

URBAN FERTILIZER ORDINANCES

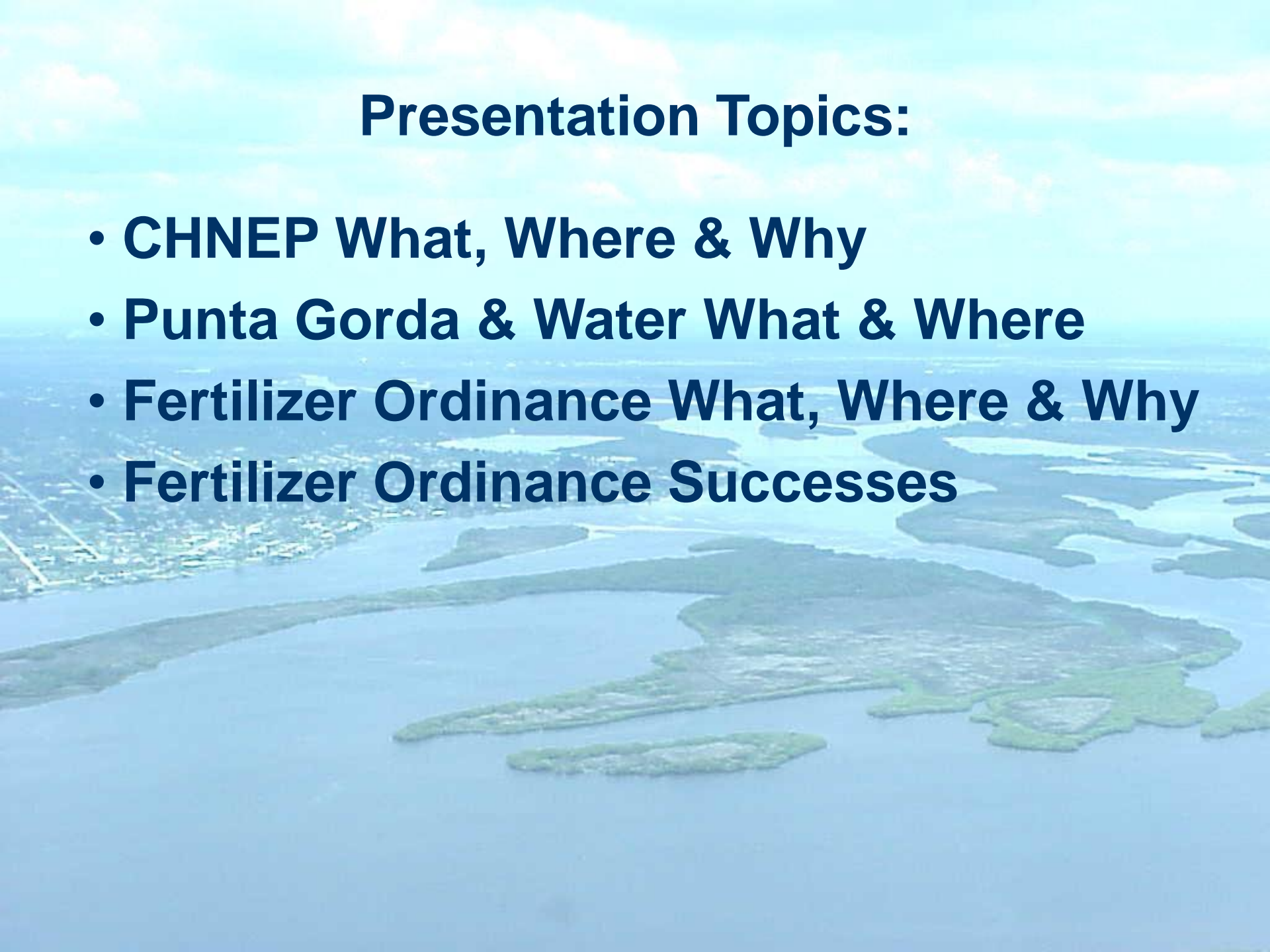
Punta Gorda City Council
February 16, 2011



Judy Ott, MS, Program Scientist &
Lisa B. Beever, PhD, AICP, Director

Presentation Topics:

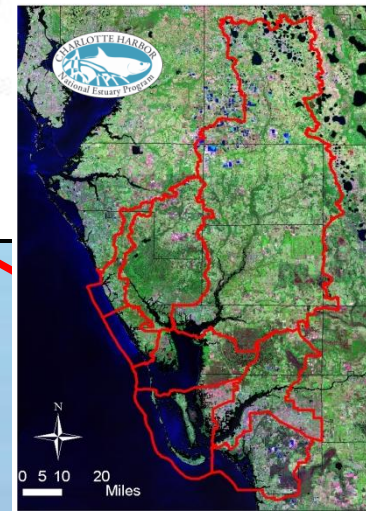
- **CHNEP What, Where & Why**
- **Punta Gorda & Water What & Where**
- **Fertilizer Ordinance What, Where & Why**
- **Fertilizer Ordinance Successes**



