

Ideas for Enhancing Charlotte County's Management of Our Exceptional Estuaries, Waterways and Water Quality – Now

South Manasota Sandpiper Key Association

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Introduction

- Authors' motivation
 - Disclaimers
 - Sources
- Agenda:
 - Premises > 5 Elements of Water Quality program > 10 Actions
 - Please hold questions until the end
 - Discussion

Paper available online <http://www.ecopapak.org/wq/ideas.htm>

Underlying Principles

(1) The health of our estuaries is an economic and lifestyle necessity

- Where most of our fish are born and raised,
- Where wildlife thrives,
- Where locals and tourists recreate
- Where we derive much of our aesthetic enjoyment
- Local marine and seafood industries and tourism rely heavily on healthy estuaries.
- Value of our waterfront property is dependent on pristine waterways



Underlying Principles

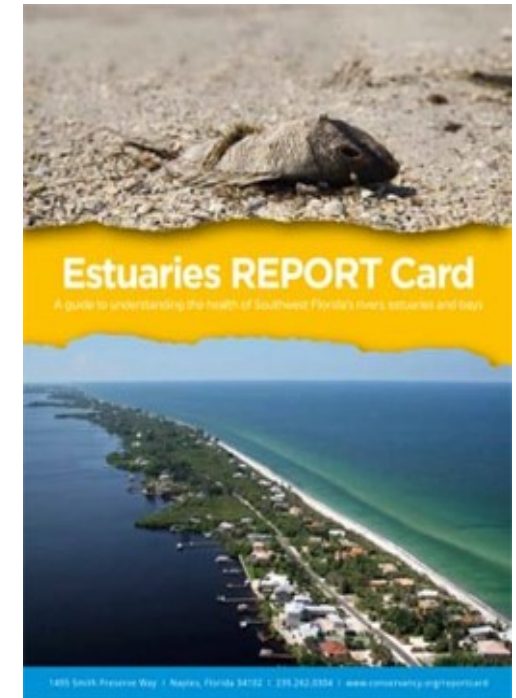
(2) We have a water quality crisis in the making

Evidence of Impairment

- Conservancy of Southwest Florida 2017 Estuary Report Card
- CHNEP 2018 water quality status reports
- November 2018, FDEP State's Impaired Waters Rule Draft Assessment
- Filamentous algae blooms

Fish resiliency

Lesson of Indian River Lagoon



Underlying Principles

(3) We know the basic causes and solutions to our water quality problems

Causes: Excess nutrients from human activities

- **Wastewater and stormwater runoff**
- **Climate change** also contributes to harmful algae blooms
 - via warming waters
 - intensifying rainfall

The **solutions** to estuary water quality problems:

- **monitor and report** nutrient levels in all waterways
- **manage wastewater and stormwater** to keep nutrients below prescribed levels
- Reverse global warming

Underlying Principles

(4) Insufficient local capabilities to manage the health of our waterways

Structure

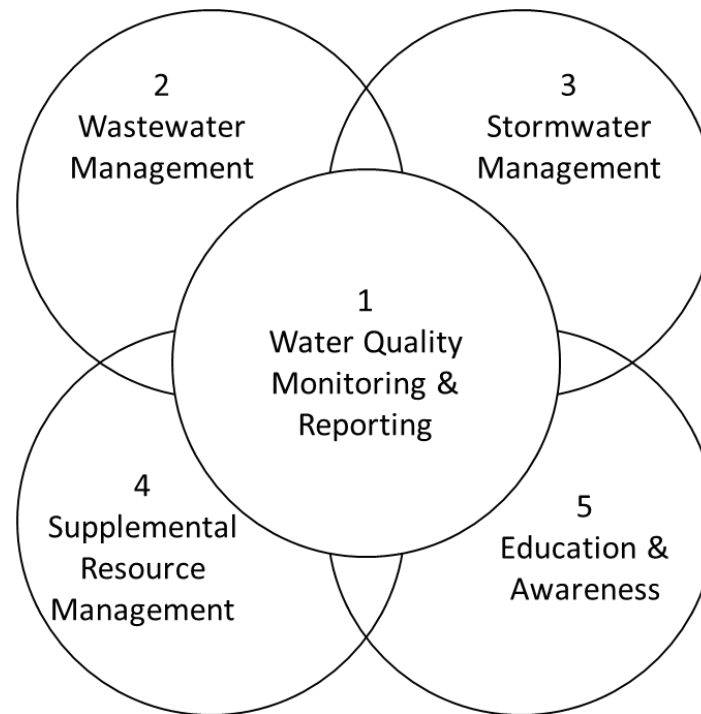
- County organization separates water quality responsibilities into two departments: Utilities, concerned with wastewater treatment, and Public Works, concerned with stormwater management.
- Nowhere in the county government is there a mission to safeguard the estuaries. Nobody is assigned responsibility for managing the health of our estuaries or adjoining waterways

Process

Suffering from two important unheeded recommendations:

- 2015 offer by the CHNEP to help expand water quality monitoring
- 2016 study by Florida Atlantic University recommended that the county do 2 things:
 - manage water quality to meet state standards and
 - create a comprehensive water quality monitoring and reporting program.

