



Dr. John M. DeGrove Webinar Series:

Outside: Sustainable Landscape Collaborative



Due to constraints on staff time, we only apply for professional certification credits for participants who attend the live webinar, not those who view the broadcast at a later date.







Dr. John M. DeGrove

May 4, 1924 – April 13, 2012

Icon of comprehensive planning both in Florida and across the nation

Co-founder of 1000 Friends of Florida

To find out more, please visit: www.1000friendsofflorida.org/dr-degrove/



Dr. John M. DeGrove Webinar Sponsors

FLORIDA STEWARD

The Archibald Foundation, Inc.

NATHANIEL REED SOCIETY

Mosaic

FRIEND

Ms. Kimberly A. DeGrove and Dr. Clyde Partin

Dickman Law Firm

William Howard Flowers, Jr. Foundation, Inc.

KEITH

Kitson & Partners
The Perkins Charitable Foundation
Mr. Robert M. Rhodes
Susan Trevarthen



Dr. John M. DeGrove Webinar Sponsors

Sponsor

Mr. Thomas J. Baird

Mr. Ronald Book, PA

Mr. William M. DeGrove

Diamond Club

Ms. Sara Fotopulos
Synovus

Supporter

American Planning Association, Florida Chapter
Charlotte Harbor Estuary Program
Treasure Coast Regional Planning Council
Mr. David M. Orshefsky
Ms. Nancy Ellen Stroud



This webinar has been approved for:

Planners (1.5 AICP CM #9183918)

Certified Floodplain Managers

Certified Environmental Health Professionals

1000 Friends has also applied for credits from the Florida Bar (CLE) and Florida DBPR Landscape Architects but cannot guarantee they will be approved.

In the follow up email you will receive:

A certificate of attendance (use Google Chrome to download)

A link to a brief survey to help us improve future webinars



Dr. John M. DeGrove Webinar Series

- November 13 Covering All the Bases: Effective Engagement in the M-CORES Process
- December 11 2020 Florida Legislative Preview

All webinars are from noon – 1:30 Eastern Time unless otherwise noted

www.1000friendsofflorida.org/webinar/



Support 1000 Friends!

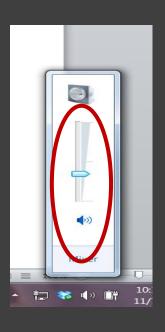
Donate on-line at www.1000friendsofflorida.org/donate-now/ (you may designate it for DeGrove Education Fund if you wish)

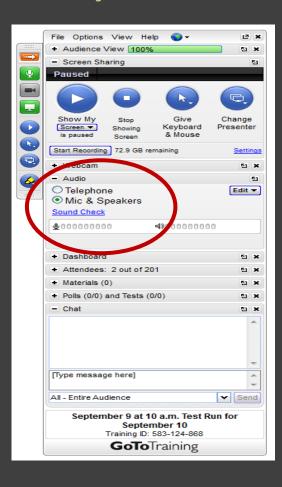
Email vyoung@1000fof.org to find out about becoming a DeGrove Webinar Series sponsor

AMAZON SMILE

Amazon will make a donation to 1000 Friends every time you purchase through their site at http://smile.amazon.com/ch/59-2761163

If you have sound issues:





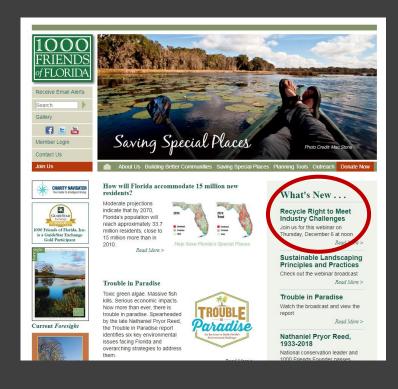
- Make sure the speaker on your computer is turned on
- Adjust the volume on your computer
- On Go-to-Webinar control panel click on Audio box and do sound check and adjust accordingly

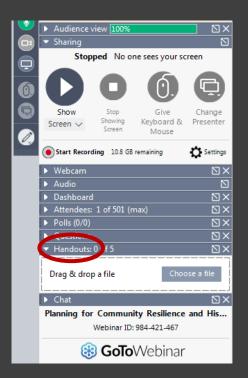
OR

 On Go-to-Webinar control panel click on Audio box and then Telephone and follow directions to call in

The PowerPoint is available at

www.1000friendsofflorida.org

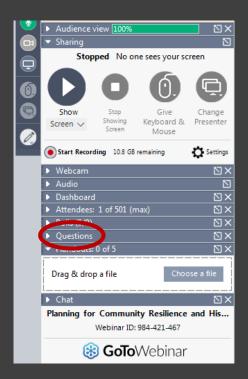






Please ask questions!

- Your webinar control panel includes a "Questions" box
- Please click on "+" sign and type any questions in this box
- Please refer to the slide number and/or speaker when you post your question
- Please keep your questions succinct!
- •Staff will ask the presenters questions, as time permits





Presenters



Pierce Jones

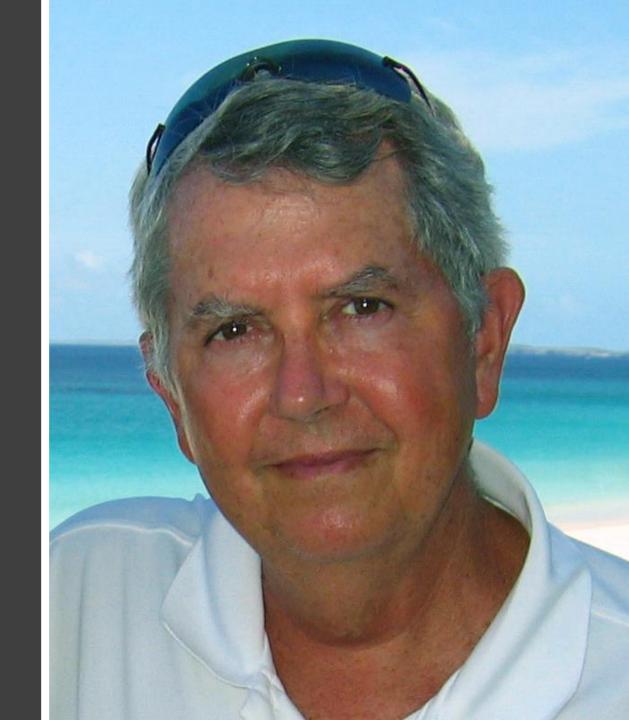
Professor at the University of Florida

Directs Program for Resource Efficient Communities

An interdisciplinary group that promotes the adoption of "best design, construction and management practices" in master planned developments

Program directly participates in land development and building projects that adopt and demonstrate "green" practices

PhD in Mechanical Engineering from the University of Florida in 1980





Christina Hite

A Professional Landscape Architect who leads Dix.Hite + Partners, a Central Florida based design firm she founded with fellow landscape architect Jeff Dix in 1996.

