



# March 27, 2023 Meeting Backup Materials

## Contents:

- Presentation: *Sarasota County Sustainability Initiatives* {Luz Ramirez, Sustainability Analyst}

SARASOTA COUNTY

# SUSTAINABILITY INITIATIVES

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**Luz Ramirez, Sustainability Analyst**  
**City of Fort Lauderdale Sustainability**  
**Advisory Board**  
**Date: March 27, 2023**



# Agenda

What we're discussing today



Demographics Overview



Programs Led by UF IFAS Extension & Sustainability



Initiatives, Achievements & Investments



Future Sustainability Priorities



Questions



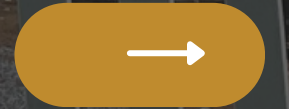
# Demographics



- Located in Southwest Florida
- Includes the incorporated municipalities of Venice, North Port, Sarasota and half of the Town of Longboat Key
- 556 square miles is land (23.4%) is water
- 35 miles of gulf coastline
- Home to 140 recreational parks
- 2020 US census reports total population at 434,006



# Programs led by UF IFAS Extension & Sustainability



# UF/IFAS Extension and Sustainability

- 2002 Sustainability Resolution
- A partnership between **Sarasota County, the University of Florida, and the USDA**
- Using university research and resources to address local needs through community initiatives, classes, outreach, and volunteer opportunities



## AGRICULTURE Sustainable Agriculture

1. Food systems
2. Agriculture best management practices

## GARDENING AND LANDSCAPING Gardens

3. Community gardens: how to join a local garden
4. Community gardens: garden management/considerations
5. School gardens: best practices and growing tips
6. School gardens: trainings for teachers and curriculum ideas
7. Edible gardening: seasons (what grows when)
8. Edible gardening: planning your edible garden
9. Edible gardening: sustainable pest control
10. Edible gardening: mulching
11. Edible gardening: beneficial insects
12. Edible gardening: nematodes
13. Edible gardening: watering
14. Edible gardening: fertilizing
15. Edible gardening: heat tolerant vegetables
16. Edible gardening: fruit tree selection for our area

## NATURAL RESOURCES Chemicals in the Environment

33. Mosquitoes
34. Biorational pesticides

## Ecology and Natural Resources

35. Gopher tortoises
36. Coyotes
37. Owls
38. Sharks
39. Eagles
40. Bats

17. Edible gardening: seed starting
18. Edible gardening: container gardening
19. Edible gardening: herbs for Florida
20. Edible gardening: tomato growing
21. Understanding your soil

## Horticulture (Commercial)

22. Tree planting techniques
23. Benefits of trees
24. Green industry best management practices

## Horticulture (Residential)

25. Florida-Friendly Landscaping™
26. Sustainable landscaping in your community association
27. Weeds
28. Wildflowers
29. Plants for pollinators
30. Plants for birds
31. Butterflies and pollinators
32. Florida snakes

## Alligators

41. Alligators
42. Bobcat/panthers
43. Scrub jays
44. Bird beak adaptations
45. Prescribed fire
46. Invasive plants
47. Invasive animals

## Marine and Coastal

48. Mangroves
49. Marine debris
50. Living shorelines



## 100 Things to Learn at Sarasota County UF/IFAS Extension and Sustainability

### NATURAL RESOURCES (cont'd) Waste Reduction

51. Recycling
52. Composting
53. Food waste reduction
54. Plastics reduction
55. Green business practices

### Water Resources

56. Healthy ponds
57. Nutrients in reclaimed water
58. Bay-friendly fertilizing

### NUTRITION AND HEALTHY LIVING Family and Consumer Sciences

70. Disaster preparedness
71. Closing up your (Florida) home
72. Cooking with herbs and spices
73. Preserving food through dehydration
74. Instant pressure cookers
75. Water bath canning and pressure canning
76. Food safety in the kitchen
77. Food safety in the workplace: safe-staff training

### SUSTAINABILITY (COMMUNITY DEVELOPMENT) Sustainability

86. Energy efficiency
87. Water efficiency
88. Solar energy technologies
89. Solar energy basics for kids
90. Universal design/age-friendly housing
91. Property-assessed clean energy (PACE) financing

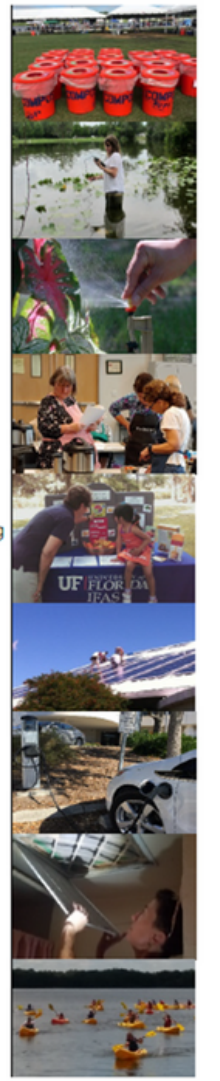
### YOUTH DEVELOPMENT 4-H

98. 4-H youth development
99. 4-H youth leadership
100. 4-H youth service learning

