

Section 59.4: Conservation Overlay District

59.4.1: **Purpose** - The purpose of the Conservation Overlay District (COD) for conservation resources is to protect important environmental and cultural resources within the County. Protection of these resources is necessary to maintain the County's diverse and ecologically important natural systems; to preserve the County's estuarine systems important for finfishing and shellfishing; to provide open space; and to retain the County's archaeological and historical heritage. These COD's shall be in addition to any other zoning districts where applied so that any parcel of land lying in a COD may also lie in one or more of the zoning districts provided for by this Ordinance. The development of all uses permitted by right or by special use permit in the underlying district, if any, shall be subject to the requirements of both the COD and the underlying district, if any. In the event that the COD requirements conflict with the underlying district requirements, the requirements of the COD shall take precedence. If requirements for a particular item are not specified in the COD but are specified by the underlying district, then the requirements of the underlying district shall be followed.

59.4.2: **Applicability** - The development and improvement of property, including the division of land, shall be subject to these performance controls if the parcel of record is located wholly or partially within a COD and if conservation resources, as specified in Section 59.4-3, are associated with the parcel on record as of December 1, 1984, the effective date of this ordinance. However, the following uses on lots of record as of December 1, 1984 shall be exempted from these controls: (8/4/08)

- (1) The development of one single family home detached structure, one residential duplex, or the location of two or fewer mobile homes on a parcel or lot of record as of December 1, 1984. (8/4/08)
- (2) Commercial, industrial, office or institutional development on lots of record as of December 1, 1984 and involving a land disturbance of less than 1 (one) acre in area. (8/4/08)
- (3) The development or division of a parcel of record as of December 1, 1984 that meets both of the following conditions: (8/4/08)
 - (A) No part of the development or division shall be located within a distance equal to or less than the setback distance (specified in Section 59.4-5) of any conservation resource or space existing on the parcel or on a contiguous parcel of record. (8/4/08)
 - (B) No part of the development or division shall be located on any portion of the parcel that is part of the upper drainage basin for any conservation resource or space on the parcel or within the specified setback on a contiguous parcel of record. (8/4/08)

59.4.3: **Conservation Resources** - If a parcel on record as of December 1, 1984, the effective date of this ordinance, is associated with any one of the conservation resources having the minimum distinct areas listed below then the parcel shall be subject to the following performance controls. Official maps of and information concerning these resources shall be maintained by and shall be available for review at the County Planning Department. These maps shall be updated as needed by the County Planning Department and shall serve as the official source by which to determine if a parcel is associated with Conservation Resources. A parcel is considered to be associated with a conservation resource if either the resource is contained partially or wholly on the parcel or if the resource is located next to a parcel such that the resource setback specified in Section 59.4-5 extends into the parcel.

| (1) Ecological Resources | Minimum distinct area |
|---|-----------------------|
| 1. Swamp forest | 2.5 acres |
| 2. Pocosin | 2.5 acres |
| 3. Savannah | 2.5 acres |
| 4. Natural ponds | 0.1 acre |
| 5. Freshwater marsh | 0.1 acre |
| 6. Brackish marsh | 0.1 acre |
| 7. Primary nursery areas | 0.1 acre |
| 8. Barrier island-beach complex (including dunes) | 0.1 acre |
| 9. Maritime shrub thickets | 1.0 acre |
| 10. Salt Marsh | 0.1 acre |
| 11. Animal and Plant Natural Areas of Special Significance | no limit |
| (2) Archeological/Historical Resources and Cemeteries | no limit |

59.4.4: **General Performance Controls for Conservation Space** - The following general performance controls for conservation space apply to all uses within a COD that are subject to controls as determined by Section 59.4-2 and Section 59.4-3.

(1) Required amounts of Conservation Space

- (A) Conservation space is defined as that portion of the conservation resource that shall be preserved, as determined by this Section.
- (B) Conservation space may not be reserved provided the development or subdivision of the parcel meets the condition specified in Section 59.4-2(3)(a).

If the development or subdivision does not meet the condition specified in Section 59.4-2(3)(b), then, the development or subdivision shall meet applicable drainage and setback regulations specified in Sections 59.4-4(5) and 59.4-5.