As president, provides visionary leadership to a growing practice with more than 30 employees in Florida, Alabama and Georgia.

Passion for artful design, environmental sustainability and healthy lifestyles is evident in a portfolio that spans nearly three decades of residential landscape design, public parks, open space and ecologically friendly infrastructure projects built in the state of Florida and throughout the United States.

Chairs the Dean's Advisory Council for the University of Georgia's College of Environment and Design and serves on an advisory council for the Department of Landscape Architecture at the University of Florida.

Timothee Sallin

Actively involved in water conservation, sustainable landscaping and responsible agriculture in Florida over the past 15 years through role as President of Cherrylake.

Cherrylake is a vertically integrated landscape company providing commercial landscape and irrigation construction and maintenance services and is the largest grower of ornamental trees, palms and shrubs in the State of Florida.

Cherrylake and sister company IMG Citrus manage over 6,000 acres of land in Florida and have a long track record of sustainable land management and stewardship.

Passionate about connecting people to plants and promoting healthy ecosystems within our urban environments.

Actively involved in promoting environmental best practices across diverse industries through collaboration with industry associations such as ULI, ASLA and FNGLA as well as through research and development partnerships with UF IFAS and the SJRWMD.

A graduate of New College in Sarasota Florida earning a degree in Economics and International Studies.

Lives in Clermont with wife Ellen and daughter Aria; son Tristan is an undergraduate student at Georgia Institute of Technology.



Timothee Sallin





Pierce Jones



Sustainable Landscapes?

Sustainable Landscapes? Quantifying Landscaping Impacts

Quantifying Landscaping Impacts

Conventional Practice









Quantifying Landscaping Impacts

Greenhouse Gas Accounting (Groundwater)



Quantifying Landscaping Impacts Greenhouse Gas Accounting (Desal)

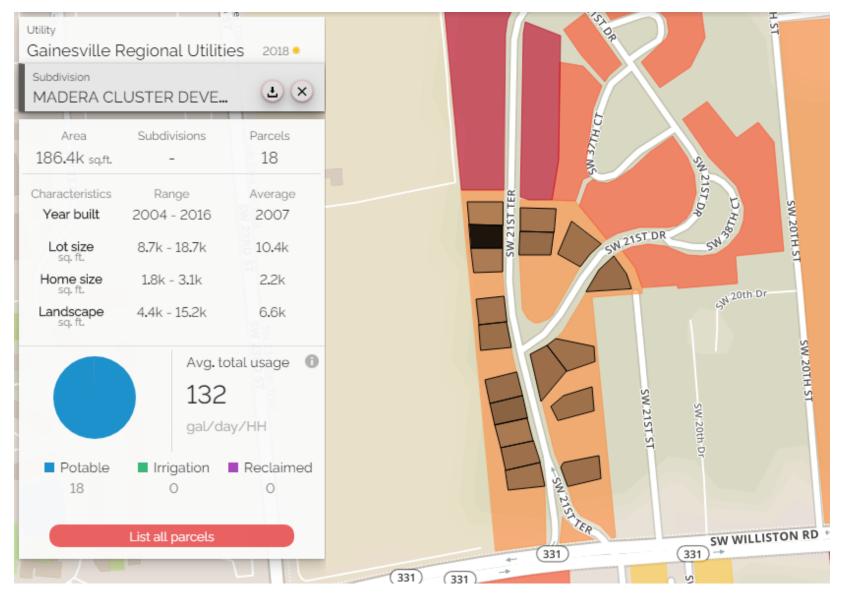


Madera

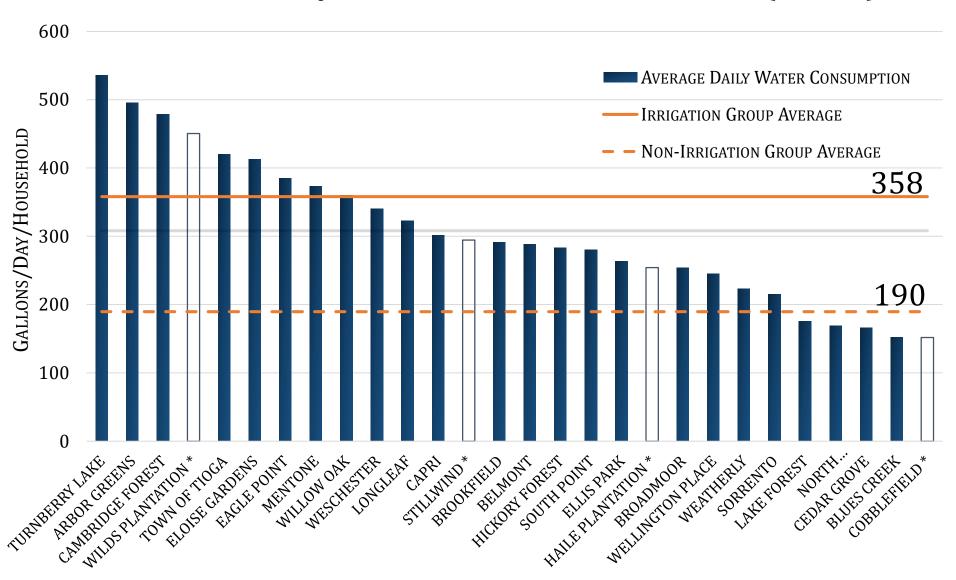
Madera (2007) - Gainesville, Florida



Madera (2018) Water Consumption - Phase I



Alachua County SFD Residential Baselines (3,035)

