



Gold Coast Professional Schools

LANDSCAPING BASICS FOR COMMUNITY ASSOCIATION MANAGERS

This course is approved by the DBPR Council of Community Association Managers for 4 hours of continuing education credit in the area of:

Operations of Physical Property (OPP) and Additional Instruction (ELE)

Gold Coast Professional Schools, Inc.

Provider # 00842

Classroom Course Approval: # 9628592

Correspondence Course Approval: # 9628593

Online Course Approval: # 9628610

All courses in this book are: © 2018 Reicon Publishing, LLC. All rights reserved. The text of this publication may not be reproduced in any manner whatsoever, without prior written permission of the publisher. This publication is designed to provide accurate and authoritative information in regard to the subject matter covered. This program is sold with the understanding that neither the author nor the publisher is engaged in rendering legal or any other professional service or advice. If legal advice or other expert assistance is required, the services of a competent professional person should be sought.

TABLE OF CONTENTS

Introduction and Overview	5
Chapter 1: Landscaping Principles	7
Chapter 2: The Landscape Contract	21
Chapter 3: The CAM's Role	25
Glossary	29
Landscaping Basics Course Quiz	33

This Page was Left Blank Intentionally.

INTRODUCTION AND OVERVIEW

This course is designed to provide community association managers with information on basic landscaping principles, the landscape contract, and the various roles they may be called upon to fulfill with respect to meeting the association's landscape related goals and objectives.

LEARNING OBJECTIVES

- Understand the basic principles of landscaping
- Understand the landscape maintenance contract
- Understand the role of the community association manager

COURSE OUTLINE

<u>Part Title</u>	<u>Allotted Time</u>
Introduction and Overview	15 Minutes
Basic Landscaping Principles	90 Minutes
The Landscape Maintenance Contract	75 Minutes
Role of the Community Association Manger	60 Minutes
Summary	15 Minutes
Quiz	

OVERVIEW

The course is, to a significant extent, centered around procedures and principles based on F.S. 373.185, "Local Florida-Friendly Landscaping Ordinances." This defines the Florida-friendly landscaping as *quality landscapes that conserve water, protect the environment, are adaptable to local conditions, and are drought tolerant*. The principles of such landscaping include:

- Planting the right plant in the right place
- Efficient watering
- Appropriate fertilization
- Mulching
- Attraction of wildlife
- Responsible management of pests
- Recycling plant waste
- Reduction of storm water runoff, and
- Waterfront protection

F.S.373.185 Requirements

The statute requires each of the five Florida water management districts (discussed later) to design and implement an incentive program to encourage all local governments within its district to adopt new ordinances, or amend existing ordinances, to require Florida-friendly landscaping for development permitted after the effective date of the new ordinance or amendment. It requires each district to use the educational materials developed by the Department of Environmental Resources, the Institute of Food and Agricultural Sciences at the University of Florida, and the Center for Landscape Conservation and Ecology Florida-friendly Landscaping Program, including, but not limited to, the Florida Yards and Neighborhoods Program for homeowners, the Florida Yards and Neighborhoods Builder Developer Program for developers, and the Green Industries Best Management Practices Program for landscaping professionals.

F.S. 373.185 states that “The Legislature finds that the use of Florida-friendly landscaping and other water use and pollution prevention measures to conserve or protect the state’s water resources serves a compelling public interest and that the participation of homeowners’ associations and local governments is essential to the state’s efforts in water conservation and water quality protection and restoration.”

An important provision relating to community associations states that “A deed restriction or covenant may not prohibit or be enforced so as to prohibit any property owner from implementing Florida-friendly landscaping on his or her land.”

CHAPTER

1

**NINE BASIC
LANDSCAPING PRINCIPLES**

*“Let us cultivate our garden,”
- Voltaire, from Candide*

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38

The Florida-Friendly Landscaping™ Program, is a partnership between the University of Florida/Institute of Food and Agricultural Sciences (UF/IFAS) Extension Service and the Florida Department of Environmental Protection, in cooperation with Florida Water Management Districts and with the support of industry and local governments. It describes nine basic principles that, when properly applied, result in a beautiful, cost-efficient, and environmentally friendly landscape.

As outlined previously, the nine basic landscaping principles are:

- | | |
|----------------------------|------------------------------|
| 1. Right plan, right place | 6. Manage pests responsibly |
| 2. Water efficiently | 7. Recycle landscape waste |
| 3. Fertilize appropriately | 8. Reduce storm water runoff |
| 4. Mulch | 9. Protect the waterfront |
| 5. Attract wildlife | |

In this course, we’ll exam each of these principles, in addition to the landscape contract and your role as a CAM.

RIGHT PLANT, RIGHT PLACE

*“I hope that while so many people are out smelling the flowers,
someone is taking the time to plant some.”
– Herbert Rappaport, PhD, Rappaport Associates*

The placement of plants in the right location creates an environment that promotes beauty, growth and health, and reduces the cost of maintenance, including irrigation, fertilization, and the use of pesticides.

Plants with similar sun, water, fertilizer, and maintenance requirements are more efficiently cared for when they are grouped together. Grouping the same flowers, often of different complementary colors, together, often results in a visually pleasing plant bed.

Trees planted in groups are environmentally beneficial because they provide more atmospheric cooling than isolated trees and are more resistant to damage from high winds.

1 DROUGHT RESISTANT PLANTS

2
3 Plants that thrive with little water (drought tolerant plants) often do well in elevated dry or
4 windy areas, as well as in exposed areas and along unshaded walls with southern or
5 western exposure. However, such plants placed in wet areas often experience root
6 diseases and/or pest problems. Plants that are adapted to wet soils can do well in low
7 elevation areas, along waterways, and in poorly drained areas.

8
9 *“I think I shall never see a poem as lovely as a tree”*
10 *– From “Trees” by Joyce Kilmer*

11
12 Trees should not be located on the southern side of outdoor living spaces, such as
13 recreational areas, because, during the hot Florida summers, they interfere with cooling
14 summer breezes typically blowing from south to north.

15
16 Native trees, particularly those with wide spreading branches, low centers of gravity,
17 strong deep penetrating root systems, and small leaf size tend to more effectively
18 withstand tropical storms, especially if they are found growing in mixed groves of trees.
19 Solitary trees have less wind resistance than massed trees.

20 21 ROOT SYSTEMS

22 23 Damage to Structures

24
25 Associations often experience problems with the root systems of trees. A root is a part of
26 a plant that is usually hidden underground. Roots hold the plant in the ground, keep it
27 upright, and absorb and store water and nutrients from the *soil*. Tree roots are often
28 associated with damage to structures, pavements, pipes, and utilities. Instances of pipes
29 being broken by the growth of roots are rare, but blockage of damaged pipes is not
30 uncommon. If trees are too close to roadway surfaces or sidewalks, or if compacted soil
31 forces large roots to grow close to the soil surface, roots can eventually lift pavement.
32 Roots are often blamed for damage to foundations; however, they are rarely the cause
33 of the problem. Though small roots may penetrate existing cracks in foundations, they
34 are incapable of causing mechanical damage through their growth. *Soil subsidence* can
35 result in damage to structures. Under very special circumstances, roots can contribute to
36 this problem. When soils are prone to shrinking substantially during periods of drought,
37 and if foundations are shallow, roots can contribute to depletion of soil moisture under
38 the foundation, causing it to subside.

39 40 Prevention of Root Damage

41
42 Prevention is key to avoiding costly tree root damage. Plant only those types of trees
43 and shrubs that pose the least threat to structural systems of any type. *Root pruning* and
44 the placement of root barriers are common remedies to prevent damage from root
45 systems. Root barriers come in a variety of materials and styles with distinct advantages
46 and drawbacks. Solid barriers are panels made of corrosion-resistant metal, fiberglass,
47 or plastic that create an impenetrable wall that roots cannot get through. These barriers
48 are highly effective but can prevent water in the soil from draining properly and roots can
49 grow around them if they are not large enough. Permeable barriers use a mesh screen
50 that is designed to allow water and small roots to pass through. This type of barrier is
51 effective at preventing damage to structures from large roots.

