens with a large number of retail outlets and professional services.



North Carolina Department of Environment and Natural Resources  
Division of Coastal Management

Beverly Eaves Perdue  
Governor

Braxton C. Davis  
Director

Dee Freeman  
Secretary

CRC 12-32

## MEMORANDUM

**To:** Coastal Resources Commission  
**From:** Maureen Meehan, DCM Morehead City District Planner *MLM*  
**Date:** August 15, 2012 (August 29-30, 2012 CRC Meeting)  
**Subject:** Amendment of the 2011 City of Jacksonville Core Land Use Plan

---

### Recommendation:

**Certification of the City of Jacksonville Core Land Use Plan Amendments with the determination that the City has met the substantive requirements outlined in the 7B Land Use Plan Guidelines and that there are no conflicts evident with either state or federal law or the State's Coastal Management Program.**

### **Overview**

The City of Jacksonville is requesting future land use map (FLUM) amendments to their LUP, certified by the CRC on August 25, 2011. This will be the first amendment to the LUP.

After changing development trends and a voluntary annexation, the City reviewed their LUP and realized that in order to meet several goals and policies established in the document, it was prudent to update the FLUM. Some of the objectives of the plan that these changes will support include: preserving natural features that provide storm protection and minimize hazards; maintaining a sustainable mix of land uses in and around the City; promote land use compatibility; encourage a mixture of retail, civic, and municipal uses; and protect neighborhood and commercial corridors.

The proposed amendments to the LUP are outlined below:

1. Hickory Road - change of FLUM designation from Moderate Density Residential to Neighborhood Commercial. The 5.7 acre property was recently rezoned to a commercial designation and further developed into a small scale retail center. Adjacent properties are designated as Neighborhood Commercial on the FLUM and this change will reflect existing development patterns.
2. Patriot Park – Piney Green Road – FLUM designation of a 99.29 acre property as Mixed Use along Piney Green Road and Low Density Residential for the remainder of the property. This parcel was voluntarily annexed into the City and the proposed designations reflect existing development and land use designations adjacent to the property.

3. Tallman & Riverview Streets - change of FLUM designation of 2.79 acres from Park to Mixed Use. The property is adjacent to other commercial uses, while in the same vicinity to other Park and Institutional designations. Due to commercial development trends at a downtown commercial intensity, the subject property is most suited for commercial or mixed uses.
4. Commerce Road - change of FLUM designation from Neighborhood Commercial to Moderate Density Residential. This parcel will serve as a missing transition from commercial and lower density residential uses. The LUP as well as the Country Club/Sandy Run Neighborhood Plan both state that there is a need in the general area for a transition between high and low density uses.
5. Marine Boulevard – FLUM change of a .44 acre portion of property from Neighborhood Commercial to Conservation. This is a correction of a mapping error. The majority of the property is in its natural state and will stay that way to meet the environmental goals of the plan.
6. Text Changes - future land acreages for all affected charts and tables throughout the plan have been updated to reflect the change of designations.

The Jacksonville City Council held a duly advertised public hearing for the LUP amendment and voted unanimously, by resolution, to adopt the above listed map amendments on July 17, 2012. After local adoption, the public had the opportunity to provide written comments on the LUP up to fifteen business days prior to the CRC meeting, which the amendments are being considered for certification (August 8, 2012). DCM did not receive any comments.

To view the full 2011 Jacksonville Land Use Plan, go to the following link [http://www.nccoastalmanagement.net/Planning/under\\_review.htm](http://www.nccoastalmanagement.net/Planning/under_review.htm).

#### Attachments

Attachment 1 – City Memo

Attachment 2 – Future Land Use Map Amendments

Exhibit A: Hickory Road

Exhibit B: Patriot Park – Piney Green Road

Exhibit C: Tallman & Riverview Streets

Exhibit D: Commerce Road

Exhibit E: Marine Boulevard

Attachment 3 – Updated Charts

# City of Jacksonville



Development Services Department  
Planning Division

May 15, 2012

Maureen Meehan, Morehead City District Planner  
NC Division of Coastal Management  
400 Commerce Avenue  
Morehead City, NC 28557  
(252) 808-2808 x205

RECEIVED

MAY 17 2012

DCM-MHD CITY

Amendment request for City of Jacksonville CAMA Land Use Plan and Map

Maureen,

The City of Jacksonville would like to notify the NC Division of Coastal Management and the Coastal Resources Commission of its intent to amend the City of Jacksonville CAMA Land Use Plan and Map. The City will recommend changing the Future Land Use (FLU) designations of 203 Hickory Road from Moderate Density Residential to Neighborhood Commercial, 2201 Commerce Road from Neighborhood Commercial to Moderate Density Residential, Patriot Park- Piney Green Road from no designation (previously in Onslow County jurisdiction) to Low Density Residential and Mixed Use, 102 Marine Boulevard, and several parcels at the intersection of Riverview and Tallman Streets from Park to Mixed Use. The first three requests are pursuant to previously adopted rezonings and a special use permit, the Piney Green Road amendment represents a recent voluntary annexation into the City of Jacksonville and the last request is pursuant to changing development patterns in the respective area.

Regards,

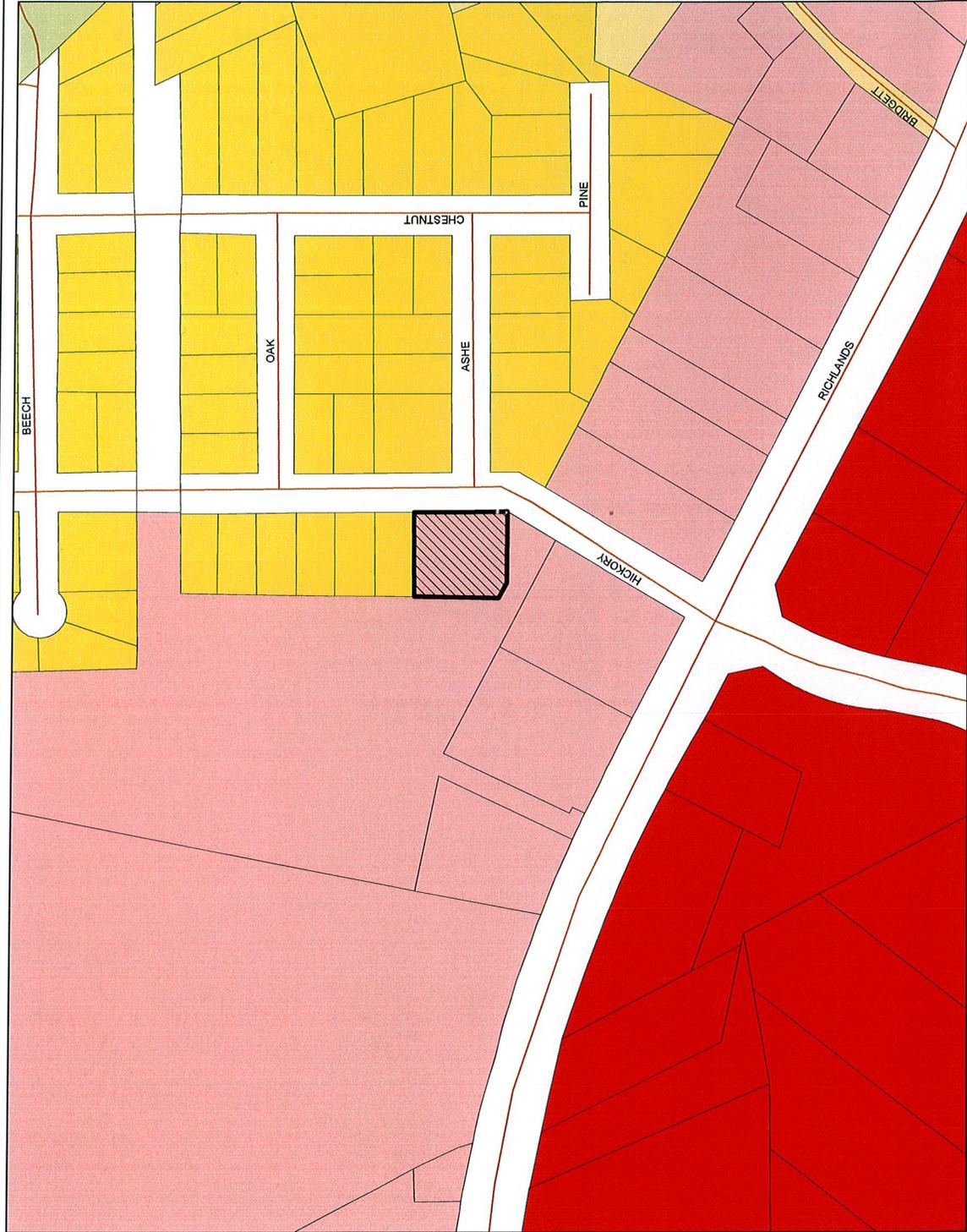
A handwritten signature in black ink, appearing to read "Mary Sertell".

