

ARTICLE XII. ENVIRONMENTAL PERFORMANCE STANDARDS

Section 12.1 Purpose

Dorchester County contains a wide variety of natural resources. These resources support a diversity of plant and animal populations, create an environment that supports a high quality of life, provide opportunities for recreation, and contribute to the well being and enjoyment of the citizens of the County. The County encourages the preservation of forested tracts of property and the utilization of open space within developed areas. These resources also help maintain adequate drainage and prevent flooding in many portions of the County.

In order to maintain the benefits that result from the County's natural resources, all applicable development must adhere to certain standards regarding the alteration of natural resources. These standards involve how development occurs, not how much development is allowed.

Section 12.2 Flood Hazard Areas

12.2.1 It is the responsibility of each developer or landowner to ascertain whether a proposed structure is situated on land designated as a flood hazard area by the Federal Emergency Management Agency. Any structure located in a designated flood hazard area must meet the applicable construction and locational standards established by the Federal Emergency Management Agency, Dorchester County's Flood Hazard Ordinance 79-13, as amended, and the adopted building codes.

12.2.2 The Zoning Administrator will identify, and maintain a current map of, areas within the County for which a documented history of frequent flooding can be developed. For any development proposed within one of these designated flood-prone areas, or on adjoining property either upstream or downstream from the designated flood-prone area, the developer must submit a drainage plan, prepared by a certified engineer that will ensure that:

- (a) structures built on the property will not be flooded and roads serving these structures will remain passable, as a consequence of a 10-year rainfall event; and
- (b) development on the site will not significantly increase the incidence or severity of flooding either upstream or downstream.

The drainage plan must be submitted to the Zoning Administrator for approval as required in the Dorchester County Drainage Ordinance 84-09, as amended, prior to the commencement of any land altering activity.

Section 12.3 Wetlands Protection

The following provisions shall be considered minimum regulations. Under no circumstances shall this Ordinance be deemed to authorize the violation of state and federal wetlands protections and regulations, the Dorchester County stormwater and drainage regulations, or other County regulations.

12.3.1 General Wetlands Provisions

- (a) For purposes of this Ordinance, wetlands are defined as those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances to support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include marshes, swamps, bogs and similar areas
- (b) The alteration of wetlands is discouraged.
- (c) For wetlands subject to the jurisdiction of the Office of Coastal Resource Management and/or U. S. Corp of Engineers, required permit to alter wetlands must be obtained prior to any application for development approval and/or building permit to the County and prior to commencement of any land alterations.
- (d) For wetlands not subject to the jurisdiction of either the SC DHEC Office of Ocean and Coastal Resource Management (former Coastal Council) or the U. S. Army Corp of Engineers, the Zoning Administrator may permit the following alterations:
 - (1) Pilings for docks and piers;
 - (2) Alterations that are part of comprehensive site drainage plan Section 12.2;
 - (3) Necessary alterations for required roads; for purposes of this exception, an alteration is considered necessary when there is no reasonably available alternative involving no, or lesser degree of, alteration;
 - (4) Such alteration either which is deemed by the Zoning Administrator to be in the best interest of the public or which are fully permitted by other applicable government agencies.

Section 12.4 Tree and Canopy Protection Standards

12.4.1 Intent

The natural landscape and tree canopy in Dorchester County shall be conserved and enhanced to the following ends: to protect and enhance property values; to maintain the pastoral integrity of the landscape of the county; to preserve and enhance wildlife habitat; to control storm water erosion; to reduce flooding; to provide ambient cooling; to improve air quality; to mitigate negative effects of externalities such as noise, odor, dust, and light glare; and to beautify the county.

12.4.2 Tree Classifications

Trees protected by ordinance are defined and categorized as follows. Any tree defined in subsections (a) through (c), immediately below, shall be considered Protected trees.

- (a) **Significant Tree.** A tree twelve inches (12”) in diameter at breast height (DBH) to twenty-four inches (24”), excluding pine, shall be protected by Dorchester County under this Ordinance because of its contribution to the environment, property values, and quality of life.
- (b) **Required Tree.** Any tree provided as required under the provisions of this Ordinance shall be protected by Dorchester County.
- (c) **Grand Tree.** A tree of special value which, due to its age and stature, is deemed of irreplaceable value to Dorchester County. Trees twenty-four inches (24”) in DBH or greater, excluding Pine, shall be considered Grand trees and protected by Dorchester County under this ordinance.

