

THE
NEW YARD
PATTERN BOOK

FOR FLORIDA'S SUSTAINABLE
SINGLE FAMILY HOMES

SECOND EDITION

OUTSIDE COLLABORATIVE

A CASE FOR SUSTAINABILITY, FUNCTION, AND BEAUTY



The New Yard Pattern Book (*Second Edition*) for Florida's Sustainable Single Family Homes was produced by Dix.Hite + Partners for the Outside Sustainable Landscape Collaborative in 2023.

This project was funded with the help of the Fish & Wildlife Foundation of Florida via proceeds from the Protect Florida Springs License Plate Fund.

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Florida's population has been growing steadily since 1946, and the residential construction industry has become a cornerstone of our state's economy. Over the last four decades, the construction of new homes has shifted increasingly towards master planned communities with the standard practice of mass clearing and regrading land for buildings, roadways, and stormwater controls.

Replacing them with stormwater ponds and turf monocultures that depend on in-ground irrigation systems, regular fertilization, and frequent mowing is unfortunately common development practice. As a result, these residential landscapes use an average of 990 gallons of water each time the average yard is watered. That is equivalent to flushing a toilet 774 times or running your dishwasher 50 times! This demand is unsustainable and unnecessary.

The conventional landscaping patterns established in most master planned communities does little to mitigate or compensate for the larger problem of habitat loss of Florida's natural ecosystems. It also further contributes to the nutrient pollution (Phosphorus and Nitrogen) that negatively affects Florida's watersheds and surface waters [1].

But don't lose hope...there is a better way! Our landscapes can promote healthy soils, conserve water and provide habitat for pollinators, birds and other wildlife. Our yards can feed our children's curiosity making them want to put down their screens and step into the backyard and enjoy nature.

In response to these issues, THE OUTSIDE COLLABORATIVE established this handbook to provide landscape guidelines for master planned communities to do just that! These guidelines are based on principles of sustainable design that are intended to maximize community amenities and homeowner experience, while also making them more functional for the landscape and its ecology.



Image Credit: Florida Hikes

WHY?



Our yards play a role in the overall ecosystem.



THE FLORIDA ECOSYSTEM



EVERYTHING WE DO ON THE LAND AFFECTS NATURE

The way in which we manage our yards plays a vital role in the health of Florida's ecosystems, from the species we plant, our choice of fertilizer, to our irrigation practices. We have the opportunity to support local wildlife and minimize the harmful impacts of these practices on the environment. Through the use of sustainable landscaping practices, homeowners can help lessen the stresses facing our local ecosystems, including habitat fragmentation, pollution, invasive species, and water overuse. Learn more about Florida's amazing natural ecosystems and how you can help protect them in your own back yard on the following pages.

AT A GLANCE...



Florida has over **3,200** NATIVE species of plants. [2]



Florida has nearly **8,000** lakes, **1,700** rivers, streams, and springs, thousands of miles of canals and extensive wetlands.

Our waterways support natural functions such as fish and wildlife habitat and provide human uses including navigation, recreation, irrigation, drinking water, and flood control.



In 1991 the flower of the genus

COREOPSIS

(common name: tickseed)

was designated Florida's official wildflower after its extensive use in Florida's roadside plantings and highway beautification programs. [3]



Florida is home to **300** SPECIES OF NATIVE BEES

29 of which are endemic (found only in Florida). [4]



Florida's **LARGEST** native tree is a **BALD CYPRESS** (*Taxodium distichum*) in Hamilton County, Florida.

This tree measures **557 inches** in circumference, stands **84 feet** tall, and carries a crown spread of **49 feet!** [5]



Our state animal is the **FLORIDA PANTHER** (*Felis concolor coryi*)

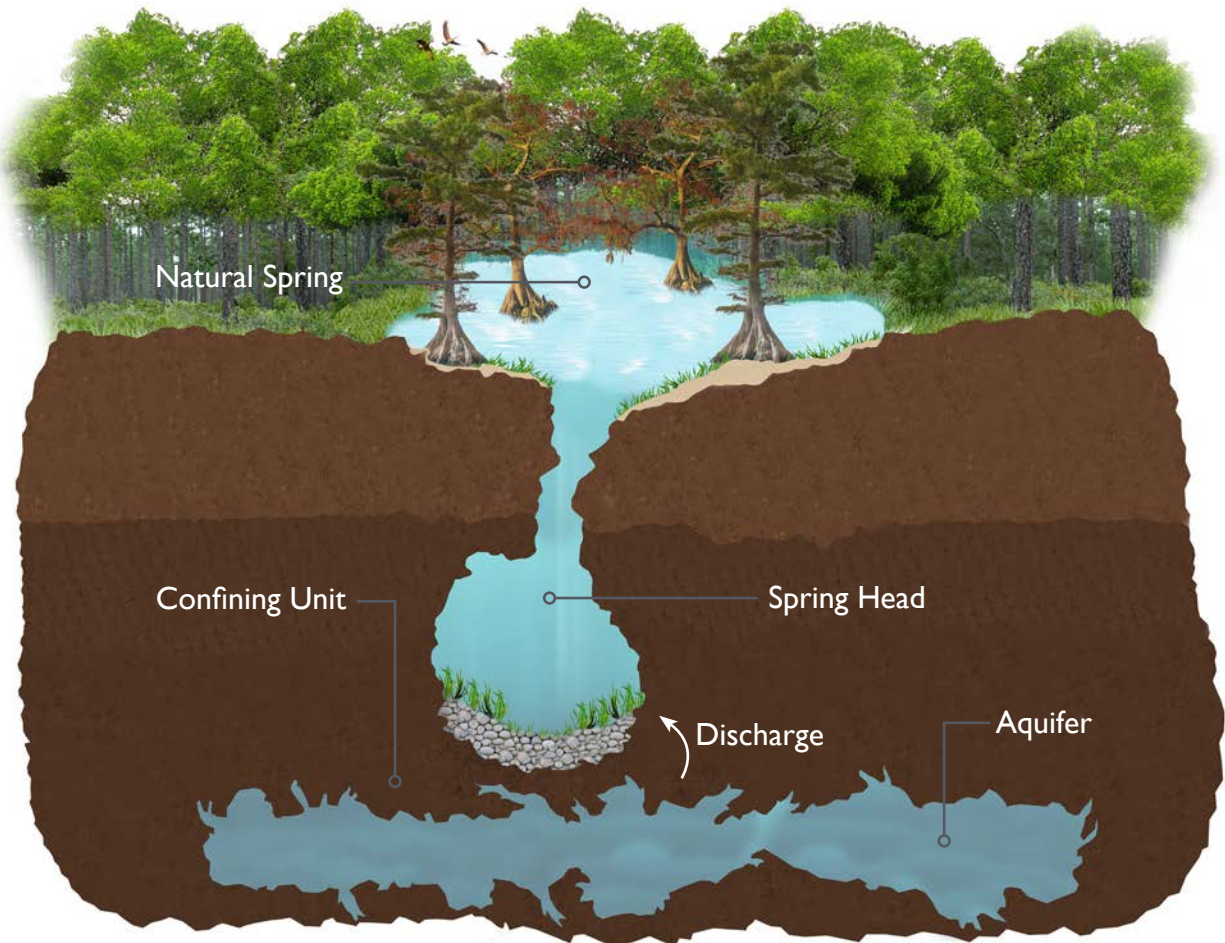
The Florida Panther is one of the most endangered animals in the world with an estimated **120-130** panthers left in the wild. It has been on the federal endangered species list since 1967 and the state's list since 1973.

The only bird species endemic to Florida is the **FLORIDA SCRUB JAY** (*Apelocoma coerulescens*)

It is found only in Florida scrub habitat, an ecosystem that exists **ONLY** in central Florida and **LIMITED** areas of the Atlantic coast. [6] Much of the scrub habitat has been altered for agriculture and development purposes, and what is left is very susceptible to climate change.



AQUIFERS



WHAT ARE AQUIFERS?

Groundwater is water beneath the Earth's surface which is held in underground materials such as porous rock (e.g. limestone and dolomite) and soil. The underground reservoirs in which this water is stored are known as aquifers. Groundwater is replenished when rainfall permeates the soil and the water seeps into these underground materials. It is also the lifeblood of many rivers, lakes, springs, and streams as underground hydraulic pressure pushes groundwater back out to the surface and into these amazing aquatic environments known as groundwater dependent ecosystems.

THREATS TO AQUIFERS

Groundwater dependent ecosystem health and the very water that 90% of Floridian's rely on for drinking water depends on the volume and quality of groundwater [7]. Unfortunately, human activity has strained and threatened Florida's groundwater resources. Groundwater withdrawals have tripled over the last 50 years and present a significant threat to the amount of groundwater available to people, industries, and wildlife, that need it [8].

SPRINGS



WHAT ARE SPRINGS?

Florida's iconic springs are one of our state's most cherished freshwater resources, which rely on clean and abundant groundwater. Springs represent major discharge areas, where groundwater is forced to the surface due to pressure from confining beds of impermeable sediments. Releasing over 8 billion gallons of freshwater each day, Florida has the most productive spring system in the world.

Beloved by both locals and visitors, Florida's springs provide abundant opportunities for recreation and connection to the natural environment. Notable for providing habitat to the endangered Florida manatee, Florida's springs are relied upon by many species of threatened aquatic and terrestrial animals [9].

THREATS TO SPRINGS

Both water pollution and decreased water flow has adversely affected Florida's springs. Chemicals used in fertilizers in residential yards pollute Florida's freshwater systems. Irrigating with groundwater contributes to depleting the water in aquifers, which in turn reduces the pressure pushing the water out of the aquifer, decreasing the water flow and volume into the spring [10]. This sets the stage for algae to proliferate. When this happens the balance of aquatic plants is shifted from diverse native species, that provide necessary shelter and food for turtles, fish, manatees and other animals, to a degraded algal dominated system.

RIVERS + LAKES

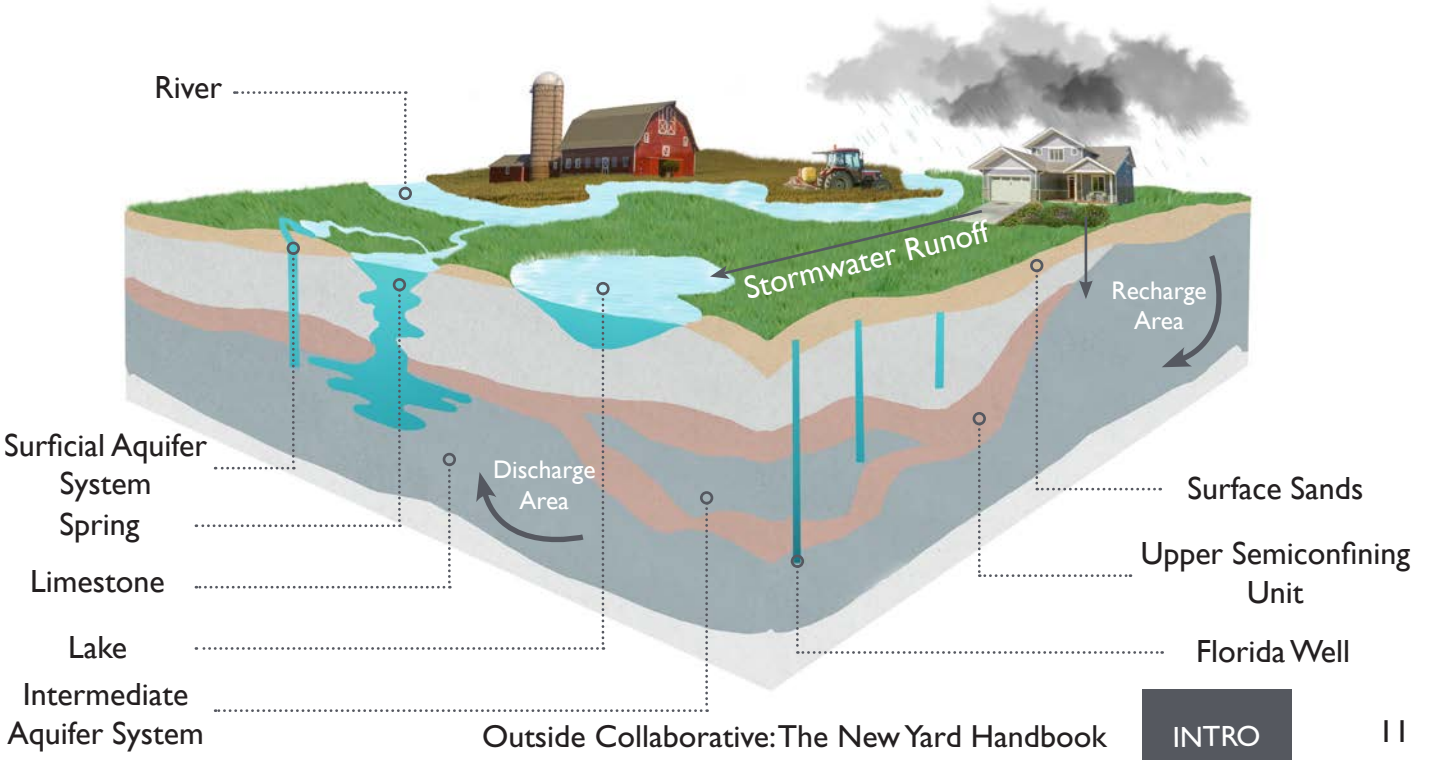


WHY ARE THEY IMPORTANT?

Rivers and lakes are significant contributors to Florida’s freshwater biodiversity. Over 50,000 miles of rivers and streams throughout the state feed water bodies such as lakes, marshes, and swamps, carrying important nutrients and the essential water needed for these aquatic ecosystems to thrive [11]. Florida boasts nearly 8,000 lakes that provide important habitats to wildlife, the ecological systems supporting Florida’s lakes are incredibly productive and biologically rich [12]. These systems also provide us with drinking water and recreational opportunities.

THREATS TO RIVERS AND LAKES

Like other water bodies in Florida, one of the biggest threats to the water quality of rivers and lakes is contamination from polluted stormwater that runs off the land. Many nutrients, toxins, and other pollutants that we use on the land can eventually be carried into either surface or groundwater. Anything that we put on the land (pesticides, fertilizers, herbicides) may pollute Florida’s precious water resources.



NEARSHORE ECOSYSTEMS



WHAT ARE NEARSHORE ECOSYSTEMS?

Nearshore ecosystems occur at the intersection between land and water and are home to some of the most biodiverse habitats on Earth [13]. In Florida, examples of nearshore habitats included beaches and dunes, estuaries, mangrove swamps, and marshes. These ecosystems are incredibly productive and are home to many of Florida's most well-known sea life including: birds, sea turtles, dolphins, manatees, alligators, game fish, shrimp, crustaceans, oysters and clams.

THREATS TO NEARSHORE ECOSYSTEMS

These nearshore ecosystems are threatened greatly by development, as people love to live along the coastline. It is estimated that as much as 3% of Florida's land area consists of nearshore ecosystems, and 80% of the state's population lives in these areas [14]. This has led to mangrove deforestation in many areas, poor estuarine water quality and other adverse impacts to nearshore ecosystems.

