

## ORDINANCE NO. 2015 - 4

**AN ORDINANCE FOR THE CITY OF FOREST ACRES, STATE OF SOUTH CAROLINA, PROVIDING THAT THE CODE OF ORDINANCES, CITY OF FOREST ACRES, BE AMENDED BY ADDING SECTION 21.215 TO THE ZONING ORDINANCE OF SAID CODE, PROVIDING FOR WATER QUALITY BUFFER REQUIREMENTS.**

**WHEREAS**, the Mayor and Council of the City of Forest Acres deem it necessary to enact Richland County water quality buffer requirements for streams, ponds, lakes, and wetlands located in the City in order to facilitate enforcement.

**NOW, THEREFORE**, pursuant to the power vested in the Council of the City of Forest Acres by virtue of Section 6-29-310, Code of Laws of South Carolina, 1976, as amended; and to promote and preserve public health, safety and the general welfare of the City;

**BE IT ORDAINED BY THE CITY COUNCIL**, City of Forest Acres:

Section 1. That the Code of Ordinances, Zoning Ordinance of the City of Forest Acres be amended by adding Section 21.215, which shall read as follows:

Sec. 21-215. Water Quality Buffer Requirements.

(a) *Purpose and applicability.* It is the intent of the City to establish minimal acceptable requirements for the design of buffers to protect the streams, wetlands and floodplains of the City; to protect the water quality of watercourses, reservoirs, lakes, and other significant water resources; to protect riparian and aquatic ecosystems; and to provide for the environmentally sound use of the city's land resources.

(1) *Purpose.* A water quality buffer is an area of original or re-established vegetation that borders streams, rivers, ponds, lakes, wetlands, and seeps. Buffers are most effective when stormwater runoff is flowing into and through the buffer zone as shallow sheet flow, rather than concentrated flow such as channels, gullies, or wet weather conveyances. Therefore, it is critical that design of all development include management practices, to the maximum extent practical, that will result in stormwater runoff flowing into the buffer zone as shallow sheet flow. Water quality buffers provide numerous environmental protection and resource management benefits including:

- a. Restoring and maintaining the chemical, physical and biological integrity of the water resources,
- b. Removing pollutants delivered in urban stormwater,
- c. Reducing erosion and controlling sedimentation,
- d. Stabilizing stream banks,
- e. Providing infiltration of stormwater runoff,
- f. Maintaining base flow of streams,
- g. Contributing to the organic matter that is a source of food and energy for the aquatic ecosystem,

- h. Providing tree canopy to shade streams and promote desirable aquatic organisms,
- i. Providing riparian wildlife habitat, and
- j. Furnishing scenic value and recreational opportunity.

(2) *Applicability.* Water quality buffers are required along all perennial and intermittent streams, waterways, shorelines and wetlands according to a USACE jurisdictional determination, to be submitted from the developer and approved by the Zoning Administrator or the designee of the Zoning Administrator (collectively the “Zoning Administrator”) or as provided in an Intergovernmental Agreement. In addition, water quality buffers may be required to protect waters (such as isolated wetlands) pursuant to the S.C. Pollution Control Act, as determined by the Zoning Administrator.

(3) *This Section shall apply to the following:*

- a. All proposed development except for that development which meets the criteria for an exemption as set forth in subsection (b) and/or a waiver as set out in subsection (k).
- b. All surface mining operations to include active surface mining operations which are operating in compliance with an approved DEHC surface mining permit. A copy of the approved surface mining permit shall be provided to the Zoning Administrator.
- c. The construction of agricultural structures as provided by Richland County.
- d. These requirements shall, except as provided in subsections (b) Exceptions and (k) Waivers, apply to all parcels of land, structures and activities which are causing or contributing to:

- 1. Pollution, including non-point pollution, of the waters of the City,
- 2. Erosion or sedimentation of stream channels, or
- 3. Degradation of aquatic or riparian habitat.

(b) *Exemptions.* The water quality buffer requirements shall not apply to the following:

(1) Ephemeral streams, ditches, manmade ponds, and lakes, which are outside of natural hydrologic connectivity.

(2) Any existing structure or structure under construction located within the buffer area, provided the land owner can document prior existence.

