

**MODEL LANDSCAPE ORDINANCE
PROMOTING WATER CONSERVATION AND THE
USE AND PRESERVATION OF APPROPRIATE NATIVE
VEGETATION FOR THE COASTAL PLAIN OF
GEORGIA**



Black Swallowtail (*Papilio polyxenes*) on native azalea (*Rhododendron canescens*)

Photo Credit: James Holland

Prepared by:

Keren Giovengo

Coastal Sustainable Communities and CoastScapes Conservation Landscaping Programs

University of Georgia Marine Extension Service

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Although there were numerous ordinances that were researched and reviewed for this project, the UGA MAREX heavily relied on the following documents, in whole or in part, which were adopted and modified for the development of this coastal Georgia model ordinance:

- Georgia Model Water Conservation – Outdoor Water Efficiency Sample Ordinance;
- Florida-Friendly Landscape Guidance Models for Ordinances, Covenants, and Restrictions by the Florida Department of Environmental Protection and the University of Florida (2009);
- Model Native Plant Landscape Ordinance Handbook by the Florida Native Plant Society;
- Model Landscape Ordinance Requiring the Use and Preservation of Appropriate Native Vegetation by the Florida Area IV Water Conservation Committee; and
- Native Plant Protection Ordinance, City of Scottsdale, Arizona.

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**ANNOTATED MODEL LANDSCAPE ORDINANCE PROMOTING WATER
CONSERVATION AND THE USE AND PRESERVATION OF APPROPRIATE NATIVE
VEGETATION FOR THE COASTAL PLAIN OF GEORGIA**

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**MODEL LANDSCAPE ORDINANCE PROMOTING WATER CONSERVATION AND THE
USE AND PRESERVATION OF APPROPRIATE NATIVE VEGETATION FOR THE
COASTAL PLAIN OF GEORGIA**

ORDINANCE No. _____

**AN ORDINANCE OF THE COMMUNITY OF _____, GEORGIA (“Community”) TO
ADOPT NEW LANDSCAPE REGULATIONS FOR THE PURPOSE OF CONSERVING
WATER, MAINTAINING EXISTING INDIGENOUS NATIVE PLANT COMMUNITIES,
REMOVING AND PREVENTING INVASIVES, AND LANDSCAPING WITH DIVERSE
APPROPRIATE NATIVE PLANTS.**

BE IT ENACTED BY THE PEOPLE OF THE COMMUNITY OF _____

Sec. 1. TITLE.

This chapter shall be known and may be cited as “Community of _____ Landscape Ordinance Promoting the Use and Preservation of Appropriate Native Vegetation.”

Sec.2. PURPOSE AND INTENT.

The purpose of these regulations is to establish minimum standards for the design, installation, and maintenance of landscaped areas and the management of preservation areas prior to obtaining a building permit. These regulations require the use of appropriate native vegetation and ensure the preservation of existing native plant communities on site. The Community recognizes the significant benefits to the quality of life and economic prosperity of the community through establishing and protecting appropriate native vegetation and, therefore, the necessity to maximize the use of appropriate native vegetation in all public and private landscaped areas within the Community unless exempt under Section 6 of this ordinance. It is the intent of this ordinance that these minimum landscape requirements be incorporated to promote the public health, safety, and welfare through:

- (1) Protecting and promoting appropriate native vegetation;
- (2) Maintaining, creating, and restoring unique natural community identities;
- (3) Protecting and promoting microhabitats in urban areas for the conservation of wildlife by establishing new wildlife habitat and maintaining existing wildlife habitat;

- (4) Creating larger, more connected plant populations, helping ensure the future of native plant species by increasing their ability to migrate in response to changes in climate;
- (5) Promoting the preservation and restoration of diverse ecological communities to maintain viable populations of all native plant and animal species and representative stands of each habitat type in the Community;
- (6) Endorsing agricultural economic opportunities through native plant and native seed production;
- (7) Promoting ecotourism;
- (8) Keeping healthy soils;
- (9) Conserving precious water resources by promoting water-efficient landscaping practices including the use of appropriate native plants, which, once established, typically require much less water than other species;
- (10) Reducing the long-term negative impacts of stormwater runoff and enhancing water quality through retention of nutrient loading and improved absorption of contaminants by implementing green infrastructure stormwater best management practices (BMPs) as defined in the Coastal Stormwater Supplement (CSS) to the Georgia Stormwater Management Manual;
- (11) These practices are also based on the premise that the quality of Georgia's surface and ground water is affected by stormwater runoff and leachate. Improper landscape design, construction and management may contribute to nonpoint source pollution that affects ground and surface water quality. Use of green infrastructure stormwater BMPs in proper landscape design and maintenance can reduce pollution and save water, as well as save labor, resources, and money. Application of BMPs will also help to enhance property values, improve Georgia's quality of life and protect natural resources for Georgia's residents well into the future;
- (12) Reducing the need for use of chemical fertilizers and pesticides to maintain landscaping;
- (13) Reducing the negative impacts of landscape maintenance on local air quality;
- (14) Reducing the negative impacts on the land, such as erosion, soil depletion, and damage by invasive plants as examples, from the use of inappropriate vegetation and poorly planned landscaping;

- (15) Reducing the financial costs of landscape maintenance;
- (16) Improving flood control;
- (17) Protecting populations of rare, threatened and endangered native plants and the local species that are dependent on them; and
- (18) Increasing understanding and appreciation of our local natural ecosystems and species through education and training.

These guidelines and landscape practices are established to help communities, developers, builders, contractors, businesses and homeowners serve as partners in improving and protecting Georgia’s environment.

Sec. 3 DEFINITIONS.

- (a) Appropriate Native Vegetation: Native vegetation found in the natural community that is adopted so site conditions, climate, and design intent. The following attributes should be considered in determining whether plants are appropriate for the site: cold hardiness, heat tolerance, salt tolerance, soil moisture range, plant water use requirements, soil volume requirements, soil pH requirements, sun/shade requirements, pest susceptibility, and maintenance requirements.
- (b) Best Management Practices: Stormwater and landscape practices or combination of practices based on research, field-testing, and expert review, determined to be the most effective and practicable on-location means, including economic and technological considerations, for improving water quality, conserving water supplies, and protecting natural resources.
- (c) Bona Fide Agriculture: Good faith commercial agricultural use of the land as defined under Georgia statutes.
- (d) Buffer:
 1. An area along some natural feature designated to protect and/or preserve the essential character of such feature and allow it to be maintained in an undisturbed and natural condition. See “Riparian Buffer” for specific definition.
 2. A natural undisturbed portion of a lot, except for approved access which is set aside to achieve 100 percent visual barrier between the use on the lot and adjacent lots and/or uses. A buffer is achieved with keeping or planting with appropriate native vegetation, land area used to visibly separate one use from another through screening and distance, to shield or block noise, light, glare, visual or other conditions, to block physical passage to non-similar areas, or to reduce air pollution, stormwater runoff, dust, dirt, and litter.

- (e) Caliper: The diameter of a tree trunk (indicated in inches) measured at breast height.
- (f) Clearing: The selective removal of vegetation from a property, whether by cutting or other means.
- (g) Clear-cutting: The indiscriminate and broad removal of trees, shrubs, or undergrowth with the intention of preparing real property for non-agricultural development purposes. This definition shall not include the selective removal of non-native tree and shrub species when the soil is left relatively undisturbed; removal of dead trees; or normal mowing operations.
- (h) Community Recreational Area: Public use areas, including school and athletic fields, composed of predominantly turf grass intended for recreational purposes.
- (i) Cultivar: A variation of a species, one that has been produced through breeding or deliberate selection.
- (j) Development: All structures and other modifications of the natural landscape above and below ground or water, on a particular site, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, or excavating.
- (k) Endangered Plant: Any plant species which is in danger of extinction throughout all or a significant portion of its range.
- (l) Green Infrastructure Stormwater Practices: Natural resource protection and stormwater management practices and techniques including better site planning, better site design techniques, and low impact development practices that can be used to help prevent increases in post-construction stormwater runoff rates, volumes and pollutant loads on development sites. Any stormwater management implemented in relation to this ordinance will comply with the most current version of the Coastal Stormwater Supplement to the Georgia Stormwater Management Manual.
- (m) Hardscape: Areas such as patios, decks, driveways, paths and sidewalks that do not require irrigation.
- (n) Healthy Soils: Soil health is the functioning of the soil system for its original native habitat purpose
- (o) Highly-flammable Plant: A plant species that has characteristics which make it more volatile by encouraging easy ignition and the spread of fire through its foliage from low moisture content, dense dry leaves, needles, grass-like leaves, or volatile resins and oils.
- (p) High Water Use Plants: Plants that require irrigation to provide supplemental water on a regular basis in addition to natural rainfall, or are so identified by a regulatory agency having jurisdiction. When placed in a naturally high water table area appropriate to the plant such

that irrigation is not required, such plants shall not be considered high water use for the purposes of this ordinance.