WILDLIFE CONNECTIVITY



WHAT IS WILDLIFE CONNECTIVITY?

Wildlife connectivity, or habitat connectivity, is imperative to healthy and resilient ecosystems in Florida. Wildlife are dependent on reliable and connected corridors for food, water, and shelter. For example, the Florida Panther defends territories of up to 200 square miles. Panthers need large contiguous areas to be able to survive and reproduce. Much of Florida is undergoing rapid urbanization and experiencing increased development pressures into environmentally sensitive ecosystems. This rapid development deteriorates Florida's biodiversity by fragmenting habitat and isolating wildlife populations. It is important to protect our ecosystems by preserving natural areas that are spacious and connected enough for wildlife to move, migrate, and adapt [15].



MONARCH MIGRATION

Connected wildlife corridors are especially important for migratory species that must locate natural areas to rest while on long journeys, such as the Monarch butterfly. As the only migratory species of butterfly, every year Monarchs travel thousands of miles across North America to overwinter in Mexico. On this long journey they need plenty of opportunities to rest and feed on milkweed. Many eastern populations of Monarchs congregate in Florida before they must travel over open water. When native habitats are fragmented due to large metropolitan areas and urban sprawl, it is hard for these important pollinators to find the energy they need to make it to their final destination. Without sufficient wildlife connectivity, we won't be able to enjoy migrating Monarchs!

WHAT?



What you can improve in your own yard.



WHAT IS THE NEW YARD?

The first step towards sustainable residential development is shifting society's mindset of what a yard could be. A yard is much more than simply turf with a band of shrubs around the foundation of a home. **Sustainable yards** are designed to **work with nature** instead of against it. Landscaping

strategies to help protect Florida's natural ecosystems include **reducing water** and **pesticide use** and **choosing native plants**. Sustainably landscaped yards can be designed to be aesthetically appealing, functional, and **low-maintenance** all while providing **food, habitat, and safety to wildlife**.

TRADITIONAL YARD



- Minimal Canopy
- Non-native Ornamentals
- High Maintenance
- Little Biodiversity Opportunity
- Extensive Sod

Image Credit: istockphoto.com

THE NEW YARD



- Native Canopy
- Planted for Biodiversity
- Pollinator Friendly
- Outdoor Living
- Native Drought-tolerant Plants
- Mulched Beds

Image Credit: Dix.Hite + Partners

LANDSCAPE STRATEGIES



Image Credit: Dix.Hite + Partners

INCORPORATE



Use plants that can thrive on rainfall alone (beyond a short 'grow-in' establishment period) so that permanent in-ground sprinkler systems are not needed.



Install mostly native plants-suited to the site soils, with lower water, fertilizer and chemical demand, and provide better habitat for wildlife.



Incorporate a diversity of plant species, serve different functions, have different bloom times, and provide habitat and food for pollinators, birds and other wildlife.



Incorporate outdoor living spaces for functional use.

PRESERVE



Preserve soil moisture, fertility, and nutrients, by adding compost to the soil, and using mulch and ground cover.



Preserve mature trees when possible and install new trees to provide shade and habitat.

MINIMIZE



Minimize irrigated turf grass area and use alternative grasses and groundcovers that do not require ongoing watering and have wildlife value.



Avoid use of synthetic chemicals.

THE NEW YARD BENEFITS

STRATEGIES IN ACTION...



Image Credit: Dix.Hite + Partners

WHAT'S IN IT FOR US?



Image Credit: Dix.Hite + Partners

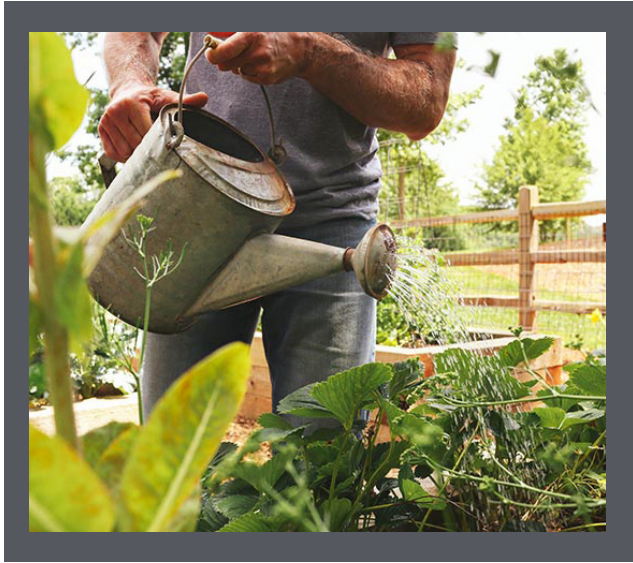
“In the past, we have asked one thing of our gardens: that they be pretty. Now they have to support life, sequester carbon, feed pollinators and manage water.”

Doug Tallamy

Co-Founder NHP

<https://homegrownnationalpark.org/>

GOALS: THE BIG 4



LOW WATER USE

Choosing locally adapted site appropriate plant material that **minimizes or eliminates the need for irrigation** post-establishment, in turn reducing water use and providing cost savings to the homeowner.



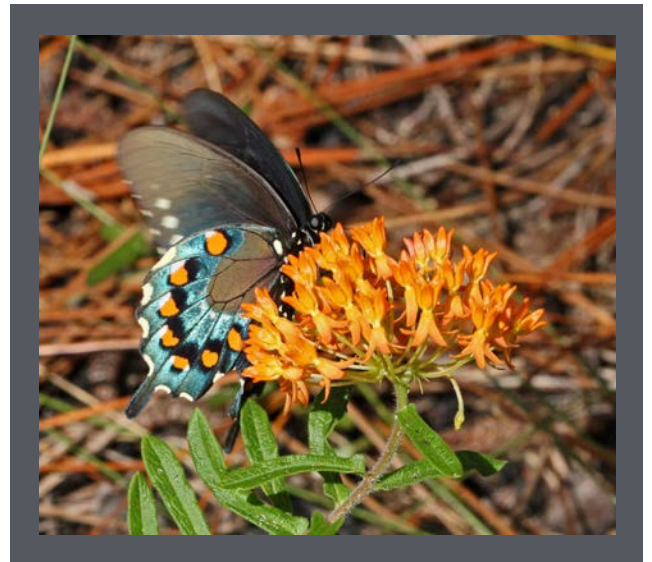
ECOSYSTEM BENEFITS

Planting a variety of native species in varied heights, textures, and form results in a resilient and beautiful yard. It also **promotes and maximizes ecological diversity and ecosystem services**, conserving Florida's natural heritage and promoting human wellness.



HEALTHY SOILS

Regular use of compost and organic material, such as leaf litter, **minimizes or eliminates the need for mineralized fertilizer** and keeps plants happy, well-fed, and healthy!



HOLISTIC PEST MANAGEMENT

Choosing native plants builds habitat, creating balanced ecosystems in which living organisms suppress pest populations and **minimizes or eliminates chemical pesticide use**.

LOW WATER USE

MINIMIZE/ELIMINATE IRRIGATION BEYOND ESTABLISHMENT

“RIGHT PLANT, RIGHT PLACE”

Select native plants that are drought tolerant and appropriate for local soil types and climate. Group species of plants together that are well suited to the unique combination of conditions that exist on the site and account for light and soil moisture.

PLANT NATIVE

When plants are selected based on soil conditions and location, those native to Florida are drought-tolerant and adapted to Florida’s climate. Follow the principle of “Right Plant, Right Place.”

DRIP LINES

Move foundation plantings out from under the roof’s rain shadow. This allows for the plant to utilize rainwater, minimizing supplemental irrigation needs.

STRATEGIC LAWN USE

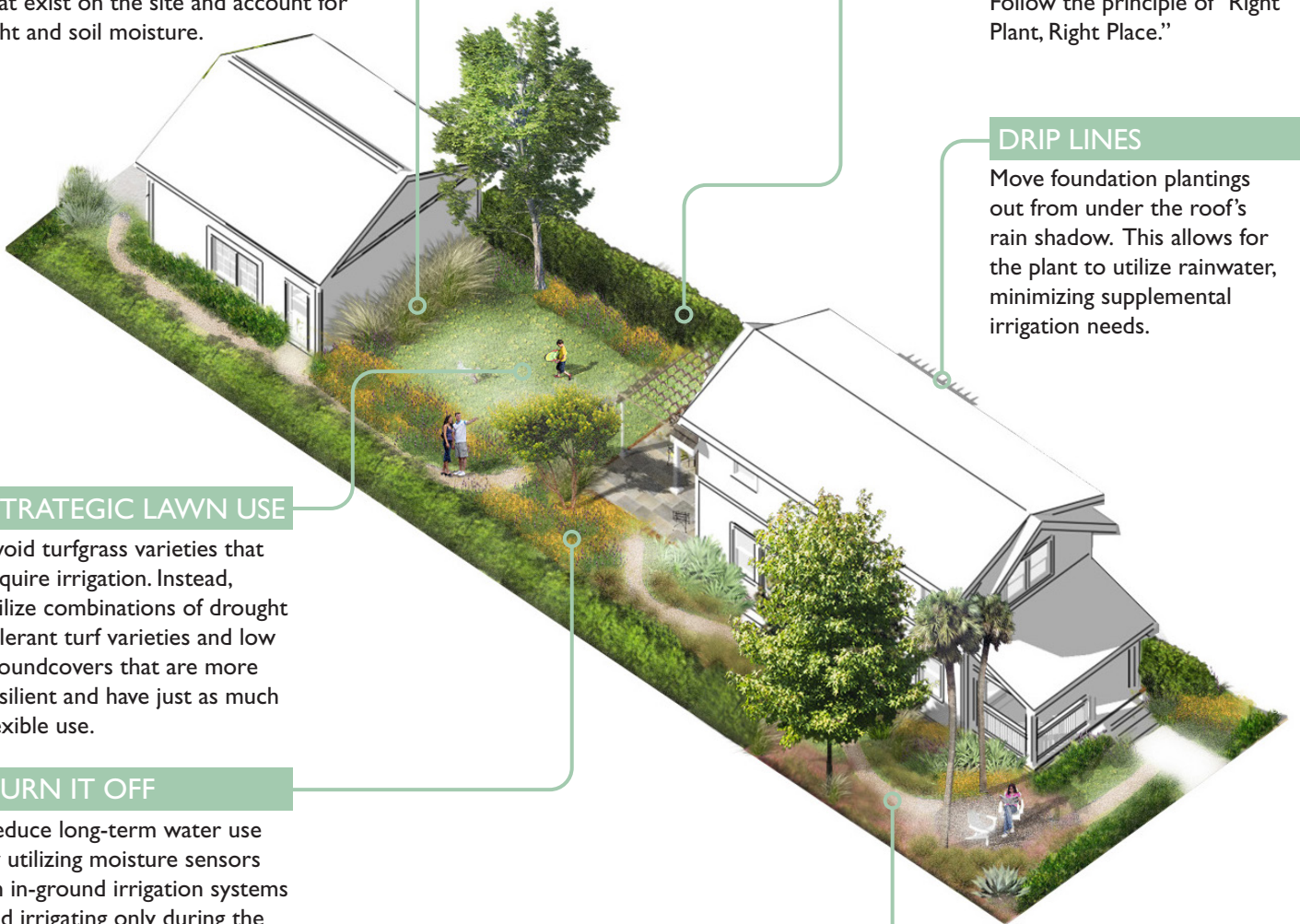
Avoid turfgrass varieties that require irrigation. Instead, utilize combinations of drought tolerant turf varieties and low groundcovers that are more resilient and have just as much flexible use.

TURN IT OFF

Reduce long-term water use by utilizing moisture sensors on in-ground irrigation systems and irrigating only during the establishment period and times of drought. Weaning plants off irrigation helps direct roots deeper into the ground.

RETAIN MOISTURE

Organic mulch and nonliving groundcover helps lock moisture into the soil.





FOR THE PEOPLE

Nearly 1,000 people move to Florida daily, which is analogous to adding a city the size of Orlando to Florida's population annually. Currently, Florida uses 6.4 billion gallons of water per day and usage will continue to increase as more residents move to the state. [16]



FOR SUSTAINABLE USE

With over two-thirds of a new home's water usage in Central Florida dedicated to landscape irrigation, reducing landscape irrigation is a "low-hanging fruit" to reduce unnecessary water demands. A Central Florida Water Initiative (CFWI) study found that the total average of surface and ground water use in the CFWI Planning Area is projected to increase 36% from 667 million gallons per day to 908 million gallons per day by 2040.



FOR THE ENVIRONMENT

Instead, this water could be saved to support our amazing springs and other natural freshwater systems such as the Econlockhatchee River. Florida's beloved wildlife, such as manatees and otters, need water supplied by these natural systems to survive, more than we need this water to keep our lawns green. [17]

ECOSYSTEM BENEFITS

PROMOTE/MAXIMIZE ECOLOGICAL DIVERSITY AND ECOSYSTEM SERVICES

PROVIDE HABITAT

Plant a diverse native palette to provide many different animals and insects with habitat. Use varying heights and growth habits to provide as many types of habitat as possible.

PLANT CANOPY

Canopy trees help sequester carbon, improve air quality, and provide shade. Understory trees can encourage bird and insect habitat which encourages a healthy plant ecosystem.

PREVENT EROSION

Grasses can help catch roof run off. Hardy ground covers with robust root systems help prevent erosion and soak up excess water to prevent flooding and soil washout.