12.4.3 Applicability

The regulations set forth in this section shall apply to all trees and land in Dorchester County except as noted herein and elsewhere in this Ordinance. No provision of this section shall be construed to exempt or relieve one from wetlands protection standards in this Ordinance. Those not requiring land disturbance and Tree Removal Permits are those parties listed below. Such are, however, strongly encouraged by Dorchester County to conserve trees so as to uphold the intent of this Ordinance and the quality of life enjoyed by residents of the county.

- (a) **Parties exempt:** The parties listed below are exempt from this section to the extent defined in regard to each party.
 - (1) Farmers and ranchers: Trees on agricultural land, used specifically for raising livestock or crops (but not trees), as well as horse pasture, shall not be required to be protected by this Ordinance, and provided such trees are not protected by any other government regulation.

- (2) Timber harvesters and foresters: Timber harvesting and forestry shall be exempt from this Section 12.4 of the Ordinance, provided they adhere to South Carolina Code Subsection 48-23-205(B); however, harvesting of trees within one (1) year prior to installation of artificial improvements or other development activities shall be a violation of this Ordinance. In the event that a timber harvest is a willful violation of County regulations, such that the provisions of this Section and other development regulations are circumvented, the installation of artificial improvements or other development activities within five (5) years shall be a violation. Logging and forestry operations outside of pine plantations in Suburban Urban and Suburban Transition zoning districts shall be considered a willful violation with regard to the installation of artificial improvements or other development activities within five (5) years.
- (3) Commercial tree farms and nurseries: Those raising trees for sale and transplant shall not be held to the provisions of this chapter, provided such are not planted in protected wetlands or required buffering thereof after the adoption of this provision.
- (4) Public utilities: Utility providers shall not be held to this section, except where vegetative buffering is required, provided that their easements, rights of way, and clearing practices are not overly destructive to the natural environment and do not adversely affect adjoining properties. Utility companies, electrical suppliers, and governmental agencies constructing or maintaining easements for water, sewer, electricity, gas, drainage, telephone, or television transmission, or the clearing of rights-of-way shall be exempt from the provisions of this Article of the Ordinance, if the applicable company, suppliers or agency has executed an agreement with the Dorchester County Zoning Department which, at a minimum:
- a. recognizes the need to minimize the cutting and/or trimming of all Protected trees which do not frustrate or substantially interfere with the intended purpose of construction or maintenance;
 - b. establishes, to the extent possible, design guidelines for construction and maintenance which identifies the savings of all Protected Trees as a factor to be considered in the design process;
 - c. allows for the consultation process with the County prior to the commencement of major construction or maintenance or the removal of any Protected Trees; and
 - d. provides that a breach of such Agreement constitutes a violation of this Ordinance and a loss of exemption from the requirements of this Ordinance.

- (5) Airports: Airports and heliports certified by the Federal Aviation Administration shall not be required to obtain Tree Removal Permits to clear trees so as to maintain safe clearances for aircraft.
- (6) Occupied single-family residence: A single-family residential site equal to or smaller than one (1) acre shall be exempt from protecting Significant trees, Required Trees, but not Grand trees, provided the lot is occupied by one (1) single-family house or one (1) manufactured home with a Certificate of Occupancy for at least two (2) years.
- (7) Rural home sites:
 - a. A parcel of land in a Rural zoning district occupied by a single-family house or manufactured housing unit shall be exempt from tree protection requirements, except that Subsection 12.4.3.a.2 shall apply.
 - b. A parcel of land in a Rural zoning district with a current permit for a single-family house or manufactured housing unit shall be exempt from tree protection requirements, provided that parcel was not created by Major Subdivision of land, except that Subsection 12.4.3.a.2 shall apply.
- (8) Industrial Zoning Districts: Land in an Industrial (I) zoning district shall be exempt from protecting Significant Trees but not Grand Trees (excluding pine) and Required Trees.
- (b) **Parties accountable**: All trees not covered by the above exemptions are protected by the provisions of this ordinance, which further specify regulations for the replacement of such trees once removed. Protected trees are defined in Section 12.4.2. Conditions under which Protected trees may be removed by permit are specified below.
- (c) Nothing in this Section shall be construed to prevent the ordinary pruning, trimming and maintenance of a tree, nor shall anything in this Section be construed to prevent the cutting or removal of any tree that the authorized County offices deem required for public safety.

12.4.4 Tree Removal Permit

Except for parties specifically exempt, it shall be unlawful to fell, improperly prune, or otherwise destroy a Protected Tree without first obtaining a Tree Removal Permit from the Zoning Administrator.