(3) The addition or expansion to an existing structure, provided it does not result in an increase in the total impervious area within the buffer area.

(4) Activities associated with emergency operations, such as hazardous materials removal, flood or fire control, evacuations, and storm damage clean up.

(5) Single-family parcels of land, which exist as individual lots that are two (2) acres or less and are not part of a new subdivision development.

(6) *Entitled Property.* Any property that has been subject to: (i) commencement of construction of a building or of any portion of a potable water distribution or transportation system, a sanitary sewer distribution or transportation system, a storm drainage system or a public road; or (ii) commencement of grading or other land disturbance activities in conformance with a valid permit; or (iii) the issuance of a permit to commence any of the foregoing activities; or (iv) approval of subdivision of the property, of planned development district zoning for the property, or of a sketch plan for development of the property. If any of the foregoing has occurred with respect to any property and such property was subsequently subdivided, or in the future is subdivided, by an approved subdivision plat, then all subdivided parcels that were part of the original property shall be considered Entitled Property. Provided, however, this exemption

shall no longer be in effect after January 19, 2017. All entitled property shall comply with stormwater regulations that were in effect prior to January 19, 2010.

If any portion of a parcel proposed for development lies within an area designated on an officially adopted Conservation Easement as a proposed trail or greenway, the developer shall construct the designated improvements in accordance with county standards and dedicate such land to the City or its designee.

**(c) Stream Buffers.**

(1) Stream buffers shall be considered a “no disturb zone” along jurisdictional lines. Vegetation cannot be disturbed, removed or replanted unless a buffer restoration plan has been approved by the Zoning Administrator. Subsection (g) provides requirements to expand the buffer widths depending on slopes, water pollution hazards, or other uses that may contribute to water quality degradation. The buffer width shall be calculated as follows:

a. Along jurisdictional perennial streams identified by the USACE, not associated with a floodplain or wetlands, the buffer shall be at least fifty (50) feet perpendicular from the jurisdictional line on each side of the waterway.

b. In areas where a floodway profile has been computed along a perennial stream (AE Zones) as part of an approved flood study, the buffer area shall be equal to the width of the floodway, but never less than fifty (50) feet.

c. In areas where a floodway profile has not been computed along a perennial stream (A Zones) the developer shall perform a flood study, determine the floodway and follow the buffer requirements outlined above. As an alternative to preparing the flood study, the buffer limits shall extend to the delineated flood plain limits.

d. Along jurisdictional intermittent streams identified by the USACE, the buffer shall be at least fifty (50) feet perpendicular from the jurisdictional line on each side of the waterway. If these streams have associated floodway as described above, the same requirements would apply to have a total width of fifty (50) feet.

e. For delineated wetland areas associated with perennial streams, the buffer shall be at least fifty (50) feet perpendicular beyond the wetland edge. This buffer width is independent of any wetland offset requirements of the USACE.

f. For delineated wetland areas associated with intermittent streams, the buffer shall be at least fifty (50) feet perpendicular beyond the wetland edge. This buffer width is independent of any wetland offset requirements of the USACE.

g. For wetland areas not associated with perennial, intermittent streams, or floodway, the buffer shall be the extent of the wetland area plus an additional fifty (50) feet perpendicular beyond the wetland edge.

(2) Stream Buffer Management and Maintenance. The function of the stream buffer is to protect the physical and ecological integrity of the waterway, to reduce flooding potential, and to filter runoff from all development. The objective of a stream buffer is undisturbed native vegetation.

a. Management of the stream buffer includes specific limitations on alteration of the natural conditions. The following practices and activities are restricted within stream buffers, except with prior approval by the Zoning Administrator:

1. Clearing or grubbing of existing vegetation,
2. Clear cutting of vegetation,
3. Soil disturbance by grading, stripping, or other practices,

4. Filling or dumping,
5. Use, storage, or application of pesticides, herbicides, and fertilizers,
6. Conversion of vegetation from native to exotic species.
7. Motor vehicles are not permitted in stream buffers except during the installation of certain utilities permitted in the buffer zone or bank stabilization.

b. The following structures, practices, and activities are permitted in the stream buffer, subject to prior approval of the Zoning Administrator, and when specific design or maintenance features are adhered to:

