

Venice and Sarasota Water and Restoration



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Sean Patton Qualifications

- Seven+ years wetland local restoration experience
- Founder of Stocking Savvy Environmental Consulting
- Published and current research in several fields of botany, ecology, and ichthyology
- Member of the Society of Wetland Scientists
- New College of Florida Graduate
- Majority of experience in Gulf Coast Area
- Sarasota Manatee EcoFlora Project Coordinator
- Hundreds of acres and millions of plants and animals restored into the environment
- Speaker on aquatic restoration at Environmental Summit 2018, FANN 2019, FNPS 2022 etc



Current Issues - Algae and Water Quality



- High Nutrients/Eutrophication
 - Reduced by harvesting plants
 - Lock nutrients in beneficial plant and animal communities
- Low Water Clarity
- Green Water or Harmful Algae Blooms
- Pollutants and Oils
- Runoff into Bays and Estuaries

Habitat Loss and Urbanization



- Manasota Pawpaw likely extinct locally in Sarasota
- Heat island effect
- More pests and less wildlife
- Lack of urban green space
- Long term issues with fresh food and food deserts

Invasive Species of Concern

- Black Spiny Tailed Iguana
- Sailfin Catfishes
- Brazilian Pepper
- Carrotwood
- Castor Bean
- Australian Pine
- Common Lantana
- Air Potato
- Tilapia species.
- Hydrilla



Almost all were for pet or homeowner use over 102 species introduced to Venice area.