- (a) **Exception**: A Tree Removal Permit is not necessary to remove a tree creating imminent danger to other trees, crops, permanent structures, public utilities, rights of way, or persons. A tree posing imminent danger shall be defined as one damaged by a storm, fire, or vehicular accident such that its structural

integrity is seriously compromised and that the tree can be reasonably expected to fall and injure persons or structures within three (3) business days.

(b) Procedure

- (1) Application for permits must be made at least three (3) business days in advance of proposed tree removal. The Zoning Administrator or his assign shall issue the permit, valid for six (6) months, if the proposal meets the criteria for tree removal.
- (2) The applicant may apply for a Tree Removal Permit concurrently with a Land Disturbance Permit, subdivision plan submittal, or Zoning Permit.
- (3) Property development shall require documentation of a tree survey, depicting on a site plan or plat the location, species, and size in DBH of all Protected trees in the development area. The development area shall be defined as all highland areas within fifty feet (50') of any proposed grading, temporary and permanent structures, and other improvements; and as wetlands proposed to be disturbed. The survey shall specify which trees are proposed for removal.
 - a. For development plans disturbing more than twenty-five (25) acres for one non-residential building site, this tree survey requirement may be satisfied by a "sample area" survey. Each sample shall cover at least one (1) acre. Sample areas shall be evenly distributed throughout the site and proportional to the acreage of types of forest found on the site (upland pine, bottomland hardwood, upland mixed, etc.). Sample areas shall represent at least five (5%) of the site or five (5) acres, whichever is greater. The surveyor shall estimate the relative densities and total number of Protected trees across the site based on the distribution of these trees in the samples. Grand trees shall nevertheless be individually surveyed and documented by location, species, and size in DBH.
 - b. For development plans disturbing ten (10) to twenty-five (25) acres for one industrial site or one site in an Industrial (I) or Commercial-Light Industrial zoning district, Grand trees shall be individually surveyed, while a survey of Required and Significant trees may be satisfied by a "sample area" survey. Each sample shall cover at least one (1) acre. Sample areas shall be evenly distributed throughout the site and proportional to the acreage of types of forest found on the site (upland pine, bottomland hardwood, upland mixed, etc.). Sample areas shall cover at least five (5) acres. The surveyor shall estimate the relative densities and total number of Significant trees across the site based on the distribution of these trees in the samples.

- c. For development plans consisting of Required trees, the tree survey will document on a site plan or plat the location, species, and size of all trees in the development area equal to or greater than six inches (6") DBH. The tree survey may identify areas in which Required trees smaller than 6" DBH stand in areas or groupings, such as required buffers, or individually, such as those in planting islands, without identifying the size. The Sample area survey method, provided immediately above, may apply to surveying Required trees.
- (4) Trees to be removed will be physically marked with brightly colored Engineer's Tape. The property may first be inspected by the County Zoning Administrator, or his designee, before approval is granted. The tape on those trees approved for cutting will be left in place. Any engineer tape errantly placed on those trees to be preserved (not approved for cutting) will be removed by the inspector. Following inspection by the County inspector, the permit will be granted for full approval, partial approval, or disapproval.
 - (5) It shall be the responsibility of the applicant to post the Tree Removal Permit on the property in a place on the site visible from the public right-of-way throughout any tree removal activity.
- (c) **General criteria:** The following criteria shall constitute grounds for a Tree Removal Permit regardless of use or zone.
- (1) Trees potentially hazardous to surrounding trees, crops, permanent structures, public utilities, rights of way, or persons due to a loss of stability caused by high wind, unstable soil, age, or other natural forces, as certified by a registered forester or certified, qualified arborist who holds a County business license.
 - (2) Diseased and/or infectious trees and trees in decline, as certified by a registered forester or certified, qualified arborist who holds a Dorchester County business license.
 - (3) Trees or their root systems causing visible damage to permanent structures that cannot be prevented through proper pruning, as determined by a certified, qualified arborist who holds a County business license.
 - (4) Trees or their root systems causing damage to utility lines that cannot be prevented through proper pruning, as certified by a registered forester or certified, qualified arborist who holds a County business license.
 - (5) Trees inhibiting access through a public right-of-way such that proper pruning cannot mitigate the condition.