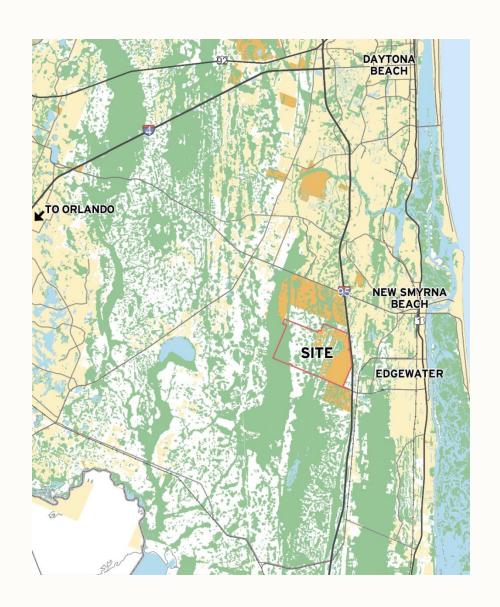


Madera (2007) - Gainesville, Florida



Edgewater, Florida

- This 5,187-acre master plan evolved significantly over its 4-year permitting process.
- Designs were all for 8,500 dwelling units.
- It was fully entitled based on the 2009 design.
- The entitled project created a mixed-use, transit oriented community with 3.5 million ft² of commercial space.



2006 Conventional Practice Plan

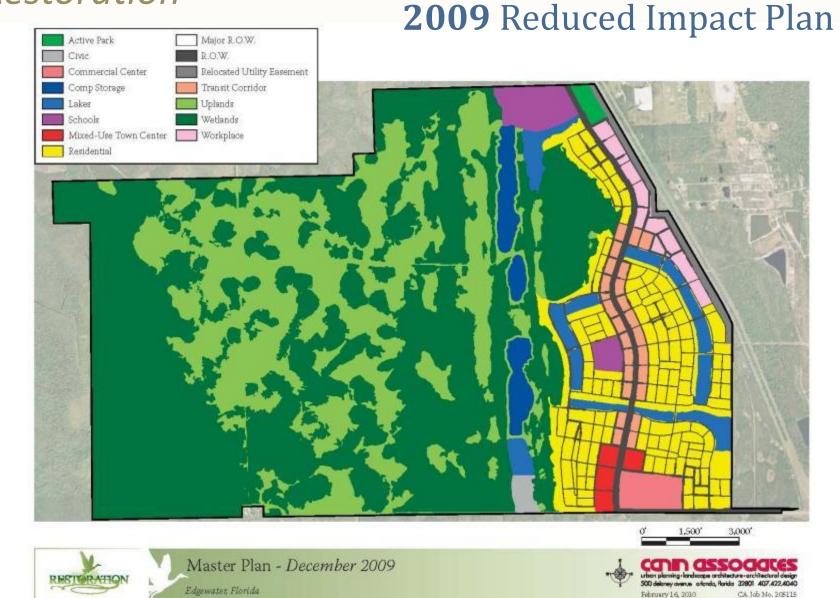












Road Infrastructure Analysis (50 year life)

Inputs	2006 Plan	2009 Plan
• Miles:	72	39
• Lane miles:	186	103
 Impervious area, ft² 	17,000,000	10,000,000
 Landscaped area, ft² 	6,000,000	3,000,000
• Cost	\$383,623,680	\$238,180,800
GHG Emissions		
Mtons CO2e/yr:	13,031	7,176
Metric tons CO2e/yr avoided: 5,855		
Initial costs avoided: \$145,442,880		

Reduced Impact Design

- The largest lots are 60' wide
- Compact homes (45'x 70' lot) 375 ft² landscaped area
- Less than 25% of residences with lots designed for any turf









Low Impact Practices

City of Edgewater

Development Order Requirements Include:

- "...no use of potable water in common areas...."
- "....requirements for minimal to no added inputs of water and synthetic fertilizers and pesticides....."

Restoration

Landscaping Resources Accounting

Inputs	2006 Plan	2009 Plan
• Landscaped Area - acres	988	428
• Pesticides - lbs	2,240	345
• Fertilizer - lbs N	135,000	18,400
 Mowing - gal gas 	33,000	4,460
• Irrigation - mgal	988	63
GHG Emissions		
Mtons CO2e/yr:	11,685	798
Metric tons C	02e/yr avoid	ed: 10,900

Barriers to Adopting Sustainable Landscapes at Scale?

Florida Land Development Conventional Practice









Florida Land Development

Conventional Practice









Why Florida Governments Should Focus on Adoption of Sustainable Landscapes?

St. Petersburg Times

Tampa Bay Water makes last withdrawal from tapped out reservoir

By Craig Pittman, Times Staff Writer In Print: Saturday, March 14, 2009

Get used to having a brown lawn for a while. As of this week, Tampa Bay Water has virtually drained its 15 billiongallon reservoir.



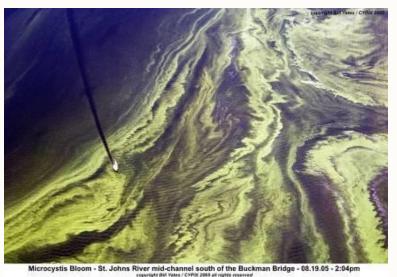
From now until the summer rainy season, it must rely on its two remaining sources of water: its sometimes troubled desalination plant and the dwindling supply in the underground aquifer. "It's going to be a long couple of months waiting for the rainy season," Tampa Bay Water spokeswoman Michelle Robinson said Friday.

Water Quality

St Johns River









Microcystis Bloom - East bank of the St. Johns River - Mandarin - 08.19.05 - 2:42pm copyright BN Yalso (CFFM 2005 at rights reserved



Steps toward Adopting Sustainable Landscape Policies?



Fertilizer ban is step in right direction

By The Gainesville Sun editorial board

Posted Apr 14, 2019 at 2:01 AM

If state government won't protect our springs, local officials are right to prevent further pollution.



AP Photo/Dean Fosdick

Last week, Alachua County commissioners approved an ordinance banning fertilizer applications lawns from July to February. It also requires slow-release fertilizer to be used on lawns from March to June.

