

UDO Code Diagnosis, Town of Carrboro
Questions/Comments, May 22, 2026
Members of the Stormwater Advisory Commission (SWAC)

Overarching Questions/Comments

1. What is your perspective on how the UDO should address Jordan Lake Rules compliance (stormwater and buffers)?
 - What current relevant LUO provisions do you recommend retaining? Any changes?
2. What is your perspective on how the UDO should best address other EPA and NCDWQ surface water regulatory permits/requirements?
 - What current relevant LUO provisions do you recommend retaining? Any changes?
3. Carrboro's LUO has unique "above and beyond minimum" stormwater and buffer requirements, e.g., for designing for the 25-year storm, annual stormwater volume control, wider buffers, and buffering of ephemeral streams. Do you recommend retaining these?

4. What is your perspective on how the UDO can/should include Low Impact Development voluntary and/or mandatory requirements?

Comment: Carrboro has listed impaired streams and has developed a Watershed Restoration Plan to help address these requirements. Inadequate "above and beyond" minimum State requirements for new and redevelopment can compromise progress.

5. From my perspective as surface water professional for 40+ years, including 17 on staff in Carrboro Planning Department and as Carrboro's Stormwater Manager, it is my opinion that the combination of changing precipitation patterns; inadequacies in how stormwater is regulated in Carrboro (and NC) during construction as well as post construction; and Carrboro's inherent geology, soils, and historical land use has resulted in "geomorphic instability" (erosion of different sorts, beyond construction site erosion) broadly speaking in our jurisdiction and watersheds, and this phenomenon is suboptimal both ecologically/environmentally and for human habitation and enjoyment. The question is this: How should this understanding (assuming you agree it should) best be addressed in the UDO?
6. What is your perspective on how the UDO can/should include voluntary and/or mandatory stormwater requirements for small infill projects?
 - Do you think the current relevant LUO requirements are too restrictive, about right, or not restrictive enough?

7. What is your perspective on how the UDO should interface with a new Stormwater Design Manual, presuming creating a Manual happens? What is best for the UDO and what is best for a Manual?
 - An example of a specific, repeating, and increasingly important design issue is the design storm requirements in NOAA Atlas 14 and the anticipated Atlas 15 release. How can Carrboro's new stormwater regulations best be more proactive in considering the changing/increasing frequency of more intense (more inches of rain/unit time) than empirical/historical data accounts for, e.g., by requiring design storm specs per Atlas 15?
8. Are you amenable to the SWAC interfacing with you and your stormwater consultant as UDO stormwater related language is drafted to make sure that these and related questions are adequately addressed and that the SWAC's unique and place-based expertise can inform the UDO?

Questions/Comments by Section

A. Code Diagnosis

General

1. Support making the land development process easier to understand, more efficient (by reducing review times) and more predictable, while preserving and enhancing the management of impacts through explicit performance standards. The code diagnosis identifies a large number of necessary steps to accomplish these goals.

p 15 (section 3.1)

1. Conservation Subdivisions – Considerations of which portions of a site are best left undeveloped should include riparian buffers, visibility screening, steep slopes, etc.
2. Please eliminate discussion of the “agrihood” or “farmhouse cluster” development scenario served by on-site wastewater, which is not appropriate for densities within the UGB, especially considering local soil conditions.

p 16

1. Section 3.2 - Support requirement that newly planted landscaping be native vegetation, and that existing exotic and invasive vegetation be removed. Specific language may be needed as to how this is to be accomplished in the “undisturbed” zone of riparian buffers.
2. Section 3.3 - The Current UDO provides an incentive for green stormwater infrastructure (GSI) type practices in the General Business District. The Code Diagnosis suggests such incentives for project between ½ and 20 acres. Fully support incentivizing GSI

where on projects that will remain under a single owner. However, we are concerned about enforcement of maintenance responsibility for residential subdivision development because most of the GSI practices will be lot-level, rather than in an HOA managed common area; furthermore, some GSI practices may be located along a property boundary and extend into a street ROW. While this may be beyond the scope of the UDO, we would appreciate discussion of how maintenance enforcement can be facilitated in this scenario.

p 17 - Section 3.6

1. Generally support prohibiting new residential development within the Special Flood Hazard Area, which includes the floodway (which conveys the flow) and the flood fringe. This will eliminate filling in portions of the flood fringe in order to elevate homes above the base flood elevation and preserve the flood storage capacity within the flood fringe. Such prohibitions are sorely needed in areas currently experiencing flooding e.g. Toms Creek. Support allowing uses that are compatible with being inundated (some recreational uses, greenways, etc.) such as soccer fields. Where tot lots are allowed, they should have safety surfaces that are fixed (will not float) such as those provided at Henry Anderson Park.
2. We also support requirements to control the 50 and 100-year storms for large imperious are projects, at minimum in flood-prone watersheds.

