



This project has been funded wholly or in part by the United States Environmental Protection Agency under assistance agreement 31917 to Volusia County through an agreement/contract with the Nonpoint Source Management Program of the Florida Department of Environmental Protection. The contents of this document do not necessarily reflect the views and policies of the Environmental Protection Agency, nor does the EPA endorse trade names or recommend the use of commercial products mentioned in this document.

Low Impact Development Workshop



Katrina Locke: Green Volusia
Kelli McGee: Center for Earth Jurisprudence

Smart Growth



A VISION BASED ON THREE PRINCIPLES:

1. A CLEAN, HEALTHY ENVIRONMENT (“GREEN INFRASTRUCTURE”),
2. STRONG, LIVABLE COMMUNITIES AND
3. A STRONG ECONOMY.

Florida's Global Brand?



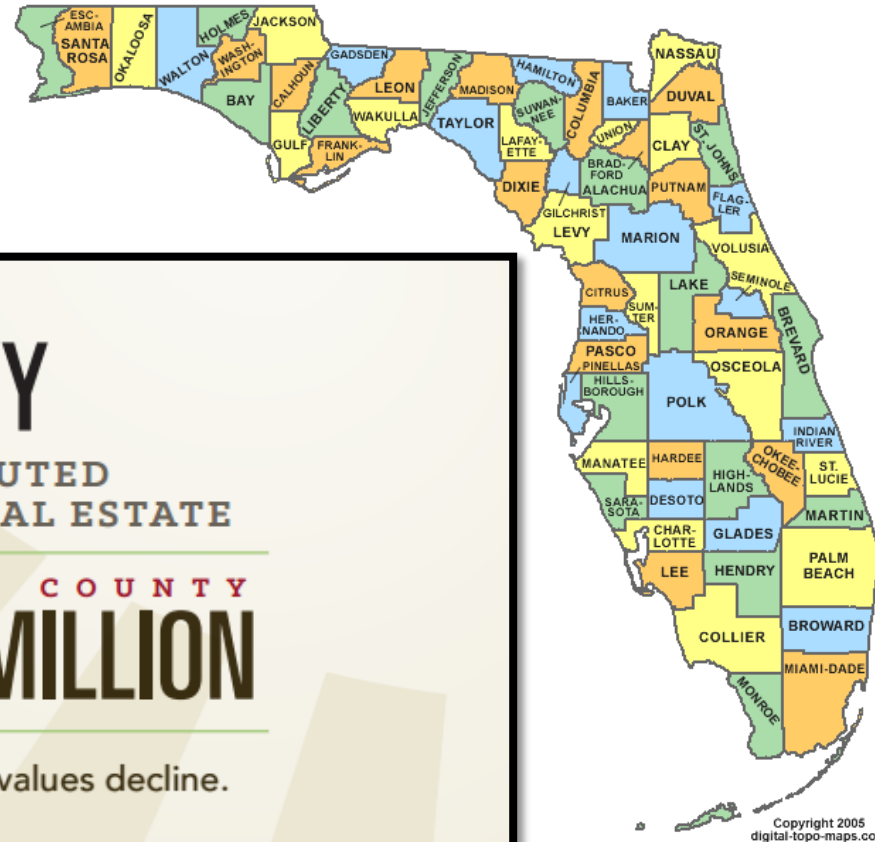


What do we want?