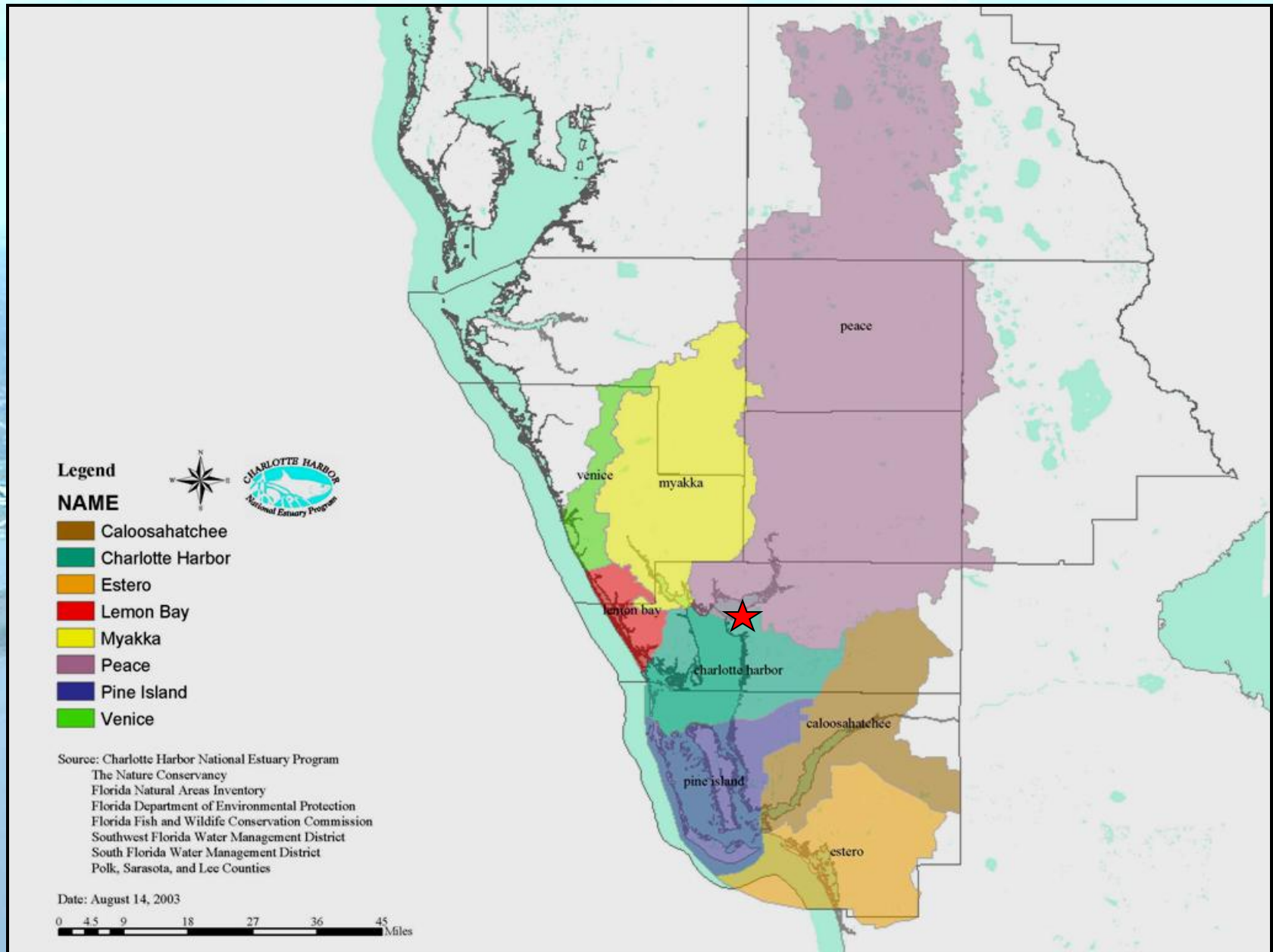
CHNEP What & Where



- 1 of 28 NEPs
- Designated in 1995
- Partnership of Organizations



- CHNEP include 8 Sub Basins
- Punta Gorda is in Peace River & Charlotte Harbor



• CHNEP Guided by Our CCMP

Committing to Our Future

A Comprehensive Conservation and Management Plan

for the Greater Charlotte Harbor Watershed

from Venice to Bonita Springs to Winter Haven



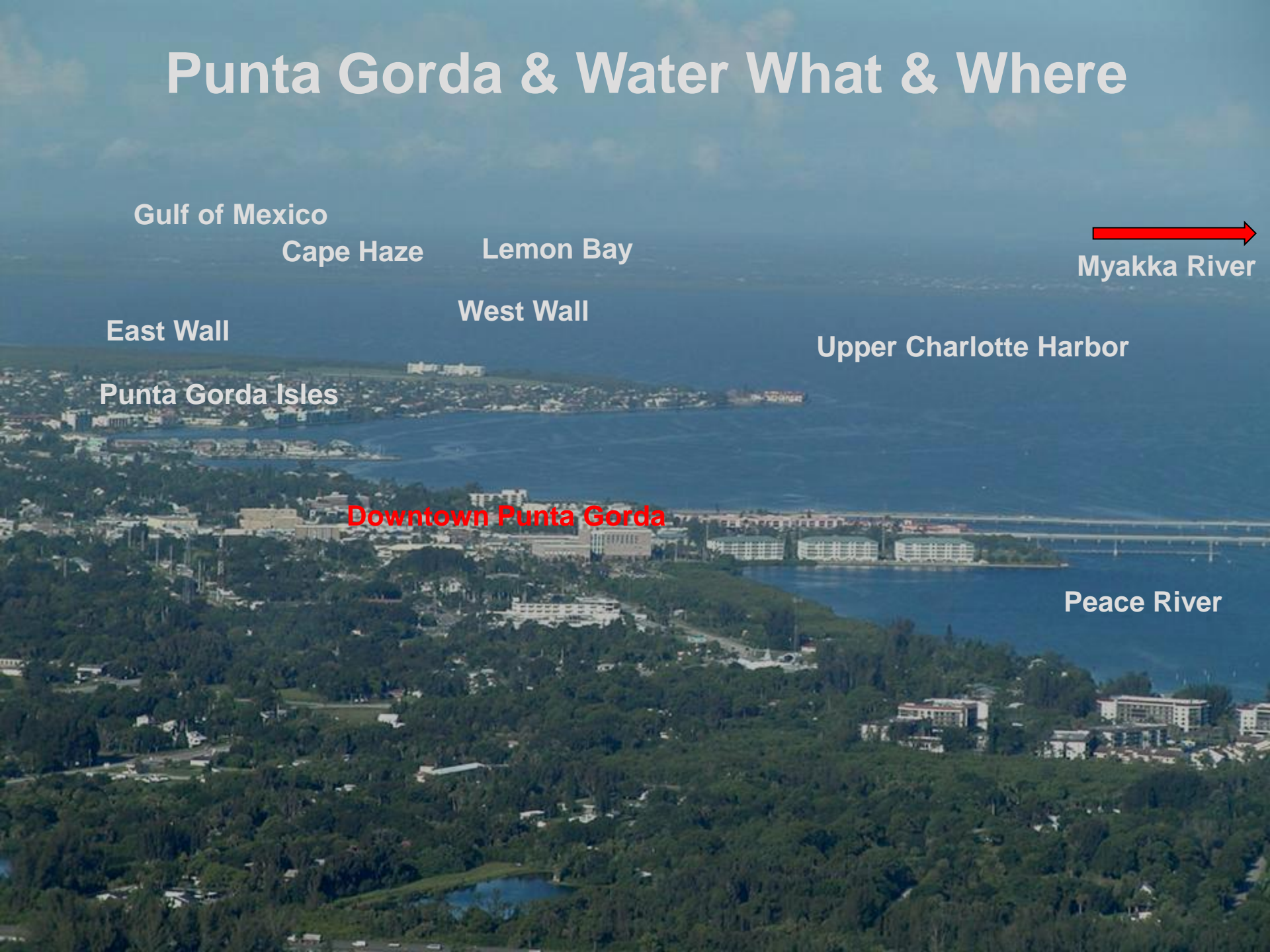
Update 2008



4 Priority Problems

- Hydrologic Alterations (Water Flows)
- Water Quality Degradation
- Fish and Wildlife Habitat Loss
- Stewardship Gaps

