

A large, stylized graphic in the background features a yellow sun with rays on the left, partially overlapping a light green leaf on the right. Below the leaf is a light blue, curved shape that resembles a water drop or a wave. The text is centered over this graphic.

One Water Town Hall Meeting

January 31, 2024



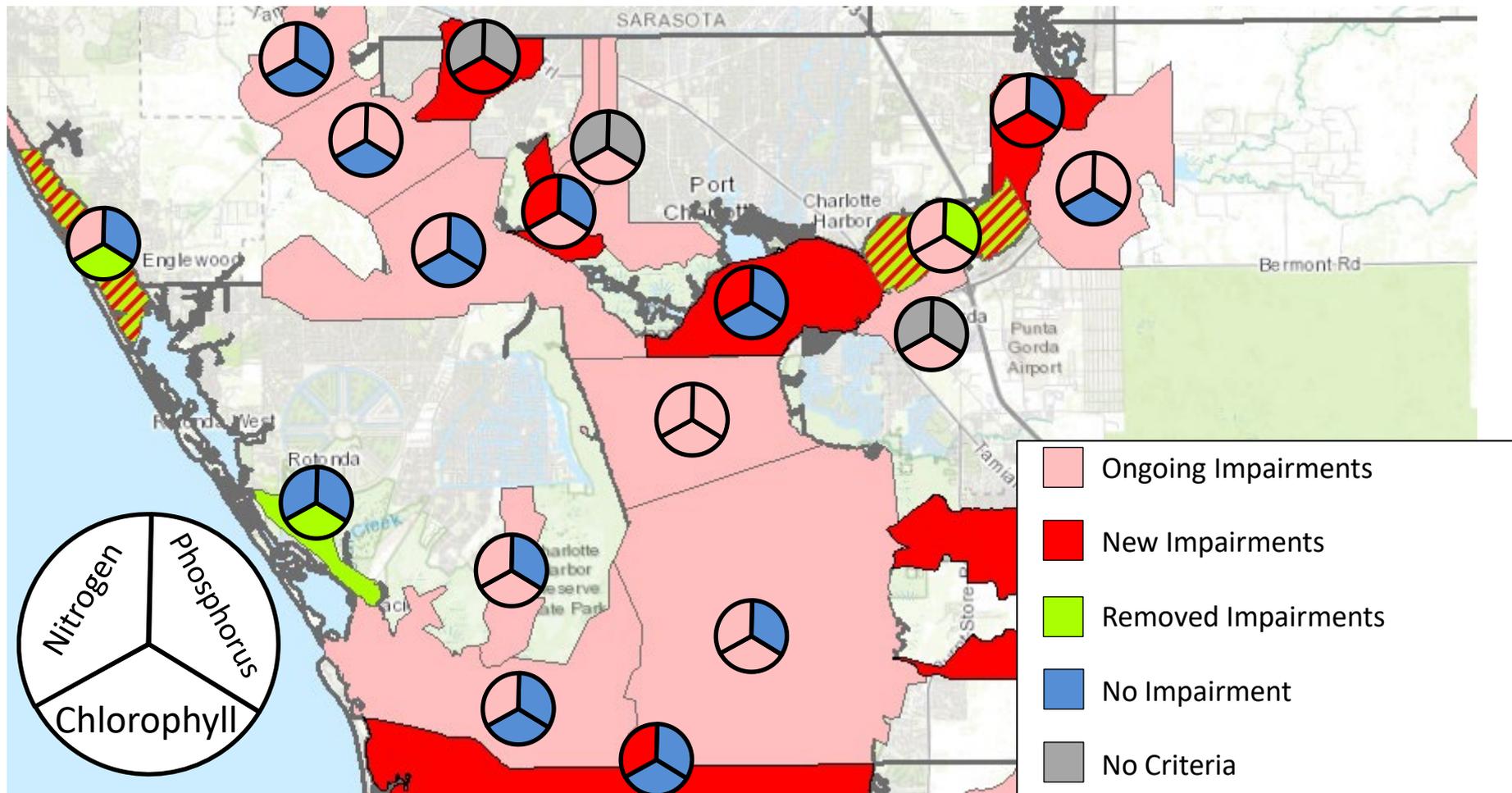
Welcome!

Thank You!

Why Are We Here?



We need to work towards addressing issues of the present....



Our Goals Today

- Overview of Charlotte County water activities- What we do now and why we do it
- Intro our future planning efforts
- Getting your feedback: What should we prioritize, where are our gaps
- Start the foundation of the Water 101 page

A Couple of Notes

- **IMPORTANT:** This is not the only opportunity for feedback
- Presentations, Polls, and Feedback will be posted online
- Future workshops will allow for feedback on draft plan



A Couple of Elephants

1. Yet another plan? Where and when will there be action?

- Some action is being taken now, but more is needed. Plans guide those actions
- This is directed in our Commissioners' Strategic Plan
- Plans highlight priorities and justify funding (both internal AND external)
- To stay competitive for grants, WE NEED PLANS

2. What about everyone upstream that affects our water?

- There are efforts underway to figure that out (more on that later)
- This is not just a Charlotte County issue and burden- this involves a consortium of people

3. Why are Punta Gorda/other local authorities not presenting? Where are they?

- This is a plan to drive county activities for which we have authority
- The city has their own plan and priorities, and we work with them when needed to support each other's initiatives



Menti: Our Communications Tool For Today

Go to

www.menti.com

Enter the code

2639 7864



Or use QR code



The Road to Today's Town Hall

Communication Outreach & Education	Support for Water Dependent Businesses	Legislation	Technology and Innovation	Restoration Projects	Improvement Projects	Testing and Monitoring
Mailers in Water Bills	Best Practices Certification	Create County Water Czar/Consortium	Utilize Public Broadcast Announcement TV/Radio/PR	Oyster & Shellfish restoration	WWTP Improvements, Advanced Wastewater Treatment	A lot more WQ (fill Gaps e.g. representative canals & other waterways)
Charlotte County Water Manager	During times of Red Tide, remove dead fish before they hit beaches	Code Regulations (FL Natives) for increased buffering on H2O ways	Partnerships & regionalization of sampling and treatment	Retrofit canals for treatment in addition to convenience	Septic to Sewer	Citizen Science group to expand where we are monitoring
Educate New Residents	Incentivize upgrading old infrastructure	Extending Conservation Charlotte with increased focus on lands that protect / improve water quality	Real time monitoring (e.g. continuous)	Streamline the permitting process	Increase pumpouts ability for boats	more transparent water budget where water comes from & where it goes
Develop Marketing Strategies		State Legislation allowing local gov't to regulate boat anchoring		Land acquisition for preservation	whole community pay for septic to sewer	Expand Grizzle-Fig for entire state
Tallahassee TAPS as a Resource		update local ords. to incentivize Low Impact Development practices		Seagrass restoration/ protection (especially pole & troll zones)	DOT Master Planning - look for opportunities for hydrologic restoration	Target monitoring (ex: end of canals) permanent stations & regular sampling
		update local ords. with stronger regulations on new development				Figure out how to get meaningful results from the data
		No fertilizer on store shelves during wet season- Bans				
		tax incentive for Florida Friendly Landscaping & living shorelines				



The Road to Today's Town Hall

STRATEGIC PLAN

BOLD GOAL:

Implement One Charlotte, One
Water Plan in FY24



STRATEGIC INITIATIVES:

- Inventory & spatially map current efforts
- Countywide water quality monitoring program
- Review/refine water quality monitoring program
- Develop online data reporting tools
- Create partnerships and plan impactful projects
- Identify priority projects & funding



What is One Water?

A holistic approach to water Charlotte County takes to ensure its policies and practices contribute to the long-term health, enjoyment, and availability of our water.

It treats all water – our harbor, rivers, bays, canals, creeks, potable water, wastewater, stormwater, reclaimed water, flood water – as one water.

A large, stylized graphic in the background features a yellow sun with rays and three green leaves of varying shades, all set against a white background. The sun is positioned behind the leaves, and the leaves are arranged in a fan-like pattern.

Water Policy and Planning in Charlotte County



History of the County

- Predominantly pre-platted between Land Booms of the 1920's and 1950's
- Over 200,000 platted lots
 - Mostly residential
 - Other minimal uses, less than 5% of the County set aside for non-residential/non-agricultural uses

History of the County

- Majority of platting done by General Development Corporation (GDC), though areas like Deep Creek, Punta Gorda Isles, and Rotonda done by others
- Originally swampy farmland

NOW OFFERED NATIONALLY

WATERFRONT HOMESITES IN PORT CHARLOTTE

On Florida's Lovely
Southeast Coast

only \$10 down \$25 a month SALE PRICE \$2950

LIMITED NUMBER AVAILABLE




Enjoy boating on the Peace and Manatee Rivers, Charlotte Harbor, and the Gulf of Mexico.



Port Charlotte's broad, sandy beach. Enjoy barbeque outdoors year-round. Aerial view of Port Charlotte.

Now, to meet public demand for desirable waterfront homesites on terms the average American family can afford, the Mackle Company and General Development Corporation have applied the famous Mackle Plan to a choice waterfront area in Port Charlotte, Florida.

As a result, you can now buy a big, luxurious 80' x 125' waterfront homesite located on a deep, navigable waterway in the thriving, progressive community of Port Charlotte, for only \$10 down and \$25 a month, which includes 5% interest.

Here, more than 1,500 families are already making full use of three modern shopping centers, two bathing beaches, a fine golf course, a community center, parks, playground and fishing pier. A branch of the Sheriff's office provides 24-hour police protection. Daily door-to-door mail delivery service has been instituted. A Civic Association, American Legion Post, and Garden Club have been established. The first of several churches has been completed, and is holding regular services. A 100-bed hospital with operating rooms and modern medical facilities, and a county school are in the planning stage.

You can own a choice waterfront homesite in Port Charlotte for only \$10 down, and \$25 a month. Just fill out the coupon and send with your \$10 deposit today. And remember, you are protected by an unconditional 30 day money back guarantee! Your \$10 deposit will be returned without question if you so much as ask for it within 30 days.

Another: MACKLE BUILT COMMUNITY through GENERAL DEVELOPMENT CORPORATION

SEND IN YOUR COUPON *Today*

Prices subject to change without notice.



As soon as you receive about the Port Charlotte homesite in Florida State Division of Commerce, Industries, Hotels, and Tourism, Charlotte of America, Port Charlotte, Florida.

Port Charlotte Division Dept. LC-300
General Development Corporation
P.O. Box 34-1398, Miami, Fla.

Please describe _____ (fill in number identified on waterfront lots, each 80' x 125' ft., as described in material enclosed). I will send \$10 per person on each. Each camp showing location. My deposit will be returned promptly and without question if I modify you within 30 days.
(Please print - or give name clearly on this card.)

NAME.....
ADDRESS.....
CITY.....STATE.....
TELEPHONE NUMBER.....



History of the County

- Canals dug to drain wetlands and swampy areas
- Dredge material used for fill to build up the development areas
- Principals of GDC went to prison for land fraud

What's Happened Between Then and Now?

- In the 1980's the state enacted Growth Management Laws
 - Chapter 163 F.S.
- County was mandated to create a Comprehensive Plan to address Growth
 - Has been amended numerous times since, most recently in 2022

Comprehensive Planning and Land Development Regulations

Comprehensive Plans are the policy foundation for local planning and land use decisions

GOALS

the long-term end toward which programs or activities is ultimately directed

OBJECTIVES

specific, measurable, intermediate end that is achievable and marks progress toward a goal

POLICIES

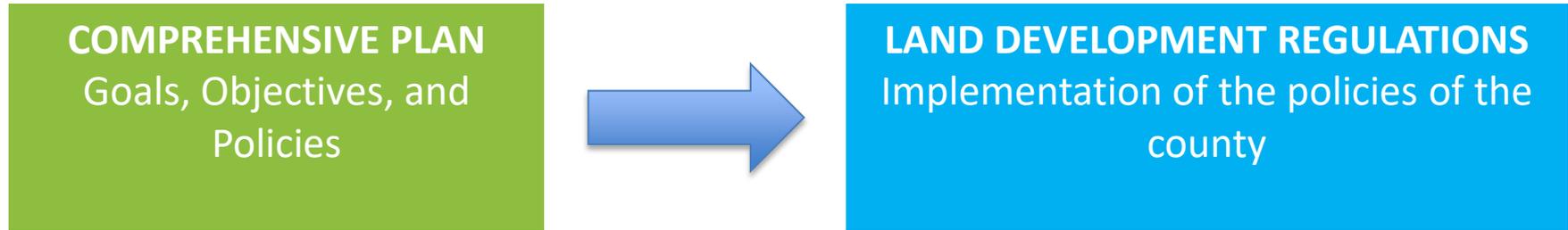
The way in which programs and activities are conducted to achieve a goal

Charlotte County has over 90 Goals, Objectives, and Policies (GOP's) relating to water quality and wetland protection