Steps Toward Sustainable Landscapes

On Top of the World – Marion County, FL





Florida Land Development Trends: Plum Creek



A community discussion on the future of East County CONVENED BY PLUM CREEK





Community Workshops

East County Educators Committee

Envision Alachua Process

Envision Alachua Task Force

Envision Alachua Technical Advisory Group

Models of Innovation Series

Why Here? Why Now?

Request a Presentation











COMMUNITY

and CULTURE



The Envision Alachua Sector Plan application was shaped by the community and has been submitted to Alachua



December 27, 2013: A boon for eastern Alachua County?

The Plum Creek Timber



Members of the Envision Alachua Task Force answer the question, "Why Here?



A community discussion on the future of East County





Community Workshops

East County Educators Committee

Envision Alachua Process

Envision Alachua Task Force

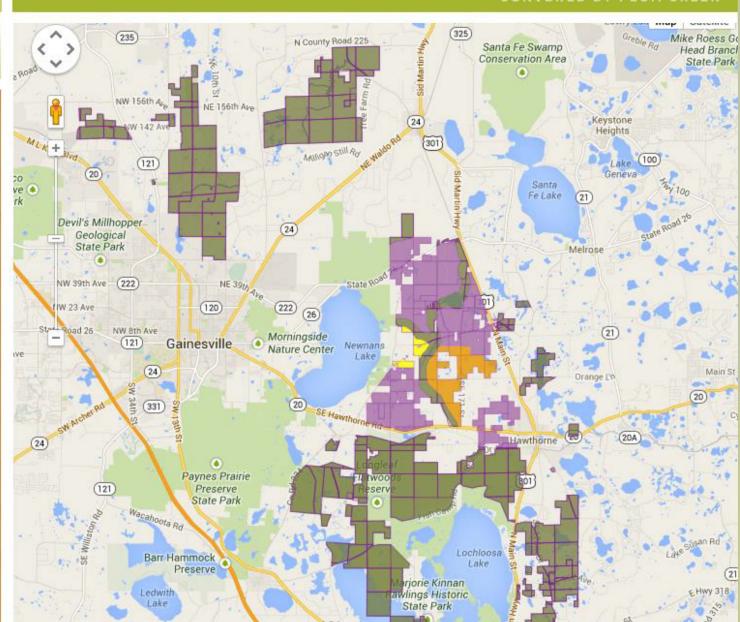
Envision Alachua Technical Advisory Group

Models of Innovation Series

Why Here? Why Now?

Request a Presentation





PLANNING PRINCIPLES

Goal D

Water

Address long-term needs for water supply, water quality and water conservation



- Identify and protect water recharge areas
- Develop communities that optimize water conservation and achieve a 50 percent or greater reduction in water usage based on current usage
- Apply Florida-friendly guidelines for landscaping
- Demonstrate leadership in resource management by promoting and adopting innovative ways to meet water needs
- Capture, treat and reuse storm water to the maximum extent feasible

Sector Plan

Objective 10.4.3 – Water Resource Protection

- Policy 10.4.3.1 Water Supply Strategy
- Residential lots... shall not be irrigated with potable water except for a limited period during the initial establishment of landscaping;
- The priority for the use of reclaimed water shall be given to environmental restoration projects, industrial users and agricultural users. Single family lots shall not receive reclaimed water;
- There shall be no individual wells for individual residences or businesses. All wells... shall be monitored as part of the utility system;



Sector Plan

Objective 10.4.3 – Water Resource Protection

Policy 10.4.3.2 Conservation – first The Sector Plan shall use conservation-first strategies... for water supply that include, but are not limited to, living within a water budget that recognizes supply limitations and reflects the value of the resource; minimizing water demand embedded within community design features such as buildings, hardscapes and landscapes; using Florida Friendly Landscaping principles to retain and/or establish landscapes that require no supplemental irrigation or nutrients (fertilization) beyond that provided by natural rainfall and possible minimal alternative water supply including reuse.

Christina Hite





Q.

How do you define sustainable landscapes and how are they important?

