

COLLIER COUNTY ENVIRONMENTAL REVIEW GUIDEBOOK

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Top left & center: Dennis Goodman
Top right: Johnson Engineering, Inc.
Bottom: Ron Perkins*

COLLIER COUNTY NATURAL RESOURCES AND DEVELOPMENT REVIEW DIVISIONS

Collier County Natural Resources and Development Review are Divisions within the Growth Management Department. The Divisions implement regulations that are mandated by state statute to balance the protection of natural vegetation and wildlife while allowing for community growth.

ABOUT THIS GUIDEBOOK

The purpose of this Environmental Review Guidebook is to provide development applicants and their professional practitioners with guidance for producing the most accurate and complete applications from the start of the project. This Guidebook highlights the primary environmental planning considerations for typical development projects and how to address them.

This is only a Guidebook and not a legal document or ordinance. This document is not a substitute for the County's **Growth Management Plan, Land Development Code, Administrative Code**, and other standards. The considerations contained in this Guidebook are not all-inclusive and have only been provided to assist the Developer/designer with the review and permitting process. For more information, resources and links are available online at the Collier County Government website: www.colliergov.net/esd

APPLICABILITY¹

This Guidebook references the practices and processes relating to environmental review for zoning, platting, and developing property in the unincorporated county area outside the City limits of Naples, Marco Island, and Everglades City. Federal and State agencies may also have permitting jurisdiction over your development site, and these regulations may apply in addition to the guidance found herein.

¹In accordance with F.S. 125.022 Issuance of a development permit by a county does not in any way create any rights on the part of the applicant to obtain a permit from the state or federal agency and does not create any liability on the part of the county for issuance of the permit if the applicant fails to obtain requisite approvals or fulfill the obligations imposed by a state or federal agency or undertakes actions that result in a violation of state or federal law.

GUIDEBOOK AT-A-GLANCE

Section 1: What you should know to develop a property

- Topics related to Zoning and Location of Preserves On-Site are explained step-by-step to help you determine environmental standards applicable to your property.

Section 2: What you should do

- A list of Environmental Details for Construction Plans is provided to highlight the common environmental components that you should address as part of development plans and application submittals.

This Guidebook is a supplement but not a substitute for:

- The **Collier County Growth Management Plan (GMP)**, establishes goals, objectives and policies in the Conservation and Coastal Management Element (CCME) and the Future Land Use Element (FLUE) for the protection of the environment.
- The **Land Development Code (LDC)**, establishes more specific standards associated land development and protection of natural resources to implement the GMP. Relevant sections include:
 - » Section 3.05.00 refers to Vegetation Removal, Protection, and Preservation.
 - » Section 3.04.00 refers to Protection of Endangered, Threatened, or Listed Species.
 - » Section 3.08.00 identifies Environmental Data Submittal Requirements.
- The **Administrative Code**, contains procedural requirements.

WHERE TO START

This section provides step-by-step direction for determining appropriate location of Preserves for anyone who owns land, develops, or assists with permitting development in Collier County. For habitats containing native vegetation, a Preserve must be identified and dedicated to the County as part of the development review process, with some exceptions. The exemptions include some agricultural uses and some single family homesites.

The first step is to check the zoning map to determine whether existing development orders such as a Planned Unit Development (PUD) or conditional use, that may have already established the location of the Preserve required. If not, you will need to verify the type of vegetation and habitat for listed species on the property in order to determine the required size, type, and location of the Preserve. If the Preserve has already been determined, go to "What you should do" on page 8.

NOTE ABOUT PREVIOUSLY CLEARED PROPERTY

If the subject site has been cleared of vegetation and remains clear of native vegetation, the applicant may need a previously approved County permit or development order allowing the clearing. If the impacts were for an agricultural use, provide documentation of the effective date of the clearing, such as a permit or agricultural clearing notice. Clearing for agricultural purposes is subject to a 25 year rezone limitation. Clearing of the site may be subject to evaluation in its pre-cleared state. After-the-fact permits or other corrective measures may be required for land cleared illegally. Refer to Land Development Code Section 3.08.00 and contact staff to discuss your specific property.

NOTE ABOUT POTENTIAL FOR ENVIRONMENTAL CONTAMINATION

Some sites have potential for contamination. Soil and/or groundwater sampling are required for sites that occupy farm fields, golf courses, landfill, junk yards, or where hazardous products or hazardous waste in excess of the threshold in 3.08.00 have been stored on site. In addition, where hazardous waste assessments or audits have been done for property to be developed, they must be provided with the application.

