Article 10.0 Natural Resource Standards

Sec. 10.1 Generally

The purpose of this Article is to protect open spaces, natural resources and the character of our community in a manner that preserves and cultivates a unique sense of place while balancing economic well-being, protecting the quality of water and land, and minimizing the present and future vulnerability to natural and man-made hazards.
Sec. 10.2  Protected River Corridor Buffer

10.2.1 Purpose

The Protected River Corridor Buffer limits certain land disturbing activities and uses within a designated buffer in the areas of a perennial stream or watercourse with an average annual flow of at least 400 cubic feet per second pursuant to the provisions of the O.C.G.A. §12-2-8 of the Georgia Planning Act of 1989, as amended. The buffer aids in the protection of natural resources and the environment, including, but not limited to, the protection of river corridors; watersheds of streams and reservoirs that are used for public water supply; the purity of ground water; and, wetlands.

10.2.2 Applicability

a. The Protected River Corridor (PRC) buffer applies to those sections of the Ogeechee River not within the jurisdiction of Georgia Planning Act of 1989. The buffer includes all parcels adjacent to the Ogeechee River from the Chatham County boundary with Effingham County, east to U.S. Highway 17 that are located within the city limits of Savannah.

b. For the purposes of this Section, “river corridor” shall mean all land inclusive of islands, of a protected river as measured in Sec. 10.2.3.a.

10.2.3 Buffer Standards

a. Measurement of Buffer

The 100-foot buffer shall be measured horizontally from the uppermost part of the river bank, usually marked by a break in slope and often with a change in vegetative cover type for non-tidal areas and from mean high water in tidal areas. Although not within the measured 100-foot wide buffer, the area between the uppermost part of the riverbank and the edge of the river shall be treated in the same manner as the buffer.

b. Buffer Vegetation

All areas lying within 100 feet, on both sides of the protected river corridor shall consist of a native, undisturbed vegetative buffer. Such vegetative buffer shall not be removed, altered, or otherwise diminished, except as provided for in this Section.
Except as allowed in Sec. 10.2.5, land disturbance within the river corridor shall be prohibited. Where land disturbance is authorized pursuant to these regulations, a native, vegetative buffer must be restored within 30 days of cessation of the land disturbance, if no construction is to follow, or within 30 days of the completion of the construction.

10.2.3 Relationship to Base Zoning Districts
In all zoning districts within the boundaries of the PRC buffer, the standards for both the base zoning district and the PRC buffer shall apply. Should there be a conflict between the standards of the base zoning district and the standards of the PRC buffer, the standards of the PRC buffer shall apply.

10.2.4 Permitted Uses and Activities
Within the PRC buffer, the following uses may be permitted provided that such uses are permitted within the base zoning district. Uses permitted within the base district, which are not listed below, are prohibited. The use standards listed below are in addition to those in Article 8.0, Use Standards. Where there is a conflict between the use standards in Article 8.0 and those listed below, the standards of the PRC buffer shall apply.

a. Single-Family Residential Detached
Single-family detached dwellings may be permitted, provided that:
   i. The dwelling is located on a tract of land containing at least two (2) acres, excluding any area that lies between the banks of the protected river; provided, however, that lots of record that are less than two (2) acres as of the Effective Date of this Ordinance may be developed in accordance with this Section.
   ii. There is only one (1) such dwelling on each two (2) acre tract of land; and
   iii. Septic tanks and septic drain fields are not located within the PRC buffer.

b. Tree Farming / Forestry
Tree farming, forestry and harvesting are permitted, provided that:
   i. Forestry activity shall be consistent with best management practices established by the Georgia Forestry Commission; and
   ii. Forestry activity shall not impair the drinking quality of the river water as defined by the Federal Clean Water Act, as amended.

c. Wildlife Management and Fishing Operation
Wildlife management and commercial fishing operation activities shall be allowed, provided that they are consistent with the purposes of O.C.G.A. §12-2-8, as amended.

d. Park
Passive recreational usage consistent either with the maintenance of a natural vegetative buffer or with non-motorized river dependent recreation shall be permitted. Paths and walkways consisting of pervious materials are consistent with this criterion. Parking lots are not consistent with this criterion. No impervious surfaces shall be permitted.