EMBRACE DRAINAGE

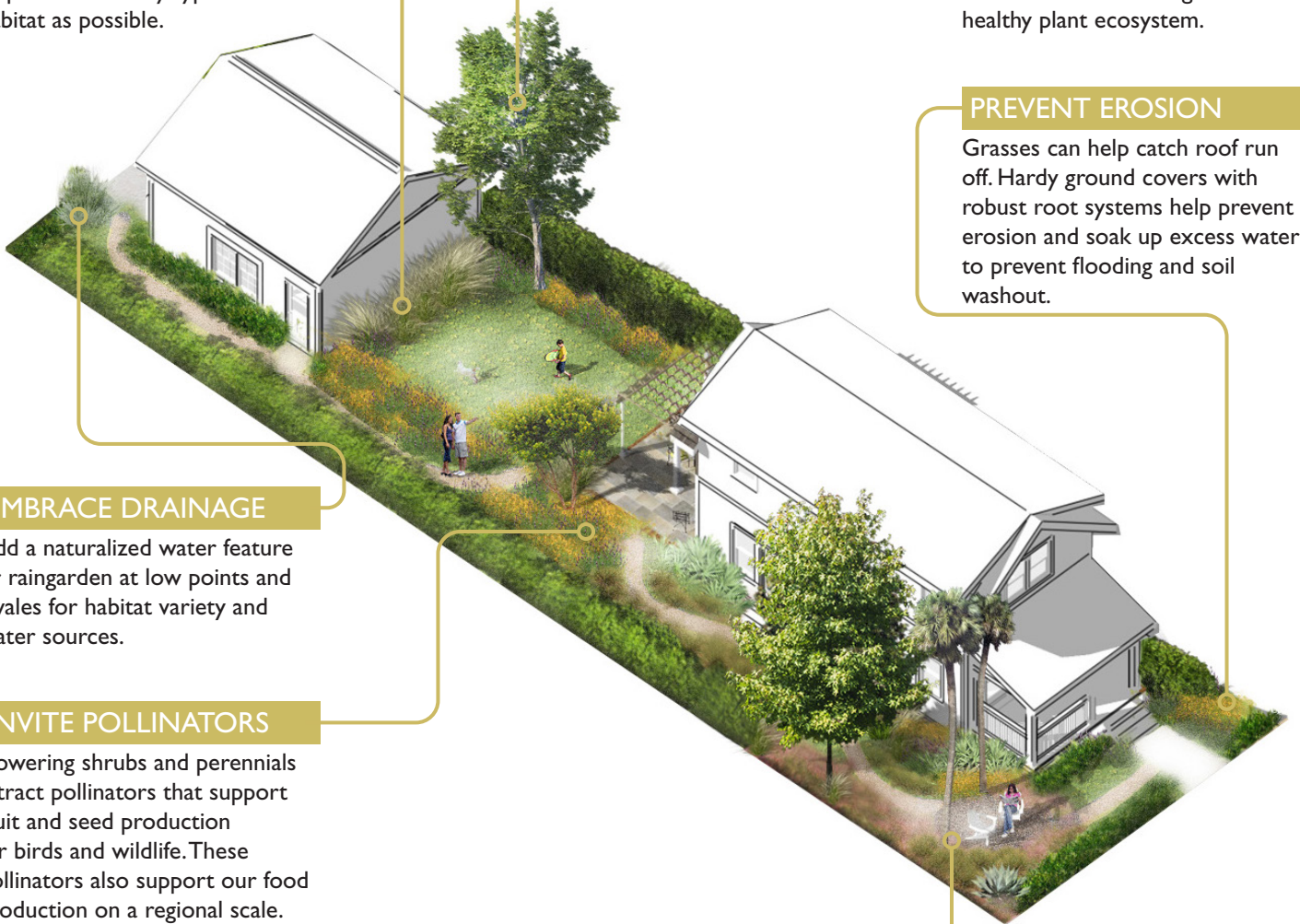
Add a naturalized water feature or raingarden at low points and swales for habitat variety and water sources.

INVITE POLLINATORS

Flowering shrubs and perennials attract pollinators that support fruit and seed production for birds and wildlife. These pollinators also support our food production on a regional scale.

CELEBRATE FLORIDA

Create living spaces that flow between the indoor and outdoor and celebrate Florida's native ecology.



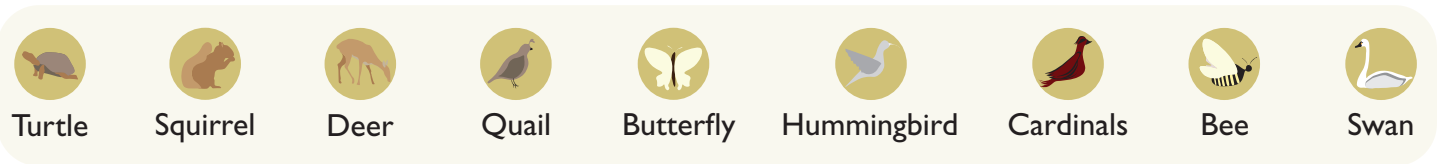
IMPORTANCE OF BIODIVERSITY

With over 8 million acres of forest and wetlands developed, which is about 24% of Florida, wildlife habitats and corridors have been lost and biodiversity diminished. This impacts not only local wildlife, but migratory species that need connected wildlife corridors for food and rest as they journey to their next destination.

Landscaping with non-native plants exacerbates this issue. Native plants provide a more resilient and plentiful habitat for birds, bees, butterflies, and other local wildlife. By embracing nature and providing habitat for different animals from rabbits to butterflies, you can support biodiversity in your own back yard by providing wildlife with places to rest, feed and reproduce.

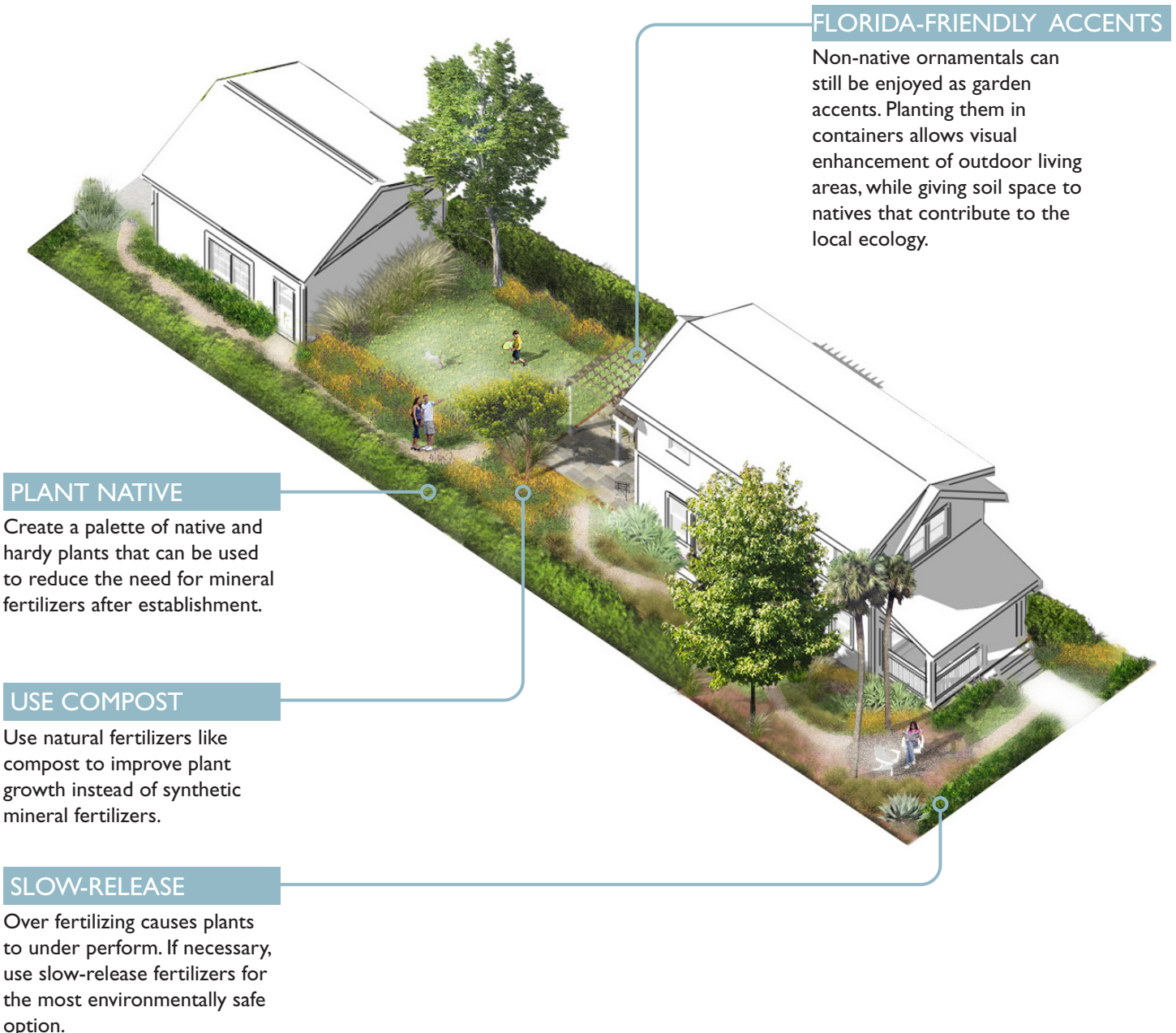
NATIVE LANDSCAPES

<p>Florida Tickseed (FL) (<i>Coreopsis floridana</i>)</p>	<p>Orange Coneflower (OC) (<i>Rudbeckia fulgida</i>)</p>
<p>White Oak (WO) (<i>Quercus alba</i>)</p>	<p>Tulip Poplar (TP) (<i>Liriodendron tulipifera</i>)</p>
<p>American Hornbeam (AH) (<i>Carpinus caroliniana</i>)</p>	<p>Inkberry (I) (<i>Ilex glabra</i>)</p>



HEALTHY SOILS

MINIMIZE/ELIMINATE MINERALIZED FERTILIZER USE



FLORIDA-FRIENDLY ACCENTS

Non-native ornamentals can still be enjoyed as garden accents. Planting them in containers allows visual enhancement of outdoor living areas, while giving soil space to natives that contribute to the local ecology.

PLANT NATIVE

Create a palette of native and hardy plants that can be used to reduce the need for mineral fertilizers after establishment.

USE COMPOST

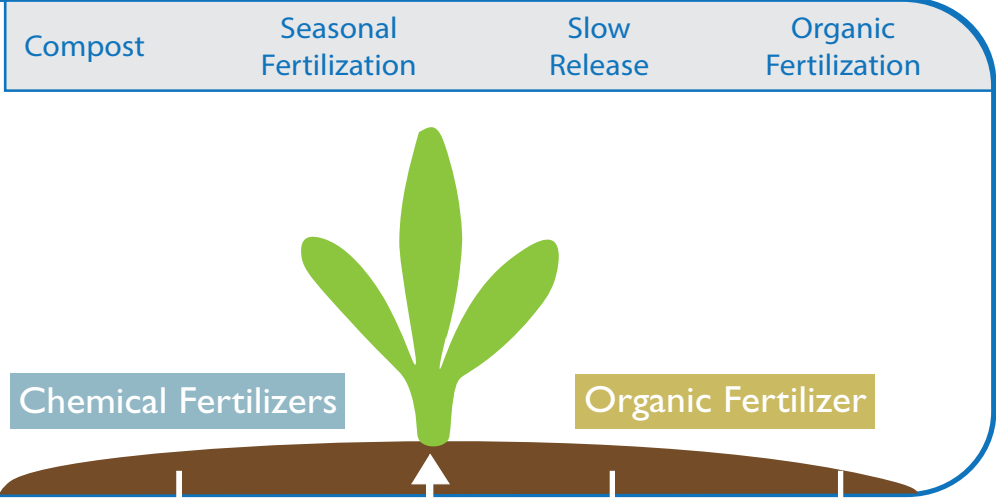
Use natural fertilizers like compost to improve plant growth instead of synthetic mineral fertilizers.

SLOW-RELEASE

Over fertilizing causes plants to under perform. If necessary, use slow-release fertilizers for the most environmentally safe option.

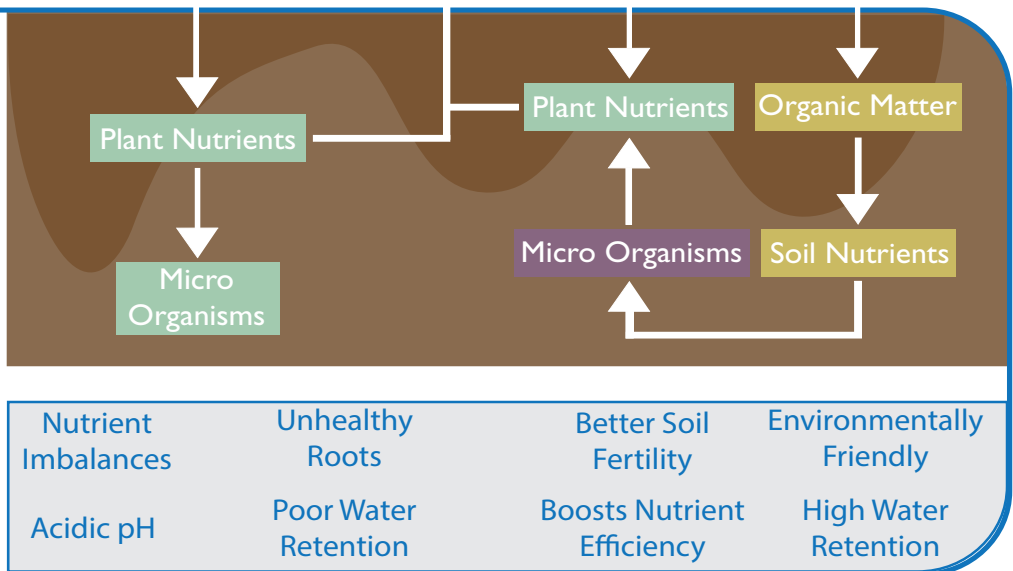
Feeding the Plant

Maintaining healthy soils is important because soil is the foundation for healthy plants, wildlife, and people. Applying fertilizer provides many benefits such as plants providing optimal foliage and abundant fruit. Responsible fertilizing means using the most environmentally safe options such as organic or slow release fertilizers, and applying them alongside proper compost use.

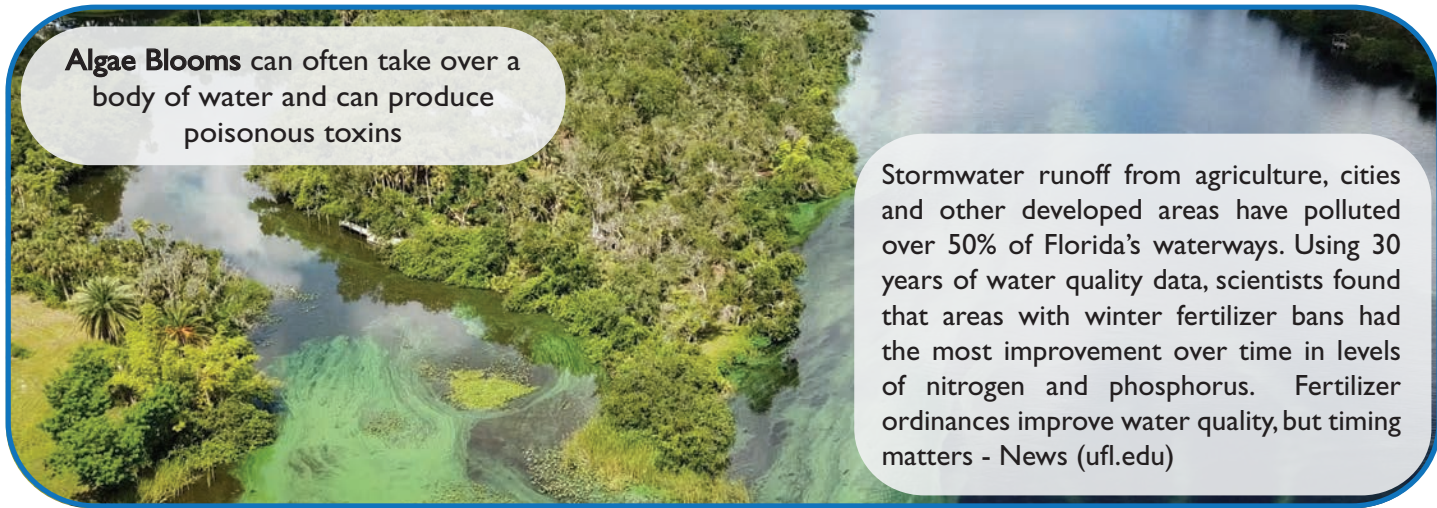


Feeding the Soil

Using too much fertilizer can cause nutrient imbalances and changes in soil pH. Healthy soil must have enough organic material to retain moisture and provide nutrients and be aerated enough to support healthy root systems. Reducing or eliminating mineralized fertilizers is also key to protecting our water quality.