- (6) Trees creating hazardous conditions on pedestrian walkways underneath such trees due to excessive debris of a size and shape known to cause injuries from tripping and falling (e.g., seed pods of sweet gum trees), as determined by the Zoning Administrator.
 - (7) Trees determined to be illegal, invasive, or generally poor quality that are of the following species: Sweet Gum, Bradford Pear, River Birch, and other invasive species that are certified as such by a Landscape Architect or Certified Arborist and approved by the Zoning Administrator.
- (d) **Criteria for property development:** The following criteria shall address grounds for tree removal in the event of property development, provided the conditions attached to each criterion are met.
- (1) **Subdivision of parcel:** The subdivider shall make conscious efforts to avoid Grand trees and groupings of other Protected trees in proposing placement of rights of way and easements. Additionally, lot lines shall not be platted so as to necessitate removal of Grand trees and groupings of other Protected trees by locating them in the middle of proposed lots. More appropriately, lot lines should be platted so that such trees will benefit development by serving as design features and vegetative buffers and by mitigating storm water run-off and erosion problems.
 - (2) **Building footprints:** Grand trees within proposed building footprints shall be removed only with mitigation if necessary for development. Other Protected trees within proposed building footprints, as well as those within twenty feet (20') of such, may be removed when necessary for development without mitigation. The twenty-foot clearance area may be increased to fifty feet (50') for structures of three (3) or more stories or, where not applicable, more than forty feet (40') in height. (Refer to Subsection 12.4.5.e.1 for required setbacks from Protected trees.)
 - (3) **Yards and buffers:** Protected trees shall not be removed from required buffers. A Protected Tree may be limbed up if located outside a required buffer, or if located within a Minimum Visual Buffer provided in a Transitional Overlay District. Required trees may be limbed up to eight feet (8'), Protected trees may be limbed up to twelve feet (12'), and Grand trees may be limbed up to sixteen feet (16'), to provide view sheds.
 - (4) **Means of access and parking:** Grand trees shall not be removed to make way for parking lots, parking spaces, drive aisles, or driveways. Other Protected trees may be removed to make way for these same features, but mitigation shall be required. On properties zoned Industrial (I), Grand trees less than 30" may be removed to make way for parking lots, parking spaces, drive aisles, or driveways, but mitigation shall be required by means of Fee-in-Lieu and are not eligible for on-site mitigation.

- (5) **Active recreation areas and outdoor uses:** Operations in which the primary use of land occurs out of doors may remove Protected trees within the footprint in which the primary use occurs; mitigation shall be required. The Zoning Administrator shall determine whether or not the proposed outdoor use qualifies under this provision. Qualifying operations shall include outdoor sales areas with minimal related indoor space (e.g., car and mobile home dealers), transportation and construction businesses that store fleet vehicles on-site, outdoor storage of oversized bulk items that cannot practically be stored under roof, and industrial activities and processes that do not occur under roof, as well as recreation areas, such as golf courses, athletic fields, courts, and pools managed by schools, public recreation departments, country clubs, and the like.
- (6) **Roads:** Protected trees may be removed without mitigation to allow for arterial and collector road construction, including widening, intersection improvements, and parallel bicycle/pedestrian improvements, and drainage related thereto. Grand trees shall be removed only with mitigation to make way for local roads, while other Protected trees may be removed without mitigation.
- (7) **Water, sewer, and drainage improvements:** Protected trees may be removed, but must be mitigated, for installation of water, sewer, and drainage infrastructure and implementation of associated easements.

12.4.5 Tree Protection Procedures

The base and root system of most trees are very sensitive to changes and must be protected. The following measures shall also be taken to protect trees located off-site, the limbs and drip lines of such encroach property boundaries.

- (a) Protected trees shall be guarded before, during, and after development and harvest against the following:
 - (1) Unnecessary cutting, breaking, or skinning of roots;
 - (2) Skinning and bruising of bark;
 - (3) Storing or stockpiling construction, excavation, or other machinery, tools, materials, and debris within drip lines;
 - (4) Burning within drip lines;
 - (5) Absorption of wastewater run-off within drip lines;
 - (6) Excessive foot or vehicular traffic within drip lines; and
 - (7) Parking vehicles within drip lines.