1 By placing trees and shrubs in the right location an association can potentially reduce its
 2 air conditioning costs. *Deciduous trees*, provide shade and should be planted on the
 3 south, east, and west sides of structures used by residents, visitors, and employees.
 4

5 **TYPES OF FLORIDA LAWN GRASSES**

6
 7 *The grass is always greener on the other side of the hill – BECAUSE THEY WATER IT!*¹
 8

9 Almost everyone loves lush, green lawns. However, *turf grass* will generally do poorly in
 10 shady areas. Shade-tolerant *groundcovers* should be planted in such locations.
 11

12 An association's selection of turf grass will impact on its cost of maintenance. Factors to
 13 be considered include a grass' drought, shade, salt, and wear (vehicular and foot traffic)
 14 tolerance, fertilization requirements, leaf texture (width and coarseness of the grass
 15 blades), pest and disease problems, and climatic conditions. Common turf grass used
 16 for Florida lawns include bahiagrass, bermudagrass, centipedegrass, St. Augustine
 17 grass, and zoysiagrass.
 18

- 19 • **Bahiagrass** is a low-maintenance lawn grass that has excellent drought but poor
 20 salt, shade, and wear tolerance. It forms tall, unsightly seed heads throughout its
 21 growing season that many find objectionable, and requires regular mowing to
 22 keep the stalks from becoming too tall. It is not recommended for coastal areas.
 23 It can thrive in all Florida regions.
 24
- 25 • **Bermudagrass** is fast-growing and tough, making it popular and useful for sports
 26 fields, because it recovers rapidly from damage. It is a highly desirable turf grass
 27 in warm temperate climates, particularly for those regions where its heat and
 28 drought tolerance enable it to survive. This combination makes it a frequent
 29 choice for golf courses in the southern and southeastern U.S. It is also highly
 30 aggressive, crowding out most other grasses and invading other habitats, and
 31 has become a hard-to-eradicate weed in some areas.
 32
- 33 • **Centipedegrass** is well adapted for Northern Florida and the Panhandle. There
 34 is now a *cultivar*, "Hammock" centipedegrass, patented by the University of
 35 Florida that is adapted to South Florida conditions.
 36
- 37 • **St. Augustine grass** is the most popular lawn grass in Florida. It's adaptable to
 38 a wide range of soils and has good salt, shade (depending upon the cultivar),
 39 and *nematode* tolerance. It does not do well in heavily trafficked areas and
 40 requires a higher level and cost of maintenance than Bahiagrass or
 41 Centipedegrass. It is adaptable to all Florida climates.
 42
- 43 • **Zoysiagrass** is dark green, and shorter and finer textured than St. Augustine
 44 grass. It is adapted to a wide variety of soils. It has good tolerance to salt, and
 45 shade (depending on cultivar), good to excellent tolerance to wear, and medium
 46 tolerance to drought. It can thrive in all Florida climate zones. Its level of
 47 maintenance requirements is similar to St. Augustine grass.
 48

49 The leaf texture of grass refers to the width and coarseness of the glass blade. Fine-
 50 textured leaf blades, often characteristic of Zoysiagrass, have higher maintenance costs.

1 Idioms by The Free Dictionary

1 Each type of turf grass is vulnerable to certain insects and fungi or bacteria. St.
 2 Augustine grass is particularly prone to chinch bugs. Zoysiagrass is subject to hunting
 3 billbugs and brown patch disease.

4

5 **NUTRIENTS AND PH**

6

7 Plants do best when planted in soil that provides essential nutrients. Nutrients needed in
 8 large amounts by plants are referred to as macronutrients and include nitrogen,
 9 phosphorus, potassium, calcium, magnesium, and sulfur. Elements that plants need in
 10 small amounts are called trace nutrients or micronutrients. Trace nutrients are not major
 11 components of plant tissue but are essential for growth. They include iron, manganese,
 12 zinc, copper, cobalt, molybdenum, and boron. The availability of nutrients depends on
 13 the pH of the soil, which is a measure of the soil's acidity or alkalinity. The optimum pH
 14 range for most plants is between 5.5 and 7.0, although
 15 many plants have adapted to thrive at pH values outside
 16 this range.

17

18 **pH Testing Methods**

19

20 The pH of soil can be tested by use of:

21

- 22 • An inexpensive pH testing kit, where a small sample
 23 of soil is mixed with an indicator solution which
 24 changes color according to the acidity/alkalinity.
- 25 • Litmus paper. A small sample of soil is mixed with
 26 distilled water, into which a strip of litmus paper is
 27 inserted. If the soil is acidic the paper turns red, if
 28 alkaline, blue.
- 29 • A commercially available electronic pH meter, in which
 30 a rod is inserted into moistened soil and measures the
 31 concentration of hydrogen ions.

32

33 **Soil Testing and Hardiness Zones**

34

35 County extension offices² can test an association's soil for a small fee or provide a kit to
 36 send a soil sample to the University of Florida/IFAS Extension Soil Testing Laboratory.
 37 Plant reference guides often provide information on the optimal pH for a specific plant or
 38 plants. A soil's pH can be increased, typically by the addition of *lime*, or decreased by
 39 adding an acidifying fertilizer containing ammonia.

40

41 Plants do best in climates that are best suited to their ability to withstand specific
 42 temperatures. The U.S. Department of Agriculture (USDA) has identified six hardiness
 43 zones in Florida. Each zone is described by its average lowest temperature. Applying
 44 knowledge of an association's zone to plant selection will result in plants that will survive
 45 the area's winters.

Representative pH values	
Substance	pH
Stomach Acid	1.5 – 2.0
Cola	2.5
Vinegar	2.9
Orange Juice	3.5
Coffee	5.0
Healthy Skin	5.0
Urine	6.0
Pure Water	7.0
Health Human Saliva	6.5 – 7.4
Blood	7.3 – 7.5
Seawater	7.7 – 8.3
Baking Soda	8.4
Hand Soap	9.0 – 10.0
Bleach	12.5

2 County extensions provide access, through county agents, to the resources of land-grant universities (such as the Florida state universities) across the nation. These universities are centers for research in many subjects, including entomology (the study of insects) and agriculture.

1 **INVASIVE SPECIES**

2

3

4

5

6

7

8

9

Beware of invasive exotic plants. These are plants that are not native to a specific location (an introduced species), and are a detriment to native species and the *ecosystem*. They can aggressively out-compete native plants and result in the loss of habitat. Examples of invasive plants in South Florida are Brazilian pepper, Australian pine, melaleuca, and schefflera. Invasive plants should be disposed of and, of course, never planted.

10 **Planting Location**

11

12

13

14

15

16

Coastal areas in Florida are typically characterized by increased levels of salt in the air, soil, and groundwater. Salinity can result in severe damage, deformation or death of plants that are not salt-tolerant. Associations located on an *estuary*, *salt marsh*, or within one-eighth of a mile of the ocean should choose salt-tolerant plants for their landscapes.

17

18

19

20

21

22

23

Plants should not be located too close to walls because they may impede access for maintenance services. Additionally, they should not be planted under eaves because the overhang may inhibit adequate rainfall or they may be damaged by water pouring off the roof. Landscapers should take care not to place plants so closely together as to produce overcrowding, which can result in leggy growth due to competition for nutrients, insect, and disease problems.

24 **WATER EFFICIENTLY**

25

26

27

28

29

30

31

32

Overwatering is, unfortunately, a common practice that unnecessarily depletes a scarce resource, makes plants more vulnerable to disease and pests, and increases the cost of maintenance, including the need for more frequent lawn mowing resulting from faster growth. Excessive nitrogen and phosphorus levels, from fertilizer, can lead to excessive plant and *algae* growth in waterways which can degrade drinking water, fisheries, and recreational areas.

33 **WATER MANAGEMENT DISTRICTS**

34

35

36

37

38

39

40

41

42

43

As previously noted, Florida is divided into five water management districts (WMDs). These are state agencies that are responsible for the management and protection of Florida's water resources. The South Florida Water Management District Year-Round Landscape Irrigation Rule, in effect since 2010, limits landscape watering to two days a week, with a three-day-a-week provision for some counties. In all cases, *reclaimed water* used for irrigation is subject to voluntary watering limits, unless otherwise restricted by a local government or utility. Local governments may adopt alternative landscape irrigation ordinances based on local water demands, system limitations, or resource availability. Several counties, cities and utilities have exercised this option.

SOUTH FLORIDA WATER RESTRICTIONS

The South Florida Water Management District (WMD) has the following water restrictions:

- Residences and businesses with an odd-numbered street address may water lawns and landscapes on Wednesdays and/or Saturdays, only before 10:00 a.m. or after 4:00 p.m.
- Residences and businesses that use reuse water for irrigation are allowed to water all days, except between 10 a.m. - 4:00 p.m. Special exceptions may also apply if using a smart irrigation soil moisture sensor controller.
- Residences and businesses with an even-numbered street address, no street address, or those that irrigate both even and odd addresses within the same zones, which may include multi-family units and homeowners' associations, may water lawns and landscapes on Thursdays and/or Sundays, only before 10:00 a.m. or after 4:00 p.m.