- (C) Conservation space shall not be required to be reserved for the following resources unless the total acreage of minimum distinct areas on the parcel of record exceeds the following minimum:

| <u>Resource</u> | <u>Total Aggregate Minimum Acreage</u> |
|---------------------|--|
| Swamp Forest | 5 acres |
| Pocosin | 5 acres |
| Savanah | 5 acres |

Step One: List in column 2 the acreage of land occupied by each conservation resource named in column 1. If part of the parcel is occupied by more than one resource, list the acreage occupied only by the resource with the highest ranking. Rankings are listed in column 1 in parenthesis next to the resource name.

Step Two: Multiply each of the listed acreage in column 2 by factors listed in column 3. Place each answer in column 4.

Step Three: Add the acreage in column 4 to determine total minimum conservation space required.

Step Four: Subtract the total minimum conservation space from the total gross parcel to determine the maximum amount of developable land.

The total amount of conservation space that shall be reserved shall be equal to or exceed the total minimum conservation space calculated in step three. The total minimum conservation space shall be allocated to and reserved for conservation resource areas in acreage equal to or exceeding the minimum acreage calculated for the resources in column 4.

Conservation space shall be reserved in contiguous blocks or in close proximity to the greatest extent possible in order to prevent the scattering of such space and to increase effectiveness in their management.

Work Table for Determining Required Conservation Space Developable Land

| Conservation Resource (Importance Value) | Acreage of Resource on Parcel (times) | Conservation Space Factor (equals) | Minimum Conservation Space |
|--|---|--|----------------------------------|
| Swamp Forest (Minimum 5 acres) (5) | | .5 | |
| Pocosin (Minimum 5 acres) (5) | | .5 | |
| Savannah (Minimum 5 acre) (3) | | .5 | |
| Natural Pond (8) | | 1.0 | |
| Fresh Marsh (Minimum one acre) (6) | | .8 | |
| Brackish Marsh (9) | | 1.0 | |
| Primary Nursery Area (13) | | 1.0 | |
| Barrier Island -Beach Complex (11) | | .9 | |
| Maritime Shrub Thickets (10) | | .7 | |
| Salt Marsh (12) | | 1.0 | |
| Important Historical/ Archeological Site (7) | | .9 | |
| Animal & Plant Areas of Special Significance (10) | | .9 | |
| Cemeteries (13) | | 1.0 | |

TOTAL MINIMUM CONSERVATION SPACE _____

TOTAL PARCEL ACREAGE _____

MINUS TOTAL MINIMUM CONSERVATION SPACE _____

EQUALS MAXIMUM DEVELOPABLE LAND _____

(2) Transfer of Conservation Space Requirements Between Resource Conservation Areas

In order to provide flexibility in site design, the minimum acreage of conservation space required in column 4 for any one conservation resource area may be reduced by any desired amount provided, however, that the minimum conservation space required for a different conservation resource area with an equal or higher ranking is increased by an equal or higher amount. For instance, assume that a parcel within a COD has ten acres of swamp forest and fifteen acres of fresh marsh. According to the worktable, swamp forest has a conservation factor of .5 and fresh marsh as a conservation of .8. Therefore, at least 5 acres of swamp forest must be reserved as conservation space (10 acres x .5 = 5), and at least twelve acres of fresh marsh must be reserved (15 acres x .8 = 12.0 acres). If the developer, however, wishes to develop seven acres of swamp forest, he may transfer two acres of the conservation space requirement for swamp forest to the fresh marsh because fresh marsh has a higher importance value (6) than does swamp forest (5). As a result of the transfer, therefore, all fourteen acres of the fresh marsh would be required to be preserved as conservation space while only three acres of swamp forest would be required to be preserved.

(3) Improvements - Conservation space shall not be cleared of vegetation, shall not have its natural drainage system significantly altered, and shall not be developed in any manner that would negatively impact the conservation resource, with the following exceptions:

- (A) Improvements that would either protect or enhance the enjoyment of the conservation resource. Such measures not causing significant impact include, but are not limited to, walkways, self-guided trails, protective fences, docks and boat ramps.
- (B) Access to other parts of the parcel. If a part of the parcel may be developed but is inaccessible due to the existence of a conservation resource area, a road and/or utilities may be constructed through the conservation resource area. The road and/or utilities, however, shall be designed to the greatest extent practical to minimize impact to the conservation resource.
- (C) Access to the waterfront. If the entire waterfront along a parcel is inaccessible due to the existence of required conservation space, a boat ramp, dock, or pier may be built for boating facilities in the conservation space, subject to relevant State and Federal permits. The facilities, however, shall be designed to the greatest extent practical to minimize impact to the conservation resource.