- (q) Hydrozone: A distinct grouping of plants with similar water needs and climatic requirements.
- (r) Infiltration Rate: The rate of water entry into the soil expressed as a depth of water per unit of time (inches per hour).
- (s) Indigenous Plants: Those species of plants naturally occurring within a specific habitat or biogeographical region prior to significant human impacts.
- (t) Invasive Plant: A plant reproducing outside its native range and outside cultivation that disrupts naturally occurring native plant communities by altering structure, composition, natural processes or habitat quality. Invasive plants are those plants recognized on the most current Georgia Exotic Pest Plant Council's Invasive Plants List. These plants are not native to the ecosystem under consideration and cause or are likely to cause economic and/or environmental harm or harm to human, animal, or plant health.
- (u) Irrigated landscape Area: All outdoor areas that require a permanent irrigation system.
- (v) Irrigation System: A constructed watering system designed to transport and distribute water to plants.
- (w) Land Clearance: Removal of all trees and/or vegetation from the surface.
- (x) Land Disturbance Activity: Any activity which may result in soil erosion from water or wind and the movement of sediments into state and local waters or onto lands within the state, including, but not limited to, clearing, dredging, grading, excavating, transporting, or filling of land but not including agricultural practices such as a family vegetable plot.
- (y) Landscape Area: The entire parcel less the building footprint, driveway, non-irrigated portions of parking lots, hardscapes such as decks and patios, and other non-porous areas. Water features are included in the calculation of landscaped areas.
- (z) Landscape: Any combination of living plants and non-living landscape material (such as rocks, pebbles, sand, mulch, walls, fences, or decorative paving materials).
- (aa) Low Water Use Plants: Plants that do not need supplemental water beyond natural rainfall, or are so identified by a regulatory agency having jurisdiction.
- (bb) Microclimate: The climate of a specific area in the landscape that has substantially differing sun exposure, temperature, or wind, than surrounding areas or the area as a whole.

- (cc) Microirrigation (low volume): The application of small quantities of water directly on or below the soil surface, usually as discrete drops, tiny streams, or miniature sprays through emitters placed along the water delivery pipes (laterals). Microirrigation encompasses a number of methods or concepts including drip, subsurface, bubbler, and spray irrigation, previously referred to as trickle irrigation, low volume, or low flow irrigation.
- (dd) Moderate Water Use Plants: Plants that need supplemental water during seasonal dry periods.
- (ee) Moisture Sensing Device or Soil Moisture Sensor: A device to indicate soil moisture in the root zone for the purpose of controlling an irrigation system based on the actual needs of the plant.
- (ff) Mulch: Non-living, organic (or synthetic) materials customarily used in landscape design to retard erosion and retain moisture.
- (gg) Native Plant: Those species of plants occurring within the community's biogeographic region prior to European contact, according to best scientific and historical documentation. More specifically, it includes those species understood as indigenous, occurring in natural associations in habitats that existed prior to significant human impacts and alterations of the landscape. A comprehensive list of Georgia coastal plain native plants for landscaping purposes can be located at the UGA MAREX CoastScapes/Bugwood Coastal Plain Native Plant search engine or UGA MAREX CoastScapes conservation landscaping native plant lists.
- (hh) Natural Community: A distinct and recurring assemblage of populations of plants, animals, fungi and microorganisms naturally associated with each other and their physical environment, as described in the Comprehensive Wildlife Conservation Strategy for Georgia (GADNR WRD, 2005).
- (ii) Natural Area: An area on a site that contains native plants and that will be undisturbed during development and will remain undisturbed when the property is fully developed. Activities are restricted in perpetuity.
- (jj) Plant Bed: A grouping of trees, shrubs, ground covers, vines, perennials or annuals growing together in a defined area devoid of turfgrass, normally using mulch around the plants.
- (kk) Plant Communities: An association of native plants that are dominated by one or more prominent species, or a characteristic physical attribute.
- (ll) Pervious Paving Materials: A porous concrete, asphaltic, or other surface and a high-void aggregate base which allows for rapid infiltration and temporary storage of rain on, or runoff delivered to, paved surfaces.

- (mm) Rain Sensor Device: A low voltage electrical or mechanical component placed in the circuitry of an automatic irrigation system that is designed to turn off a sprinkler controller when precipitation has reached a pre-set quantity.
- (nn) Rare Plant: A scarce plant species that may or may not have been designated with a legally protected status such as “threatened” or “endangered”. Some rare plants naturally occur less frequently than others, which make the rare plants more susceptible to decline or extinction.
- (oo) Redevelopment: The redesign or rehabilitation of existing properties.
- (pp) Remove: To transport a native plant from the premises on which it has been growing.
- (qq) Riparian buffer: Any land along the edge of a stream, wetland, coastal marshland, shoreline, pond, or impoundment. This definition applies regardless of existing or altered vegetated state or other man-made alteration.
- (rr) Runoff: The water that results from and occurs following a rain event, or following an irrigation event, because the water is not absorbed by the soil or landscape and flows from the area.
- (ss) Residential Subdivision: The act of dividing land into pieces to sell or otherwise develop, usually via a plat. The former single piece as a whole is then known as a subdivision.
- (tt) Site Appropriate Plant: A plant that after establishment, will thrive within the environmental conditions that are normal for a specific location without artificial supplements such as irrigation.
- (uu) Soil Moisture Sensor. See Moisture Sensing Device.
- (vv) Soil Texture: The classification of soil based on the percentage of sand, silt, and clay in the soil.
- (ww) Tree Removal: Any act which causes a tree to die within two years after commission of the act, including, but not limited to, damage inflicted upon the root system or trunk as a result of:
- a. The improper use of machinery on the tree;
 - b. The storage of materials in or around the tree;
 - c. Soil compaction;
 - d. Altering the natural grade to expose the roots or to cover the tree’s root system with more than four inches of soil;
 - e. Pruning judged to be excessive;

- f. Paving with concrete, asphalt, or other impervious surface within such proximity as to be harmful to the tree or its root system; and
- g. Application of herbicides or defoliates to any trees without first obtaining a Community landscape permit.

(xx) Threatened Plant: Any plant species that is likely to become an endangered plant within the foreseeable future throughout all or a significant portion of its range.

(yy) Tree: A self-supporting woody plant having a single trunk or a multi-trunk of lower branches, growing to a mature height of at least twelve (12) feet.

(zz) Tree Thinning: Selective cutting or thinning of trees for the clear purpose of good forestry management to protect said forest from disease or infestation and in no way shall be construed as clear cutting.

(aaa) Turf and/or Turfgrass: Continuous plant coverage consisting of a grass species that is mowed to maintain an established height. Most typically, a mat layer of monocotyledonous plants such as, but not limited to, Bahia, Bermuda, Centipede, St. Augustine, and Zoysia.

(bbb) Waterwise Plants: Plants that can survive on normal rainfall or that require minimal irrigation.

Sec. 4. LANDSCAPE PERMIT REQUIRED.

All applicable development, as defined under Section 5 of this ordinance must, prior to receiving a builder's permit, obtain a landscape permit from the local Department. Subsequent to the onsite inspection required under Section 13 of this ordinance, submittal of a Landscape Design and Natural Areas(s) Preservation Plan ("Landscape Plan") by Landowner, review of the Landscape Plan by the Landscape Advisory Committee and final approval by the Department, the Department will issue a Landscape Permit to Landowner.

Sec. 5. APPLICABILITY.

This ordinance shall be a minimum standard and shall apply to all newly developed and renovated public and private developments and land within the jurisdictional boundaries of the Community unless exempt under Section 6 of this ordinance. This ordinance shall also apply to the expansion or renovation of any existing development when the expansion or renovation of the existing development is equal to fifty percent (50%) of the assessed value of the lot improvements according to the Property Appraiser or when the total square footage of a structure is expanded by fifty percent (50%) or greater.

Sec. 6. EXEMPTIONS.

The following areas are exempt from this ordinance:

- (1) Community gardens;

- (2) Community recreation areas;
- (3) Non-invasive fruits and vegetable plants on residential properties;
- (4) Golf course play areas;
- (5) Turfgrass in stormwater management areas;
- (6) Turfgrass in commercial public rights-of-way;
- (7) Bona fide agricultural lands;
- (8) Scientific and educational purposes;
- (9) Commercial and public botanical gardens;
- (10) Cemeteries;
- (11) Emergency maintenance work such as fire breaks and areas cleared for protection of public health and safety;
- (12) Single-family dwellings are exempt from the requirements of this ordinance except for the requirements set forth in Section 7.2.2.