THE IMPACT OF WATER QUALITY ON FLORIDA'S HOME VALUES

FLORIDA REALTORS STUDY

IMPROVED WATER QUALITY
=
INCREASE IN PROPERTY VALUES



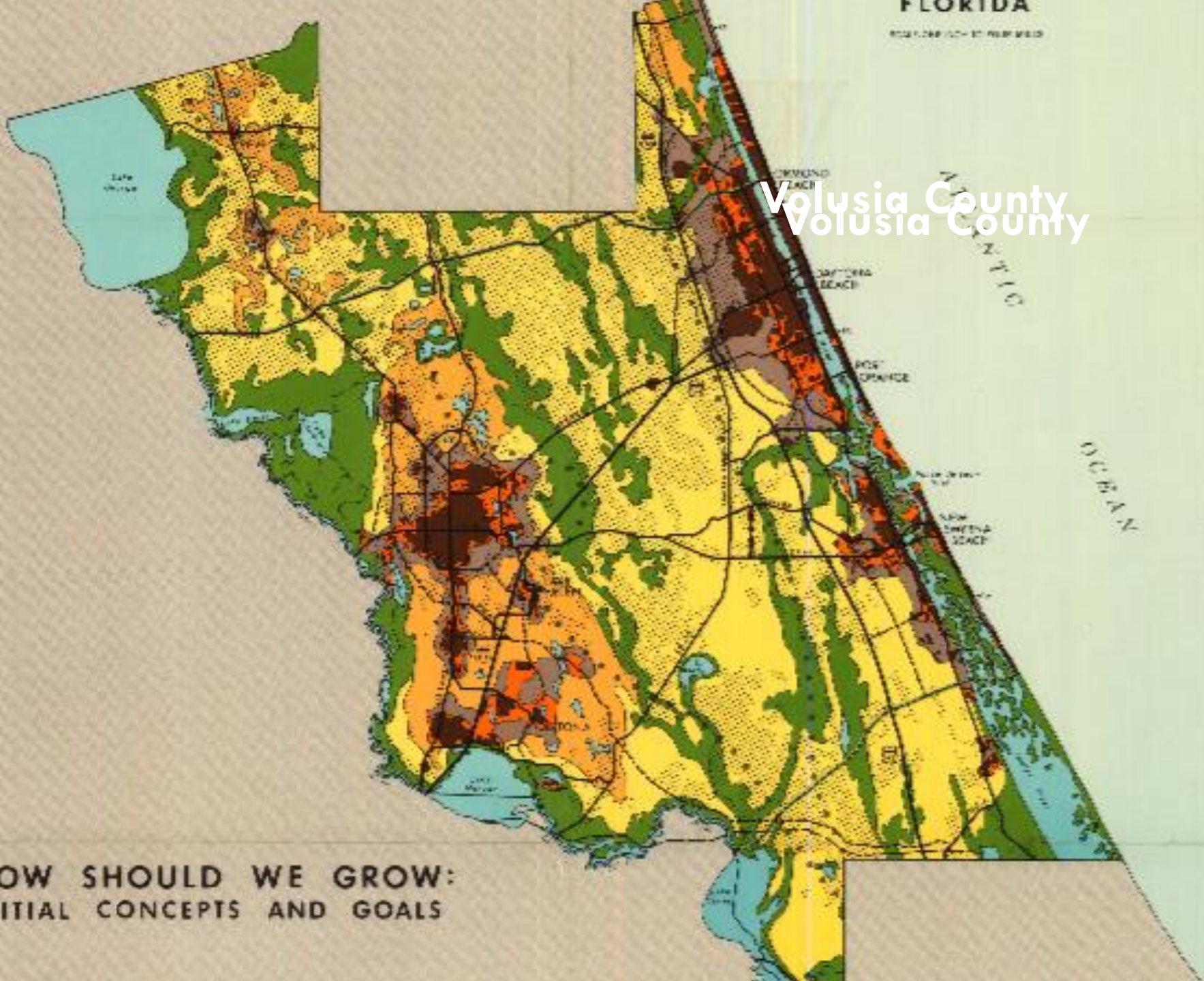
WATER STUDY
THE HIGH COST OF POLLUTED
WATER ON FLORIDA'S REAL ESTATE

LEE COUNTY	MARTIN COUNTY
\$541 MILLION	\$428 MILLION

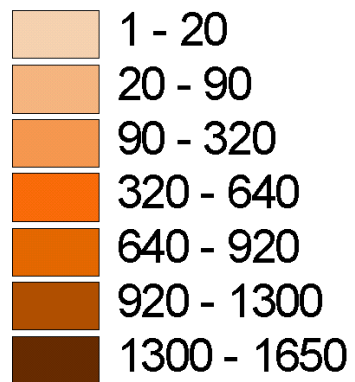
When our waterways are polluted, property values decline.
As water gets cleaner, home prices rise.