Algae Blooms can often take over a body of water and can produce poisonous toxins



Stormwater runoff from agriculture, cities and other developed areas have polluted over 50% of Florida's waterways. Using 30 years of water quality data, scientists found that areas with winter fertilizer bans had the most improvement over time in levels of nitrogen and phosphorus. Fertilizer ordinances improve water quality, but timing matters - News (ufl.edu)

HOLISTIC PEST MANAGEMENT

MINIMIZE/ELIMINATE PESTICIDES

COMPLEX = HEALTHY

Using a mix of plants throughout the space can make diseases and pests less likely to spread by encouraging a complex ecosystem instead of a monoculture.

EMBRACE AIR FLOW

Proper plant spacing provides airflow between plants, which reduces the risk of pest and disease spread.

NATURAL REPELLENTS

Practice “Tip and Toss” strategies to control mosquito populations. Mosquitos lay their eggs in standing water. Each week, tip over any standing water and toss out any unneeded containers.

PROTECT POLLINATORS

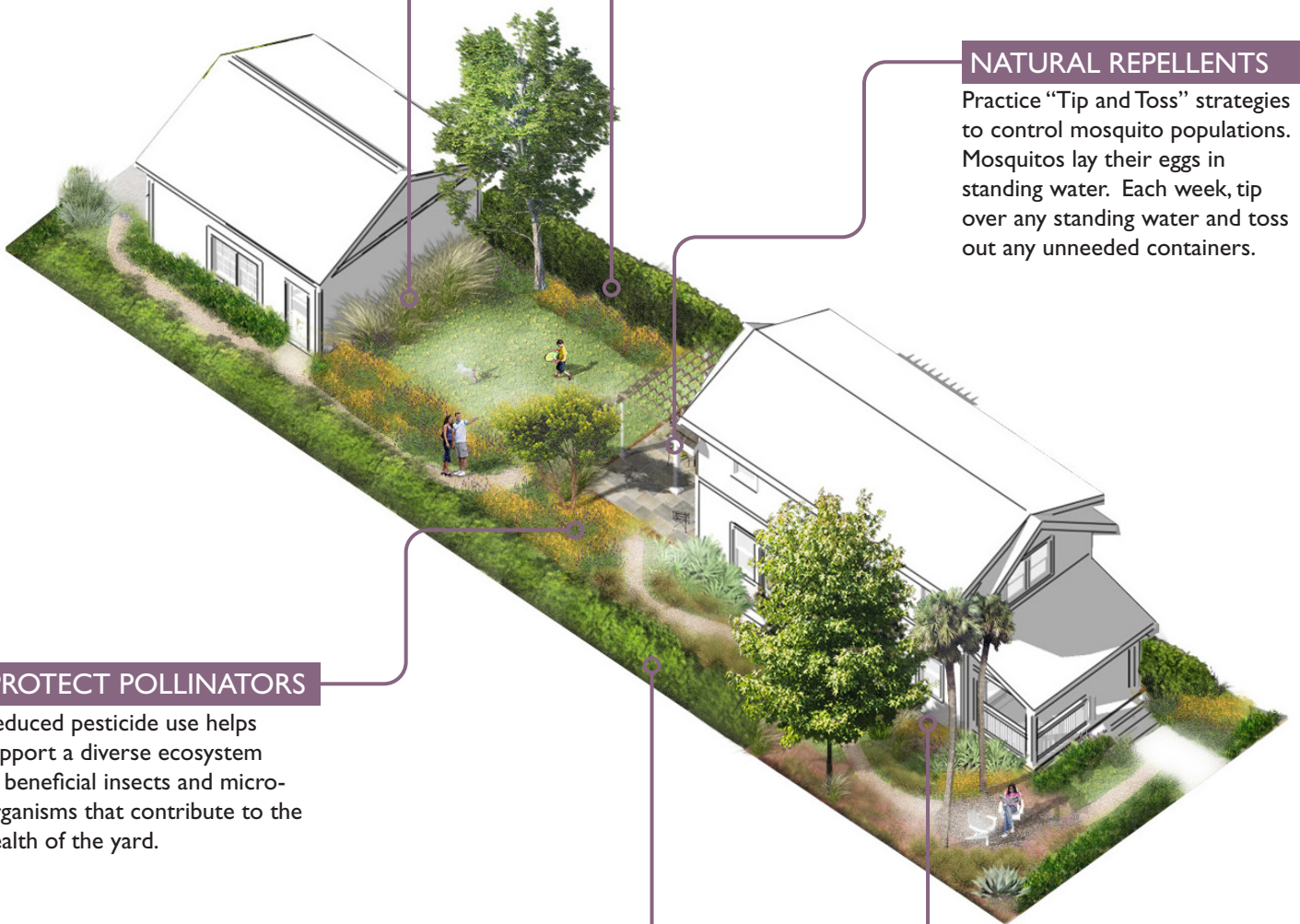
Reduced pesticide use helps support a diverse ecosystem of beneficial insects and micro-organisms that contribute to the health of the yard.

NATURAL PREDATORS

Using a diverse and ecologically appropriate plant palette encourages beneficial insect predators such as ladybugs, resulting in a robust ecosystem that in turn prevents pest issues.

NATURAL BARRIERS

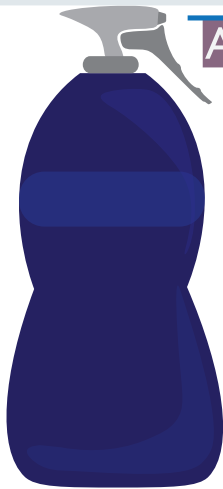
Place gravel within the dripline of the house to discourage pest intrusion into the home and to provide maintenance access.



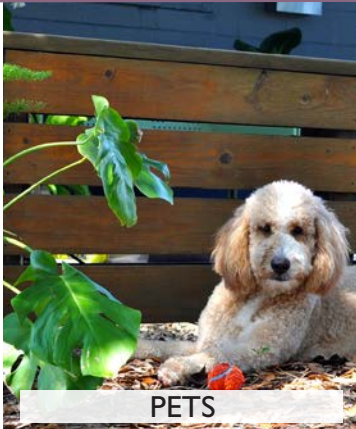
Pest Management in the Yard

When considering using pesticides, think about whether they are necessary for your yard. Ideally, pesticides should be the last approach to manage pests. The University of Florida has abundant resources available through their Integrated Pest Management Program to help homeowners determine the safest and most effective methods of pest management.

It's important to consider the toxicity of pesticides to people and wildlife. Although effective in managing pest problems but can have harmful impacts outside of their intended target. Some natural pest resistant practices include utilizing a diverse native plant palette, proper spacing, natural barriers, "tip and toss" strategies, etc.



At Risk for Pesticide Exposure



PETS



PEOPLE



WILDLIFE

Pesticides are absorbed by plant matter

Chemicals leach below root zone by rain

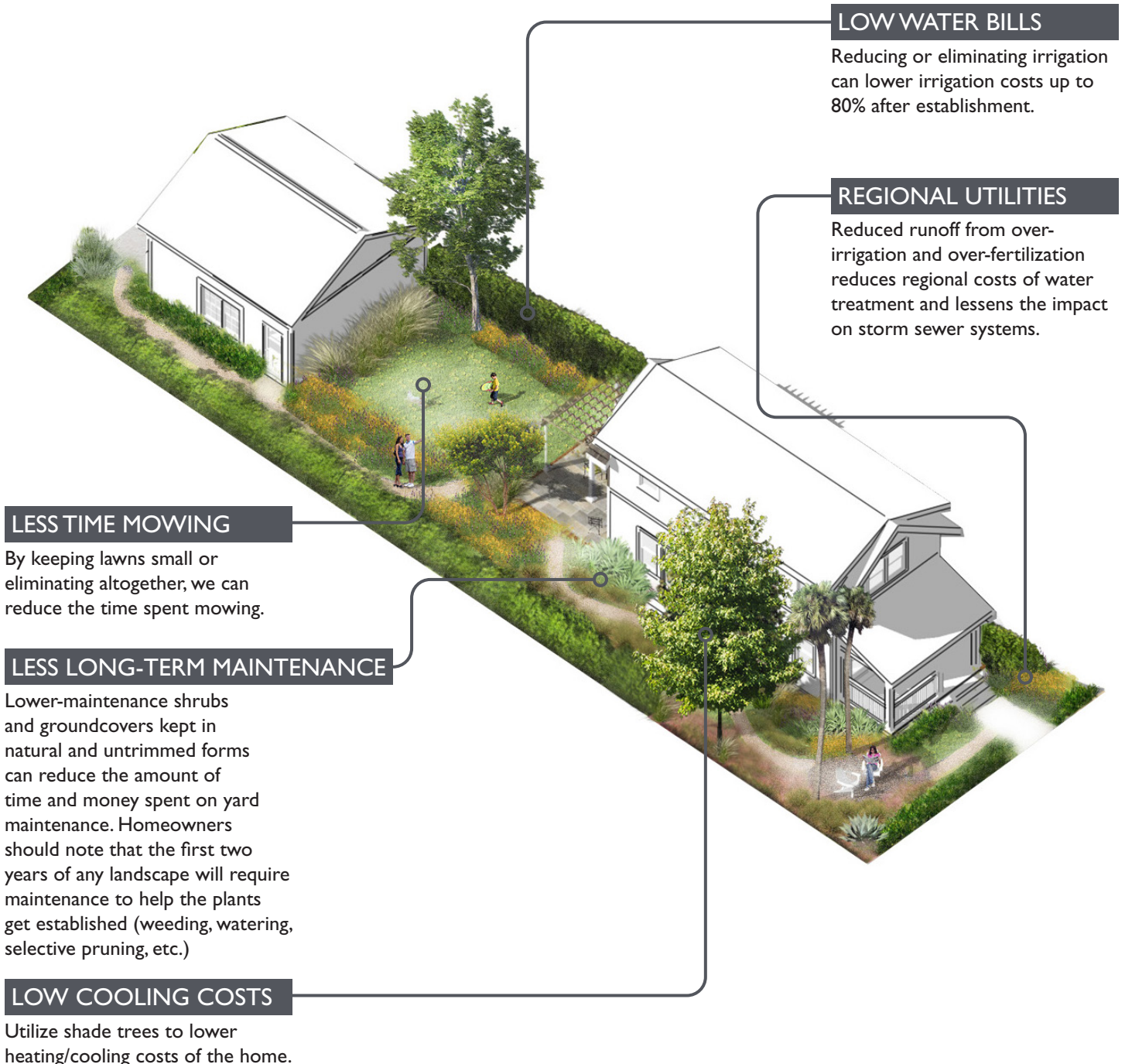
Surface run off to lakes and rivers

Chemicals pollute freshwater bodies, resulting in severe impacts on water quality

Pest Management in the Landscape

TIME + COST SAVINGS

HOW SUSTAINABLE LANDSCAPES IMPACT OUR WALLETS

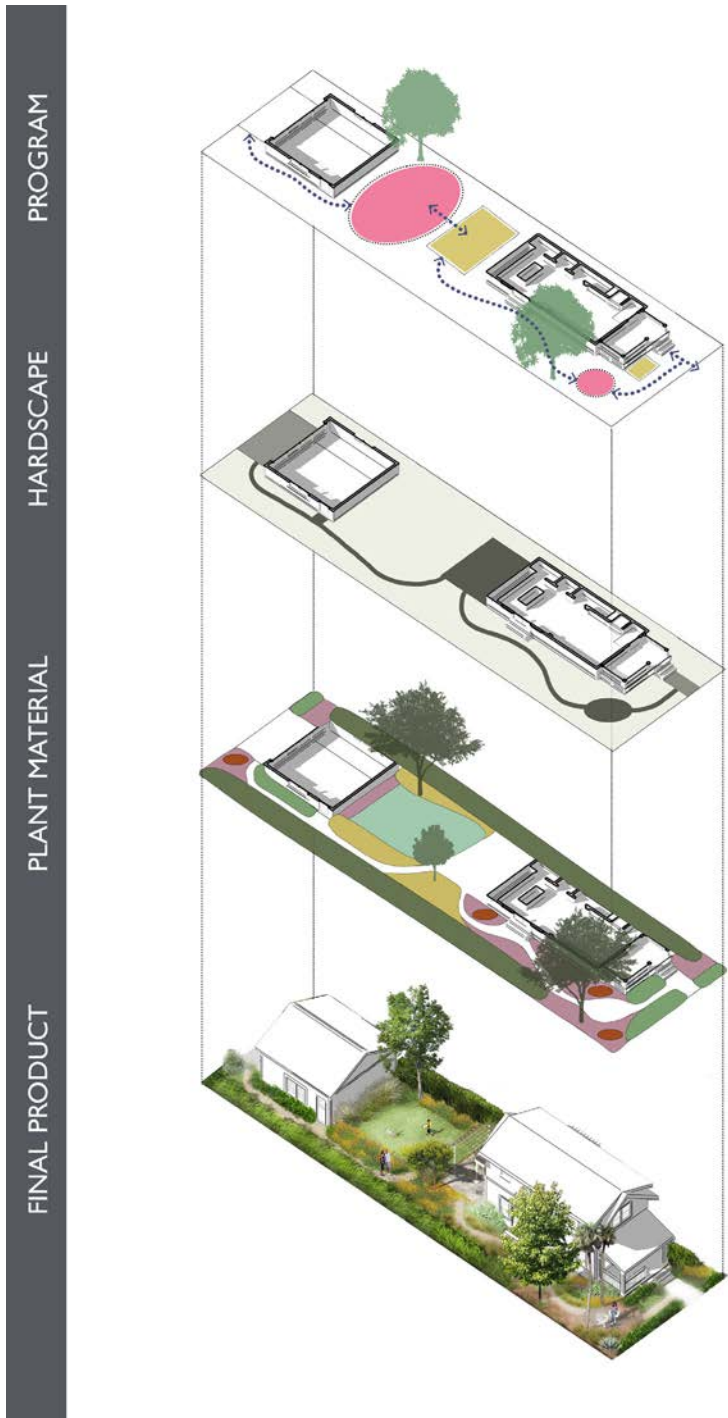


PLAN

Plan a vision for your landscape by outlining design goals and functional outdoor spaces.

SITE PLAN

The OUTSIDE landscape design is composed of many systems working together as a whole to satisfy function, form, and sustainable practices. These layers are all designed to work together to provide a residential landscape that can achieve all of OUTSIDE's goals for any lot configuration.