Keep in mind that the Irrigation Rule limits the frequency of irrigation. The actual amount of water plants require may be less than the watering limit defined by the Rule. If plants appear healthy, less water is required. Plants should be inspected for symptoms of *water stress*, including wilting, darkening color, and footprints remaining after walking on the lawn

Landscapes should not be watered if it has rained within the past twenty-four hours or if rain is predicted within twenty-four hours.

WMD	JURISDICTION	OFFICE
Northwest Florida WMD	Bay, Calhoun, Escambia, Franklin, Gadsden, Gulf, Holmes, Jackson, Jefferson (western half), Leon, Liberty, Okaloosa, Santa Rosa, Wakulla, Walton, & Washington	81 Water Management Drive Havana, FL 32333 850/539-5999
Suwannee River WMD	Columbia, Dixie, Gilchrist, Hamilton, Lafayette, Madison, Suwannee, Taylor, Union and portions of Alachua, Baker, Bradford, Jefferson & Levy	9225 CR 49 Live Oak, FL 32060 386/362-1001 800/226-1066 (Florida only)
St. Johns River WMD	Brevard, Clay, Duval, Flagler, Indian River, Nassau, Seminole, St. Johns, Volusia, and portions of Alachua, Baker, Bradford, Lake, Marion, Okeechobee, Orange, Osceola & Putnam	P.O. Box 1429 Palatka, FL 32178-1429 386/329-4500 800/451-7106
Southwest Florida WMD	Citrus, DeSoto, Hardee, Hernando, Hillsborough, Manatee, Pasco, Pinellas, Sarasota, Sumter, and portions of Charlotte, Highlands, Lake, Levy, Marion & Polk	2379 Broad Street Brooksville, FL 34604-6899 352/796-7211 800/423-1476 (Florida only)
South Florida WMD	Broward, Collier, Dade, Glades, Hendry, Lee, Martin, Monroe, Palm Beach, St. Lucie, and portions of Charlotte, Highlands, Okeechobee, Orange, Osceola & Polk	3301 Gun Club Road West Palm Beach, FL 33406-3089 561/686-8800 800/432-2045 (Florida only)

Irrigation Systems

Florida law requires that all new automatic irrigation systems include rain sensors. Some counties require rain sensors on existing sprinkler systems. A rain sensor is an inexpensive water conservation device connected to an automatic irrigation system that causes the system to shut down in the event of rainfall. They conserve water, reduce

1 wear on the irrigation system, and can prevent plant disease and other problems caused
2 by overwatering. Rain sensors require regular monitoring to determine if they are
3 operating properly, need cleaning, repositioning, or replacement.

4
5 Soil moisture sensors operate similarly to rain sensors. They shut off the irrigation
6 system when they detect that the soil contains a sufficient level of moisture.

7
8 It is important that the association's irrigation system is functioning efficiently. The
9 system should be inspected on a regular basis to ensure that leaks are repaired, broken
10 heads are unclogged and replaced, heads are directing water at plants rather than
11 driveways and sidewalks, and plants are not interfering with the system. Irrigation
12 systems should be calibrated to apply between $\frac{1}{2}$ " and $\frac{3}{4}$ " of water to the lawn. When
13 possible, a drip or micro-irrigation system should be used to apply water directly to the
14 plant roots, thereby reducing water loss resulting from evaporation or wind.

15
16 Lawn mowers should be calibrated to cut no more than one-third of the grass blade. This
17 results in the retention of deeper roots and less need for water.

18
19 Lawn pests should be spot treated and the use of chemicals minimized to avoid damage
20 to the grass, which results in increased need for water.

21 22 **FERTILIZE APPROPRIATELY**

23
24 *"Fertilizer does no good in a heap but a little spread around works miracles all over."*
25 *– Richard Brinsley Sheridan³*

26 27 **FERTILIZER**

28
29 *Fertilizer* is a chemical or natural substance added to soil or land to promote plant
30 growth. As discussed earlier, plants obtain nutrients from the soil. However, plants
31 sometimes require supplemental nutrients in the form of fertilizer. Fertilizers are either
32 organic or inorganic.

- 33
34 • *Organic fertilizers* are derived from plants and animals and include ingredients such
35 as manure and composts.
- 36
37 • *Inorganic fertilizers* are mined from mineral deposits or manufactured from synthetic
38 materials.

39
40 Excess use of fertilizer is not only harmful to the environment but can be destructive to
41 plants, by making them more susceptible to disease and pests. It can also result in
42 increased costs from additional *pruning* and mowing. Soil testing will determine the
43 nutrients that are present in the soil.

44 45 **Nutritional Deficiencies**

46
47 A visual inspection can often determine if plants are in need of supplemental nutrients. A
48 specific distributional pattern of yellowing on a leaf often indicates a nutritional
49 deficiency. A lack of iron results in an initial yellowing between the veins in new leaves
50 which then spreads to the older leaves. Nitrogen deficiency is frequently indicated by a

3 https://www.brainyquote.com/quotes/authors/r/richard_brinsley_sheridan.html

1 uniform light green or yellow color on the oldest leaves, and if untreated, the entire plant
 2 becomes light green. Iron deficiency in turf grass shows up as yellowing at the tip of the
 3 blade. Nitrogen deficiency in turf grass appears as yellowing along the entire blade.
 4 Many nutritional deficiencies appear similar. County extension offices can provide
 5 assistance to determine the type of nutritional deficiency an association's plants are
 6 suffering from and recommend the type and application of nutrients required to restore
 7 them to health.

8 9 **Water Pollution**

10 In applying fertilizer, it is essential to prevent water pollution from *leaching* or runoff.
 11 Leaching is an environmental concern when it contributes to groundwater contamination.
 12 As water from rain, flooding, or other sources seeps into the ground, it can dissolve
 13 chemicals from fertilizer, as well as other sources such as pesticides, and carry them
 14 into the underground water supply. Runoff is excess water that is not absorbed into the
 15 soil and ends up in in our streams, rivers, lakes, and eventually the ocean.

16
17
18 To prevent water pollution from the use of fertilizer the following guidelines should be
 19 followed:

- 20
- 21 • Follow UF/IFAS recommendations for specific plants, with respect to rates (quantity),
- 22 applications timings, and formulas.
- 23 • Choose slow-release products which include potassium and little or no phosphorus.
- 24 To be labeled slow or controlled release a product must contain a minimum of 15%
- 25 slow or controlled release nitrogen. Optimally, the product should have between 30%
- 26 and 50% of slow or controlled release nitrogen.
- 27 • Keep fertilizer off hard surfaces like sidewalks and driveways. Sweep up and dispose
- 28 of spilled fertilizer to avoid its being swept into storm drains.
- 29 • Collect spilled fertilizer from lawns to avoid excess nutrients from leaching through
- 30 the soil and into groundwater.
- 31 • Do not fertilize within ten feet of any body of water. Designate a ten-foot
- 32 maintenance-free zone between the landscape and the normal high-water mark.
- 33 • Do not fertilize before an anticipated heavy rain to avoid leaching or runoff of fertilizer
- 34 into the ground and/or surface water.
- 35 • If recycled or reclaimed water is used be aware that it can contain nitrogen and
- 36 adjust the amount of fertilizer accordingly.

37
38 For Lawns:

- 39
- 40 • Apply fertilizer only when grass is actively growing. Many Florida turf grasses
- 41 become dormant or slow their growth in cooler seasons and periods of less daylight.
- 42 • Use a *broadcast spreader* with a deflector shield. The deflector shield prevents the
- 43 fertilizer from reaching the ten-foot maintenance zone. *Drop spreaders* can damage
- 44 the coatings on slow-release fertilizers rendering them fast-release.
- 45 • Avoid using "weed and feed" products which combine *herbicides* and fertilizer. These
- 46 products can injure some trees and shrubs. Pesticides should not be broadcast but
- 47 applied only to affected areas.
- 48 • Use chelated iron or iron sulfate on yellow turf grass in summer.
- 49 • Water-in fertilizer to ensure that it reaches the grass roots located under the soil
- 50 surface. Approximately ¼ inch of irrigated water is required.