1. Stream crossings and utilities:
  - [a] An applicant shall demonstrate that stream crossings are minimized;
  - [b] The right of way should be the minimum width needed to allow for maintenance access and installation;
  - [c] The angle of a crossing shall be as nearly perpendicular to the stream or buffer as practical in order to minimize clearing requirements; and
  - [d] The minimum number of crossings should be used within each development, and no more than one crossing is allowed for every one thousand (1,000) linear feet of buffer zone unless the applicant demonstrates to the Zoning Administrator the need for additional crossings. Where possible, the design of roadways and lots within a development should be aligned such that all streams are either to the rear or the side of individual lots, never along the front.
2. Transportation right-of-ways, pedestrian crossings, public access, boat ramps, docks, fishing platforms, unpaved paths (i.e., trails and greenways), and stream bank stabilization efforts.

3. Utilities are allowed; and shall be installed a minimum distance of twenty-five (25) feet measured perpendicular from the jurisdictional line within the buffer area.

c. In order to maintain the functional value of the stream buffer, indigenous vegetation may be removed as follows:

1. Dead, diseased, or dying trees that are in danger of falling and causing damage to dwellings or other structures may be removed with approval from the Zoning Administrator;
2. Debris in the buffer area that is caused by storm damage may be removed; and
3. Invasive plant species may be removed if they are replaced by native species that are equally effective in retarding runoff, preventing erosion and filtering non-point source pollution from runoff. A buffer restoration plan for removal of invasive species must be approved by the Zoning Administrator.

(d) ***Shoreline Buffers.***

(1) Shoreline buffers shall be considered an area of managed vegetation adjacent to shorelines with hydrologic connectivity (stream leading into/out of the pond/lake or obvious spring input). The shoreline buffer width shall be fifty (50) feet perpendicular from the jurisdictional line. For ponds and lakes, the buffer shall be a minimum of fifty (50) feet from the jurisdictional line.

(2) Shoreline Buffer Management and Maintenance. The function of the shoreline buffer is to protect the physical and ecological integrity of the water body by providing a functional distance to reduce flooding potential, reduce erosion, sedimentation, and filter runoff between development and the water body.

a. Management of the shoreline buffer includes specific limitations on alteration of the natural conditions. The following structures, practices and activities are restricted in the shoreline buffer unless prior approval is granted by the Zoning Administrator:

1. Septic systems;
2. Permanent structures;
3. Impervious cover, with the exception of paths;
4. Soil disturbance by grading, stripping or other practice;
5. Filling or dumping;
6. Stormwater management facilities; and
7. Use, application, or storage of pesticides or herbicides except for the spot spraying of noxious weeds or other non-native species consistent with approved City or Richland County recommendations.

b. The following structures, practices, or activities are permitted in the shoreline buffer, subject to the prior approval of the Zoning Administrator:

1. Biking or hiking paths;
2. Recreational uses as approved by the Zoning Administrator; and
3. Limited tree or underbrush clearing with approval from the Zoning Administrator.

(e) ***Water Quality Buffer Plat Requirements.*** All preliminary, bonded and final plats prepared for recording and all right-of way-plats shall clearly:

(1) Show the extent of any stream or shoreline buffer on the subject property by metes and bounds;

(2) Label the stream and shoreline buffer;

(3) Provide a note to reference all buffers stating: "There shall be no clearing, grading, construction or disturbance of vegetation except as permitted by the Zoning Administrator";

(4) Provide a note to reference any protective covenants governing all buffer areas stating: "Any buffer shown on the plat is subject to protective covenants which may be found in the land records and which restrict disturbance and use of these areas";

(5) If the buffer area will not be part of an individual lot, then ownership must be stated by identifying who is the responsible party; and

(6) Provide the location of permanent boundary marker signs.

(f) ***Design Requirements.***

(1) The buffer plan must be submitted in conjunction with the sediment and erosion control plan, Storm Water Pollution Protection Plan (SWPPP) document, and all applicable calculations for a land disturbance permit.

(2) It is recommended that the buffer be marked off with a warning barrier (orange safety fence) to show that no disturbance is allowed in the buffer area.