<http://www.floridarealtors.org/>

Volusia County Volusia County

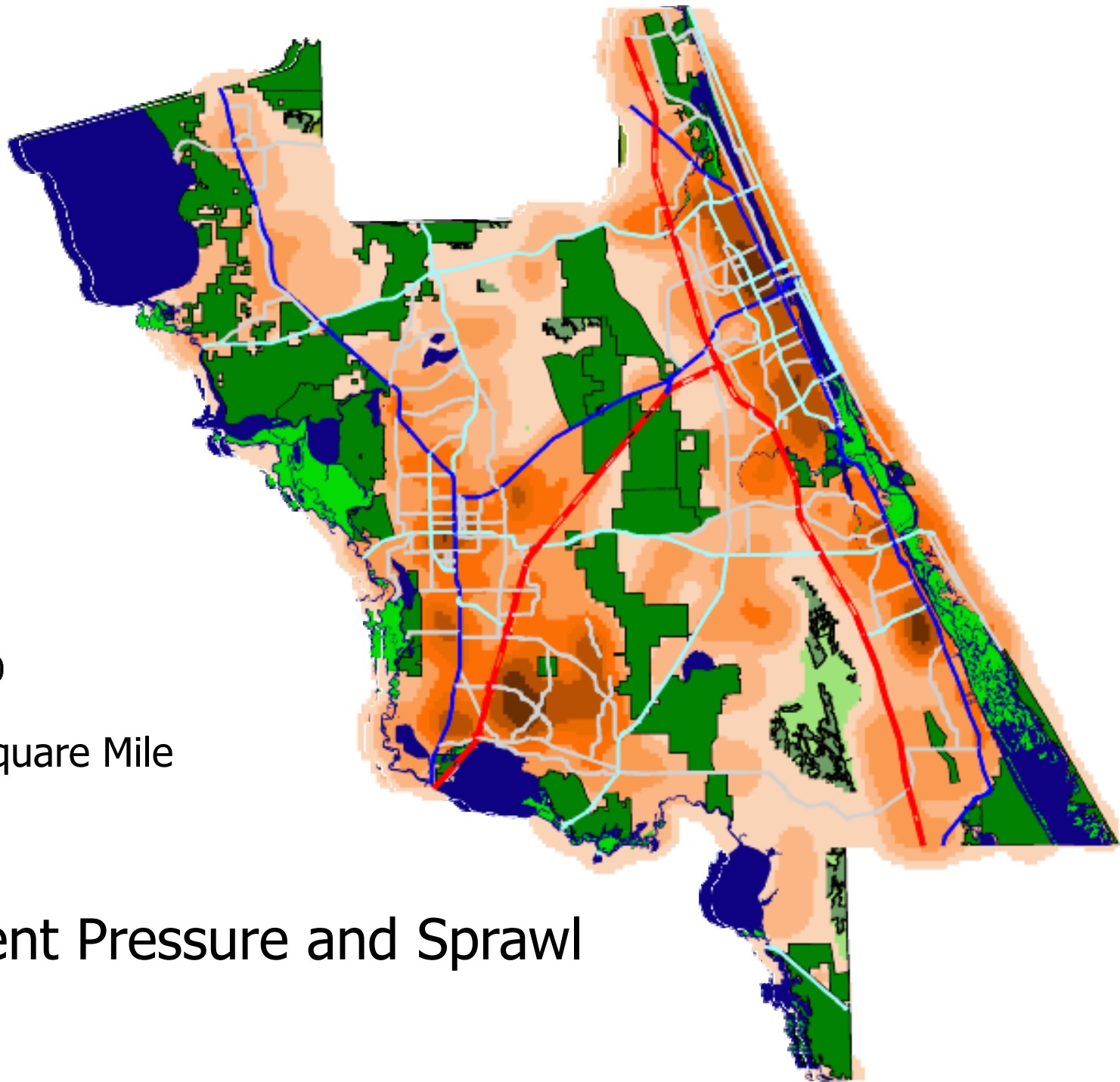


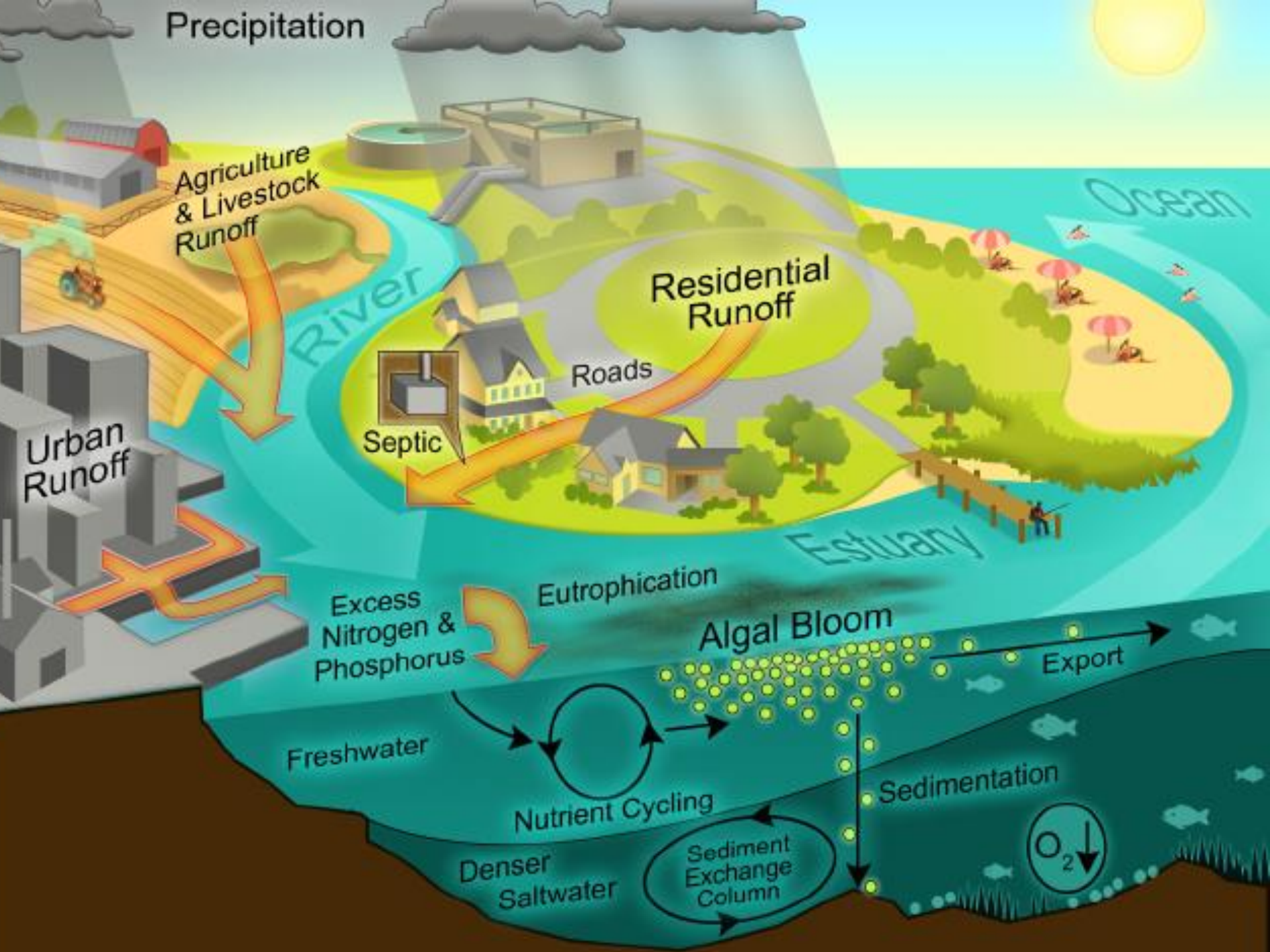
HOW SHOULD WE GROW:
INITIAL CONCEPTS AND GOALS



Houses Per Square Mile

Development Pressure and Sprawl





NUTRIENTS

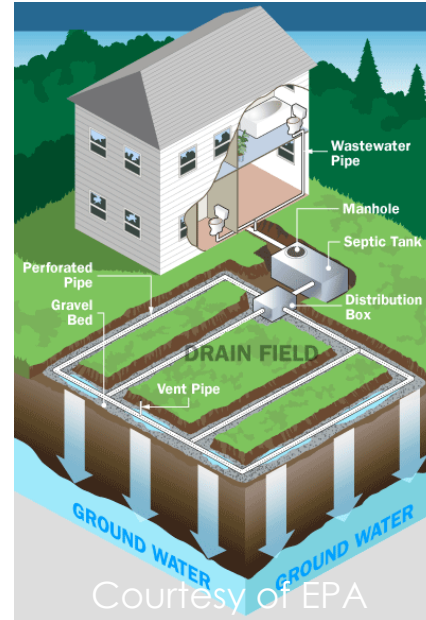
STORMWATER



WASTEWATER



SEPTIC SYSTEMS



FERTILIZER



2005 Keystone Recommendations of the Volusia Smart Growth Implementation Committee