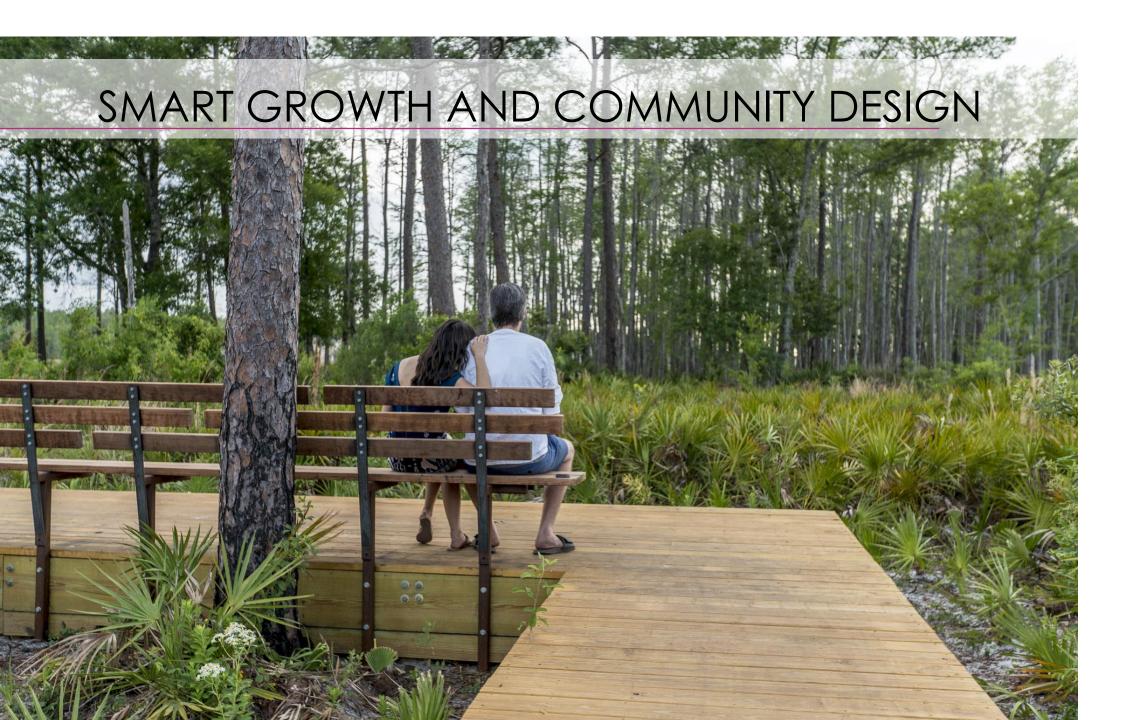






SMART GROWTH AND COMMUNITY DESIGN MANY MOVEMENTS, **ACTIVITIES AND BOUNDARIES MERGING WITHIN SITE** Provides boundary between THRESHOLD residents and the public. PLAZA - Draws users into and through space. Provides shade for waiting and watching. CENTRAL STATION MIXED-USE HUB-PARK - Provides relief for residents, trail users and SunRail riders. TRAIL - Dynamic portion of the regional bikeway connection through downtown, Gertrude's Walk. THRESHOLD LYNX CENTRAI STATION











LOW IMPACT DEVELOPMENT IMPLEMENTATION





CONSERVATION & PRESERVATION







Q.

What are some of the successes that you have experienced in this field that you can share?



























CONSERVATION & PRESERVATION





STARKEY RANCH

































HAMLIN CONSERVATION & PRESERVATION











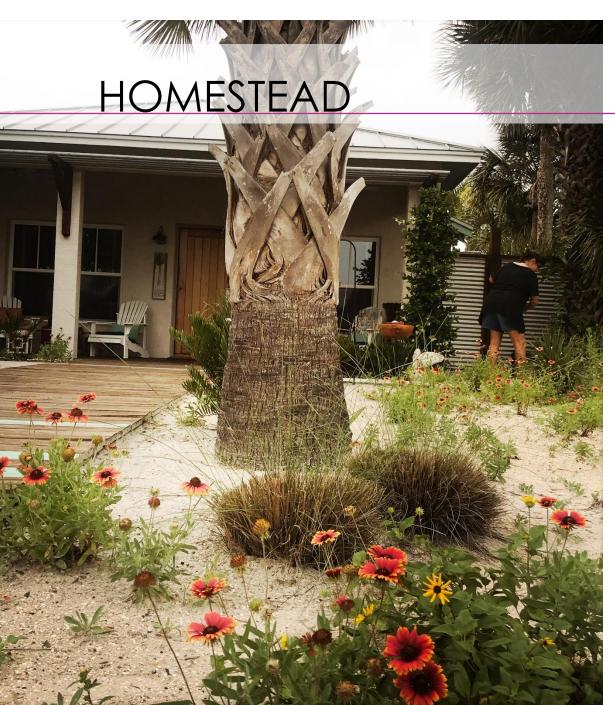
PUBLIC REALM

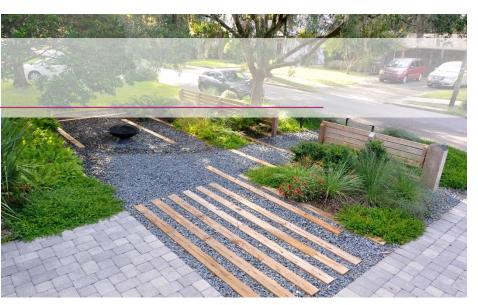


















Q.

What are the main challenges and obstacles to the adoption of sustainable landscapes at a meaningful scale?



CHALLENGING THE NORM







CHALLENGING THE NORM





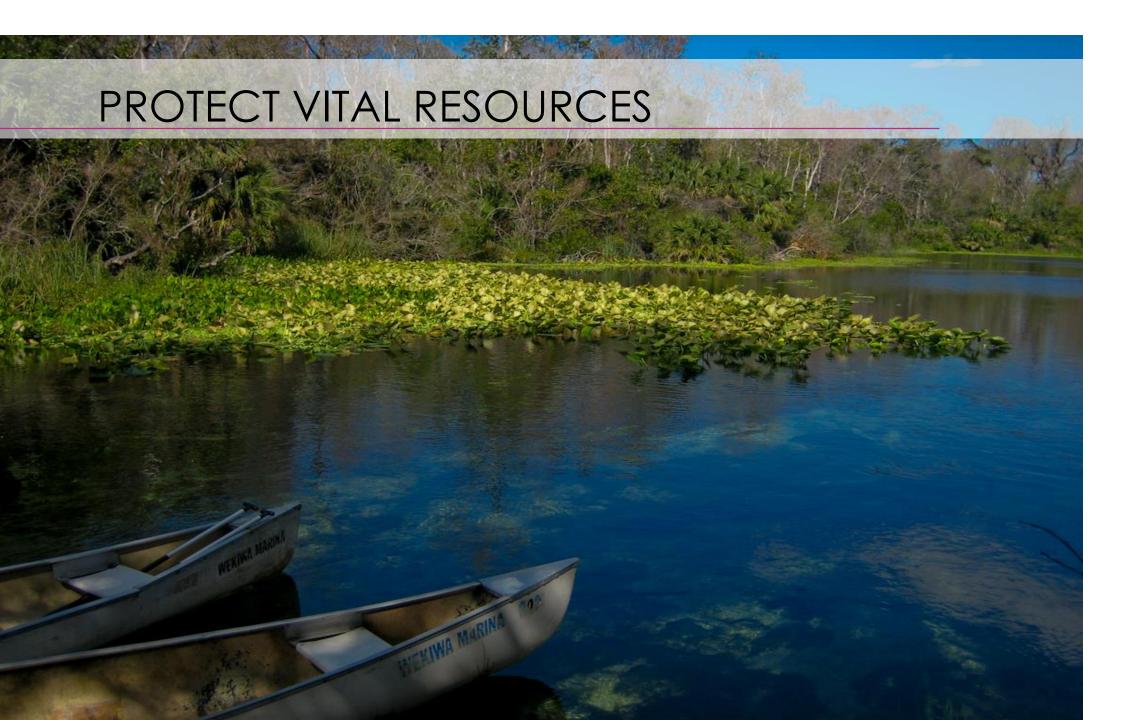




Q.