Mary Sertell  
Senior Planner  
[msertell@ci.jacksonville.nc.us](mailto:msertell@ci.jacksonville.nc.us)

**ATTACHMENT 2**

# EXHIBIT A

## Jacksonville City Limits & ETJ - 203 Hickory Road - Proposed Future Land Use



### Legend

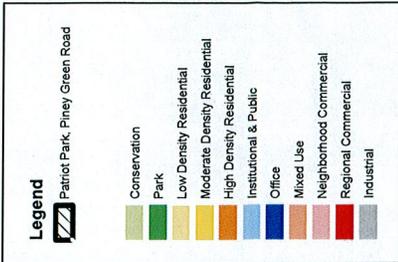
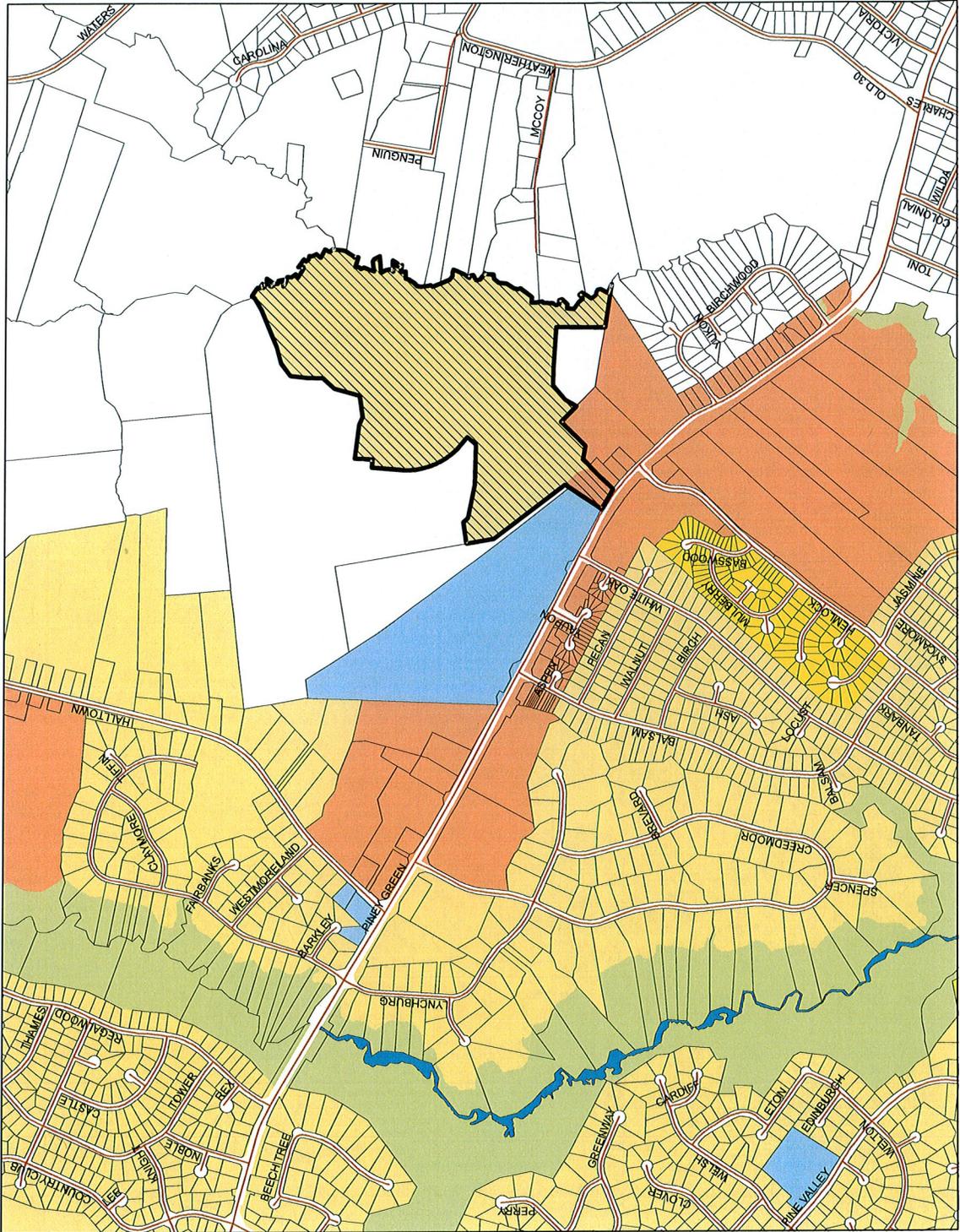
- 203 Hickory Road
- 203 Hickory Road

GISDATA.GISADMIN.CAMALandUse2011

- Conservation
- Park
- Low Density Residential
- Moderate Density Residential
- High Density Residential
- Institutional & Public
- Office
- Mixed Use
- Neighborhood Commercial
- Regional Commercial
- Industrial

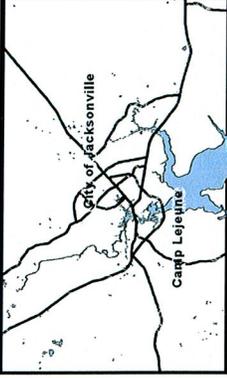
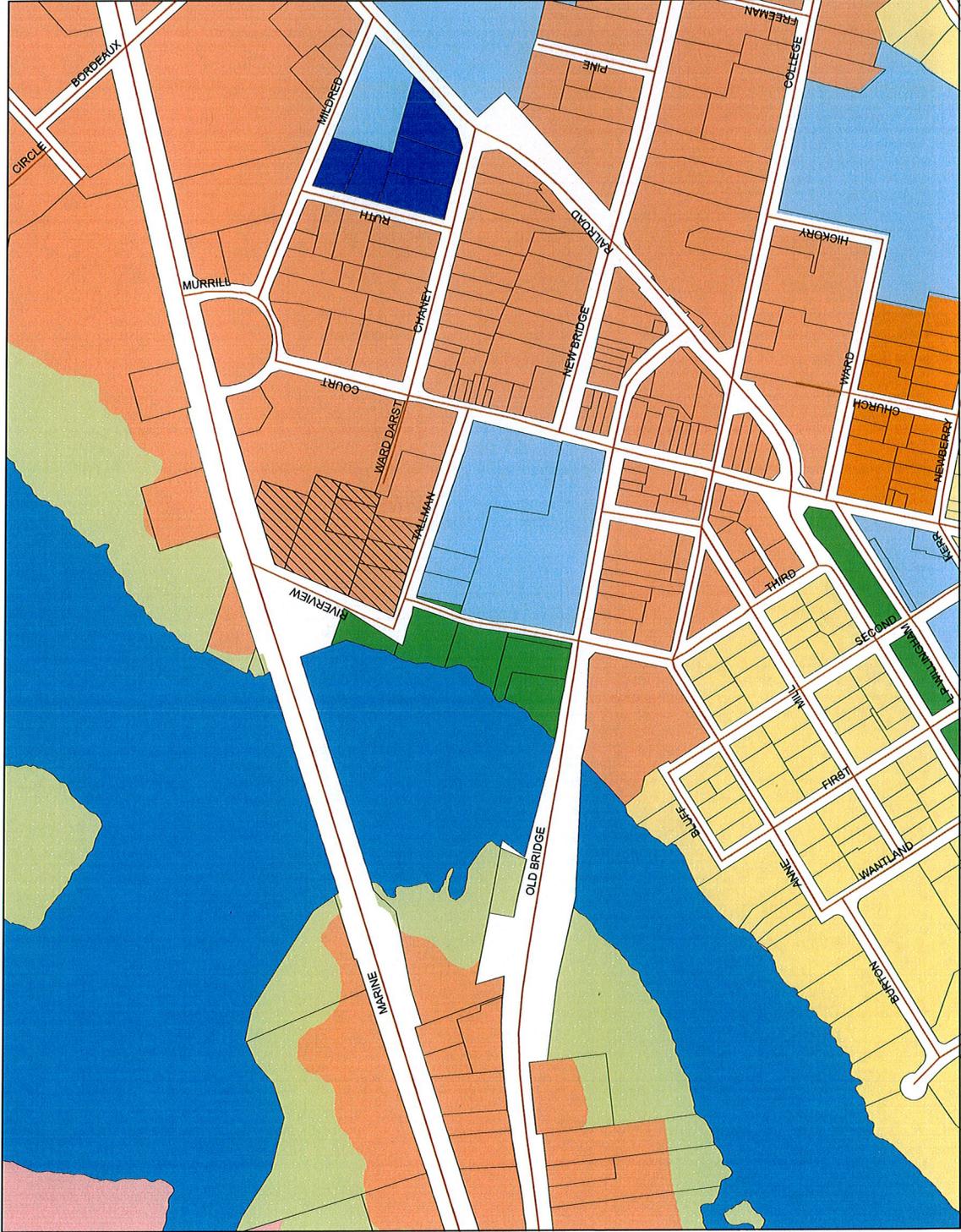
# EXHIBIT B