(4) Methods of Conservation space preservation

(A) Conservation space may be preserved by any of the following means:

1. Dedication of the conservation space or of a conservation easement in perpetuity to and acceptance by the County for use as parks, recreation areas, or other suitable public purposes, or
2. Dedication for suitable public purpose of the conservation space or of a conservation easement in perpetuity to and acceptance by State or Federal agency or by a private, non-profit charitable organization qualified to accept such dedications in accordance with the Federal Internal Revenue Code.
3. The owner of the parcel on record may retain sole ownership of the conservation space provided the conservation space has not been used in calculating residential density. The conservation space shall not be subdivided. (7/8/02)
4. The conservation space may become the property of a homeowner's association under the following conditions:
 - a. Such conservation space shall remain undivided and no lot or unit owner or any other person shall bring any action for partition or division of any part thereof except as provided in Chapter 47A (Unit Ownership Act) of the General Statutes. Each lot or unit owner's undivided interest shall be preserved through covenants running with the land. Title to such areas shall be encumbered for the perpetual benefit of the public generally or the private properties in the development, and all future use shall be consistent with the conservation space requirements.
 - b. All lots or units within the development shall have direct access to all conservation space as provided, by means of dedicated streets or walkways within the development or by the fact of physical contiguity to other public land or lands in common ownership of all residents. The developer shall not place age, race, creed, sex or economic restrictions

(other than maintenance assessments) upon lot or unit owners for the use of said conservation space. Land which is restricted in any way so as to be for the use, benefit or enjoyment of a select group within the development shall not qualify as conservation space. (7/8/02)

- i. The Homeowner's Association or the non-profit organization shall be established before any lots are sold;
- ii. Membership shall be mandatory for each lot buyer, and any successive buyer;
- iii. The association shall provide for liability insurance, any taxes and the maintenance of all grounds and facilities;
- iv. Any sums levied by the association that remain unpaid shall become a lien upon the lot owner's property.

(5) Design Storm - Stormwater runoff for the entire parcel will be managed by structures appropriately sized such that the peak rate of discharge from the site after completion of development for any storm up to and including the specified design storm, shall not exceed the peak rate of discharge from the site in its previous natural condition for the specified design storm. The design storm is specified as occurring once every 10 years and lasting for 24 hours. Industrial, commercial, office or institutional development on a parcel one acre or less in size and with a maximum impervious to gross site area ratio of less than .2 shall be exempt from this control. Discharge of run-off from impervious surfaces for the entire parcel directly into natural waterbodies shall not be allowed. Runoff shall be routed along vegetated swales, through filter media of vegetation, gravel, sand, or other media, or to detention ponds for purposes of increasing percolation, settling and filtering out of non-point pollutants and decreasing discharge velocity.

(6) Buffer strip - Buffer strip, if required in accordance with Section 67, shall not be extended through conservation space areas. (5/6/85)

(7) Historical and archaeological sites:

- (A) If a developer wishes to develop an historical or archaeological site, he shall either
 1. Provide for a thorough site investigation by a professional historian or archaeologist, as appropriate, who shall prepare a written report with the following information:

- a. Description of site
- b. Relevant historical documentation/back-ground research
- c. Research design
- d. Field studies as actually implemented including any deviation from the design and the reason for the deviation
- e. All field observations
- f. Analyses and results
- g. Information on the location of original data in the form of field notes, photographs, and other materials
- h. Proof that adequate creation of artifacts and records to ensure their preservation and access for further study will be provided
- i. Recommendation for further study and preservation of the site, given anticipated development
- j. Evaluation of the potential of the site for inclusion in the National Register of Historic Places. If the site is evaluated to have historical or archaeological significance and is eligible for the National Register, every reasonable effort shall be made in the development to preserve it; or

- 2. Give access rights for investigating the site and acquisition rights to artifacts to the Planning Department or its designated agent for a period of at least 60 days between issuance of the building permit and any development of the property that would impact the site.

- (8) If a developer wishes to develop a site with abandoned cemeteries, or an abandoned cemetery is discovered during the course of construction, he shall, provide for the delineation of said cemetery by a qualified expert, subject to approval by the County.