- 1 • Slow and controlled release fertilizers provide nutrients to plant roots over an
2 extended period.
3

4 Fertilizer Labels

5
6 Florida law requires that the manufacturer affix a label to each package, bag, container,
7 or lot of fertilizer offered for sale in the state. The law requires that each label show
8 specific information about the analysis and composition of the mixture or material.
9 Packaged fertilizer has three numbers printed on the bag that state the percentage (by
10 weight) of the three main plant nutrients, nitrogen (N), phosphorous (P), and potassium
11 (K). For example, if a bag is labeled 17-3-6. The first number (17), refers to nitrogen, the
12 second number (3), refers to phosphorous, and the third number (6), refers to
13 potassium.
14

15 MULCH

16
17 *sawdust and guacamole corncobs*
18 *and grass cuttings willy-nilly*
19 *in gross disorganization where*
20 *they decay and ooze together*
21 *like some vegetable Dorian Gray*
22 *until in spring and fall we spread it*
23 *below allamanda and oleander*
24 *camellia and azalea choking the weeds*
25 *holding in moisture making spectacular over-achievers of them all*
26

27 – From “Mulch” by Peter Meinke⁴
28

29 Mulch is a material (such as decaying leaves, bark, or compost) spread around a plant.
30 It retains water in the soil, helps controls weeds, reduces *storm water* runoff and soil
31 erosion, prevents certain diseases, and reduces the risk of damage from lawn
32 maintenance equipment when spread at least 12 to 18 inches from the trunk of *shrubs*
33 and trees. Mulch can also provide nutrients to the soil.
34

35 TYPES OF MULCH

36
37 There are many types of mulches, each of which differs in cost, color, origin, durability,
38 nutrient content, and texture and appearance. Cypress, melaleuca, and pine bark last
39 longest but offer little nutrient value. Pine straw (needles) resist erosion. Fallen leaves
40 and grass clippings can be raked free of cost from the landscape, are high in nutrients,
41 but decompose quickly. Eucalyptus mulch is a renewable resource because it originates
42 in Florida plantations where the trees are grown specifically to produce mulch.
43

44 USING MULCH

45
46 Guidelines for the use of mulch include:
47

- 48 • Most types of mulch should be applied in a manner to maintain a two to three-inch
49 layer around trees, shrubs, and *bedding plants*.

4 <http://www.poemspoet.com/peter-meinke/mulch>

- 1 • Do not mulch to the curb, sidewalk, or water's edge to avoid release of degraded
2 mulch nutrients into storm drains or bodies of water. Create a three to four-foot buffer
3 of *turf* or other dense ground cover on the downhill side of sloped areas to prevent
4 runoff.
- 5 • Avoid piling mulch against the base of a tree because it will hold moisture and
6 contribute to rot in the trunk.
- 7 • Rake old mulch because it can become matted, preventing water and air from
8 reaching the soil.

10 **ATTRACT WILDLIFE**

11
12 *"The wildlife and its habitat cannot speak so we will."*
13 *– Theodore Roosevelt*

14
15 Some directors, residents, and managers may question why their association should
16 seek to attract *wildlife* to its property. Raccoons overturning trash cans, alligators in the
17 waterways, armored catfish eroding the shoreline, snakes in the backyard, armadillos
18 burrowing under children's play areas, bats roosting in attics, bees constructing their
19 hives under building eaves, foxes burrowing under hedges, and birds doing their
20 business on tennis courts are among the myriad of hazards and nuisances that residents
21 complain about and that managers are called upon to mitigate. Wouldn't associations be
22 better off seeking methods to prevent wildlife from gaining access to their properties?
23

24 The adoption of this Florida-friendly landscaping principle serves as an acknowledgment
25 that it is in the interest of the planet, the nation, the state, and its citizens to create a safe
26 haven for native birds and other species of wildlife. Numerous residents of community
27 associations are hunters, fishermen, hikers, birdwatchers, and/or animal lovers. Tourism,
28 a vital industry in Florida, depends to a significant extent, on tourists who want to
29 experience the pleasures of seeing Florida wildlife in their natural habitat. Others simply
30 love wildlife and the sight of a fox or squirrel on their property fills them with joy. Many
31 are concerned that development continues to destroy ecosystems and desire to
32 preserve greenspace and the animals it shelters
33

34 Animal related problems, including those cited above, cannot be eliminated, but they can
35 be effectively managed. Secured trash cans, signage alerting residents and guests to
36 the presence of alligators, erosion prevention techniques, traps, bat houses, bee hive
37 removal, and bird spikes are some of the methods associations use to respond to such
38 problems. Managers can consult with pest control providers for solutions to animal
39 nuisance issues.
40

41 **THE FLORIDA-FRIENDLY LANDSCAPING PROGRAM**

42
43 The *Florida-Friendly Landscaping Program*[™] advocates for landscapes to serve as
44 wildlife sanctuaries as well as be a part of a safe migratory passage to permit animals to
45 travel between woodlands, wetlands, or other wild areas.
46

47 It recommends the following:

- 48
- 49 • Use a variety of plants to attract different species of animals
- 50 • Select plants with seeds, fruit, foliage, or flowers that butterflies, birds, and other
51 wildlife eat

- 1 • Supply fresh water in the form of a natural feature, such as a pond or stream, or a
- 2 man-made one such as a fountain or birdbath
- 3 • Reduce pesticide use because it kills insect populations which are an important food
- 4 source for birds
- 5 • Reduce the amount of mowed lawn area to create habitat for more species
- 6 • Increase vertical layering of plants of different varieties, sizes, and heights to provide
- 7 more cover and feeding opportunities for different animals
- 8 • Install bat houses to provide a roost for bats, who eat large amounts of insects and
- 9 are important pollinators of flowering plants, including fruit trees
- 10 • Design bird-friendly planted areas to include a tree canopy, smaller *understory trees*
- 11 and shrubs, grasses and flowers, as well as allowing grasses and flowers to *go to*
- 12 *seed* occasionally
- 13 • To attract butterflies, plant a combination of larval and nectar plants. Larval plants
- 14 are food sources for caterpillars and nectar plants for butterflies.
- 15

16 **MANAGE PESTS RESPONSIBLY**

17
18 *Only two percent of all insects are harmful. Why are they all in my garden?*
19 *– From “Pulling Onions” by Michael P. Garofalo⁵*
20

21 **INTEGRATED PEST MANAGEMENT**

22
23 Scientists currently recommend the use of a strategy known as *integrated pest*
24 *management (IPM)*. IPM is an ecosystem-based strategy that focuses on long-term
25 prevention of *pests* or their damage through a combination of techniques such as
26 biological control, habitat manipulation, modification of cultural practices, and use of
27 resistant varieties. Pesticides are used only after monitoring indicates they are needed
28 according to established guidelines, and treatments are made with the goal of removing
29 only the target organism. Pest control materials are selected and applied in a manner
30 that minimizes risks to human health, beneficial and non-target organisms, and the
31 environment.
32

33 **Basic IPM Principles**

34
35 The basic principles of IPM are as follows:

- 36
- 37 • Plant in the right locations to avoid *plant stress*, making them more susceptible to
- 38 pests.
- 39 • Ensure that plants that are selected are pest free or pest resistant.
- 40 • Use the proper amounts of water and fertilizer to keep plants healthy.
- 41 • Inspect plants frequently to detect problems early, before significant damage occurs.
- 42 • Mow to the proper height. Mowing too short weakens grass and makes it vulnerable
- 43 to pests.
- 44 • Prune selectively. Improperly pruning trees weakens their resistance to pests.
- 45 • Recognize and conserve beneficial insects that prey on pest insects such as the
- 46 assassin bug, green lynx spider, ladybug, big-eyed bug, green lacewing, parasitic fly,
- 47 and parasitic spider.

5 <http://mpgtaijiquan.blogspot.com/2015/02/pulling-onions-again.html>

COMMON PESTS

Common plant pests include aphids, mealybugs, scales, whiteflies, thrips, plant-feeding mites, caterpillars, and chinch bugs. Evidence of pest damage will often be visible before seeing the perpetrator. Chewed or deformed leaves, sooty mold, ants on plant stems or discolored areas on leaves are evidence of a pest at work. A sample of a damage plant and pest can be taken to the County Extension office for identification and management suggestions.

Pests are omnipresent as well as the resulting plant damage. If the pests cannot be satisfactorily managed by beneficial insects or pruning affected parts of plants *pesticides* may be necessary. The most ecologically friendly types of pesticides are insecticidal soap, *horticultural oil*, *botanicals*, *microbials*, *Kurstaki*, and entomopathogenic nematodes (worms that kill insects). Broad-spectrum insecticides should never be used because they kill beneficial insects as well as pests.