(3) The following steps shall be taken during the site plan development and site construction process to protect water quality buffers during construction:

a. Water quality buffers must be clearly identified on all stormwater management plans and construction drawings and marked with the statement "Water Quality Buffer. Do Not Disturb".

b. Water quality buffers cannot be encroached upon or disturbed during project construction, unless in accordance with Subsection (b), Subsection (k) or unless being established, restored, or enhanced in accordance with an approved Buffer Enhancement Plan.

c. Water quality buffers must be clearly marked with a warning barrier before the preconstruction conference. The marking shall be maintained until completion of construction activities. All contractors and others working on the construction site must be made aware of the existence of the buffer(s) and the restrictions on disturbing the buffer(s).

d. All areas of the water quality buffer, including stream banks, must be left in the existing condition upon completion of construction activities. Should construction activities associated with development cause degradation to stream banks, all eroding, bare or unstable stream banks shall be restored to existing conditions.

e. If any trees are allowed to be removed, the tree location shall be shown and a note shall be provided stating that the tree must be hand cleared (See Tree protection Sec 21.152).

f. The location of all buffer signage must be clearly shown on plans.

g. A narrative stating the extent of the buffer areas, including any allowed disturbance in the buffer areas, must be included with the plans.

h. A double row of silt fence shall be shown on the upstream side of applicable buffer area(s) that are adjacent to a land disturbance.

i. The stream buffer shall be shown and labeled on the engineering plans, preliminary, bonded and final plat.

j. If the stream buffers are dedicated to the City, placed in a conservation easement, or turned over to a Homeowners Association (HOA) or remain under private ownership, the buffers shall be maintained in accordance with the maintenance and inspection requirements for permanent storm water management structures.

1. If the buffer is dedicated to the City:

[a] All property lines shall terminate at the water quality buffer.

[b] Access easements shall be a minimum twenty (20) foot wide to allow maintenance of the buffer. Access points for these easements will be coordinated with storm drainage easements during the plan review process.

2. If placed in a conservation easement or if the easement is held by a viable third party, such as a land trust, land management company, or utility, the organization shall:

[a] Have the legal authority to accept and maintain such easements;

[b] Be bona fide and in perpetual existence; and

[c] Have conveyance instruments that contain an appropriate provision for retransfer in the event the organization becomes unable to carry-out functions.

3. If given to an HOA, the following criteria must be met:

[a] Membership in the HOA is mandatory and automatic for all homeowners for the subdivision and their successors;

[b] The HOA shall have lien authority to ensure the collection of dues from all members; and

[c] The HOA assumes the responsibility for protecting, monitoring and maintaining the area as an undisturbed natural area, in perpetuity.

k. It is recommended that the buffer be marked off with a warning barrier (orange safety fence) to show that no disturbance is allowed in the buffer area.

(4) Shoreline buffers shall be shown and labeled on the engineering plans. Shoreline buffers shall be maintained by the owner in accordance with the maintenance and inspection requirements for permanent storm water management structures outlined in this chapter. Shoreline buffers may be placed in a conservation easement, or given to the HOA as outlined in this subsection (f)(3)j.

(g) **Water Quality Buffer Width Adjustments.** Adjustments to the buffer width shall be made for the following conditions:

(1) If streams are on a current 303d list or with an approved TMDL, the buffer area shall be increased to one hundred (100) feet. [See also Subsection (g)(8)].

(2) If water bodies are on DHEC'S Outstanding National Resource Waters (ONRW) list, the buffer area shall be increased to one hundred (100) feet. [See also Subsection (g)(8)].

(3) If there are fifteen percent (15%) to twenty-four percent (24%) slopes within the required buffer area, the buffer width must be adjusted to include an additional ten (10) feet.

(4) If there are twenty-five percent (25%) or greater slopes within the required buffer area width, the buffer width must be adjusted to include an additional twenty-five (25) feet.

(5) If the adjacent land use involves drain fields from on-site sewage disposal and treatment systems (i.e., septic systems) the buffer area width must be adjusted to include an additional twenty-five (25) feet.