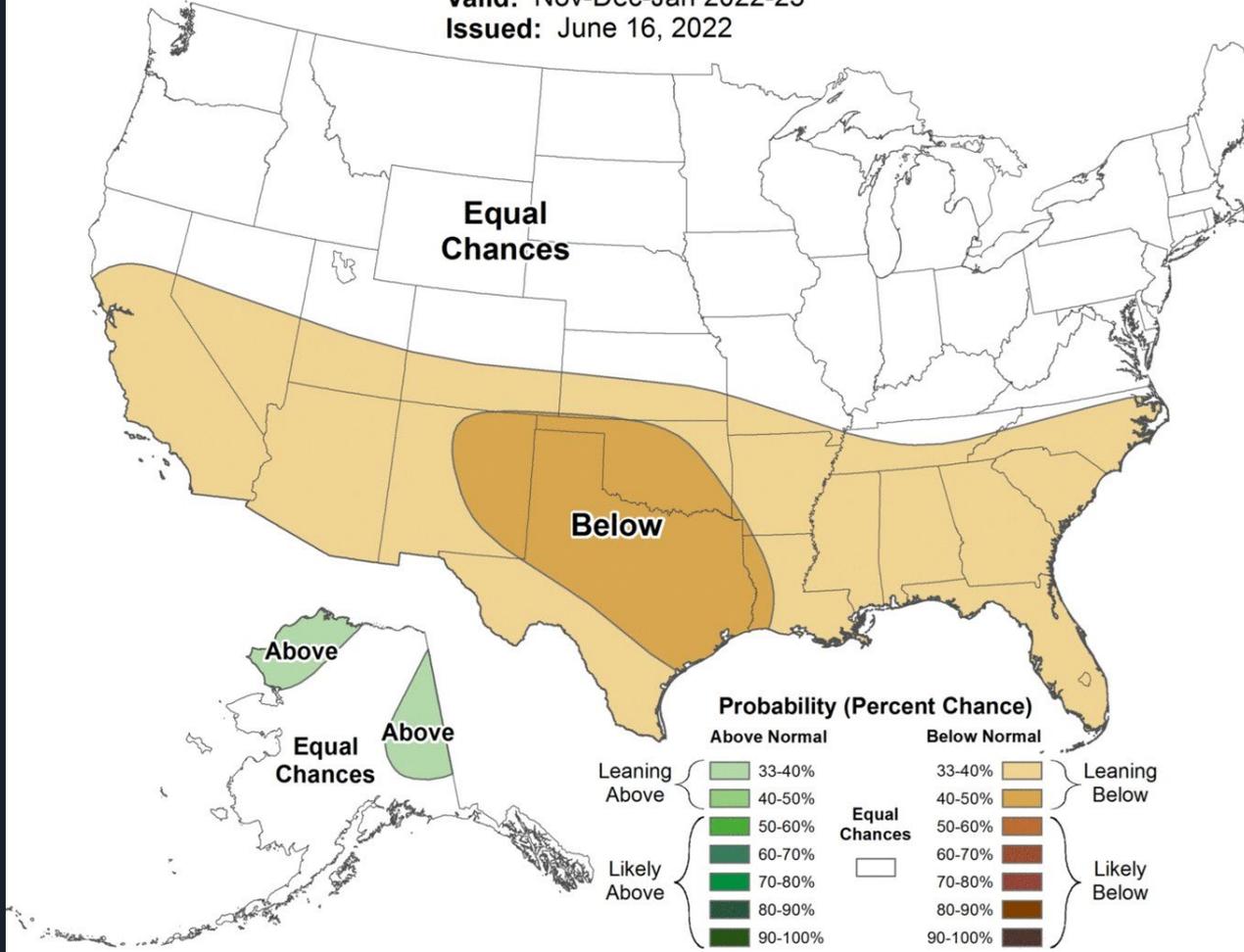


Seasonal Precipitation Outlook