COMMON DISEASES

In addition to pests, plants are subject to diseases caused by viruses, fungi, and bacteria. Each type of plant can be vulnerable to specific organisms which cause a specific disease. Diagnosing the cause of disease can be problematic. Once again, the County Extension office is a valuable source for guidance in collecting and submitting samples and recommendations on treatment.

WEEDS

Although not technically pests, weeds are unwanted intruders in most landscapes. There are many definitions of a weed including:

- A plant out of place and not intentionally sown
- A plant considered undesirable, unattractive, or troublesome
- A plant that grows or spreads fast or takes the place of desired plants
- A plant growing where it is not wanted and best of all
- A plant whose virtues have not yet been discovered. (Ralph Waldo Emerson)

One method of weed control, referred to as *smothering*, is appropriate for flower beds but not turf. Mulch, leaves, rocks, and/or plastic film are used to choke out weeds by denying them light and water. Herbicides are typically used on turf grass. They are safe and effective if product label instructions are followed. They are classified based on how and when they control weeds. A selective herbicide controls certain plant species without seriously affecting the growth of other plant species.

PESTICIDES

The use of pesticides (including herbicides) is governed by F.S. 487, the Florida Pest Control Law, which regulates their distribution, sale, and use.

1 **RECYCLE LANDSCAPE WASTE**

2

3

4

5

6

7

8

9

10

11

12

13

“The paradox of life lies exactly in this: its resources are finite, but it itself is endless. Such a contradictory state of affairs is feasible only because the resources accessible to life can be used over and over again.”
– I. I. Gitelson, “Manmade Closed Ecological Systems”⁶

Community associations can use their landscape waste to save money and enrich their soil. When mowing, the clippings should be left on the lawn where they will decompose and provide nutrients for the soil. Clippings can also be used as mulch or compost. After pruning shrubs and other small plants the cuttings can be shredded and used for compost, mulch, or just left to decompose.

14 **REDUCE STORM WATER RUNOFF**

15

16

17

18

19

20

21

22

Lakes, ponds, springs, rivers, and streams are located on or run through many associations' properties. Many associations are also located along, or near, canals, storm water ponds, or other shorelines. Water containing fertilizers and/or pesticides runs off land surfaces, either due to rain or over-watering, into these bodies of water. They may also enter the subsurface aquifer. It is essential to minimize the runoff of fertilizers and pesticides to maintain a healthy ecosystem.

23

23 **MINIMIZE RUNOFF**

24

25

26

27

28

29

To minimize runoff associations should use porous materials such as bricks, gravel, *turf block*, mulch, and *pervious* concrete, for walkways, driveways, and patios. These materials allow rainwater to be absorbed into the soil, help recharge groundwater, and filter pollutants.

30

30 **SWALES AND BERMS**

31

32

33

34

35

36

37

Associations often use *swales* and *berms* located perpendicular to a slope to help retain water in the ground. A swale is a low tract of land, especially one that is moist or marshy. The term can refer to a natural landscape feature or a man-made one. Artificial swales are often designed to manage water runoff, filter pollutants, and increase rainwater infiltration. Berms are raised banks or terraces. They can be used, like swales, to reduce the rate of surface runoff.

⁶ <https://www.goodreads.com/work/quotes/480290-man-made-closed-ecological-systems-earth-space-institute-9>

1 PROTECT THE WATERFRONT

2
3 *Sweet is the swamp with its secrets,*
4 *Until we meet a snake;*
5 *'Tis then we sigh for houses,*
6 *And our departure take*

7
8 - From "Sweet is the Swamp with its Secrets" by Emily Dickinson⁷

9
10 Land along a shoreline is called the *riparian zone* and is frequently a *wetland*. A
11 minimum ten-foot maintenance free buffer zone should separate landscaped areas from
12 the waterfront to help reduce pesticide and fertilizer runoff. Freshwater shorelines often
13 typically contain vegetation that attract native wildlife and limit erosion. Such a shoreline
14 should contain native aquatic plants such as softstem bullrush, giant bulrush, common
15 arrowhead, pickerelweed, and maidencane. Invasive exotic species such as water
16 hyacinth, purple loosestrife, hydrilla, and water chestnut should be removed.

18 WETLANDS

19
20 *Wetlands* provide flood protection by absorbing the force of floods from hurricanes and
21 tropical storms, thereby lowering their impact on the immediate surroundings. Wetlands
22 that are found near flood prone areas or along the shore help to limit soil erosion through
23 securing the soil in place.

24
25 They also reduce pollution by filtering water of nutrients and toxins from fertilizer and
26 pesticide runoff which contributes to algae formation. Before reaching the water body,
27 wetland plants will take many of the harmful substances into their roots and make them
28 less toxic before they are released to the water body. The substances may also become
29 buried in wetland soil, where bacteria and other microorganisms break them down until
30 they become harmless. This natural method of cleansing reduces the quantity of
31 pollution and nutrients that enter the water system.

32
33 Wetlands provide habitat for fish and wildlife, including endangered species. Most birds
34 like geese, hawks, woodpeckers, and ducks rely on wetlands at certain periods of their
35 lives for nesting or food.

36
37 Finally, they are beneficial to the economy by providing a rich environment for
38 commercial fisheries and tourism.

39
40 Waterfront property and wetlands are often protected by local or state regulations (such
41 as mangroves). Make sure to contact the Florida Department of Environmental
42 Protection and /or local government before making any changes such as removing
43 vegetation or building a structure. Failure to do so can result in substantial fines.

44
45 Erosion is a common problem for associations located in riparian zones. Man-made
46 structures such as seawalls, *rip rap*, and *gabions* are frequently used to prevent loss of
47 land and of beach or dune sediments by wave action, tides, currents, or high winds.

⁷ [https://en.wikisource.org/wiki/Sweet_is_the_swamp_with_its_secrets,](https://en.wikisource.org/wiki/Sweet_is_the_swamp_with_its_secrets)

CHAPTER**2 THE LANDSCAPE CONTRACT**

1 The landscape contract should be created by the association's attorney in consultation
 2 with the board of directors, and if applicable, the chair of the landscape committee, and
 3 the CAM.
 4

CONTRACT PROVISIONS

5
 6
 7 The following description of provisions that should be included in a landscape contract is
 8 derived from the Florida-Friendly Landscaping™ Management Contract, prepared by
 9 UF/IFAS Extension.
 10

- 11 • Worksite location

12
 13 The contractor shall be provided with a map and plans of the property, delineating
 14 the area to be maintained.
 15

- 16 • Baseline landscape evaluation and assessment

17
 18 The contractor shall document the area with photographs of the existing conditions,
 19 prepare an inventory of dead and declining plants, an evaluation of the irrigation
 20 system, and of any waterbodies on the property.
 21

- 22 • The association shall designate its contact person or persons; typically, the CAM
 23 and/or the Landscape Committee chairperson.
 24

- 25 • The contract shall include provisions related to the contractor's work methods
 26 including commitments:
 27

- 28 ○ To comply with Florida-Friendly Best Management Practices for Protection of
 29 Water Resources by the Green Industries
- 30 ○ To supply all necessary labor, materials, equipment, tools, and supplies
- 31 ○ To supervise all workers at worksite
- 32 ○ To ensure that all work is performed in a workmanlike manner
- 33 ○ To ensure that only quality equipment and quality materials are used
- 34 ○ To ensure compliance with plant health and appearance as per specifications
 35 described in the contract.
 36

- 37 • The contract shall describe, in an appendix, the regularly scheduled work required of
 38 the contractor. The description must include detailed information regarding the type
 39 of equipment used, as well as the required methods for debris disposal, mowing,
 40 edging, trimming, mulching, pruning, fertilization, and pest and irrigation system
 41 management.