Comprehensive Planning and Land Development Regulations

Comprehensive Plans inform and distill to Land Development Regulations



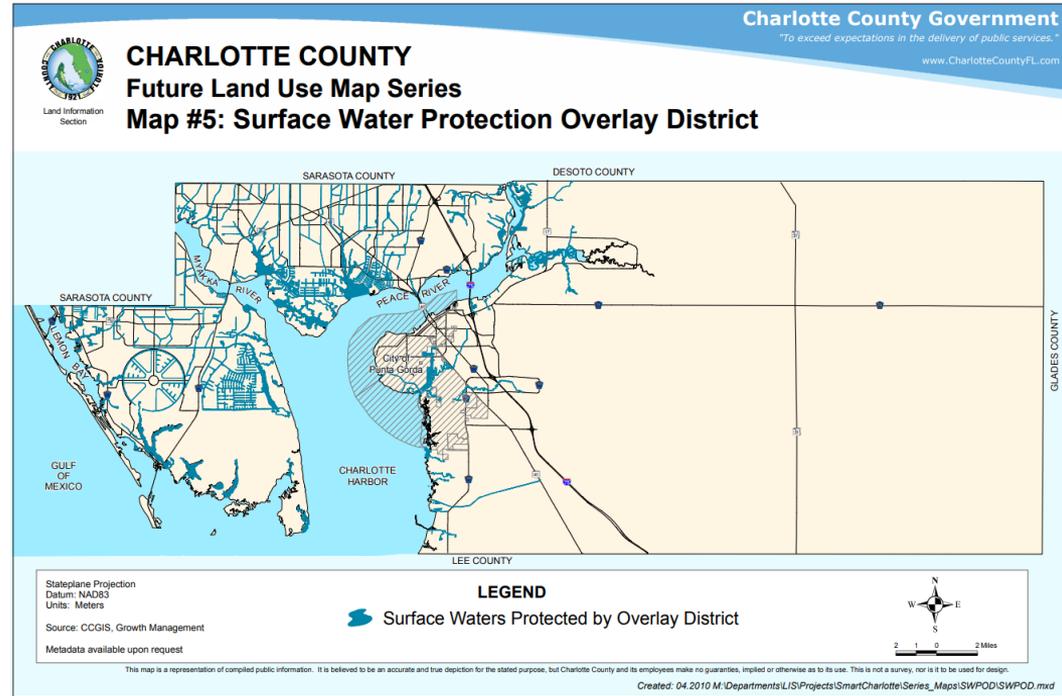
All development must be consistent with both the Comprehensive Plan and the Land Development Regulations



Comprehensive Planning and Land Development Regulations

Overlays are an additional level of regulation placed upon properties.

Specific restrictions and allowances are described in the Comprehensive Plan.



Comprehensive Planning and Land Development Regulations

- Technical Staff review documentation submitted by developers, we don't do our own impact studies
- Impediments to implementing Goals of Comprehensive Plan:
 - Bert Harris Act
 - Current bill not allowing restrictive ordinances until Oct 2026 for areas hit by Hurricane Ian.
- Development Restrictions and Rights: Local vs State Authority
 - Some items are preempted to state or federal regulation
 - Mangroves as an example



Comprehensive Planning: The Take-Home Message

- The Comprehensive Planning Process is a CRITICAL piece of the water protection puzzle; it informs regulations and programs carried out by the county
- We don't have full autonomy in creating our regulations
- The plan is reviewed every 7 years, and you can be a part of that process
- Not all elements of the Comprehensive Plan have been implemented; this is part of the One Water Review



Comprehensive Planning: Example Water Policies

CST Policy 1.2.11: Marina Monitoring Plan

The County shall develop an appropriate monitoring plan to be implemented during and after marina development for the purpose of monitoring adverse impacts upon water quality, natural vegetation, wildlife and wildlife habitat, soils and shoreline.

CST Policy 1.1.8: Coastal Resources Protection Program

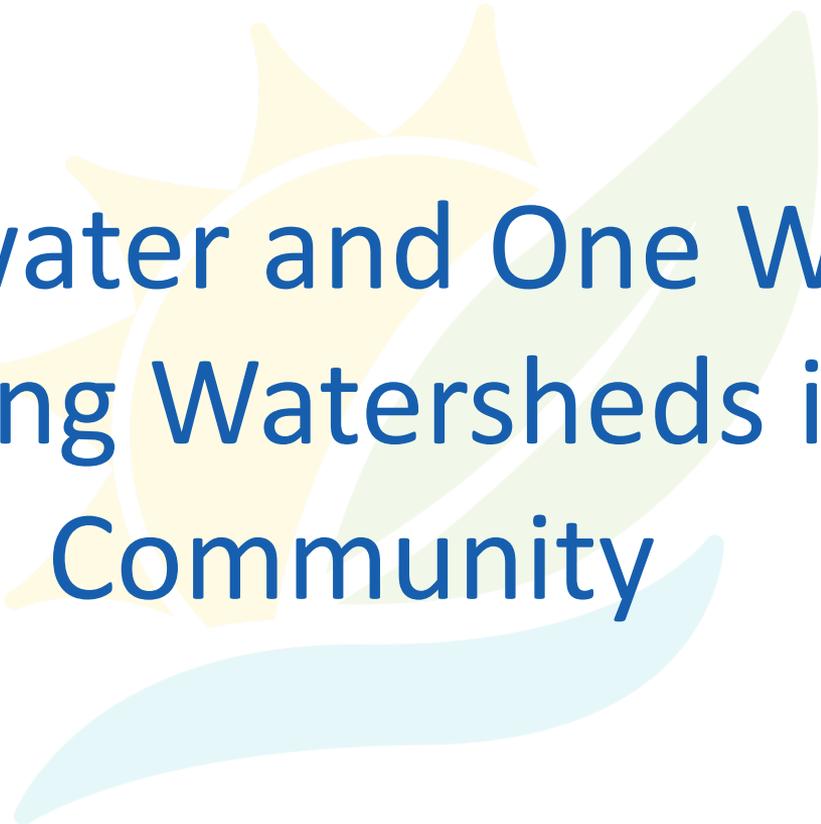
The County shall develop strategies with public and private stakeholders to protect, maintain, and, where feasible, restore native submerged aquatic vegetation, benthic communities and water quality in the County, particularly Lemon Bay, the Peace and Myakka Rivers, and Charlotte Harbor.

FLU Policy 6.2.9: Low Impact Design Practices

In partnership with SWFWMD, the County shall encourage developers and property owners to provide a variety of stormwater and low impact development practices, so that each practice will provide incremental benefits and all combined practices will:

1. Preserve native landscaping and natural water flows;
2. Minimize and control runoff generation at the source;
3. Promote infiltration;
4. Promote stormwater reuse; and
5. Minimize site disturbance.





Stormwater and One Water: Managing Watersheds in our Community



Stormwater's Journey From House to Harbor

Roadside swales

- Conveys runoff to outfall
- Provides water quality treatment to reduce pollutants
- Homeowners responsibility to mow
- Designed to hold water
- Water can stay in swales for 72 hours after the last rain event



Stormwater's Journey From House to Harbor

Driveway and road crossing culverts

- Conveys runoff in swales
- Culverts can be sumped up to 50%



Stormwater's Journey From House to Harbor

Streets and drainage outfalls

- Convey runoff from swales to larger waterbodies



Stormwater's Journey From House to Harbor

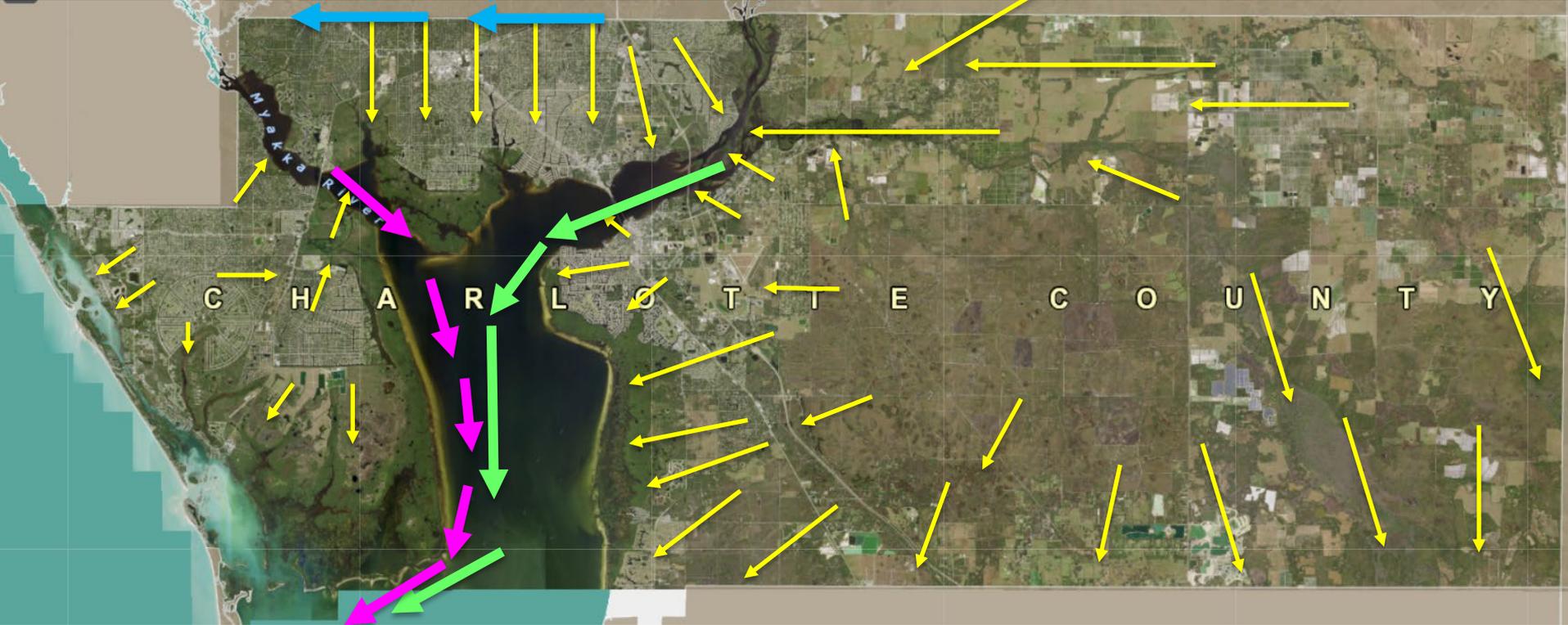
Ponds, major ditches, or canals

- Ponds
 - Storage and water quality treatment
- Major Ditches
 - Convey runoff
 - water quality treatment
- Canals
 - Convey runoff
 - weirs – provide storage without flooding
 - water quality treatment



Stormwater's Journey From House to Harbor

North Port (can discharge into Port Charlotte)

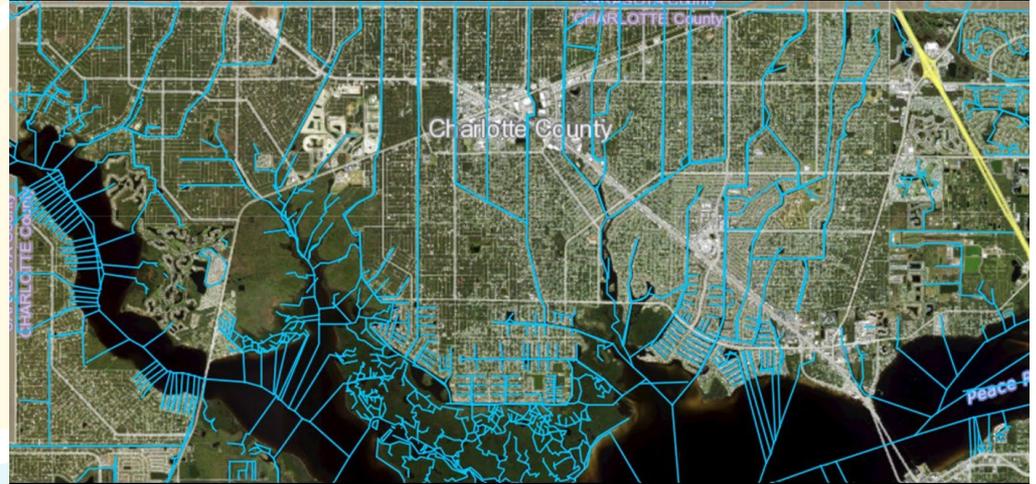


CHARLOTTE COUNTY
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Stormwater Systems in Charlotte County

Protecting our resources:

- Don't pollute the stormwater systems
- Important to keep the system working properly to be able to clean the water as much as possible before entering the Harbor and Gulf



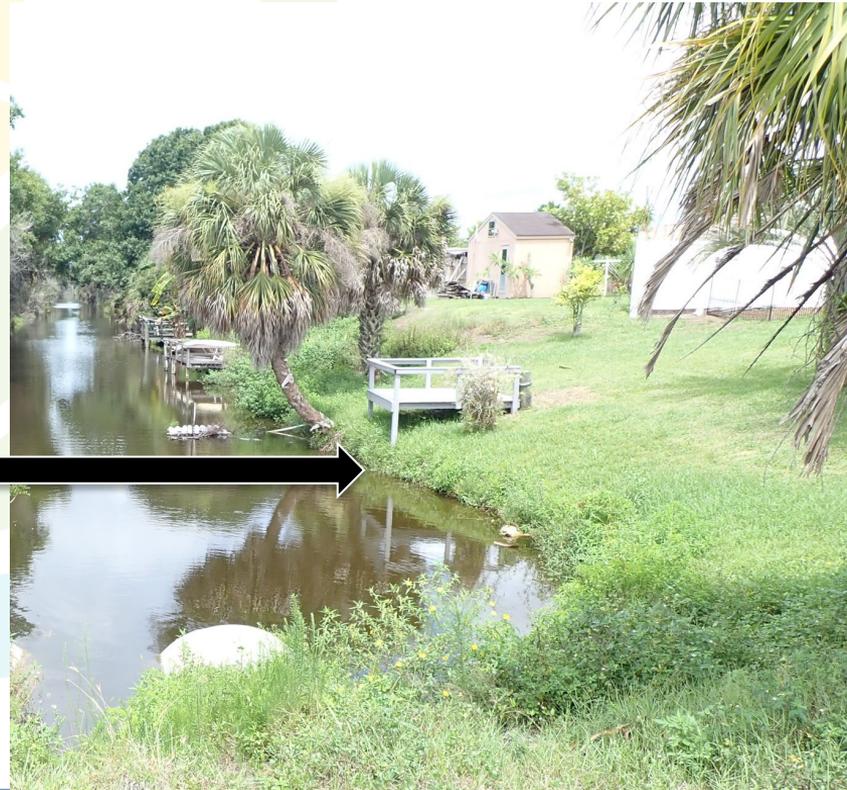
Maintaining Canals in Charlotte County

Freshwater canals can handle the 100-year design storm

- GPC recently completed structures

Homeowners' responsibility to maintain Rights of way (road and canal)