STEPS 1-6

1. DETERMINE THE FUTURE LAND USE DESIGNATION OF YOUR PROJECT SITE.

The Future Land Use Element dictates the density and intensity of development that may be allowed, and the preservation requirements that apply. The Future Land Use Map in the GMP can be found on the County website: www.colliergov.net

The County's Comprehensive Plan is known as the Growth Management Plan (GMP), and serves as a blueprint for future growth of the County. The Conservation and Coastal Management Element of the GMP contains the policies that also apply to protecting and preserving environmental resources.

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2. DETERMINE THE ZONING DESIGNATION OF YOUR PROJECT SITE.

The zoning designation of your property dictates the development standards and preservation standards that apply.

Bona fide agricultural uses and development of single family homesites are regulated differently and certain exceptions may apply. Applicants can verify agricultural exemption status through the Collier County Property Appraiser (www.collierappraiser.com).

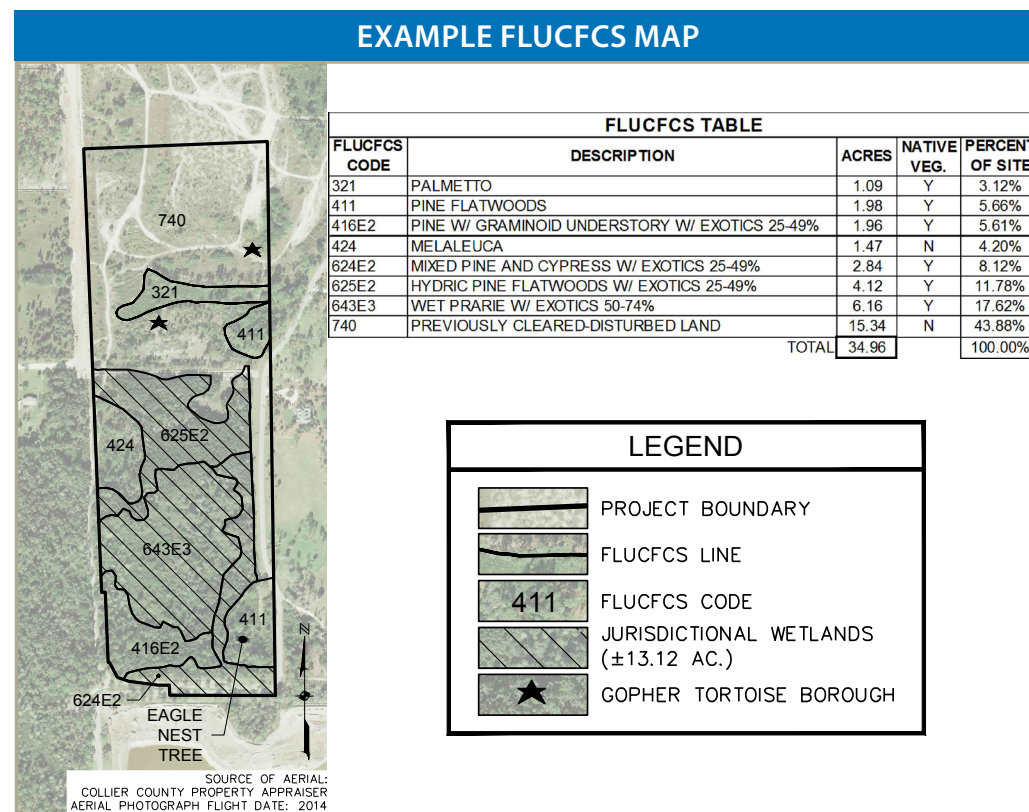
Contact County Development Review staff at (239) 252-2400 for more information about clearing for agricultural uses and single family homesites.

3. DETERMINE THE EXISTING VEGETATIVE COMMUNITY TYPES ON YOUR PROJECT SITE.

For properties where no preserve area has been established by existing development order approvals, or by easement, or for properties where the Preserve area is requested to change, a qualified Environmental Consultant must investigate and map the acreage, location and community types of all habitats on a site, using the Florida Department of Transportation Florida Land Use Cover and Forms Classification System (FLUCFCS). Qualified Environmental Consultants are individuals with the following academic credentials and experience in the area of environmental sciences or natural resource management: Bachelor's degree or higher in one of the biological sciences and at least 2 years of ecological or biological professional experience in the State of Florida.