(6) If the land use or activity involves raised septic systems or junkyards, the buffer area width must be adjusted to include an additional two hundred (200) feet. [See subsection (g)(8)].

(7) If all on-site stormwater runoff is captured and routed through a permanent water quality basin, and there is no sheet flow discharging into the buffer, the buffer area may be reduced to twenty-five (25) feet. This is intended to apply in limited situations, such as small commercial developments.

(8) If the applicant satisfactorily demonstrates that there will be no degradation of the receiving water body by implementing the proposed storm water quality controls, then the established buffer may be reduced on a case by case basis upon approval by the Zoning Administrator.

(h) **Water Quality Buffer Averaging.** This subsection outlines the criteria for buffer averaging on new and redevelopment sites. Buffer averaging can be utilized to adjust the required buffer width, allowing some flexibility for site development. Using buffer averaging, the width of the buffer can be varied with the criteria stated below, as long as a minimum average width of fifty (50) feet from the jurisdictional line are maintained.

(1) Requirements and policies. The following criteria must be met in order to utilize buffer averaging on a development site:

a. Buffer averaging is required for water quality buffers that have stream crossings.

b. An overall average buffer width of fifty (50) feet, depending on the water quality buffer requirement, must be achieved within the boundaries of the property to be developed.

c. The average width must be calculated based upon the entire length of the stream bank or shoreline that is located within the boundaries of the property to be developed. When calculating the buffer length, the natural stream channel should be followed.

d. Stream buffer averaging shall be applied to each side of a stream independently. If the property being developed includes both sides of a stream, buffer averaging can be applied to both sides of the stream, but must be applied to each side of the stream independently.

e. That portion of buffers in excess of one hundred (100) feet will not be credited toward the buffer averaging formula within the boundaries of the property to be developed. The total width of the buffer shall not be less than twenty-five (25) feet, or the width of the floodway at any location, except at approved stream crossings. Those areas of the buffer having a minimum

width of twenty-five (25) feet (or less at approved stream crossings) can comprise no more than fifty percent (50%) of the buffer length.

(2) Areas where buffer averaging is prohibited. Buffer width averaging is prohibited when the result of averaging would allow any of the land uses listed below to exist within the pre-averaged buffer area:

- a. Developments or facilities that include on-site sewage disposal and treatment systems (i.e., septic systems);
- b. Commercial facilities that store and/or service motor vehicles;
- c. Commercial greenhouses or landscape supply facilities;
- d. Developments or facilities that have commercial or public pools;
- e. Animal care facilities, kennels, and commercial/business developments or facilities that provide short-term or long-term care of animals;
- f. Other land uses deemed by the Zoning Administrator to have the potential to generate higher than normal pollutant loadings.

(i) **Signage.** For subdivisions, permanent boundary marker signs are required for stream buffers prior to bonding of the subdivision and/or finalizing the subdivision with the intent to transfer property. Permanent boundary markers are required to ensure that property owners are aware of the buffer. Permanent boundary markers are recommended, but not required, in shoreline buffers. The Zoning Administrator has the authority to require the person or entity responsible for permanent maintenance of the buffer to replace boundary markers that have been removed or destroyed. The following general requirements shall apply to buffer boundary markers:

(1) Generally, buffer boundary markers shall be located on the landward edge of the buffer, and at other locations which will approximately delineate the buffer boundary. For commercial developments, markers shall be posted every one hundred (100) feet along the buffer boundary. For subdivisions where multiple lots are located along the buffer, it is recommended that a buffer boundary marker be located at the intersection of every other lot line with the landward edge of the buffer.

(2) Buffer boundary markers shall include the statement "Water Quality Buffer - Do Not Disturb".

(3) Where possible, the markers should be mounted to a tree larger than three (3) inches in diameter. Where it is not possible to mount the marker to a tree, a treated wood or metal signpost must be used. The post must extend below the ground surface at least twenty four (24) inches.

(4) The boundary markers must be mounted between four (4) and six (6) feet above the ground surface.

(5) The boundary markers must be at least twelve by eighteen inches (12"x 18").