- Bank stabilization important- **keep banks vegetated**
- If you notice blockage, please notify Public Works



Stormwater Management Challenges in Charlotte County

Tidal influence:

- High tides and storm surge
 - These events cannot be controlled or prevented
- Tides have huge effect on drainage
 - Water can back up into stormwater system until tides subside
 - Drainage systems can be design and working perfectly and still not work during certain tidal events



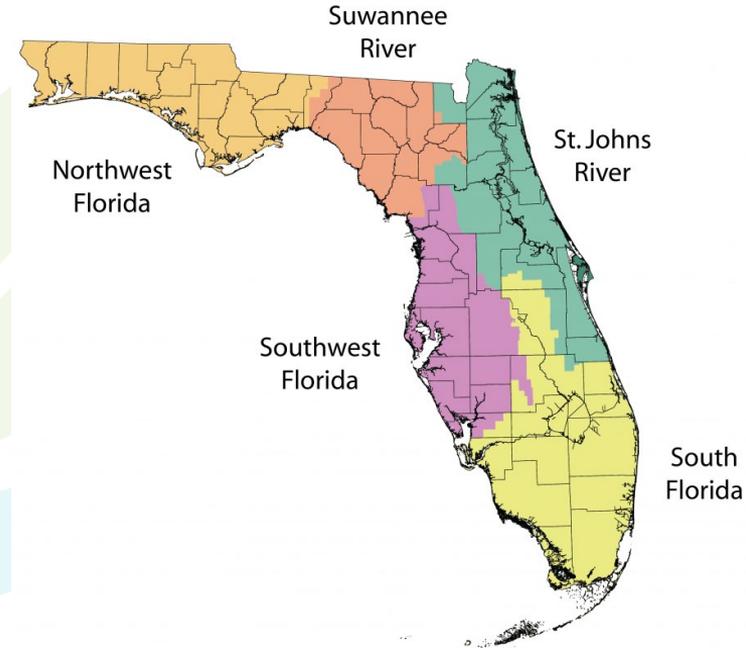
Stormwater Management Challenges in Charlotte County

- Public and Private stormwater infrastructure
- Early developed areas – no easements on some major infrastructure
- Some subdivisions have comingled stormwater



Regulating Stormwater Systems in Charlotte County

- Florida has some of the most stringent stormwater regulations
- 5 Water management Districts throughout the state
 - Clean water act - 1972
 - Managing and protecting the state's water resources
 - Charlotte is within both South Florida Water Management District and Southwest Florida Water Management District



Regulating Stormwater Systems in Charlotte County

Stormwater Regulations:

- **Environmental Resource Permits**
 - Stormwater systems permitting- construction and maintenance for maintaining flood control/water quality in individual stormwater systems
 - Permits govern:
 - Quantity
 - Water quality treatment
 - Wetland Protection
 - County permitting mimics water management district's requirements



Regulating Stormwater Systems in Charlotte County

National Pollutant Discharge Elimination System (NPDES)

- Permits for erosion control and illicit discharges during construction
 - Issued to public and private entities
 - Required for projects disturbing 1 acre or more of land
- Municipal Separate Storm Sewer System permit (MS4)
 - Issued to County
 - Public Education and Outreach
 - Public participation and involvement
 - Illicit discharge and elimination
 - Construction site runoff for all construction (including <1 acre)
 - Post Construction stormwater management (covered by SWFWMD)
 - Municipal operation pollution prevention and good housekeeping



County NPDES MS4 Permit Requirements

Public Education and Outreach

- Distribute educational material on impacts of stormwater pollution
- Implement a storm drain marking program
- Operate household hazardous waste pick up collection centers

Public participation and involvement

- Hold meetings to discuss NPDES and provide opportunity for comments
- Implement public education and outreach events



County NPDES MS4 Permit Requirements

Minimize illicit discharge and elimination

- Create and update stormwater system inventory
- Pass ordinance prohibiting discharge other than stormwater into MS4 (2008)
- Implement a procedure to address illicit discharges
- Provide information (TV, brochures) on this topic and how to report
- Develop educational material and distribute to businesses on improper disposal
- Train staff to detect and address illicit discharge
- Maintain a process to report and address illicit discharge



NPDES MS4 Permit Requirements

Construction Site Runoff Enforcement

- Sediment and erosion control measure requirements for construction sites
 - Process in place for violations
 - Shut construction site down until measures are in place



NPDES MS4 permit requirements

Post construction stormwater management

- Covered by SWFWMD
 - Required to have engineer sign off that stormwater system is being properly maintained and working per design
 - Every 18 months – 2 years depending on type of system



County NPDES MS4 Permit Requirements

Illicit discharges and elimination

- Report online or call 1.866.Y.DUMP.CC (1.866.938.6722)
- Enter as a Public Stuff item (choose illegal dumping)
- Code Officer or illegal dumping officer investigates
- Person in violation is notified to stop immediately
- Action is taken if necessary
 - Must clean up area
 - Can be taken to code if necessary
 - Can get court injunction if absolutely needed

Charlotte County Board of County Commissioners

Illegal Dumping

Tell us more about the issue:

Address

Description

 Add a photo

Cancel Submit



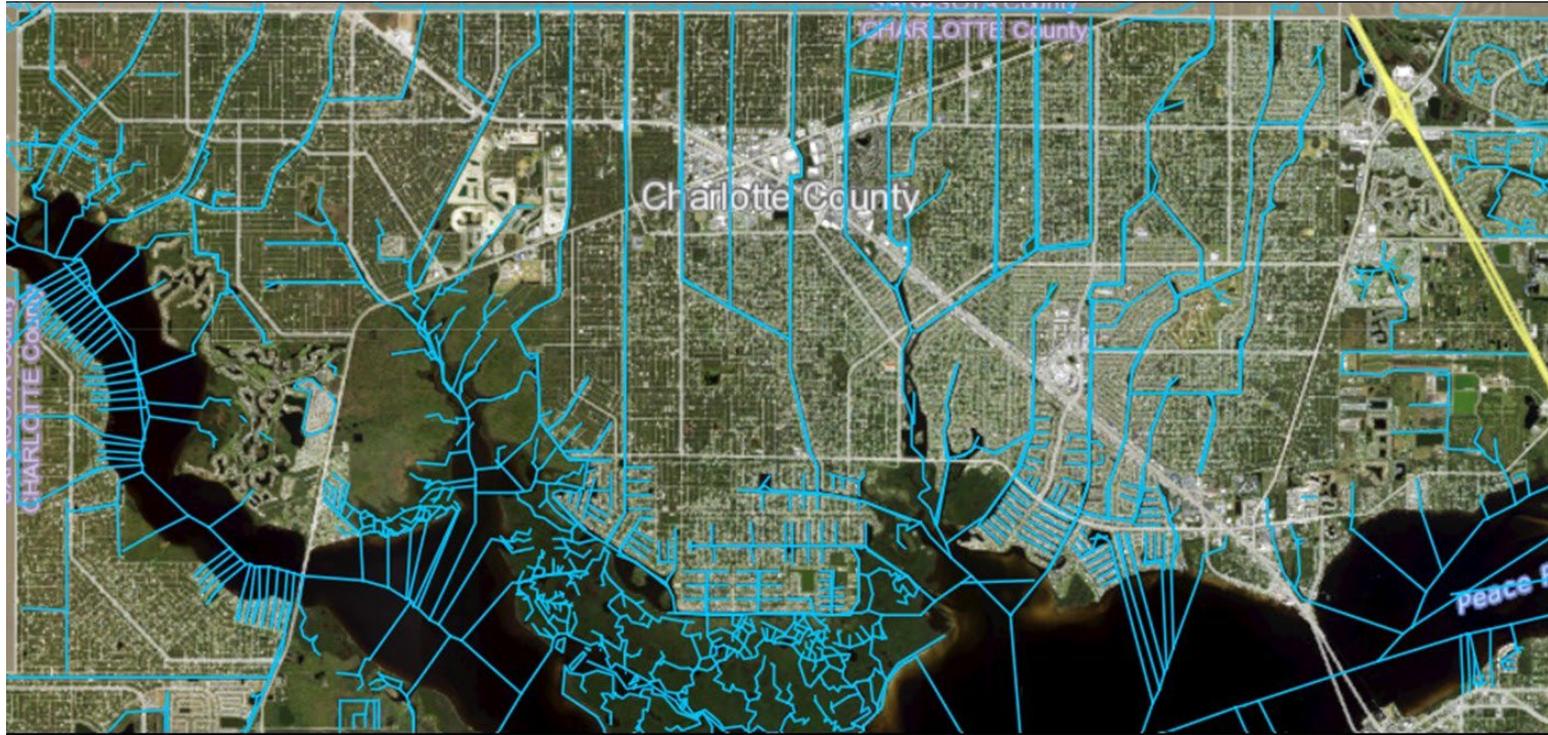
NPDES MS4 permit requirements

Municipal operation pollution prevention and good housekeeping

- Implement appropriate stormwater pollution prevention measures at County facilities
- Street sweeping
- Litter control program for roads and ponds (adopt a road/adopt a pond)
- Implement recycling program at County facilities
- Train staff on preventing and reducing stormwater pollution



Recap: Stormwater is a Major Driver of One Water



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Aquatic Weed Control: A Part of Active Stormwater Systems Management



Aquatic Weed Control

- What is Aquatic Weed control?
 - The mechanical, manual, biological or herbicidal removal of invasive, nonnative or unwanted plants. We term this as weed **control** as opposed to **eradication** as *eradication is nearly impossible.*



Without Aquatic Weed Control...



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Aquatic Weed Control

- Aquatic Weed Control program is designed to maintain navigation, recreation, and flood control in canal system.
- Public Health Benefit: Certain floating aquatic plants can harbor mosquitos
- limited primarily to freshwater canal systems



Aquatic Weed Control Process

- Assigned areas inspected 3 times per year (min.)
- Chemical treatment as needed based upon the scheduled inspection or a citizen service request
- Billed to the local Municipal Service Benefit Unit

Aquatic Weed Control



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The Push-Pull of Ecosystem Services VS Public Protection

- Canals can be part of our pollution defense system.
- A healthy water body is one that contains a moderate amount of aquatic plants that do not interfere with its functional use.
- Aquatic Plants provide habitat for aquatic life, natural filtration of runoff, and oxygen through photosynthesis.
- Perhaps we can find a compromise between these two needs, but we need your input.

Flooding And The Community Rating System

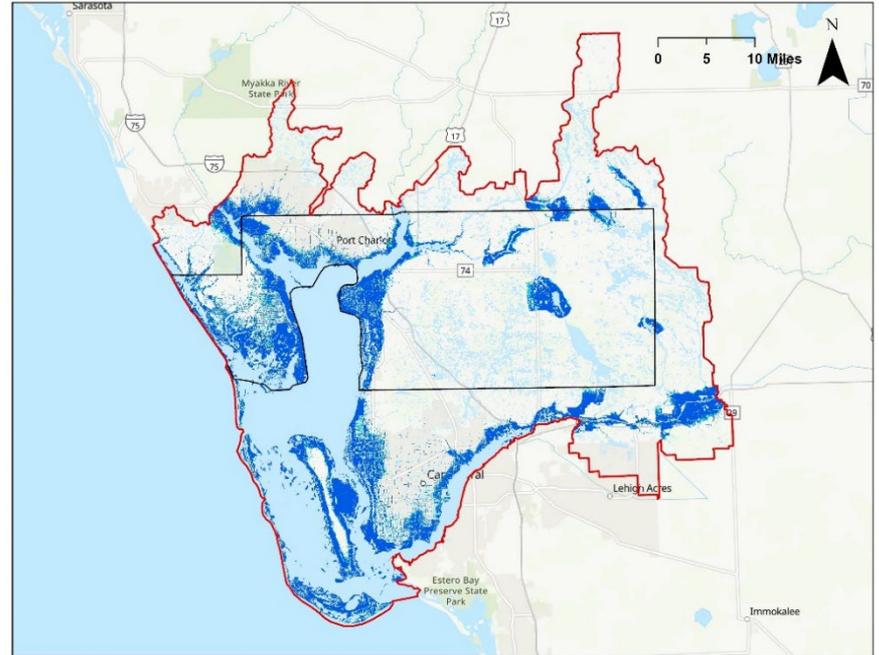
- In 1971, Charlotte County joined the National Flood Insurance Program (NFIP) by adopting the NFIP minimum standards. The NFIP issued Charlotte County the first Flood Insurance Rate Maps (FIRMs).
- These maps outline areas where flooding is considered 'high-risk'. Those areas identified as high-risk areas require more restrictive standards for construction.
- By participating in the NFIP program, federally-backed flood insurance is available to property owners and renters. Charlotte County residents that have flood insurance through the NFIP are also eligible for various mitigation grants through the Federal Government.