- 1 • The contract shall:
- 2
- 3 ○ Define its effective (beginning and ending) dates
- 4 ○ Describe, in an appendix, the definition of terms used in the contract
- 5 ○ Include the monthly cost of the regularly scheduled work
- 6 ○ Describe the invoice and payment process, as well as require the contractor to
- 7 document irrigation system inspections, IPM monitoring, soil and pest
- 8 management treatments, and other chemical applications
- 9 ○ Define late payment and the late payment fee
- 10 ○ Describe the methods of termination of the contract, including for cause by
- 11 association, for cause by contractor, and at-will (without requiring cause)
- 12 ○ Designate regularly scheduled work hours
- 13 ○ Identify any limitations on scope of work such as plant replacement (other than
- 14 those damaged by contractor), repair or changes to the irrigation system, and
- 15 tree removal
- 16 ○ Require the contractor to report any need for work, beyond the scope of the work
- 17 described on the appendix, to the association upon discovery (and include
- 18 timeframes for doing so)
- 19 ○ Identify the contractor as an independent contractor
- 20 ○ Require the contractor to comply with all federal, state, and local laws and
- 21 ordinances when performing work on the worksite, including those related to the
- 22 safety of persons such as the federal occupational safety and health act (osha)
- 23 ○ Require the contractor to maintain all valid licenses and certifications and provide
- 24 them to the association upon request
- 25 ○ Require the contractor to protect the worksite from damage, including all plant
- 26 materials, structures, utilities, and natural areas both above and below ground; to
- 27 report such damage to the association; and to restore the damaged object or
- 28 area to its previous state
- 29 ○ Require the contractor to use its best efforts to protect the property from
- 30 chemical, fuel, oil, or other contaminate spills and provide any required
- 31 environmental cleanup if it has caused the contamination
- 32 ○ Prohibit the contractor to blow or place soil, chemicals, mulch, or other materials
- 33 into storm water drains.
- 34
- 35 • The contract shall include the following requirements with respect to the contractor's
- 36 employees and subcontractors:
- 37
- 38 ○ The contractor shall provide and update as necessary, a list of names of its
- 39 current employees, as well as any subcontractors' employees, their contact
- 40 information, and schedules.
- 41 ○ The contractor shall ensure that any supervisor speaks, writes, reads, and
- 42 understands English and is capable of writing schedules, monthly and deficiency
- 43 reports.
- 44 ○ Supervisors shall have a minimum of three years' landscape maintenance
- 45 experience.
- 46 ○ The contractor's employees shall wear clean uniform shirts that clearly identify
- 47 the name of the contractor, as well as proper shoes and equipment required by
- 48 state safety regulations.
- 49 ○ The contractors' vehicles must be clean and presentable and have a readable
- 50 sign identifying the contractor's name and telephone number.
- 51 ○ All employees who apply commercial fertilizer shall hold a green industries best
- 52 management practices certification, and other licenses and/or certifications as
- 53 required by F.S. 482.1562.

1 ○ Subcontractors shall be used only upon written consent of the association; the
2 contractor shall supervise the subcontractor and be responsible for the
3 subcontractor's quality of work.

4

5 • Insurance Coverage and Indemnification

6

7 The contract should require the contractor and subcontractors to:

8

9 ○ Maintain general insurance liability, *broad form* contractual liability, automobile
10 liability, and workers' compensation insurance

10

11 ○ Carry workers' compensation insurance with employers' liability of at least

12

12 \$1,000,000 and a waiver of *subrogation* for the work or job performed

13

13 ○ Indemnify and hold harmless the association, to the fullest extent permitted by
14 law, against all claims, losses, or expenses that arise out of or result from any act
15 or omission, whether negligent or not, relating to any contractual service provided
16 by the contractor or its subcontractors.

16

17

18

18 • Warranties

19

20 In addition to any manufacturer warranties, the contractor should warrant for a
21 specified period the quality of any equipment and system installed at the worksite,
22 trees and palms for 365 days, and shrubs, turf grass, *perennials*, and groundcovers
23 for a specified period.

23

This Page was Left Blank Intentionally.

CHAPTER**3****THE CAM'S ROLE**

ROLES AND RESPONSIBILITIES

Boards of directors determine the CAM's job responsibilities. This is accomplished by contract with the CAM or community association business (CAB), by written job description, and/or by direction, oral or written, from the association president or board. Typically, the CAM's function is to facilitate the achievement of the association's goals and objectives.

Associations that contract for landscaping related services, such as landscaping, tree trimming, irrigation, pest control, and shoreline or lake management describe those goals and objectives in the contracts its attorney creates or approves with each provider. Associations that use its own in-house employees should express those goals and objectives in an annual landscape plan and in each employees' job description. It should be noted that F.S. 482.071 requires that all businesses and persons, regardless of whether they are employed by the association or a vendor, engaged in pest control be licensed by the Department of Agriculture and Consumer Services. Additionally, an arborist certified by the International Society of Arboriculture (ISA) is required to trim trees above twelve feet.

TYPICAL CAM RESPONSIBILITIES

CAMs are typically required to facilitate achievement of the association's landscape related goals and objectives. Their responsibilities will typically include:

- Oversight of contracts
- Governing documents and landscaping projects
- State statutes and local ordinances

OVERSIGHT OF CONTRACTS

The CAM must determine if work has been completed in conformance with the terms of the contract before approving the processing and payment of an invoice. Ordinarily, the CAM is a generalist, possessing basic, but not in depth, knowledge of numerous work-related activities. Additionally, the CAM is typically under pressure to meet deadlines, manage special projects, create a budget, prepare for meetings, respond to member problems, and meet the diverse needs of a demanding board of directors. Many managers find themselves with inadequate time and knowledge to properly inspect a vendor's or an employee's work.

1 **Maintenance Supervisors and Committees**

2

3

4 Fortunately, many associations have an exceptionally knowledgeable maintenance
5 supervisor to whom the CAM can delegate at least partial responsibility for inspection of
6 landscape related work. The CAM can require the supervisor to inspect and sign off on
7 both regularly scheduled work such as lawn maintenance and tree trimming, as well as
8 replacement of flower beds and dead plants.

8

9

10

11

12

13

14 Some associations have a committee, consisting of knowledgeable persons who commit
15 their time to ensuring that the property is beautifully landscaped. The committee often
16 performs design, as well as inspection, functions. The committee chair is often the
17 contact person for the landscaper.

13

14 **Vendors**

15

16

17

18

19

20

21

22

23

24

25 The proper selection of vendors, for those associations that contract for landscaping
26 services rather than using employees, is essential. Association boards are almost
27 always under pressure to keep costs low. However, the low bidder is frequently not the
28 best choice if the association demands a high quality of service. The CAM is frequently
29 involved in the bidding process and may be required to provide a summary of the
30 proposals, check references, and inspect properties the competing companies are
31 currently maintaining. The CAM should base any recommendation they may offer, on
32 quality rather than price.

25

26 **Landscape Teams**

26

27

28

29

30

31

32

33

34 To effectively facilitate the accomplishment of the association's landscape goals, the
35 CAM must coordinate with all the participants in the process. They must, in effect, create
36 and manage a landscape team consisting of the vendors or employees providing
37 landscaping, pest control, irrigation, and tree trimming services, lake or shoreline
38 services (if applicable), and landscape design (when utilized), as well as the
39 maintenance supervisor and Landscape Committee chairperson.

34

35

36

37

38 Regardless of the existence of a landscape committee or a highly competent
39 maintenance supervisor, the CAM will typically be held accountable for the quality of
40 landscaping services and vendor compliance with contracts.

38

39 **Ongoing Education**

39

40

41

42

43

44

45

46 CAMs must continuously be engaged in improving their knowledge of landscaping, as
47 well as other specialized services. They can accomplish this by attending continuing
48 education courses as well as other educational forums. If the board has performed its
49 due diligence in the process of hiring high quality vendors, their companies'
50 representatives become a great source for advice and consultation.

46

47

48

UF/IFAS has excellent publications that can provide the CAM with information on a
broad range of landscape related topics. Professional employees of the County
Extensions are exceptionally knowledgeable and available for consultation.

Other Responsibilities

CAMs must allocate time to inspect the property on a regular basis, as well as the work performed by employees and vendors. They may choose to do this in conjunction with the maintenance supervisor, committee chair, and/or service provider, or by themselves.

CAMs must also provide regular status reports to the board on the implementation of the basic contract, as well as any ongoing specialized landscaping projects.

A good CAM is a resourceful CAM. Despite job pressures and time constraints, the CAM must find a way to ensure that the landscaping meets the standards set by the board of directors, the president, and/or the committee chairperson.

GOVERNING DOCUMENTS AND LANDSCAPING PROJECTS

Issues with the governing documents, as well as state statutes, often emerge when the board determines to create a “new look” to their landscaping, frequently including *hardscape* structures. Such changes may constitute a *material alteration* to the property. A material alteration may, depending upon the association’s documents and/or Florida statutes, require an affirmative vote of a specific percentage of the voting interests of the association at a membership meeting. The documents may also require approval of the membership to expend in excess of a specific dollar amount for a capital project.⁸ The CAM must be thoroughly familiar with their association’s documents and be prepared to inform the board when a legal consultation is needed to avoid the potential negative consequences of a violation.