59. Citizen science opportunities
60. Microplastics
61. Aquifers
62. Where your drinking water comes from
63. Safe drinking water
64. Importance of drinking local
65. Freshwater wetlands
66. Nitrogen footprint
67. Irrigation best practices
68. Rain sensor maintenance
69. Drip irrigation

78. Dietary guidelines for Americans
79. Physical activity guidelines for Americans
80. Nutrition on a budget
81. Meal planning
82. Best practices for healthy snacking
83. The importance of whole grains
84. Green cleaning
85. Age-friendly: fall prevention

92. Sustainable living
93. Electric vehicles
94. Climate change
95. Indoor environmental quality of your home
96. Green building
97. Energy equity

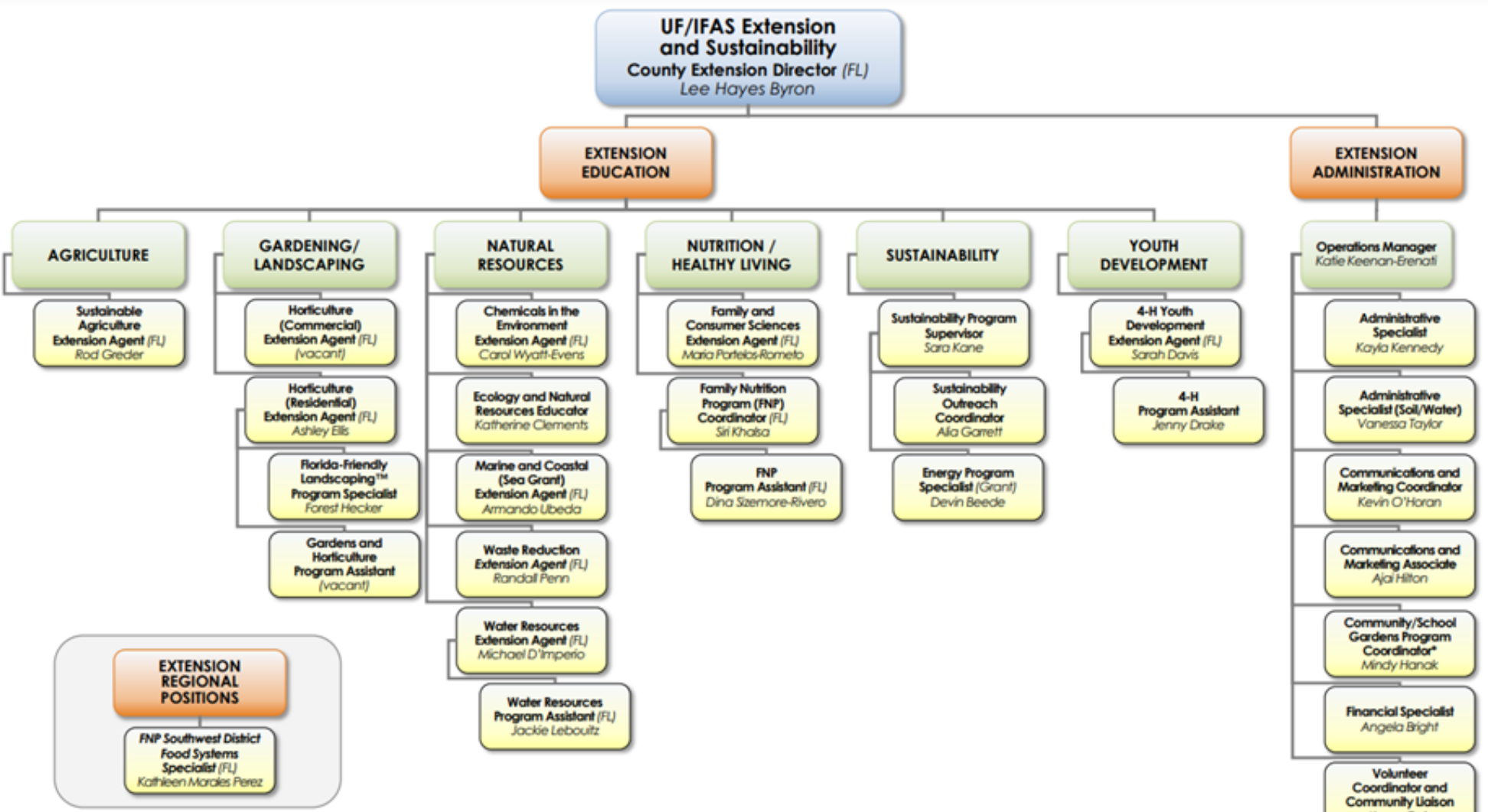


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# Sustainability



\*Reports to Administration Division, but topic/collaboration relate to Gardening/ Landscaping Program Area