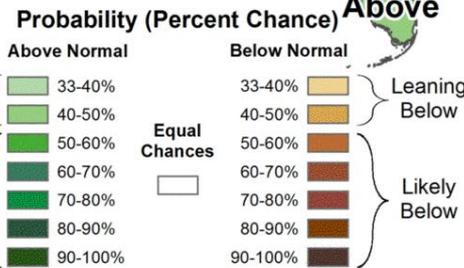
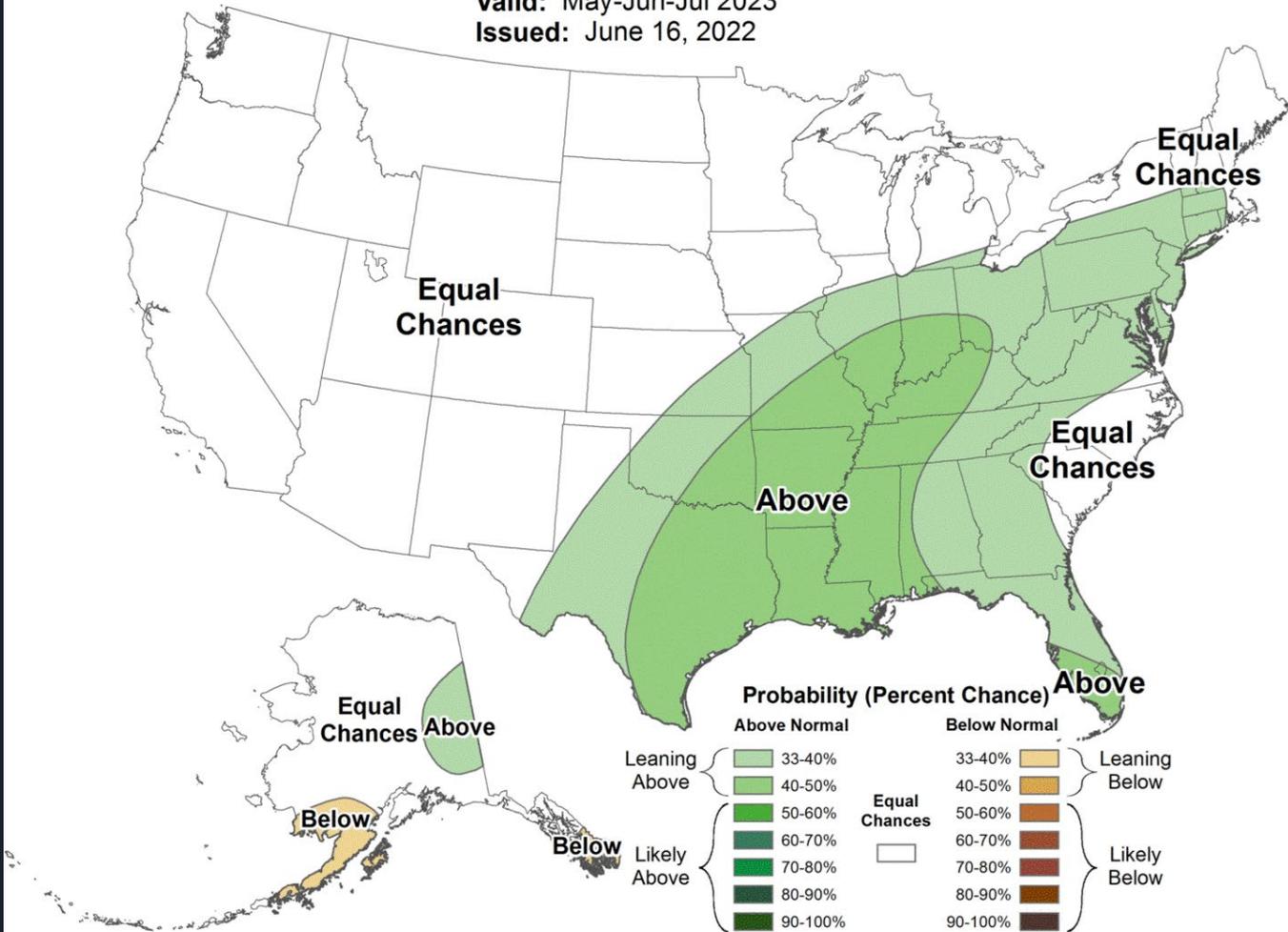