## Jacksonville City Limits & ETJ - Patriot Park, Piney Green Road - Proposed Future Land Use



# EXHIBIT C

## Jacksonville City Limits & ETJ - Tallman & Riverview Streets - Proposed Future Land Use

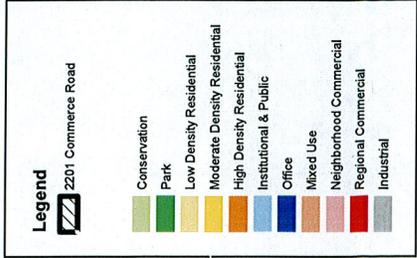
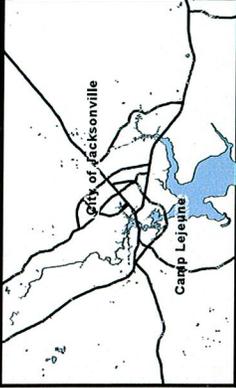
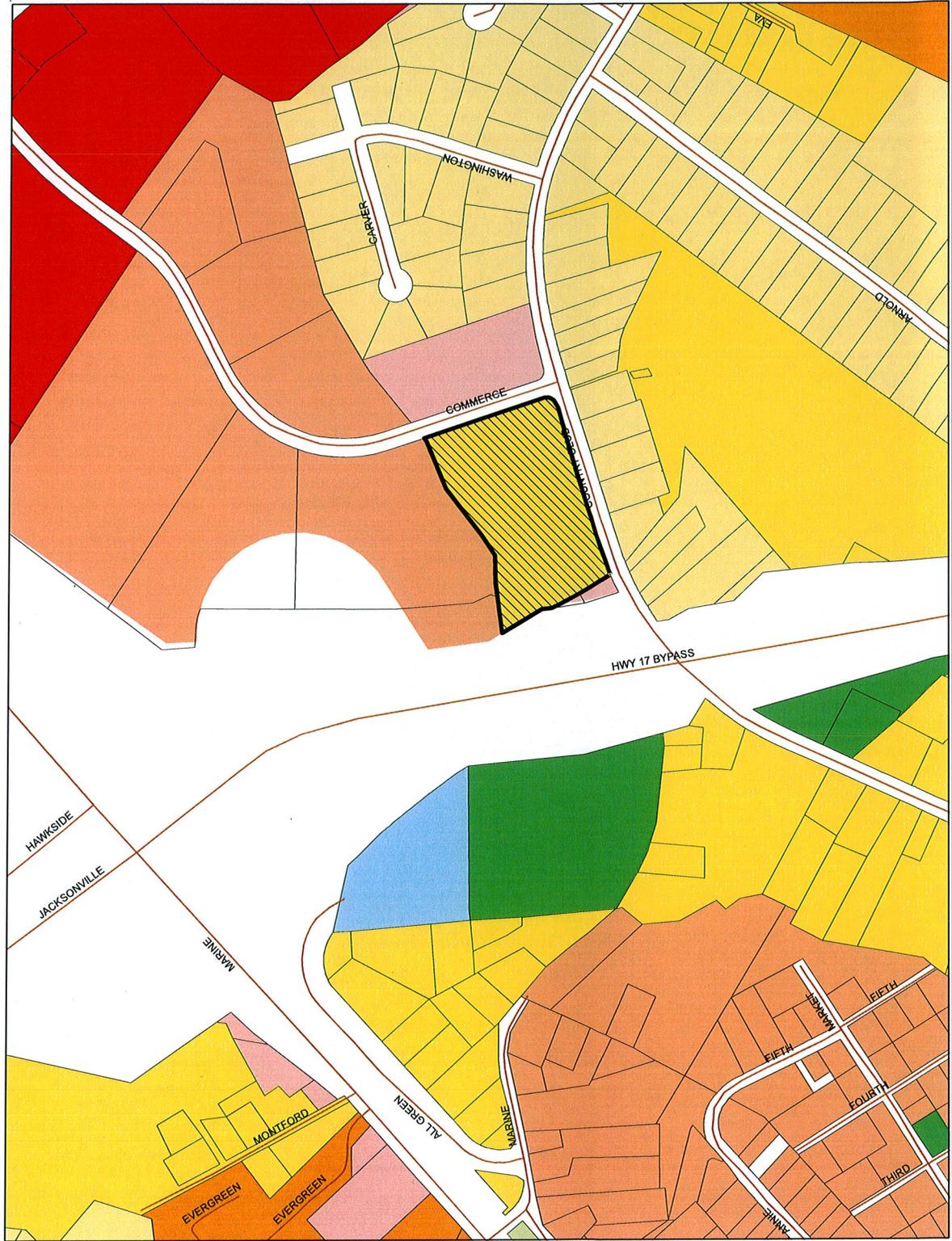


**Legend**

- Tallman & Riverview Streets Parcels
- GISDATA.GISADMIN.CAMALandUse2011
- Conservation
- Park
- Low Density Residential
- Moderate Density Residential
- High Density Residential
- Institutional & Public
- Office
- Mixed Use
- Neighborhood Commercial
- Regional Commercial
- Industrial

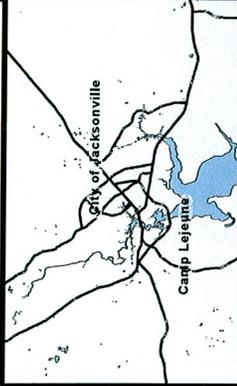
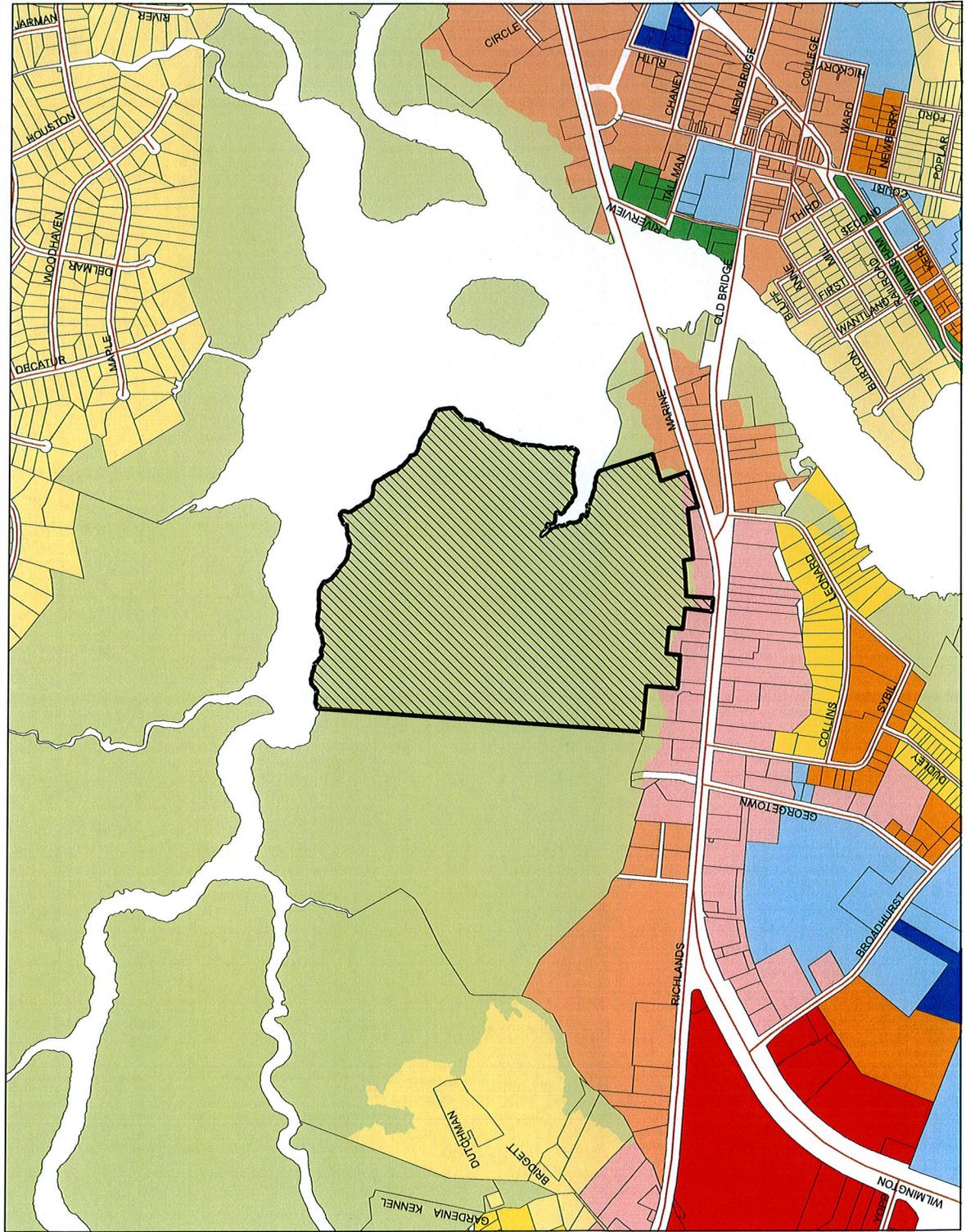
# EXHIBIT D

## Jacksonville City Limits & ETJ -2201 Commerce Road - Proposed Future Land Use



# EXHIBIT E

## Jacksonville City Limits & ETJ -212 S Marine Blvd - Proposed CAMA Future Land Use



### Legend

212 S Marine Blvd.

- Conservation
- Park
- Low Density Residential
- Moderate Density Residential
- High Density Residential
- Institutional & Public
- Office
- Mixed Use
- Neighborhood Commercial
- Regional Commercial
- Industrial

# ATTACHMENT 3

**Exhibit 42: Land Allocation by Suitability**

Land Use Category	Undeveloped Acres			Projected Need
	Medium/High Suitability	Low Suitability	Least Suitability	
Residential	2,843	355	852	3,462 <i>(includes excess capacity)</i>
Commercial <i>(including Office)</i>	597	146	938	1,452
Industrial	1	0	0	10
Totals	3,368	486	1,781	4,924

**Exhibit 43: Developed and Undeveloped Land by Land Use Category**

Land Use Category	Developed Land	Undeveloped Land	Total Land
Conservation	979	1,831	2,810
Park	498	104	602
Low Density Residential	5,845	2,724	8,569
Medium Density Residential	621	793	1,414
High Density Residential	680	538	1,218
Public/Institutional	1,078	65	1,143
Office	475	41	516
Neighborhood Commercial	708	50	758
Regional Commercial	1,203	236	1,439
Mixed Use	1,383	1,355	2,738
Industrial	148	1	149

**Exhibit 1: Land Suitability by Acreage**

Suitability	Developed Acres	Undeveloped Acres	Total Acres
Least Suitable	1,780	3,270	5,050
Low Suitability	1,052	531	1,583
Moderate Suitability	2,782	2,707	5,489
High Suitability	8,210	1,296	9,506