Competitive Bidding

Additionally, for large projects, boards may need to be reminded that state statutes require competitive bidding for any project costing more than 5% of a condominium or cooperative’s annual budget and 10% of an HOA’s annual budget. To properly bid out a landscaping project, a *landscape architect* or *landscape designer* is required to create the design, write up the bid specifications, determine whether the bid proposals are comparable, and manage the project to ensure compliance with the specifications.

STATE STATUTES AND LOCAL ORDINANCES

CAMs should be familiar with the following state statutes regulating landscaping:

- F.S. 373.185 - Local Florida-Friendly Landscaping Ordinances
- F.S. 403.9337 - Model Ordinance for Florida-friendly Fertilizer Use on Urban Landscapes
- F.S. 373.228 - Landscape Irrigation Design
- F.S. 482 - Pest Control
- F.S. 373 - Water Resources
- F.S. 403.9326 - Mangrove Trimming Requirements

⁸ **Capital project:** A project requiring relatively large sums of money to acquire, develop, improve, and/or maintain a capital asset, such as land, buildings, and roads

1 They should also be knowledgeable of the landscape related ordinances of the counties
2 and municipalities in which the properties they manage are located. The association's
3 attorney can provide guidance with respect to the above referenced statutes and
4 ordinances as well as any relevant federal laws.
5

6 **SUMMARY**

7
8 The objectives of Landscape Basics for Community Association Managers are to provide
9 managers with an understanding of the basic principles of landscaping, the landscape
10 maintenance contract, and the role of the community association manager. Frequently, a
11 course on the basics of any subject leaves the student with more questions than
12 answers. If, in addition to accomplishing the course objectives, students are motivated to
13 seek more in-depth knowledge of the subject matter, all the better for the CAM and the
14 associations they manage. It may then perhaps be said that Landscape Basics provided
15 the seeds, water, fertilizer, and maybe even the mulch to grow a "greener" community
16 association manager.

GLOSSARY OF TERMS

A

ALGAE - A simple nonflowering plant of a large group that includes the seaweeds and many single-celled forms. Algae contain chlorophyll but lack true stems, roots, leaves, and vascular tissue.

AQUIFER - A body of permeable rock that can contain or transmit groundwater

B

BEDDING PLANT - A plant set into a garden bed or container when it is about to bloom, usually an annual (lasts one year) used for display and discarded at the end of the season

BIOLOGICAL CONTROL - The use of natural enemies (predators, parasites, and pathogens (such as microbial insecticides) to suppress pests

BOTANICALS - A pesticide whose active ingredient is a plant-produced chemical such as nicotine or strychnine

BROAD FORM INSURANCE - Insurance that provides more than basic coverage. It applies to unusual and risky events that can result in serious harm to the insured. Broad form insurance usually has a high premium and **deductible**.

BROADCAST SPREADER - Designed to spray granular fertilizer in several directions or over a wide area.

C

CAPITAL PROJECT - A project requiring relatively large sums of money to acquire, develop, improve, and/or maintain a capital asset such as land, buildings, and roads

COMPOST - Decayed organic material, including dead leaves, grass cuttings, manure, and food waste, used as plant fertilizer

CULTIVAR - A plant variety that has been produced in cultivation by selective breeding

D

DECIDUOUS TREES - Trees or shrubs that lose their leaves seasonally (most commonly during autumn)

DROP SPREADER - Deposits granular fertilizer directly between its wheels

E

ECOSYSTEM - A biological interconnected community of interacting organisms and their physical environment

ESTUARY - An estuary is a partly enclosed coastal body of brackish water with one or more rivers or streams flowing into it, and with a free connection to the open sea. Estuaries form a transition zone between river environments and maritime environments.

F

FERTILIZER - A chemical or natural substance added to soil or land to promote plant growth

G

GABIONS - A cage, or basket filled with rocks or concrete used to prevent shoreline erosion

GO TO SEED - Permitting grass or other plants to grow without cutting, resulting in the development of seeds

GREEN INDUSTRIES - Environmentally friendly industries

GROUND COVER - Low-growing, spreading plants that help to stop weeds from growing

H

HABITAT MANIPULATION - Manipulation of cultivated areas and surrounding environment with the aim of conserving or augmenting populations of natural enemies

HARDSCAPE - Structures such as fountains, benches, or gazebos that are incorporated into a landscape

HERBICIDES - A chemical that is used to destroy unwanted plants, especially weeds

HORTICULTURAL OIL - Lightweight oils, either petroleum or vegetable based, used to control insects and mites

I

INORGANIC FERTILIZER - Fertilizer that is mined from mineral deposits or manufactured from synthetic materials

K

KURSTAKI - *Bacillus thuringiensis* is a soil-dwelling bacterium, commonly used as a biological pesticide

L

LANDSCAPE - Any combination of living plants (such as grass, ground cover, shrubs, vines, hedges, or trees) and non-living landscape material (such as rocks, pebbles, sand, mulch, walls, fences, or decorative paving materials)

LANDSCAPE ARCHITECT - DBPR's board of landscape architecture is responsible for licensing and regulating landscape architects. The requirements for licensure include a professional degree in landscape architecture and one year of approved practical experience; or seven years of practical experience acceptable to the board.

LANDSCAPE DESIGNER - Landscape designers do not have any licensure, educational, or training requirements. If permits are required, the county or municipality may not accept the design and specifications developed by a landscape designer.

LEACHING - Natural process by which water soluble substances (such as calcium, fertilizers, pesticides) are washed out from soil or wastes. These leached out chemicals cause pollution of surface and sub-surface water.

LIME - A white caustic alkaline substance consisting of calcium oxide, obtained by heating limestone

M

MATERIAL ALTERATION - A physical change to the property that significantly alters its structure or appearance

MICROBIALS - Consist of microscopic living organisms (viruses, bacteria, or fungi) and can be applied like chemical pesticides

MODIFICATION OF CULTURAL PRACTICES - Changing practices that reduce pest establishment, reproduction, dispersal, and survival. For example, changing irrigation practices can reduce pest problems, since too much water can increase root disease and weeds.

N

NEMATODE - Any of a phylum of elongated cylindrical worms, parasitic in animals or plants

O

ORGANIC FERTILIZER - Fertilizer that is derived from plants and animals includes ingredients, such as manure and composts

P

PERENNIALS - A plant that lives for more than two years. The term is often used to differentiate a plant from shorter-lived annuals and **biennials**.

PERVIOUS - Allowing water to pass through; permeable. For example, pervious concrete.

PESTICIDES - A substance used to control pests or weeds

PESTS - Any plant, animal, or pathogenic (a bacterium, virus, or other microorganism causing disease) agent injurious to plants or plant products

PH - Defines whether a substance is acidic or alkaline. A solution is considered acidic if it contains more hydrogen than water (pH 7.0)

PLANT STRESS - Plants subjected to less than ideal growing conditions, are considered to be under stress, which can negatively affect growth and survival.

PLANTS - A living organism of the kind exemplified by trees, shrubs, herbs, grasses, ferns, and mosses, typically growing in a permanent site, absorbing water and inorganic substances through its roots, and synthesizing nutrients in its leaves by photosynthesis using the green pigment chlorophyll

PRUNING - Trimming (a tree, shrub, or bush) by cutting away dead or overgrown branches or stems, to improve health, control growth, and increase fruitfulness

R

RECLAIMED WATER (or RECYCLED WATER) - Former wastewater (sewage) that is treated to remove solids and impurities, and used in sustainable landscaping irrigation, to recharge groundwater aquifers, to meet commercial and industrial **water** needs, and for drinking. An aquifer is a body of permeable rock that can contain or transmit groundwater.

RIP RAP - Rock or other material used to protect shorelines, streambeds, bridge abutments, pilings and other shoreline structures against scour and water or ice erosion.

ROOT PRUNING - The trimming of roots to stimulate growth, develop a thick mass of roots, or to remove broken or damaged roots

S

SALT MARSH - A salt marsh is a coastal ecosystem between land and open salt water or brackish water that is regularly flooded by tides. It is dominated by dense stands of salt-tolerant plants such as herbs, grasses, or low shrubs.