The Community shall, however, encourage the protection and promotion of appropriate native vegetation in these areas to the maximum extent practicable.

Sec. 7. MINIMUM APPROPRIATE NATIVE VEGETATION REQUIRED.

Sec. 7.1. Public Property.

The Community shall require the use of only appropriate native vegetation in all newly-developed, publicly-owned landscaped areas within the Community limits. The Community shall encourage the use of appropriate native vegetation in all existing landscaped areas, while recognizing that any plant in the proximity of structures may create a wildfire hazard.

Sec. 7.2. Private Property.

Sec. 7.2.1. Multi-Family, Commercial, Industrial, or Municipal Site

The Community shall require a minimum coverage of appropriate native vegetation in all newly landscaped multi-family, commercial, industrial, or municipal private areas, as set forth in Section 14.8 of this ordinance. However, at no time shall the minimum coverage of appropriate native vegetation be less than 50%.

Sec. 7.2.2 Single-Family Dwelling Units.

Single-family residential dwellings are exempt from the Landscape Plan and Landscape Advisory Committee and all other limitations of this ordinance except:

No Builder's Permit for a single-family residence shall be issued by the Community unless the following conditions have been met:

1. A Builder's sketch of the property including an approximate list of existing trees and their location, a list of invasive plants as set forth in Sec. 8 and their location, and an on-site inspection by Department;
2. A minimum of two (2) appropriate native trees with appropriate native plant understory for Lots 6,000 square feet or less;
3. A minimum of three (3) appropriate native trees with appropriate native plant understory for Lots between 6,001 and 10,000 square feet;
4. A minimum of five (5) appropriate native trees with appropriate native understory for Lots greater than 10,001 square feet. Three (3) appropriate native trees with native understory for each additional acre in excess of one (1) acre, with a maximum number of trees not to exceed fifteen (15) for the total acreage;
5. Landowner may, by written correspondence to Department, apply for an exemption of numbers 2-4 based on the landowner's keeping of existing native trees to meet the provisions of this section;
6. All trees shall be a minimum size of six (6) feet or more than three inches in trunk diameter;
7. One (1) of the required trees shall be planted within ten (10) feet landward of the right-of-way for lots less than or equal to one-half acre.

Sec. 7.2.2.1. Single-Family Dwelling Units Involvement Encouraged.

Any Landowner desirous of participation in the hitherto exempt sections of this ordinance may do so prior to receipt of a builder's permit, by submitting a proposal to Department setting forth the following:

1. Landscape Builder's sketch or homeowner's sketch to include:
 - a. Irrigation Plan;
 - b. Existing vegetation, including invasives; and
 - c. Location of priority natural areas as set forth in Sec. 14.4 of this ordinance.

Sec. 7.2.2.2. Single-Family Dwelling Review and Approval by Department and Landscape Advisory Committee.

After submittal of proposal to Department for participation in the otherwise exempt portions of this ordinance, the Department and the Landscape Advisory Committee (“Committee”) shall review the landowner’s proposal and notify Landowner in writing within thirty (30) days of a decline or acceptance.

Sec. 8. NON-NATIVE INVASIVE PLANT SPECIES PUBLIC NUISANCE DECLARED.

The Community declares that invasive non-native species as provided by the most recent publication of the Georgia Exotic Pest Plant Council’s (GAEPPC) list of non-native invasive plant species specifically including Categories 1, Categories 1 Alert, and Categories 2, are a public nuisance that degrades landscaped and natural areas. The Community shall prohibit the planting of any non-native invasive plant species included in the GAEPPC Categories 1, 1 Alert and 2 in all public and private properties. The Community will require the Landowner to remove any non-native invasive species that the Community deems to be a public nuisance pursuant to the procedures set forth below.

Sec. 8.1. Non-native Invasive Plant Species Survey Required For New Development.

For all properties required to submit a Landscape Plan pursuant to Section 7, the Landowner or their representative shall include a survey showing the location and species of all non-native invasives.

Sec. 8.2. Requirement to Correct Public Nuisance.

The method and time frame to correct the public nuisance shall be included as part of the Landscape Plan approved by the Department.

Sec. 8.3. Cost of Removal of Invasives Borne by Landowner.

All costs of the permanent removal of all non-native invasives shall be borne by Landowner unless otherwise exempt under Sec. 8.4 of this ordinance.

Sec. 8.4. Estimate Cost of Removal Burdensome.

If the estimated cost of removing the invasive non-native vegetation prohibited by the Community exceeds the estimated cost of the development, then the property owner shall be given three (3) years from completion of the development to remove the invasive non-native vegetation, and keep the parcel permanently free of such invasive non-native vegetation as set forth in the Landscape Plan. Estimated costs are subject to verification by the Department Manager, or the manager’s designee. The requirement of removal shall not apply to portions of a parcel which are owned by or donated to a bona fide organization dedicated to conservation, and which has a management plan for the removal of such invasive non-native vegetation.

Sec. 8.5. Community Final Inspection Required.

Following the public nuisance removal deadline set by Department within the Landscape Plan and prior to Department removing the public nuisance designation from the property, Department will conduct a second on site inspection with Landowner.

Sec. 8.6. Failure to Correct.

In the event a Landowner fails to correct the public nuisance within the time allocated by Department in the Landscape Plan, the Department will notice Landowner, by certified mail, of the Failure to Correct. The Failure to Correct Public Nuisance shall include the dates of the on-site inspections, the names and location of the remaining non-native invasives giving rise to the notification, a deadline for correction, and guidelines for contesting the notice as outlined in Section 30 of this ordinance.

Sec. 8.7. Fines Assessed.

Failure to meet the deadline set forth in the Failure to Correct Public Nuisance or failure to comply with the findings of the Community government shall result in a Community assessed fine as outlined in Sections 23 and 26 of this ordinance.

Sec. 8.8. Failure to Pay Fines.

Failure to pay fines required by Section 8.7 of this ordinance shall result in a Community lien placed on the property. One year from the filing of the lien in the public records, the Community may foreclose on the property to satisfy the lien.

Sec. 8.9. Limits on Control.

No regulation shall be made by the Community or any person, community, or group which makes the planting, maintenance, or protection of appropriate native vegetation illegal or encourages the removal of appropriate native vegetation, except when deemed necessary for public safety.

Sec. 9. LIMITS ON CONTROL OF NATIVE VEGETATION.

No regulation shall be made by the Community or any person, community, or group which makes the planting, maintenance, or protection of appropriate native vegetation illegal or encourages the removal of appropriate native vegetation, except when deemed necessary for public safety.

Sec. 10. PROTECTION OF RARE, THREATENED AND ENDANGERED NATIVE PLANTS.

For all properties submitting a landscape plan pursuant to Section 7 of this ordinance, the Landowner or their representative shall submit with the landscape plan a survey indicating the presence of state and federally listed threatened and endangered plants.

The Department survey required for endangered and potentially endangered fauna and flora is as follows:

- (1) Before any property is cleared the property shall be surveyed by Department for listed endangered, threatened, rare and any federally proposed candidate flora. The Department may utilize other experts/specialists for the purposes of the survey. Listed plant species shall be those appearing in the most current Federal and State threatened and endangered species lists of the U.S. Fish and Wildlife Service and the Georgia Department of Natural Resources.
- (2) Once the survey is conducted and listed plant species that occur on-site have been tagged and documented, the Landscape Plan shall incorporate a development design to include the preservation of listed rare, threatened, and endangered plant communities.

Where applicable, the floral surveys shall be conducted in coordination with any associated threatened and endangered animal species survey(s) required by the U.S. Fish and Wildlife Service or the National Oceanic and Atmospheric Administration.

Sec. 11. STORMWATER MANAGEMENT.

All stormwater management on site will comply with the most current version of the Coastal Stormwater Supplement (CSS) to the Georgia Stormwater Management Manual. The use of the CSS green infrastructure stormwater techniques and practices are consistent with the purpose and intent of this ordinance.

Sec. 12. SITE PLANNING AND DESIGN.

1. Site designs and landscape construction documents shall be prepared in accordance with the requirements of all applicable Georgia Statutes.
2. Site Plans for new development shall include riparian buffers. Such buffers shall be native, or if previously disturbed, restored, to be at least 25 feet, and preferably 50-150 feet wide, to protect water bodies from nonpoint source pollution. Other local, State, and/or Federal requirements may apply to such activities.
3. The site plan shall consider natural drainage features to minimize runoff. The use of pervious surfaces and areas is preferred, therefore impervious surfaces and materials within the landscaped area shall be limited to borders, sidewalks, step stones, and other similar materials,

and should be minimized to the greatest extent practicable. Use of pervious paving materials is strongly encouraged, and relative imperviousness will be considered. All applications of pervious surfaces shall follow the recommendations provided in the Coastal Stormwater Supplement to the Georgia Stormwater Management Manual.