**Exhibit 2: Future Land Uses by Suitability**

<b>Undeveloped Land</b>				
<b>Future Land Use</b>	<b>Least Suitable</b>	<b>Low Suitability</b>	<b>Moderate Suitability</b>	<b>High Suitability</b>
Low Density Residential	463	224	1,576	429
Medium Density Residential	224	93	305	171
High Density Residential	165	38	177	158
Neighborhood Commercial	2	18	6	24
Mixed Use	537	127	198	187
Regional Commercial	388	1	14	137
Office	11	0	1	29
Industrial	0	0	0	1
Park	33	0	3	68
Conservation	1,441	22	313	55
Public/ Institutional	20	0	1	44
<b>Total Undeveloped Acres</b>	<b>3,281</b>	<b>508</b>	<b>2,551</b>	<b>1,303</b>
<b>Developed Land</b>				
<b>Future Land Use</b>	<b>Least Suitable</b>	<b>Low Suitability</b>	<b>Moderate Suitability</b>	<b>High Suitability</b>
Low Density Residential	516	544	1,409	3,376
Medium Density Residential	443	12	166	400
High Density Residential	64	65	128	693
Neighborhood Commercial	141	22	128	417
Mixed Use	69	184	651	479
Regional Commercial	161	20	87	935
Office	6	0	26	443
Industrial	4	0	0	144
Park	82	0	10	406
Conservation	738	120	58	63
Public/ Institutional	162	58	131	727
<b>Total Developed Acres</b>	<b>1,986</b>	<b>1,065</b>	<b>2,794</b>	<b>8,083</b>



North Carolina Department of Environment and Natural Resources  
Division of Coastal Management

Beverly Eaves Perdue  
Governor

Braxton C. Davis  
Director

Dee Freeman  
Secretary

## MEMORANDUM

CRC-12-33

**To:** Coastal Resources Commission (CRC)  
**From:** Charlan Owens, AICP, Elizabeth City District Planner  
**Date:** August 15, 2012  
**Subject:** Amendments to the Camden County Advanced Core Land Use Plan (LUP)

---

**Recommendation: Certification of the Future Land Use Plan Map and Text amendments for the Camden County Advanced Core Land Use Plan, based on the determination that the County has met the substantive requirements outlined within the 2002 Land Use Plan Guidelines and that there are no conflicts evident with either state or federal law or the State's Coastal Management Program.**

### Overview

Camden County is requesting a map amendment for a 100 acre site along US Highway 17 north and associated text amendments to support development of the Camden County Eco Industrial Park.

The Camden County Board of Commissioners unanimously adopted the amendments at their duly advertised public hearing on June 18, 2012.

The amendments are outlined below:

- 1) Future Land Use Plan Map (FLUPM), Page 193 – Convert 70 acres of “Conservation” and 30 acres of “Low Density Residential/Agricultural” to the “Planned Unit Development/Mixed Use” designation.
- 2) “Planned Unit Development/Mixed Use” Designation Description, Page 197 – Add the following language:

The mixed use Planned Unit Development promotes “smart growth” by allowing, through the use of conditional zoning, the location within a single development of multiple commercial, residential, industrial, or office uses that complement each other. Natural features, design features, and amenities are used to buffer or interconnect uses as applicable to assure a cohesive and efficient development.

- 3) Table 54 Future Land Use Acreages, Page 179 and Table 57 Existing v/s Future Land Uses Page 182 – Change future land use acreage totals within the Highway 17 Study Area/Corridor for “Low Density Residential/Agricultural”, “Planned Unit

Development/Mixed Use” and “Conservation” designations to be consistent with the FLUPM.

- 4) Table 55 Sub-basin 03-01-50 Acreage, Page 180 – Change Acreage by Land Use and % of Total Acreage for “Low Density Residential Agricultural”, “Planned Unit Development/Mixed Use” and “Conservation” designations to be consistent with the FLUPM.

For more detailed information see the attached Amendment Exhibits and Case Analysis submitted by the County.

To view the entire Camden County Advanced Core LUP certified by the CRC on June 17, 2005, go to the following link and scroll down to Camden County:

[http://www.nccoastalmanagement.net/Planning/under\\_review.htm](http://www.nccoastalmanagement.net/Planning/under_review.htm)

The public was provided the opportunity to submit written comments on the LUP amendment up to fifteen (15) business days prior to the CRC meeting (August 8<sup>th</sup>). No written comments or objections were received.

Attachment 1 – Amendment Exhibits

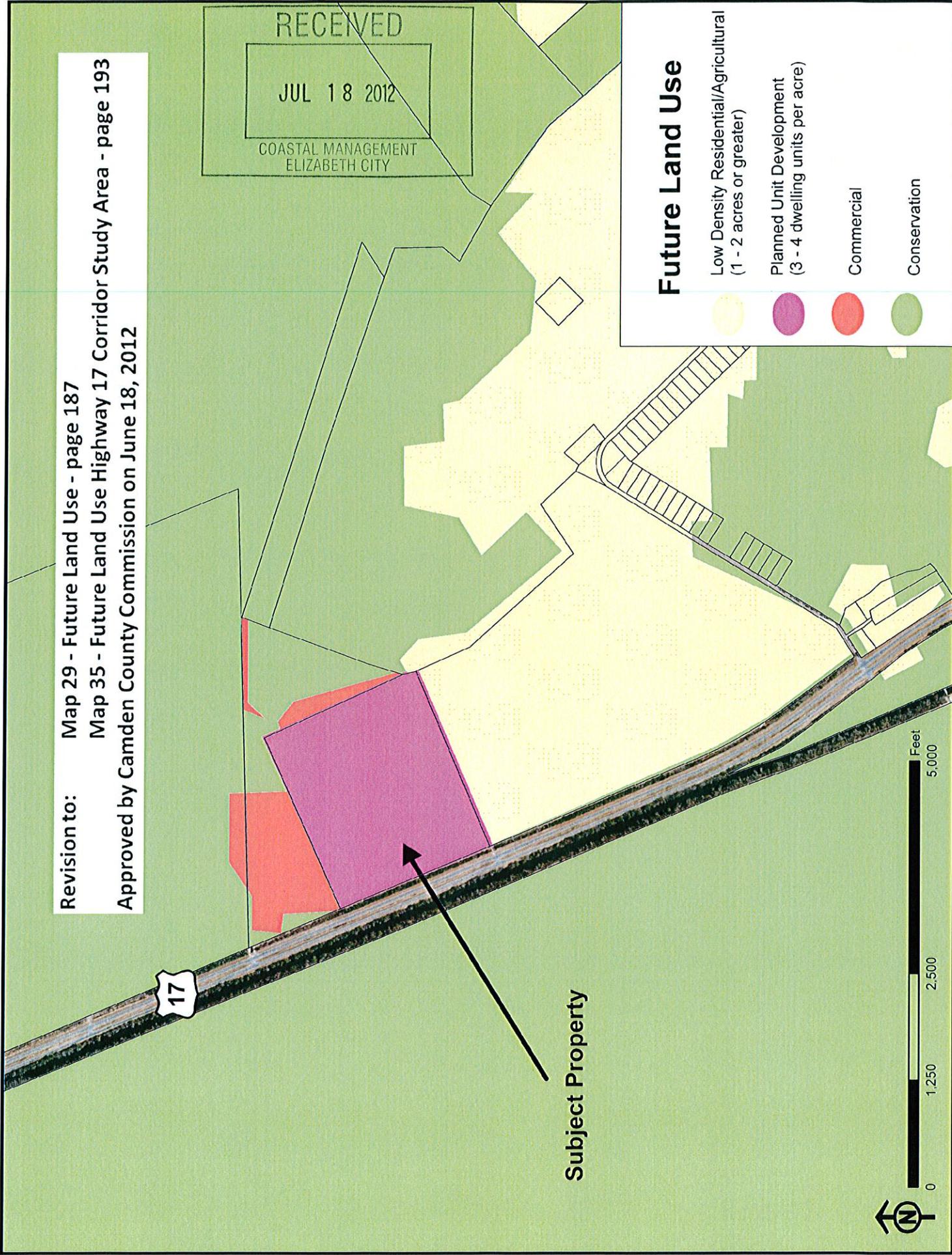
Attachment 2 – Case Analysis

Revision to: Map 29 - Future Land Use - page 187  
Map 35 - Future Land Use Highway 17 Corridor Study Area - page 193  
Approved by Camden County Commission on June 18, 2012

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JUL 18 2012  
COASTAL MANAGEMENT  
ELIZABETH CITY

### Future Land Use

	Low Density Residential/Agricultural (1 - 2 acres or greater)
	Planned Unit Development (3 - 4 dwelling units per acre)
	Commercial
	Conservation



JUL 18 2012

COASTAL MANAGEMENT  
ELIZABETH CITY**LAND USE PLAN TEXT AMENDMENTS**

**Amend - Section VI: E** : The Future Land Use Acreages presented in Table 54 (with identical amendment to the study area breakout Table 57) is amended by adding the following underlined language and deleting the strikethrough language:

**Table 54**  
**Future Land Use Acreages**

LAND USE	County Minus Study Areas	STUDY AREAS							Entire County
		South Mills	Camden	Shiloh	Highway 343 south	Highway 343 North	Highway 17	Highway 158	
Moderate Density Residential	1,936.83	443.20	204.42	163.40	1,115.76	0.00	0.00	26.87	3,890.48
Low Density Residential/ Agricultural	21,003.27	1,385.88	730.56	1,167.64	6,934.23	1,751.00	<del>4,655.53</del> <u>4,625.53</u>	0.00	<del>37,628.11</del> <u>37,598.44</u>
Planned Unit Development/Mixed Use	0.00	175.02	0.00	0.00	0.00	0.00	<del>0.00</del> <u>100.00</u>	0.00	<del>175.02</del> <u>275.02</u>
Commercial	94.71	80.74	69.22	0.00	13.40	0.00	45.71	0.00	303.78
Community Core	6.88	40.10	209.68	17.98	35.84	0.00	0.00	0.00	310.48
Industrial	1,289.62	10.91	247.18	0.00	0.00	0.00	452.66	116.90	2,117.27
Conservation	101,145.45	624.25	392.94	314.01	1,471.51	328.55	<del>1,784.93</del> <u>1714.93</u>	70.99	<del>106,132.63</del> <u>106,062.63</u>
<b>Total</b>	125,476.76	2,760.10	1,854.00	1,663.03	9,570.74	2,079.55	6,938.83	214.76	150,557.77

NOTE: All study areas fall into subbasin 03-10-50 with the exception of Highway 343 Corridor South and Highway 158 Corridor. The Highway 343 Corridor South has 77% in subbasin 03-10-50 and 23% in subbasin 03-10-54. The Highway 158 Corridor has 30% in subbasin 03-10-50 and 70% in subbasin 03-10-54.