28 FTEs Total (14 County FTEs; 13 State FTEs; 1 Grant FTE)

Last modified: 2023 Feb 02

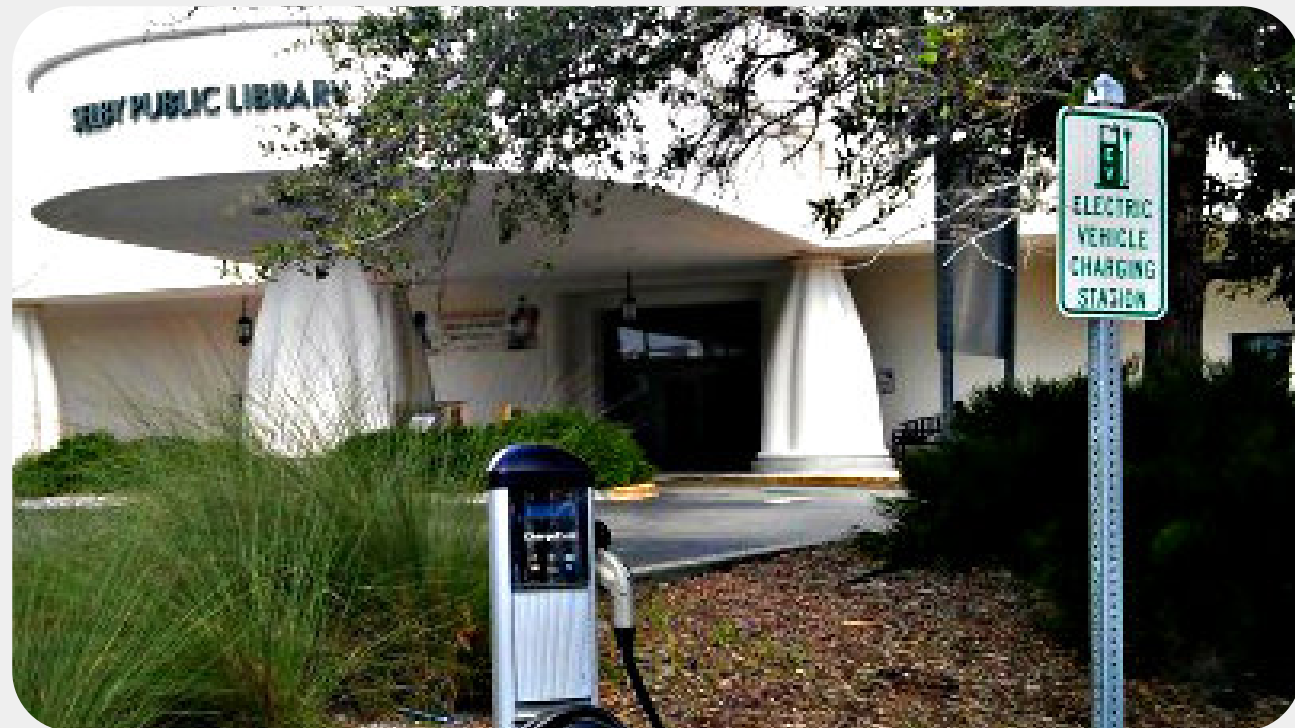
# Energy Upgrade Program



- Started in 2012 with DOE grant
- \$4 million in grant funding, primarily focused on energy efficiency and sustainable economic development
  - U.S. DOE grant
  - Sarasota Housing Authority Barancik grant
- Reached 1,500 households with Energy Upgrade program
  - Efficiency education
  - Community Outreach
  - Do-it-Yourself (DIY) Energy and Water Audit Backbacks
  - Efficiency Consultations
  - Energy Sweeps
- Delivered energy-saving devices and low-flow, WaterSense-verified products, as well as conservation education to financially challenged households, with estimated annual savings of:
  - 158,436 kWh of energy & 367,836 gallons of water
  - Roughly \$22,200 in utility bills



# ChargeUP! Rebate Program



## Rebates for EV Charging Stations

- Businesses: 25% of station cost, \$2,000 maximum
- Non-profit/ government: 50% of station cost, \$4,000 maximum

## Eligible Entities:

- Major employers (> 150 FTEs)
- Retail hubs
- Government properties
- Limited: 1st come, 1st serve
- Tourism attractions
- Hotels
- Community centers



**ChargeUP! Sarasota County**

# Green Business Partnership

- Certifies and recognizes business for sustainable operations
  - Implementation of solid waste management, water and energy conservation practices
- Evaluates performance and progress
- More than 200 businesses have earned certification