Punta Gorda & Water What & Where



Gulf of Mexico

Cape Haze

Lemon Bay

Myakka River

East Wall

West Wall

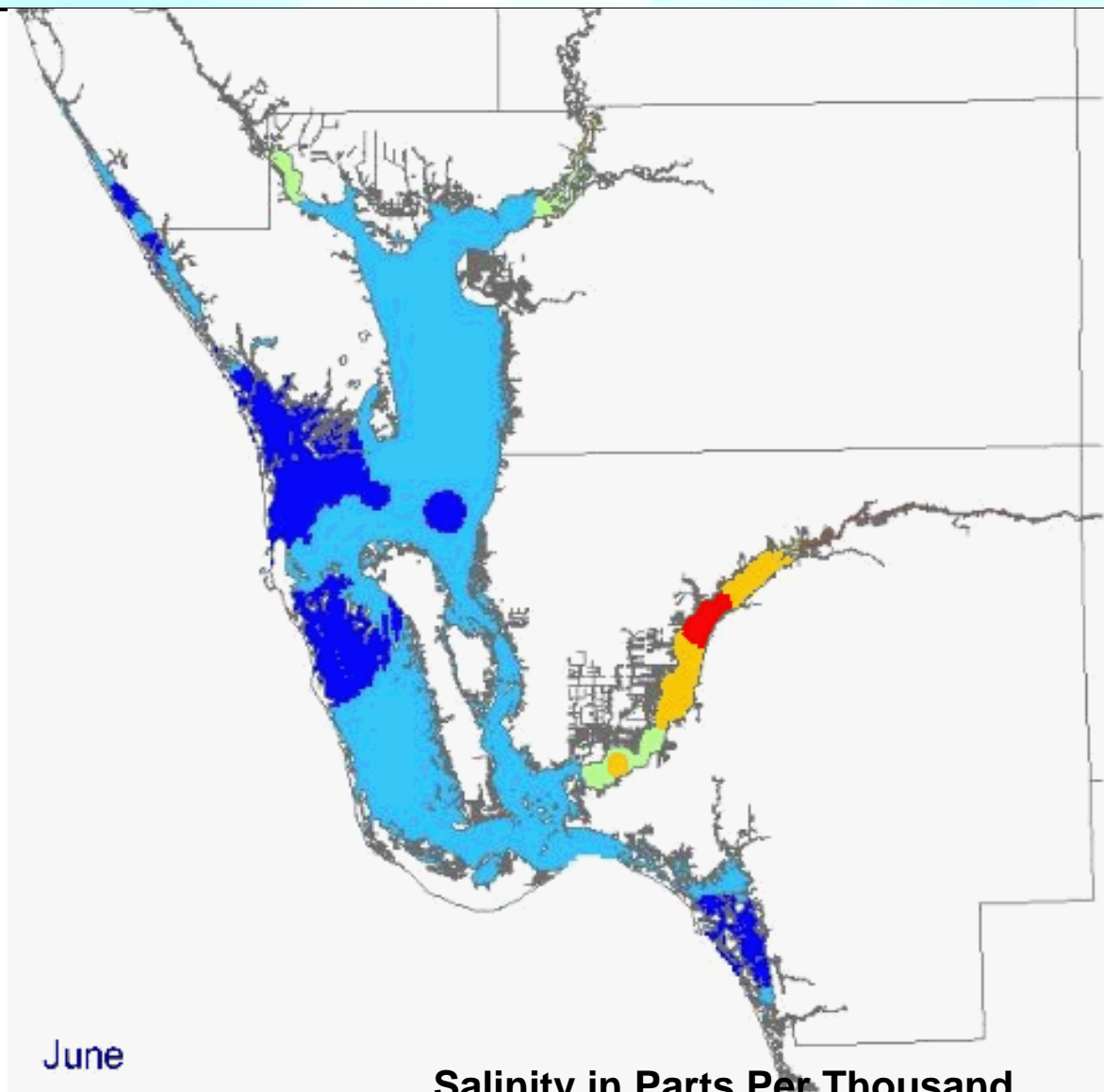
Upper Charlotte Harbor

Punta Gorda Isles

Downtown Punta Gorda

Peace River

• Dynamic Fresh & Estuary Water Mixing



June

Salinity in Parts Per Thousand

