

# PROPOSED CHANGES TO THE FLOOD DAMAGE PREVENTION ORDINANCE

Greenville County, South Carolina

February 16, 2021

The following changes to the Flood Damage Prevention Ordinance (Ordinance) are proposed in order to provide clarification; to increase ease of permitting and enforcement; to maintain consistency with the National Flood Insurance Program (NFIP), and to adopt the new Tyger River flood insurance rate maps and flood insurance study. Specific sections of the Ordinance are identified in the following table with proposed changes and the basis for the changes. The attached Ordinance also highlights these sections.

These changes were reviewed and approved by the SC Department of Natural Resources for compliance with the National Flood Insurance Program on January 27, 2021.

SECTION	PROPOSED CHANGE	BASIS FOR CHANGE
8-24	<p><b>Lands to Which this Ordinance Applies.</b></p> <p>This ordinance shall apply to all parcels of land that lie either wholly or partially within, or immediately adjacent to, areas of special flood hazard that are within the jurisdiction of the unincorporated areas of Greenville County, South Carolina. These areas of special flood hazard identified by the Department of Homeland Security-FEMA, National Flood Insurance Program, in its Flood Insurance Study, dated <del>January 18, 2019</del> <b>May 4, 2021</b> with accompanying maps and other supposing data are hereby adopted by reference and declared to be a part of this ordinance. Further, this ordinance shall apply to any areas of special flood hazard established and accepted by Greenville County that utilize DHS-FEMA NFIP detailed flood study standards, or better.</p>	Update the new Flood Insurance Study effective date.
8-27	<p><b>Interpretation.</b></p> <p>a) If any part of this Ordinance is declared invalid, the remainder of the Ordinance shall not be affected and shall remain in force.</p> <p>b) The degree of flood protection required by this Ordinance is considered</p>	Addition of language for interpretation of the ordinance and release of liability. This language is also including in the State Model Flood Ordinance.

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SECTION	PROPOSED CHANGE	BASIS FOR CHANGE
	<p>reasonable for regulatory purposes and is based on scientific and engineering consideration. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This Ordinance does not imply that land outside the areas of special flood hazard or uses permitted within such areas will be free from flooding or flood damages. This Ordinance shall not create liability on the part of Greenville County or by any officer or employee thereof for any flood damages that result from reliance on this Ordinance or any administrative decision lawfully made hereunder.</p>	
<p>8-28.1 Definitions</p>	<p><b>Critical Facility Development</b> - those functions or structures, or buildings used for essential services for the public good, health and welfare of the essential daily operations and delivery of services to the citizens of the County, such as, but not limited to, store or produce highly volatile, toxic or water-reactive materials, waste water treatment facilities and pumping stations, potable water distribution facilities and pumping stations, power generation facilities, telecommunication centers, schools, hospitals, fire departments, law enforcement facilities, emergency medical service facilities, governmental offices, care centers, nursing homes, gas/oil/propane storage facilities, disaster shelter facilities and the like.</p>	<p>Replaced the word Facility with Development and added pumping stations for better clarification.</p>
<p>8-28.1 Definitions</p>	<p>Removed Regulatory Floodway</p>	<p>This was a duplicate definition of Floodway</p>

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SECTION	PROPOSED CHANGE	BASIS FOR CHANGE
8-29.1.7	A final "Finished Construction" Flood Elevation Certificate is required to be submitted to and approved by the floodplain administrator prior to final inspections and/or certificate of occupancy.	The National Flood Insurance Program requires for all structures constructed in the special flood hazard area complete a finished construction elevation certificate. This defines when this must be submitted.
8-30 Q	Substantial Damage/Improvement Determination	Clarification that both substantial damage and substantial improvements of structures located in the special flood hazard area would be tracked.
8-33 R	(4) Accessory Structures" as specified in Section 8-36.	Allows the building official and/or floodplain administrator to issue variance for accessory structures
8-33.3 8-33.3.1 8-33.3.2	Critical Facility Development	Under Definitions, Development is defined as any man-made change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials.
8-34	Manufactured Homes, Recreational Vehicles and Elevated Buildings.	Added wording so all sections in 8-34 was included.
8-34.6	<b>Elevated Buildings.</b> New construction and substantial improvements of elevated buildings that include fully enclosed areas that are usable solely for the parking of vehicles, building access, or storage in an area other than a basement, and which are subject to flooding shall be designed to preclude finished space and be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. All Elevated Buildings where the lowest floor is elevated more than five (5) feet above the base flood elevation must either; (1) provide from a South Carolina licensed Surveyor certify that the elevation below the lowest floor is at least 4 feet above the base flood elevation, or (2) execute a	Added section so that the current and future home would not convert an elevated structure with crawl space greater than 5 feet into habitable space and cause the structure to be in violation of the ordinance.  This requirement also provides additional community rating credit.