Why is it important for the State of Florida to focus resources on the adoption of sustainable landscapes?









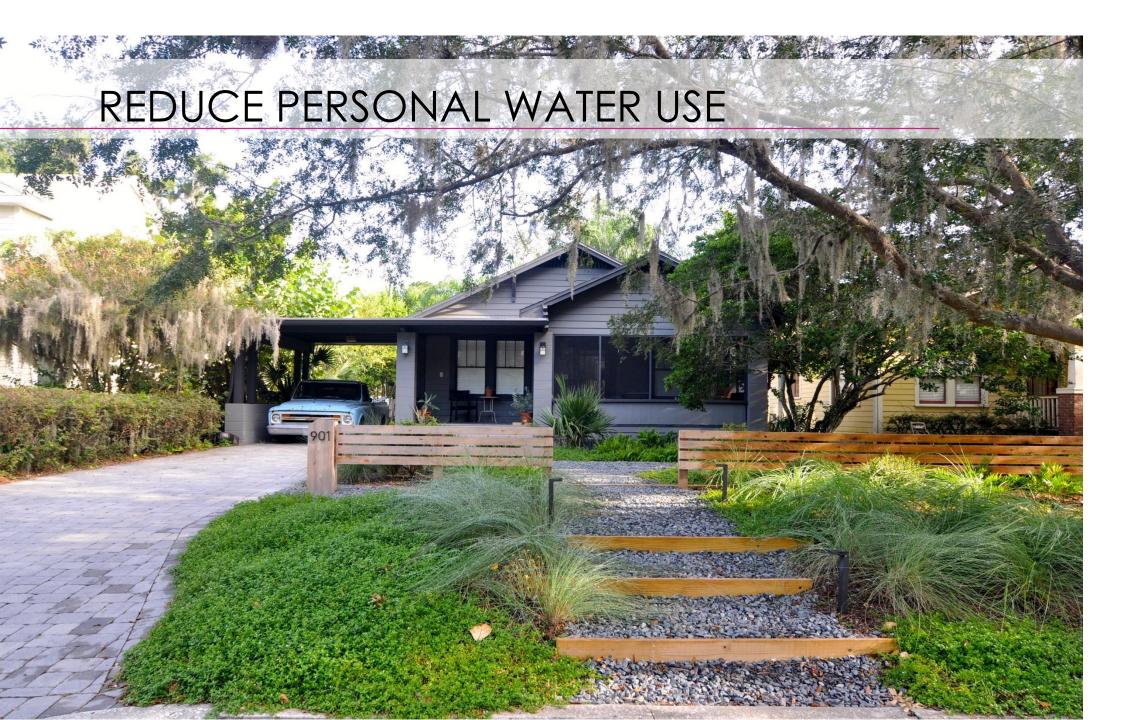
Q.

What are some of the next steps for moving the State forward towards the adoption of sustainable landscape?











A DIVERSIFIED FLORIDA AGRIBUSINESS

******* cherrylake















SUSTAINABILITY

Noun [suh-stey-nuh-bil-i-tee]

1. The ability to adapt to changes.

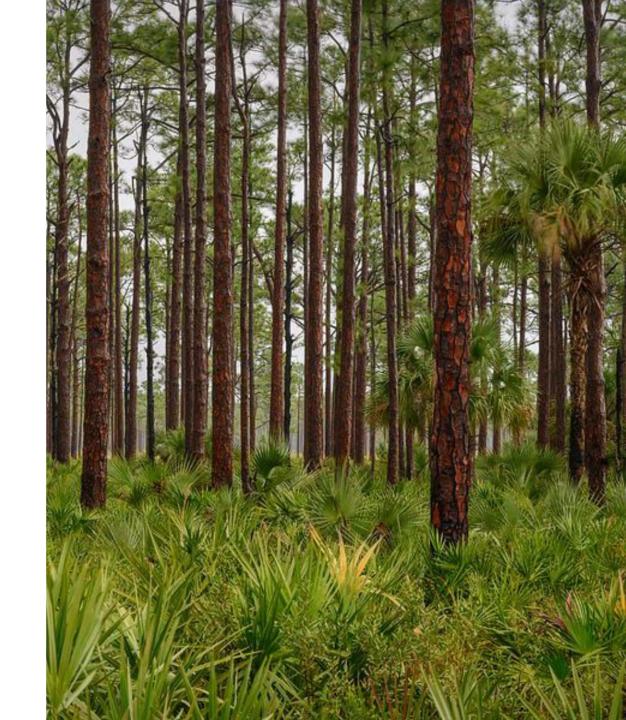




RESILIENCE

Noun [ri-zil-yuh ns]

An ability to recover from adversity and change.

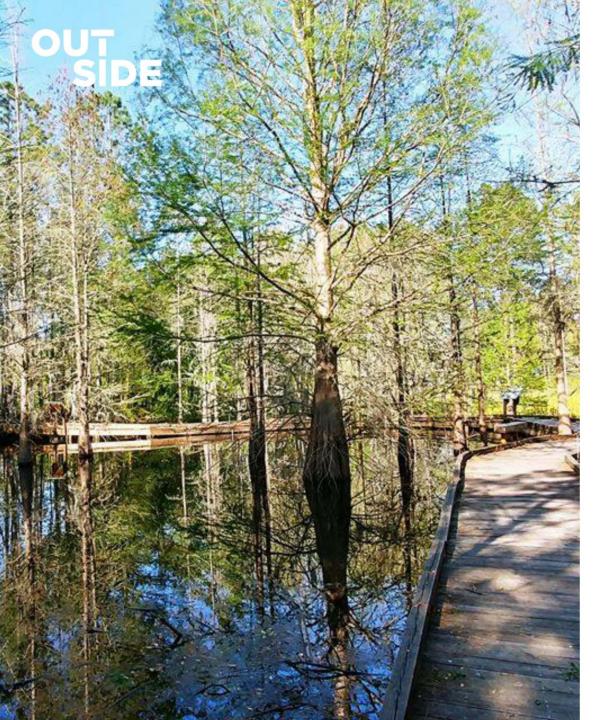




Noun [land-skeyp]

The natural and man-made geophysical features of our outside environment. These
include our natural forests, urban forests, wetlands, rivers, streams, conservation areas,
restoration areas, green infrastructure, green corridors, parks, trails, buffers, lawns,
groundcovers and ornamental landscapes.