Fresh Oligohaline

Mesohaline

Polyhaline

Marine

<0.5

0.5 to 5

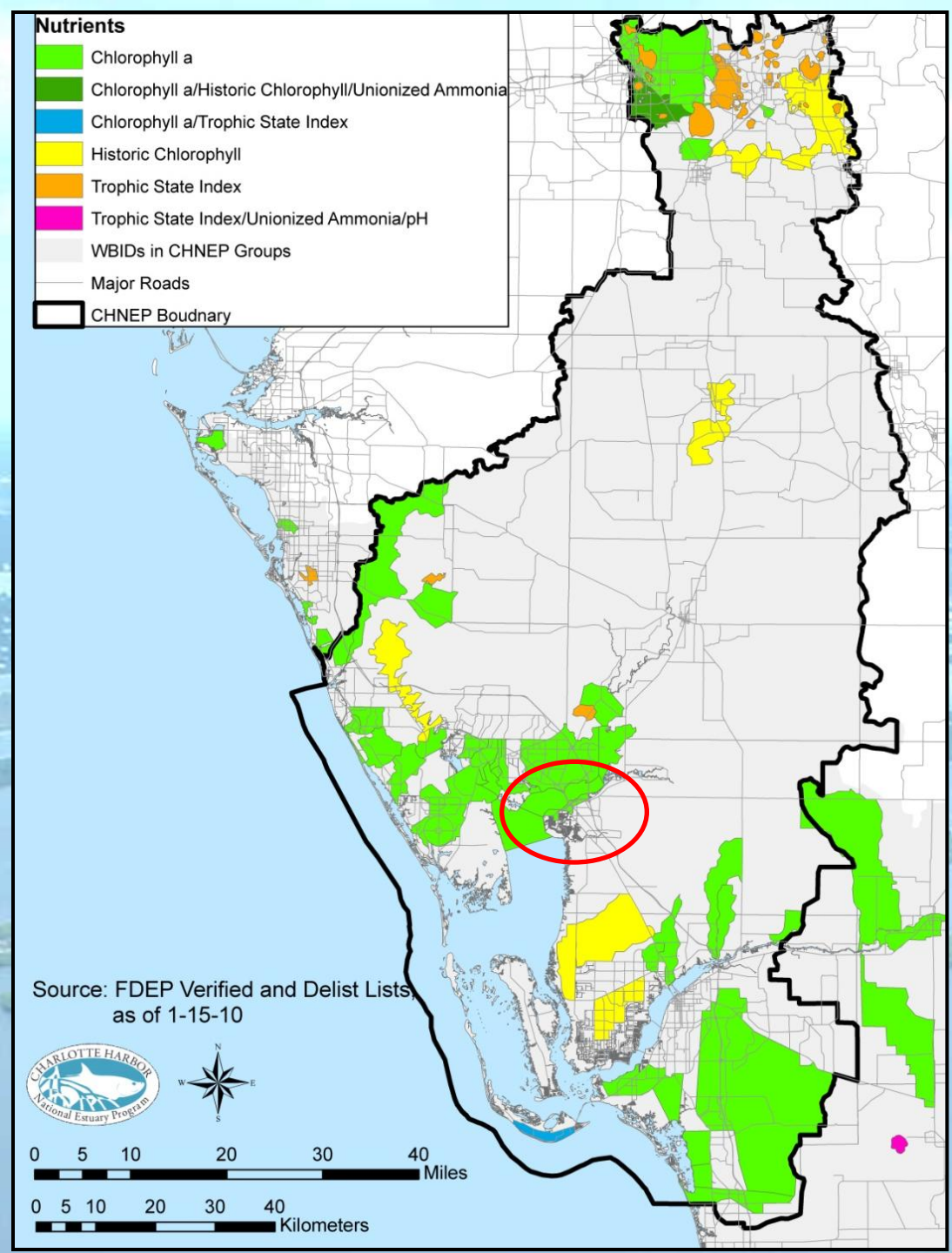
5 to 18

18 to 32

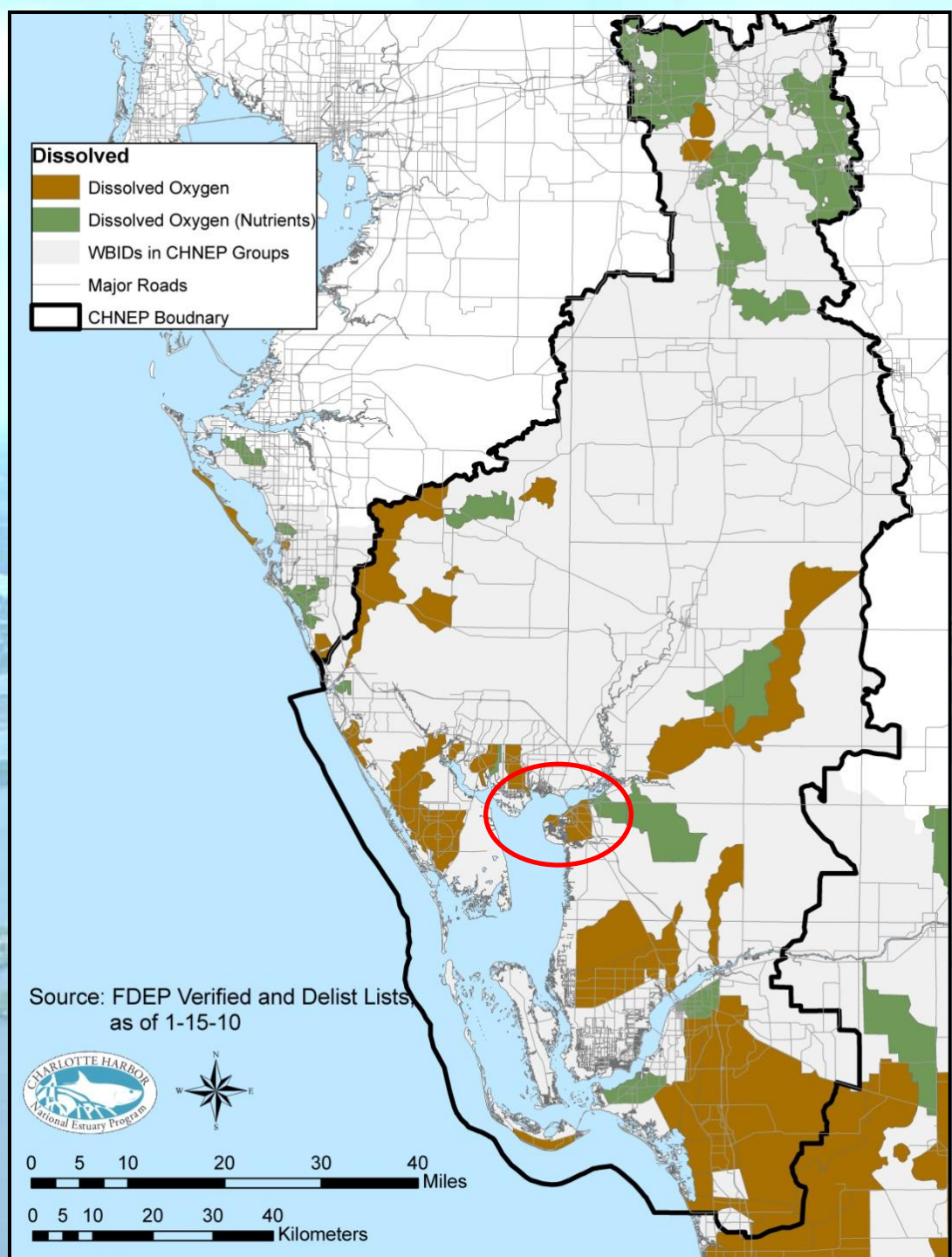
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Source: Charlotte Harbor Environmental Center Watershed Resource Center