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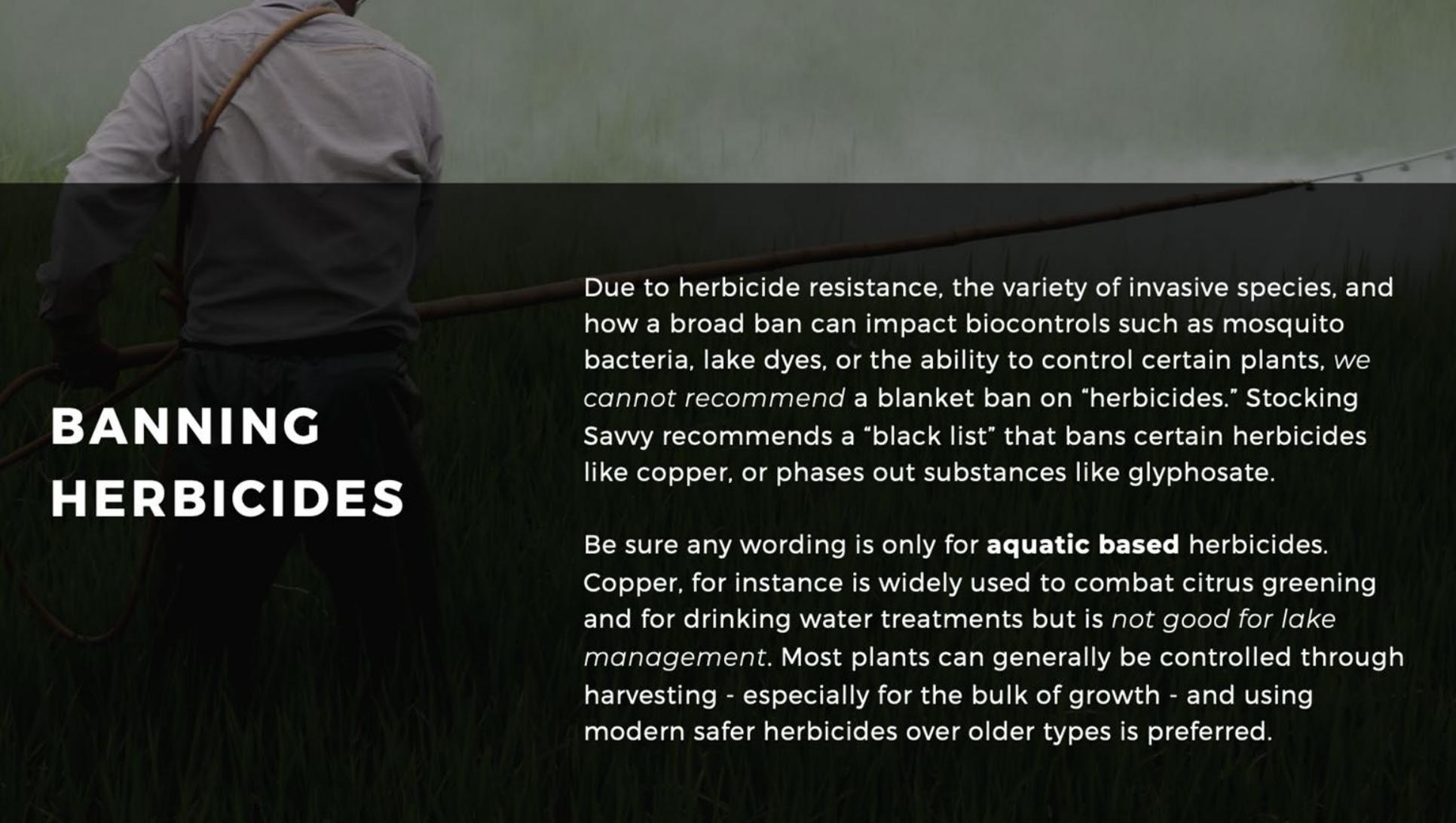
Issued: June 16, 2022