59.4-5 **Additional Performance Controls** - In addition to the general performance controls specified in Section 59.4-4, additional controls shall be required to protect certain conservation resources in certain zoning districts. The Table of Additional Controls lists for each resource and district the reference number of the group of additional controls that shall be required. If the parcel being developed is associated with two or more conservation re-sources with conflicting performance controls, then the most restrictive controls shall apply. However, improvements as specified in Section

59.4-4(3) may be permitted within the conservation space setbacks. Additionally, decks may be allowed to encroach into the conservation space setback up to six (6) feet provided they are uncovered and constructed so that the floorboards are spaced to allow water to flow through directly to the ground. The ground below the deck shall be either left undisturbed or planted with ground cover or other vegetation. (4/6/92)

Groups of Additional Performance Control by Reference Number

| Conservation Resource | Residential | Non-Residential |
|--|--------------------|------------------------|
| Swamp Forest (Min 5 acres) | 4 | 3 |
| Pocosin (Minimum 5 acres) | 4 | 3 |
| Savannah (Min 5 acres) | 4 | 3 |
| Natural Pond | 3 | 2 |
| Fresh Marsh (Min 1 acre) | 3 | 3 |
| Brackish Marsh | 2 | 1 |
| Primary Nursery Area | 2 | 1 |
| Barrier Island-Beach Complex | 2 | 1 |
| Maritime Shrub Thickets | 2 | 1 |
| Salt Marsh | 2 | 1 |
| Animal and Plant (Natural) Areas of Special Significance | 2 | 1 |

GROUP 1

- (A) Conservation Space Setbacks - All structures and impervious surfaces shall be setback from the conservation space, if any, whether the space is located on the parcel or on an adjacent parcel, a distance of at least 100 feet.
- (B) Retention of Runoff - In addition to designing the site to control stormwater from a 10 year storm, on-site retention or percolation areas shall be required for the entire parcel sufficient to control, at a minimum, the first one inch of runoff that will originate from all impervious surfaces anticipated to be on the site upon final development. The specified amount of runoff from impervious surfaces shall be disposed of by percolation into the soil, evaporation, transpiration, or other methods of treatment or handling acceptable to the County Engineering Department.

GROUP 2

- (A) Conservation Space Setbacks - All structures and impervious surfaces shall be setback from the conservation space, if any, whether the space is located on the parcel or on an adjacent parcel, a distance of at least 75 feet.
- (B) Retention of Runoff - In addition to designing the site to control stormwater from a 10 year storm, on-site retention or percolation areas shall be required for the entire parcel sufficient to control, at a minimum, the first .75 inch of runoff that will originate from all impervious surfaces anticipated to be on the site upon final development. The specified amount of runoff from impervious surfaces shall be disposed of by percolation into the soil, evaporation, transpiration, or other methods of treatment or handling acceptable to the County Engineering Department.

GROUP 3

- (A) Conservation Space Setbacks - All structures and impervious surfaces shall be setback from the conservation space, if any, whether the space is located on the parcel or on an adjacent parcel, a distance of at least 50 feet.
- (B) Retention of Runoff - In addition to designing the site to control stormwater from a 10 year storm, on-site retention or percolation areas shall be required for the entire parcel sufficient to control, at a minimum, the first .5 inch of runoff that will originate from all impervious surfaces anticipated to be on the site upon final development. The specified amount of runoff from impervious surfaces shall be disposed of by percolation into the soil, evaporation, transpiration, or other methods of treatment or handling acceptable to the County Engineering Department.

GROUP 4

- (A) Conservation Space Setbacks - All structures and impervious surfaces shall be setback from the conservation space, if any, whether the space is located on the parcel or on an adjacent parcel, a distance of at least 25 feet.
- (B) Retention of Runoff - In addition to designing the site to control stormwater from a 10 year storm, on-site retention or percolation areas shall be required for the entire parcel sufficient to control, at a minimum, the first .25 inch of runoff that will originate from

all impervious surfaces anticipated to be on the site upon final development. The specified amount of runoff from impervious surfaces shall be disposed of by percolation into the soil, evaporation, transpiration, or other methods of treatment or handling acceptable to the County Engineering Department.

59.4-6 ***Vegetated Buffer Controls for Conservation (1/20/04)***

- (1) Purpose and Intent. The establishment of a buffer zone is based upon the stated goals in Policies 3.10 and 3.11 of the 1999 Wilmington-New Hanover County Comprehensive Plan. The buffer zones are intended to promote the comprehensive plan goals of high water quality in the creeks and sounds, to protect the public health, and to ensure the protection of the natural resources of New Hanover County.