4. Site selection, planning and design practices are strongly encouraged, but not mandated, to follow the Green Growth Guidelines.

Sec. 13. SITE INSPECTION REQUIRED PRIOR TO LAND CLEARING.

No land shall be disturbed or cleared, no land disturbance permit be issued, no construction will begin, and no Certification of Occupancy shall be issued until the following requirements have been met:

- (1) a Department site inspection has been completed by a Department professional knowledgeable of the local native vegetation and supporting soils;
- (2) a Landscape Design and Natural Areas Preservation Plan (“Landscape Plan”) has been submitted by the Landowner to Department; and
- (3) a completed review by the Landscape Advisory Committee has been acquired.

Sec. 14. LANDSCAPE DESIGN AND NATURAL AREA(S) PRESERVATION PLAN REQUIRED.

Sec. 14.1. Landscape Design and Natural Area(s) Plan Requirements.

After site inspection is completed by Department and findings submitted to Landowner, a Landscape Design and Natural Area(s) Plan (“Landscape Plan”) showing proposed landscape and preservation design shall be submitted by the Landowner or designated representative /agent for review and approval by the Department and Landscape Committee. Such plan shall be required for all applicable development as referenced in Section 5 of this ordinance. The Landscape Plan shall be prepared by either a Georgia registered landscape architect or a Georgia certified landscape designer both licensed by the Community as native plant certified as referenced in Section 29.2 of this ordinance.

Landscape Plan(s) shall be to scale and include and indicate the following:

- (a) Dimensions of the property;
- (b) Location, species, and size of all existing trees;
- (c) Description of existing understory species and size;
- (d) Description of quality of existing trees and understory;
- (e) Proposed location of species by USDA Plant Database botanical and common name(with identification if native or non-native), size, and quantity of all proposed landscape materials. Selection and choice of native plants can be assisted by utilizing the most current University of Georgia CoastScapes/Bugwood Coastal Plain Native Plants search engine or the most current University of Georgia CoastScapes Coastal Plain Conservation Landscaping native plant lists;

- (f) Location and species of all Category 1, Category 1 Alert and Category 2 non-native invasives as defined by the most current Georgia Exotic Pest Plant Council List of Invasive Plant Species;
- (g) Description of existing soil types as defined by the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS);
- (h) 100 year Flood Plain boundaries as defined by FEMA;
- (i) Location of all existing structures, freestanding signs, parking areas, drives, vehicular use areas and other improvements to remain on the property;
- (j) Location of proposed new structures, signs, parking areas, drives, vehicular use areas and any other alterations to the property;
- (k) Location of existing water bodies (including isolated and jurisdictional wetlands and riparian buffers) and proposed water bodies location;
- (l) Location of all underground utilities;
- (m) Location of overhead powerlines and adjacent rights-of-way and any other easements;
- (n) Proposed location of required buffers under Sections 14.5 and 14.6 of this ordinance;
- (o) Proposed alterations to existing soils referring to Section 15 of this ordinance;
- (p) Proposed removal of any existing vegetation;
- (q) Proposed types of construction devices and procedures used to protect soils and native trees and vegetation planned for conservation;
- (r) Indicate in a table the total square footage (s) and partial square footage of the various landscape hydrozones on the plan;
- (s) Location and type of irrigation system;
- (t) Proposed mulching materials, fertilization and installation landscaping details, and such other information as needed and requested by Department and Landscape Advisory Committee;
- (u) Natural Area (s) Preservation Management Plan for restored habitat as defined under Section 14.10 of this ordinance and Priority Natural Areas as defined under Sec. 14.4 of this ordinance and natural buffers defined under Section 14.5 and 14.6 of this ordinance. Incorporation of defined priority natural areas and all vegetative buffers as defined under Sec. 14.4-14.6 of this ordinance shall be clearly identified and delineated within the Landscape Plan.

Sec. 14.2. Appropriate Plant Selection, Location, and Arrangement

1. Plant selection shall be based on the plant's adaptability to the existing conditions present at the landscaped area and native plant communities, particularly considering appropriate hardiness zone, moisture conditions, soil type, light, mature plant size, desired effect, color, and texture. For purposes of determining appropriate native plant selection, refer to the most current UGA MAREX CoastScapes/Bugwood Coastal Plain Native Plant search engine and the UGA MAREX CoastScapes conservation landscaping coastal plain native plant lists.
2. Plants shall be grouped in accordance with their respective water and maintenance needs. Plants with similar water and cultural (soil, climate, sun, and light) requirements shall be

grouped together. The water use zones (hydrozones) shall be shown on the irrigation, layout, and planting plans (where required). Where natural conditions are such that irrigation is not required, the presence of site appropriate plants shall not be considered a high water use hydrozone.

3. The combined size of all high water use hydrozones shall be limited to X percent (X%) (to be determined by the Community) of the total landscaped area. In landscapes irrigated with recycled water, the allowable size of all high water use zones shall be increased to no more than X % (X%) (to be determined by the Community) of the total landscaped area. These high water use limits do not apply to landscaped areas requiring large amounts of turf for their primary functions (e.g., recreational areas).

Sec. 14.3. Tree Protection During Construction and Land Clearing.

1. No native trees over six feet in height, or more than three inches in trunk diameter and contiguous native groundcover or shrub plants will be removed from this site without a Tree Removal Permit from Department as outlined in Section 20 of this ordinance. All existing appropriate native trees designated as remaining in their original placement as a part of the Landscape Plan shall be protected during construction and land clearing from permanent damage to any part of the tree. A developer shall follow guidelines for protecting existing native trees during construction and land clearing provided under “Tools and Resources” section of this ordinance or guidance provided by the Department.
2. No removal of any trees of any size from isolated or jurisdictional wetlands shall be permitted.

Sec. 14.4. Priority Natural Area(s) Protection Required as Part of Landscape Plan.

The following vegetation and specific areas are considered priority for on-site retention and protection within the site development, and grading shall leave this vegetation and these specific areas undisturbed unless government agencies responsible for jurisdictional protection of these resources determines disturbance unavoidable in the interests of the public health and welfare.

- a. 100-year floodplain;
- b. Riparian buffers;
- c. Wetlands, which include both isolated and jurisdictional and tidal and non-tidal fresh, brackish, and salt water wetlands;
- d. Beaches;
- e. Habitat of federal and state listed rare, threatened, endangered, or proposed candidate animal and plant species;
- f. Other high priority plants as defined in the Comprehensive Wildlife Conservation Strategy for Georgia (GADNR WRD, 2005);
- g. Other designated areas of high ecological importance including:
 - i. High priority habitats as defined in the Comprehensive Wildlife Conservation Strategy for Georgia (GADNR WRD, 2005);

- ii. If available, high priority areas defined by the Coastal Land Conservation Initiative;
- h. Corridors for wildlife movement.

If more than one native terrestrial plant community is present on the site, areas representing all existing plant communities shall be preserved onsite unless preserving more of one particular community is determined by the appropriate authorized government agency to be more ecologically beneficial.

Sec. 14.5. Native Vegetation Buffers Required as Part of the Landscape Plan.

1. The Community recognizes the importance of native vegetation buffers for the purposes of erosion control, green infrastructure stormwater practices, water conservation, wildlife habitat, natural habitats restoration, water and air filtration, noise buffer, aesthetics, and beautification.
2. Where appropriate, a non-elevated buffer of undisturbed Georgia native vegetation preserved on site, or a buffer planted to recreate native uplands is preferable over berms.
3. All buffers shall be conserved as common areas and shall be depicted as such on the Landscape Plan.
4. All buffers will be included within the Preservation Management Plan requirement outlined in Section 14.10 of this ordinance.
5. Any activity, including restoration, within 25 feet of State waters must comply with the requirements of the Georgia Erosion and Sedimentation Act of 1975.

Sec. 14.6. Priority Natural Areas Vegetation Buffers Required as Part of the Landscape Plan.

An appropriate native vegetated upland buffer zone shall be maintained along the perimeter of the priority natural area preservation areas outlined in Section 14.4 of this ordinance and shall be required as part of the Landscape Plan for natural areas preservation under Section 14.10 of this Ordinance. In areas where the buffer area is contiguous with an existing conservation area, the dimensions of the conservation areas may be credited towards the minimum buffer required.