e. Dock, Private

f. Dock, Residential Community
10.2.5 Violation and Penalty

Violations of any provision of this Ordinance shall be subject to enforcement in accordance with Article 12.0, Violations, Penalties and Enforcement.
Sec. 10.3 Groundwater Recharge Area

10.3.1 Purpose
The purpose of a groundwater recharge area is to protect groundwater quality by restricting land uses that generate, use or store pollutants within groundwater recharge areas. In addition, this Section establishes minimum sizes for lots within groundwater recharge areas that are served by on-site sewage management systems pursuant to provisions of O.C.G.A. §12-2-8 of the Georgia Planning Act of 1989 and O.C.G.A. §12-16-1 of the Georgia Environmental Policy Act related to environmental planning criteria.

10.3.2 Boundaries
The boundaries of the Groundwater Recharge Area shall correspond to areas as defined by the Georgia Department of Natural Resources Pollution Susceptibility Map in the Hydrologic Atlas, latest edition.

10.3.3 Applicability
Prior to the issuance of a building permit or a demolition permit, the City Manager or his or her designee shall assess whether the proposed activity is located within a groundwater recharge area as identified by the Georgia Department of Natural Resources on the Pollution Susceptibility Map in the Hydrologic Atlas, latest edition. All lands identified as groundwater recharge areas shall be subject to the development standards in this Section.

10.3.4 Development Standards
Groundwater recharge areas shall adhere to the following development standards:

a. Secondary Containment for New Above-Ground Storage Tanks
All new above-ground chemical or petroleum storage tanks shall have secondary containment for 110% of the volume of such tanks or 110% of the volume of the largest tank in a cluster of tanks.

b. Liners for New Agricultural Waste Impoundment Sites
New agricultural waste impoundment sites shall be lined if they are within:

i. A high pollution susceptibility area;

ii. A medium pollution susceptibility area and exceed 15 acre-feet in size; or

iii. A low pollution susceptibility area and exceed 50 acre-feet in size.

At a minimum, the liner shall be constructed of compacted clay having a thickness of one (1) foot and a vertical hydraulic conductivity of less than 5x10^{-7} cm/sec or other criteria established by the Natural Resource Conservation Service. Applications for a building permit for a new agricultural waste impoundment site that requires a liner under the provisions of this subsection shall include a site development plan that shows the location and design of the liner.

c. On-Site Sewage Management System Tanks and Drain Fields

i. No construction may proceed on any building or manufactured home to be serviced by an on-site sewage management system tank and drain field without applying for and obtaining an On-Site Sewage Management System Construction Permit from the Chatham County Health Department as stated in Chapter 290-5-26 On-Site Sewage Management Systems of the Georgia Department of Public Health.

ii. As provided in Chapter 290.5.26.7 Absorption Fields of the On-Site Management Systems of the Georgia Department of Public Health, no absorption field shall be
installed in areas where groundwater, soil characteristics or adverse geological formation may interfere with the absorption or effective treatment of sewage effluent.

iii. New lots shall meet the minimum lot sizes as identified in the rules of the Georgia Department of Natural Resources Chapter 391-1-16 Rules for Environmental Planning Criteria. In no case shall the minimum lot size be less than that allowed by the base zoning district.

d. **Impervious Surfaces for Hazardous Materials Handling Operations**

Within all pollution susceptibility areas, new facilities that handle hazardous constituents in amounts of 10,000 pounds or more on any one day shall perform their operations on impervious surfaces and in conformance with any applicable Federal spill prevention requirements and the City of Savannah Fire and Life Safety Code requirements. This provision shall not apply to underground storage tanks. Applications for a building permit for hazardous materials handling operations as defined in this subsection shall include a site plan that shows the location and design of any required spill and leak collection systems.

e. **Permanent Stormwater Infiltration Basins**

Permanent stormwater infiltration basins shall not be constructed in areas having high pollution susceptibility.
Sec. 10.4 Wetlands Assessment

10.4.1 Purpose
The purpose of this Section is to provide notice to applicants seeking land disturbance, building or demolition permits that such proposed activities may also require an additional permit from the U.S. Army Corps of Engineers where there is a potential for disturbance of a jurisdictional wetland.

