



⊠ North Carolina Wildlife Resources Commission ⊠

Richard B. Hamilton, Executive Director

MEMORANDUM

Date: 18 July 2007

To: Chatham County Planning Department

From: Jacquelyn Presley Wallace, Urban Wildlife Biologist, NC WRC

Please accept my comments on the: *Request by Bynum Ridge, LLC on behalf of Chatham Partners, LLC and Roanoke Investments, LLC for subdivision preliminary approval of "The Parks at Meadowview, Phase 5", consisting of 155 lots on 155 acres, located off SR-1520, Old Graham Road, Center Township.*

This property is located within a 14-digit HUC (hydrologic unit, or sub-watershed) that has been documented to support the federally endangered Cape Fear Shiner (*Notropis mekistocholas*). NCWRC commends the applicant for establishing conservation buffer areas around the streams on site. After reviewing the plat, however, the width of these conservation buffer areas is unclear. To adequately minimize negative impacts (particularly cumulative and secondary impacts) to this species, we recommend the applicant incorporate the following buffer widths and other measures into the plat and construction plans:

1. Establish 200-foot native, forested buffers along **each side** of any perennial stream, and 100-foot native, forested buffers along **each side** of any intermittent stream on site. Ideally, field surveys should be conducted to identify and classify streams on site. Such surveys should follow the stream identification and classification methodology used by NC DWQ. If field surveys are impossible, then a combination of USGS maps and USDA soil survey maps should be used to identify stream presence.
2. Prevent insecticides and herbicides from being used within 200 feet of all streams on this property.
3. If the development will exceed 6% impervious surface, install stormwater management structures and use LID techniques, such as:

- Replacing curb and gutter with grassed swales
 - Managing stormwater on-site with rain gardens, bioretention areas, constructed wetlands, or cisterns.
4. Prevent direct discharge of stormwater to streams through pipes or ditches, and disperse stormwater runoff through a vegetated buffer that is **outside of** the protected riparian buffer zone recommended above.
 5. Use bridges (not culverts) for the two stream roadway crossings. If culverts must be used in this development, they should be designed to allow aquatic organisms to pass through the culvert.

NCWRC further recommends that the applicant minimize impacts to the wetlands on site. We understand that the applicant has obtained a 404 permit to disturb 0.17 acres of wetlands on site. However, such wetlands (both permanent and ephemeral) provide valuable wildlife habitat, particularly for many semi-aquatic reptiles and amphibians listed as priorities for conservation in the North Carolina Wildlife Action Plan. We recommend the following measures be seriously considered in the applicant's development plans:

1. Eliminate or minimize filling of these wetlands.
2. Establish appropriate forested buffers around the wetlands on site. NCWRC is able to provide guidance on appropriate wetland buffer widths upon request.
3. Expand stream buffers to include any in-stream wetlands.

Thank you for considering these recommendations. I am available to discuss any of these recommendations or provide any further guidance to the applicant. Please feel free to contact me at (919) 210-6040 with any questions or concerns.

cc: Shari Bryant, NCWRC
Ryan Heise, NCWRC
Sarah McRae, NCNHP
Vann Stancil, NCWRC
Jeff Marcus, NCWRC
David Rabon, USFWS