Seasonal Precipitation Outlook

Valid: May-Jun-Jul 2023
Issued: June 16, 2022





BANNING HERBICIDES

Due to herbicide resistance, the variety of invasive species, and how a broad ban can impact biocontrols such as mosquito bacteria, lake dyes, or the ability to control certain plants, *we cannot recommend* a blanket ban on “herbicides.” Stocking Savvy recommends a “black list” that bans certain herbicides like copper, or phases out substances like glyphosate.

Be sure any wording is only for **aquatic based** herbicides. Copper, for instance is widely used to combat citrus greening and for drinking water treatments but is *not good for lake management*. Most plants can generally be controlled through harvesting - especially for the bulk of growth - and using modern safer herbicides over older types is preferred.

Main Solution? Plant Native Plants Everywhere!



**BEFORE
RESTORATION ->**



**<- AFTER
RESTORATION**

**BEFORE
RESTORATION ->**



**<- AFTER
RESTORATION**

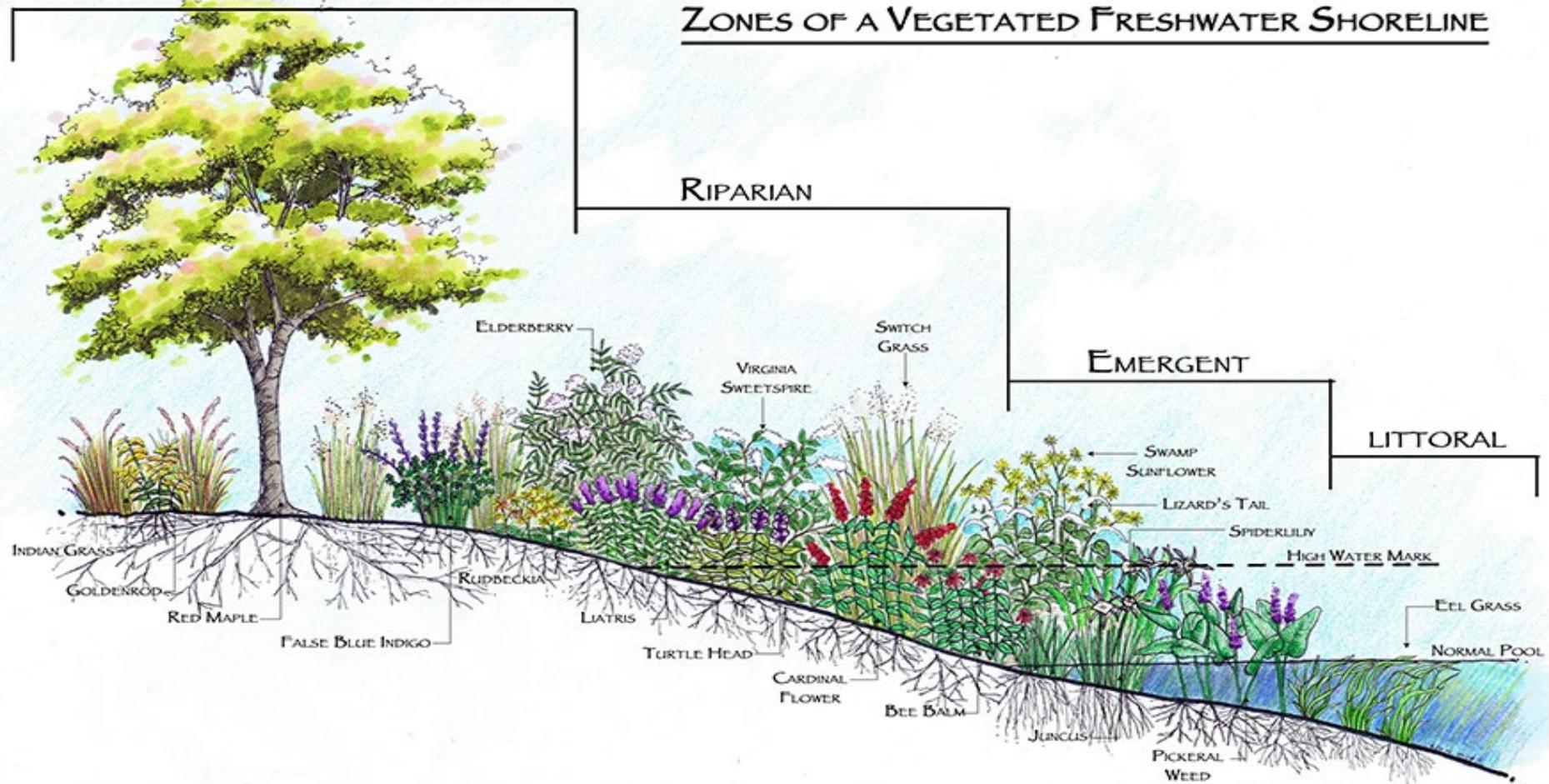
