TOWN OF CARRBORO

NORTH CAROLINA

July 5, 2007

North Carolina Environmental Management Commission
c/o Rich Gannon or Jason Robinson
DENR-Division of Water Quality, Planning Section
1617 Mail Service Center, Raleigh, NC 27699-1617

Dear members of the NC EMC,

Thank you very much for this opportunity to review and comment on the proposed nutrient management strategy for the B. F. Jordan Reservoir. The Town appreciates the work of the committee in seeking the protection and management of North Carolina's invaluable natural resources. Comments on both the March 2007 draft rule and the Fiscal Analysis prepared by the staff of the North Caroina Division of Water Quality are listed below. Representatives of the Town will also be on hand to provide comments during the July 12 public hearing at the Carrboro Century Center.

1. General – Section .0262 (6)(a) of the rules states that, "rules .0265, .0266, .0267, .0268, and .0269 shall apply to all incorporated municipalities within the Jordan watershed as identified by the Office of the Secretary of State." However, the rule goes on to state that, "those municipalities shall include," and provides a list of municipalities. The rule should be modified so that it does not include a list of any municipalities; instead the phrase, "shall apply to all municipalities within the Jordan watershed as identified by the Office of the Secretary of State," should control. Newly incorporated municipalities within the Jordan Lake watershed, and municipalities previously outside of the Jordan Lake watershed but that annex property within the Jordan Lake watershed, must become subject to the rule.
2. General - Carrboro's long-standing commitment to watershed protection through land use planning and development management strategies in the years prior to 2001 makes it difficult to do more without raising the cost of living significantly or further limiting new growth. This effect stands to undermine the regional commitment, as defined in the Joint Planning Agreement between Orange County and the Towns of Chapel Hill and Carrboro, of the maximization of urban services within a defined boundary. Two current examples of the Town's commitment to watershed protection include the Bolin Creek Watershed Restoration Team, and the Greenhouse Gas Emissions Inventory and Reduction Planning Effort.

3. General – Carrboro's population of nearly 18,000 citizens occupies a municipal area from which the tax revenue is 90 percent residential and 10 percent commercial. Though the town has made a commitment to diversifying its tax base, a significant alteration of the mix and associated revenue generation will take some time, and could be severely limited by these rules. What happens if Carrboro finds that it cannot achieve the required nutrient reductions through load reducing activities without bankrupting the Town, either through budgeting that applies the bulk of town resources to Jordan Rules implementation or the payment of fines due to its lack of compliance? What will be acceptable time frames for implementing the local plan, and how will the state ensure/support/work with the Town to yield the shared desired outcome of water quality enhancement without financial ruin?
4. General – The Upper New Hope Arm of Jordan Lake has demonstrated water quality characteristics lower than those of the remainder of the lake. It is the town's opinion that this difference is substantially due to the configuration of the lake, particularly the causeway that supports Farrington Road and the constriction of water flow that occurs between the Upper New Hope Arm and the remainder of the lake. The Town is interested in determining whether either of the following actions has been considered as alternative measures to improve water quality in the lake.
    a. Modeling removal of the causeway and its replacement with a structure that would reduce the constriction on flow. While it is understood that the enhanced flow that would occur under this option may not completely restore chlorophyll A to desired levels, it is postulated that the levels would be closer to state standards, therefore decreasing the required nitrogen and phosphorous reductions to achievable levels.
    b. Since it acts similarly to a forebay in a structural best management practice, reclassification of the Upper New Hope Arm of the lake and modification of its permitted uses, and/or revision of the applicable chlorophyll A standard so that levels might not be as limiting.
5. General – In order for the application of the nutrient management requirements for Jordan Lake to be fair and accurate, modeling of atmospheric nitrogen associated with existing land uses and vehicle miles traveled, water quality degradation, and the necessary nutrient management strategies must be part of the rule when it is adopted. Funds need to be budgeted for these activities immediately, if this has not yet occurred. The possibility of expending extensive resources – time and money – on nutrient management that does not account for the atmospheric contribution of nitrogen is wasteful and costly.
6. General – Are the nitrogen and phosphorous loading rate targets technically feasible in association with dense development activities? Carrboro officials have expressed grave concerns that loading rate targets may present such an insurmountable obstacle so as to render areas of the Town's jurisdiction undevelopable. The Town's existing stormwater regulations have been identified as discouraging development and redevelopment. Additional regulations run the risk of further discouraging redevelopment and any associated water quality improvements that would be achieved through such redevelopment's compliance with existing Town regulations, or future versions which go further toward addressing Jordan's nutrient issues.