SHRUB - A woody plant that is smaller than a tree and has several main stems arising at or near the ground

SOIL - The upper layer of earth in which plants grow, a black or dark brown material typically consisting of a mixture of organic remains, clay, and rock particles

SOIL SUBSIDENCE - The gradual caving in or sinking of an area of land

SOOTY MOLD - A type of plant mold that grows in the secretion (honeydew) of many common plant pests, such as aphids or scale. The pests cover the leaves in honeydew and the sooty mold spore lands on the honeydew and begins to reproduce

STORM WATER - Surface water in abnormal quantity resulting from heavy falls of rain or snow

SUBROGATION - The right for an insurer to legally pursue a third party that caused an insurance loss to the insured. This is done as a means of recovering the amount of the claim paid by the insurance carrier to the insured for the loss.

T

TREES - A plant with an elongated stem, or trunk, supporting branches and leaves in most species. Trees include a variety of plant species that have independently evolved a woody trunk and branches as a way to tower above other plants to compete for sunlight. Palms and bamboo are actually grasses. For the purpose of this course any reference to trees will include palms and bamboo.

TURF - Grass and earth held together by roots

TURF BLOCK - Interlocking concrete or plastic cells used for decorative purposes

TURF GRASS - Grass grown for lawns, of a type that forms a dense even **turf** if mown and maintained

U

UNDERSTORY TREES - Small trees, shrubs and vines that grow under the taller trees. These plants can grow in the shade of the taller trees and remain short even if they are very old.

W

WATER STRESS - Occurs when the demand for water exceeds the available amount during a certain period or when poor quality restricts its use. Water stress causes deterioration of fresh water resources in terms of quantity (aquifer over-exploitation, dry rivers, etc.) and quality (eutrophication, organic matter pollution, saline intrusion, etc.).

WETLAND - A transition ecosystem between land and water such as bogs, mangroves, swamps, and marshes

WILDLIFE - Undomesticated animals living in the wild, including those hunted for food, sport, or profit

This Page was Left Blank Intentionally.

LANDSCAPING BASICS COURSE QUIZ

Use the answer sheet at the end of the book to indicate your responses.

1. All except which of the following are principles of Florida-friendly landscaping?
 - a. Right plant, right price
 - b. Fertilize appropriately
 - c. Reduce storm water runoff
 - d. Water efficiently

Ref: Basic Landscaping Principles, 2, 3, 8

2. Drought-tolerant plants can do well in all of the following areas except:
 - a. Elevated dry areas
 - b. Along unshaded walls with southern or western exposure
 - c. Wet areas
 - d. Exposed areas

Ref: Basic Landscaping Principles, Drought Tolerant

3. Which of the following statements is NOT true regarding trees?
 - a. Deciduous trees provide shade and should be planted on the south, east, and west sides of structures used by residents.
 - b. Root pruning and the placement of root barriers are common remedies to prevent damage from tree root systems.
 - c. Native trees, particularly those with wide spreading branches, low centers of gravity, strong deep penetrating root systems, and small leaf size tend to more effectively withstand tropical storms.
 - d. Solitary trees have greater wind resistance than massed trees.

Ref: Basic Landscaping Principles, Trees

4. Which of the following statements is NOT true regarding turf grass?
 - a. St. Augustine grass has a low cost of maintenance.
 - b. Zoysiagrass is subject to hunting billbugs and brown patch disease.
 - c. Bermudagrass is fast-growing and tough, making it popular and useful for sports fields.
 - d. Factors to be considered when selecting grass include drought, shade, salt, and wear tolerance, fertilization requirements, leaf texture, pest and disease problems, and climatic conditions.

Ref: Basic Landscaping Principles, Types of Florida Lawn Grasses

5. Nutrients that are required in large amounts by plants include all of the following except:
 - a. Nitrogen
 - b. Boron
 - c. Phosphorus
 - d. Potassium
6. All, except which of the following statements is true about pH and soil?
 - a. The optimum pH range for most plants is between 5.5 and 7.0.
 - b. pH is a measure of the acidity or alkalinity in soils.
 - c. The availability of nutrients depends on the pH of the soil.
 - d. A soil's pH can be increased by adding an acidifying fertilizer containing ammonia.

Ref: Basic Landscaping Principles, Nutrients & pH

7. Which of the following is NOT an invasive, exotic plant in Florida?
 - a. Brazilian pepper
 - b. Gumbo limbo
 - c. Melaleuca
 - d. Schefflera

Ref: Basic Landscaping Principles, Invasive Species

8. Which of the following is NOT a benefit of mulch?
- It reduces storm water runoff.
 - It helps to control weeds.
 - It provides habitat for squirrels.
 - It provides nutrients to the soil.

Ref: Basic Landscaping Principles, 4. Mulch

9. Which of the following methods cannot be used to successfully attract wildlife except?
- Installation of bat houses
 - Planting a combination of larval and nectar plants
 - Allowing grasses and flowers to occasionally go to seed
 - Increasing the horizontal layering of plants

Ref: Basic Landscaping Principles, 5. Attract Wildlife

10. Methods of integrated pest management (IPM) include all except which of the following?
- Prune extensively
 - Conserve beneficial insects
 - Inspect plants frequently
 - Plant in the right locations

Ref: Basic Landscaping Principles, 6. Manage Pests Responsibly

11. Effective methods of reducing storm water runoff include all except which of the following?
- Berms
 - Swales
 - Blocked storm drains
 - Turf block

Ref: Basic Landscaping Principles, 8. Reduce Storm Water Runoff

12. Wetlands are beneficial because they do all except which of the following?
- Reduce pollution
 - Support the growth of water hyacinth
 - Provide habitat for fish and wildlife
 - Provide flood protection

Ref: Basic Landscaping Principles, 9. Protect the Waterfront Wetlands

13. The landscape maintenance contract should require all except which of the following?
- The association to designate its contact person or persons
 - The contractor to document the area with photographs of existing conditions
 - The association to provide the contractor with a map and plans of the property, delineating the area to be maintained
 - The association to identify the location of the president's house so the landscaper can provide it with specialized services

Ref: The Landscape Contract, Contract Provisions

14. Work method related requirements for the contractor that should be included in the landscape maintenance contract include all except which of the following?
- Compliance with Florida-Friendly Best Management Practices for Protection of Water Resources by the Green Industries
 - Supervision of all workers and residents at the worksite
 - Compliance with plant health and appearance as per specifications described in the contract
 - Supplying all necessary labor, materials, equipment, tools, and supplies

Ref: The Landscape Contract, Contract Provisions

15. The landscape maintenance contract should include a description of the regularly scheduled work of the contractor including all except which of the following?
- Type of equipment to be used
 - Method of irrigation
 - Method of debris accumulation
 - Methods of mowing, edging, and trimming

Ref: The Landscape Contract, Contract Provisions

16. The landscape maintenance contract shall include the requirements related to the contractor's employees and subcontractors except which of the following?
- All employees must be able to speak and understand English.
 - All employees that apply commercial fertilizer shall hold a Green Industries Best Management Practices Certification, as required by F.S. 482.1562.
 - Subcontractors shall be used only upon written consent of the association; the contractor shall supervise the subcontractor and be responsible for the subcontractor's quality of work.
 - Supervisors shall have a minimum of three years' landscape maintenance experience.

Ref: The Landscape Contract, Contract Provisions

17. The landscape maintenance contract must include insurance, indemnification, and warranty requirements of the contractor and subcontractors except which of the following?
- Maintain general insurance liability, broad form contractual liability, automobile liability, and workers' compensation insurance
 - Carry workers' compensation insurance with employers' liability of at least \$1,000,000 and a waiver of subrogation for the work or job performed
 - Shall indemnify and hold harmless the association, to the fullest extent permitted by law, against all claims, losses, or expenses that arise out of or result from any act or omission, whether negligent or not
 - Warrant trees and palms for a minimum of three years

Ref: The Landscape Contract, Contract Provisions

18. A CAM should be prepared to effectively perform all except with of the following services?
- Inspect the landscaped areas on a daily basis
 - Determine whether the provisions of the landscape contract are being properly implemented
 - Assist in the selection of qualified vendors
 - Provide status reports to the board

Ref: Role of the Community Association Manager

19. All of the statutory and/or governing documents requirements should be taken into consideration if the board intends to contract for a substantial change in the appearance of the landscaped area except which of the following?
- Requirements for a membership vote based upon the cost of the project
 - Requirements for the use of a specific contractor or landscape architect
 - Requirements for competitive bidding
 - Requirements for approval of a material alteration

Ref: The CAM's Role

20. CAMs should be familiar with all except which of the following state statutes regulating landscaping?
- F.S. 373.185
 - F.S. 493
 - F.S. 373.228
 - F.S. 482

Ref: The CAM's Role

This Page was Left Blank Intentionally.