ZONES OF A VEGETATED FRESHWATER SHORELINE

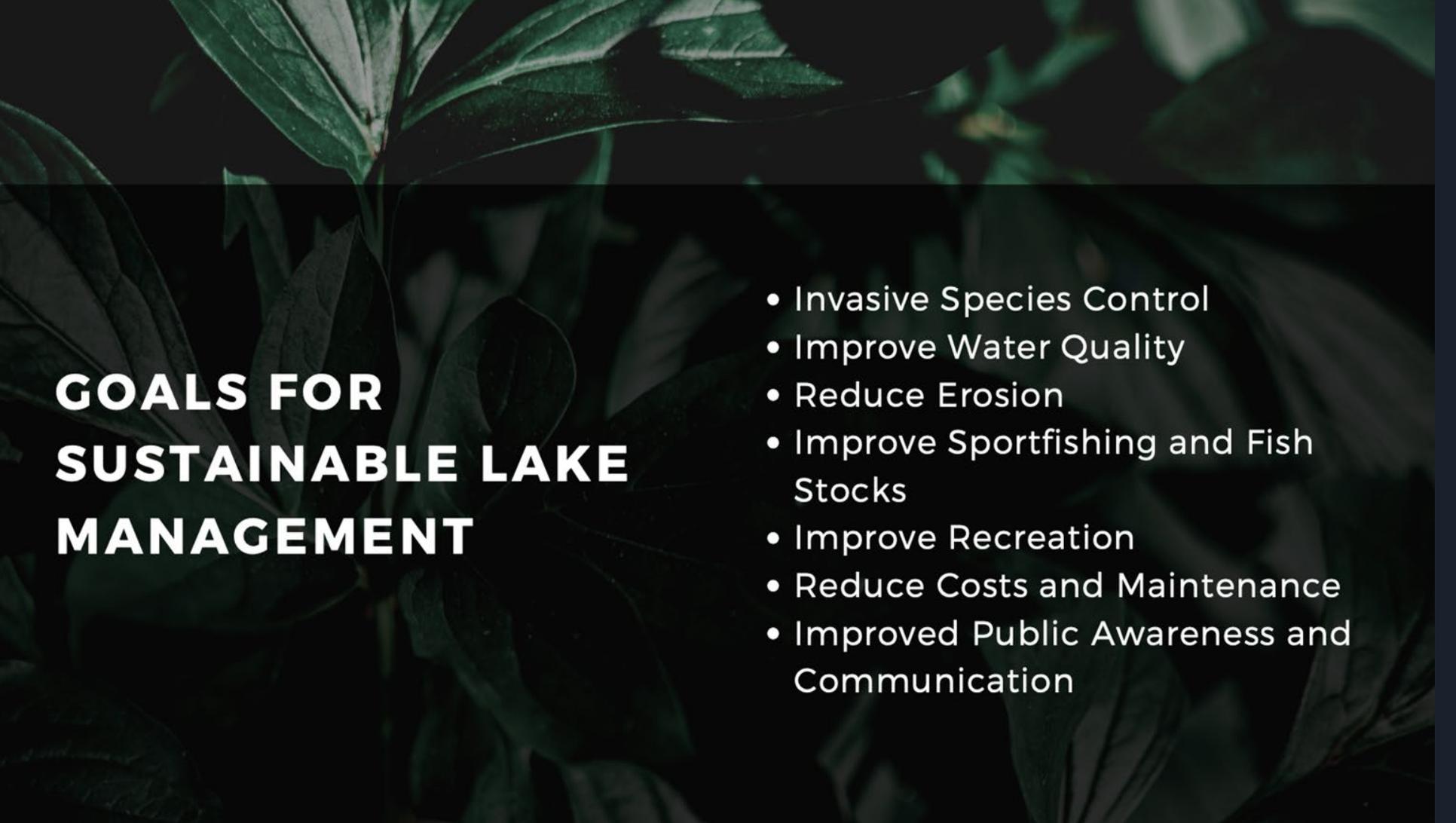
UPLAND

RIPARIAN

EMERGENT

LITTORAL





GOALS FOR SUSTAINABLE LAKE MANAGEMENT

- Invasive Species Control
- Improve Water Quality
- Reduce Erosion
- Improve Sportfishing and Fish Stocks
- Improve Recreation
- Reduce Costs and Maintenance
- Improved Public Awareness and Communication

INTEGRATED PEST MANAGEMENT (IPM)



Cultural

Prevention usually by laws and the state or community



Social

Reducing the spread of native on private land, community encouragement of native plants, education of neighbors



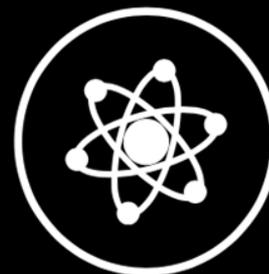
Biological Control

Using animals usually insects to seek out and target invasive species, can also be habitat structure/design to prevent invasives



Physical Control

Harvesting, hand pulling, shade cloth, any means of physical barriers or removal of invasive species



Chemical Controls

Spraying or application of herbicides, pesticides, bacterium, altering pH, and other chemical usage try to use as last resort