Source: Holland Consulting Planners, Inc.

**Amend - Section VI: E Planned Unit Development/Mixed Use**

This district is defined as the total development of one or more parcels physically connected by one central control or ownership. Through PUD, the county desires to foster development of land that has a higher degree of consideration of physical features and natural constraints to development than would be possible under general zoning or subdivision regulations. PUD is expected to promote a more

efficient use of the land, a higher level of amenities, and more creative design than would otherwise be possible

**The mixed use Planned Unit Development promotes “smart growth” by allowing, through the use of conditional zoning, the location within a single development of multiple commercial, residential, industrial, or office uses that complement each other. Natural features, design features, and amenities are used to buffer or interconnect uses as applicable to assure a cohesive and efficient development.**

**Table 55  
SUBBASIN 03-01-50 ACREAGE  
(Percentage of county in subbasin -- 74.3%)**

<b>Land Use</b>	<b>Acreage by Land Use</b>	<b>% of Total Acreage</b>
Moderate Density Residential	2,480	2.22%
Low Density Residential/Agricultural	31,589	28.23%
	<b><u>31,559</u></b>	<b><u>28.207%</u></b>
Planned Unit Development/Mixed Use	475	0.46%
	<b><u>275</u></b>	<b><u>0.335%</u></b>
Commercial	299	0.27%
Community Core	275	0.25%
Industrial	1,647	1.47%
Conservation	75,415	67.40%
	<b><u>75,345</u></b>	<b><u>67.344%</u></b>
<b>Total</b>	111,880	100.00%

Source: Holland Consulting Planners, Inc. (April, 2003).

**CASE ANALYSIS FOR THE  
COASTAL RESOURCES COMMISSION  
MEETING DATE:  
Camden County Land Use Plan Amendment**

**TYPE OF REQUEST**

To amend the Camden County CAMA Future Land Use Plan to designate approximately 70 acres of the Future Land Use map from Conservation & 30 acres Low Density Residential/Agricultural use (Exhibit 1), to 100 acres Mixed Use Planned Unit Development for the development of the Camden Eco Industrial Park.

**LOCATION**

2440 US Highway 17 (Exhibit 2)

Located on the east side of US 17, approximately ¼ mile north of the Dismal Swamp Welcome Center, and immediately north of the County's wastewater spray field.

**CURRENT ZONING**

Mixed Use Planned Unit Development (Exhibit 3)

**SURROUNDING PROPERRTY (Exhibit 4)**

	<b>LAND USE</b>	<b>CLASSIFICATION</b>
<b>NORTH</b>	Wooded	Commercial
<b>SOUTH</b>	Wastewater Spray field	Low Density Residential/Agriculture
<b>EAST</b>	Agriculture	Conservation
<b>WEST</b>	US Highway 17	Conservation (west of US 17)

**NARRATIVE:**

Camden County is requesting approval from the Coastal Resources Commission to amend the Future Land Use Map of the Advanced CAMA Land Use Plan, approved by the CRC in 2005, in order to obtain a letter of land use plan consistency needed by the NC Department of Commerce to classify the property as a "Certified Development Site".

The property was acquired by the county as part of a purchase of land for the County's wastewater spray field, and is separated from the spray field by two large drainage ditches (1 for the spray field, 1 for the 100 acre parcel) which

outfall under US Hwy 17 to the Dismal Swamp Canal. The site includes 70 acres of uplands, surrounding a 30 acre pond created from a sand mining operation. Due to its location and access to US 17 and proximity to the Hampton Roads metropolitan area, it is an ideal location for development of a business/industrial park.

The County, with the assistance of multiple state agencies, has prepared a planned unit development master plan (including zoning conditions and restrictive covenants) for a business/industrial park that emphasizes location of businesses that provide goods and services supporting environmental sustainability (Exhibit 5 –Master Plan). Implementation of the Master Plan has included extension of water and sewer services to and within the site, and construction of the entry road and partial interior roads (currently out to bid).

A review of the land use plan indicates that the parcel is classified “Conservation & Low density Residential/Agricultural” and with “Least Suitable, with some “Highly Suitable” land (Exhibit 6) because of the pond and possible wetlands surrounding it, and the lack of any infrastructure. Since the 2005 plan was approved the Corp of Engineers has determined there are no jurisdictional wetlands and considerable infrastructure has been completed. A review of the Implementation Policies indicates that this project and request is consistent with the 37 out of 43 relevant policies, and specifically those that support economic development of the county.

The requested amendment is supported in the 2005 LUP p. 183 in discussion of future land use maps:

“Industrial development is expected to occur within the following study areas: Highway 158 Corridor, Highway 17, Camden, and South Mills as well as unincorporated portions of the county. A 10% growth rate was applied for industrial development in these areas. Additionally, future development of medium density, commercial, and industrial development will reduce the amount of low density residential/conservation/recreational/vacant acreage throughout the county.”

## LAND USE PLAN ANALYSIS

### CLASSIFICATIONS

**Conservation Area** - - The conservation class is designated to provide for effective long-term management of significant limited or irreplaceable areas which include the following categories: natural resource fragile areas, coastal wetlands, 404 wetlands, estuarine shorelines, primary nursery areas, and estuarine and public trust waters. Policy statements in this plan address the

county's intentions under this classification and support the 15A NCAC 7H CAMA regulations for protection of AEC's.

**Low Density Residential/Agricultural – R-1 Mixed Village Residential.** This district is designed to provide for low-density residential development in areas that do not intrude into areas primarily devoted to agriculture in or near the three core villages of Camden, Shiloh, and South Mills, as appropriate.

**R-3 Basic Residential.** These districts are designed to provide for low density residential development in areas that are adjacent to those areas primarily devoted to agriculture. In addition, it is not intended for the placement of any manufactured homes within this district. Except as otherwise stated, or if the context of the use indicates otherwise, when the term "R-3 district" is used in this plan, it shall refer to both the R-3-1 district and the R-3-2 district.

The R-3-1 district is an R-3 district having lots of one or more acres in size.

The R-3-2 district is an R-3 district having lots of two or more acres in size.

**GUD General Use.** This district is established to allow opportunities for very low density residential development and bona fide farms, along with agricultural and related agricultural uses (i.e., timber, horticulture, silviculture, and aquaculture).

**Planned Unit Development/Mixed Use -** This district is defined as the total development of one or more parcels physically connected by one central control or ownership. Through PUD, the county desires to foster development of land that has a higher degree of consideration of physical features and natural constraints to development than would be possible under general zoning or subdivision regulations. PUD is expected to promote a more efficient use of the land, a higher level of amenities, and more creative design than would otherwise be possible. **(Plus requested amended test – see above)**

**POLICY CONSISTENCY**

*(Policies that are Not Applicable are not included)*

<b>POLICIES</b>	<b>ECO PARK AMENDMENT</b>
<b>PUBLIC ACCESS</b>	
<p>P.1 The county supports the Great Dismal Swamp Visitor/Welcome Center and tourism and recreational related developments that protect and preserve the natural environment while promoting the county as a tourist destination. It supports the private and public development of waterfront access through private funds and grant monies. It also supports the work of the Northeastern North Carolina Economic Development Commission.</p>	<p><b><u>Consistent</u></b> Eco Park is within ¼ mile of the Welcome Center and state park and will provide locations for businesses that support the activities of these facilities</p>

<b>LAND USE COMPATIBILITY</b>	
<b><i>Residential:</i></b>	
<p>P.8 Camden County supports discouraging the re-zoning of existing residentially-developed or zoned areas to a non-residential classification as reasonably possible. Such re-zoning and amendments in classifications to the future land use map should be carefully balanced with a demonstrated need for such proposed development that will be the best overall land development policy for Camden County's future land use and protecting established residentially-developed areas.</p>	<p><b><u>Inconsistent</u></b> Eco Park was rezoned in April 2011 6 years after LUP certification by CRC from previously residentially zoned property, to business PUD. The Findings of Facts for the rezoning cited the "Smart Growth" aspects of the project as consistent with the LUP, however as this analysis demonstrates the requested amendment is consistent with multiple LUP policies.</p>
<p>P.11 Camden County supports regulating growth to coincide with the provision of public facilities and services.</p>	<p><b><u>Consistent</u></b> The Eco Park development is supported by recently completed water and sewer infrastructure to the site.</p>
<p>P.12 The county should discourage development in areas designated for low-density residential/agricultural use with the exception of low-density residential/agriculture land uses as much as reasonably possible. A large majority of the future land use map is designated as low-medium density residential/agricultural land use (see Map 29). Because of its current land use patterns, rezoning and amendments to the future land use map should be carefully balanced with a demonstrated need for such proposed development that will be the overall best management policy for Camden County's future land development.</p>	<p><b><u>Inconsistent</u></b> Camden County has very little commercial or industrial businesses. By utilizing county owned property and providing adequate water and sewer infrastructure to the Eco Park site, the property can now support higher density use and maximize economic development potential of its location on US 17 and close proximity to Hampton Roads metro area.</p>
<p>P.13 Camden County supports wooded buffers along thoroughfares.</p>	<p><b><u>Consistent</u></b> The Eco Park Mater Plan requires maintenance of the wooded buffer along US 17.</p>
<p>P.14 Camden County supports utilizing Office/Institutional/Multi-family development as a buffer between light industrial and commercial development and adjacent residential land uses.</p>	<p><b><u>Consistent</u></b> The Master Plan for the Eco Park supports development of O/I uses at front of property and industrial uses towards the rear.</p>
<b><i>Commercial/Industrial:</i></b>	
<p>P.17 Camden County supports commercial development at the intersections of major roads (i.e., in a nodal fashion) consistent with the county's future land use map (see Map 29).</p>	<p><b><u>Consistent</u></b> Although not at an intersection of roads the Eco Park is a clustered</p>