7. Agriculture – The relationship between the purpose in Section .0262 (1) and the standard BMPs to be implemented in Section .0264 (7) is unclear. This is especially true in consideration of the statement that, "implementation may have occurred at any time before, during, or after the baseline period." It would seem that the probability of reducing nutrients from agriculture sufficiently to achieve the nonpoint source nutrient targets under this rule is small. This undermines the nonpoint source nutrient reduction strategy as a whole. Furthermore, agricultural sources generate nitrogen credits by implementing any BMP in addition to the list provided in Section .0264 (7)(a). By providing a threshold to generate nitrogen credits that bears no relationship to the nutrient reduction targets, agricultural sources may be generating spurious credits, further reducing the effectiveness of the nonpoint source nutrient reduction strategy. Agricultural uses should have to meet changes related to the 2001 baseline as is proposed for all other uses. Otherwise, the rules should be modified to allow any other uses whose actions prior to 2001 can be shown to have water quality benefits to receive credit for those actions.
8. Fiscal Impacts – The estimated costs, as high as they are already, still appear to grossly underestimate the full cost of implementing the rule as written.
    a. Direct costs which are not yet fully noted appear to include monitoring and enforcement activities both to the local government and citizens, and prospective developers. In and of themselves, these costs are expected to significantly exceed the estimates provided. Additional costs are expected, but will not be known until the Town prepares its program and determines what types of actions will be needed to achieve the required nutrient reductions from existing development.
    b. Indirect costs may be of a larger magnitude and include lost tax revenue, gross receipts and other funds associated with land taken out of the private supply to install best management practices towards achieving the nutrient reductions for existing development, and land development and building that does not occur because interested developers choose to locate elsewhere where requirements are less stringent and lower densities encourage more vehicle miles traveled.
    c. Environmental costs associated with sprawling land use that is encouraged, particularly in less developed portions of the Jordan Lake watershed. Such costs will include at a minimum, water quality impacts from riparian buffer and surface water alteration and removal and insufficient replacement, continued and expanded air quality impacts (e.g. atmospheric nitrogen) from increased vehicle miles traveled, reductions in land available for agriculture, forests, open space, and wildlife. Fracturing the forests for low-intensity land uses is known to result in significant reductions in biological diversity of plants and animals.
    d. Administrative costs associated with tracking the compliance of local governments with the rule. Who will pay for this data collection, monitoring, tracking, plan review, et cetera? The stated assumption that the DWQ can absorb these costs into an already overbooked and understaffed agency seems exceedingly optimistic. At a minimum, coordination of this effort would seem to require the installation of

mechanical devices throughout the Jordan watershed that can continuously monitor stream flows, such as the stream gauging stations installed by the USGS, and frequent, routine water quality monitoring at those stations. Such devices and the associated monitoring programs will be the only way to provide the data necessary to accurately assess the benefits yielded by changing land uses, stormwater retrofits, nonstructural BMPs, et cetera. Are such expenses covered in existing DWQ budgets or will such expenses be incorporated into future budgets?

9. Fiscal Impacts - The fiscal analysis makes the assumption (FA Chapter 4, p.43) that because, "almost all municipalities in the watershed are subject to Phase II requirements and are to implement new development programs beginning mid- to late 2007," and because, "virtually all remaining municipalities fall within water supply watersheds and implement WSW stormwater programs," that Jordan municipalities will not incur, "significant, quantifiable additional costs to implement this rule." The Phase II and WSW stormwater programs do not have nutrient reduction requirements. Local governments will need new programs and resources to address the nutrient reduction requirements; the validity of this assumption must be questioned.
10. Fiscal Impacts - The pay rate of $36/hour (FA Chapter 4, p.44) used to quantify the cost of local governments contracting assistance in preparing ordinances seems rather low.
11. Fiscal Impacts – Section .0265 (3)(a)(vi) must be clarified such that if there exists a local government option for mitigation then that local option shall be the only offset option that developers use. This would ensure that developers will not be allowed to opt out of local mitigation programs and into the NC EEP when local governments choose to charge a substantially higher mitigation fee than the NC EEP rate. These higher rates will be necessary to recuperate adequate funds to support the actual implementation of nutrient off-setting measures, and this more stringent option for the local governments is supported by the language in Section .0265 (3) that describes the following standards as, "minimum," and which is clearly meant in spirit to allow more stringent standards to be established by local governments. In fact, clarification throughout these rules that local governments have the option to implement more stringent standards to achieve the nutrient reduction goals will be essential.
12. Fiscal Impacts Section .0265 must also be clarified such that any contributions to NC EEP resulting from development occurring within a particular jurisdiction and within one of the three Jordan Lake arms, or other appropriate hydrologic unit must be expended within that same political and hydrological area of Jordan Lake.
13. Implementation – Delete Section .0263 (4)(b) that requires homeowners to bear the responsibility for verifying that nutrient applicators they hire have met the requirements of Section .0263 (4)(a). Such a requirement is cumbersome and unrealistic.
14. Implementation – The five-year time frame for the completion of nutrient management training specified in Section .0263 (5)(a) is too long. Local governments affected by this rule are, as it is currently written, required to prepare programs demonstrating how required reductions will be achieved within three years. The nutrient management training time frame should be no longer than three years as well.

15. Agriculture - Reconsider the numbers of livestock that in Section .0264 (4)(c); these thresholds will allow too many small farming operations to operate without necessary nutrient management practices.
16. Administration – Section .0265 (4)(e) should be revised to allow local governments that are also subject to NPDES II, or other State-mandated stormwater programs which require an annual report, to prepare one annual report that responds to the initiatives of all programs.
17. Administration – Section .0266 does not provide clear information on how required water quality improvements will be tracked.
18. Administration – Funding assistance from the State and Federal governments will be needed to assess existing development and stormwater management in order to achieve the requirements of Section .0266 (3)(a)(iv). Where will money come from to address this need?
19. Implementation – The buffer portion of the rule should apply to all intermittent and perennial surface waters, as defined in Section .0267 (2) and per the latest publication of DWQ's *Identification Methods for the Origins of Intermittent and Perennial Streams*, rather than only those delineated on the USGS or Soil Survey maps. It is well known that many of the aforementioned surface waters are not shown on these maps.

Your careful consideration of these comments is greatly appreciated. Best of luck with your deliberation on the draft rules and associated public comments.

Don't' hesitate to contact Patricia McGuire, Planning Administrator, at 919/918-7327 or pmcguire@townofcarrboro.org if you have questions.

Sincerely,

Mark Chilton, Mayor
Carrboro, North Carolina

SS/pjm