1. The minimum buffer width for natural priority habitat preservation areas shall be fifty (50) feet.
2. No turf grass is allowed within the forest preservation vegetation buffer.
3. No turf grass is allowed within riparian buffers.
4. New vegetation allowed in the buffer shall be based on the native predevelopment plant community.
5. Permissible uses within the forest preservation native vegetation buffers are footpaths for walking. Footpaths must be natural or made from a previous material.

6. Any activities proposed near beaches and coastal marshlands must comply with the requirements under Georgia's Shore Protection Act of 1979 and/or Coastal Marshland Protection Act of 1970, as amended.
7. If the landowner desires to create a keyhole view corridor within the riparian buffer, he/she must obtain approval from the Department and Landscape Advisory Committee. All keyhole view corridors will comply with the most current version of the Model Coastal Riparian Buffer Ordinance for Georgia's Local Governments.

Sec. 14.7 Protection of Vegetation Set Aside for Preservation During On-Site Construction.

Vegetation that is set aside for preservation shall be protected from all on-site construction. Protective barriers shall be installed along the perimeter of all preserve areas. Protective barriers shall be constructed at such intervals to prevent machinery from passing between them. No equipment or materials shall be permitted to be stored within the set-aside areas, and dumping of excess soil, liquids, or any other construction debris within the preservation areas is prohibited. Any damaged vegetation within the soils within preservation areas is prohibited. Any damaged vegetation within the set-aside areas shall be replaced with vegetation equivalent to the vegetation destroyed before any Certificates of Occupancy or other approvals may be issued.

Sec. 14.8. Minimum Landscape Requirements Required as Part of the Landscape Plan.

All Landscape Plan applicants shall utilize the most recent version of the University of Georgia's Marine Extension Service/Bugwood CoastScapes Georgia Coastal Plain Native Plant search engine and/or UGA MAREX CoastScapes Georgia coastal plain native plant conservation landscaping lists in the design, complete installation and restoration of all elements of the Landscape Plan.

- Under no circumstance shall native plants be acquired from the wild. The exception to this provision may include transplanting native flora from wild settings **only** when the plants of a given area are officially slated for destruction, e.g. road construction, subdivisions, pipelines, golf courses, etc. Landowner or appropriate required authorization is required before removing wild flora.

The source of all plant material, other than existing native vegetation at the site, shall be from reputable plant nurseries. Preferably, coastal plain native plants will be acquired from coastal plain plant nurseries in order to increase plant establishment success and maintain genetic viability.

No non-native invasive plants shall be planted as outlined in Sec. 8.

Sec. 14.8.1. Percentage and Size Requirements for Newly Planted Appropriate Native Plants.

1. Seventy five percent (75%) native canopy trees and seventy five (75%) of all other native trees, including palms.
2. At least seventy-five percent (75%) of all shrubs shall be an appropriate shrub species.
3. At least seventy-five percent (75%) of all groundcover, including forbs/herbs and grasses, shall be an appropriate native species.
4. At least seventy-five percent (75%) of all vines shall be an appropriate native species.
5. All native trees shall be a minimum of eight (8) feet in height when measured immediately after planting.
6. All native shrubs shall be a minimum of two (2) feet in height or a minimum of 5-gallon size when measured immediately after planting.
7. Ten (10) saplings will equal one (1) six (6) foot tree.
8. Where deemed appropriate, deer protective management of trees will be required.
9. Saplings will be used in riparian buffer areas and buffer areas as defined in Sections 14.5 and 14.6 only and protected as defined in the Preservation Management Plan, Section 14.10.
10. The Department may waive the size and minimum standard specifications if the applicant can demonstrate that current market conditions are such that appropriate native plants meeting these specifications are not readily available.
11. The Department may choose to exempt the size requirements for landscaping with GADNR approved rare, threatened and endangered plants.

Sec. 14.9. Modification of Existing Landscape.

If a Landowner modifies fifty-percent (50%) or greater of the entire landscaped area of an existing landscape plan which was installed prior to the implementation of this ordinance, the Landowner shall bring the portion of the landscaped area that is being modified into compliance with the provisions of this ordinance.

Sec. 14.10. Natural Area(s) Preservation Management Plan Required as Part of the Landscape Plan.

A Natural Area(s) Preservation Management Plan (“Preservation Management Plan”) shall be required for all buffers required under Sections 14.5 and 14.6 of this ordinance, for all restored habitat under Section 27.3 of this ordinance and for all priority natural areas outlined under Sec. 14.4 of this ordinance. These designated natural areas placed in preservation shall be retained in entirety, in their current or improved natural state, and protected into perpetuity regardless of ownership. This requirement may be negotiated to create contiguous preservation among plant communities.

The Landowner shall prove to the Department, through the Preservation Management Plan provided during the site approval process, that the highest ecologically valued land is being retained first in order to satisfy the set-aside requirement.

Areas set aside for preservation should be contiguous parcels of land that are interconnected and considered viable habitat for wildlife to the extent practicable.

A Preservation Management Plan shall be prepared by Landowner as part of the Landscape Plan and submitted to Department for approval unless exempt under Section 6 of this ordinance.

Sec. 14.10.1. Ownership and Management of Preservation Management Area(s).

- (1) Ownership of Preservation Management Area(s). The Landowner must identify the owner of the preservation area(s) who is responsible for maintaining the areas. If a Homeowner Association is the owner, membership in the association shall be mandatory and automatic for all homeowners of the subdivision and their successors. The responsibility for maintaining the preservation areas shall be borne by the owner.
- (2) Landowner shall submit a Preservation Management Plan that:
 - a. Allocates responsibility and guidelines for the maintenance and operation of the preservation management area(s);
 - b. Estimates the costs and staffing requirements needed for maintenance for the preservation management area(s) and outlines the means by which such funding will be obtained or provided;
 - c. Provides that any changes to the Preservation Management Plan be approved by the Department; and
 - d. Provides for enforcement of the Preservation Management Plan.

- (3) In the event the party responsible for maintenance of the preservation management area(s) fails to maintain all or any portion areas in the condition at the time of issuance of builder's permit, Community may assume responsibility for its maintenance and may enter the premises and take corrective action, including the provision of extended maintenance. The costs of such maintenance may be charged to the owner, Homeowner's Association, or to the individual property owners that make up the Homeowner's Association, and may include administrative costs and penalties. Such costs shall become a lien on all subdivision properties.

Sec. 14.10.2. Legal Instrument for Permanent Protection.

- (1) The Green Space shall be protected in perpetuity by a binding legal instrument that is recorded with the deed. The instrument shall be one of the following:
 - a. A permanent conservation easement in favor of either:
 - i. A land trust or similar conservation-oriented non-profit organization with legal authority to accept such easements. The organization shall be bona fide and in perpetual existence and the conveyance instruments shall contain an appropriate provision for retransfer in the event the organization becomes unable to carry out its functions; or
 - ii. A governmental entity with an interest in pursuing goals compatible with the purposes of this ordinance. If the entity accepting the easement is not the Community government, then a third right of enforcement favoring the Community shall be included in the easement;
 - b. A permanent restrictive covenant for conservation purposes in favor of a governmental entity; or,
 - c. An equivalent legal tool that provides permanent protection, if approved by the Department.
- (2) The instrument for permanent protection shall include clear restrictions on the use of the natural areas and buffers. These restrictions shall include all restrictions contained in this article.

Sec. 15. SOIL ADDITIONS AND SOIL RESTORATIONS.

1. Soils vary from site to site and even within a given site. Soil analysis information is required for proper selection of plants and, if needed, soil amendments. A soil analysis based on random sampling is required and shall be performed by a reputable soil testing lab or University of Georgia Cooperative Extension facility.
2. Limit disturbance of healthy soil to protect soil horizons and maintain soil structure, existing hydrology, organic matter, and nutrients stored in soils.

3. Any soil additions proposed by Landowner shall be detailed on the Landscape Plan and subject to Department approval. All new soil shall be similar to the existing soil in pH, texture, permeability and other characteristics, unless convincing evidence is provided that soil restoration is justified. In this case, any different type of soil additions/amendments proposed by Landowner shall be detailed in narrative within the Landscape Plan.

Sec. 16. TURF AREAS.