The FLUCFCS Map should include:

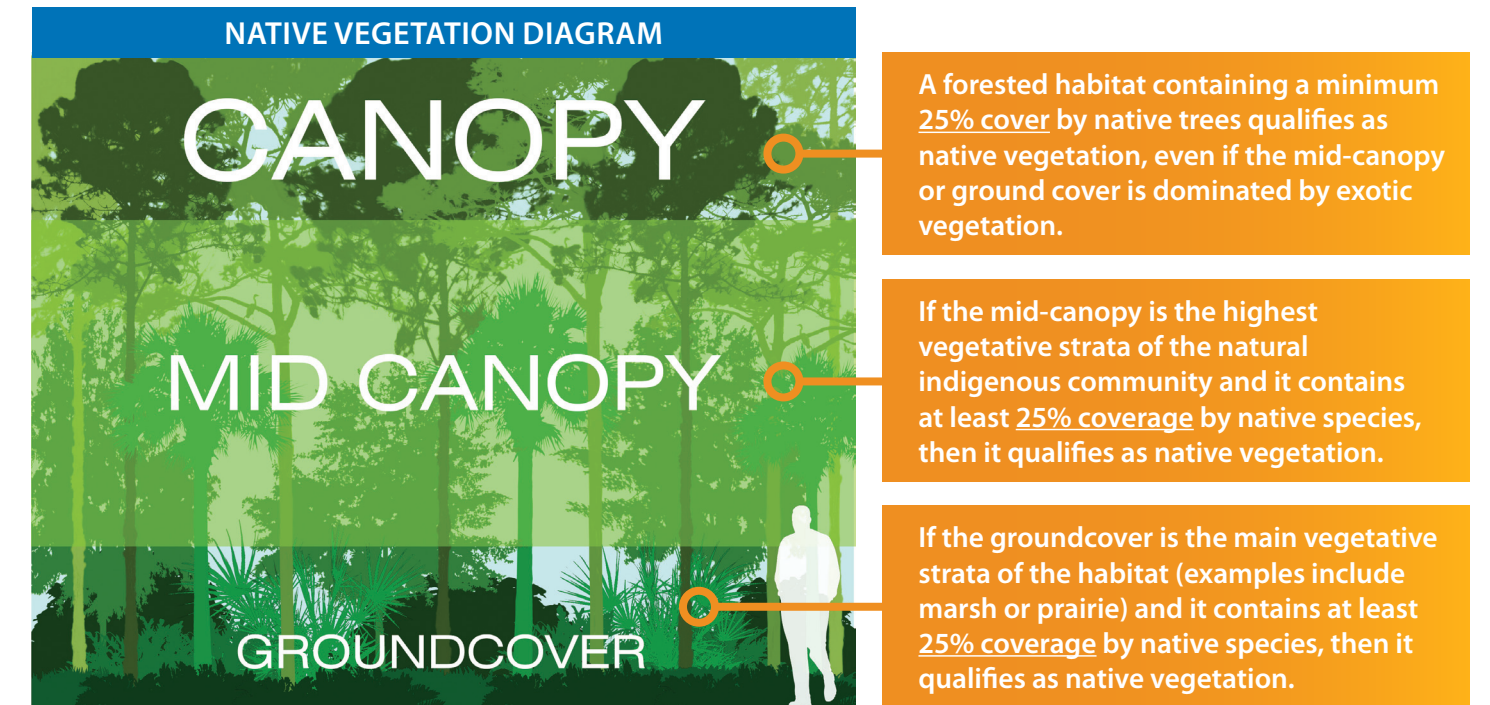
- Recent aerial photograph with source noted. Aerial imagery is available digitally from the Collier County Property Appraiser (www.collierappraiser.com).
- Aerial imagery that is legible at the scale provided.
- Use only one FLUCFCS code for each discernable area.
- Table of FLUCFCS codes containing code description, density of exotic vegetation given as percent canopy cover (if any), total code acreage, and percentage of total land area.
- The location of any listed wildlife species observed onsite, including the locations of any nesting or denning on the site as evidenced by recent survey or wildlife agency databases.
- Wetlands in accordance with State of Florida methodology.



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4. DETERMINE THE PRESENCE OF NATIVE VEGETATION ON YOUR PROJECT SITE.