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PREVENTION ORDINANCE (Continued)**

SECTION	PROPOSED CHANGE	BASIS FOR CHANGE
	<b>Non-Conversion Agreement.</b>	
8-35	<p><b>Section 8-35.1 - New Construction.</b> All roadways constructed within or adjacent to the Area of Special Flood Hazard shall be constructed so that the centerline elevation of the finished road surface is no less than two (2) feet higher than the base flood elevation. Bridges located in the Area of Special Flood Hazard shall meet the requirements of Section 8-38.6 and Section 8-37.</p> <p><b>Section 8-35.2 - Replacement of Bridges and Culverts.</b> Replacement bridges and culverts shall meet the requirements of Section 8-38.6. Efforts shall be made during replacement of bridges and culverts to elevate this infrastructure above the base flood elevation whenever possible. Replacement of Bridges and Culverts are exempt from Section 8-37.</p>	Better defines when Section 8-37 (Floodway requirements) are enforced.
8-36	<p><b>Section 8-36 - Accessory Structures.</b> A detached accessory structure or garage, used only for parking or storage and single story, greater than 600 square feet with a project valuation greater than \$3,000—that is placed in the Area of Special Flood Hazard must be elevated in accordance with Section 8-33.2 and comply with the elevated building requirements of Section 8-34.6.</p> <p>Accessory structures less than 600 square feet with a project valuation of \$3,000 or less used only for parking or storage and single story shall meet the following wet floodproofing criteria:</p>	Re-defined what is required for accessory structures based on square footage instead of dollar value. This was also changed in the State Model Ordinance.
8-36.8	<p><b>Section 8-36.8 – Swimming Pool Utility Equipment Rooms:</b> If the building cannot be built at or above the BFE, because of functionality of the equipment then a structure to house the utilities for the pool may be built below the BFE with the following provisions:</p> <p>a) Meet the requirements for accessory structures</p>	Added section for requirements of swimming pool utility equipment rooms.

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	<p style="text-align: center;">in Section 8-36</p> <p>The utilities must be anchored to prevent flotation and shall be designed to prevent water from entering or accumulating within the components during conditions of the base flood.</p>	
8-37.2	<p>Stream crossings for any temporary purpose (i.e., timber harvesting operations), shall be permitted in accordance with Section 8-29.1. Otherwise, the development shall comply with all applicable flood hazard reduction provisions of Article IV. Water, sewer, electrical and telecommunication lines (excluding power poles) may be located within the floodway; however, they must be placed no lower than four (4) feet above the Base Flood Elevation, or constructed utilizing floodproofing methods that prevent the intrusion of flood waters, and causes no adverse effect on the floodway.</p>	<p>Power poles will not be allowed to be placed in the floodway.</p>
8-38.6	<p>The floodplain administrator will evaluate each encroachment/development and determine which of the following options will be required.</p> <p><b>Option 1:</b> Compensatory storage may be allowed for all storage lost or displaced in a regulatory floodplain. Hydraulically equivalent compensatory storage requirements for fill or structures in a riverine regulatory floodplain shall be at least equal to 1.5 times the volume of regulatory floodplain storage lost or displaced. Such compensation areas shall be designed to drain freely and openly to the channel and shall be located opposite or adjacent to fill areas. A recorded deed or plat restriction is required to prohibit any modification to the compensation area. The regulatory floodplain storage volume lost below the existing ten-year frequency flood elevation must be replaced below the proposed ten-year frequency flood elevation. The regulatory floodplain storage volume lost above the ten-year existing frequency flood elevation must be replaced above the proposed ten-year frequency elevation; and/or</p>	<p>When fill is placed in the floodplain, 44 CFR 60.3(d)(3) requires that the encroachment does not result in any increase in flood levels. This section allows two options which will satisfy this requirement. Option 1 would be used for small quantities of fill and does not require an expensive flood study. Option 2 is for larger quantities of fill and would require a flood study.</p>

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SECTION	PROPOSED CHANGE	BASIS FOR CHANGE
	<p><b>Option 2:</b> A detailed hydrologic and hydraulic analyses performed in accordance with standard engineering practice that meets the requirements of the NFIP. The analyses may incorporate compensatory storage at hydraulically equivalent sites within the proposed project area as part of the required demonstration.</p>	
8-49	<p><b>Streambank Restoration.</b> Upon approval of the floodplain administrator, shorelines or streambanks that have experienced erosion may be restored to their condition as of the current FIRM in that community without the need to provide compensatory storage for the fill used to restore the eroded area according to the following criteria: The restoration fill shall meet existing grades. Within riverine areas the current effective regulatory floodplain and floodway conveyance shall be maintained. The amount of eroded property being restored shall be documented and submitted by the applicant with certification by a South Carolina licensed surveyor or professional engineer as part of the permit process. Proper documentation shall be either field survey information or photo documentation of the erosion that has occurred for the property being restored. Additionally, an endangered species and wetland verification/certification must also be provided as part of the permit process.</p> <p>All Corp of Engineers regulations must be followed and may require a separate permit. A Greenville County floodplain permit is also required prior to any site disturbance. Placing of the fill shall not significantly alter the alignment of the shoreline with adjoining properties as determined by the administrator or designee.</p> <p>Replacement of banks shall be stabilized to withstand all events up to the base flood without increased</p>	<p>This section was added to help the community know what is required for stream bank restoration projects.</p>

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SECTION	PROPOSED CHANGE	BASIS FOR CHANGE
	<p>erosion.</p> <p>Upon completion of the stream bank restoration project, a SC registered professional engineer must submit documentation with certification that the placement of fill to restore the stream bank has not altered or impacted the configuration of the watercourse, floodway or base flood elevation per the current effective FIRM.</p>	
8-50	Updates the enacted date	This is the date the current ordinance was adopted
8-55	Updates the enacted date	This is the date the current ordinance was adopted

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