



Greenville Development Code Review Committee
City of Greenville
206 S. Main Street
Greenville, SC 29601
devcode@publicinput.com

March 3, 2023

We respectfully submit the following comments on the Draft January 13, 2023, Greenville Development Code on behalf of the South Carolina Native Plant Society. We appreciate your thoughtful consideration of our comments and recommendations.

The South Carolina Native Plant Society (SCNPS) is a 501(c)(3) state-wide nonprofit with 6 chapters in South Carolina dedicated to promoting, preserving, and restoring native plants and habitats. Founded in 1996, the South Carolina Native Plant Society has a vested interest in seeing that native plants and their habitats play a role in all sustainability features of the City of Greenville's development code.

SCNPS is pleased to have the opportunity to provide comments to the City of Greenville on the new Development Code draft that has been released for public engagement. SCNPS has developed the following recommendations, questions, and comments for the City's review. The City of Greenville is within the top third of the two HUC 10 Reedy River watersheds (0305010904 and 0305010906) and therefore has the utmost responsibility to proactively work to protect the precious resources that are located at the headwaters of this largely urban watershed. It is our hope that the City uses this opportunity to advance improvements to both policy and planning documents that will protect the water resources of the Reedy River watershed.

- SEC 19. Generally speaking, it is SCNPS's contention that the emphasis on environmental protection is lacking in this document in terms of low-impact development and green infrastructure. LID and Green Infrastructure are only referenced and suggested in the Stormwater Permitting, but we feel that it would be most appropriate for these topics to be more integrated in the entire Environmental Protection Section. Additionally, in terms of the Stormwater section, our recommendation is that BMPs should be oriented

towards getting stormwater underground to reduce volume, reconnect old drainage patterns, and build regenerative landscapes that absorb and filter pollutants. Below is a link to a different plan that we feel communicates the points that we would like to be integrated into this Development Code.

- <https://www.portland.gov/sites/default/files/2018-11/Stormwater%20Management%20Manual%20%282016%29%20-20160819.pdf>
- SEC 19-2.1.2 D. Page 5-23, E.1.b.v Is “designed” watersheds correct? Does this draft intend to say “designated”?
- SEC. 19-5.3 We support strengthening policies to manage and maintain existing stormwater infrastructure, specifically roadside storm drains. A common issue within the City is the placement of yard debris on the shoulder of the road for collection. Very frequently, rain events can cause surges of stormwater to carry yard debris down to storm drains where they can both clog said storm drains and/or inevitably contribute to increased nutrient loading in our waterways. We would like to see specific language in this document that outlines proper placement and management of yard waste.
- SEC. 19-5.3.2 Language in these sections specifies regular inspections and maintenance of public stormwater management facilities. However, the city currently only has the staffing capacity to inspect MS4-permitted stormwater BMPs every five years. It is our contention that there should be inspections more regularly to ensure efficacy, especially with LID stormwater BMPs like pervious pavement which need more regular inspection. We support the acquisition of additional staff to meet the demand of more consistent inspection. In addition to ensuring staffing needs are met, we recommend that the City require maintenance plans with landowners who hold the stormwater permits and that annual maintenance logs must be prepared and submitted to the city by landowners or property managers.
- SEC. 19-5.3.5. We recommend that revisions to this draft are supported by and reflective of recommendations posed by city engineers to better establish the criteria for additional stormwater permitting depending on the scale of development application. In this draft, there is not enough clarity regarding the thresholds of permitting for small to very high impact development applications. There needs to be greater specificity that adequately matches permitting measures with the intensity of development within a stormwater permit application process.
- SEC 19-5.3.5. Ensuring that recommendations for stormwater permits are based on the most recent NOAA rainfall data. This is key to ensure that stormwater permits will hold up long-term and provide more resilient infrastructure. We recommend that the Developmental Code references "the most recent NOAA rainfall data" so that each permit is based on the most current data. For reference, the section below is from Appendix G in Existing Stormwater Ordinance where rainfall data referenced is from 2007.
 - “These precipitation frequency estimates are based on an annual maxima series. AEP is the annual exceedance probability for Greenville, South Carolina (38-3732) from the "Precipitation-Frequency Atlas of the United States" NOAA Atlas 14, Volume 2, Version 3 G.M. Bonnin, D. Martin, B. Lin, T. Parzybok, M. Yekta,

and D. Riley NOAA, National Weather Service, Silver Spring, Maryland, 2004, Extracted: Thursday, February 1, 2007, unless otherwise noted.”