PROGRAM:

The back, side, and front yard spaces each have a different function and are connected by the circulation paths that move between the spaces.

HARDSCAPE:

Material changes to hardscape, like gravel or pavers for the pathways and patio areas that lead up to the house and garage.

PLANT MATERIAL:

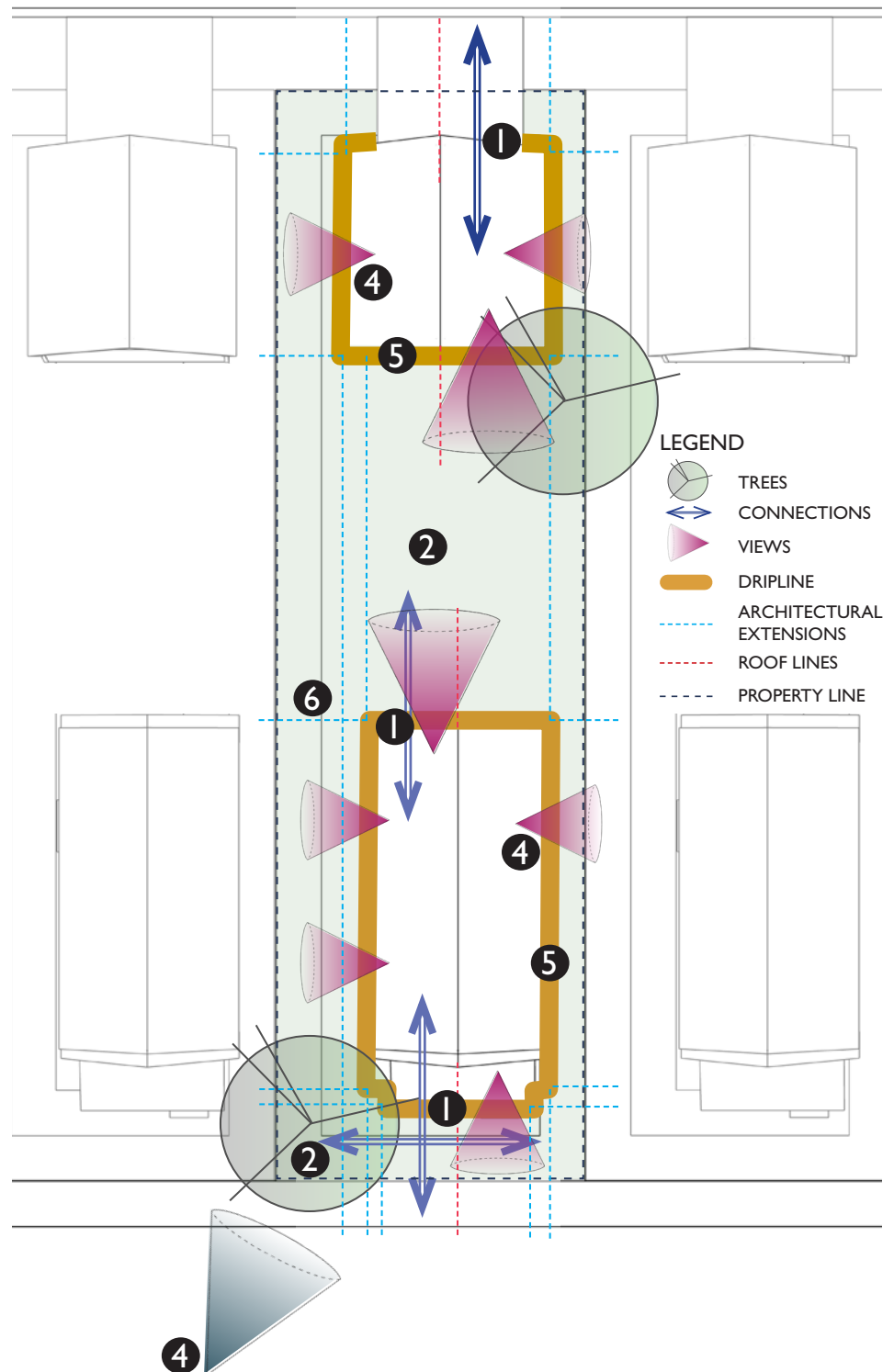
Plant material of many different forms, heights and species create a rich native landscape that frames space throughout the yard. Organize the combinations by massing in specific areas such as planting beds, raised beds or framing a walkway for visual appeal.

FINAL PRODUCT:

The final is the combined product of the three components above, in a rich landscape that has lots of functional and usable space, and meets the 'Big 4' objectives.

DESIGN CONSIDERATIONS

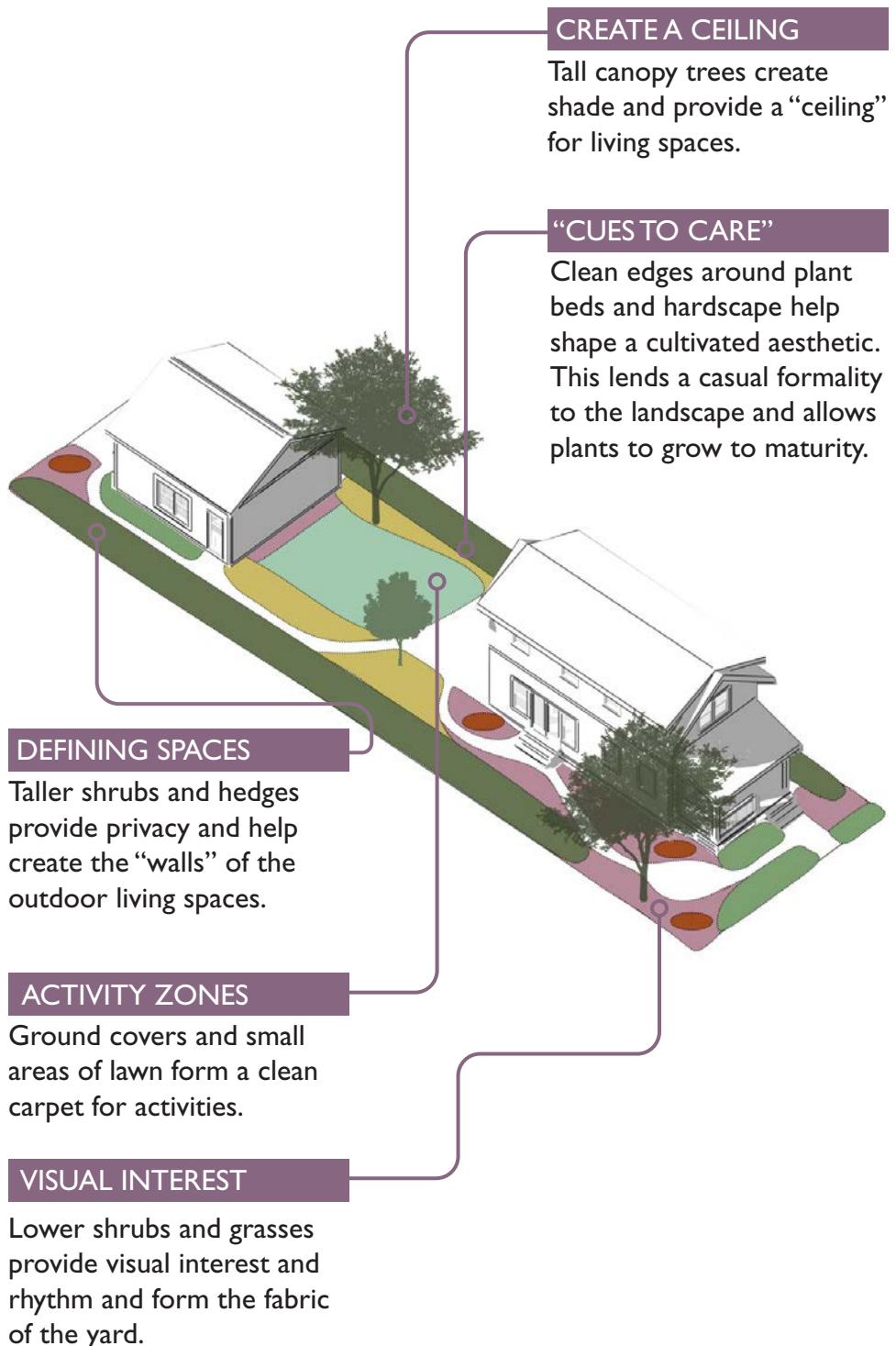
- 1 **Circulation:** Identify pathways that connect important nodes such as exterior doorways with key areas throughout the outdoor space.
- 2 **Indoor/Outdoor:** Utilize your yard to support activities you enjoy - create a relaxing living area, active turf zone or family play area that extends livable space to the outdoors.
- 3 **Site Conditions:** Examine the lot to identify soil type, drainage patterns, prevailing winds and sun/shade areas to help create a plant palette.
- 4 **Frame/Buffer Views:** Utilize plantings to enhance favorable views while screening unfavorable views to create privacy and a sense of enclosure.
- 5 **Plant Spacing:** Consider mature size of plants when selecting to ensure they are situated far enough from the home and planted with proper spacing (see “Maintain” section).
- 6 **Grid Guide:** Utilize a grid system to help define planting areas, open spaces and create focal points through extensions of architectural features such as roof lines, columns, window locations, etc. Use curves or linear connections.



CREATING SPACE WITH PLANTS

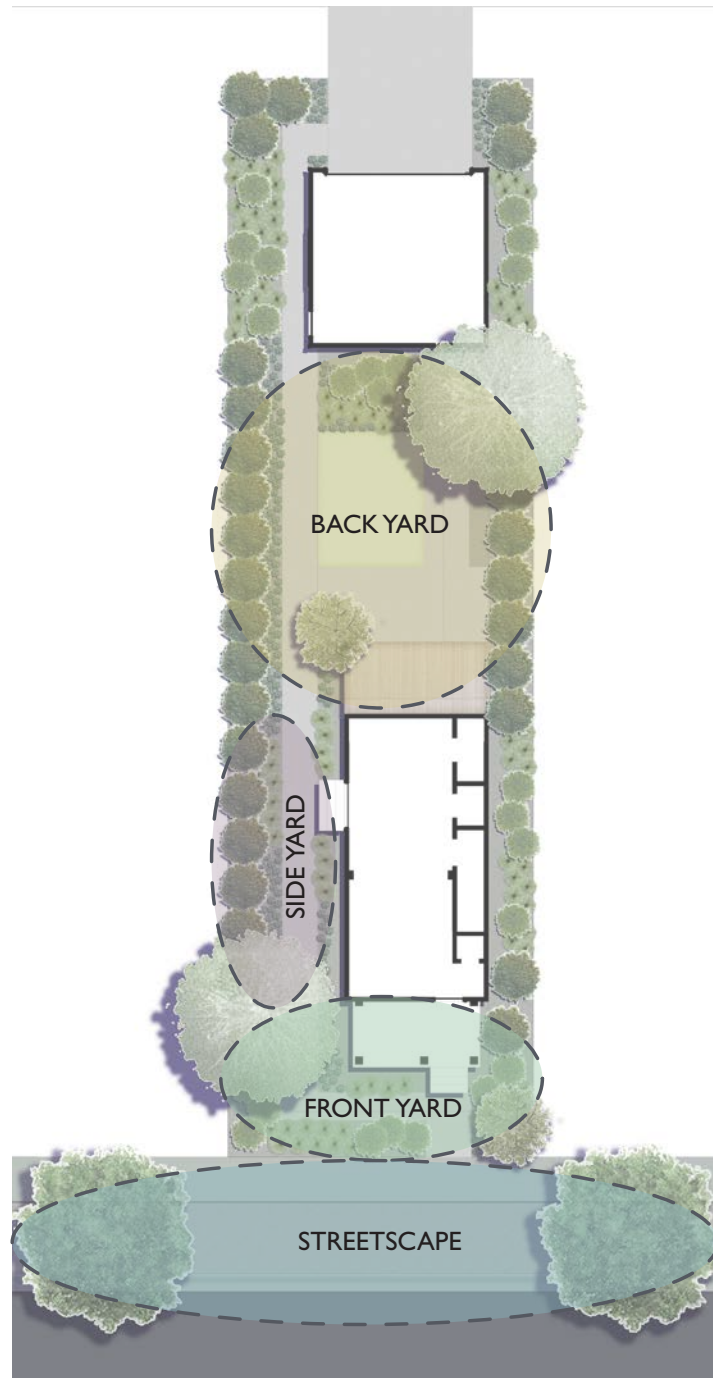
Landscape can shape a home's space just as much as its buildings and walls. In the typical residential lot, most of the outdoor landscape space is used for lawn, shrubs and groundcovers frame the house and paths up to the house. Landscape can be used as a much more useful tool for making spaces functional, comfortable, beautiful, and productive.

- LEGEND**
-  SHADE TREE
 -  SMALL TREE/PALM
 -  GROUNDCOVER
 -  TALL HEDGE
 -  MEDIUM SHRUB
 -  LOW SHRUB
 -  FLOWERING PERENNIALS
 -  ACCENT PLANTS



OUTDOOR LIVING SPACES

With a focus on programming as an extension of the home, we enhance use and enjoyment of the outdoors through functional and versatile spaces that support wellbeing for all organisms, foster neighborly connections, and help residents better understand the ecosystems around them. By looking at the front yard, side yard, back yard, and public streetscape as four separate spaces with distinct functions, we can better plan out programming and frameworks for each space.



STREETSCAPE

The public realm is what stitches a great community together. Whether it be where people linger and socialize or simply pass through, there is opportunity to provide dynamic experiences throughout the community. The public right-of-way and street network can provide a cohesive look for the community while reducing HOA maintenance costs to create thriving and comfortable living streets.

CREATE THRESHOLD

A massing of evergreen shrubs helps delineate the threshold between public and private space.

STREET CANOPY

Street trees provide ecosystem services such as shade, habitat, cooling, and carbon sequestration. Consider providing different species of street trees throughout the community for increased biodiversity, better air quality, and lower power bills.



COMMUNITY CHARACTER

Diversity of groundcovers and accent plants in the right-of-way planting strip provide a cohesive look between the lots and street and increase habitat for insects and micro-organisms. To promote a healthy streetscape, provide ample room for healthy root systems to establish.

EASY MAINTENANCE

Native drought-tolerant groundcover in right-of-way planting strip decreases maintenance, irrigation and fertilizer/pesticide usage. Ensure planting strip is wide enough to provide adequate root space for canopy trees.

FRONT YARD

As the most highly visible area, the front yard serves as a threshold between the public realm and private space. Clean bedlines and accents help guide visitors to the front door, while front porches and living spaces help foster neighborly connections.

FRAME THE ENTRY

Accent trees help frame the entry and create seasonal interest through flowering, fall color, and sculptural branching.



CREATE THRESHOLD

Evergreen hedges or low walls/fences delineate the threshold between public and private space.

FRONT PORCH

Emphasizing the front porch activates the front yard and creates a friendly atmosphere.