# Initiatives, Achievements & Investments Supporting Sustainability

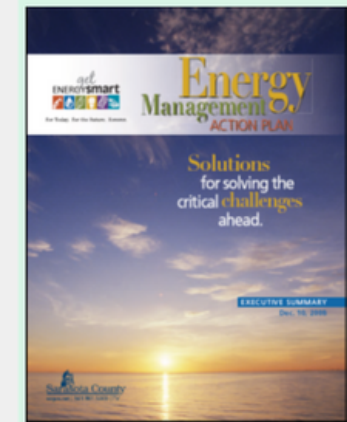


# Sarasota County's Commitment to Sustainability



## Policies and Goals:

- 2005: Green Building Resolution
  - Encourages energy efficiency with fast track permitting for certified green buildings in the community.
  - Green building certifications for new county buildings.
- 2006: 2030 Challenge Resolution  
County buildings will be designed for reduced energy use to be carbon neutral (requiring no fossil fuel energy) by 2030.
- 2008: Energy Management Action Plan Adopted  
Target of 20% reduction from 2005 energy use and fuel reduction.
- 2010: Community Energy Use & GHG Emissions Resolution  
Reduce energy use and emissions in the community.



17 green buildings have earned LEED certification by the U.S. Green Building Council (USGBC), 1 Green Globes, and more in progress.



## Energy and Water – County Buildings

- Energy performance contract to reduce energy use in county buildings
- Estimated to save over 1.4 million kWh in energy and 7.5 million gallons of water
- Solar PV at 4 county buildings



## Transportation

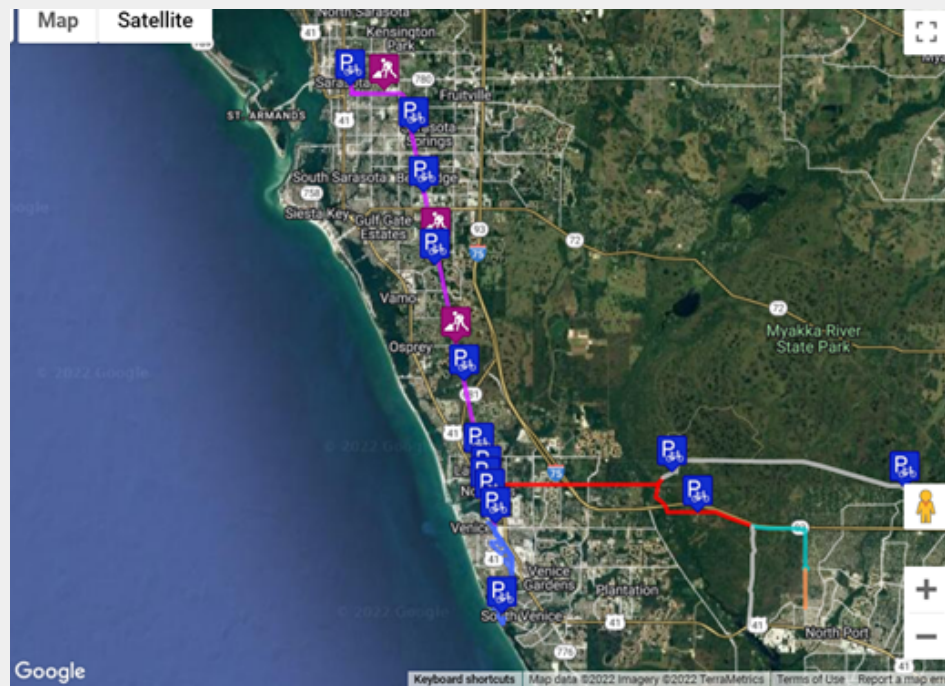
- 48 electric vehicle charging ports at 22 county locations
- Electric vehicles in fleet

# Adaptation – SLR/Resilience Planning

- Joined the Tampa Bay Regional Resilience Coalition in 2020, coordinating with cities
- Completed internal SLR Vulnerability Assessment Report in 2020
- FDEP Coastal Resilience grant – Baseline Coastal Analysis in 2021
- Awarded \$275,000 FDEP Resilient Florida Planning grant to completed a comprehensive vulnerability assessment and resilience/adaptation plan



# Legacy Trail



- 18.5-mile multi-use recreational rail trail connecting Sarasota and Venice
- Reduces greenhouse gas emissions by making the county more bicycle and pedestrian friendly (in 2022, there were nearly 650,000 users on The Legacy Trail)
- The extension enhances connectivity from North Port through Venice to downtown Sarasota, and places 48 schools within two linear miles of the trail
- The Legacy Trail network is part of both a regional (Tampa Bay Area Regional Transit Authority- TBARTA) trail network and statewide (Shared-Use Nonmotorized- SUN) trail network system
- Create nearly 30 miles of continuous non-motorized paved multi-use trail, which could become a regional connection between Manatee, Sarasota, DeSoto and Charlotte counties

# Water Conservation



**WATER SAVINGS** 

Sarasota County residents spend an average of \$850 on their water annually.

**TAKE SHORTER SHOWERS**

- Reducing your daily, 10-minute shower to just 5 minutes can save 7,300 gallons of water yearly.
- Use a low-flow showerhead for additional annual savings of 3,650 gallons!