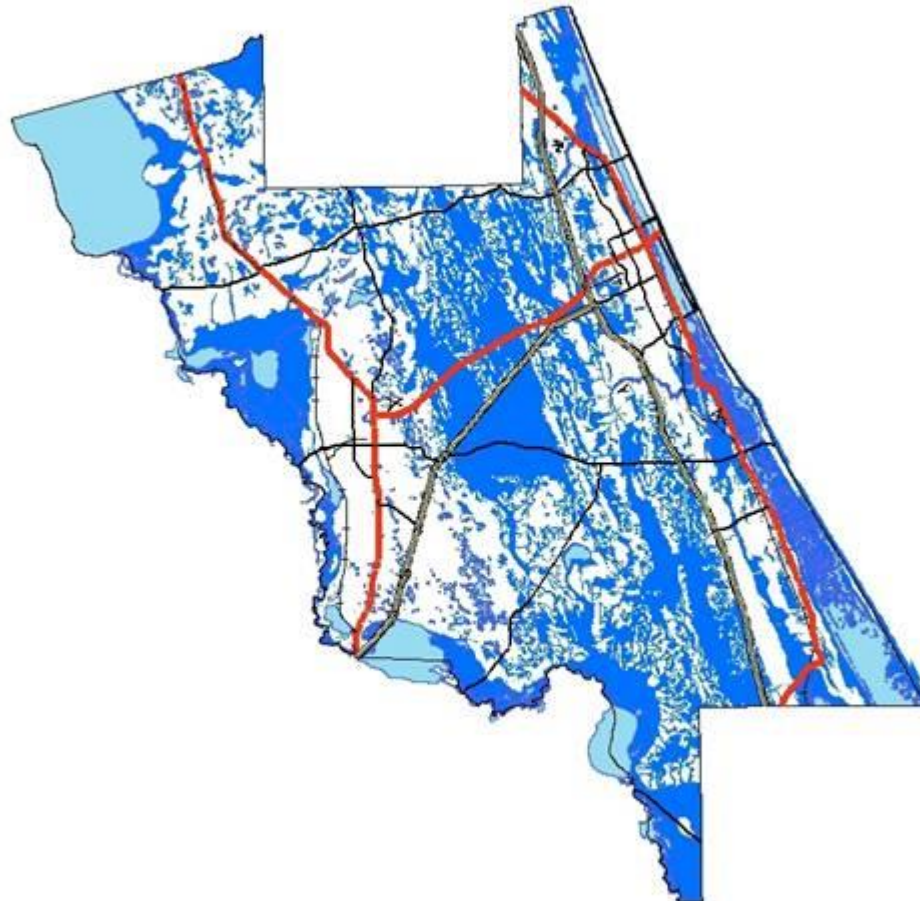
1. Protect the Environmental Core
2. Direct Development to Appropriate Locations
3. Develop vibrant, livable and sustainable urban communities
4. Ensure the continued existence of rural lands and agriculture
5. Meet the infrastructure needs of smart growth
6. Integrate Education and Smart Growth
7. Integrate Economic Development and Smart Growth