1. Non-native turfgrass shall be considered within the percentage of non-native vegetation permitted. The Landowner shall use a low-water use turfgrass that is approved by the Department as the most appropriate turfgrass for use in the area. The Department may vary the percentage of turfgrass requested by the landowner in the Landscape Plan.
2. Irrigated turf areas, as opposed to non-irrigated turf areas, are considered to be a high water use hydrozone. Irrigated turf shall not be treated as a fill-in material but rather a planned non-native vegetative element in the landscape. Turf shall be placed so that it can be irrigated using separate zones. While turf areas provide many practical benefits in a landscape, how, where it is used, and total reduction of turf in the landscape can result in a significant reduction in water use.
3. Irrigated turfgrass areas are encouraged to be consolidated and limited to those areas on the site that receive pedestrian traffic, provide for recreation use, provide cover for septic tank drainfields and required drainfield reserve areas, or provide soil erosion control such as on slopes or in swales; and where turfgrass is used as a design unifier, or other similar practical use. As a matter of public safety, no turfgrass that requires mowing shall be allowed on slopes greater than 4:1 or within twenty feet (25) feet of the water's edge, except where temporarily needed to control erosion. Turf areas shall be identified on the Landscape Plan.
4. One of the most common reasons for turf failure is over irrigation. Irrigation systems shall be designed and operated in accordance with Sec. 17.
5. Lawn alternatives to traditional turfgrass that reduce water use, chemical use, and stabilization are not prohibited.

Sec. 17. EFFICIENT IRRIGATION.

1. Installation of an irrigation system is not required by this ordinance. A construction permit is required if an irrigation system is installed or substantially replaced.
2. Irrigation systems shall be designed to meet the needs of the plants in the landscape.
3. An Irrigation System Plan certified by an irrigation design professional shall be provided (if required by the Community) prior to issuance of a Land Disturbance Permit. Plans shall be clearly readable, to reasonable scale, show the entire site to be irrigated, and include all improvements and equipment specifications.
4. Irrigation systems must be designed and installed by appropriately licensed professionals.
5. When feasible, irrigation systems shall be designed to separately serve non-turf and turf areas.

6. The design shall consider soil, slope, and other site characteristics in order to minimize water waste, including overspray, the watering of impervious surfaces and other non-vegetated areas, and off-site runoff.
7. The irrigation system shall be designed to correlate to the organization of plants into hydrozones. The water use zones (low, moderate, high) shall be shown on the Irrigation Plan (where required). All plants (including turf) require watering during establishment. Temporary facilities may be installed to facilitate establishment. For example, once many native plants are established, irrigation may not be necessary and be required only during severe drought conditions.
8. Trees, shrubs, and other plants may be irrigated only with microirrigation (low volume) irrigation at the base of the plant. Overhead or spray irrigation may be used only for turfgrass and other ground covers that normally have a mature or maintained height no greater than one foot.
9. Reduce the use of potable water, natural surface water (such as lakes, rivers and streams), and groundwater withdrawals for landscape irrigation after plant establishment phase by fifty percent (50%) from a baseline case (See Sustainable Site Initiative Guidelines and Performance Benchmarks 2009, Prerequisite 3.1). Reductions can be attributed to any combination of the following items:
 - a. Plant species factor
 - b. Irrigation efficiency
 - c. Use of captured rainwater
 - d. Use of air conditioner condensate
 - e. Use of recycled graywater
 - f. Use of recycled wastewater
 - g. Use of blowdown water from boilers and cooling towers.
10. Install flow meters to record and monitor water use in the landscape irrigation areas.
11. All irrigation systems shall include a rain sensor or soil moisture sensor device which will override the irrigation cycle of the system when adequate rainfall has occurred.

Sec. 18. MULCH AND GROUND COVER.

1. Mulches shall be applied and maintained at appropriate depths of three inches (3") in planting beds to assist soils in retaining moisture, reducing weed growth, and preventing erosion. Mulch can also be used in places where conditions are not adequate for or conducive to growing quality low-water use turf or ground covers.
2. The use of cypress mulch is prohibited.
3. Gravel, river rock, shell and similar materials should not be used as a major landscape ground cover or mulch. In no case may these materials occupy over (To be inserted by the local government) "x" percentage (x%) of the landscape surface area.
4. The use of certified clean mulch, which has been tested to be free of metals and other chemicals, is encouraged for use in all landscapes. The use of certified clean mulch is strongly recommended particularly on public school areas.

Sec. 19. YARD WASTE MANAGEMENT, COMPOSTING, AND USE OF MULCHES.

1. In no case shall yard wastes, including but not be limited to grass clippings, vegetative materials and/or vegetative debris, either intentionally or accidentally be washed, swept, or blown off into stormwater drains, ditches, conveyances, water bodies, wetlands, or sidewalks or roadways.
2. Shredded yard clippings and leaves should be used for mulch or be composted for use as soil amendments and conditioners. However, diseased material should not be mulched and should be properly disposed of to avoid spreading disease.
3. Grass clippings are a benefit to turf lawns, replacing nutrients drawn from the soil and as mulch that helps retain moisture, lessening the need to irrigate. Grass clippings should be left on the Landowner's lawn. Low-energy use mulching mowers are recommended, because the grass clipping are chopped very finely by special blade and shroud configurations.
4. If a conventional mower equipped with a side discharge chute is used, the following practices should be employed:
 - a. When mowing near the shoreline, direct the chute away from the water body;
 - b. When mowing upland areas, direct the chute back onto the yard, not onto the road or driveway.

Sec. 20. NATIVE TREE AND PLANT REMOVAL PERMIT.

Applications for native tree and plant removal shall be submitted to the Department.

Sec 20.1. Application, Replacement or Fee.

1. The Department may determine the removal of existing native tree and plants as unavoidable after the following have been implemented and reviewed:
 - (a) completion of Department site inspection as required under Section 13 of this ordinance;
 - (b) submittal of a Landscape Plan as required by Section 14 of this ordinance;
 - (c) review and findings by the Landscape Advisory Committee as required under Section 28.3; and
 - (d) prior to any Community permitting.

In such circumstances, the Landscape Plan or revised Landscape Plan will outline the following:

- (a) The proposed removal of existing native plants and trees including their location and species; and
- (b) Why the existing native vegetation must be disturbed.

2. The Department will require the Landowner to replace the removed native trees and plants with specific appropriate native trees and contiguous native vegetation.
 - (a) A Landowner who removes any tree from a site shall replace that tree with a replacement tree or a number of replacement trees in sum that are equal or greater to the diameter of the tree that was removed inch for inch. All replacement trees shall be appropriate native trees.
 - (b) A Landowner who removes native vegetation from a site shall replace with appropriate native plants in sum that are equal or greater in number and size.

3. If the Department determines it is not feasible for a landowner to replace removed native plants and trees, then the Landowner must pay a fee to the Community Native Tree and Plant Trust Fund as outlined in Section 21 of this ordinance. Funds from the Community Native Tree and Plant Trust Fund shall be used to purchase appropriate native trees and vegetation for planting on public property within the Community or to fund landscape enforcement and educational activities required by this ordinance or as part of a Preservation Management Plan covered in Section 14.10 of this ordinance.

Sec. 20.2. Denial of Application for Native Plant and Tree Removal Permits.

If the Department denies an application for removal of native trees and plants, it shall explain the grounds for denial of the application. Applicants may appeal the decision under Sections 30 of this ordinance.

Sec. 21. COMMUNITY NATIVE TREE AND PLANT TRUST FUND.

There is hereby created a Community Native Tree and Plant Trust Fund, a separate fund of the Community that shall receive all funds collected under this ordinance and which shall be received and administered by the Department for purposes outlined in Section 20 of this ordinance.

Sec. 22. VIOLATION.

It shall be unlawful for the applicant Landowner or any of his representatives to directly or indirectly cut down, destroy, remove, top or move any native vegetation without first submitting a Landscape Plan under Section 14 of this ordinance and receiving review of the Plan by the Landscape Advisory Committee from the Department and obtainment of a Native Tree and Plant Removal Permit.

Sec. 23. PENALTY.

Landowners must meet compensation requirements before the issuance of a building permit, Land Disturbance Permit or Certificate of Occupancy.

Payments to the Community Native Tree and Plant Trust Fund will equal the cost of a four-to-one replacement. The total penalty shall be determined by the Department and submitted to Landowner for payment to the Community Native Tree and Plant Trust Fund.

Sec. 24. FINANCIAL ASSURANCES.

When deemed necessary by Department, appropriate security or guarantees shall be provided by the applicant to ensure proper implementation of the Landscape Plan as approved. The guarantee may be in the form of a performance bond, trust fund, irrevocable letter of credit, or other financial assurance mechanisms acceptable and payable to the Community. The amount of financial assurances shall be determined by the Department or its representative.

When the appropriate local government staff determines that under the particular circumstances planting of trees or vegetation would not be prudent before a certificate of occupancy or certificate of completion is issued, the applicant may post a performance bond with the Department, in a form acceptable to the Department. The performance bond shall be in an amount no less than one hundred twenty five percent (125%) of the estimated cost of all trees and vegetation to be planted, plus labor. The performance bond shall be received and accepted by the Community prior to the issuance of the certificate of occupancy or certificate of completion.