10.4.2 Applicability
This Section applies to any proposed activity that is located within a wetland inventory area or within 100 feet of a wetland inventory area as defined by either the current U.S. Environmental Protection Agency West Chatham County Advance Identification Map of Wetlands and Uplands (ADID map) or the current U.S. Fish and Wildlife Service National Wetlands Inventory (NWI) map for Chatham County.

10.4.3 Exceptions
The provisions in Sec. 10.4.2 of this Section shall not apply if the applicant can provide to the City Manager or his or her designee a valid U.S. Army Corps of Engineers wetland delineation that verifies that the proposed activity is not located within jurisdictional wetlands, or a valid U.S. Army Corps of Engineers permit or letter that authorizes the proposed activity within jurisdictional wetlands. If such evidence of compliance with U.S. Army Corps of Engineers permitting requirements is provided, normal procedures shall be followed for issuing a land disturbance, building or demolition permit.

10.4.4 General Provisions

a. Assessment
The assessment of whether the proposed activity involves land disturbance that is located within a wetland inventory area or within 100 feet of a wetland inventory area shall be conducted as follows:

i. The City Manager or his or her designee shall make such assessment prior to the issuance of a land disturbance permit.

ii. The City Manager or his or her designee shall make such assessment prior to the issuance of a building or demolition permit.

In conducting this assessment, the current ADID map shall be consulted first. If the proposed development is not located within the study area defined on the ADID map, the current NWI map for Chatham County shall then be consulted.

b. Determination

i. If a determination is made that the proposed land disturbance is not located within a wetland inventory area or within 100 feet of a wetland inventory area, normal procedures shall be followed for issuing a land disturbance, building or demolition permit.

ii. If a determination is made that the proposed land disturbance is located within a wetland inventory area or within 100 feet of a wetland inventory area, a U.S. Army Corps of Engineers jurisdictional wetland determination shall be required prior to issuance of a land disturbance, building or demolition permit.

(1) If the U.S. Army Corps of Engineers determines that a U.S. Army Corps of Engineers permit is required, a land disturbance, building or demolition permit shall be issued only following issuance of such permit.
If the U.S. Army Corps of Engineers determines that the proposed activity would not require a U.S. Army Corps of Engineers permit, normal procedures shall be followed for issuing a land disturbance, building or demolition permit.

10.4.5 Effect of Wetlands Assessment

Wetlands inventory areas as identified above and defined in Sec. 13.2, Defined Terms, General, may not necessarily represent jurisdictional wetlands within the city and cannot serve as a substitute for a jurisdictional wetland determination or a wetlands delineation. No permit issued pursuant to these regulations relieves a landowner from federal or state permitting requirements.
Sec. 10.5 Wetland and Marsh Buffers

10.5.1 Purpose

The purpose of this Section is to establish wetland and marsh buffers and to set forth standards by which specified activities may occur in such buffers.

10.5.2 Intent

Wetlands and marshes are a vital part of the ecosystem. To prevent or minimize possible damage from activities that may degrade, destroy or otherwise negatively impact the value and function of wetlands and marshes, wetland and marsh buffers are required. Wetlands and marsh buffers have multiple purposes, including:

a. Serving as a natural storage area for high waters and absorbing rainfall into the soil thereby minimizing flooding potential;

b. Serving as a sediment and stormwater control mechanism that maintains water quality by filtering suspended solids, nutrients, and harmful or toxic substances from stormwater runoff before it enters nearby waters;

c. Helping to provide clean ground and surface drinking water supplies and maintaining the chemical, physical and biological integrity of open bodies of water;

d. Providing temporary refuge for wetland fauna during high water episodes and critical habitat for animals dependent upon but not resident in wetlands and marshes;

e. Accommodating slight variations of wetland and marsh boundaries over time due to hydrologic or climatologic effects; and

f. Serving as an ecological transition zone to reduce the impacts of development upon wetland and marsh vegetation, wildlife and fish habitats, and nursery areas for fisheries.