Comprehensive Plan

*Goal: To ensure that Volusia County retains an interconnected core network of environmentally important lands to help preserve the County's ecosystems into the future.**

*2005 Smart Growth Implementation Committee Final Report

FEMA Digital Flood Insurance Rate Maps Data

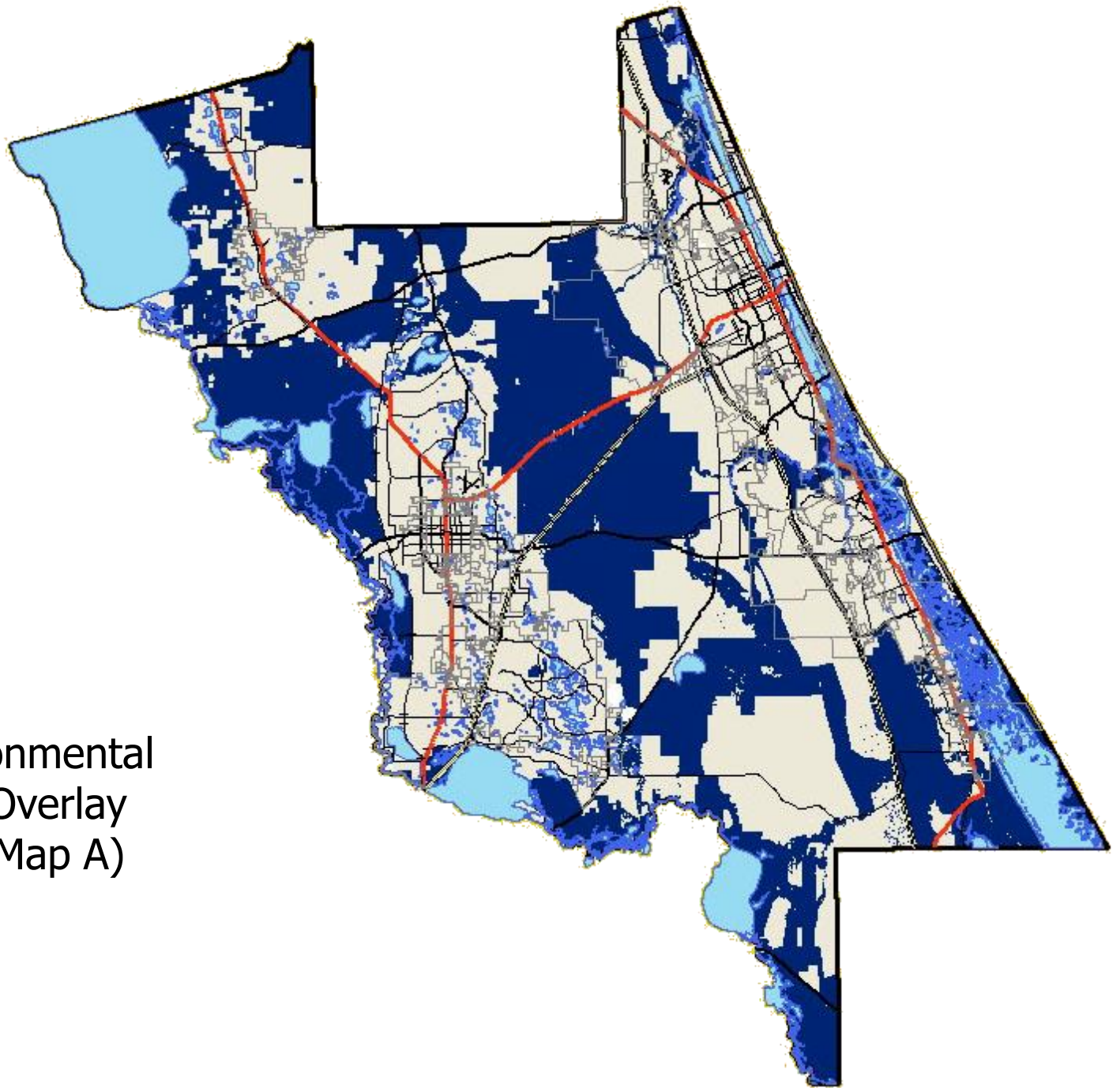


Legend

 100 Year Flood Plain



Environmental
Core Overlay
(AKA Map A)
2008

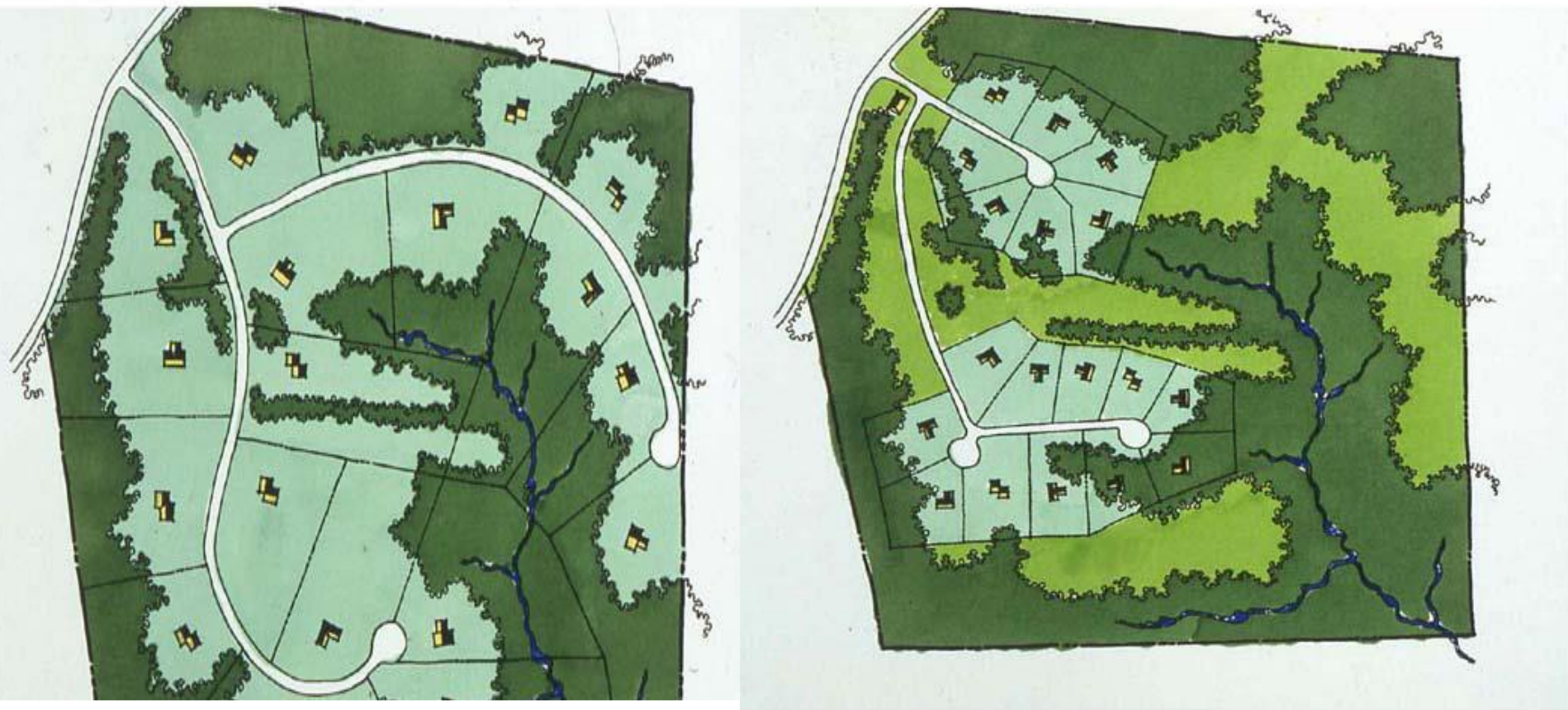


Ranchettes vs. Conservation Development

75% open space
7 units plus 1 bonus unit



Conservation design yields the same number of homes as a conventional subdivision. The difference is the layout of the homes and lots, with the conservation design resulting in greater open space preservation, less pavement and shorter distances to run utilities.



Find ways to reduce impervious parking areas associated with new development.



Water Reuse





florida

Rainwater Harvesting Initiative



**AMERICAN RAINWATER CATCHMENT
SYSTEMS ASSOCIATION**



Supplying Water To The Region



UNIVERSITY OF
SOUTH FLORIDA



What is rainwater harvesting?

- Collecting rainwater
- Storing rainwater
- Using rainwater



Where's the cistern here?

- Cistern patio

Cistern (below table and chairs) doubling as a patio. Harvested water is directed to citrus trees below on south-facing side of the cistern's mass.