p 18

1. Section 3.7 and Section 5.1 – Support reducing or eliminating minimum requirements for off-street parking.
2. Section 3.8 –
 - a. Support disincentivizing mass grading, incentivizing contour grading and requiring stabilization within 14 days. For the stabilization requirement, NCGA SL 2009-486, which provides this time frame in the Falls Lake watershed north of Durham, may serve as guidance.
 - b. In conservation subdivisions, support preservation of existing tree canopy and incentivizing finger-print grading limited to transportation ROWs and structures.
 - c. Would like discussion on how to express a benchmark (if not a performance standard) for minimizing cut-and-fill volumes.

p 25

1. Section 5.6 – With fewer opportunities for public input under the envisioned development process, it is critical to preserve and enhance opportunities with regard to text amendments and conditional re-zonings, including early review.

p 34

1. Support accelerated credit for retained trees.

p 35

1. Section 8.5 - See previous comment re finger-print grading in conservation subdivisions.
2. Section 8.8 – Support open-space credit for GSI measures.

p 36

1. Section 8.9 – Support adding Incentives for Sustainable Development Features

B. CARRBORO LAND USE ORDINANCE (LUO) ANALYSIS TABLE

pp 75-76

1. 15-84 - Recommendation says: “Differentiate between Construction Drawings (in the new UDO these are solely for public streets, water, sewer, etc.) . . .” This is incomplete - construction drawings are also required for engineered Stormwater Control Measures (SCMs).
2. 15-86 – as with the above, Record Drawings or As-Builts are also required for privately owned and maintained SCMs serving a development.

p 102

1. 15-201, “Homeowners' associations must be established” - when HOA transfers from developer to owners, suggest including requiring a meeting with Town staff regarding HOA requirements to maintain required GSI, SCM and appurtenant conveyances.

p 113, 15-261

There are multiple recommendations and questions in this section.

1. Support moving updated stormwater development requirements in Chapter 7, including all the sections recommended (e.g. federal and state regulatory authorities, purpose and intent, etc.). Land development regulated by the Town is subject to requirements for protection of drinking water sources under NC water supply watershed regulations and restoration of water quality impairment under NC Nutrient Sensitive Waters regulations for Jordan Lake. The Town discharges municipal stormwater under NPDES Permit NCS000450 and associated approved Stormwater Management Plan. The Stormwater Management Plan describes how the Town will implement code-based permit requirements applicable to three provisions: new
 - a. development, construction site runoff control, and illicit discharge control. Generally, the Town relies on Orange County to implement construction site runoff controls. Please Contact Town Stormwater Staff for details. The Stormwater Management Plan is available at

<https://www.carrboronc.gov/DocumentCenter/View/10510/2021-Carrboro-Stormwater-Management-Plan-NCS000450>.

- b. Agree that the existing UDO is confusing as to what design standards apply to stormwater design. Appendix C includes a reference to NC Department of Transportation requirements in an appended document, but that document is not present. However, a Storm Drainage Design Manual prepared by the Town's stormwater engineering contractor is provided in Appendix I.

p 113, 15-263

The development community has expressed concerns over the 5,000 square feet of new impervious cover as a threshold for requiring engineered stormwater controls. Developers express concern that the requirements to have engineered stormwater controls add significant costs to small projects, especially infill projects. On the other hand, these projects can impact adjacent property as well as contribute to downstream flooding if they discharge stormwater in an uncontrolled fashion. Ideally, the threshold for controlling stormwater would be lower than 5,000.

Chapel Hill has used 5,000 in the past (not sure of current status.) For peak flow control, Durham has much lower thresholds – control of peak flow is required for more than 2,000 square feet of new impervious surface on a single family or duplex residential lot, or for more than 500 square feet of new impervious surface area on a multifamily and other development.

An alternative for Carrboro to consider would be to 1) reduce the threshold to 2,000 square feet of impervious cover; and, 2) allow alternate compliance standards for projects between 2,000 and 5,000 square feet of impervious cover, which would be allowed to use planter box rain gardens, rain gardens, green roofs and/or cisterns to capture and release rainwater in a more controlled fashion.

Comments on “Development Community Interest Meeting Summary February 2025”

Outreach to the development community is essential in order to advance the goal of making the land development process easier to understand, more efficient (by reducing review times) and more predictable, and balance these objectives with enhancing performance standards and incentivizing desired development. The Code Diagnosis attempts to address many of the comments.

Regarding communication issues, establishing clear, measurable performance standards will reduce ambiguity and therefore reduce the need for frequent communication between applicants and staff.