Noun [land-skeyp]

1. The natural and man-made geophysical features of our outside environment. These include our natural forests, urban forests, wetlands, rivers, streams, conservation areas, restoration areas, green infrastructure, green corridors, parks, trails, buffers, lawns, groundcovers and ornamental landscapes.





Noun [land-skeyp]

 Dynamic ecosystems that include plants, water, soil, microzoa, animals and humans.





Landscapes provide many essential ecosystem services that support life, human health, social wellbeing, and economic growth. Among the most important functions of landscapes are clean air, clean water, biodiversity, carbon sequestration and beauty.





SUSTAINABLE LANDSCAPES

Landscapes that are able to maintain an ecological balance overtime with minimal human inputs and in ways that do not adversely affect surrounding natural systems. These are resilient landscapes that are designed and managed in such a way as to reliably provide essential ecosystem services and value to societies today and for future generations.





BEYOND SILOS







CHAIN OF CUSTODY

Integrity



Continuity

Accountability





NEXT STEPS...

What are some of the next steps for moving local governments and the State forward towards the adoption of sustainable landscape policies and principles?



Tickseed is a bright flower that's well known for its ability to spring up anywhere in Florida. The small blooms can be either yellow, white, purple, or pink and are easy to spot.



OUT



Also known as American Mulberry, the beautyberry is a Floridian native that offers stunning purple berries that attract a wide range of area birds.

THE #1 THING...

local governments can do is improve their landscape codes and ordinances.





Codes can be reviewed and updated to address the following:

- 1. Encourage Native Plants
- 2. Encourage Species Diversity
- 3. Encourage Water Efficient Irrigation
- 4. Preservation of Mature Trees,
- 5. Protect Rare, Threatened and Endangered Species
- 6. Encourage Certification

https://www.fnps.org/assets/pdf/pubs/model landscape ord final 022407.pdf



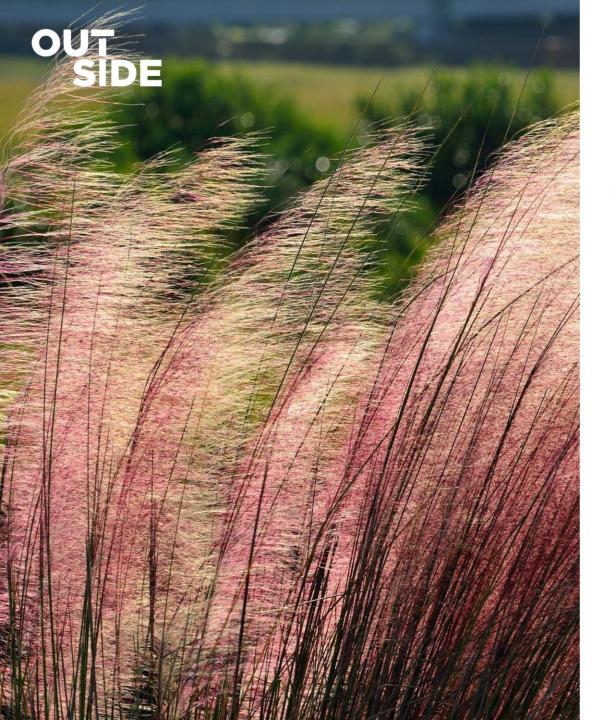


Codes can be reviewed and updated to address the following:

- 1. Encourage Native Plants
- 2. Encourage Species Diversity
- 3. Encourage Water Efficient Irrigation
- 4. Preservation of Mature Trees,
- 5. Protect Rare, Threatened and Endangered Species
- 6. Encourage Certification

https://www.fnps.org/assets/pdf/pubs/model landscape ord final 022407.pdf





- Encourage Native Plants
- Require Minimum Percentage of Native Plants for Private Development
- Provide a list of appropriate and recommend native plants by landscape category
- Provide incentives such as "Alternative Minimum Specifications" for selected targeted native plants





Model Native Plant Landscape Ordinance Handbook



Florida Native Plant Society

Post Office Box 278
Melbourne FL 32902-0278
Email: info@fnps.org
Website: www.fnps.org

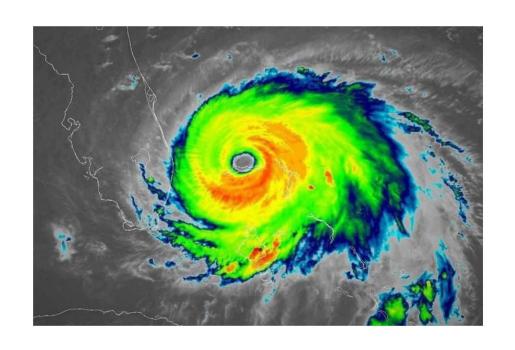
Prepared by:
Conservation Clinic
University of Florida Levin College of Law
Erika Zimmerman, J.D. Candidate
Thomas T. Ankersen, Director
Erick Smith, Advisor, FNPS Payne's Prairie Chapter