**CLEAN YOUR BOATS,
BOOTS, AND GEAR
BETWEEN LAKES!**



Observations



Black Spiny-tailed Iguana



Location

Go

Filters 1

Bounding Box

32
OBSERVATIONS

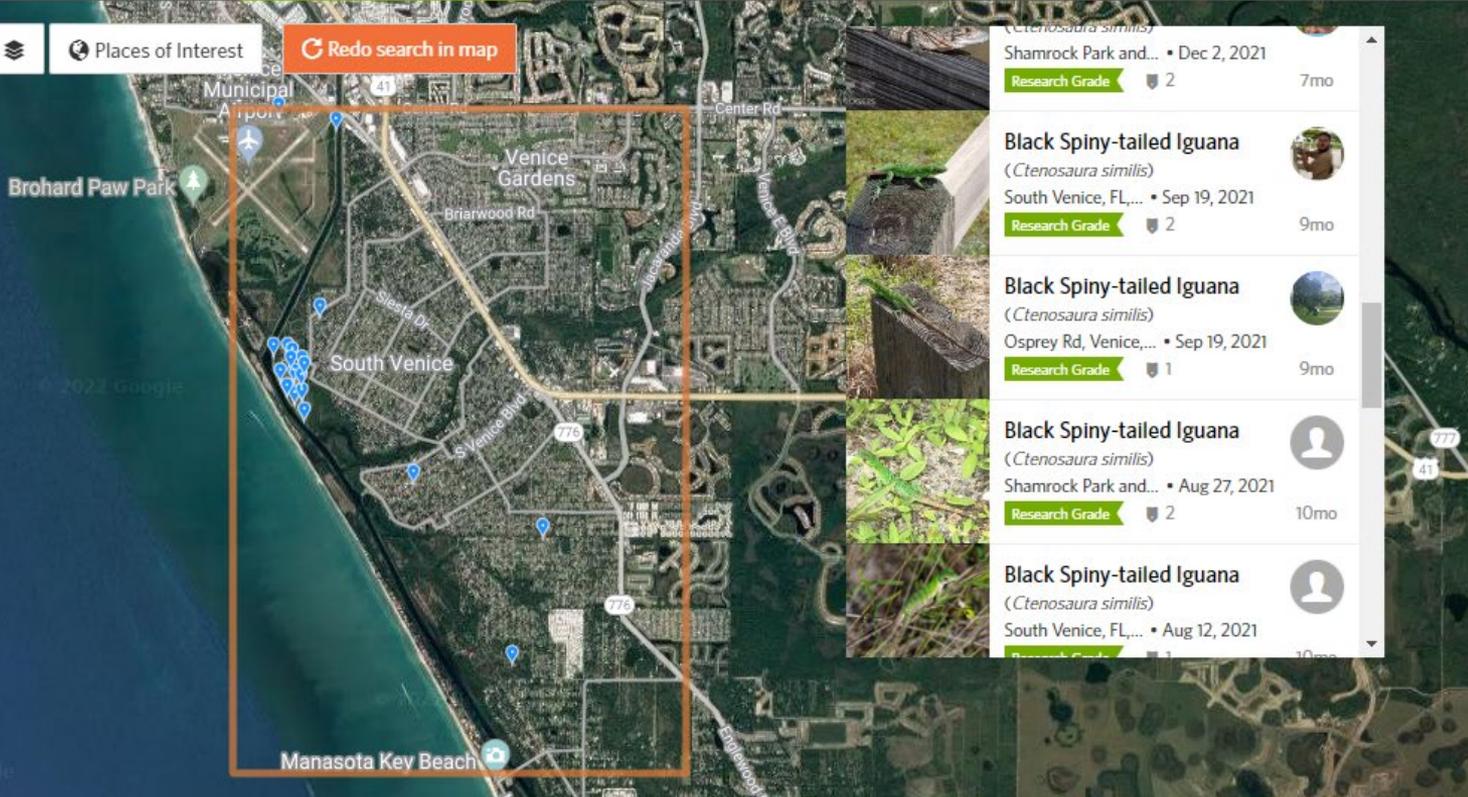
1
SPECIES

38
IDENTIFIERS

20
OBSERVERS

Map Grid List Places of Interest

Redo search in map



- Ctenosaura similis*
Shamrock Park and... • Dec 2, 2021
Research Grade 2 7mo
- Black Spiny-tailed Iguana**
(*Ctenosaura similis*)
South Venice, FL,... • Sep 19, 2021
Research Grade 2 9mo
- Black Spiny-tailed Iguana**
(*Ctenosaura similis*)
Osprey Rd, Venice,... • Sep 19, 2021
Research Grade 1 9mo
- Black Spiny-tailed Iguana**
(*Ctenosaura similis*)
Shamrock Park and... • Aug 27, 2021
Research Grade 2 10mo
- Black Spiny-tailed Iguana**
(*Ctenosaura similis*)
South Venice, FL,... • Aug 12, 2021
Research Grade 2 10mo

Map Legend

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New Green Spaces

- Floating islands
- Living rooftops
- Native Plants in all city areas
- Trees from Tree Council
- Living Walls
- Community Gardens
- FDOT Wildflower Program





Venice Recommendations

1. Only use native or edible plants in landscaping and roadsides.
2. Encourage full shoreline plantings of lakes and shallow lake banks in development.
3. Promote new green spaces or buildings with green architecture.
4. Promote Florida Statutes 373.185 protecting the use of native and drought tolerant plants.
5. Try to reduce copper herbicide use in water, even FWC is rolling much of this back.
 - a. When possible reduce all herbicide usage and use other IPM strategies first.
6. Promote higher density and preservation of rural and wild lands.
7. Promote or apply boat cleaning signs or stations near water bodies.
8. Contact pet stores and encourage surrender over release.
9. Promote or enforce pond best management practices as outlined in the Green Living Toolkit.



Thanks for Listening!

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