• Water Quality - Chlorophyll Impairments



• Water Quality – Dissolved Oxygen Impairments



Fertilizer Ordinance What, Where & Why

SWFRPC Resolution #07-01

Southwest Florida Regional Planning Council Fertilizer Resolution

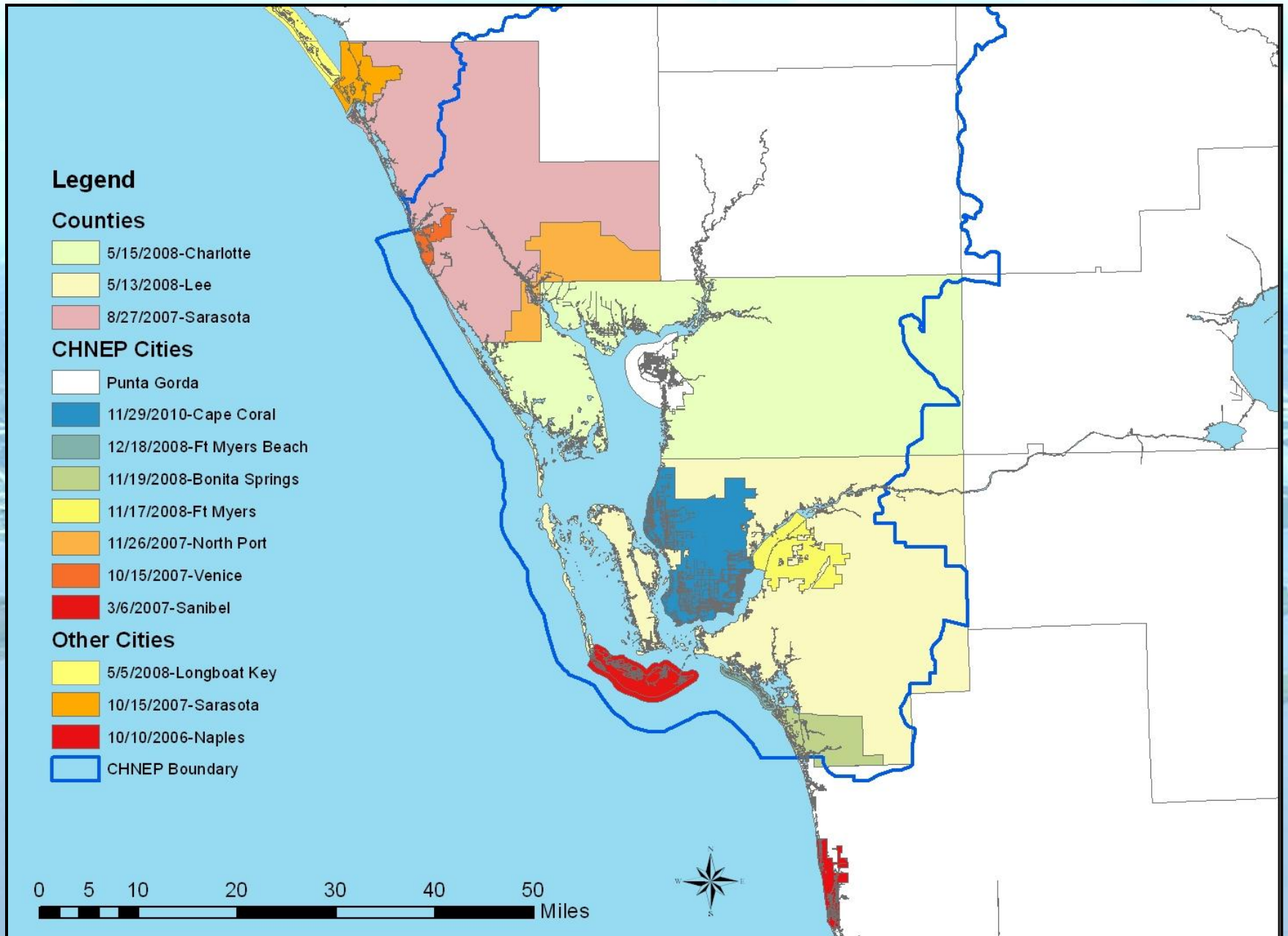
A RESOLUTION SUPPORTING THE REGULATED USE OF FERTILIZERS CONTAINING NITROGEN AND/OR PHOSPHORUS WITHIN SOUTHWEST FLORIDA; PROVIDING SPECIFIC RECOMMENDATIONS AND GUIDELINES TO BE CONSIDERED BY LOCAL GOVERNMENT JURISDICTIONS FOR THE REGULATION AND CONTROL OF FERTILIZER APPLICATION; PROVIDING RECOMMENDED DEFINITIONS; PROVIDING RECOMMENDATIONS RELATING TO TIMING OF FERTILIZER APPLICATION, CONTENT AND APPLICATION RATE, IMPERVIOUS SURFACES, BUFFER ZONES AND MECHANICAL APPLICATION; PROVIDING RECOMMENDED EXEMPTIONS; PROVIDING RECOMMENDATIONS FOR LICENSING OF COMMERCIAL AND INSTITUTIONAL APPLICATORS; PROVIDING RECOMMENDATIONS FOR PUBLIC EDUCATION PROGRAMS; PROVIDING RECOMMENDATIONS RELATING TO THE RETAIL SALE OF FERTILIZER; PROVIDING RECOMMENDATIONS FOR APPEALS, ADMINISTRATIVE RELIEF AND PENALTIES; PROVIDING FOR AN EFFECTIVE DATE.

- Adopted by SWFRPC March 2007**
- Endorsed by CHNEP May 2007**

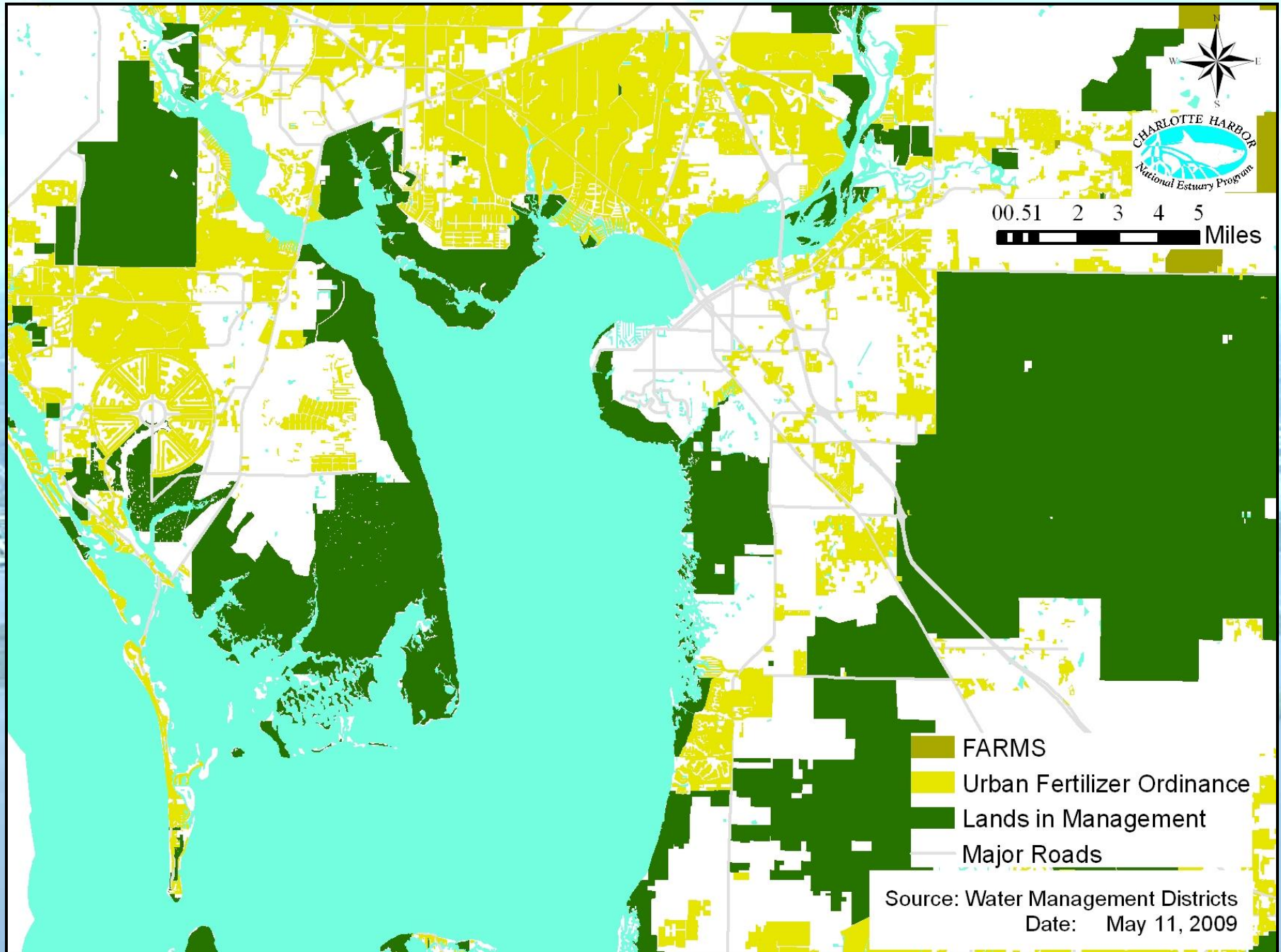
• Counties & Cities with Urban Fertilizer Ordinances in CHNEP Coastal Areas