HarvestingRainwater.com ©2008 Brad Lancaster



Rain Gardens



See FYN for planting suggestions.

Courtesy: ARCSA



UNIVERSITY OF
FLORIDA

IFAS EXTENSION

Florida
Yards &
Neighborhoods





Photo by: Lori Carter

Hometown News: Clean Water

Volusia County officials and others cut the ribbon for a new reclaimed water facility that is expected to help improve water quality for the springs in West Volusia.

Volusia County Sustainability Action Plan



Provide a Healthy **Economy**



Maintain a Healthy **Environment**



Promote a Healthy **Community**



Encourage Efficient **Transportation** and **Community Design**



Conserve Water and Promote **Water Efficiency**



Conserve Energy and Promote **Renewable Energy**



Reduce Waste and Promote **Recycling**

PROTECT OUR FUN.

Skip the fertilizer this summer.
And save our lagoon **for fun.**



**"SORRY BABE, BUT
FLORIDA NEEDS ME
AT THE BEACH"**

Be Floridian Now

TAKE THE SUMMER OFF FROM LAWN FERTILIZER

This summer, enjoy a day at the beach instead of polluting it with fertilizer run-off from your yard. Summer rain showers wash fertilizer into our waterways, causing toxic algae blooms and fish kills. Be Floridian Now, please don't fertilize during our rainy season from June 1 to September 30 or ask your local retailer for nitrogen-free, phosphorus-free, summer safe brands.



SUMMER OFF FROM LAWN FERTILIZER GO TO THE BEACH	SUMMER OFF FROM LAWN FERTILIZER GO TO THE BEACH	SUMMER OFF FROM LAWN FERTILIZER GO TO THE BEACH	SUMMER OFF FROM LAWN FERTILIZER GO TO THE BEACH	SUMMER OFF FROM LAWN FERTILIZER GO TO THE BEACH	SUMMER OFF FROM LAWN FERTILIZER GO TO THE BEACH	SUMMER OFF FROM LAWN FERTILIZER GO TO THE BEACH
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Befloridiannow.org

SAVING OUR WATERWAYS ONE YARD AT A TIME

BeFloridianNow.org



**By following these rules, you can keep our water,
and fun, clean!**

1. Skip the fertilizer

2. Cut the Grass

4. Right plant, Right place

3. Save the water

5. Give poison a pass

Know your watering days			
	Homes with odd numbered or no address	Homes with even numbered addresses	Nonresidential properties
Daylight Saving Time	Wednesday and Saturday	Thursday and Sunday	Tuesday and Friday
Eastern Standard Time	Saturday	Sunday	Tuesday

• Water only when needed: not between 10 a.m. and 4 p.m.
• Water for no more than one hour per zone; no more than 1" per zone.
• Restrictions apply to all water sources including private wells and pumps,
ground or surface water, and water from public and private utilities.
Restrictions will be strictly enforced beginning August 1, 2009.
For more information, visit www.vofkia.org/water.



**Protect our waterways,
skip the fertilizer!**



**ENVIRONMENTAL MANAGEMENT
194103**

Befloridiannow.org

Save Our Springs and Rivers

- LID Workshops:
September 20
November 15

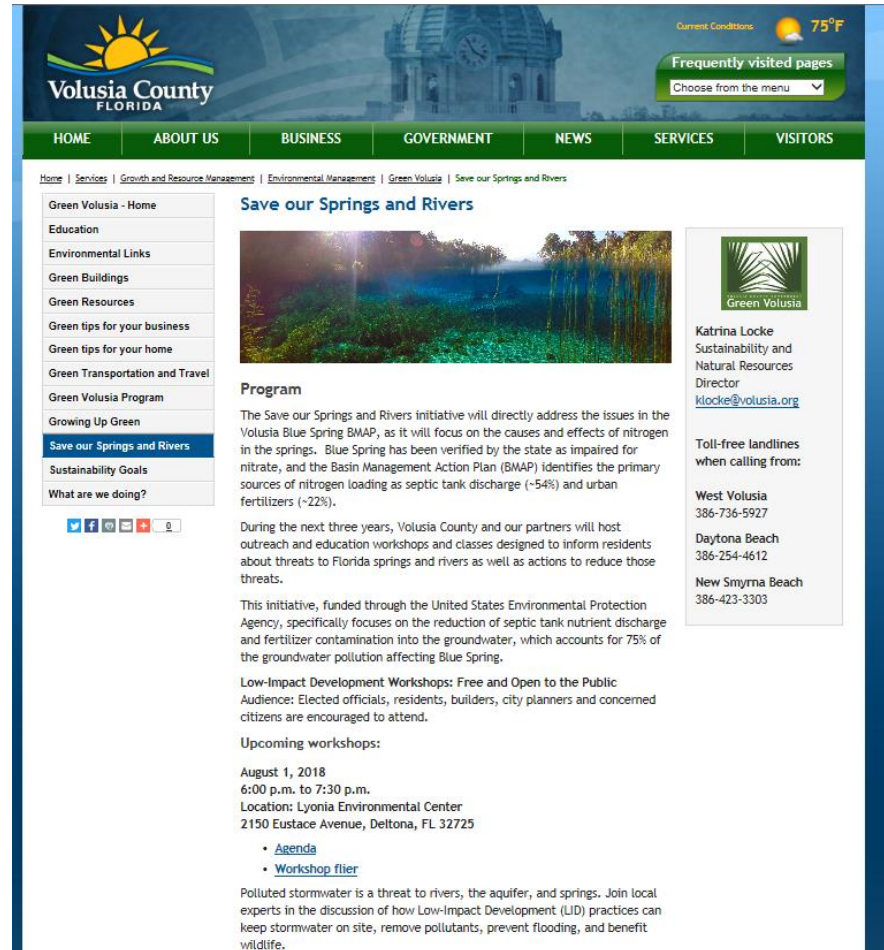
Free Event open to the Public
Low-Impact Development Workshop