(j) **Buffer Restoration and Enhancement Plans.** Buffer restoration is required when a buffer is disturbed without prior approval from the Zoning Administrator. A developer or property owner may also wish to enhance a buffer to bring it closer to an optimal, undisturbed native forest condition. Prior to reestablishing or planting the buffer, a restoration or enhancement plan must be submitted to and approved by the Zoning Administrator. Buffer restoration and/or enhancement plans must include the following:

(1) A drawing or plan that shows the location of the buffer in relation to the existing or planned development and to the buffered waterway; the disturbance limits for the planned buffer restoration; direction of flow of runoff from the site and flow within the water feature; erosion prevention and sediment control measures to be installed to protect the waterway; any existing or proposed stream crossings; existing or proposed stream bank stabilization measures; access to a water source for the purposes of watering vegetation; and other pertinent information. For large scale restoration and enhancement projects the plan(s) must be stamped by a registered landscape architect.

(2) A visual plan and a narrative that describe the vegetation plan for the buffer: stream buffers must be planted with native trees, shrubs, and grasses that will not be mowed. Suitable native plants can be chosen from the recommended plant species, as listed in the “Stormwater Design Manual”. Species of plants other than those listed on the pre-approved list shall be approved by the Zoning Administrator prior to planting.

(k) *Waivers.*

(1) No waiver shall be granted to alter a buffer established pursuant to this section unless the Zoning Administrator determines that a hardship exists and relief meets the general purpose and intent of this Section. Within Water Quality Protection Areas, no waiver shall be granted unless the applicant demonstrates that alternative protection measures can be provided that exceed the protection afforded by the established buffer. In no case will the buffer be reduced to less than twenty five (25) feet from the jurisdictional line.

(2) In granting a request for a waiver, the Zoning Administrator may require site design, landscape planting, fencing, the placement of signs, and the establishment of water quality best management practices in order to reduce adverse impacts on water quality, streams, wetlands, and floodplains.

(3) Waiver requests shall only be considered if a request meets any of the criteria listed below.

a. The project involves construction of:

1. One single-family home for residential use by the owner of the property; and

2. The property has an unusual shape or topography and there is no opportunity to develop under any reasonable design configuration.

b. The project involves the construction or repair of a structure which, by its nature, must be located within the buffer:

1. Dams;

2. Docks, and boat launches;

3. Stabilization areas of public access to water;

4. Buffer intrusion is necessary to provide access to the property; or

5. Project will:

[a] Require a Wetland Permit from USACE for impacts to jurisdictional wetlands; and

[b] The USACE has approved a mitigation plan; and

[c] Implementation of the plan in a 404 permit condition.

(4) Buffer Waiver Submittal Requirements.

a. The applicant shall submit a written request for a waiver to the Zoning Administrator. The request shall include specific reasons justifying the waiver and any other information necessary to evaluate the proposed waiver request. The Zoning Administrator may require an

alternative analysis that clearly demonstrates that no other feasible alternative exist and that minimal impact will occur as a result of the project or development.

b. The Zoning Administrator shall make a determination and decision concerning the waiver request. Any appeal shall be filed and heard by the Zoning Board of Appeals as set forth in sections 21-236 through 21-243.

Section 3. That all ordinances or parts of ordinances in conflict with this ordinance are hereby repealed.

Effective Date. The effective date of this ordinance shall be immediately upon its passage.

**ORDAINED AND ADOPTED** under the Corporate Seal of the City of Forest Acres, State of South Carolina, this 9<sup>th</sup> day of June, 2015.

  
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MAYOR

  
\_\_\_\_\_  
COUNCILPERSON

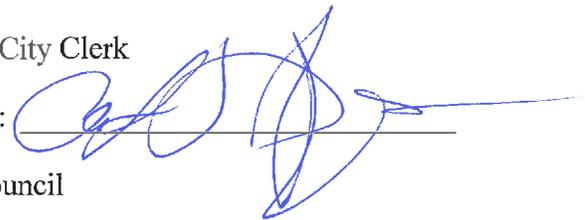
  
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ATTEST:

  
\_\_\_\_\_  
City Clerk

Approval of City Attorney as to Form:   
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Person Requesting Ordinance: Council

First Reading: May 12, 2015

Second Reading: June 9, 2015

Public Hearing: April 20, 2015

Planning Commission Recommendation: Approval