Effective management of our waterways and water quality requires five essential elements



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Suggested actions

(1) Acknowledge publicly that we have water quality problems in the county

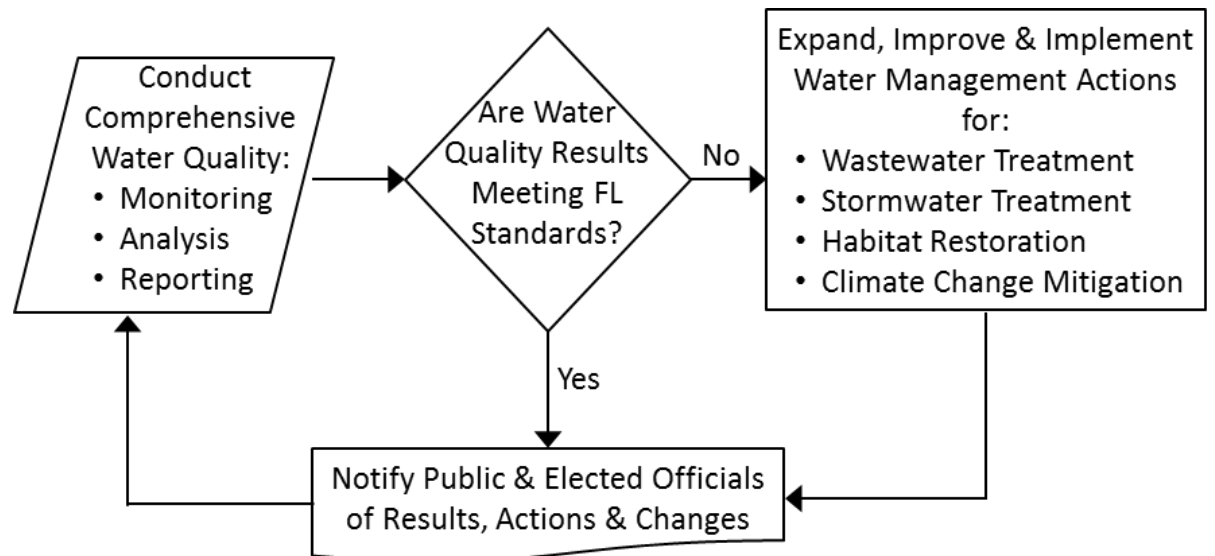
Three-part public statement:

Ethical
responsibility

- 1) Describe our estuary water quality problems and their harmful impacts on our economy and lifestyles
- 2) Explain the relevant history of the county's awareness of our water quality problems
- 3) Commit the county to creating a comprehensive and effective program with a mission to restore our estuaries and waterways to state water quality standards, and then preserve the waterways for the long-term community and economic good

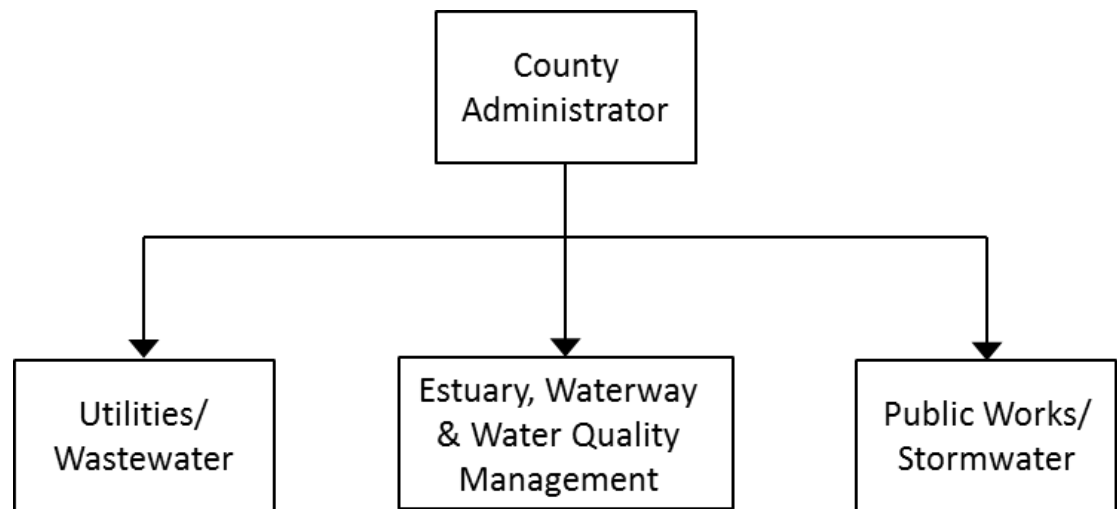
Suggested Action (2) Manage local waters to meet state water quality standards