SIDE YARD

Not commonly used for outdoor living spaces, the side yard will typically be used for maintenance access, utilities such as AC condensers, and screening from adjacent homes. Simple plant massing framed by evergreen shrubs will shield utilities from view and provide a workspace for compost bins, work benches, etc. While also creating habitat. Gravel or mulch paths instead of lawn should be used in this area.

SEASONAL INTEREST

Flowering plants create seasonal interest and pops of color while requiring very little irrigation.



PROVIDE PRIVACY

Evergreen trees and hedges provide privacy on narrow lots.

FRAME HOME ENTRIES

Evergreen shrubs help frame home entries.

UTILITY AREA

Simple materials like mulch or gravel paths provide access to utility areas and lock moisture into the soil.

BACK YARD

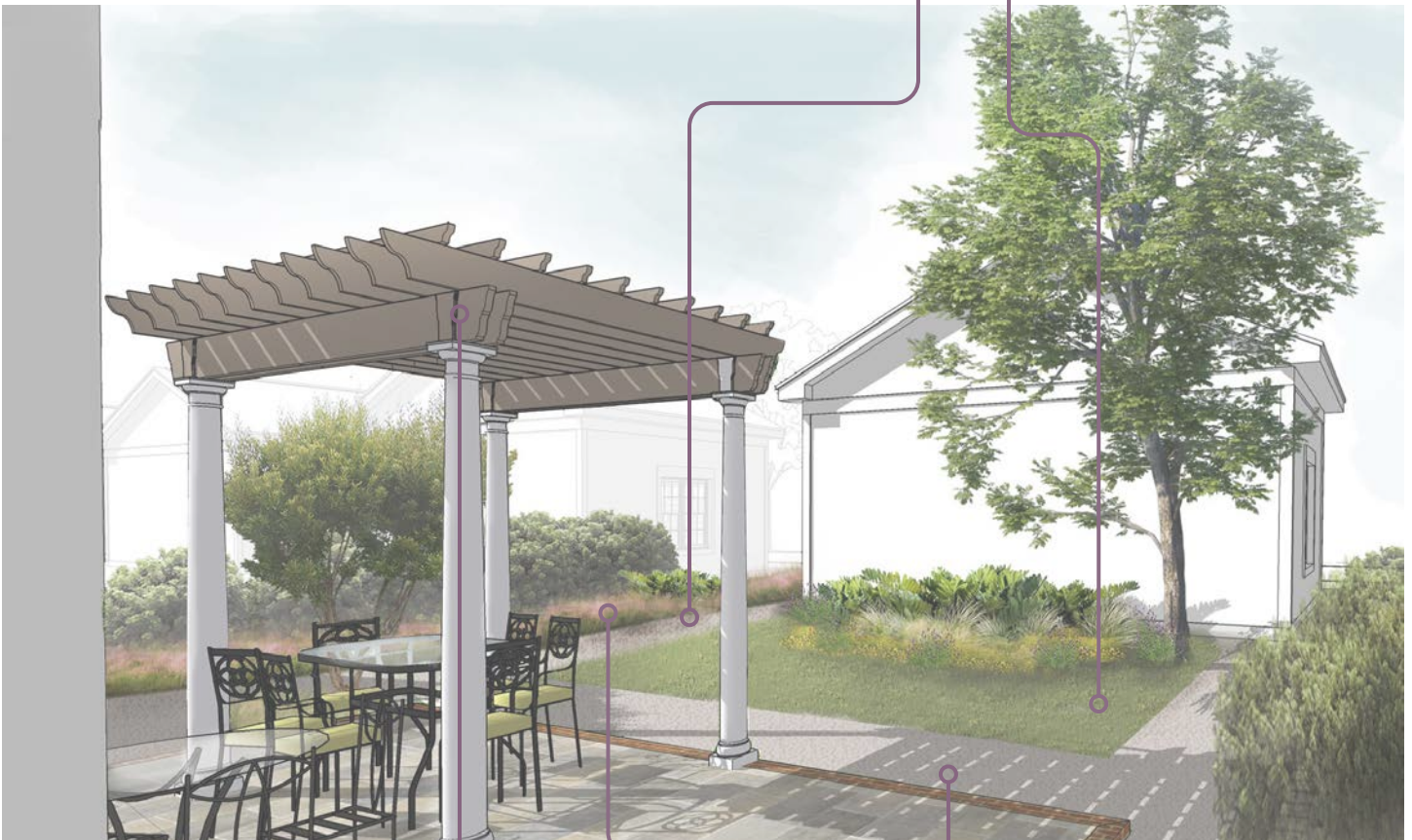
As the most private area of the yard, the back yard is the most used living area. A centralized zone for play, entertaining, or relaxing should be the central focus with ancillary living spaces connected with pathways. The living space types are entirely up to the owner and could consist of vegetable gardens, fire pits, outdoor dining rooms, rain gardens, or any other desired outdoor rooms. Lawn should be used sparingly in the central zone and should be framed by native shrubs and groundcover. Access to rear-loaded garages should be provided, and flow between indoor and outdoor spaces is of the utmost importance.

GARAGE ACCESS

Provide access to rear-loaded garages or alleys.

PLAY AREA

Small areas of lawn framed by shrubs provide space for pets or playing while minimizing water use.



MAXIMIZE SHADE

Maximize shade through arbors or canopy trees wherever possible for comfort and a sense of enclosure.

SEASONAL COLOR

Adjacent areas of the yard can provide seasonal color through planting, space for a vegetable garden, or other uses.

INDOOR/OUTDOOR

Seamless transitions between indoor and outdoor spaces provide ease of access and elevates the importance of the yard.

PICK

Pick desired landscape elements and identify ways to enhance the public streetscape and front, back, and side yard spaces.

PLANTING PATTERNS

The goals and strategies discussed in the introduction are practices that can be used in lots of all different sizes and types. We have demonstrated these on 3 different lot sizes typical to most developments: 34', 50', and 60' widths. The following diagrams are intended to be patterns for developing customized landscape plans for home lots. With slight alterations to the plant list, these strategies can be applied to any lot size, condition, or climate. Lot landscapes should adhere to the following guidelines:



1. 75% of all the planted area should be native. Any non-native species must be Florida Friendly with special care taken to avoid all invasive species.



2. Limit turfgrass to no more than 15% of the lot area. The use of Bahia sod is encouraged over Zoysia, conventional St. Augustine, or cultivar Bermuda sod. When turf can be eliminated entirely, there will be significant reduction in maintenance costs due to areas no longer requiring mowing.



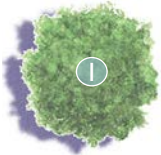
3. Use at least 10 different species of shrubs/grasses/groundcover on each lot. This increases biodiversity and provides a naturally layered aesthetic.



4. Limit using turfgrass in residential areas, except when implemented in drainage swales to slow water velocity and protect channel from erosion.

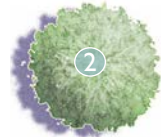


SITE PLAN + PLANTING PATTERNS 34'



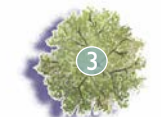
STREET TREE

Canopy trees approved by local municipality to plant in the right-of-way planting strip between the street and sidewalk.



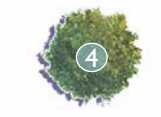
SHADE TREE

Medium to large trees with dense canopies that provide shade. Can be evergreen or deciduous.



SMALL TREE/PALM

Small to medium trees that offer visual interest in the understory. Could have ornamental qualities or provide shade.



SCREEN/HEDGE

Large shrubs and small trees, most likely evergreen, to plant in rows for privacy and screening. 6-8' tall with varying spreads.



SHRUB

Flowering plants, either evergreen or deciduous, 2-5' tall with matching spreads.



GRASSES/WILDFLOWERS

Medium and large clumping grasses and perennials add texture, movement, and color to the yard.



GROUND COVER

Low, spreading plants and mulch to keep soil healthy.



OPEN SPACE

Mowable low grasses and grasslike plants, creating a resilient, sustainable lawn.



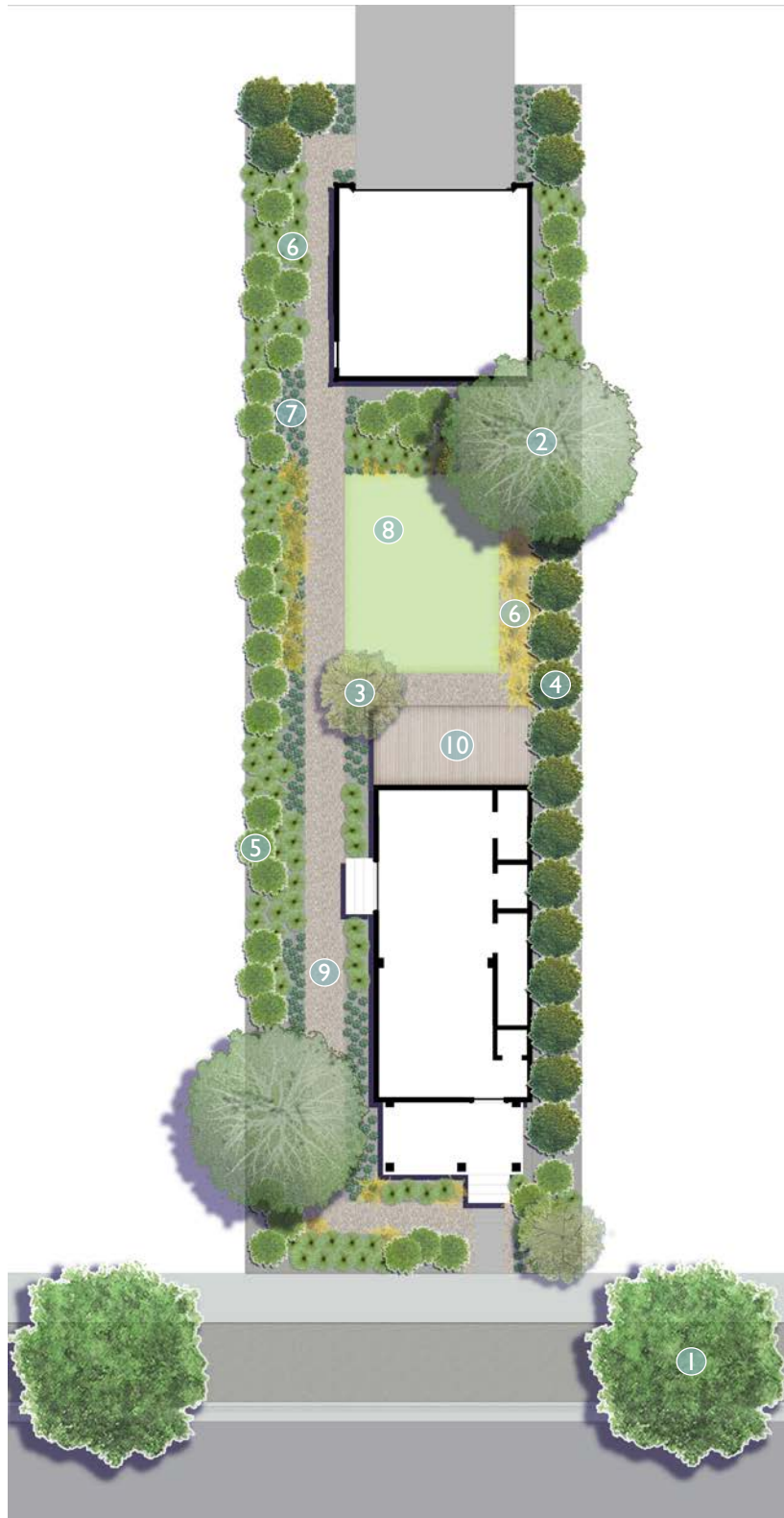
WALKWAYS

Gravel, permeable pavers, crushed coquina, or mulch to formalize circulation.

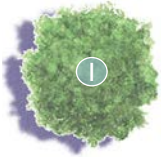


OUTDOOR LIVING

Customizable areas to fit homeowner needs. Examples include firepits, lounge areas, vegetable gardens, and more.

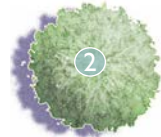


SITE PLAN + PLANTING PATTERNS 50'



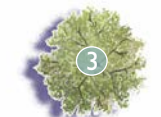
STREET TREE

Canopy trees approved by local municipality to plant in the right-of-way planting strip between the street and sidewalk.



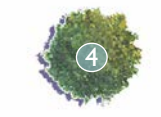
SHADE TREE

Medium to large trees with dense canopies that provide shade. Can be evergreen or deciduous.



SMALL TREE/PALM

Small to medium trees that offer visual interest in the understory. Could have ornamental qualities or provide shade.



SCREEN/HEDGE

Large shrubs and small trees, most likely evergreen, to plant in rows for privacy and screening. 6-8' tall with varying spreads.



SHRUB

Flowering plants, either evergreen or deciduous, 2-5' tall with matching spreads.



GRASSES/WILDFLOWERS

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GROUND COVER

Low, spreading plants and mulch to keep soil healthy.



OPEN SPACE

Mowable low grasses and grasslike plants, creating a resilient, sustainable lawn.



WALKWAYS

Gravel, permeable pavers, crushed coquina, or mulch to formalize circulation.

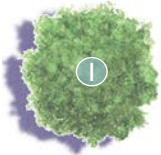


OUTDOOR LIVING

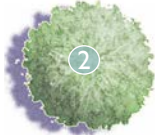
Customizable areas to fit homeowner needs. Examples include firepits, lounge areas, vegetable gardens, and more.



SITE PLAN + PLANTING PATTERNS 60' - REAR



STREET TREE
Canopy trees approved by local municipality to plant in the right-of-way planting strip between the street and sidewalk.



SHADE TREE
Medium to large trees with dense canopies that provide shade. Can be evergreen or deciduous.



SMALL TREE/PALM
Small to medium trees that offer visual interest in the understory. Could have ornamental qualities or provide shade.



SCREEN/HEDGE
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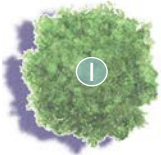
WALKWAYS
Gravel, permeable pavers, crushed coquina, or mulch to formalize circulation.



OUTDOOR LIVING
Customizable areas to fit homeowner needs. Examples include firepits, lounge areas, vegetable gardens, and more.

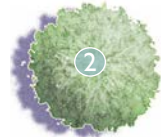


SITE PLAN + PLANTING PATTERNS 60' - FRONT



STREET TREE

Canopy trees approved by local municipality to plant in the right-of-way planting strip between the street and sidewalk.