Flooding And The Community Rating System

- In early 1990, the NFIP developed the Community Rating System (CRS) as a program to reward communities that go above those minimum standards set by the NFIP.
- Communities that implement higher-standard activities outlined in the CRS program are rated and discounts for flood insurance are based on the community's rating.
- Currently, Charlotte County is CRS Class 5 community. This rating gives residents a **25%** discount flood insurance through the NFIP.

Watershed Master Plan (WMP) Development

- A watershed master plan is developed to analyze existing and future conditions in the watershed to better understand its characteristics, including flood vulnerabilities.
- Completion of a Master Plan helps increase our CRS rating, allowing for greater flood insurance discounts
- The WMP must be adopted by the Board of Commissioners. The WMP is CRS higher-standard activity and requires it is evaluated and updated every 5 years.



Watershed Master Plan (WMP) Process

- Gather input from stakeholders and residents on how flooding impacts their areas.
- Identify the potential to implement different types of restoration projects to reduce flooding impacts and improve water quality.
- Determine mitigation actions that can help to minimize flood-related impacts.
- Provide a dedicated funding source for implementing the plan.
- In late 2022, Charlotte County was awarded a FEMA grant to develop a watershed master plan.
- Florida Atlantic University, Center for Water Resiliency and Risk Reduction is the vendor.



Watershed Master Plan (WMP)- Give Us Your Input!

Have you experienced flooding in your home or yard? Tell us about it!

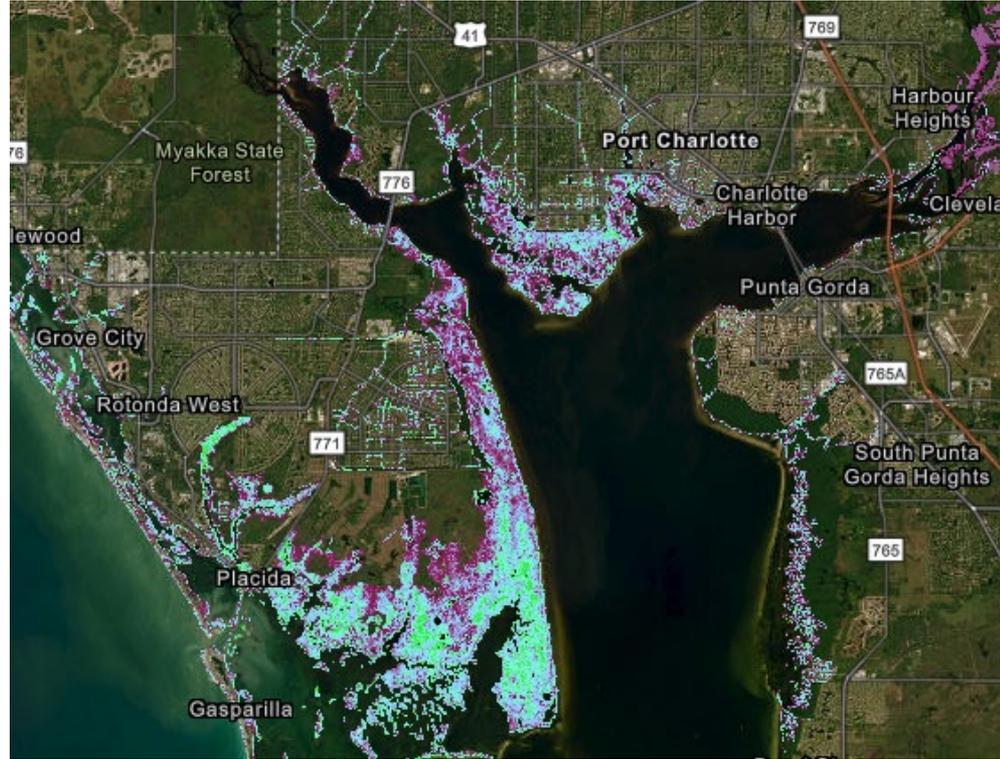
Visit the Brochure Table for more info, and complete our flood survey:

tinyurl.com/floodinput



Coming Soon: County Vulnerability Assessment

- Required by State Statute
- Develop predictive models for tidal and rainfall induced flooding/storm surge
- Evaluate risk to county assets
- Develop Comprehensive Plan language that *Include development and redevelopment principles, strategies, and engineering solutions that reduce the flood risk in coastal areas which results from high-tide events, storm surge, flash floods, stormwater runoff, and the related impacts of sea-level rise.*



Securing Supply of Drinking Water and Wastewater in the Face of Record Growth

Dave Watson, Utilities Director



CHARLOTTE COUNTY
FLORIDA

Charlotte County Utilities History

- In the mid-1950s, the Mackle brothers of Miami, Florida, began to purchase large tracts of land in the Mid and West County areas. The Mackle brothers, later known as General Development Corporation platted the area for residential development communities, generally 0.25-acre residential lots with some commercial areas along main corridors such as US Highway 41. Most GDC developments in the area were supplied water from the GDC owned and operated Peace River water treatment facility, which was constructed in the 1970s and managed by GDC's subsidiary General Development Utilities.

Charlotte County Utilities History

- In 1991, Charlotte County purchased the GDU assets, forming the initial core of the CCU system in Mid County and in the Gulf Cove and South Gulf Cove areas of West County. The purchase included water infrastructure including three water booster stations three ground storage tanks and approximately 610 miles of water mains serving approximately 28,500 water connections. The purchased wastewater infrastructure included three treatment plants (South Port and East Port in Mid County and West Port in West County) along with associated transmission lines and collection systems consisting of 140 miles of gravity and low-pressure mains, 56 lift stations, and 61 miles of force mains serving approximately 11,000 sewer connections.

Charlotte County Utilities Today

Mission:

To provide safe, reliable drinking water, reclaimed water and wastewater service for the enrichment of the community.

Operations:

Water Distribution, Wastewater Collection, Treatment Facilities and Reclaim

Where does your water come from?

- 95% of the water comes from the Peace River Manasota Water Authority
 - The PRMWA draws and treats water directly from the Peace River located in DeSoto County.
 - The treatment facility is located on the Peace River and is surrounded by reservoirs—both traditional above ground reservoirs as well as aquifer storage and recovery (ASR). Together, these can hold up to 13 billion gallons of water, more than enough to meet our needs, even during the colder dry months with little rain.
 - The Authority withdraws the water when the river is running high and stores it in reservoirs. This protects both the Peace River itself and its connected estuaries and Charlotte Harbor.



Where does your water come from?

- 5% of the water comes from the Burnt Store Reverse Osmosis Water Treatment Plant
 - The Floridan and Hawthorne aquifers are water sources for the Burnt Store Plant.
 - Wells range from 470 to 900ft deep
 - The plant uses reverse osmosis technology, in which membranes are used to remove excess minerals, salts, and other impurities. The WTP currently uses five reverse osmosis production units.
 - The plant can treat up to 3.6 million gallons of water per day, allowing Charlotte County Utilities to meet both current and future water demands for the Burnt Store service area.



Planning for the Future

- Peace River Manasota Water Authority – 50-year allocation permit
- Charlotte County Utilities – Emergency allocation permit in Babcock with potential expansion
 - 3 Million Gallons Per Day for emergency use
 - Currently starting to explore the potential for additional daily allocation
- Burnt Store Water Treatment Plant – 30% Utilization with 2 million gallons per a day remaining
- Alternative water sources



Water Distribution System

- 1,573 miles of water main in the system
- 18,010 Water System Valves
- 5,837 Fire Hydrants
- 69,391 customer connections
- 166,984 population served
- Average 800 water leak calls each year
- 200 calls for water quality each year
- 50 main breaks each year
- 2,000 + new water services installed per year



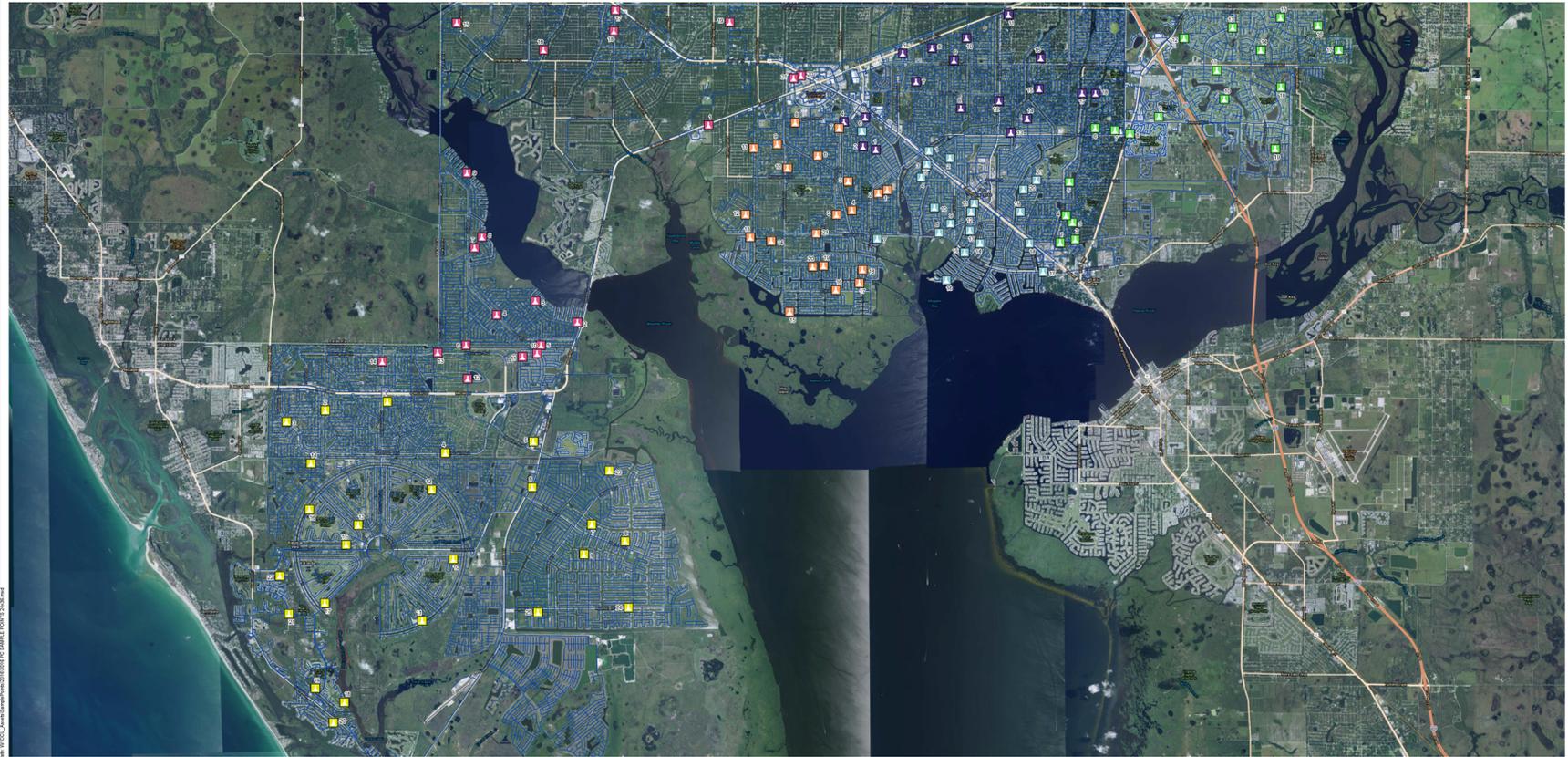
Water Quality

- Due to a seasonal population the department flushes the water mains in the warmer summer months to maintain water quality.
- 170 samples taken a month, with 139 being mandatory
- 2,040 samples taken per year
- Water Quality Reports distributed yearly
 - **2022 Water Quality Reports:**
 - <https://tinyurl.com/2022-CCR-Peace-River>
 - <https://tinyurl.com/2022-CCR-Burnt-Store>





CHARLOTTE COUNTY
POTABLE WATER SAMPLE POINT LOCATION
PWS# 5084100, PORT CHARLOTTE



PC 2016 POTABLE WATER SAMPLE POINT LOCATIONS

The 2016 PC SAMPLE POINTS 24x36
Date: 04/05/16
Created By: David E. Cain
Coordinate System: NAD 83 StatePlane Florida West FIPS 0900 Feet
Projection: Transverse Mercator
GCS: NAD83
Datum: North American Datum of 1983
Spheroid: GRS 1980
Prime Meridian: West of Greenwich
Units: Feet
Scale: 1.000000
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Created: 04/05/16 10:48 AM

SAMPLE POINT ROUTES 1 2 3 4 5 6





CHARLOTTE COUNTY

POTABLE WATER SAMPLE POINT LOCATIONS
PWS# 6080318, BURNT STORE



DATE: 08/26/2024 10:48 AM
PROJECT: POTABLE WATER SAMPLE POINT LOCATIONS
DRAWN BY: J. BROWN
CHECKED BY: J. BROWN
SCALE: 1" = 1000'
SOURCE: AERIAL PHOTOGRAPHY
PROJ: NAD 83 UTM 18Q UTM
DATUM: NAD 83
ELEVATION: FEET
UNITS: FEET
DRAWN: J. BROWN
CHECKED: J. BROWN
DATE: 08/26/2024