**FIX LEAKY TOILETS**

- Leaky toilets can waste up to 200 gallons a day.
- Is your toilet running? Put a dye tablet or food coloring in your tank and wait 30 minutes. If you see color in the bowl, you have a leak.

*Pro Tip: Replacing your toilet flapper is an easy fix for most leaks.*

**WAIT TO WASH DISHES**

- Let your dishes soak in the sink or a dish tub to make cleaning easy and save 12,775 gallons annually.
- Using a dishwasher? Try running it every other day to save about 1,900 gallons a year.

**WATCH THE WEATHER, WAIT TO WATER**

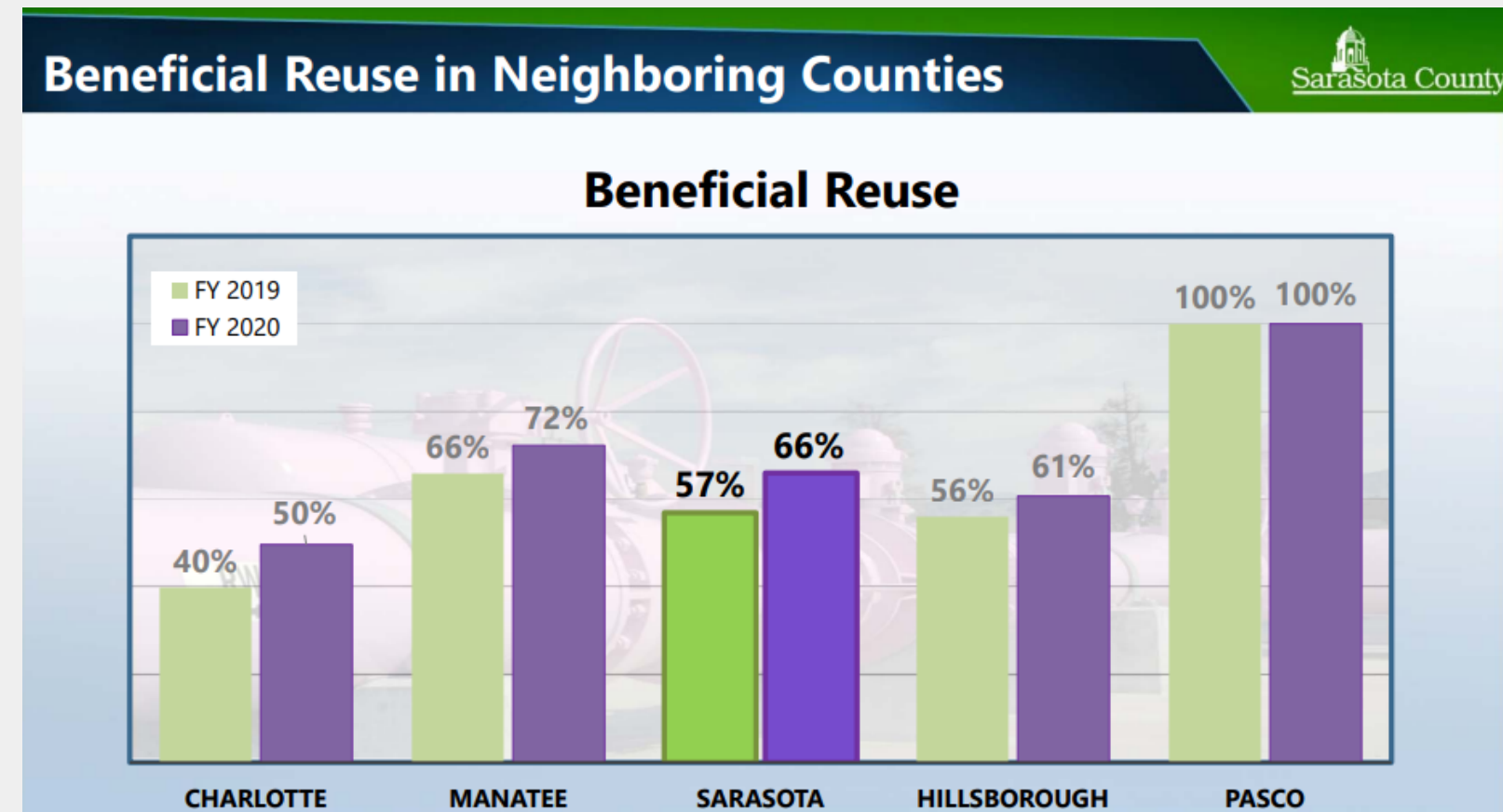
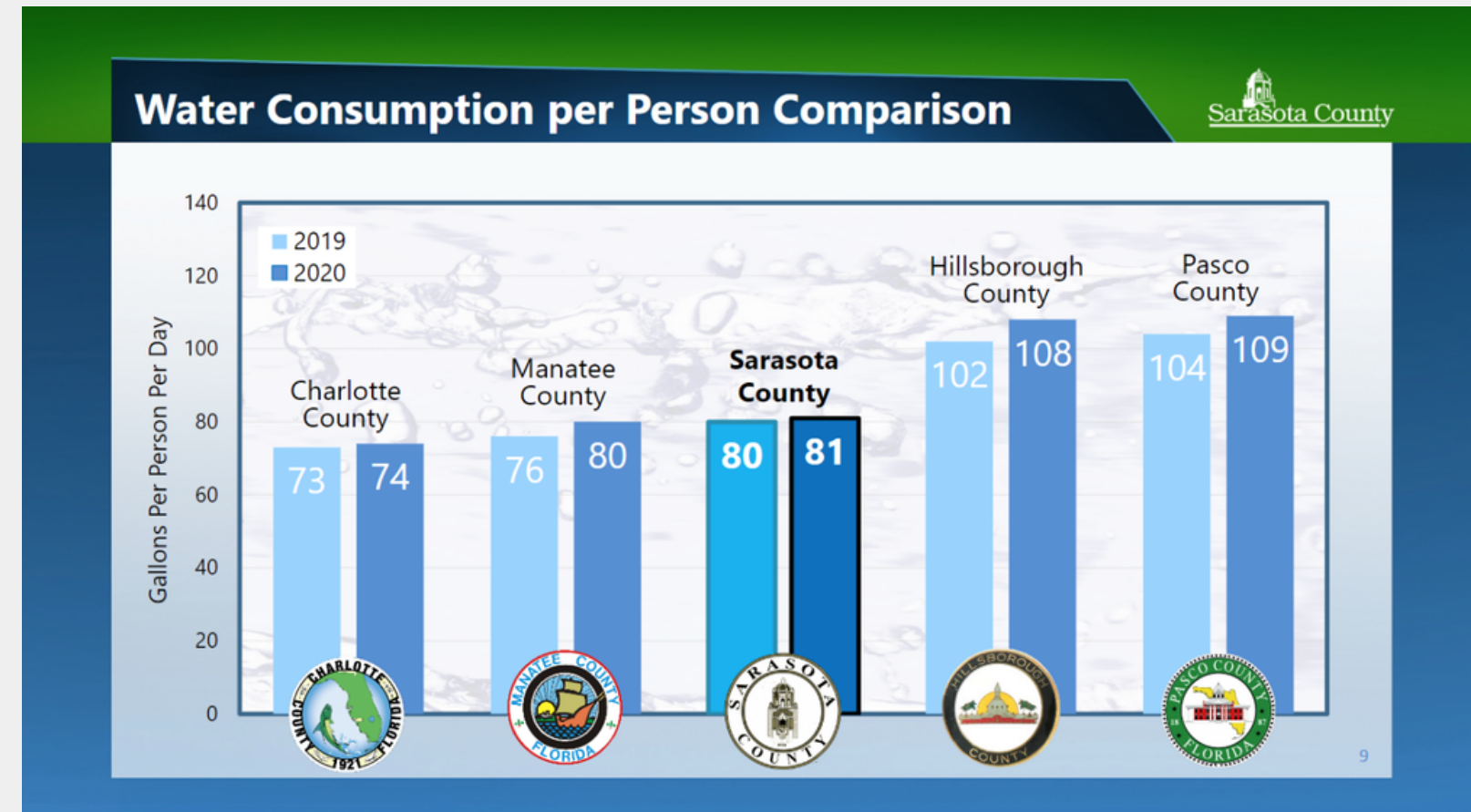
- Follow Sarasota County's irrigation restrictions and water your landscape only once per week, providing ½-¾ inch of water.
- Every week you do not irrigate your landscape will save you more than 300 gallons per 1,000 square feet.
- Skip weeks where there is a ½ inch or more of rain and during the cool weather months of January and February.