Once existing vegetative community types are determined in Step 3 above, the habitats qualifying as native vegetation must be determined. Collier County puts priority on retention of native vegetation to maintain the environmental quality that defines our community. The acreage and percentage of area that qualifies as native vegetation must be either identified on the FLUCFCS map or separate Native Vegetation Map. This information is used for site design and calculating Preserve area requirements.



The highest vegetative strata of the natural indigenous community is used to qualify that vegetative community as native or non-native.

Native vegetation is defined as a vegetative community having 25 percent or more canopy coverage of a native species (or highest existing vegetative strata). For example, an area with 25 percent or more Slash pine canopy, with 100 percent exotic understory, is considered a native vegetation area. If exotic vegetation occupies over 75 percent of the canopy (or highest existing vegetative strata), this area should be identified by a non-native (exotic) FLUCFCS code. Areas meeting the native vegetation definition must be described with a native vegetation FLUCFCS code. Qualifiers of percent cover of exotic vegetation may be included. Areas of native vegetation in question should be reviewed with County staff.

Where property has been legally cleared and only native trees remain and the native ground cover has been replaced with lawn or pasture, then native tree preservation standards may apply. The percent of native trees required to be retained (or replaced elsewhere onsite) shall be by tree count based on the percent requirement for native vegetation. Refer to LDC Section 3.05.07 for retention/replacement criteria.

Native vegetation located in existing utility easements and easements for ingress or egress for neighboring properties are excluded from native vegetation preservation calculations and cannot be credited toward native vegetation preservation requirements. The FLUCFCS Map, or separate Native Vegetation Map, must provide a separate accounting of all acreages located in these easements, and any native vegetation within these limits needs to be deducted from Preserve calculations.

5. DETERMINE THE PRESENCE OF LISTED SPECIES ON YOUR PROJECT SITE.

Identification of State and Federally protected species is critical for the purpose of site design and calculating Preserve area requirements. If habitat is present that could be used by listed species (nesting, denning, or burrowing), a protected species survey in accordance with state and federal guidelines must be performed and submitted to the County prior to any site development. Species specific surveys in accordance with state and federal guidelines may also be required at time of state or federal permitting where applicable. It is the applicant's responsibility to coordinate with state and federal permitting agencies regarding protected species prior to any clearing or site development improvements.

For sites that contain habitat that could support listed species, this habitat will be a priority for preservation (discussed further below), and the County will require a Wildlife Habitat Management Plan for each of the supported species (discussed further on page 8).



In addition to listed wildlife species, Section 3.04.03 of the LDC provides protection for select species of listed plants. Protection afforded to these plants is designed to provide limited relocation of seed or individual plants if they do not already occur naturally in proposed preserve areas.

6. DETERMINE THE PRESERVE REQUIREMENTS AND WHAT VEGETATION TO PRESERVE ON YOUR PROJECT SITE.

Native vegetation preserve requirements are calculated based on the acreage of the site and amount of native vegetation present, subject to applicable zoning overlays and designations.

Preservation requirements are listed in the LDC and range from 10 to 25 percent of existing native vegetation for most development in the urban areas. Preservation calculation and location of preserve must be provided on the site plan identifying the minimum acres of preserve and percentage required by the LDC. Acres of Preserve over the minimum must also be identified.

COUNTY PRESERVATION STANDARDS				
Development Type	Minimum Percent (%) of Native Vegetation to be Preserved in Coastal High Hazard Area		Minimum Percent (%) of Native Vegetation to be Preserved in Non-Coastal High Hazard Area	
	Residential and Mixed Use Development	Site less than 2.5 acres	10%	Site less than 5 acres
Site equal to or greater than 2.5 acres		25%	Site equal to or greater than 5 acres and less than 20 acres	15%
				Site equal to or greater than 20 acres
Golf Course		35%		35%
Commercial and Industrial development and all other non-specified development types	Site less than 5 acres	10%	Site less than 5 acres	10%
	Site equal to or greater than 5 acres	15%	Site equal to or greater than 5 acres	15%
Industrial development (Rural-Industrial District only)	50%, not to exceed 25% of the project site		50%, not to exceed 25% of the project site	

Refer to County Future Land Use Map for the Coastal High Hazard Area.
Higher preservation standards, up to 90% of existing native vegetation, apply in the Rural Fringe Mixed Use District (RFMUD). Note: Required wetland preservation in the RFMUD may exceed the acreage requirements for native vegetation preservation and requirements of state and federal permits.
Preserve standards and other environmental requirements for property within the Rural Lands Stewardship Area (RLSA) Overlay are according to LDC Section 4.08.00.