Jurisdiction	Effective Date
Sanibel	3/6/2007
Sarasota County	8/27/2007
Venice	10/15/2007
North Port	11/26/2007
Lee County	5/13/2008
Charlotte County	5/18/2008
Fort Myers	11/17/2008
Bonita Springs	11/19/2008
Fort Myers Beach	12/18/2008
Cape Coral	11/29/2010
Punta Gorda	Adaptation Plan- 11/19/2009

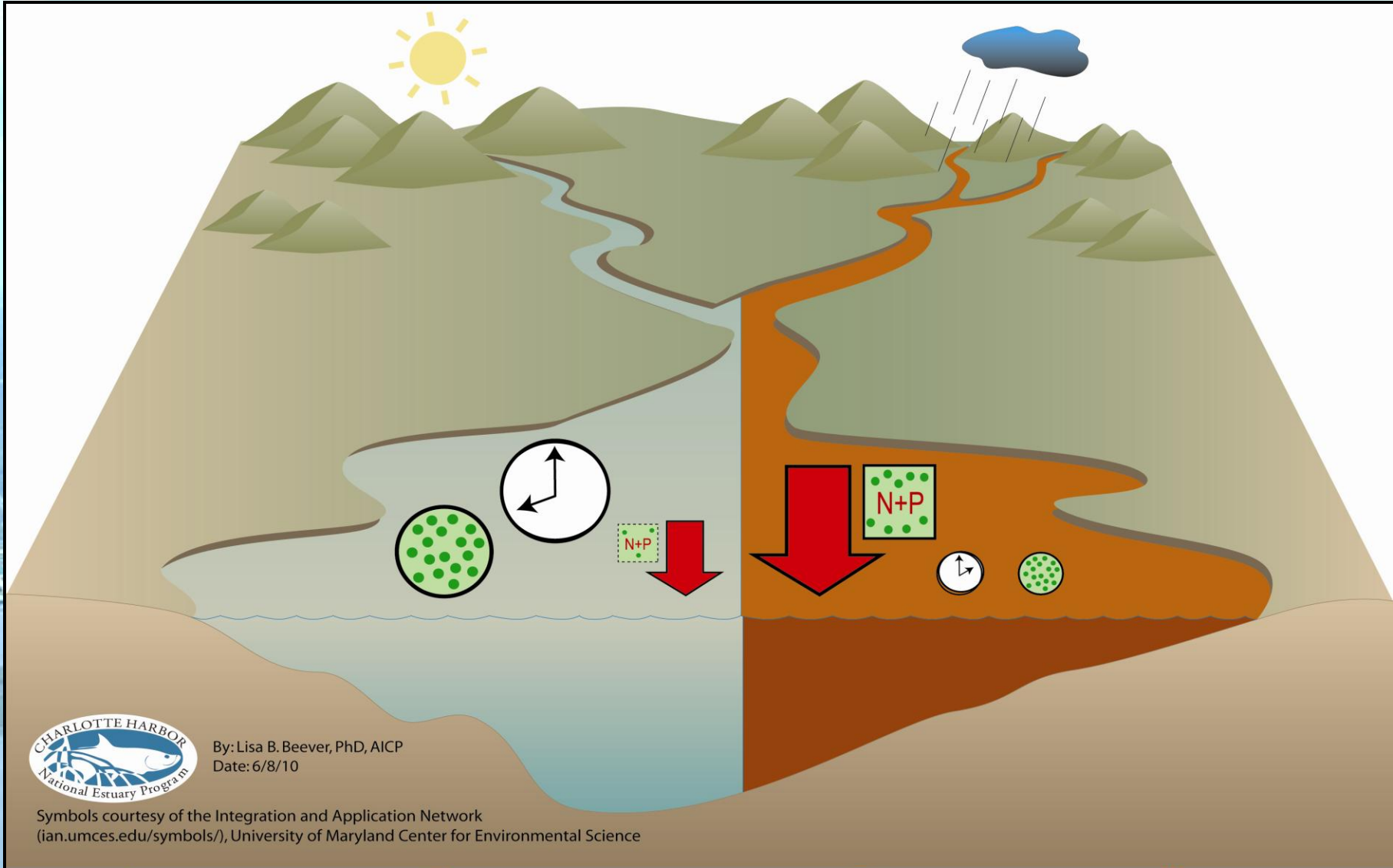
• Counties & Cities with Urban Fertilizer Ordinances in CHNEP Coastal Areas



• Fertilizer BMPs Also Implemented on Rural Lands



Fertilizer & Water Quality Relationships are Complex



By: Lisa B. Beever, PhD, AICP
Date: 6/8/10

Symbols courtesy of the Integration and Application Network (ian.umces.edu/symbols/), University of Maryland Center for Environmental Science

Dry season ☀️ results in low fresh water flows ↓ and therefore higher residence times (↻). Though nitrogen and phosphorous loads are lower (N+P), the higher residence times and lower colored dissolved organic matter (CDOM) (light blue) can lead to (green dots) higher chlorophyll *a* production from plant life.

Wet season ☁️ results in high fresh water flows ↓ and therefore lower residence times (↻). Though nitrogen and phosphorous loads are higher (N+P), the lower residence times and higher CDOM (dark brown) can lead to (fewer green dots) lower chlorophyll *a* production from plant life.