SAMPLE POINTS

- ROUTE 1
- ROUTE 2

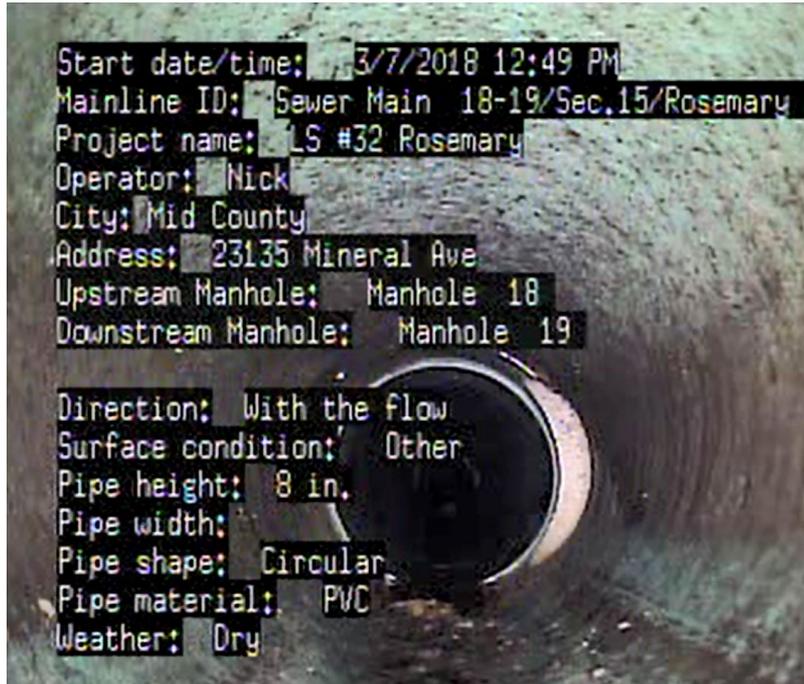


Wastewater Collection

- The Wastewater Collection Department operates and maintains a varied collection system that serves approximately 46,691 customers.
- The division is divided into four work groups. Each work group operates and maintains a particular method of wastewater collection.
- This system contains:
 - 365 miles of gravity sewer
 - 7,596 gravity system manholes
 - 381 miles of low-pressure sewer mains
 - 24 miles of vacuum sewer mains
 - 186 miles of force mains
 - 317 lift stations. 303 owned by CCU and 14 maintained under a service contract



Televising Sewer



Sanitary Sewer Overflows

- Department notified of potential spill
- Staff investigates
- If break is found staff will make the required repairs as soon as possible.
- Sanitary Sewer Overflows are reported to the Florida State Warning Point by phone.
- The Florida Department of Environmental Protection is notified, and an Abnormal Event Report is sent to FDEP within five days.
- If an SSO enters a waterway, sampling is required at the point of entry, upstream and downstream.
 - Samples are taken until the waterway meets FDEP requirements
 - Final sample report is sent to FDEP

	FLORIDA DEPARTMENT OF Environmental Protection	Ron DeSantis Governor Jeanette Nuñez Lt. Governor Shawn Hamilton Secretary
Pollution Notice		
Thank you for submitting a Public Notice of Pollution for a reportable Incident in compliance with Section 403.077, F.S.		
All information displayed was submitted by the reporting party.		
Type of Notice: Initial Report Date of Notice: 01/10/2024		
Incident Information		
Name of Incident: 14992 Lyneburg Ave 1-9-24 State Watch Office Case Number: 2024-00245 Start of Incident: 01/09/2024 12:00 End of Incident: 01/09/2024 13:00		
Incident Description: LPS 2" PVC service line break due to failed fitting. Scheduled 80 male adapter broke at the 4" man. Remaining 500 gallons had percolated into the affected ground by the time cleanup efforts began. Repair completed and returned to service on 1/9/24. Cleaned area with vacuum truck and threw lime on affected area. No storm drains or waterways were affected.		
Wastewater Type: Untreated Cause: Break-in-Line Spill Volume: 2500 Volume Recovered: 2000 Waterbodies Impacted: NA Clean-up Status: Complete Clean-up Actions: Vacuumed/pump truck. Applied lime Agencies Notified: Ken Stecher		
Incident Location		
Facility/Installation Name: Charlotte County Utilities - Westport WWTP Address Line 1: 14992 Lyneburg Ave Address Line 2: Directions: City: Port Charlotte State: FL Zip Code: 33981 Coordinates (in decimal degree*): Lat: 26.874786745918342, Long: -82.20695668458902 Impacted Counties: Charlotte		

Programs Being Implemented

- The Capacity, Management, Operations and Maintenance Program program is a management tool for utilities to operate and maintain their wastewater collection systems.
 - Reduce or eliminate sanitary sewer overflows
 - Helps preserve and extend the life of wastewater infrastructure
- Resiliency and Modernization Program helps to prepare for, schedule and systematically develop strategies for modernization and operational resiliency of the department.
 - Identify critical distribution system and wastewater system assets and conduct site visits and staff interviews to gather missing data identified in the gap analysis.
 - Review available technical data and identify gaps in age, material, elevation, conditions, capacity and other pertinent factors.

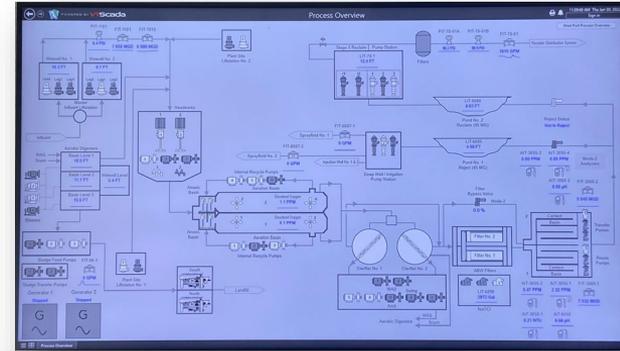
Charlotte County's Septic to Sewer Journey

- 2014 – East & West Spring Lake Wastewater Pilot Program Report
- 2017 – Charlotte County Sewer Master Plan was completed and prioritized project areas for septic-to-sewer conversion based on:
 - Environment impact, proximity to surface water
 - Age of existing septic systems
 - Density of development
- **Septic to Sewer Projects**
 - 2014 – East/West Spring Lake
 - 1,863 single family units
 - Completed 2018
 - 2019 – El Jobean
 - 297 single family units
 - Completed 2022
 - 2021 – Ackerman
 - 1,313 single family units
 - Under construction
 - 2025 – Lake View/Midway
 - 2,299 single family units
 - In design
 - 2025 – Cape Haze
 - 300 single family units
 - In design



Treatment Facilities

- Wastewater treatment for a safe environment
- Produce, store and pump reclaimed water for irrigation
- Septage receiving and treatment for the community
- Potable water production and pumping to provide safe drinking water to the community
- Certified laboratory to analyze water quality, ensuring effective treatment
- Operation and maintenance of treatment, storage and pumping facilities
- Ensuring compliance and timely reporting for regulatory agencies
- Currently including Advanced Wastewater Treatment when upgrading wastewater treatment facilities
 - Per Senate Bill 1379: AWT Required by 2033



Reclaimed Water

- Wastewater that has been highly treated to make it suitable for a variety of beneficial uses.
 - Helps in the conservation of surface and ground water.
 - Creates an alternate water source for irrigation by reducing demand on potable water.
 - Reduces the cost of landscape irrigation when it replaces potable water and beautifies our community by enhancing the appearance of landscaping.

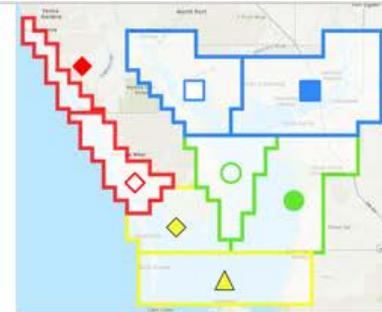


Recap: Utilities' Role in One Water

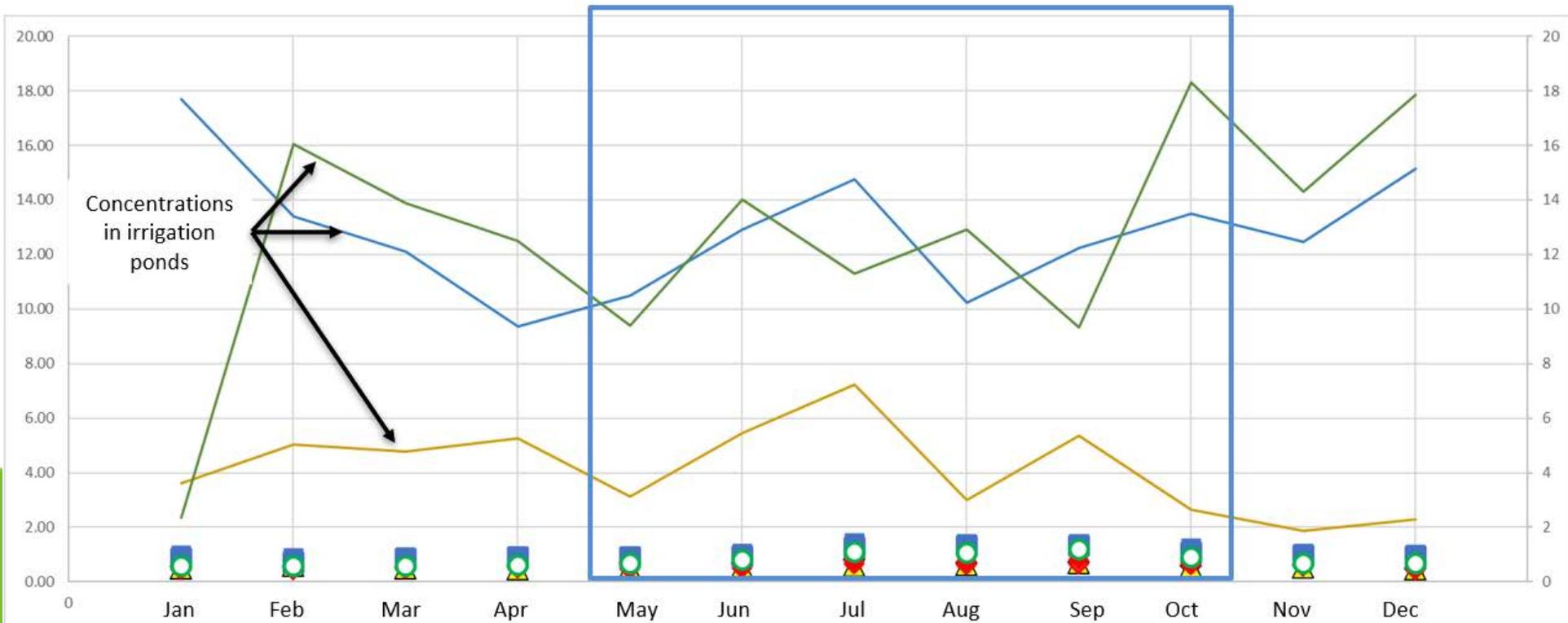
1. As we grow, conservation and reuse will become even more important. We do not have unlimited use of the Peace River or aquifers.
2. Utilities infrastructure philosophy has transitioned to be more **proactive**, rather than **reactive**.
3. Septics and our current reclaim water are sources of nutrients to our system, and both need to be addressed.

Reclaimed Water Nitrogen VS the Natural Environment

Wet Season (May-October)



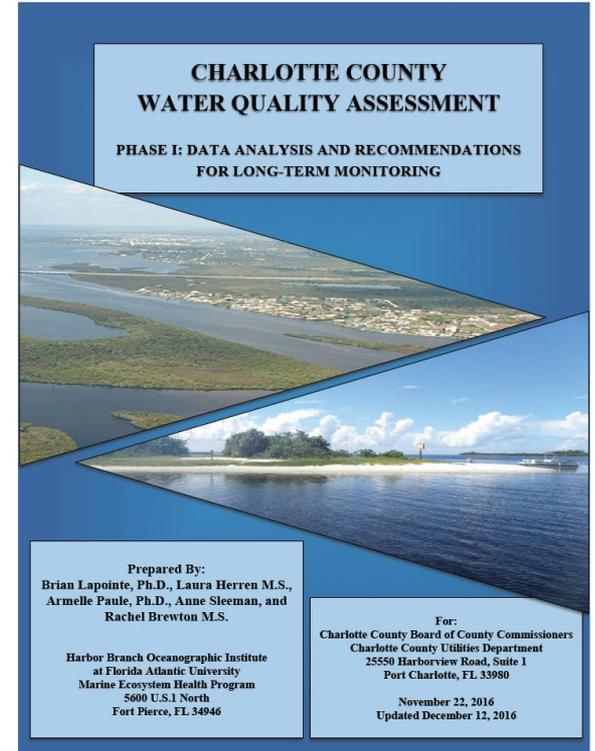
Concentrations in irrigation ponds



Septic Tanks and Nutrients in Charlotte County

Harbor Branch Oceanographic Institute (Brian Lapointe) conducted septic tank study in Port Charlotte, finding linkages between septic discharges and nutrients in surface water/filter feeders.

This, in part, led to creation of the Sewer Master Plan and initiation of the Septic to Sewer Program.