Collier County prioritizes the preservation of both upland and wetland habitats. You may be required to provide additional preservation beyond state and federal permitting requirements. The order of priority for onsite native vegetation Preserve selection is in LDC Section 3.05.07:

- i. Wetland or upland areas known to be utilized by listed wildlife species or that serve as corridors for the movement of wildlife.
- ii. Xeric Scrub, Dune and Strand, Hardwood Hammocks;
- iii. Onsite wetlands having an accepted functionality Wetland Rapid Assessment Procedure (WRAP) score of at least 0.65 or a Uniform Wetland Mitigation Assessment Methodology (UMAM) Score is at least 0.7. (There is no definite priority for wetlands if listed species are not documented and UMAM at time of project review of <0.7, even if wetlands are required for preservation by state or federal permits.)
- iv. Any upland habitat that serves as a buffer to a wetland area as defined in section 3.05.07 A.3.c;
- v. Dry Prairie, Pine Flatwoods; and
- vi. All other native habitats.

Note about Wetlands: Wetlands are delineated using State rules. The County can perform wetland delineations for single family homesites up to 5 acres. The approved jurisdictional wetland line must be included on the construction plans. Approved agency permits are required at time of the pre-construction meeting with the County.

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The County also requires preserves to be interconnected within the site and to adjoining off-site preservation areas or wildlife corridors.

Minimum preserve dimensions are as follows:

Minimum Preserve Dimensions LDC Section 3.05.07	
Property less than 10 acres	20' minimum preserve width
Property 10 acres to less than 20 acres	30' average width, no less than 20'
Property 20 acres or more	50' average, no less than 20'

Preserve standards and other environmental requirements for property within the Rural Lands Stewardship Area (RLSA) Overlay are according to LDC Section 4.08.00.



Off-site retention of native vegetation for all or a portion of the Collier County on-site native vegetation preservation retention requirement is allowed on a limited basis, subject to limitations and restrictions in LDC Section 3.05.07.H. We highly suggest consulting with staff to verify whether a project qualifies for this option prior to project planning. The provisions generally apply to preserves less than one acre in size and those containing lower quality habitats. Off-site retention of native vegetation may be met by monetary payment or land donation, in accordance with the criteria in the LDC. Land donations are subject to the policies and procedures of the agency accepting the land donation. Acceptance of donations by Collier County is not guaranteed and is subject to approval by the Board of County Commissioners.