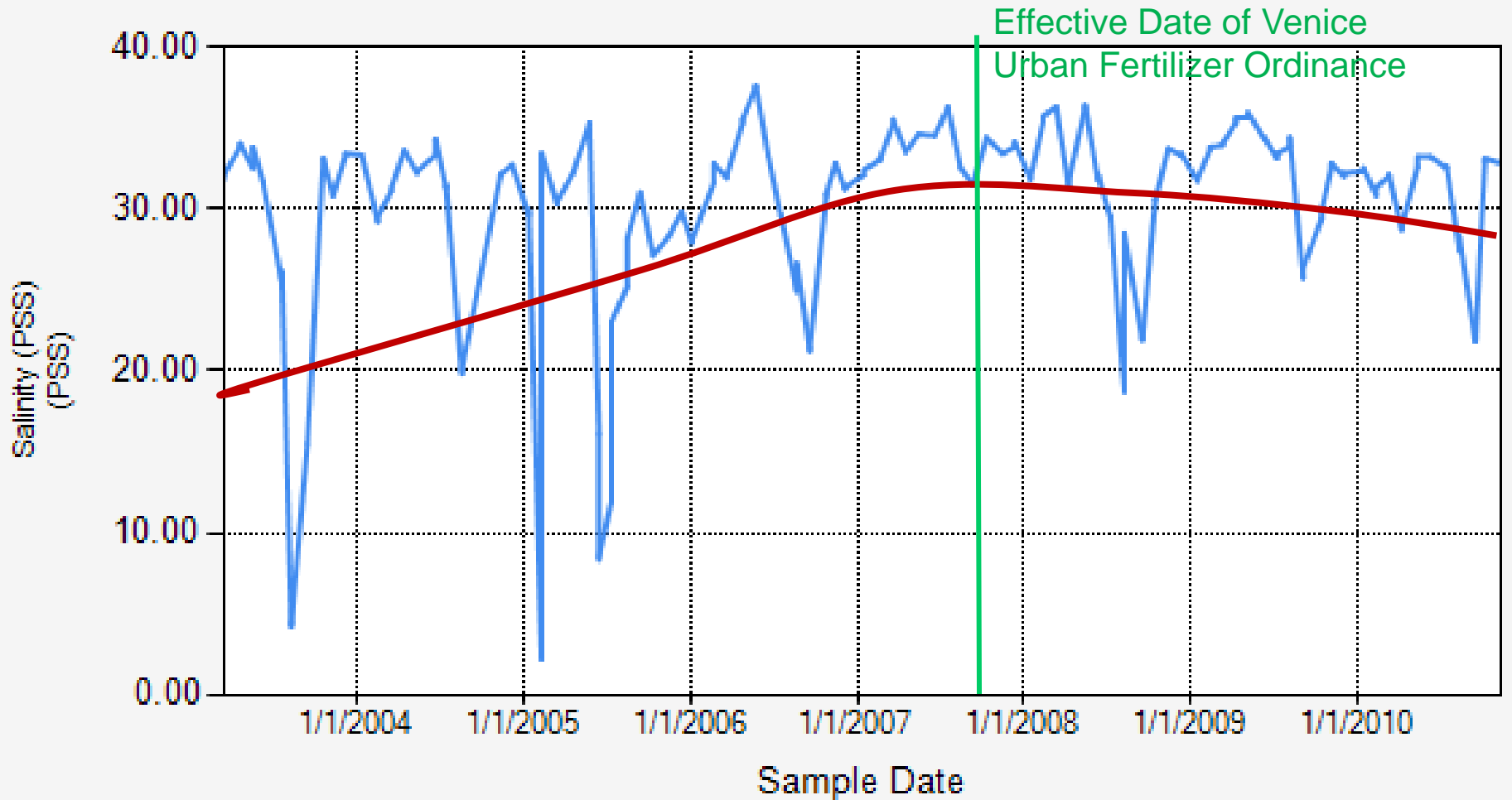
• Fertilizer Ordinance Values

- Cost Saving to Homeowners
- Cost Savings to Prevent Pollutants vs. Remove
- Better Lawns & Yards
- Improves Property Values
- Reduces Energy Use & Costs
- Improves Water Quality
- Improves Fishing
- Better for Humans, Pets & Wildlife

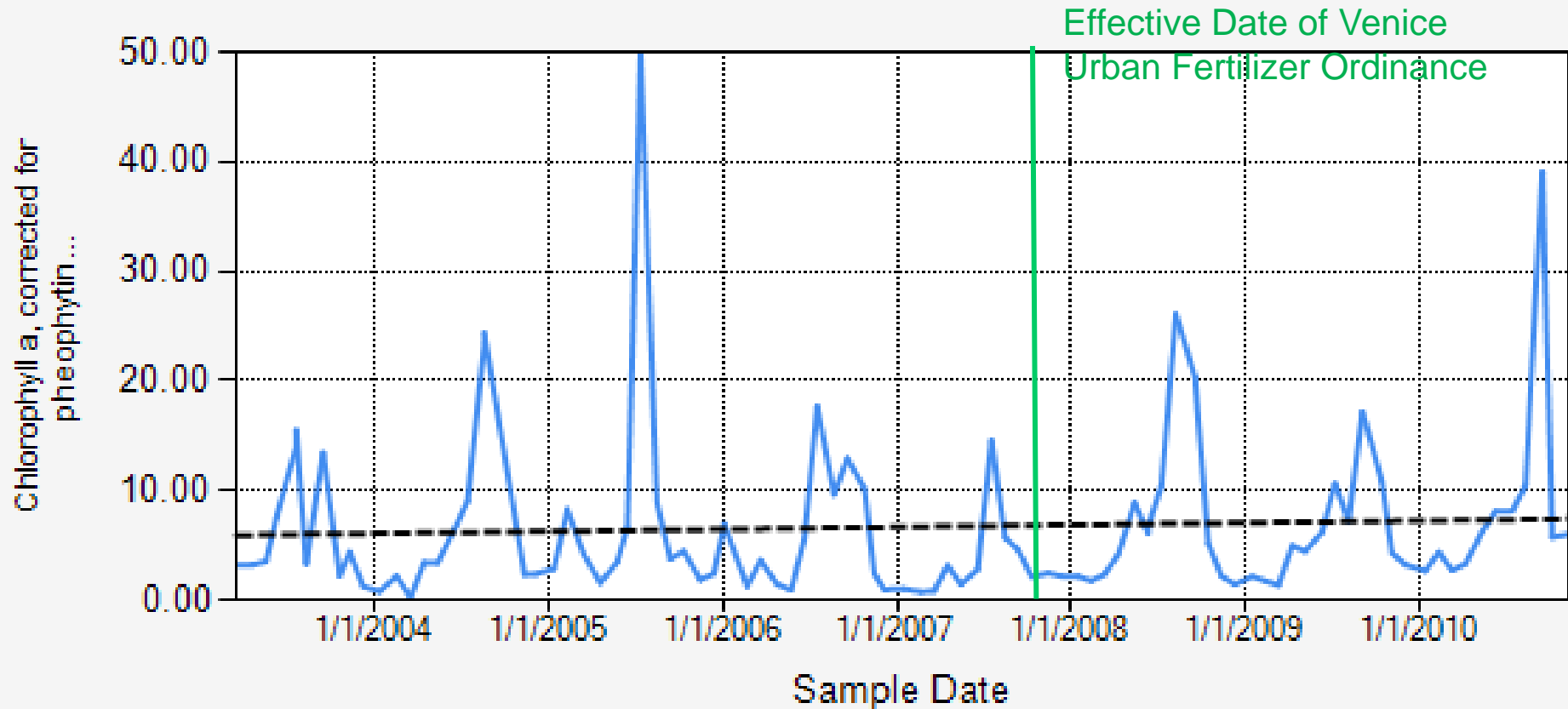


• Fertilizer Ordinance Successes - Venice

Salinity (PSS)
Intracoastal Waterway Venice
(191 measurements)