- SEC 19-5.3.5 C. Please provide information on how the 20-acre drainage area threshold for major permit requirements was determined. We recommend reducing the permitting threshold of tributary drainage from 20 acres to 10 acres. This proposal is made in an effort to protect headwaters, sensitive habitats, recharge areas, and wetlands. Due to the confined space limitations of development within the City, a smaller acreage threshold will ensure that this ordinance is protective of water quality.
- SEC 19-5.3.5 E. 7. Exemption of Forestry and Agriculture although standard in most ordinances, the language here is arbitrary and leaves streams and tributaries exposed. The language should better define riparian buffers as BMP practices.
- SEC 19-5.3.6. SCNPS would like to see consistency with permitting for both new developments and re-development. For example, will highly impervious sites, like the parking lot near Linkey Stone Park which is slated to become a convention center, be grandfathered in and not held to new stormwater requirements? Additionally, for redevelopment projects with excessive amounts of impervious surface (greater than the allowed amount based on zoning guidelines), we recommend that you provide requirements to reduce impervious surfaces or provide additional stormwater mitigation for both water quality and quantity.
- SEC 19-5.3.7 A. 2-H. We are concerned that the language in this section as it is currently worded is misleading and could have potentially negative consequences. SCNPS requests that the language proposed in the City ordinance is in compliance with dredge and fill regulations as outlined in Section 401 and 404 of the US EPA Clean Water Act. We recommend aligning this language with the federal statutes to ensure that proper 401/404 permitting procedures are followed. The term “non documentable fill” should also be defined as it pertains to wetlands and tributaries.
- SEC. 19-5.3.7 We support measures in the draft that emphasize eliminating the option of on-stream/in-stream detention. In-stream detention changes a waterway’s natural structure, which is not conducive to other recommendations surrounding green infrastructure and low-impact development highlighted in this document. However, this statement is contrasted by the language on Page 5-52, B. 1. B, “Wetlands may be used for on-site stormwater detention.” If development cannot use streams for in-line stormwater treatment, why would this document allow this to happen in wetlands? This will increase sedimentation, decrease habitat, and ultimately reduce the functionality of the few wetlands that remain in city limits. These wetlands provide critical environmental benefits within city limits, and should be protected for natural flood storage capacity.
- SEC 19-5.3.7. We recommend additional language and guidance pertaining to who is responsible for properly maintaining a riparian buffer. Additionally, we would like to have clarity regarding whether these riparian buffer guidelines only apply to new development, or if re-development permits will be required to uphold riparian buffer requirements. Additionally, we recommend that this document outlines and incentivizes

the use of diverse plant species, use of native plant species, and invasive species control.

- D.2. Who will enforce this and how will this be determined? Will there be a standardized process in place to assess endangered species in the area? Will this only apply to new large developments or does this apply to infill sites as well?
 - D.10. Our recommendation is to reduce emphasis on buffer averaging and discourage it where possible in this draft. However, in circumstances where averaging is unavoidable, first, consult with city engineers to determine vegetative mitigation practices, including increased density of vegetation in areas where the buffer width is less than 30 feet. Additional stormwater mitigation practices should be implemented on these sites with the goals of stabilizing soils to minimize erosion, reducing flood risk, and safeguarding the stability and longevity of the development.
- SEC. 19-5.3.8. A common issue that we see throughout the City of Greenville is the curb and gutter design that channels stormwater to flow directly to storm drains without an opportunity to percolate through pervious surfaces. We recommend that this section place an emphasis on new development and redevelopment to factor in curb and gutter design into stormwater permitting to promote the use of stormwater “bump outs”. A great example of this design can be seen in the Camperdown Plaza where the curb is not too high up for stormwater to make it into the “bump out” design where it can percolate on the pervious surface and slow before entering storm drains.
- SEC 19-5.3.9 A.8. The language of this section currently reads, “Variances requested in connection with the redevelopment of previously developed sites that will further the public policy goals of downtown redevelopment and neighborhood revitalization and meet the requirements of Sec XX, Variances may be granted provided the variance would not result in an increase in the pre-development runoff rate for the 25-year, ten-year and two-year storm events and existing adequate downstream stormwater capacity exists.” It is our understanding and caution that this statement could invite misuse and incorrect implementation of the Zoning Code under the guise of “meeting downtown and redevelopment and neighborhood revitalization standards”. Moreover, it would allow for the Planning Commission to garner a more subjective stance on what can be approved than we think is responsible. We also recommend that the variance in consideration should not result in an increase in the pre-development runoff rate for the 100-year and 50-year storm events in addition to the already required 25-year, ten-year and two-year storm events.

Thank you for your consideration of the comments and recommendations listed above. Our organization seeks to educate, activate, and advocate for the health of this watershed. We want to continue being an active participant and steward of the watershed. If we can be of service, please call on us at any time. Please do not hesitate to reach out to SCNPS with any questions by contacting SCNPS’s advocacy chair, rick_huffman@earthdesignsc.com.

Sincerely, SCNPS Upstate Chapter, Advocacy Chair