Learn and Lend a Hand: County-Partnered Outreach and Education Opportunities

Parks and Natural Resources

Focusing on programs to promote natural resources stewardship

Educational Series provided by Land Management staff: Learn about common wildlife and vegetation found in your neighborhood. Each session focuses on one species and includes a field visit. Call Cedar Point Environmental Center at 941-475-0769 for more info.

Community Services Podcast:

Check it out at - <https://open.spotify.com/show/237YiznilC2lQkzYdxfpHO>

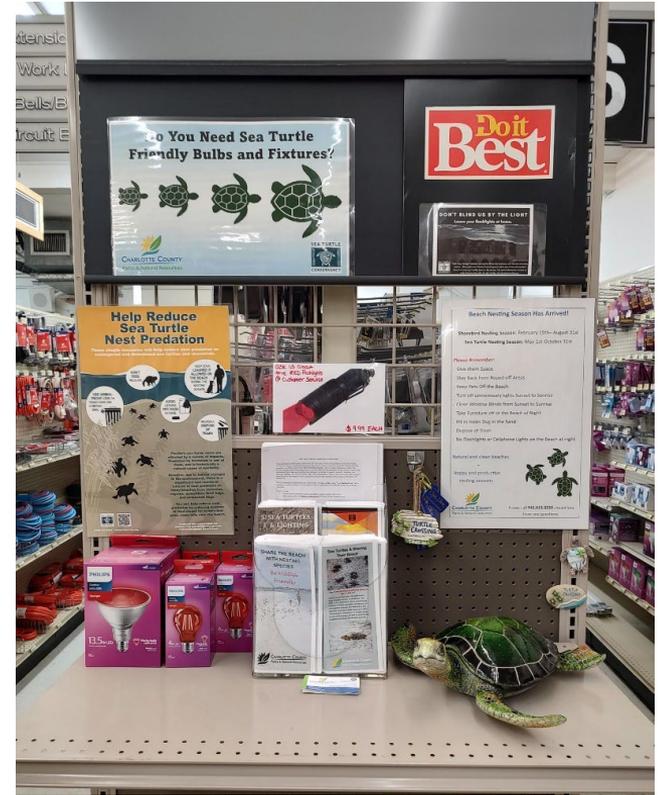
Presentations upon request are available to homeowner/ property owner associations, realtor groups and local schools upon request.

Homeowner Outreach

Live on or near the beach? Learn about sea turtle friendly lighting at the following local hardware stores – Barnichol Hardware (Boca), Gulf Coast Hardware (Englewood) & Placida Ace Hardware (Placida).

Yearly goodie bags and mailers with brochures and beach-themed activities/items are available for beach front rental properties, chamber of commerce, visitor centers, etc.

Visit us at festivals throughout the year such as Earth Day @ Babcock Ranch, Englewood Eco Fair, and Public Works Outreach Day.



Come See Cedar Point Environmental Park



Experience hands on custom interactive displays focusing on the various environmental elements present throughout the park.

Come in and play on the custom environmental app which includes educational quizzes and videos on i-pads located throughout the facility.

Enjoy nature trails and guided experiences hosted by CHEC.

COMING SOON: Enhanced park companion app including virtual wading trip experiences for those unable to participate in guided wading programs.



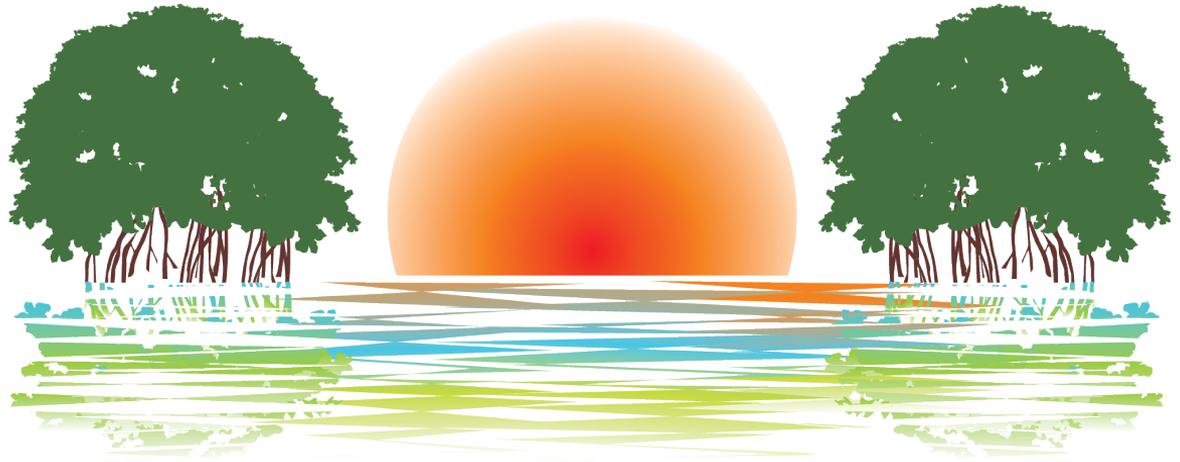
Learn more about these experiences by contacting Natural Resources at 941-613-3220.

KCB's mission:

Inspire and educate people to take action every day to improve and beautify Charlotte County.

Goals:

- Reduction of Waste
- Improve the Quality of Recycling
- End Littering
- Community Greening



Keep Charlotte Beautiful

KEEP AMERICA BEAUTIFUL AFFILIATE

Education is a part of everything we do, because educating youth and adults is what makes our mission and goals sustainable.



CHARLOTTE COUNTY
FLORIDA

Keeping our roadways and communities clean is the first step in keeping our waterways free of litter and debris.

Ending Littering

Adopt A Road



Adopt A Shore



Adopt A Cemetery



Everyone pulling together, to work for a common cause, makes us a community.

Keep America Beautiful
Great American Cleanup



Ocean Conservancy
International Coastal Cleanup



Education

Elementary

- 🌐 Littering
- 🌐 Recycling
- 🌐 Reduction of Waste
- 🌐 Reuse
- 🌐 Composting
- 🌐 Landfill

High School

- 🌐 Landfill Operations
- 🌐 Issues with Waste Disposal



Homeschool

- 🌐 Reduction of Waste
- 🌐 Reuse
- 🌐 Recycling
- 🌐 Composting
- 🌐 Gardening





Keep Charlotte Beautiful

KEEP AMERICA BEAUTIFUL AFFILIATE

Visit us at <https://keepcharlottebeautiful.org/>



CHARLOTTE COUNTY
FLORIDA

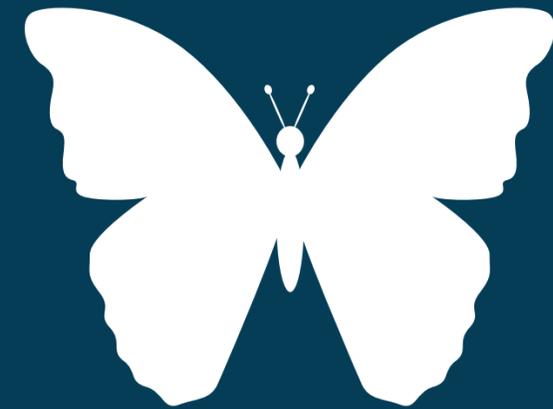
WATER QUALITY EDUCATION AND OUTREACH

CHARLOTTE HARBOR ENVIRONMENTAL CENTER

Presented by Ashley Cook



WHO WE ARE



Charlotte Harbor Environmental Center is a nonprofit organization dedicated to providing environmental education, recreation, and conservation.

Punta Gorda • Englewood

WATER QUALITY EDUCATION FOR ALL



CHEC provides free field trips to every second and fourth-grade class in Charlotte County.

These trips educate students about our unique Florida ecosystems, the creatures that live there, and the importance of water quality.

SEAGRASS WADING ADVENTURES



Explores the life of an estuary ecosystem and provides participants with hands-on opportunities to learn the importance of the estuary for humans and wildlife in SWFL.

ADOPT A POND

in collaboration with Charlotte County Storm water Department, this volunteer program cleans up storm water ponds to improve the water quality and natural habitat for fish and wildlife

Adopted ponds include:

Coffee and Friends Pond

Japonica Square Pond

Cedar Point Environmental Park

Bill Coy Preserve Pond

Presque Isles Pond

Volunteers are always welcome and may contact
mel@checflorida.org.



EASTPORT CONSERVATION EASEMENT



A multispecies survey of the Eastport Water Reclamation Facility that monitors the vegetation and wildlife inhabiting the facility.

Monitoring results and land management recommendations are submitted to Charlotte County, FWC, and USFWS.

Upcoming surveys will take place on February 26th, 27th, and 28th. Interested volunteers may contact tom@checflorida.org.



VERTICAL OYSTER GARDENING



Oyster shells are collected from local restaurants

Shells are quarantined to kill off bacteria



CHEC leads educational workshops about water quality



Participants create vertical oyster gardens to deploy on their dock



VOGs are collected and added to existing reefs that will increase oyster habitat and filter water

Reefs will be observed and monitored for new growth over time to record and share the data with affiliated organizations



For more information or to get involved contact ashley@checflorida.org.

WE ARE ONE CHARLOTTE, ONE WATER

There are many opportunities to learn more about our Charlotte Harbor watershed and how to become involved in advocating, protecting, and cleaning our waterways. The more we take care of these ecosystems, the more they take care of us.



THANK YOU FOR YOUR ATTENTION

Ashley Cook

Park Manager - Alligator Creek Preserve - Charlotte Harbor Environmental Center

ashley@checflorida.org - 941 575 5435

0 1 / 3 1 / 2 4

— K A T E R O S E , F L S e a G r a n t E x t e n s i o n A g e n t —

UF | IFAS Extension
UNIVERSITY of FLORIDA



LENDING A FIN

*Outreach & Education Opportunities in
Charlotte County*



Florida Sea Grant

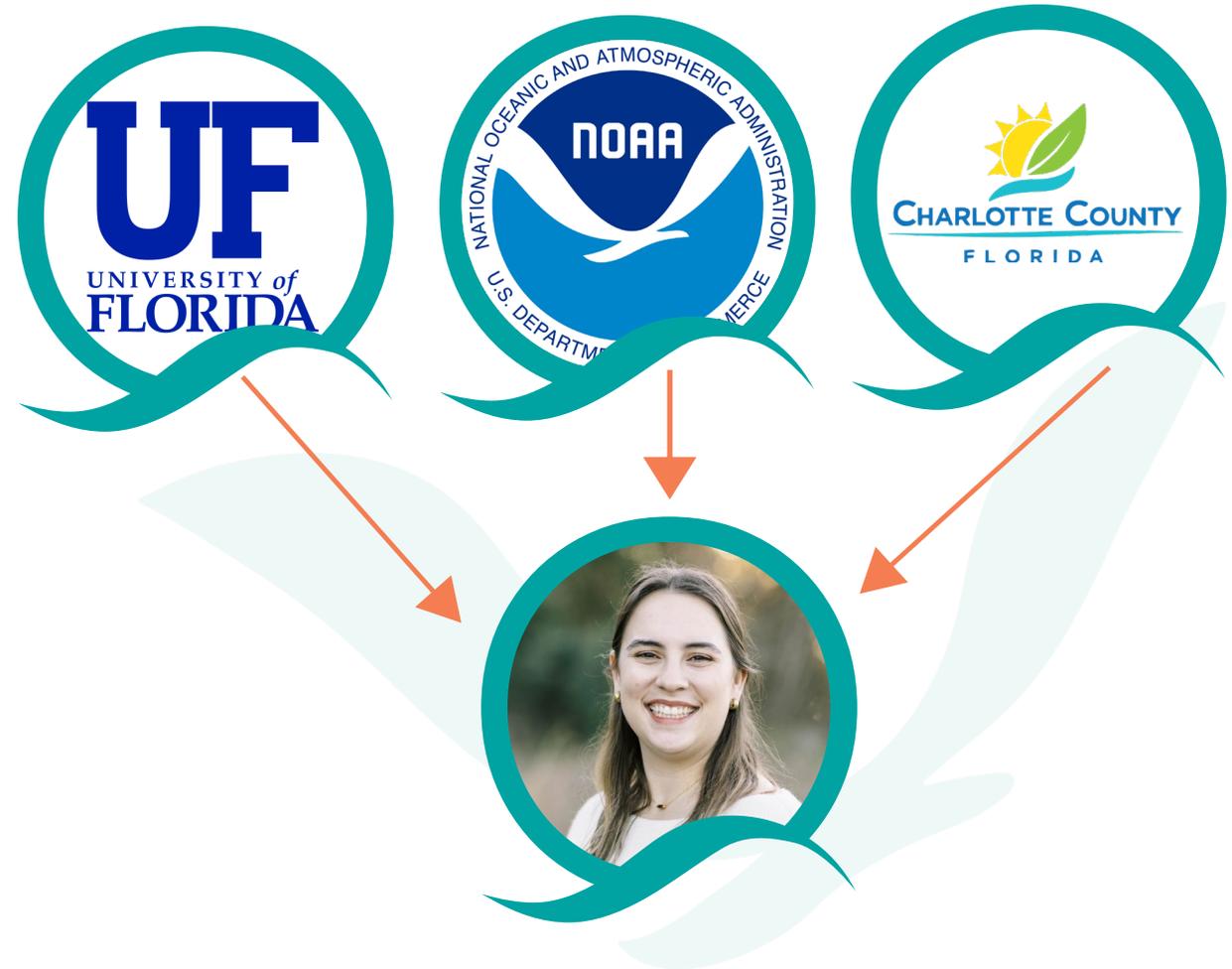
“Science Serving Florida’s Coast”