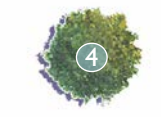
SHADE TREE

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SMALL TREE/PALM

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GRASSES/WILDFLOWERS

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GROUNDCOVER

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OPEN SPACE

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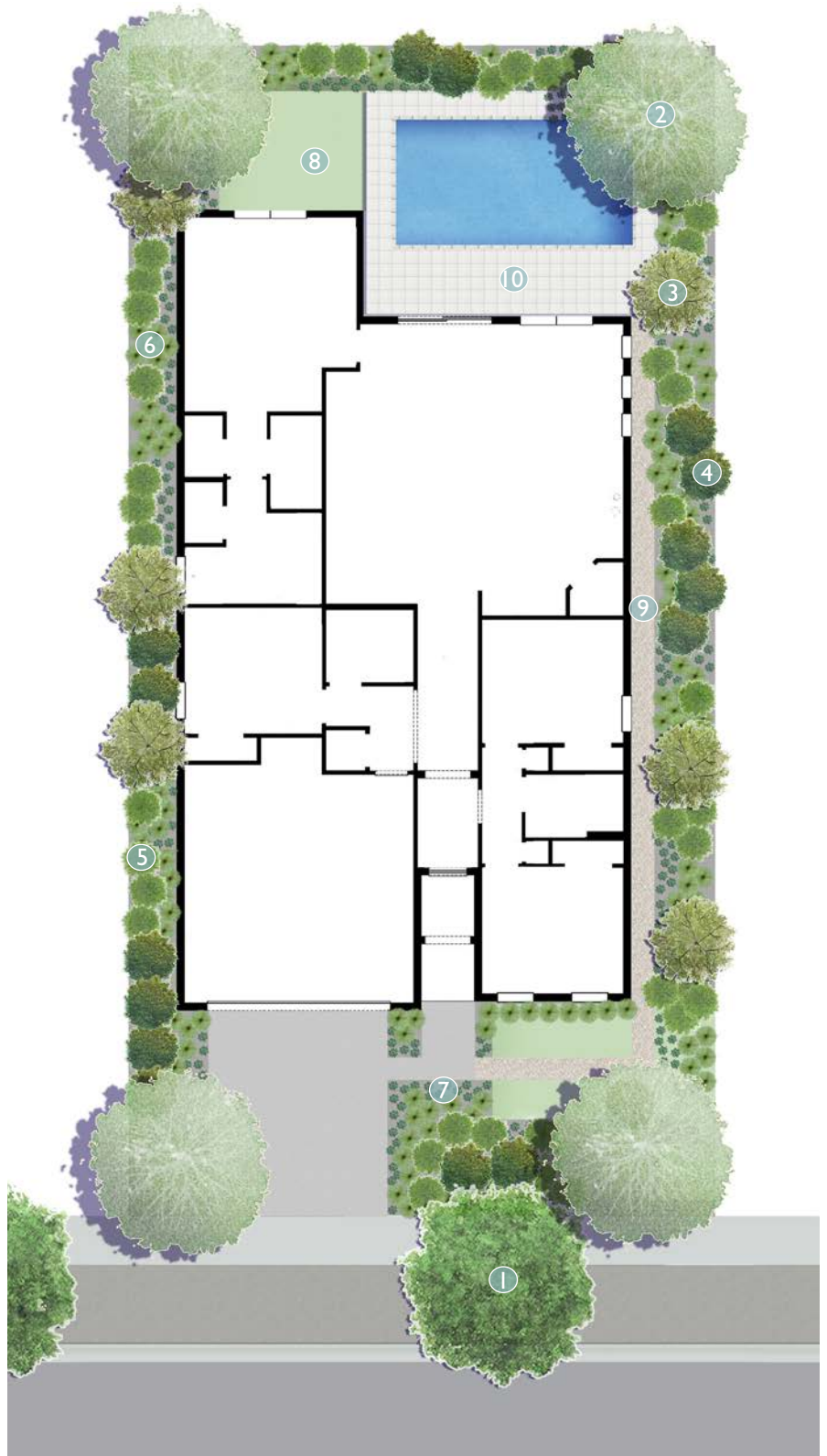
WALKWAYS

Gravel, permeable pavers, crushed coquina, or mulch to formalize circulation.



OUTDOOR LIVING

Customizable areas to fit homeowner needs. Examples include firepits, lounge areas, vegetable gardens, and more.



OUTDOOR LIVING OPTIONS

CUSTOMIZABLE OUTDOOR LIVING AREAS TO FIT HOMEOWNER NEEDS

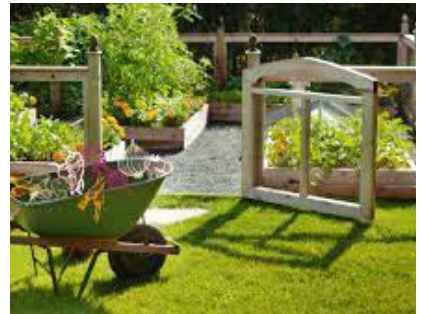
SPACE FOR ACTIVE USE



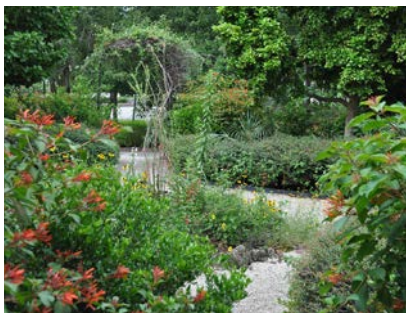
SPACE FOR ENTERTAINMENT



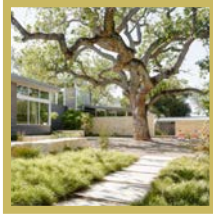
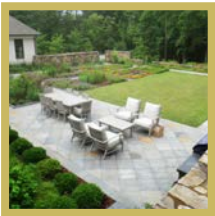
SPACE TO GROW PRODUCTIVE LANDSCAPES



SPACE TO MAXIMIZE NATIVE FLORIDA LANDSCAPES



OUTDOOR LIVING OPTIONS



CHOOSING THE RIGHT PLANT

The planting diagrams shown in this document provide flexibility for home builders. While plant typologies must be followed, the actual species of plant can vary. This flexibility allows the builder to use many heights and textures to increase biodiversity, add visual depth, and celebrate seasonal changes in the landscape.

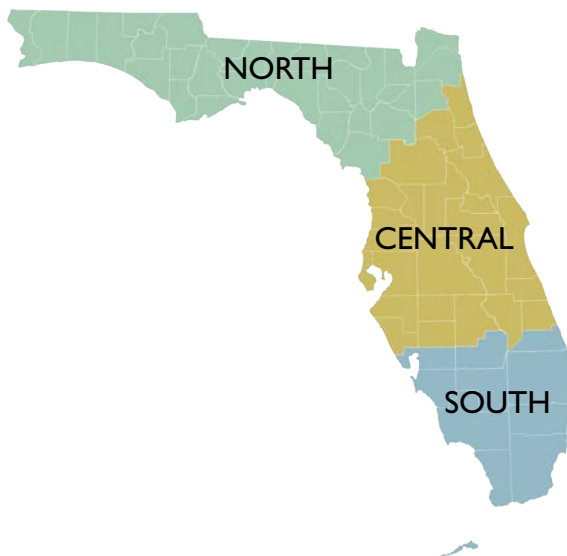
SITE ANALYSIS

- Consider the regional plant communities and which plants are naturally thriving in your area
- Consult the USDA Hardiness Zone map for which plants will survive in your region
- Analyze drainage patterns in your yard and choose plants with appropriate moisture needs
- Analyze sun/shade patterns and choose plants accordingly

PURCHASING

Purchase plants from nurseries that use sustainable growing practices. Plants should be healthy, pest-free, and disease-free.

FLORIDA REGION ZONES



USDA COLD HARDINESS ZONES

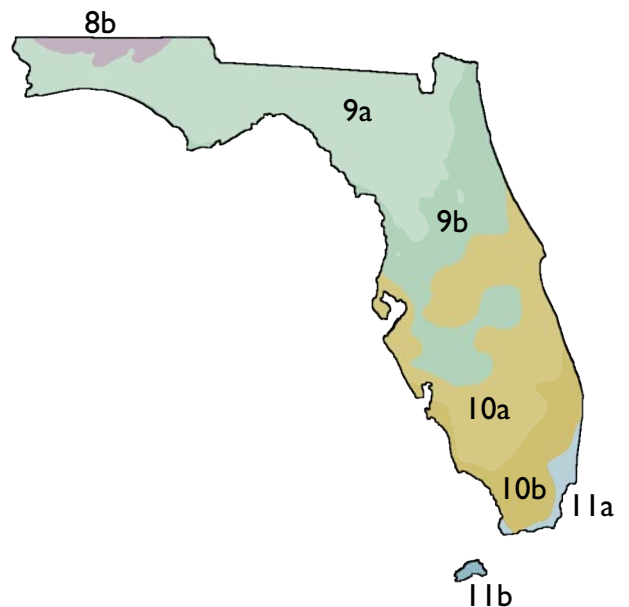
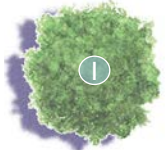


Image Credit: Florida-Friendly Landscaping Guide to Plant Selection & Landscape Design

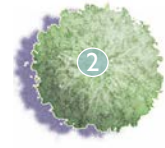
RECOMMENDED NATIVE PLANTS

Recommended native plants for Central Florida that are tested, commonly available, hardy and contribute to the local ecosystem.*



STREET TREE

Shumard Oak (*Quercus shumardii*)
Winged Elm (*Ulmus alata*)
Sweetgum (*Liquidambar styraciflua*)
Live Oak (*Quercus virginiana*) (upright varieties)



SHADE TREE

Bald Cypress (*Taxodium distichum*)
Red Maple (*Acer rubrum*) (various cultivars)
Southern Magnolia (*Magnolia grandiflora*) (various cultivars)
Longleaf Pine (*Pinus palustris*)
Sand Live Oak (*Quercus geminata*)
Bluff Oak (*Quercus austrina*)
Tulip Tree (*Liriodendron tulipifera*)
Turkey Oak (*Quercus laevis*)
Bluejack Oak (*Quercus incana*)
Green Ash (*Fraxinus pennsylvanica*)
Laurel Oak (*Quercus laurifolia*)
Eastern Red Cedar (*Juniperus virginiana*)



SMALL TREE/PALM

Yaupon Holly (*Ilex vomitoria*)
Eastern Red Cedar (*Juniperus virginiana*)
Fringetree (*Chionanthus virginicus*)
Chickasaw Plum (*Prunus angustifolia*)
Flatwoods Plum (*Prunus umbellata*)
Sweetbay Magnolia (*Magnolia virginiana*)
Southern Wax Myrtle (*Myrica cerifera*)
Dahoon Holly (*Ilex cassine*)
Eastern Redbud (*Cercis canadensis*)
Florida Privet (*Forestiera segregata*)
Cocoplum (*Chrysobalanus icaco*)
Riverbirch (*Betula nigra*)
Redbay (*Persea borbonia*)
Paurotis Palm (*Acoelorrhaphe wrightii*)
Sabal Palm (*Sabal palmetto*)



SCREEN/HEDGE

Simpson's Stopper (*Myrcianthes fragrans*)
Southern Wax Myrtle (*Myrica cerifera*)
Saltbush (*Baccharis halimnifolia*)
Withlacoochee Viburnum (*Viburnum obovatum*)
'Withlacoochee'



SHRUB

Walter's Viburnum (*Viburnum obovatum*)
Firebush (*Hamelia patens*)
Saw Palmetto (*Serenoa repens*)
Dwarf Palmetto (*Sabal minor*)
Scrub Palmetto (*Sabal etonia*)
Oakleaf Hydrangea (*Hydrangea quercifolia*)
Wild Coffee (*Psychotria nervosa*)
American Beautyberry (*Callicarpa americana*)
Needle Palm (*Rhapidophyllum hystrix*)
Anise (*Illicium parviflorum*)
Darrow's Blueberry (*Vaccinium darrowii*)
White Stopper (*Eugenia axillaris*)
Sparkleberry (*Vaccinium arboreum*)
Inkberry, Gallberry (*Ilex glabra*)
Georgia Catmint (*Calamintha ashei x georgiana*)
Florida Anise (*Illicium floridanum*)
Garberia (*Garberia heterophylla*)
Marlberry (*Ardisia escallonioides*)
Rusty Lyonia (*Lyonia ferruginia*)
Shiny Lyonia, Fetterbush (*Lyonia lucida*)



GRASSES/WILDFLOWERS

Muhly Grass (*Muhlenbergia capillaris*)
Fakahatchee Grass (*Tripsacum dactyloides*)
Purple Lovegrass (*Eragrostis spectabilis*)
Sand Cordgrass (*Spartina bakeri*)
Elliot's Lovegrass (*Eragrostis elliotii*)
Little Bluestem (*Schizachyrium scoparium*)
Sea Oats (*Uniola paniculata*)
Lopsided Indiangrass (*Sorghastrum secundum*)
Splitbeard Bluestem (*Adropogon ternarius*)
Wiregrass (*Aristida stricta* var. *beyrichiana*)
Chalky Bluestem (*Andropogon virginicus* var. *glaucus*)
Scarlet Sage (*Salvia coccinea*)
Blue Porterweed (*Stachytarpheta jamaicensis*)
Lanceleaf Tickseed (*Coreopsis lanceolata*)
Leavenworth's Tickseed (*Coreopsis leavenworthii*)
Blue-eyed Grass (*Sisyrinchium angustifolium*)
Starry Rosinflower (*Silphium asteriscus*)
Carolina Wild Petunia (*Ruellia caroliniensis*)
Lyreleaf Sage (*Salvia lyrata*)
Spiderwort (*Tradescantia virginiana*)



GROUND COVER

St. John's Wort (*Hypericum tenuifolium*)
Swamp Twinflower (*Dyschoriste humistrata*)
Sunshine Mimosa (*Mimosa strigillosa*)
Creeping Sage (*Salvia misella*)
Common Violet (*Viola sororia*)
Beach Verbena (*Glandularia maritima*)
Narrowleaf Silkgrass (*Pityopsis graminifolia*)
Partridge Berry (*Mitchella repens*)



OPEN SPACE

Frogfruit (*Phyla nodiflora*)
Oblongleaf Twinflower (*Dyschoriste oblongifolia*)
Bahia Sod (*Paspalum notatum*)
St. Augustine Sod (*Stenotaphrum secundatum*) (low-mow and low-water varieties only)
Perennial Peanut (*Arachis glabrata*)

PLANT LIST RESOURCES

Florida Native Plant Society (fnps.org/)

Florida Friendly Plants (ffl.ifas.ufl.edu/plants)

Cherrylake (cherrylake.com)

Florida Wildflowers Foundation (flawildflowers.org/)

*Plant list to be expanded to include all of Florida at a later date

PREP



Prepare the yard for installation of plant material and understand which native plants will grow best in your climate zone.



PREPARE

Preparation of the land before planting is just as important as which plants are chosen. Soil testing and consulting with your county extension agent for the most appropriate soil recommendations is the best way to assess soil type and any amendments that may be recommended before planting. If needed amending the existing soil with compost can add important nutrients and reduce the need for chemical fertilizers. Careful planning and installation practices set the groundwork for a healthy and thriving landscape. Industry leaders like UF/IFAS and Cherrylake have extensive information on sustainable landscape installation and maintenance.



Image Credit: istockphoto.com

INSTALLATION RESOURCES
OUTSIDE ([outsidecollab.com](https://www.outsidecollab.com))
Cherrylake ([cherrylake.com](https://www.cherrylake.com))
University of Florida IFAS (ifas.ufl.edu/)

HOW?