Sec. 25. VARIANCE PROCEDURES.

- (1) **Petition.** Any landowner whose property is regulated by this ordinance may petition the Department for a variance from the requirements of this ordinance. The petition must include:
 - a. The name and address of the applicant;
 - b. A detailed description of the exigent circumstances that warrant variance from the requirements;
 - c. A proposed landscape plan; and
 - d. Any other relevant information that staff requests of the applicant.
- (2) **Decision.** Within thirty (30) days of receiving the petition, the Department will notify the landowner in writing of its decision to either approve or deny the petition.
- (3) **Appeal.** The landowner may appeal a denial of the variance to the Department by submitting as written notice of appeal to the Department legal department within thirty (30) days after the date of determination by the Department.

Sec. 26. ENFORCEMENT.

Implementation and enforcement of this ordinance by Department shall consist of:

- (1) **Notice of Violation.** If any provision of this ordinance is violated at any time, the Department shall issue a written notice of the violation to the Landowner. The Landowner shall have sixty (60) days within which to correct the violation before any punitive action is taken.
- (2) **Fines.** If any person who violates the provisions of this ordinance has not corrected the violation within sixty (60) days after receiving notice of the violation, the Community may seek correctable action including fines and legal action. The Community may choose to list a maximum per day fine.
- (3) **Injunctive Relief.** If any person engages in landscaping activities regulated by this ordinance without the prior approval of a landscape plan by the staff, then the Community may file an action for injunctive relief in a court of competent jurisdiction.
- (4) **Denial of Permits.** If any person fails to obtain approval of a Landscape Plan from the Department or implements a landscape plan contrary to the Plan approved by the Department, the Community may deny such person additional development permits on the basis of failure to comply with the requirements of this ordinance.
- (5) **Inspections.** Designated Department landscape inspectors shall have the authority to make inspections at reasonable hours of all areas landscaped pursuant to this ordinance at any time during the development of a site, installation of the landscape plan at the site, and within the first year after the date that the landscaping is completely installed. The inspections may be made without notice, and refusal to allow such inspection will be violation of this ordinance. Refusal to allow inspection will constitute grounds for a court of competent jurisdiction to issue an administrative warranty for the purposes of inspecting the landscaped area. The Department may utilize knowledgeable experts and specialists for the purposes of completing the inspections.
- (6) **Suspension or Revocation of License and/or Certification.** All registered landscape architects, landscape designers and landscape contractors that submit a landscape plan pursuant to this ordinance shall be responsible for ensuring that the landscape plan is installed as approved. Any landscape architect, landscape designer or landscape contractor that installs a landscape plan in violation of this ordinance shall be subject to suspension or revocation of their license in the municipality where the work was completed.

Sec. 27. LANDSCAPING INCENTIVES.

Sec. 27.1. Rare, Threatened and Endangered Plants Incentives.

1. A Landowner who provides protection and maintenance in perpetuity for existing rare, threatened, and endangered plants at the site as established in the Landscape Plan as set forth in Sec. 10, and does not dig up or disturb the natural placement of any such plant at the site, shall be eligible for all or part of the following Sec. 27.1.incentives with eligibility based on the recommendations of the Landscape Advisory Committee as defined in Section 28.3 of this ordinance and final approval of the Department.

2. Any Landowner or Landowner representative submitting, as required under Section 14 of this ordinance, a Landscape Plan including landscaping **limited to GADNR landscape approved and appropriate rare, threatened and endangered plants as listed by the GADNR** and by the most current version of the University of Georgia's Marine Extension Service's CoastScapes/Bugwood Coastal Plains Native Plant search engine and UGA MAREX CoastScapes conservation landscaping Georgia coastal plain native plant lists, the landowner will be eligible for all or part of the following incentives with eligibility based on the recommendations of the Landscape Advisory Committee as defined in Section 28.3 of this ordinance and final approval of the Department.

Before approving the use of the GADNR landscape approved rare, threatened and endangered plants, the Landscape Advisory Committee **shall take great care to ensure** that the proposed site conditions are appropriate and meet the necessary requirements and needs of the individual proposed GADNR landscape-approved protected plants. These plants are rare and protected and thus require great care and consideration for landscaping purposes. If it is determined that the site is not appropriate for the proposed protected plants, then the plantings will not be approved and no incentives will be authorized.

3. The eligible incentives include:
 - 1) A rebate of up to twenty-five percent (25%) from the Community's Landscape ordinance fees per Section 31; excluding impact fees and considering rebates which may be approved by means of additional community ordinances;
 - 2) Landscape Plan review and approval granted priority review status over existing Landscape Plan submittals which do not include a plan for landscaping with appropriate rare, threatened and endangered plants, landscaping with one hundred percent (100%) native plants, restoring of habitat or permanent conservation easement;
 - 3) PUD or BPUD zoning applications granted priority review status over existing rezoning applications which do not include a plan for landscaping with appropriate rare, threatened and endangered plants, landscaping with one hundred percent (100%) native plants, restoring of habitat, permanent conservation easement;
 - 4) Signage placed on site recognizing the preserved area and/or community as a UGA MAREX "Georgia CoastScapes Habitat";
 - 5) Certificate of Recognition and Appreciation from the GADNR;

- 6) Community notice of recognition and appreciation placed with prominence in a local newspaper of the largest distribution.

Sec. 27.2. Appropriate Native Plants Incentives.

Any Landowner or Landowner representative submitting, as required under Section 14 of this ordinance, a Landscape Plan for landscaping with one hundred percent (100%) appropriate native plants will be eligible for all or part of the following incentives with eligibility based on the recommendations of the Landscape Advisory Committee as defined in Section 28.3 of this ordinance and final approval of the Department.

- 1) A rebate of up to twenty-five percent (25%) from the Community's Landscape ordinance fees per Section 31; excluding impact fees and considering rebates which may be approved by means of additional community ordinances;
- 2) Landscape Plan review and approval granted priority review status over existing Landscape Plan submittals which do not include a plan for landscaping with appropriate rare, threatened and endangered plants, landscaping with one hundred percent (100%) native plants, restoring of habitat or permanent conservation easement;
- 3) Signage placed on site recognizing the preserved area and/or community as a UGA MAREX "Georgia CoastScapes Habitat";
- 4) Certificate of Recognition and Appreciation from the GADNR;
- 5) Community notice of recognition and appreciation placed with prominence in a local newspaper of the largest distribution.

Sec. 27.3. Restoration of Native Habitat Incentives.

- 1) PUD or BPUD zoning applications granted priority review status over existing rezoning applications which do not include a plan for landscaping with appropriate rare, threatened and endangered plants, landscaping with one hundred percent (100%) native plants, restoring of habitat or permanent conservation easement;
- 2) Landscape Plan review and approval granted priority review status over existing Landscape Plan submittals which do not include plan for landscaping with appropriate rare, threatened and endangered plants, landscaping with one hundred percent (100%) native plants, restoring of habitat or permanent conservation easement;
- 3) Signage placed on site recognizing the preserved area and/or community as a UGA MAREX "Georgia CoastScapes Habitat";
- 4) Certificate of Recognition and Appreciation from GADNR;

- 5) Community notice of recognition and appreciation placed with prominence in a local newspaper of the largest distribution;
- 6) A rebate of up to twenty-five percent (25%) from the Community's PUD filing fee following recommendations by the Landscape Advisory Committee and final on-site inspection and approval by Department and considering rebates which may be approved by means of additional community ordinances;
- 7) A rebate of up to twenty-five percent (25%) of the Community's Landscape ordinance fee following recommendations by the Landscape Advisory Committee and final on-site inspection and approval by Department and considering rebates which may be approved by means of additional community ordinances;
- 8) Community awarded temporary tax credit of ten percent (10%) per year for three years for a minimum of three (3) acres native habitat restored considering rebates which may be approved by means of additional community ordinances;
- 9) Community awarded temporary tax credit of twenty percent (20%) per year for five years for landowner native habitat restored acres of over one hundred (100) acres considering rebates which may be approved by means of additional community ordinances;
- 10) Community cost share incentives of up to fifty percent (50%) for any native habitat restored acres over one hundred (100) acres with final determination to be based on recommendations of Landscape Advisory Committee, availability of matching grant monies and final approval of Community Environmental Management;
- 11) A Community Ombudsman with the responsibility of overseeing a smooth and expedient restoration and review process.

All temporary tax credits begin following a mandatory on-site inspection and approval by Department and Property Appraiser's Office.

