

317 Donald E. Gore Drive
Wilmington, NC 28412
July 31, 2025

Dare County Commissioners
Dare County Administration Building
945 Marshall C. Collins Drive
Manteo, NC 27954
c/o dcboe@darenc.gov

Re: Zoning Text Amendment to Section 22-27.3 SED-1 Special Environmental District (Buxton Woods Zone of Influence)

Dear Board of Commissioners,

I am writing to encourage Dare County to continue protection of the Buxton Woods Coastal Reserve. I understand that at your upcoming meeting on Monday, August 4, 2025, you will consider a petition to remove the dwelling density limit in the "Zone of Influence" ordinance that creates a protective buffer around the Special Environmental District (SED-1) Buxton Woods area or eliminate the Zone of Influence ordinance entirely. I urge you to retain and enforce the buffer ordinance as written.

My concern stems from 20 years of experience as Coastal Reserve and National Estuarine Reserve Manager of ten sites during 1983-2004 for the North Carolina Division of Coastal Management. Duties for Buxton Woods included nomination as a dedicated state nature preserve (1992), development of the site management plan (1996), and implementation of stewardship through various cooperating organizations and individuals. These activities utilized B.S., M.S. and Ph.D. degrees in biology and prior employment as a North Carolina State Park Biologist. More recently, I was an Associate Professor in the UNCW Department of Environmental Sciences until retirement in 2015.

Beginning in the late 1980s, protection of state maritime forests threatened by development was a priority for the Coastal Resources Commission that also resulted in acquisition and management of Kitty Hawk Woods and Bald Head Woods as Reserve components. Nevertheless, once a given forest was acquired there always remained an ongoing responsibility to ensure protection of natural resources given the reality of surrounding land use changes and groundwater demands. In the case of Buxton Woods, the Commission was willing to allow Dare County to regulate adjacent uses rather than create a specific Area of Environmental Concern.

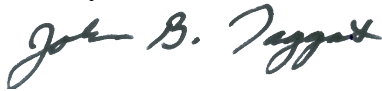
The 1,007-acre Buxton Woods Reserve encompasses maritime evergreen forest, maritime shrub swamp and interdune pond ("sedges") plant communities that represent one-third of Hatteras Island's unique forest/wetland complex. It is home to one butterfly and three wetland plant species listed as rare by the North Carolina Natural Heritage Program. This core acreage needs an adjacent buffer to insulate these ecologically sensitive areas from external disturbances and to filter pollutants, provide compatible habitat and maintain water quality/quantity.

In addition to Reserve vegetation and fauna, protection of water quality and quantity is vital given the sensitive nature of included wetland habitats. Local fresh water beneath the Reserve/ buffer area occurs as a shallow lens-shaped reservoir composed of two aquifers, an upper unconfined and lower confined, within a sediment depth of approximately 160 feet. Because precipitation is the sole means of aquifer recharge for the entire woods complex, natural vegetation and unobstructed soil profiles are key factors for proper infiltration and, hence, aquifer maintenance. Adjacent water withdrawals and habitat loss from development are prime concerns and depend upon thoughtfully administered regulations to mitigate impacts.

It is most unfortunate that for decades the Zone of Influence ordinance was not enforced. Stewardship of this highly significant natural area by the Coastal Reserve is in perpetuity, so should proper administration of buffer protection by Dare County. Please retain the ordinance with consistent enforcement to permit development within the buffer that will reasonably protect Buxton Woods from significant loss of adjacent vegetative cover and allow sufficient natural infiltration for sustainable recharge of the underlying aquifer system.

Thank you for the opportunity to comment on this matter.

Sincerely,

A handwritten signature in black ink that reads "John B. Taggart". The signature is fluid and cursive, with the first name "John" and last name "Taggart" clearly legible.

John B. Taggart, Ph.D.
Associate Professor Emeritus
UNCW Department of Environmental Sciences
taggartj@uncw.edu (910) 274-1510

cc: Bobby Outten, Dare County Manager/Attorney, outten@darenc.gov
Noah Gillam, Dare County Planning Director, noah.gillam@darenc.gov