A properly vegetated buffer is essential to filter and biologically process nutrient rich runoff, animal wastes, and sediment before it enters coastal creeks, canals, and rivers. Buffers also function to moderate water temperatures, maintain the desired dissolved oxygen levels in the water, and stabilize the soils immediately adjoining the stream. In urban environments, the function of a buffer is especially critical to the balance of the plant and animal life in fresh and saltwater creeks. Buffers are most effective when they contain native and naturalized plants appropriate in size, adaptability (salt tolerance, wind tolerance, etc.) and hardiness for the area. Plants requiring intensive or routine maintenance should be avoided in buffer areas.

- (2) Applicability. The development and improvement of property, including the subdivision of land, shall be subject to these performance controls if the parcel of record is located wholly or partially within a COD and if the following conservation resources: salt marsh, brackish marsh, freshwater marsh, and/or primary nursery area are associated with the parcel of record as of the date of the adoption of this section.

- (3) Standards.

(A) Buffers shall extend thirty-five 35 feet measured horizontally from the edge of the conservation resource and on a line perpendicular to and landward of the conversation resource.

(B) The plant material in the buffer zone must be either retained in a natural, minimally disturbed condition, or properly managed in accordance with the management standards presented in subsection 59.4-6(3)(E). In cases where vegetation does not exist within the buffer, the County shall require restoration efforts which include, but are not limited to, replanting of the buffer zone with plant species as recommended in the *"Reference Lists and*

Publications for Guidance in the Selection of Vegetated Buffer Plants".

- (C) Development activities within the buffer are limited to water dependent structures, except as otherwise provided in section 59.4-6(3) (D),(E),&(F)and section 59.4-4(3). Examples of water dependent structures include docks, piers, boat ramps, shoreline stabilization, navigation markers and access channels. In order to maintain the functional value of the buffer, excavation, grading, filing, or ditching is not permitted except as otherwise provided herein.
- (D) Passive public recreational facilities such as pervious trails and pathways, where owned by public entities or homeowners associations, may be permitted within the buffer.
- (E) In order to achieve the County goals to preserve, protect and restore water quality and natural resources, the buffer zone shall be vegetated and left in a natural, undisturbed condition, or managed in accordance with the intent of these goals. Management activities compatible with the intent of these goals include, but are not limited to the following:
 - 1. Shoreline access paths - Pathways which provide access to the shoreline are permissible provided they are a maximum average of six (6) feet in width and follow a path that minimizes erosion within the buffer zone. Pathways may be vegetated with grasses and mowed, or may be surfaces such as crushed stone, shell, or mulch. Elevated wooden walkways and stairs up to six (6) feet in width may also be used, as long as there is spacing between boards and elevation of the walkway to provide for light penetration and rain water to drip through to allow for continued vegetation growth.
 - 2. View corridor - Selective tree removal, thinning, and pruning of natural vegetation within the buffer zone will be allowed to provide for site lines and vistas of the shoreline. Minimal alteration of the natural vegetation is preferred.
 - 3. Safety and welfare - Selective tree removal, thinning, and pruning of natural vegetation within the buffer zone will be allowed at the discretion of the landowner for safety and welfare concerns (e.g. removal of damaged tree in close proximity to a dwelling).
 - 4. Shoreline erosion control - For necessary shoreline erosion control projects, trees and woody vegetation may be

removed and the erosion control measure employed in a manner which is consistent with the purpose and intent of this section. Areas cleared for erosion control measures may be required to be re-vegetated with plant species as recommended in the "Reference Lists and Publications for Guidance in the Selection of Vegetated Buffer Plants".

5. Habitat and species management - Management of natural vegetation within the buffer zone to enhance wildlife habitat, and control nuisance and non-native species may be allowed.

- (F) Buffers may be encroached by public roads, bridges, and utilities where no practical alternative exists to avoid encroachment. These structures should be designed consistent with the purpose and intent of this section.

- (4) **Definitions** - For the purposes of this section, the following words shall mean:

Vegetated Buffer - An existing natural area, or an area planted as recommended in the "*Reference Lists and Publications for Guidance in the Selection of Vegetated Buffer Plants*", set forth in the *County's Standards for Tree and Plant Materials for Landscaping*, that preserves, protects, and restores water quality and estuarine resources. These buffers are an effort to provide the following functions: filter suspended solids, nutrients, bacteria, and other pollutants before entering surface waters; provide soil stabilization; provide shading to assist in temperature regulation of estuarine waters; provide wildlife habitat and aesthetic beauty.