	development on the county's most significant highway.
<p>P.19 Camden County deems industrial development within fragile areas and areas with low land suitability acceptable only if the following conditions are met:</p> <p>(1) CAMA minor or major permits can be obtained.</p> <p>(2) Applicable zoning ordinance provisions are met in zoned areas.</p> <p>(3) Within coastal wetlands, estuarine waters, and public trust waters, no industrial use will be permitted unless such use is water related.</p> <p>This policy applies to both new industrial development and to expansion of existing industrial facilities.</p>	<p><b><u>Consistent</u></b></p> <p>The Eco Park property is considered least suitable for development primarily due to the lack of infrastructure, which is now available, and preliminary wetland determination. It is 1) not within coastal wetlands, estuarine water or public trust waters, 2) no CAMA permits are required for development, AND 3) the property is properly zoned. The ACE have determined that no wetlands are present on the property.</p>
<p>P.21 Camden County supports the recruitment and siting of environmentally compatible light industrial and commercial establishments within its borders in areas that are already similarly developed or in public or private industrial parks to minimize the sacrifice of prime agricultural lands for such development. The county also supports the Northeastern North Carolina Economic Development Commission in its efforts to promote economic development in the county. The county does not encourage the conversion of prime farmland to residential use.</p>	<p><b><u>Consistent</u></b></p> <p>The Eco Park is a publically owned master planned business/industrial park, and is designed to minimize sprawl development of agricultural lands.</p>
<p>P.22 Camden County supports industrial development which will be located adjacent to and/or with direct access to major thoroughfares.</p>	<p><b><u>Consistent</u></b></p> <p>The Eco Park is located adjacent to US 17, a controlled access federal highway.</p>
<p>P.23 Camden County supports the development of industrial sites that are accessible to county water and sewer services.</p>	<p><b><u>Consistent</u></b></p> <p>The site is served by county sewer and South Mills Water Assoc. water.</p>
<p>P.24 Industries which are noxious by reason of the emission of smoke, dust, glare, noise, odor, and vibrations, and those which deal primarily in hazardous products such as explosives, should not be located in Camden County.</p>	<p><b><u>Consistent</u></b></p> <p>Zoning regulations and restrictive covenants prohibit such uses.</p>
<p>P.25 Industry should be located in conformance with the county's land use plan. This includes placing emphasis on light industrial development.</p>	<p><b><u>Inconsistent</u></b></p> <p>This amendment seeks to modify the land use plan to support business and industrial use of the property.</p>
<p><b><u>Conservation:</u></b></p>	
<p>P.27 Camden County will support larger lots in conservation classified areas through enforcement of the county subdivision and zoning ordinances in zoned areas.</p>	<p><b><u>Inconsistent</u></b></p> <p>This amendment seeks to reclassify the area from conservation to</p>

	commercial/industrial use.
P.28 Camden County supports the maintenance of its rural atmosphere.	<b><u>Consistent</u></b> The business park location provides for the clustering of businesses rather than scattered locations throughout the county.
<b><i>Stormwater Control:</i></b>	
P.29 Camden County supports reducing soil erosion, runoff, and sedimentation to minimize the adverse effects on surface and subsurface water quality.	<b><u>Consistent</u></b> State & local regulations require approved soil and erosion plans. Additionally the development standards and plans include developing constructed wetlands to manage stormwater.
P.30 The county supports the enforcement of all controls and regulations, specifically design standards, tie-down requirements, construction and installation standards, elevation requirements, flood-proofing, CAMA regulations, and FEMA regulations, deemed necessary by the Board of Commissioners to mitigate the risks of lives and property caused by severe storms and hurricanes.	<b><u>Consistent</u></b> All federal, state, and local standards and requirements will be met.
<b><i>Community/Highway Corridor Study Areas:</i></b>	
P.31 Within the Community/Highway Corridor Study Areas, Camden County supports the concept of "smart growth" as described in Section VI (D) page 170 of this plan.	<b><u>Consistent</u></b> The Eco Park is being developed as planned unit development
<b>INFRASTRUCTURE CARRYING CAPACITY</b>	
P.32 Camden County supports providing adequate community services and facilities which meet the needs of Camden County's citizens, businesses, and industries.	<b><u>Consistent</u></b> The location of businesses in the Eco Park will increase employment opportunities for Camden citizens, and increase the tax base for community facilities.
P.33 Camden County supports providing sufficient water and sewer service to promote economic development and to alleviate public health problems created by the absence of public water and sewer services in Camden County.	<b><u>Consistent</u></b> The Eco Park development is a result of expanding water and sewer services to specifically promote economic development
P.34 The county supports directing more intensive land uses to areas that have existing or planned infrastructure.	<b><u>Consistent</u></b> The Eco Park development is a result of expanding water and sewer services to specifically promote economic development
P.35 The county supports the extension of water services from existing systems and encourages the use of central systems for new developments whether residential, commercial, or industrial in nature. It also supports the continued public provision of solid waste disposal, law enforcement, and educational services to all citizens of the county. Note: Also see policy P.79 on	<b><u>Consistent</u></b> The Eco Park infrastructure is an extension of existing systems.

page 163.	
P.36 The county will rely on its existing land use and development ordinances to regulate development and may amend or modify regulations to encourage or require the provision of central water service to lots or parcels proposed in new developments.	<b><u>Consistent</u></b> The property has been properly rezoned to business/industrial PUD, and all lots will have central water service.
P.40 Camden County supports providing water and sewer services to identified industrial areas when county resources are sufficient in order to encourage industrial development.	<b><u>Consistent</u></b> County has recently completed extending both the water and sewer service areas to serve this property and sufficient capacity is available..
P.41 In concert with this Land Use Plan, Camden County supports the master water and sewer plan (Growth Management Plan) to guide new industrial development.	<b><u>Consistent</u></b> A new Comprehensive Water & Sewer Master Plan was completed in June 2010 that includes provision of water & sewer services to this property.
P.42 The County supports the provision of public recreational facilities and areas and will pursue grant funds for recreation facilities.	<b><u>Consistent</u></b> The Eco Park master plan includes passive recreation areas and trails.
<b>TRANSPORTATION</b>	
P.43 Camden County supports interconnected street systems for residential and non-residential development.	<b><u>Consistent</u></b> The internal road system of the Eco Park is designed for expansion to adjacent properties with interconnected streets.
P.44 The county supports limited access from development along all roads and highways to provide safe ingress and egress.	<b><u>Consistent</u></b> US 17 is a limited access highway, and the Eco Park will provide access to adjacent properties.
<b>NATURAL HAZARD AREAS</b>	
P.51 Camden County supports the US Army Corps of Engineers' regulations and the applicable guidelines of the Coastal Area Management Act and the use of local land use ordinances to regulate development of freshwater swamps, marshes, and 404 wetlands.	<b><u>Consistent</u></b> A wetland delineation has been completed and the ACE has determined there are no jurisdictional wetlands on the property.
P.55 Camden County supports the land use densities that are specified on page 199 of this plan. Through enforcement of the zoning ordinance, these densities will minimize damage from natural hazards and support the hazard mitigation plan.	<b><u>Inconsistent</u></b> The PUD zoning allows a higher density along with specific conditions and infrastructure to minimize and mitigate impacts to the natural environment.
<b>WATER QUALITY</b>	

<p>P.56 The county supports the guidelines of the Coastal Area Management Act and the efforts and programs of the North Carolina Department of Environment and Natural Resources, Division of Coastal Management and the Coastal Resources Commission to protect the coastal wetlands, estuarine waters, estuarine shorelines, and public trust waters of Camden County. It also supports the use of best management practices recommendations of the United States Soil Conservation Service for both agricultural and forestry areas.</p>	<p><b><u>Consistent</u></b> The Eco Park will include best management practices, including construction of new wetlands.</p>
<p>P.59 The county supports the reforestation of clear cut timber lands and the use of best forestry management practices.</p>	<p><b><u>Inconsistent</u></b> Some land clearing will be necessary to develop the Eco Park</p>
<p>P.60 Camden County opposes the disposal of any toxic wastes, as defined by the US Environmental Protection Agency's Listing of Hazardous Substances and Priority Pollutants (developed pursuant to the Clean Water Act of 1977), within its planning jurisdiction.</p>	<p><b><u>Consistent</u></b> Zoning regulations and restrictive covenants prohibit disposal of toxic wastes.</p>
<p>P.61 Camden County recognizes the value of water quality maintenance to the protection of fragile areas and to the provision of clean water for recreational purposes and supports the control of stormwater runoff to aid in the preservation of water quality. The county will support existing state regulations relating to stormwater runoff resulting from development (Stormwater Disposal Policy 15 NCAC 2H.001-.1003.</p>	<p><b><u>Consistent</u></b> The Eco Park will include best management practices, including construction of new wetlands</p>
<p>P.63 Camden County supports the policy that all State of North Carolina projects should be designed to limit to the extent possible stormwater runoff into coastal waters.</p>	<p><b><u>Consistent</u></b> There will be no stormwater runoff into coastal waters.</p>
<p><b>LOCAL AREAS OF CONCERN</b></p>	
<p><b><i>Cultural, Historic, and Scenic Areas:</i></b></p>	
<p><b><i>Economic Development:</i></b></p>	
<p>P.77 The county will encourage development in Camden County to protect the county's resources, preserve its rural atmosphere, and simultaneously promote industrial and retail growth.</p>	<p><b><u>Consistent</u></b> The Eco Park is being developed specifically to promote industrial growth.</p>
<p>P.78 The county will encourage industrial and commercial development in areas with existing infrastructure that does not infringe on existing medium density residential areas.</p>	<p><b><u>Consistent</u></b> There are no existing residential areas around this property.</p>
<p>P.79 Camden County supports the extension of water services from existing systems and encourages the use of central systems for new developments whether residential, commercial, or industrial in nature (see policy P.35).</p>	<p><b><u>Consistent</u></b> The Eco Park infrastructure is an extension of existing systems</p>
<p>P.80 The county supports the location of staging areas and support facilities for energy related activities – particularly exploration.</p>	<p><b><u>Consistent</u></b> The Eco Park's specific mission is to encourage energy efficiency and sustainable business ventures.</p>
<p><b><i>General Health and Human Services Needs:</i></b></p>	
<p>P.85 In an effort to improve health conditions, Camden County supports the following water and sewer policies:</p>	