1863- Land Grant University system established

- University of Florida Institute of Food and Agricultural Sciences (IFAS)

1975- Sea Grant

- 35 Programs in Coastal States and the Great Lakes
 - Including Puerto Rico & Guam





Eyes on Seagrass

Citizen Science



EYES ON SEAGRASS

Thousands of acres of seagrass gone in Charlotte Harbor

By BETSY CALVERT Staff Writer Jun 11, 2021 Updated Jul 17, 2022 0





Eyes on Seagrass

Citizen Science



EYES ON SEAGRASS



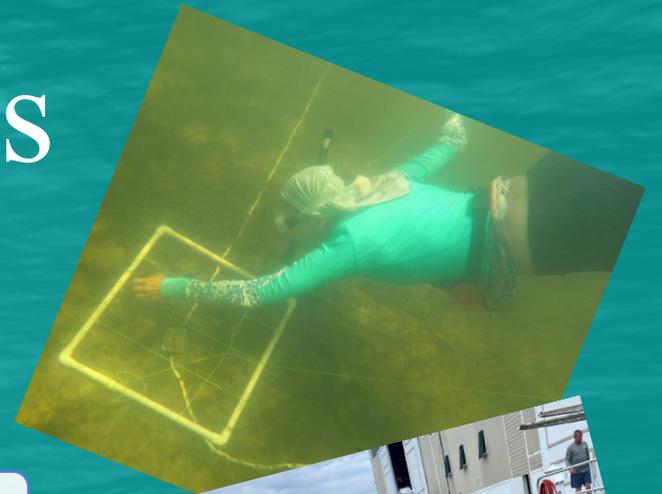
Eyes on
Seagrass



Eyes on
Seagrass



FDEP/CHAP



45 sites for 4 years

- Close to 2,000 quadrats since 2019

Volunteer time and resources >
\$110,000

- Skilled volunteer value = \$29.41/hr (Florida Independent Sector)





Eyes on Seagrass

Citizen Science

Creating Environmental Stewards

- 91% of 2023 volunteers made at least one change to improve conditions for Seagrass

Scientific Impact

- Data presented at the CHNEP Watershed Summit & Benthic Ecology Meeting
- Working with Seagrass Biologists to create database



EYES ON SEAGRASS





Florida Horseshoe Crab Watch

Citizen Science

FLORIDA HORSESHOE CRAB
WATCH



Linked with Limulus

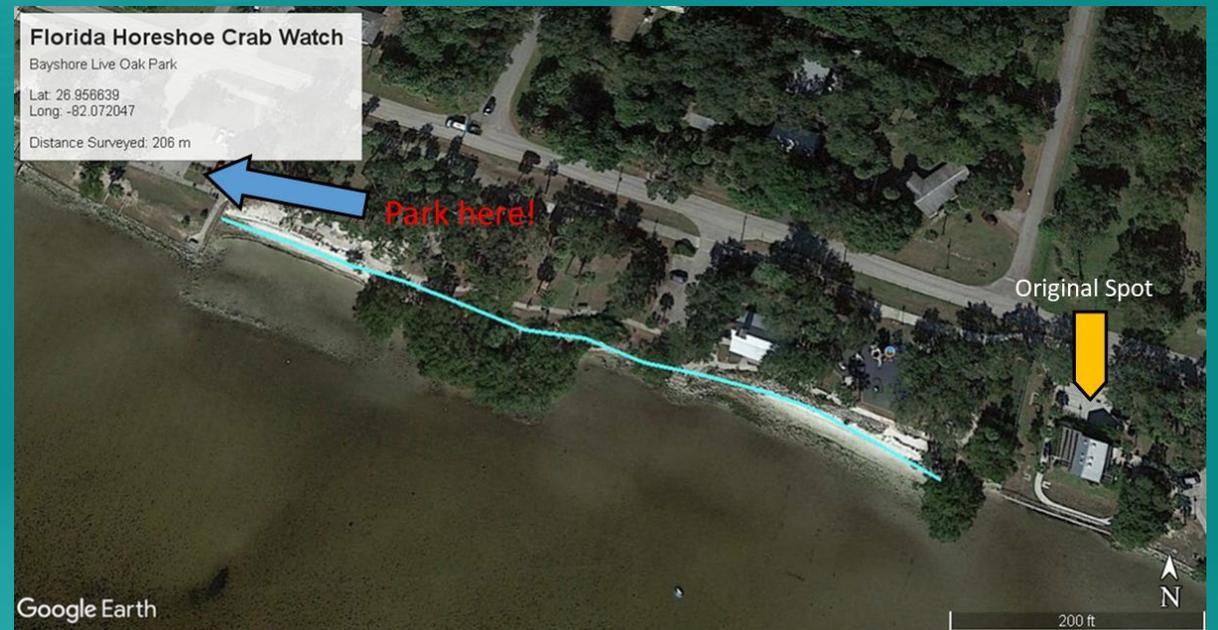


Shore Surveys at
Bayshore Live Oak Park

Twice a month in Spring
& Fall

- Complete as many as you like!

In Person Training in
August





Florida Master Naturalist Program

UF | IFAS
UNIVERSITY of FLORIDA



“The Florida Master Naturalist Program is an adult education program developed by the University of Florida [that] will benefit any persons interested in learning more about Florida’s environment, seeking educational contact hours, or wishing to increase their knowledge for use in education programs as volunteers, employees, ecotourism guides, and others.”





Community Resource

UF | IFAS Extension
UNIVERSITY of FLORIDA



CLIMATE SMART
FLORIDIANS



Sea Grant
FLORIDA



— LEARN MORE —

(941) 764-4346

kate.rose@ufl.edu

Thank you.

UF | IFAS Extension
UNIVERSITY of FLORIDA


CHARLOTTE COUNTY
FLORIDA


Sea Grant
FLORIDA

Florida-Friendly Landscaping™ PROGRAM



Florida-Friendly Landscaping™ PROGRAM



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CHARLOTTE COUNTY
FLORIDA

UF | UNIVERSITY of FLORIDA

- There are 9 science-based, research-based, unbiased principles of FFL

- Last year was the 30th anniversary of the program, it began in 1993

Florida Statute 373.185

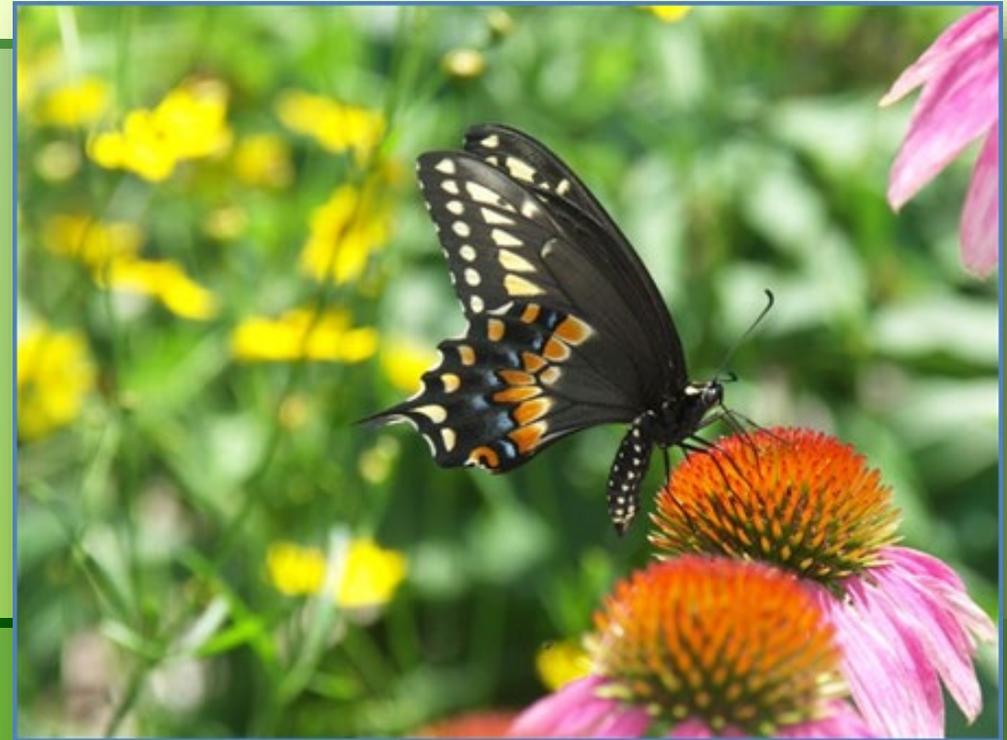
The legislative definition of Florida-Friendly Landscaping™ includes:

“quality landscapes that conserve water, protect the environment, are adaptable to local conditions, and are drought tolerant.”



Florida-Friendly Landscaping™: Nine Principles

1. Right plant, right place
2. Water efficiently
3. Fertilize appropriately
4. Mulch
5. Attract wildlife
6. Manage yard pests
7. Recycle
8. Reduce stormwater runoff
9. Protect the waterfront



FFL Resources Online

<https://ffl.ifas.ufl.edu/>



Publications

FFL Plant List & Apps



DIY FFL Projects



FFL Webinars

Interested in more?

Email sara.weber@ufl.edu

(941) 764-4351

Like us on Facebook:

UF IFAS Charlotte County Florida-Friendly Landscaping Program

<https://www.facebook.com/CharlotteCountyFloridaYardsAndNeighborhoods/>

UF/IFAS FFL Home Page

<https://ffl.ifas.ufl.edu/>

Florida's Green Industry

- Florida's Green Industry generates \$31.4 billion in total output sales and provides more than 266,000 jobs statewide.



Best Management Practice

- A Best Management Practice is "...a practice or combination of practices considered to be the most effective means (including technological, economic and institutional considerations) of preventing or reducing the amount of pollution by nonpoint sources to a level compatible with water quality goals."



GI-BMP

- WHAT ARE GREEN INDUSTRIES BEST MANAGEMENT PRACTICES?
- GI-BMPs teach environmentally safe landscaping practices that help conserve and protect Florida's ground and surface waters and natural resources. This science-based educational program for Green Industry professionals is brought to you by the UF/IFAS Florida-Friendly Landscaping™ program and the Florida Department of Environmental Protection.

The Goal

Lawns Green and Waterways Clean



686 Fertilizer
Ordinance
Certified
Individuals Since
2008

Charlotte County Fertilizer Ordinance

The Original Ordinance took effect September 18, 2008. It was amended on June 14, 2011

OK *14
BCC

FILED WITH THE DEPARTMENT OF STATE - June 21, 2011

CHARLOTTE COUNTY CLERK OF CIRCUIT COURT
OR BOOK 3591, PGS 1453-1500 (9 pgs)
INSTR # 2027450
Doc Type GOV, Recorded 06/30/2011 at 07:43 AM
Rec. Fee: \$69.50
Cashiered By: PATT Doc. #2

ORDINANCE
NUMBER 2011-017

1
2
3
4 AN ORDINANCE OF CHARLOTTE COUNTY, FLORIDA,
5 PROVIDING THAT THE CODE OF LAWS AND ORDINANCES OF
6 CHARLOTTE COUNTY, FLORIDA, BE AMENDED BY AMENDING
7 CHAPTER 3-9, ZONING, SECTION 3-9-64.1, FERTILIZER
8 REGULATIONS; PROVIDING FOR A BLACKOUT PERIOD;
9 PROVIDING FOR REVISED FERTILIZER NITROGEN RATES;
10 PROVIDING FOR SEVERABILITY; AND, PROVIDING FOR AN
11 EFFECTIVE DATE.

12
13 WHEREAS, Charlotte County adopted Ordinance 2008-028 on March 18,
14 2008 which regulated fertilizer application within the County in order to address
15 the leaching and runoff of nutrients from improper or excess fertilization practices
16 can contribute to nitrogen and phosphorus pollution of the community's water
17 resources; and

18
19 WHEREAS, Charlotte County now desires to revise Ordinance 2008-028
20 as part of continuing efforts and in coordination with our neighboring jurisdictions
21 as part of the Charlotte Harbor National Estuary Program's Comprehensive
22 Conservation and Management Plan to reduce nutrient leaching into runoff
23 through such polices as, but not limited to public education and development of
24 standards as set forth in this ordinance; and

25
26 WHEREAS, the provisions of this ordinance which revise Charlotte
27 County's existing fertilizer ordinance have been submitted for comment to the
28 Florida Department of Environmental Protection, the Florida Department of
29 Agriculture and Consumer Services, and the University of Florida as required by
30 Section 403.9337, Florida Statutes; and

31
32 WHEREAS, specific authority for the Board to adopt this Ordinance
33 includes, but is not limited to, Article VIII, Florida Constitution of 1968, Section
34 125.01, Florida Statutes.

35
36 NOW, THEREFORE, BE IT ORDAINED by the Board of County
37 Commissioners of Charlotte County, Florida:

38
39 **Section 1. Findings.** The above "WHEREAS" are hereby deemed by the
40 Charlotte County Board of County Commissioners to constitute findings for
41 purposes of this Ordinance and are incorporated herein.