**DON'T SINK YOUR MONEY**

- Shut off the tap when brushing your teeth or shaving.
- Every minute your tap runs, you could be wasting up to 2.5 gallons of water.
- A faucet aerator can cut your use in half.



- 2001 Water Efficient Landscape Ordinance
  - focuses on irrigation system efficiency and limiting plants requiring the most supplemental irrigation
- Water Projection Tool
- Installation of Advanced Metering Infrastructure (AMI)
- Florida Water Loss Program (FWLP)
- UF IFAS Extension water conservation educational webinars



# Water Quality

Implementing policies on fertilizer and landscape management that establish a restricted season for nitrogen and phosphorus fertilizers, requirements for slow-release nitrogen fertilizers the rest of the year, a fertilizer-free zone along waterbodies.

Mandatory training for commercial fertilizer applicators and prohibition of vegetative debris in stormwater systems.

Providing education to residents, professionals and homeowner associations related to nutrient management, water pollution and conservation.

Post this information near your landscaping equipment to remind you to "do the right thing" in your landscaping practices. **START TODAY!**

## Fertilizer Do's & Don'ts:

Highlights of the code are listed here to help you make a difference in your own neighborhood in protecting and preserving our spectacular water playground.

**Landscape Example For Homes On Stormwater Ponds**

**Fertilizer-free Zone:**  
No fertilizer may be applied to impervious (non-porous) surfaces, and any spillage must be removed. Fertilizer may not be applied within 10 feet of any water body or wetland.

**Low-Maintenance Zone:**  
A six-foot low-maintenance zone of landscape plants appropriate to preventing fertilizer runoff is recommended for any water body or wetland.

**What To Look For On Your Fertilizer Label**

**% of Total N as SRN =**  
 $\frac{7}{14} \times 100 = 50\%$   
( < 50% SRN Sarasota County Req't)

**GUARANTEED ANALYSIS**

TOTAL NITROGEN (N)	14.00 %
14.45% Urea Nitrogen (N)*	
SOLUBLE POTASH (K <sub>2</sub> O)	26.00 %
SULFUR (S) Total	19.70 %
10.50% Free sulfur (S)	
9.20% Combined sulfur (S)	
IRON (Fe) Total	0.96 %
0.19% Water Soluble Iron (Fe)	
MANGANESE (Mn) Total	0.48 %
0.1% Water Soluble Manganese (Mn)	
DERIVED FROM: Polymer Coated Sulfur Coated Urea, Sulfate of Potash, Iron Oxide, Manganese Oxide.	
CHLORINE (Cl) Max	2.00%
*7.00% Slowly Available Urea Nitrogen from Polymer Coated Sulfur Coated Urea.	

**COVERAGE**  
50 pounds of 14-0-26 fertilizer covers approx. 13,000 sq ft at the application rate of one pound of potash (3.8 pounds of fertilizer) per 1,000 sq ft.

**Restricted Season**  
No fertilizer containing nitrogen or phosphorus shall be applied to turf or landscape plants between June 1-Sept. 30 of each year.

**Phosphorus Applications**  
Shall not exceed 0.25 pounds per 1,000 square feet at each application, and shall not exceed a total of 0.5 pounds per 1,000 square feet per year.

**Nitrogen Applications**  
Nitrogen fertilizer must contain at least 50 percent slow-release nitrogen. No more than four pounds of nitrogen per 1,000 square feet may be applied to turf or landscape plants each year.

NOTE: State of Florida regulations allow a maximum of 0.7 pounds of readily available (soluble) or 1 pound of total nitrogen per 1,000 square feet may be applied at any one time to turf.

**Deflector Shields**  
A deflector shield is required on all broadcast spreaders to prevent fertilizer from being applied within 10 feet of any water body or wetland.

**Grass Clippings**  
No grass clippings, vegetative material or vegetative debris may be deposited in stormwater drains, ditches, conveyances, water bodies or roadways.

**Commercial and Institutional Fertilizer Applicators**  
All applicators of fertilizer (except homeowners on their own property) must receive training and certification in a Sarasota County-approved Best Management Practices training program.

**Enforcement**  
Enforcement actions will take place through the use of county Code Enforcement procedures or civil penalties.