<p>– Camden County supports the extension of central water service into all areas of the county shown on the future land suitability analysis map as suitable for development, including the construction of lines to and through conservation areas to serve development which meets all applicable state and federal regulations.</p>	<p><b><u>Consistent</u></b></p>
<p>– Camden County supports all efforts to secure available state and federal funding for the construction and/or expansion of public and private water/sewer systems. .</p>	<p><b><u>Consistent</u></b> The infrastructure for this project has been funded from multiple sources including NCDOT, CWMTF, Golden Leaf, Rural Center, and Camden County.</p>
<p>– Camden County supports the construction of water systems with adequate line sizes to ensure adequate water pressure and fire protection.</p>	<p><b><u>Consistent</u></b> The site is served by a 12 " water main.</p>
<p>– Camden County will continue to provide water services to county residents and will continue the process of studying the role of county government in providing sewage treatment facilities for rapidly growing areas of the county, including the construction of lines to and through conservation areas to serve development which meets all applicable state and federal regulations. The county will secure federal and state grants, when feasible, to help carry out this policy.</p>	<p><b><u>Consistent</u></b></p>

**CAMA LAND  
SUTABILITY**

According to the land suitability analysis included in the Land Use Plan, the 100 acre site is classified as "least suitable for development". Factors contributing to this classification include a 70 acre pond that is in the middle of the site, generalized wetland maps, and lack of water and sewer infrastructure. The PUD Master Plan has addressed each of these limitations. The Army Corp of Engineers has determined there are no jurisdictional wetlands present; and the Stormwater Plan incorporates the pond by creating wetlands at each location that will receive runoff; and the county has extended both water and sewer service to the property.

**AREAS OF ENVIRONMENTAL CONCERN**

The Eco Park site does not include lands that are within the Estuarine and Ocean System, the Ocean Hazard System, Public Water Supplies, or Natural and Cultural Resource Areas.

The CAMA LUP states on p.137

"Camden County accepts state and federal law regarding land uses and development in AEC's. By reference, all applicable state and federal regulations are incorporated into this document. However, Camden County does not consider the following issues to be relevant at this time:

Outstanding Resource Waters

Maritime Forests  
Shellfishing Waters  
Development of Sound and Estuarine System Islands  
Peat or Phosphate Mining's Impact on any Resource  
Dredging  
Beach Nourishment"

## FLOOD ZONE

The site is not within the 100 year flood zone.

## SOILS

### RECOMMENDATION:

#### Motions to:

**Amend Section VI: E 3 – Mixed Use Planned Unit Development** to add the following paragraph:

"The mixed use Planned Unit Development promotes "smart growth" by allowing, through the use of conditional zoning, the location within a single development of multiple commercial, residential, industrial, or office uses that complement each other. Natural features, design features, and amenities are used to buffer or interconnect uses as applicable to assure a cohesive and efficient development."

**Amend Section VI: E Table 54** (with identical amendment to the study area breakout Table 57, and the Sub basin Table 55) by subtracting 70 acres from "Conservation" use category land 30 acres from "Low Density Residential/Agricultural" use category in the US Hwy 17 Corridor Study Area, and adding 100 acres to the "Mixed Use Planned Unit Development" use category;  
AND

**Amend Map 35, p. 193, Camden LUP** to show the property located at 2440 US Highway 17 to be classified as "Mixed Use Planned Unit Development".

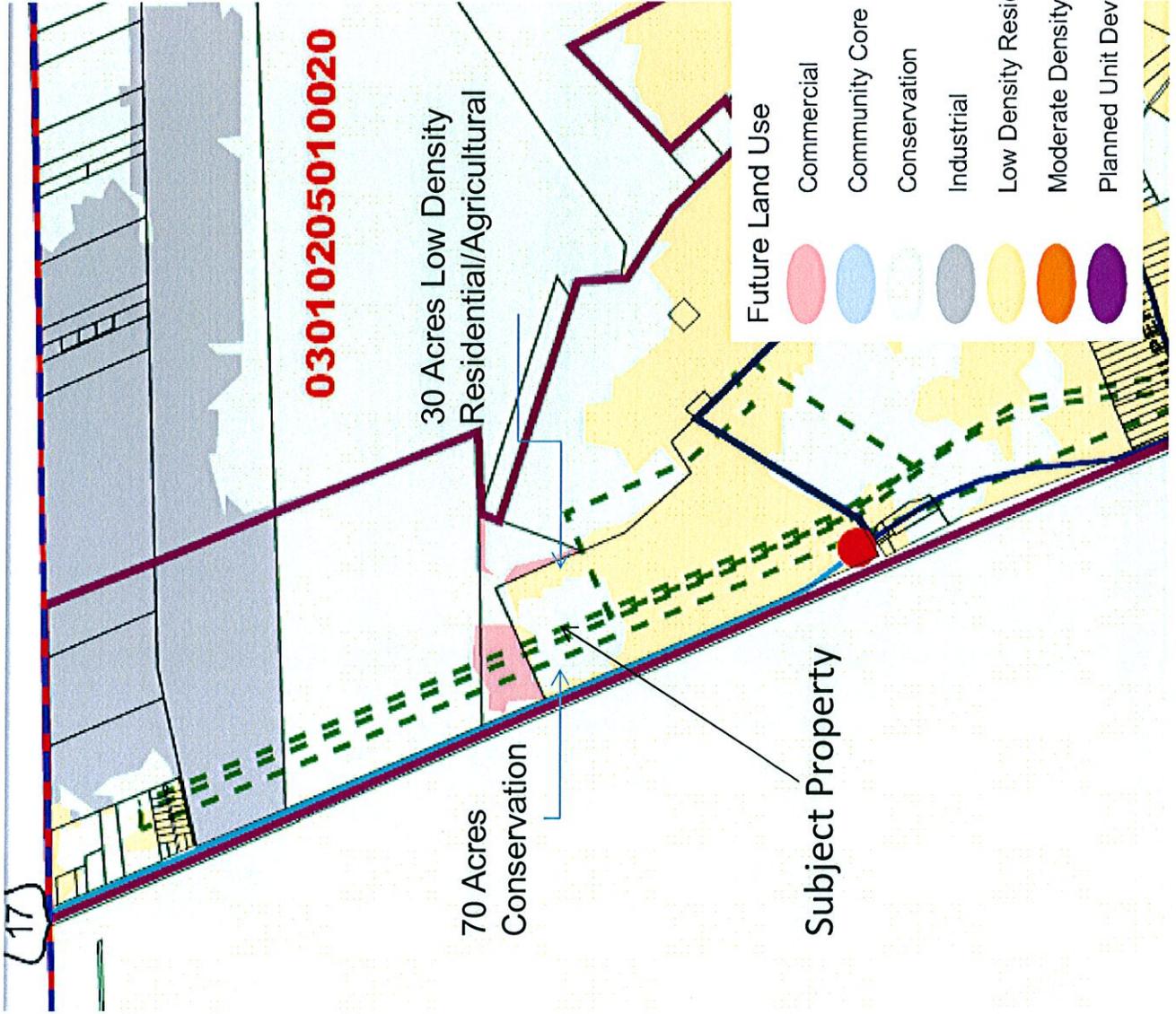
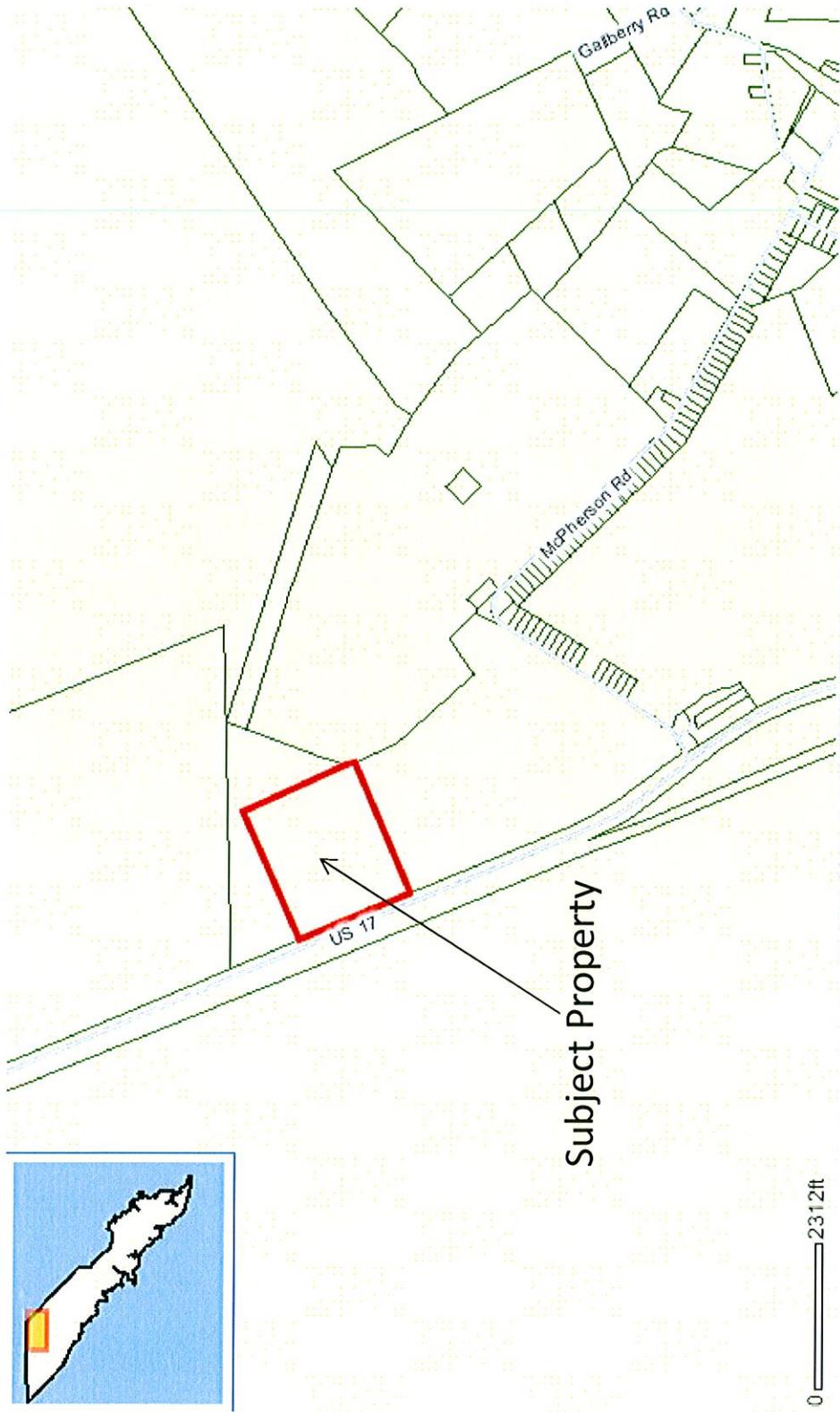