ADDENDUM (February 28, 1985)

CONSERVATION RESOURCES OF NEW HANOVER COUNTY

The purpose of this addendum is to clarify definitions of pocosins, primary nursery areas, and archeological/historical conservation resources, as regulated by the Conservation Overlay District (Section 59.4) of the New Hanover County Zoning Ordinance.

(1) Pocosins

Only pocosins exhibiting the following three characteristics will be regulated under the Conservation Overlay District (COD):

- a) The pocosin must exhibit the biotic characteristics of a pocosin as defined in “Conservation Resources of New Hanover County.”
- b) The pocosin must cover at least five acres of the parcel (Section 59.4-2) as of the date of adoption of the COD (Section 59.4-3).
- c) The pocosin must be underlaid by one of the following high organic content soils – Dorovan, Johnston, Pamlico Muck, or Tidal Marsh. The rationale for this requirement is discussed in the attached sheet, “The Addition of Pocosins to the Conservation Overlay District”, presented and accepted by the Board of County Commissioners on November 19, 1984.

(2) Primary Nursery Areas

The geographical extent of primary nursery areas within the County is determined by the N.C. Division of Marine Fisheries. The landward boundary of primary nursery areas, according to the Division, is the mean high water line. This information was presented to and adopted by the Board of County Commissioners in their adoption of the COD on October 1, 1984.

(3) Historical/Archeological Sites

Of the hundreds of archeological and historical sites in the County, only certain ones are considered to be important enough to be regulated under the COD. These important sites were selected based on information provided through the N.C. Department of Archives and History. This information was presented to and accepted by the Board of County Commissioners in their adoption of the COD on October 1, 1984. The UNC Site Numbers of these important sites are: 8, 75, 111, 118, 151, 177, 186, 194, 195, 212, 215, 224, 236, 237, 312, 331, 364, 392, 400, 438, 498, 500, 512, 522, 524, 526, 530, and 686. Also, 687 represents the Old Wilmington to Wrightsville Beach Trolley, but it is not on the C.O.D map. See historic file for description.

THE ADDITION OF POCOSINS TO THE CONSERVATION OVERLAY DISTRICT

In response to concerns that the inclusion of all pocosins in the County in the Conservation Overlay District (COD) would be excessively restrictive to future growth, this effort attempts to reduce the number of pocosins based on the organic matter content of the underlying soils. Only pocosins underlaid by soils with high organic content (determined by the “Soil Survey of New Hanover County, North Carolina” prepared by the U.S. Soil Conservation Service) would be included in the COD for the following reasons:

- 1) A high level of organic content indicated the existence of a well-established pocosin community due to years of build-up of organic matter.
- 2) High organic soils tend to be poorly drained and exist in low, level wet areas or along stream channels and other drainage ways. The high water table and lack of topographic relief limit their development potential.
- 3) High organic soils tend to have low permeability. If these soils are artificially drained, they will be less likely to allow percolation of stormwater into them and, therefore, would

be more likely to contribute to pollution, flooding, and freshwater intrusion problems of stormwater runoff, than would the development of more permeable soils.

- 4) The tendency of the high organic content soils to be located along waterways indicate their value as a buffer for the waterways.
- 5) If high organic soils are artificially drained and dried out, they may be more susceptible to peat fires than if maintained in their natural state.
- 6) High organic soils have low bearing strength which limits their capability to support building loads.
- 7) High organic content soils tend to have high available water capacity which would tend to support abundant plant life.

The following four soils have high organic content in the County:

| <u>Soil Type</u> | <u>Acreage</u> | <u>Percent of County</u> |
|------------------|----------------|--------------------------|
| Do Dorovan | 8,766 | 7.4% |
| Jo Johnston | 4,426 | 3.7% |
| Pm Pamlico muck | 958 | 0.8% |
| Tm Tidal marsh | <u>8,304</u> | <u>7.1%</u> |
| Total | 22,454 | 19% |

Only Dorovan, Johnston, and Pamlico muck would be likely to support pocosin vegetation as defined by Dumond's report Conservation Resources in New Hanover County. These three cover 11.9% of the County, of which a significant part would be covered by swamp forest or a wetland vegetation other than pocosin. The most significant concentration of pocosins that have high organic soils are the large tracts in the northern part of the County along the rivers and streams. For the reasons stated above, we recommend that the pocosin areas as originally mapped be amended to reflect this new criteria and that they be included as a conservation resource in the Zoning Ordinance.

LITERATURE CITED

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