# Water Quality Investment & Infrastructure

## **AWT conversion project**

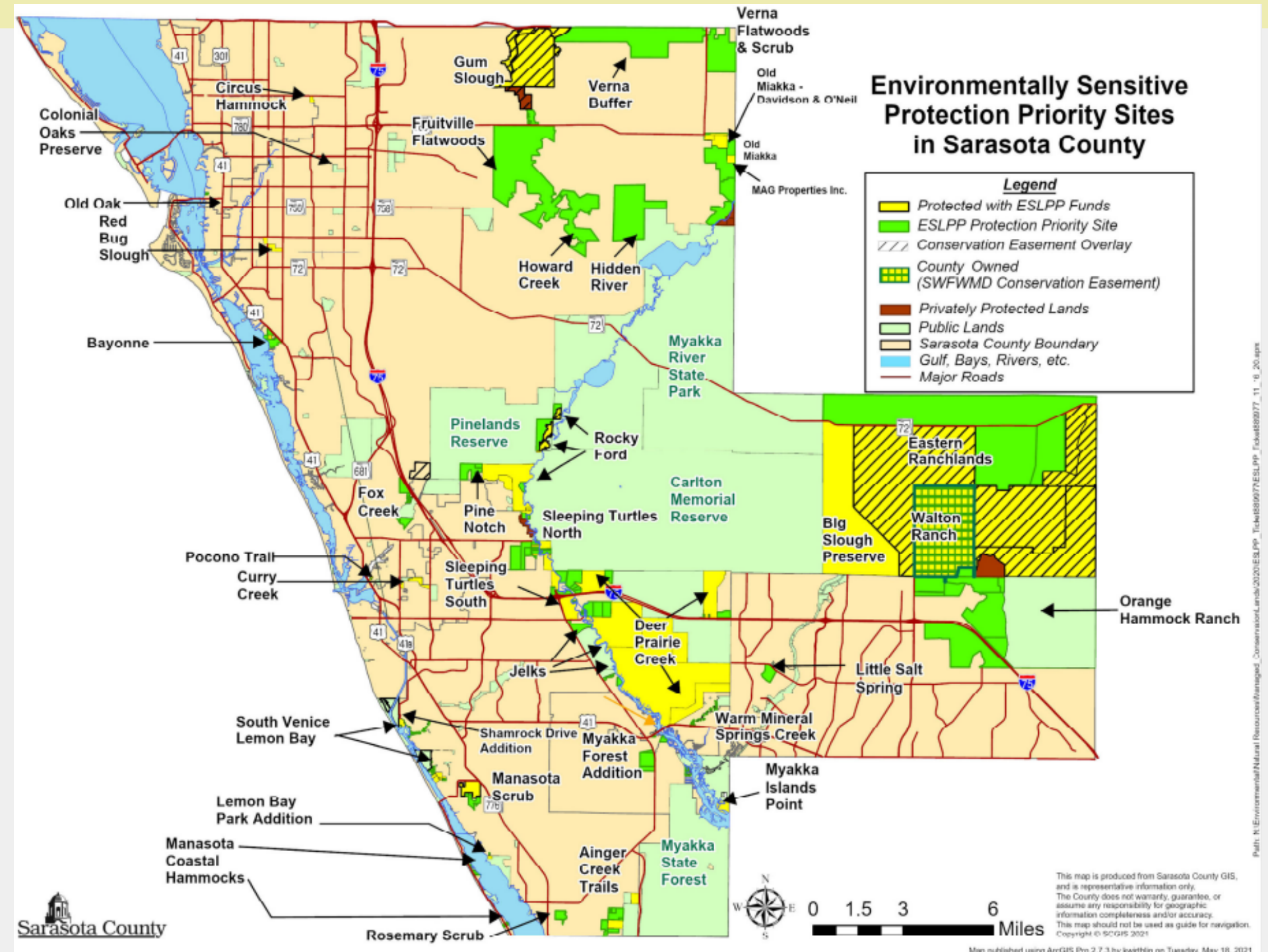
- Expand the Bee Ridge Water Reclamation Facility and convert it to Advanced Wastewater Treatment (AWT).
- Implement membrane bioreactor (MBR) treatment process.
- Expand facility capacity from 12 MGD to 18 MGD in reclaimed water.
- Reduce the level of nutrients in the reclaimed water output.
- 100% design phase in July 2022, construction is underway.



# Environmentally Sensitive Lands Protection Program

## Protected Land

- One third of Sarasota County is protected land.
- Protect 35,000 acres of land through land purchases.
- Restoration of natural habitats as well as erosion control in some of their existing parks to reduce runoff
- 39% of total jurisdictional land area is either natural resource areas and green spaces



# Canopy



**The County has monitored canopy coverage since 1975.**

- 1983 Tree Protection Code was adopted
- Sarasota County has achieved **Tree City USA** recognition every year since 1991
- 2004 and 2013, the County conducted studies to evaluate the land cover in the county (e.g., land, trees, water) using the USDA Forest Service's i-Tree Canopy program
- **Trees/shrub coverage increased over 4%+** throughout Sarasota County between 2012 and 2019 (6.3% difference within and 4.1% outside the USB)

Between Fiscal Years 2022–2024, the County will plant over **\$275,000** worth of trees throughout the community

Study Area	Cover Class	2012 Aerial (2013 Study)	2019 Aerial (2022 Study)
<b>County+</b> (within Urban Service Boundary)	Tree/Shrub	31.5%	37.8%
	Groundcover	16.1%	3.1%
	Bare Ground	22.8%	27.6%
	Impervious	17.3%	25.3%
	Water	12.3%	6.2%
<b>County+</b> (outside Urban Service Boundary)	Tree/Shrub	33.0%	37.1%
	Groundcover	36.0%	15.5%
	Bare Ground	26.5%	42.8%
	Impervious	1.6%	1.9%
	Water	2.9%	2.5%

Cover classes include:

- *Trees/shrubs* — trees, large shrubs, woody plants (provide canopy/overstory)
- *Groundcover* — small shrubs (understory), herbaceous plants, grasses
- *Bare ground* — turf (yards/golf courses), agricultural fields, dirt/exposed soil, human or livestock disturbed vegetated lands (pasture)
- *Impervious* — hard surface (e.g., roadways, sidewalks, rooftops, driveways)
- *Water* — open water surface feature (e.g., ponds, lakes, bays, canals, gulf, ditch)



# Future Sustainability Priorities

- Resilient Florida implementation project funding applications
- Water Quality initiatives
- LEED for Communities certification
- Solar assessment & expansion
- Continue to pursue grant opportunities and coordinate regionally.



A white egret stands on a rocky shore, looking towards the left. The background shows a calm blue ocean under a clear sky. In the distance, two people are visible on the rocks. The word "Questions?" is overlaid in large white text across the center of the image.

Questions?