Manage your landscape from establishment and beyond to limit irrigation, fertilizer, and pesticide use while maximizing biodiversity.

MAINTAINING THE YARD



ESTABLISH

Establishment for new plants is an important time for the landscape to take hold and root well in the soil. This means that plants will require more care during the establishment stage. This extra care and time will eventually level off when plants are settled into their environment, and irrigation system use should be able to be reduced.



MAINTAIN

Learning how to take care of your overall landscape and the individual plants in it is an important step in cultivating a healthy and mature landscape.



WATER USAGE

Best practice is to have a master controlled irrigation system for the entire community managed by a qualified horticulture professional. During establishment, low-volume irrigation, or hand-watering should be used to help plants develop healthy root systems and settle into their new environment. Monitor irrigation heads regularly for leaks or breaks and run maintenance pulses on drip irrigation systems to prevent clogs. This keeps systems running efficiently and avoids excess water waste. Use of weather-based timers and soil moisture sensors should be standard to prevent unnecessary irrigation after rain events. When irrigation is needed, it should run early in the morning to prevent excess evaporation during the hot hours of the day.



MARKETING AND STORYTELLING

Community HOAs can work with developers to incorporate the landscape strategies in this guidebook into the community identity and branding. Homebuilders should educate buyers about these strategies, communicating the value that sustainable landscapes bring on both a financial and experiential level.



COMMUNITY RESOURCE MONITORING

Community HOAs can partner with organizations and state agencies to create long-term monitoring and evaluation programs. These could include monitoring overall water use, ecological surveys of the community, and establishment of certifications such as Homegrown National Park and The National Wildlife Federation Wildlife Habitat.

<https://homegrownnationalpark.org/>

<https://nwf.org/certify>

MAINTENANCE RESOURCES

OUTSIDE (outsidcollab.com)

Cherrylake (cherrylake.com)

University of Florida IFAS (ifas.ufl.edu/)

FFL ([Floridafriendlylandscaping.com](https://floridafriendlylandscaping.com))

PEST CONTROL

NATURAL AND ORGANIC PEST CONTROL TIPS

WHAT DOES IT MEAN TO BE ORGANIC?

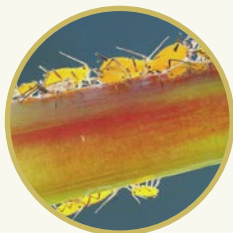


Organic products are produced through approved practices and emphasize safety for ecological processes.

*Consider OMRI certified products

SOFT BODIED PESTS:

Aphids and scale:



Using natural pesticides such as insecticidal soap (including homemade recipes) or neem oil are effective and safer for plants. Just be sure to always test in small inconspicuous area of the plant first!



Identify and keep beneficial insects in your garden such as ladybugs, lace wings, praying mantis. These insects prey on unwanted pests and are the good guys!



For leaf rollers and other unwanted caterpillar pests – use *Bacillus thuringiensis* (Bt) (note: don't spray on desirable caterpillars like butterfly larvae).

HARD BODIED PESTS:

Other tips for pest removal:



Don't be afraid to use your fingers! Hard bodied pests are more difficult to treat with pesticides, so it is often easier to pick them off of plants.



You can also place a cloth under the plant and shake insects off the plants.



Predatory nematodes in the soil can be used in your garden to feed on unwanted insects.

WHAT'S THAT BUG?

IS THIS INSECT HARMFUL OR HELPFUL TO MY SUSTAINABLE YARD?

PHOTOGRAPH YOUR FINDINGS



Taking photos of insects in your yard can ensure an accurate ID. Upload the photos into iNaturalist (<https://www.inaturalist.org/>) to quickly identify the insect. Some different insect species may look the same with only slight variation in marking. Additionally, many adult species look completely different from their larvae! When you are photographing insect species, be sure to take additional photos of the plants you find them on.

IDENTIFY BENEFICIAL INSECTS



Not all bugs are bad for your yard! Did you know that less than 1% of bugs in the United States feed on plants in a harmful way? Many insects found in Florida yards are pollinators or beneficial predators. By taking the time to accurately ID insects in your garden, you can create a better pest management plan that protects the “good” bugs and gets rid of the pests.

LIMIT USE OF HARSH CHEMICALS



Pesticides in your yard may kill unwanted pests, but are not selective and will kill beneficial bugs as well. There are several methods of pest management that can reduce pesticide use in your yard. Planting pest-resistant plants, removing damaged parts of affected plants, and spot-treating can limit the amount of chemicals used within your yard. Also, don't be afraid to use your fingers and pick off insects by hand when possible!

ACCOMMODATE FOR BIODIVERSITY



By planting a variety of native species, you can encourage the presence of natural predators such as birds and other predatory bugs that will prey on unwanted pests. Maximizing biodiversity to enable natural predators can help you manage pests in your yard.

WEEDS IN THE YARD

HELPFUL TIPS FOR CONTROLLING WEEDS IN YOUR YARD

WHAT IS A WEED?

Weeds can either be just unwanted plants or harmful invasive species. Weeds in your garden can out compete desirable plants for space and nutrients as well as increase the possibility of infestation and disease.

Hand pulling weeds is the safest and most effective option for weed management in your garden*

Weed before it seeds

Know your seedlings; not every small plant is a weed

Mulch around desirable plants to prevent germination of weed seeds



ADDITIONAL CONSIDERATIONS:

- Seasonal control in the fall and winter can reduce problems when growing season begins in the spring.
- As a last resort, consider ORMI certified herbicides – but be careful as these are not selective and can kill other plants you desire to keep in your garden!
- Use corn gluten meal as pre-emergent seed/weed control [18]

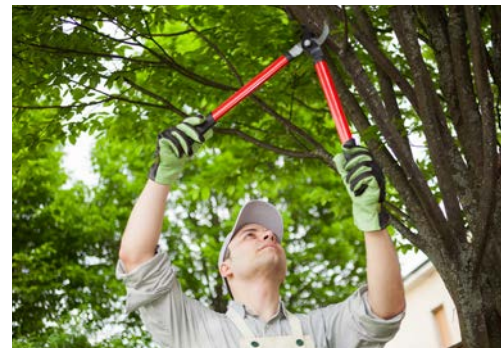
* Use a 5 gallon bucket to collect pulled weeds in. This prevents the spread of new seeds and lowers maintenance time.

Prepare soil properly when planting

PROPER PRUNING AND TRIMMING

TREES

When pruning trees your number one priority should be removing any limbs that are dead, diseased, or dying. These limbs can impact the health of the tree, as well as become a safety hazard. Routinely pruning your trees can act as a substitute for limb loss through natural causes and will effectively increase the strength and longevity. To reduce the need for pruning, it is best to consider a tree's natural form. It is very difficult to impose an unnatural form on a tree without a commitment to constant maintenance.



SHRUBS

Proper pruning of shrubs depends on the species that you have and your desired shape. Before you plant, know the expected mature height and width of the plants you choose. If a plant is too large for its space, pruning will not be a permanent solution to maintain a particular size. Pruning does not stop growth, it actually stimulates new growth!



FLOWERS

Instead of pulling flowers, cut them to the ground. Generally you should begin pruning after the first display of flowers, and stop pruning at the end of the plants growing season. Pruning dead and spent flowers, foliage, and stems encourages healthier, fuller plants and more flowers. Depending on your goals and the condition of your plant, there are two types of pruning to choose from, deadheading and thinning. Deadheading promotes new blooms and a fuller appearance while thinning improves appearance and flower size and helps prevent disease.

GRASSES

Bunch grasses cannot be trimmed using generalized pruning rules. They require special timing and techniques on your part to look their best. Bunch grasses are cut back annually typically in February or early March (late winter). It is important to cut back grasses because it simulates wildfires in natural landscapes. If a plant gets damaged it may be a good reason to cut back to the base.

DEADHEADING

THE BENEFITS OF DEADHEADING



Demonstrated on a Black-eyed Susan:



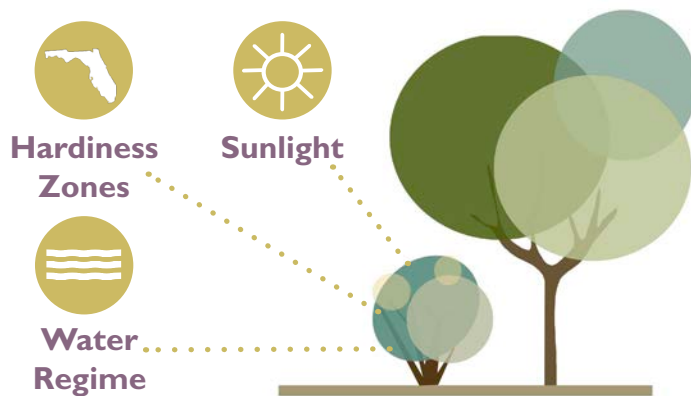
TIME	TOOLS	TECHNIQUE
<ul style="list-style-type: none">• Deadheading flowers and blooms when they are past peak bloom	<ul style="list-style-type: none">• Snips and scissors• Dedge shears• Pruners	<ul style="list-style-type: none">• Use a clean tool to trim spent blooms just above the node

**Leaving the “brown stuff”: can provide habitat for many pollinator and insect species*

ENSURING THE RIGHT CONDITIONS

RIGHT PLANT, RIGHT PLACE

Understand the needs of the different species of plants in your yard. USDA Hardiness zone, sunlight, and irrigation needs should all be considered when choosing a planting location for your garden.



SUN + SHADE

Note where sun and shade occur in your garden and place plants according to sunlight needs. In very hot areas consider providing shade to your plants from the afternoon sun.



DETAILS IN THE DIRT

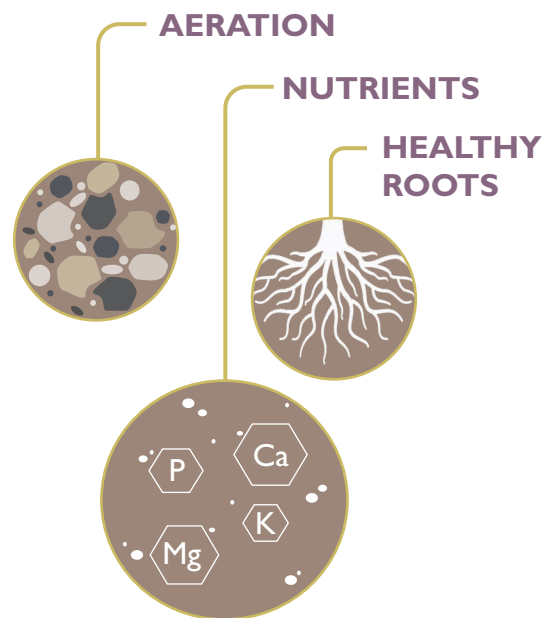
TILLING

Minimize soil compaction by tilling soil to allow for better root growth and uptake of nutrients. Tilling can help to aerate as well as deter weeds from taking root

SOIL TESTING

Always do a soil test to determine the pH of your soil and determine which nutrients and how much occurs. This will inform the species of plants that will do better in your soil and any soil amendments that may be needed. Keep in mind different types of dressing (e.g pine straw, mulch, compost) have different pH.

Use pine straw, mulch, compost to control soil moisture, pH, and temperature.



Pine Straw



Mulch



Compost



ACIDIC

ALKALINE

BIODIVERSITY IN THE YARD

HOW TO MAXIMIZE BIODIVERSITY AND WILDLIFE

1 PROVIDE FRESH, CLEAN WATER



Include sources of water such as butterfly watering stations and bird baths. Providing water to wildlife is crucial, especially in Florida's hot summer months.

2 HABITAT CURATION



Include structural features such as drift wood and rocks for shelter and hiding places for wildlife.

3 ATTRACT WILDLIFE



Have variety of food sources (berries, nectar, seeds) to support needs of birds, bees, and insects.

4 INCLUDE TREES AND BUSHES



Trees and bushes provide diverse habitat options to populations of native species.

5 PICK YOUR PLANTS



Planting native and diverse species with varying heights can offer different habitat characteristics to attract more wildlife to your yard.

WATER CONSERVATION

Watering efficiently can help protect Florida's water resources and prevent surface water runoff. Listed below are just a few steps you can take to limit your water use.



ONLY WATER AS NEEDED:

When you notice grass blades not bouncing back or changing to a blue-green color, it's time to water your lawn! An efficient watering wets only the turfgrass root zone, does not saturate the soil, and does not allow water to run off of your lawn. Once an appropriate amount of water has been applied, do not apply again until drought is noticeable. If it rains, skip your next watering cycle!



WATER EARLY IN THE MORNING:

Watering at night will cause too much water to sit in the soil, and watering during the day when it is too hot will cause excessive evaporation and plants will not absorb enough water. Watering in late afternoon or late morning may be harmful if it extends the time the lawn is naturally wet from dew. This extended moisture could accelerate disease occurrence.



WATER LESS IN COLDER MONTHS:

Often, homeowners are unaware that irrigation should be adjusted seasonally. Failure to adjust for seasonal changes will lead to over-watering. Over-watering will harm the long-term health of plants and waste water in the process. The amount of water applied each time you irrigate your lawn should not vary seasonally, though the frequency with which you water will change by season.



MAINTAIN IRRIGATION SYSTEM REGULARLY TO PREVENT LEAKS AND MALFUNCTIONS:

Ensuring that your irrigation system receives regular maintenance will save both water and money. Preventing leaks will also avoid any damage to your landscape from over-watering.



ORGANIZE PLANTS BY SIMILAR WATERING NEEDS AND SCHEDULES FOR OPTIMAL EFFICIENCY:

Grouping plants by water needs should top the list when you are building a new bed or updating your landscape. Grouping plants into water use zones will help you use only the water you need for those specific areas and also save plenty of time and money!

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by Gil Nelson

Native Plants for Florida Gardens
by Stacey Matrazzo and Nancy Bissett

Nature's Best Hope: A New Approach to Conservation That Starts in Your Yard
by Douglas Tallamy

Planting in a Post-Wild World: Designing Plant Communities for Resilient Landscapes
by Claudia West and Thomas Rainer

Priceless Florida: Natural Ecosystems and Native Species
by Anne Rudloe, D. Bruce Means, and Eleanor Noss Whitney

Florida Native Plant Society's Recommended Books (<https://www.fnps.org/resources/books>)

INSTALLATION, PLANT RESOURCES, AND MAINTENANCE HELP

Cherrylake (cherrylake.com)
 University of Florida IFAS (ifas.ufl.edu/)
 Dix.Hite + Partners (<https://www.dixhite.com/>)

PLANT LISTS RESOURCES

Florida Native Plant Society (fnps.org/)
 Florida Friendly Plants (ffl.ifas.ufl.edu, <https://ffl.ifas.ufl.edu/plants/>, <https://ffl.ifas.ufl.edu/resources/publications/>)
 Cherrylake (cherrylake.com)
 Florida Wildflowers Foundation (flawildflowers.org/)
 IFAS Invasive Species Programs (invasivespecies.ifas.ufl.edu/plants/)

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