- (b) Wounds to Protected trees shall be cleaned to sound wood by removing loose bark and wood, leaving a smooth edge around the wound, and be properly dressed.
- (c) Any roots of Protected trees necessary to be removed shall be severed clean and treated by installing a two-inch (2") layer of mulch applied on the surface above such roots, to be sustained throughout harvesting and development activities.
- (d) Soil disturbance within the drip line of a Protected tree shall be limited to six inches (6") in depth removed or six inches (6") in depth added. Any soil added under the drip line of the tree shall be a loamy soil mix to ensure minimal compaction.
- (e) **Development activities:** The following additional measures shall be taken to protect trees scheduled to be retained in preparation for and during property development.
 - (1) **Setbacks:** All site improvements other than landscaping and hardscaping shall maintain a minimum setback from the trunk of a Protected tree. A minimum setback from the base of all Protected trees shall be twelve (12) feet plus one additional one (1) foot of clearance for every three (3) inches in DBH in excess of twenty-four (24) inches. The setback from the base may be reduced to the extent of the drip line for Required trees.
 - (2) **Protective barricading:** Barricades shall be erected around all Protected trees according to required setbacks, provide immediately above, located on development sites prior to the start of such activities and shall remain in place until such activities are complete. The following standards apply:
 - a. Barricading trees in groups shall be encouraged.
 - b. Barricading shall be erected as per Section 12.4.5(e)(1). Barricading shall be highly visible (so as to be easily recognized in the rear view or side mirror of an oncoming vehicle traveling in reverse), continuous at a height of three feet (3'), minimum, and capable of repelling a man moving at walking speed. Recommended materials are orange safety fencing supported by wood/metal members or approved material as determined by the Zoning Administrator. Flagged string or tape alone is not preferred during development.
 - c. All tree protection areas shall be designated with signs or tape posted visibly on or within fencing denoting the area as off limits for the sake of tree protection.

- (f) **Installation of utilities:** Utilities shall not be installed in tree protection areas without the use of special tunneling techniques to preserve root systems.

12.4.6 Violation and Penalty

- (a) Each Protected tree destroyed without the appropriate Tree Removal Permit shall be judged a separate offense. For each day that the loss of the tree goes unmitigated, as provided below, shall be judged a separate offense.
- (b) In lieu of any fines and penalties incurred by a violator of this section, the Zoning Administrator may propose tree replacement as a condition of granting Certificates of Occupancy. Replacement trees shall be required such that the total caliper-inches of new trees shall be equivalent to the aggregate diameter at breast height in inches of trees lost to violations.
- (c) In the event that violations of this article result in the issuance of a Stop Work Order, tree replacement or payment of fines may be required to commence before development is allowed to proceed.
- (d) In the event that the violator of tree protection standards cannot be identified and located, the landowner shall be held responsible for fines and mitigation.

12.4.7 Mitigation for Tree Removal; Fee in Lieu

- (a) Trees planted as required for mitigation shall meet performance standards per Section 13.3.6. Mitigation of removal of Protected trees shall be scheduled as follows:
 - (1) Mitigation for Required and Significant trees shall occur at a rate of 50%, where every two inches (2") of Significant trees removed, measured in diameter at breast height, shall be replaced by one inch (1") of mitigation trees, measured in caliper-inches.
 - (2) Mitigation for Grand trees shall occur at a rate of 100%, where every inch of Grand trees removed, measured in diameter at breast height, shall be replaced by one inch (1") of mitigation trees, measured caliper-inches.
 - (3) A multi-stem tree such as crepe myrtles without a single trunk at which caliper can be measured shall contribute one (1) inch toward a mitigation requirement when proposed as a replacement tree.
 - (4) A palm tree such as sabal palmetto shall contribute two (2) inches toward a mitigation requirement when proposed as a replacement tree
- (b) Any tree, other than pine, at least six (6) inches DBH but less than twelve (12) inches DBH, as well as any pine tree at least twelve (12) inches DBH but less than 23 inches DBH, retained within the area of disturbance of the

development may be retained to contribute to a tree mitigation requirement, provided that tree does not stand in a wetland, any type of buffer, or other area of the site in which the tree would be required to be conserved. As allowable, a 6-inch DBH tree shall contribute 6 inches to a total number of inches to be mitigated. Such trees shall be protected as Required trees.

- (1) In the event that a development proposal is exempt from protecting Significant Trees, such trees may contribute toward tree mitigation under the circumstances provided in the foregoing. Where so designated, such trees shall become Required Trees.
- (c) In the event that a property has achieved required canopy enhancement, per Section 13.3.4, the developer/owner may, in lieu of planting trees required for mitigation, pay a fee per caliper-inch to the County in an amount set in the Dorchester County Planning & Zoning Fee Schedule. The fee shall be based on the current cost of a required tree at wholesale value, of installation to standards of the American Nursery and Landscape Association, and of maintenance for one (1) year.
- (d) Fees in lieu shall be put into an account reserved solely for the beautification of public lands in Dorchester County.