42
43 **Section 2.** Chapter 3-9 of the Code of Laws and Ordinances of Charlotte
44 County, Florida is hereby amended by adding the underlined language and by
45 ~~deleting the stricken~~ language to provide as follows:
46

1

8
MAY 14 2011



Reading and Understanding the Fertilizer Label

What To Look For On Your Fertilizer Label

% of Total N as Slow-Release Nitrogen (SRN) =

$$\frac{7}{14} \times 100 = 50\%$$

(Meets 50% SRN Charlotte County Requirement)



Nitrogen N

Phosphate P_2O_5

Potash K_2O

GUARANTEED ANALYSIS

TOTAL NITROGEN (N).....	14.00 %
14.45% Urea Nitrogen (N)*	
SOLUBLE POTASH (K_2O).....	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.	



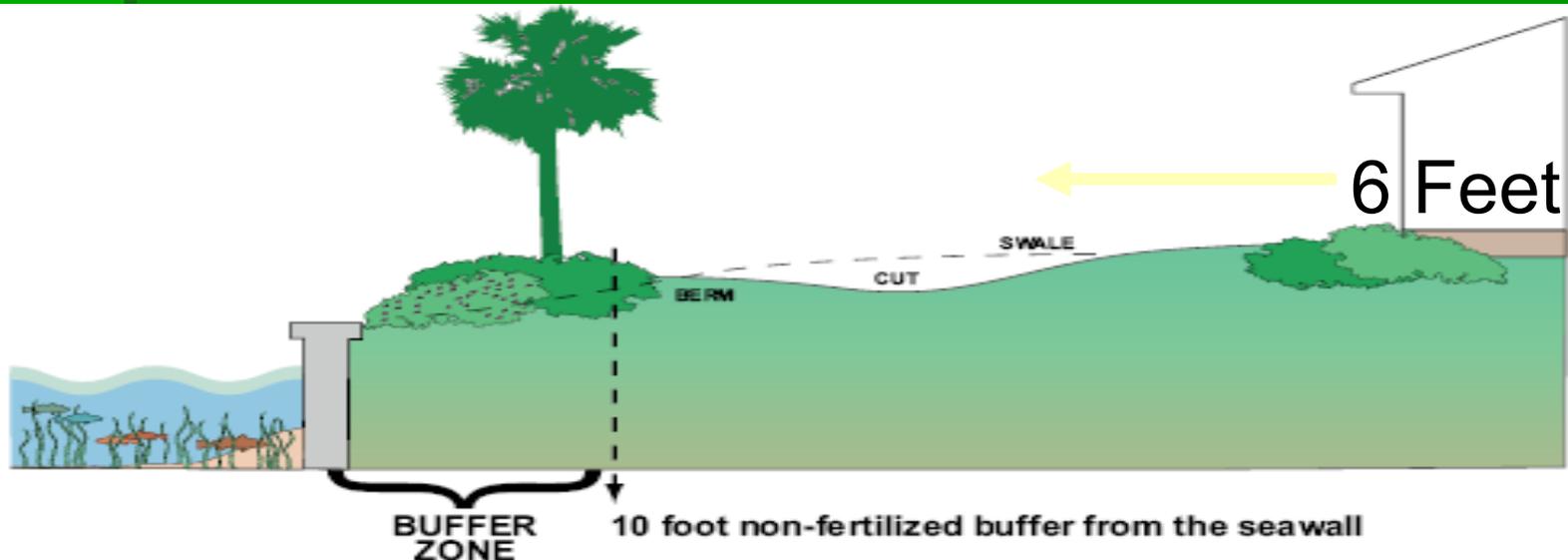
Proper Spreader Setting & Calibration



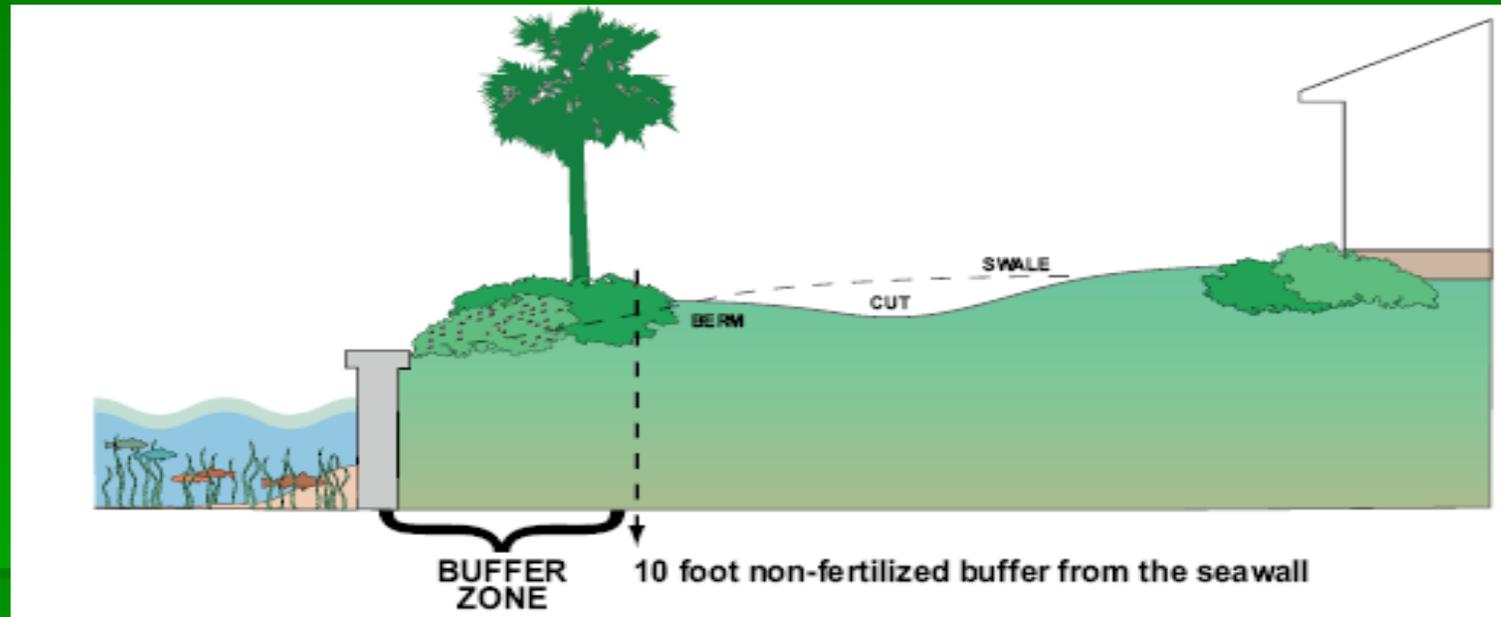
D. Rainey

Low Maintenance Zone

a. A voluntary six (6) foot Low Maintenance Zone is strongly recommended, but not mandatory, from any pond, stream, water course, lake, or canal or any designated wetland or from the top of a seawall. Additionally, care should be taken to prevent the over spray of aquatic weed products in this zone.



Fertilizer-Free Zone

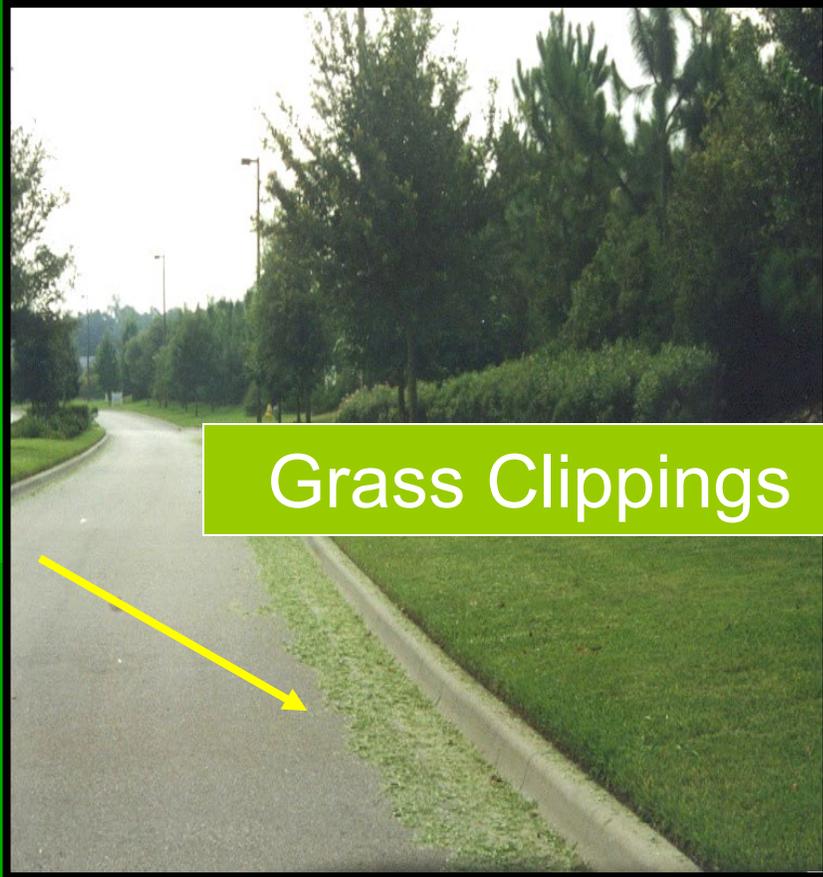


Maintain a mandatory fertilizer-free zone within 10 feet of any water body or wetland (or 3 feet if a deflector shield is used).

Deflector Shield on Spreader



Vegetative Materials



b. In no case shall grass clippings, vegetative material, and/or vegetative debris either intentionally or accidentally, be deposited or discharged into storm water drains, ditches, conveyances, water bodies or roadways.

As of 2014 - Limited Urban Commercial Fertilizer Applicator Certification



Florida-Friendly Landscaping™ PROGRAM



Ralph E. Mitchell
County Extension Director/Horticulture Agent
University of Florida/IFAS Extension
Charlotte County
1120 Centennial Blvd.
Port Charlotte, Florida 33953
Ralph.mitchell@charlottecountyfl.gov or
shadowed@ufl.edu
Phone: (941)764-4344



Resources

- BAHIAGRASS FOR FLORIDA LAWNS - Marco Schiavon, J. Bryan Unruh, and Kevin E. Kenworthy (2023) – The University of Florida Extension Service, IFAS.
- ST. AUGUSTINEGRASS FOR FLORIDA LAWNS - Laurie E. Trenholm, Marco Schiavon, J. Bryan Unruh, Travis W. Shaddox, and Kevin E. Kenworthy (2021) – The University of Florida Extension Service, IFAS.
- FLORIDA-FRIENDLY LANDSCAPING™ PROGRAM - <https://ffl.ifas.ufl.edu/>
- Don Rainey (2008) Just the Facts Ordinance Review – PP.
- HOW TO CALIBRATE YOUR FERTILIZER SPREADER - T. W. Shaddox, J. B. Unruh, and L. E. Trenholm (2022) – The University of Florida Extension Service, IFAS.

Tying It All Together: One Charlotte, One Water



One Charlotte, One Water Plan

Overall Goal: Through county collaboration and action, improve and protect:

- Our water quality and aquatic habitats
- Our water supply resources
- Public Health

Operational Goal: form a “connective tissue” between existing county water-related efforts in order to:

- Promote and expand our water protection strategies
- Find opportunities to improve existing policies, codes, and processes
- Identify and leverage departmental needs to advance both their goals and the One Water Overall Goals



One Charlotte, One Water Plan

Progress is measured through:

- Meeting relevant water quality standards;
- Assuring adequate supply for man and environment;
- Monitoring future risks to both of the above, and taking action to address them

REMEMBER: Multiple water improvement protection/improvement projects are already happening. This is meant to support and enhance those efforts, while adding new ones.



One Water- General Model

County Policy/Planning

- Capital Improvements
- Resiliency/Vulnerability Assessments
- Comprehensive Planning
- Water-Related Codes/ Ordinances
- Water Conservation/ Protection Initiatives
- Habitat Conservation Initiatives
- Flood Control Initiatives

County Private/Public Engagement

- Citizen Engagement
- Industry Participation
- Regional Partnerships

One Charlotte, One Water

Local and State Water Quality/Quantity Assessment

Public Outreach Programs

Public-Private Partnership Opportunities

Monitoring and Modeling Recommendations

Code/Policy Review and Activity Support

Pollutant Load Reduction Strategies



One Water Plan Considerations

This is an iterative adaptive management strategy

Initial version is focused on:

- Foundation Building- determine what information is available to help identify pollution sources, and figure out how to fill the knowledge gaps
- Providing programmatic recommendations related to ordinances, Comp Plan, outreach

One Water Plan Considerations

This is an iterative adaptive management strategy

Initial version is focused on:

- Based on available data, identifying any potential areas of concern and recommend projects to address them
- Determining potential grant funding sources for these activities

One Water Plan Next Steps

- Draft Plan and Public Workshops- no later than summer 2024
- Target Plan completion date of 9/30/2024
- Draft documents, public comments, and responses to comments will be available on One Charlotte, One Water web page

OK, But What About Everyone Upstream?

- Broader One Water Coalitions are picking up steam in local govt's upstream of us, e.g. Winter Haven
- FGCU has begun state-funded watershed assessment model/pollutant hot spot for entire Peace Basin
- Regional agencies are continuing to implement water improvement projects



OK, But What About Everyone Upstream?

- At the end of the day, we have direct authority over only what is within our borders...
- BUT, this effort shows that Charlotte County is keeping “its house in order”, and can put more pressure on our neighbors to do their part if the Harbor doesn’t improve
- In the meantime, Commissioners and county staff will continue to assure our interests/concerns are heard at a regional/state level