- Use existing state water quality standards as our local water quality goals
- Science, data-based decision process
- Leads us to achieving our healthy, sustainable estuaries



Suggested action (3) Create an overall county waterways and water quality management function

- New office mission = to restore our estuaries and waterways to state water quality standards, and then preserve the waterways for the long-term community and economic good.
- Must be given the adequate authority, expertise, resources and support needed to achieve this mission



Suggested Action (4) Create a broad county water quality monitoring and reporting program

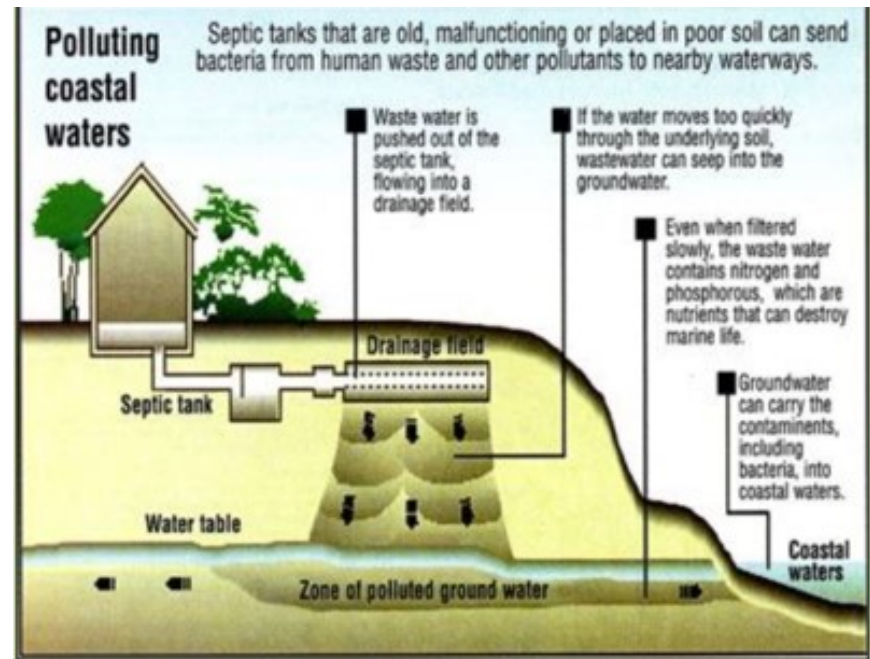
- Central element needed to effectively manage our estuaries, waterways and water quality (data/science based process – driven by state standards)
- Collect from **all our waterways, analyze, interpret, evaluate and report** representative water quality data to decisions makers and the public so that it can be used to direct management actions towards the priority locations and problems needed to protect and restore waterways
- In house, outsource options

Suggested Action (5) Focus county efforts on removing high nutrients from wastewater and stormwater

- Primary sources of pollutants
- Whatever it takes to achieve standards in the estuaries and other waterways
- The recommended comprehensive monitoring and reporting program can be used to measure the success of these projects at meeting water quality standards
- Retrofit existing infrastructure and forward thinking planning future development

Wastewater Management

- Replace septic systems— on an accelerated schedule.
- Assure wastewater treatment facility discharges to our waterways meet water quality standards (leaks, resiliency)
- Upgrade treatment of reclaimed water before it can be used on residences, golf courses, and other lands where it can run off and pollute waterways



Stormwater management

- Hold and infiltrate runoff
- Agriculture - capture, store and clean runoff from fields, pasture, feed lots and buildings
- Impending development, NOW is the time to ACT



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Suggested Actions (6 - 10)

- (6) Initiate a variety of county complementary resource management programs
- (7) Pursue county actions to adapt to and mitigate climate change
- (8) Create a county education and awareness campaign for water resource issues
- (9) Engage with strategic allies and partners
- (10) Manage county organizational change with the help of consultants

Let's Sum it up

- Charlotte County has a water-dependent economy and lifestyle – which is threatened by our estuary being at a tipping point.
- The county government has not assumed responsibility for overall water quality. We have neither the structure or processes in place to manage and safeguard the estuaries and adjoining waterways. Change is needed.
- Suggested changes:
 - Take responsibility. Create function in the county government with mission of restoring our estuaries and waterways to state WQ standards and then preserve the waterways for the long-term community and economic good.
 - Manage to achieve state water quality standards using 5 essential program elements
- NOW

Questions, Discussion

Important audience

- Citizens
- Elected officials
- Staff

Discussion >> Actions