August 1, 2018 6 to 7:30 p.m.
Lyonia Environmental Center - 2150 Eustace Avenue, Deltona, FL

Save Our Springs and Rivers

- Save Our Springs and Rivers Academies
 - First Academy
October 12 through
November 16, 2018
Fridays
- Community Based Social Marketing Campaign



The screenshot shows the Volusia County Florida website. The header includes the Volusia County logo, a weather widget showing 75°F, and a navigation bar with links: HOME, ABOUT US, BUSINESS, GOVERNMENT, NEWS, SERVICES, VISITORS. Below the navigation bar is a breadcrumb trail: Home | Services | Growth and Resource Management | Environmental Management | Green Volusia | Save our Springs and Rivers. The main content area is titled 'Save our Springs and Rivers' and features a large image of a spring. To the left is a sidebar menu with links: Green Volusia - Home, Education, Environmental Links, Green Buildings, Green Resources, Green tips for your business, Green tips for your home, Green Transportation and Travel, Green Volusia Program, Growing Up Green, Save our Springs and Rivers (highlighted), Sustainability Goals, and What are we doing? Below the menu are social media icons for Facebook, Twitter, YouTube, and LinkedIn. The main content area includes a 'Program' section with text about the initiative, a 'Low-Impact Development Workshops' section, and an 'Upcoming workshops' section for August 1, 2018, at the Lyonia Environmental Center. A sidebar on the right features a photo of Katrina Locke, Director of Sustainability and Natural Resources, and contact information for toll-free landlines in West Volusia, Daytona Beach, and New Smyrna Beach.

Volusia County
FLORIDA

Current Conditions 75°F

Frequently visited pages
Choose from the menu

HOME ABOUT US BUSINESS GOVERNMENT NEWS SERVICES VISITORS

Home | Services | Growth and Resource Management | Environmental Management | Green Volusia | Save our Springs and Rivers

Save our Springs and Rivers

Green Volusia - Home
Education
Environmental Links
Green Buildings
Green Resources
Green tips for your business
Green tips for your home
Green Transportation and Travel
Green Volusia Program
Growing Up Green
Save our Springs and Rivers
Sustainability Goals
What are we doing?

Save our Springs and Rivers

Program

This Save our Springs and Rivers initiative will directly address the issues in the Volusia Blue Spring BMAP, as it will focus on the causes and effects of nitrogen in the springs. Blue Spring has been verified by the state as impaired for nitrate, and the Basin Management Action Plan (BMAP) identifies the primary sources of nitrogen loading as septic tank discharge (~54%) and urban fertilizers (~22%).

During the next three years, Volusia County and our partners will host outreach and education workshops and classes designed to inform residents about threats to Florida springs and rivers as well as actions to reduce those threats.

This initiative, funded through the United States Environmental Protection Agency, specifically focuses on the reduction of septic tank nutrient discharge and fertilizer contamination into the groundwater, which accounts for 75% of the groundwater pollution affecting Blue Spring.

Low-Impact Development Workshops: Free and Open to the Public
Audience: Elected officials, residents, builders, city planners and concerned citizens are encouraged to attend.

Upcoming workshops:

August 1, 2018
6:00 p.m. to 7:30 p.m.
Location: Lyonia Environmental Center
2150 Eustace Avenue, Deltona, FL 32725

- [Agenda](#)
- [Workshop flier](#)

Polluted stormwater is a threat to rivers, the aquifer, and springs. Join local experts in the discussion of how Low-Impact Development (LID) practices can keep stormwater on site, remove pollutants, prevent flooding, and benefit wildlife.

Katrina Locke
Sustainability and
Natural Resources
Director
klocke@volusia.org

Toll-free landlines
when calling from:

West Volusia
386-736-5927

Daytona Beach
386-254-4612

New Smyrna Beach
386-423-3303