10.5.3 Applicability

a. This Section shall apply to all land and land disturbing activities within a wetland or marsh buffer except where exempted below.

b. In addition to this Section, additional ordinances and policies may also apply to any land disturbance within a wetland or marsh buffer, including Part 8 (Planning and Regulation of Development), Chapter 6 (Soil Erosion and Sedimentation Control) of the City of Savannah Code of Ordinances.

c. This Section is not intended to interfere with, abrogate or annul any other section, rule or regulation, statute or other provision of law. The requirements of this Section should be considered minimum requirements. Where any provision of federal law, state law, state regulation or this Section imposes restrictions or protective standards different from those imposed by any other section, rule, regulation or other provision of law, the more restrictive provision applies.

d. Approval of or exemption from the requirements of this Section does not constitute approval or exemption from buffer requirements established under other applicable local, state or federal regulations.

e. Docks, piers, boat ramps and marinas are exempt from this Section.

f. Construction of bulkheads, groins, revetments and any other shoreline engineering activities are exempt from this Section. However, any land disturbing activity associated with such construction or shoreline engineering activities that encroaches into the buffer must satisfy the requirements of this Section.
10.5.4 Buffer Width

A buffer width of 35 feet is required for all wetland and marsh buffers.

a. **Wetland Buffer**

Wetland buffers are a minimum of 35 feet and are required along jurisdictional wetlands. The buffers shall be measured from the United States Army Corps of Engineers approved Jurisdictional Determination and/or the United States Army Corps of Engineers delineation of the waters on the site.

![Figure 10.5-1 Wetland Buffer](image)
b. **Marsh Buffer**

Marsh buffers are a minimum of 35 feet and are required along all marsh. As required by O.C.G.A. §12-7-1, the Georgia Erosion and Sedimentation Control Act, the state buffer is 25 feet and shall be measured from the Department of Natural Resources jurisdictional marsh line as established by Coastal Resources Division in accordance with the Coastal Marshlands Protection Act of 1970. The remaining 10 feet is a local buffer and is measured from the state buffer in accordance with O.C.G.A. §12-7-1 et seq., Georgia Erosion and Sedimentation Control Act.

**10.5.5 Prohibited Activities and Uses within the Buffer**

Unless otherwise provided in Sec. 10.5.6, the following are prohibited activities within wetland and marsh buffers:

a. Soil disturbance which includes but is not limited to grading, stripping of topsoil, plowing, cultivating or other similar practices;

b. Clearing of vegetation;

c. Burning of vegetation;

d. Filling;

e. Dumping;

f. Application of pesticides, herbicides or chemical fertilizer;

g. The keeping, grazing or maintenance of animals;

h. Storage;

i. Masonry and wrought iron fencing and any column greater than 36 square inches and no closer than four (4) feet on center spacing; and

j. Septic systems.

**10.5.6 Permitted Activities and Uses within the Buffer**

The following activities are permitted subject to approval of a Modified Wetland and Marsh Buffer Permit:

a. Public sewer line easements paralleling the water, lake, impoundment, wetland, and/or marsh, except that all easements (permanent and construction) and land disturbance should be at least 25 feet from the mean high water line in coastal marsh and wetlands or the top of the bank for streams, lakes, and impoundments. This includes such impervious surface as is necessary for the operation and maintenance of the utility, including but not limited to manholes, vents and valve structures. This exemption shall not be construed to allow the construction of roads, bike paths, or other transportation routes in such easements, regardless of the type of paving material used.
b. Land disturbing activities by governments within public rights-of-way existing as of the Effective Date of this Ordinance or approved under the terms of this Section. Development activities are allowed only if they cannot reasonably be located outside the buffer.

c. Land disturbing activities within utility easements existing as of the Effective Date of this Ordinance or approved under the terms of this Section when necessary for the operation and maintenance of the utility, including but not limited to manholes, vents and valve structures.

d. Emergency maintenance and repairs necessary to preserve life and/or property. However, when emergency work is performed under this Section, the person performing it shall report such work to the City Manager or his or her designee within 48 hours of the commencement of the work. The City Manager or his or her designee shall require mitigation of any negative impacts such emergency work may have caused to the buffer or to water conveyance capacity, stability or water quality.

e. Forestry or silvicultural activities on land that is zoned for forestry or silvicultural uses, provided these activities are not incidental to other land disturbing activity and are conducted using applicable best management practices. If such activity results in land disturbance in the buffer that would otherwise be prohibited, no land disturbing activity other than normal forest management practices will be allowed on the entire property for three (3) years after completion of such forestry and silvicultural activities.