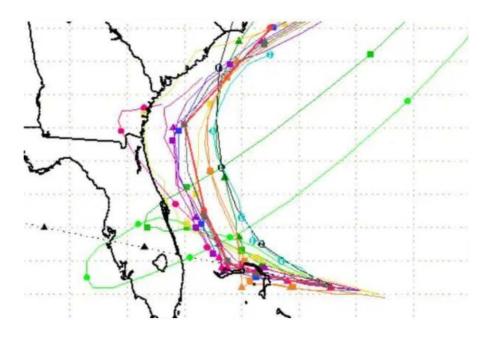






HURRICANE DORIAN



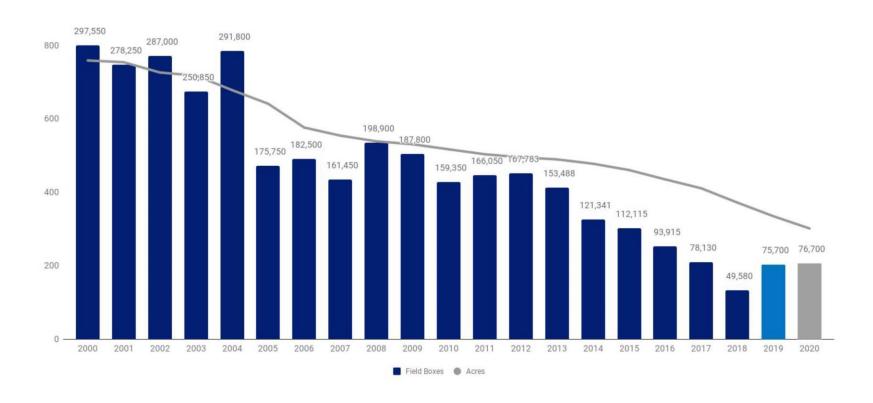






FLORIDA CITRUS

Bearing acreage & field boxes produced (\$000's)



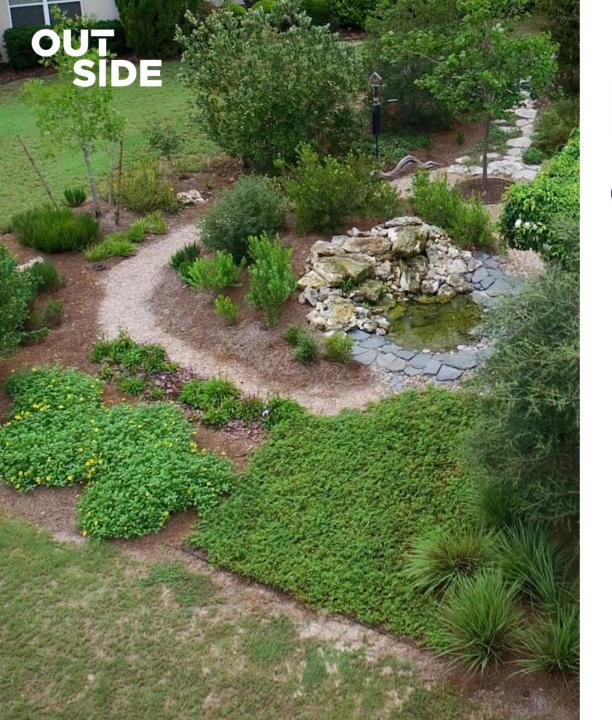




2. Encourage Species Diversity

- Requiring no more than a certain percentage of groundcovers, shrubs, or trees may be any one species.
- Require a minimum number of plant species for groundcovers, shrubs and trees
- Provide incentives such as "Alternative Minimum Specifications" for selected targeted species





IMPROVING CODES & ORDINANCES

- 3. Encourage Water Efficient Irrigation
 - Pressure regulated heads with check valves
 - Rotary Nozzles
 - Pressure regulated valves
 - Require smart controllers with advanced features
 - Soil Moisture Sensors
 - Flow monitoring at the source





IMPROVING CODES & ORDINANCES

- Provide education and demonstration gardens on public lands and around public buildings.
- Recognize local businesses and developments for outstanding landscapes.
- Create a landscape committee with qualified professionals and engaged citizens who are informed on sustainable landscape principles and practices.
- Become a Tree City USA and/or BEE City USA.
- Celebrate Earth Day and Arbor Day.
- Engage Local Nurseries, Garden Clubs, Landscape and Environmental Professionals.





UPDATE THE STATE BUILDING CODE

- Water Efficient Irrigation Design and Technology
- Uniform minimum standard for entire State
- Eliminate deceptive bidding practices
- Promote industry professionalism
- Potential to reduce water usage by over 30%
- Require systems to be audited / inspected every 2-3 years







FOOD SAFETY AS A MODEL FOR LANDSCAPE CERTIFICATION





THIRD PARTY ENTITIES

Establish Standards

Audit

Certify











FOOD SAFETY PRINCIPLES

Hazard Analysis and Critical Control Points (HACCP) is a major set of principles followed in food and retail service to ensure food safety in preparation and service consumers.

Step 1:	Perform a Hazard Analysis
Step 2:	Identify Critical Control Points
Step 3:	Establish Critical Limits
Step 4:	Monitor the Critical Control Point
Step 5:	Establish Corrective Action
Step 6:	Verification
Step 7:	Keep a Record





Documenting critical control points and recording inputs applied to landscape maintenance

ACCOUNTABILITY TRACEABILITY STANDARDIZATION TRANSPARENCY

Addressing Human Health and Safety





CRITICAL CONTROL POINTS FOR LANDSCAPE MAINTENANCE

Fertilizer application

Chemical application

Composting

Biological Releases

Water Management

Irrigation Inspection

Soil Testing

Plant Tissue Analysis

Employee Training

Certification & Licensing

Digital Record Keeping

Third Party Auditing





YOU IMPROVE WHAT YOU MEASURE

Cost Data

Quantitative tracking of input

Feedback Loop

Research and Development

Continuous Improvement

Quantitative Goals

Outcome driven

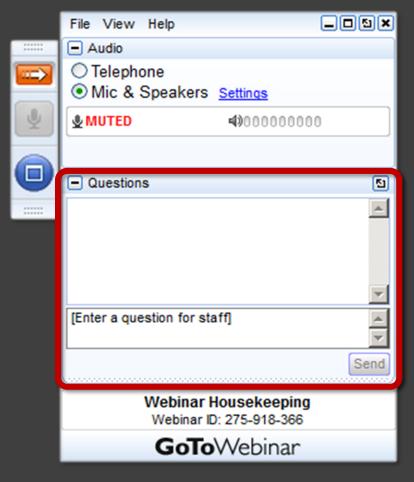


Questions and answers



Please ask questions!

- Your webinar control panel includes a "Questions" box
- Please click on "+" sign and type any questions in this box
- Please refer to the slide number and/or speaker when you post your question
- Please keep your questions succinct!
- Staff will ask the presenters questions, as time permits





The PowerPoint is available at www.1000friendsofflorida.org







Due to constraints on staff time, we have only applied for professional certification credits for participants who attend the live webinar, not those who view the broadcast.