Sec. 27.3.1. Preservation Management Plan Required for Restored Habitat.

- (1) Any landowner desirous of retaining fee simple ownership of restored native habitat must enter into a Preservation Management Plan according to Section 14.10 of this ordinance.
- (2) Any landowner desirous of retaining ownership of the restored native habitat but relinquishes all development rights to the restored native habitat, must enter into a Preservation Management Plan according to Section 14.10 of this ordinance.

Sec. 27.4. Permanent Conservation Easement Incentives.

In the event a Landowner wishes to place native habitat in need of restoration, including the removal of invasive non-native species, into a permanent conservation easement, he may be considered by the Community for exemption from Section 27.3.1 of this ordinance.

In the event a Landowner wishes to place native habitat fully restored by landowner or in partnership with landowner and the Community into a permanent conservation easement he may request a reappraisal from the Property Appraiser’s Office on the restored habitat with assistance from a Community appointed Ombudsman.

Sec. 28. LANDSCAPE ADVISORY COMMITTEE PURPOSE.

A Landscape Advisory Committee is created for the following purposes:

- (a) promoting the protection of existing native vegetation;
- (b) promoting the use of appropriate native vegetation in all public and private landscaped areas;
- (c) promoting diversity of appropriate native landscaping;
- (d) promoting soil health;
- (e) coordinating efforts to educate citizens of the Community about the benefits of appropriate native vegetation and best management practices for efficient conservation landscaping design; and
- (f) making recommendations for the design of a landscape plan benefitting the Community.

Sec. 28.1. Landscape Advisory Committee Membership.

The Landscape Advisory Committee will comprise of at least seven (7) members. The Landscape Advisory Committee shall be diverse and representative of the following categories with no more than one person per category:

- Appointee by the local Native Plant Society Chapter, if available.
- Botanist or plant ecologist (ideally with advanced degree)
- Community government representative
- Certified arborist (Community/City designated or local)
- Master naturalist
- Public natural resource manager
- Local native plant nursery grower
- Registered landscape architect
- Certified landscape designer

University or college ecologist/botanist/wildlife biologist/invasive plant biologist/extension services

Member of the local builders' association

Community staff person knowledgeable of local ecosystems and native plants

Division of Forestry representative

Local Soil and Water District representative

Community/City forester

Local master gardener

Sec. 28.2. Landscape Advisory Committee Meetings.

All meetings will:

Be open to the public and be publicly noticed by the Department;

Require a quorum; and

Be scheduled by the Department.

The Department will consider committee review expediency in the scheduling of the meetings. All meetings will be facilitated by the Department. The Department will determine the number of applications to be reviewed at each meeting allowing for appropriate time for the Committee to expediently submit its findings to the Department.

The Committee will meet only once on each application unless the Committee finds there is a need for clarification and more information from the Landowner in which case the Committee will submit the written request for a second meeting along with the request for clarification and further information to the Department.

Sec. 28.3. Landscape Advisory Committee Final Recommendations.

The Committee will submit its recommendations on Landscape Plan applications to the Department in a timely manner. The recommendations shall either approve the Landscape Plan as is or return the Landscape Plan with written recommendations in furtherance of the purpose of this ordinance.

Sec. 29. EDUCATION.

The Community recognizes that education of its citizens on the benefits of appropriate native vegetation and the need for the use of more efficient conservation landscaping practices, including design and maintenance, is essential in order to protect the Community's most valuable resources, including water, wildlife, and native plants.

Sec. 29.1. Public Workshops Required.

To increase public awareness on the requirements of this ordinance, promote the use and protection of native plants, and educate its citizens on local native ecosystems and appropriate native plants, the Department will conduct, at minimum, one public workshop every year. The costs of the workshop(s) will be borne by the Community. The Department may coordinate and utilize the efforts of the UGA MAREX CoastScapes Conservation Landscaping Program, GADNR WaterSmart Program, and other partners.

Sec. 29.2. Native Plant Certification Required.

The Department will coordinate with the standard UGA MAREX CoastScapes Coastal Plain Native Plant Community Certification courses, when established. It will be a requirement of this ordinance that any landscape designer, landscape architect, irrigation contractor, and landscape contractor be certified prior to beginning work on any Landscape Plan under this ordinance. The costs of this course will be funded through the certification fee process.

Sec. 29.3. Residential Subdivision Education Required.

The Community, through the Department, will provide each new subdivision homeowner with educational materials on the subdivision Landscape Plan, including information on the appropriate native plants, soils, wildlife habitat, and water usage within their subdivision. The costs for the printing of the educational materials will be borne by the residential subdivision Developer and will be included by the Department in the cost of the Landscape Permit.

Sec. 30. APPEALS TO COMMUNITY COUNCIL.

Any person adversely affected by a decision in the enforcement or interpretation of any provisions of this ordinance may appeal such decision to the Department. Such appeal shall be made in writing to the Community government's legal department and copied to Department within thirty (30) days after the decision of the Department. The Community government shall set a time and place to allow the applicant to be heard. The Community shall thereafter either grant or deny the application in whole or in part and notify the applicant in writing of its decision.

Sec. 31. FEES.

The Department may charge an applicant reasonable fees for any permits and applications required by this ordinance. Such fees may from time to time be amended by the Department. All funds collected from designated permits and/or applications required under this ordinance shall be exclusively expended for the purposes of this Ordinance.

Sec. 32. CONFLICTING REGULATIONS REPEALED.

All regulations that are in conflict with this ordinance, in whole or in part, are hereby repealed to the extent that they are in conflict.

Sec. 33. SEVERABILITY.

If any portion of this ordinance is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate provision and shall not affect the validity of the remaining portion of the ordinance.

Sec. 34. EFFECTIVE DATE.

This ordinance shall take effect on the date on which it is enacted by the Community.

TOOLS AND RESOURCES

Georgia Coastal Plain Native Plants

UGA MAREX CoastScapes/Bugwood Georgia Coastal Plains Native Plant Search Engine:
<http://www.bugwood.org/coastscapes/>

UGA MAREX CoastScapes Georgia Coastal Plains Native Plant Conservation Landscaping
Lists: www.coastscapes.org/

Georgia Coastal Plain Protected and/or Priority Habitats, Plants and Animals

Georgia Department of Natural Resources Wildlife Resources Division/Protected Plants
and Animals:
<http://www.georgiawildlife.com/node/2223?cat=conservation>

Georgia Department of Natural Resources Wildlife Resources Division/Comprehensive
Wildlife Strategy Plan/Coastal Plain High Priority Habitats/Plants/Animals:
<http://www.georgiawildlife.com/node/1703>

U.S. Fish and Wildlife Service, Georgia Ecological Services, federally listed plant and
animal species:
<http://www.fws.gov/Athens/endangered.html>

Invasive Plants of Georgia

UGA Invasives and Ecosystem Health: <http://www.invasives.org/>

GA Exotic Pest Plant Council: <http://www.gaepcc.org/>

Nonpoint Source Pollution and Green Infrastructure Stormwater Management

Coastal Stormwater Supplement to the Georgia Stormwater Management Manual:

<http://www.gaepd.org/Documents/CoastalStormwaterSupplement.html>

Georgia EPD WaterSmart Program:

<http://www.conservewatergeorgia.net/documents/waterSmart.html>

Georgia Soil and Water Districts:

www.gaswcc.georgia.gov/portal/site/SWCC/

USDA Natural Resources Conservation Service (Georgia):

www.ga.nrcs.usda.gov/

Riparian Buffers

Coastal Georgia Riparian Buffer Restoration Guidance Manual:

www.coastscapes.org

Coastal Riparian Buffer Guidance Manual: A Companion to the Model Coastal Buffer Ordinance:

www.rivercenter.uga.edu/research/coastal.html

Protecting Riparian Buffers in Coastal Georgia: Management Options. Includes Model Coastal Riparian Buffer Ordinance:

www.rivercenter.uga.edu/research/coastal.html

Soil Testing and Tree Protection

University of Georgia Cooperative Extension Service

www.caes.uga.edu/extension/

Construction Damage Assessments: Trees and Sites. October 1996.

[www.warnellforestry.uga.edu/service/library/index.php3?docID=125&docHistory\[\]=2](http://www.warnellforestry.uga.edu/service/library/index.php3?docID=125&docHistory[]=2)

Tree Protection During Construction and Landscaping Activities.

www.apps.caes.uga.edu/urganag/GCLP/StudyGuide/chapter22.pdf

Sustainable Development

Green Growth Guidelines:

<http://crd.dnr.state.ga.us/Assets/Documents/green%20growth%20cover.pdf>

Sustainable Sites Initiative:

www.sustainablesites.org/