f. Crossings for water lines or for sewer lines provided that they:
   i. occur at an angle, as measured from the point of crossing, within 25 degrees of perpendicular to the wetland or marsh;
   ii. cause a width of disturbance of not more than 50 feet within the buffer; and
   iii. adequate erosion control measures are incorporated into the project plans and specifications and are implemented.

g. Activities for the purpose of constructing public water supply intake, public wastewater outfall structures or stormwater outfalls.

h. Activities to restore and improve vegetation, water quality and/or aquatic habitat.

i. Any trimming or pruning of vegetation for the purpose of creating a keyhole view corridor and/or access path. This shall not allow for the removal of trees.

j. Creation of an access path to water-dependent uses through the buffer.

k. Individual trees in the buffer may be removed only if they are in danger of damaging real property or are diseased, upon approval by the City Manager or his or her designee.

l. Structural maintenance and repair of any damaged structure (including replacement only within the same or lesser footprint) that existed in the buffer as of the Effective Date of this Ordinance. This activity may only occur outside of the state buffer.

10.5.7 Modified Wetland or Marsh Buffer Permit

Land disturbing activity proposed within a wetland or local marsh buffer shall not occur until approval of a Modified Wetland or Marsh Buffer Permit from the City Manager or his or her designee has been obtained.

a. Applicability

A Modified Wetland or Marsh Buffer Permit may be issued only if the land disturbing activity constitutes one of the following:
   i. Any activity listed in Sec. 10.5.6.
ii. A land disturbing activity that results in a reduction of buffer width over a portion of a parcel, in exchange for an increase in buffer width elsewhere on the same parcel, provided that the average buffer width on the entire parcel equals 35 feet and the buffer width at any given point on the parcel is not less than 25 feet; and, provided further, that all non-native plants within the disturbed area(s) are replaced with native plants as identified in the Coastal Riparian Buffer Planting Manual, as amended; or

iii. The replacement of non-native plants with native plants as identified in the Coastal Riparian Buffer Planting Manual, as amended.

b. Application Requirements

i. For any proposed land disturbance activity within a marsh or wetland buffer, the following information shall be shown on the site development plan, plat or other required document, as applicable:

(1) The location of all riparian lands, including jurisdictional wetlands and marshes, within and adjacent to the wetland or marsh buffer;

(2) The existing and proposed boundaries of the buffer, including any state and local buffers; and,

(3) A description of the land disturbance activities and any structures that are proposed within the buffer, if any.

(4) A copy of the Jurisdictional Determination letter as issued from the State of Georgia or the U.S. Army Corps of Engineers,

(5) A plan that shows how each Best Management Practice (BMP) will be achieved or the redirection of flow to include all necessary calculations and topography.

ii. To remove non-native plants or turf grasses or install native plants as identified in the Coastal Riparian Buffer Planting Manual, as amended, a landscape plan detailing these efforts shall be submitted to the City Manager or his or her designee before any work begins.

iii. The City Manager or his or her designee may request additional information necessary to review the application.

c. Criteria for Approval

The City Manager or his or her designee can approve a modification to the local buffer after making a determination that there is no feasible alternative design that would result in no disturbance to the buffer. If there is no feasible alternative design, the proposed disturbance shall be the minimum disturbance necessary to accomplish the purpose of the proposed land disturbance activity.

In order for a modification of the buffer to be approved, compliance with the following standards is also required:

i. The proposed land disturbance will be conducted in accordance with all design guidelines, Low Impact Development techniques, and other guidance found in the Coastal Riparian Buffer Guidance Manual, as amended; and

ii. If a decrease in the average buffer width is allowed then BMPs must be installed or flow must be directed to the increased buffer areas referenced in Sec. 10.5.7 a.ii.

10.5.8 State and Federal Variances

When a variance is granted by a state or federal agency to allow specified activities within a state or federal buffer, such activities shall also be allowed in the local buffer. When a variance is granted by a state or federal agency to reduce the required state or federal buffer width, the local buffer
shall not be required in the case of a marsh buffer or, in the case of a wetland buffer, shall be reduced to be consistent with the reduction in the state or federal buffer.

10.5.9 Inspection

The City Manager or his or her designee shall inspect work in the buffer and shall make a final inspection following completion of the work. The City Manager or his or her designee shall have the authority to enter at a reasonable time upon any property, public or private, for the purpose of investigating and inspecting the sites of any land disturbing activities within the buffer.