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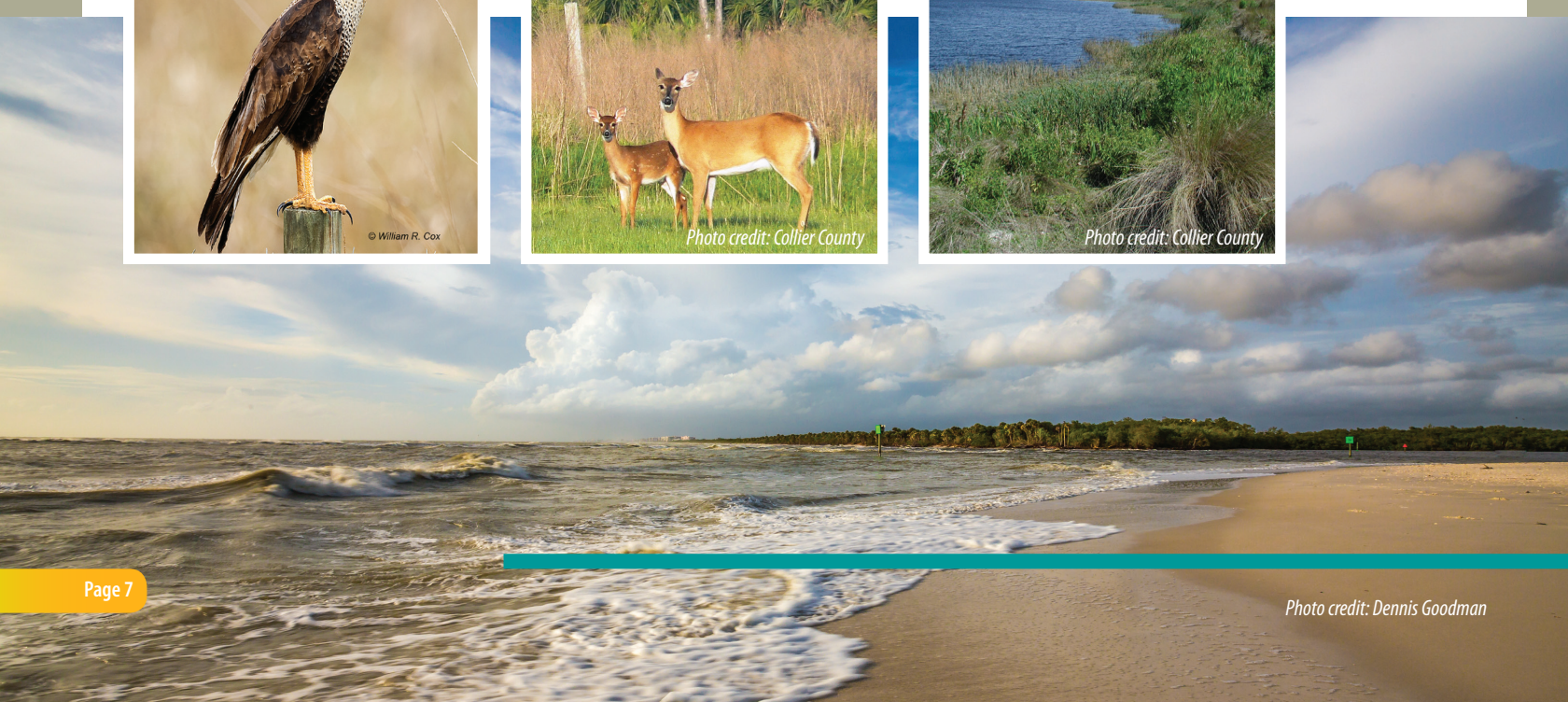


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Section 2: What you should do...

ENVIRONMENTAL DETAILS FOR CONSTRUCTION PLANS

The following is a list of common environmental considerations and documentation required with construction plans submitted through the Site Development Plan (SDP) or Plans and Plat (PPL) process.

The Environmental Data Requirements are enumerated in LDC Section 3.08.00.

LABEL PRESERVES

Construction plans must clearly identify and label all County designated preserve areas as "Preserves," whether the area is retained existing native vegetation, or created native vegetation. Preserves must be delineated as Tracts and dedicated as Conservation Easements (described further below).

SUPPLEMENTAL PLANTINGS

Prohibited exotic vegetation must be removed from Preserves and from development areas for this project or phase of project as specified in LDC Section 3.05.08. It is necessary to plant supplemental native plants where exotic removal results in the Preserve being devoid of vegetation. Preserve restoration standards in LDC Section 3.05.07.H specify the size, spacing and species to include in your supplemental planting plan.

PRESERVE SIGNAGE

To protect the integrity of Preserve areas from future impacts, signs are required to identify boundaries of preserves. Land Development Code Section 3.05.04 specifies dimensions, location and spacing of signs to include on your construction plans.



PRESERVE AREA MANAGEMENT PLAN

A Preserve Area Management Plan must be submitted with construction plans for all Preserve areas that are 5 acres or larger, or where listed species are utilizing the Preserve, or where the Preserve contains habitat which requires management for fire (such as Pine Flatwoods, Palmetto Prairie or Scrub). The required components of the Preserve Area Management Plan are found in LDC Section 3.05.07.H.