Exhibit 1  
 Map 35, p. 193, Camden LUP

- Future Land Use
- Commercial
  - Community Core
  - Conservation
  - Industrial
  - Low Density Residential/Agricultural (1-2 acres or greater)
  - Moderate Density Residential (R-2 ( minimum lot size of 40,000 Sq Feet))
  - Planned Unit Development (3-4 dwelling units per acre)



Subject Property, Camden County GIS

Exhibit 2

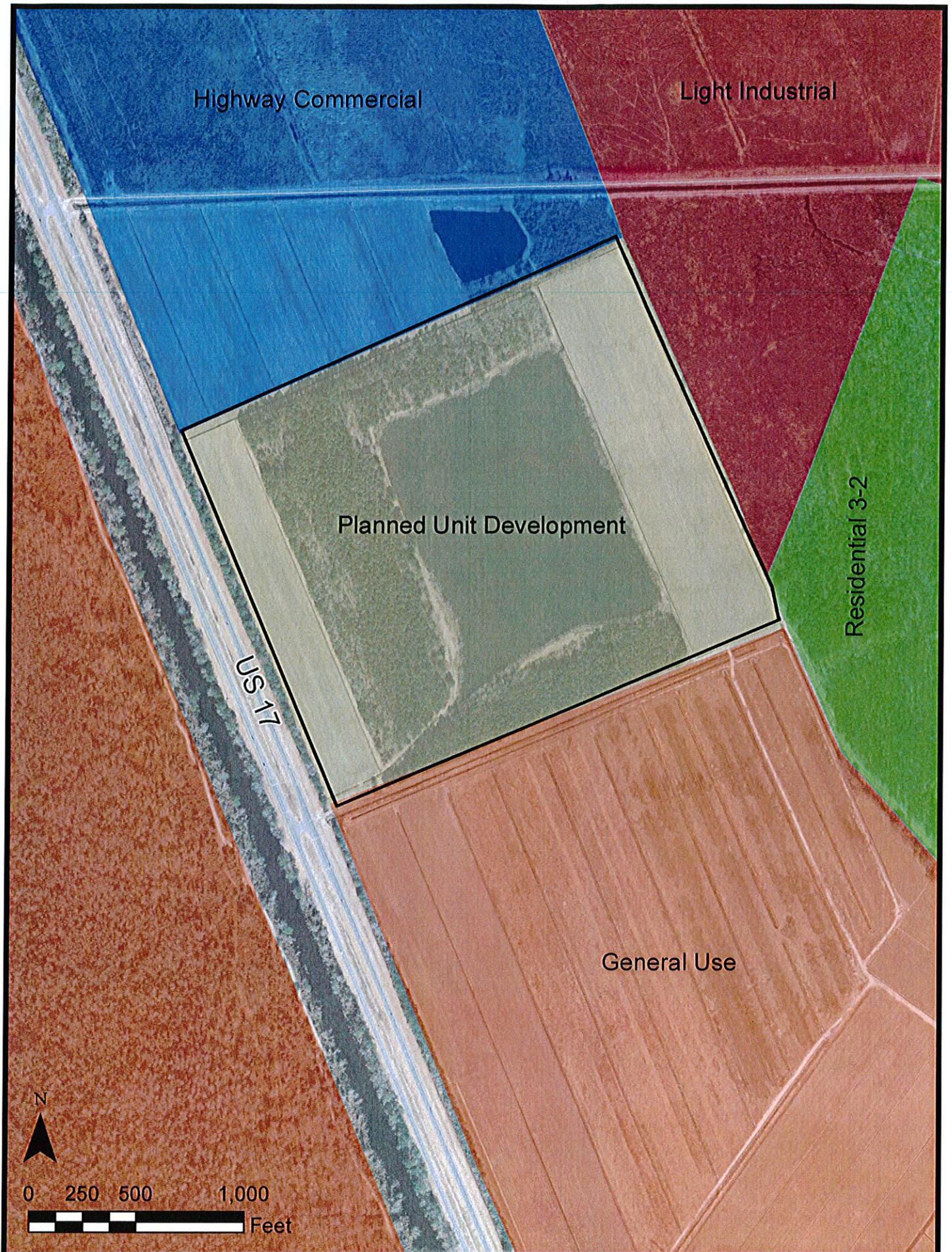


Exhibit 3

Land Use: Wooded  
Classification: Commercial

Land Use: Agriculture  
Classification: Conservation

US 17

Land Use: Wastewater Spray field  
Classification: Low Density  
Residential Agriculture

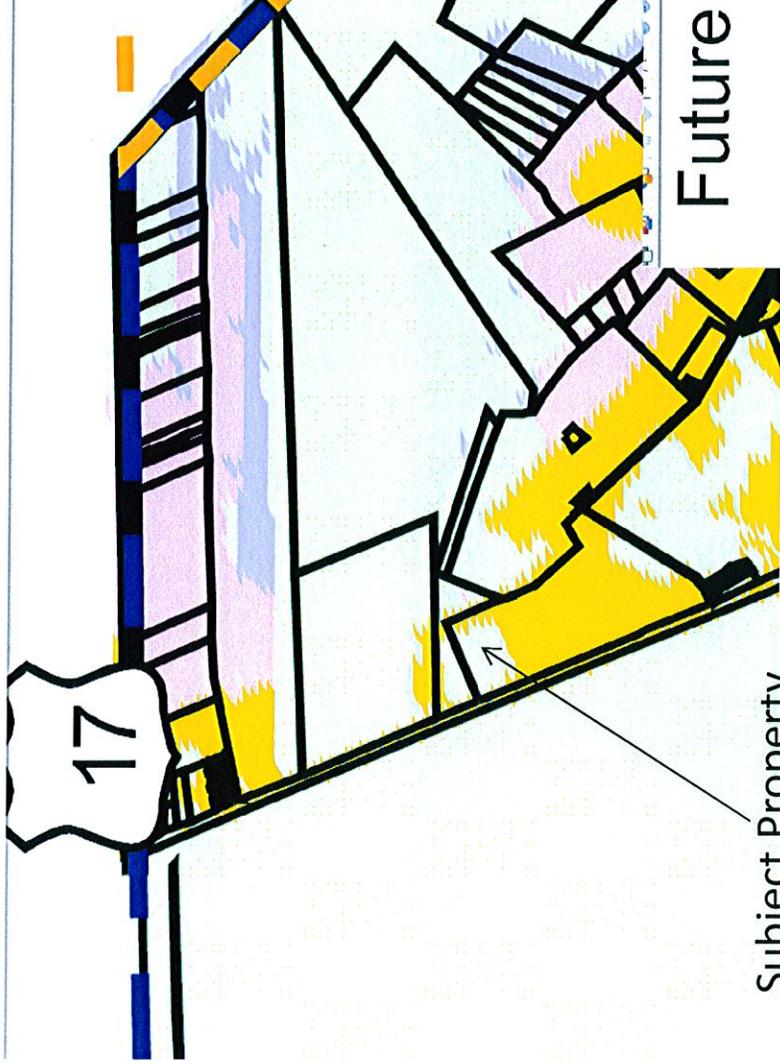
Land Use: US Highway 17  
Classification: Conservation  
(west of US 17)



0 250 500 1,000  
Feet

Exhibit 4





## Future Land Suitability

Least Suitable

Low Suitability

Medium Suitability

High Suitability

Exhibit 6

Map 26, p.124, Camden LUP

17.00 x 11.00 in