WILDLIFE HABITAT MANAGEMENT PLAN

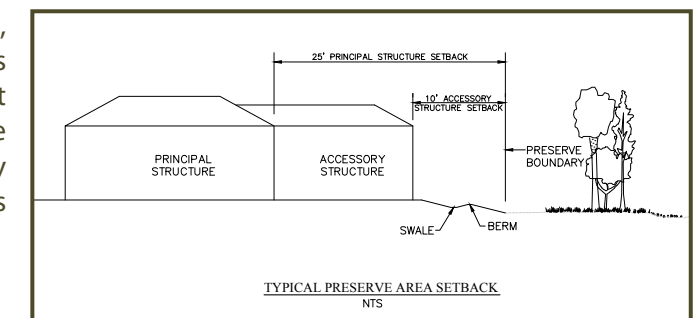
These plans are required for all projects where listed species are utilizing the site (other than for occasional use by non-resident species such as wading birds) or if required by state and federal permit requirements. Species specific requirements for gopher tortoise, sea turtle, Florida scrub jay, bald eagle, red-cockaded woodpecker, Florida black bear, Florida panther, and West Indian manatee are included in Section 3.04.02 of the LDC. Species specific requirements may affect the site design and conduct of activities on the site. The language for the Wildlife Habitat Management Plan must be included with the construction plans. The Wildlife Habitat Management Plan may need to address items such as fencing, walls, roadway crossings, underpasses and related signage to minimize development impacts to wildlife.

SODDING OF SLOPES ADJACENT TO PRESERVES

Slopes adjacent to Preserves are required to be planted with 100% native Florida species to prevent the encroachment of unwanted vegetation into the Preserves. St. Augustine grass (*Stenotaphrum secundatum*) is native to Florida, however, the cultivated form used for lawns is invasive to natural areas. If St. Augustine grass is planted on slopes adjacent to Preserves, the Preserve Area Management Plan must provide for annual monitoring, regular edging and hand pulling or herbicide treatment of grass which has encroached into the Preserve.

PRESERVE SETBACKS

Permitted stormwater management fences and features, passive recreational features such as bike paths and boardwalks may be adjacent to and inside a preserve. A minimum 25-foot setback is required for principal structures from the Preserve boundary. A minimum 10-foot setback is required for accessory structures. For RFMUD Lands, LDC Section 3.05.07 outlines additional buffering requirements around wetlands.



Preserve Setbacks for Non-RFMUD Lands

If not associated with a permitted water management system, the following minimum setbacks from Preserves apply:

- 25' – Principal Structure (house or building)
- 10' – Accessory Structures
- 10' – Trenching for wall or fence installation
- 5' – Decorative Walls

The following may be located adjacent to a preserve:

- If associated with a permitted water management system:
 - » Water Management Lake
 - » Stormwater Retention Area
 - » Water Quality Treatment Swale
 - » Perimeter Berm
 - » Hedge
 - » Retaining Wall
- Other:
 - » Fences including Piling Support
 - » Trenched Gopher Tortoise Fence

CONSERVATION EASEMENTS

Conservation easements are required by the County for all County required Preserves. Conservation easements must be dedicated to Collier County as non-exclusive easements. The dedication to the County shall include the right of access from existing road right-of-way to the Preserve, however the County does not take responsibility for maintenance of the Preserve area. Model conservation easement forms are available from County staff. Preserves may also be dedicated on final plats in lieu of a separate conservation easement. Recorded conservation easements used to satisfy other state or federal agency permits, such as SFWMD or Army Corps of Engineers, *cannot* be substituted for the County required easements.

CLEARING PLAN AND VEGETATION REMOVAL PERMIT

For most development projects, a Clearing Plan is required to be included on the construction plans. Additional permits may be required by State and Federal agencies for clearing in wetlands or listed species habitat.

The Clearing Plan must include barricading notes for sites with preserves stating, "Protective barriers will be installed at the perimeter of vegetation to remain at the commencement of any site improvements AND will remain in place until completion of construction." A standard note is required on the Clearing Plan stating: "All exotics shall be removed from the entire site and the site maintained exotic-free in perpetuity." This note is required to be placed on construction plans for ALL projects, regardless of whether or not vegetation exists onsite. For projects with no clearing, a standard note should be included on the site plan stating: "No clearing required for proposed site improvements." If the clearing is limited to exotic vegetation removal by hand (chainsaw), no fee is required. If the clearing of exotics is by mechanical means (with heavy equipment), a fee is required.

Examples of situations in which a separate Vegetation Removal Permit is required prior to approval of the SDP or PPL include: clearing for relocation of gopher tortoises prior to approval of final construction plans, removal of exotic vegetation and clearing to obtain soil borings prior to submission or approval of construction plans.

LITTORAL SHELF PLANTING AREA (LSPA)

Applications proposing lakes or alterations to existing lakes for treatment of stormwater are required to provide Littoral Shelf Planting Areas for the health and function of the lake. Refer to "Design Guidelines for County Required Littoral Shelf Planting Areas (LSPA)" which can be found online at: www.colliergov.net/esd and in LDC Section 3.05.10.



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