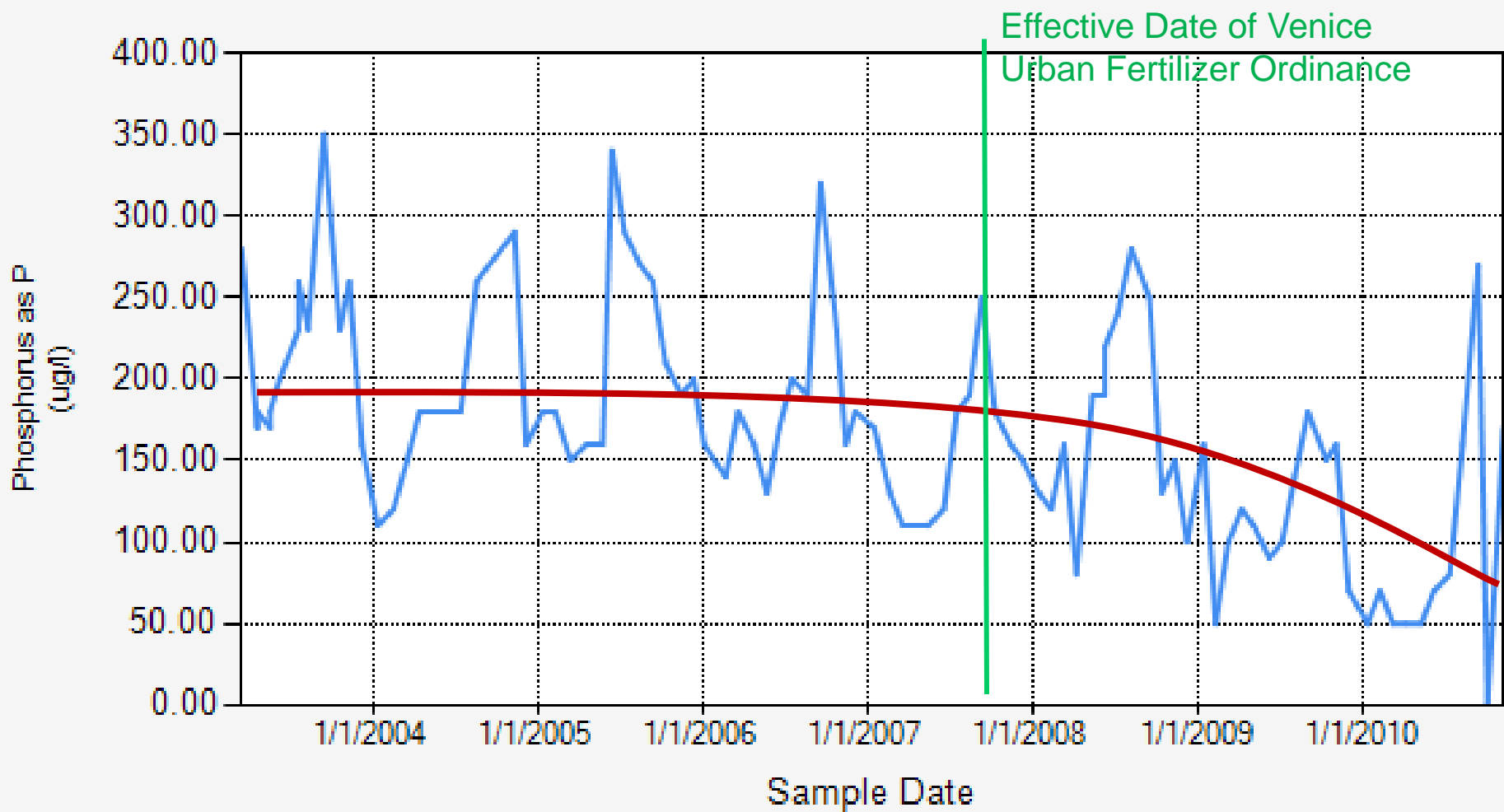
Chlorophyll a, corrected for pheophytin Intracoastal Waterway Venice (96 measurements)



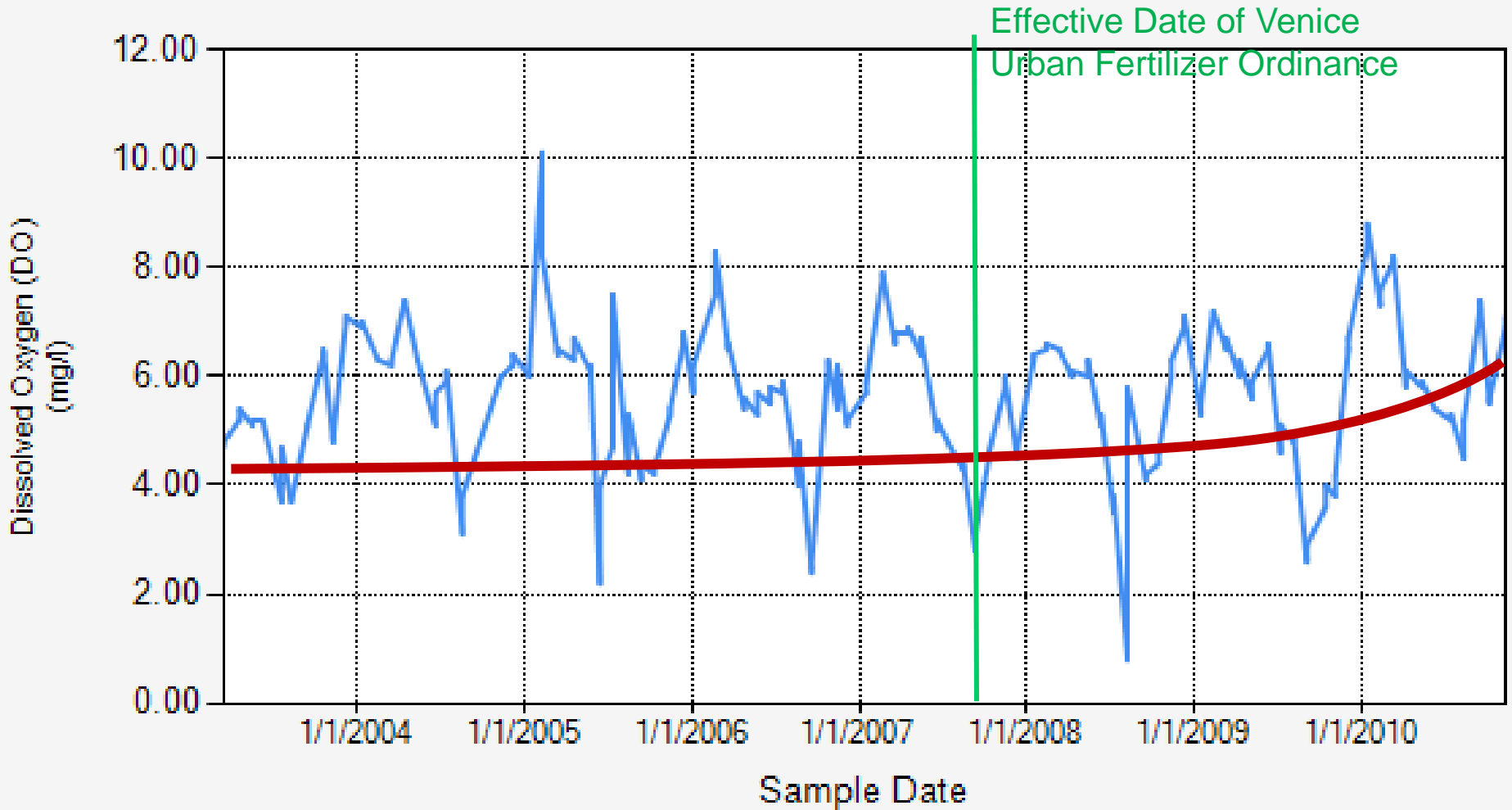
— Chlorophyll a, corrected for pheophytin

--- Linear Trend $y = 5.36E-004x - 14.31$

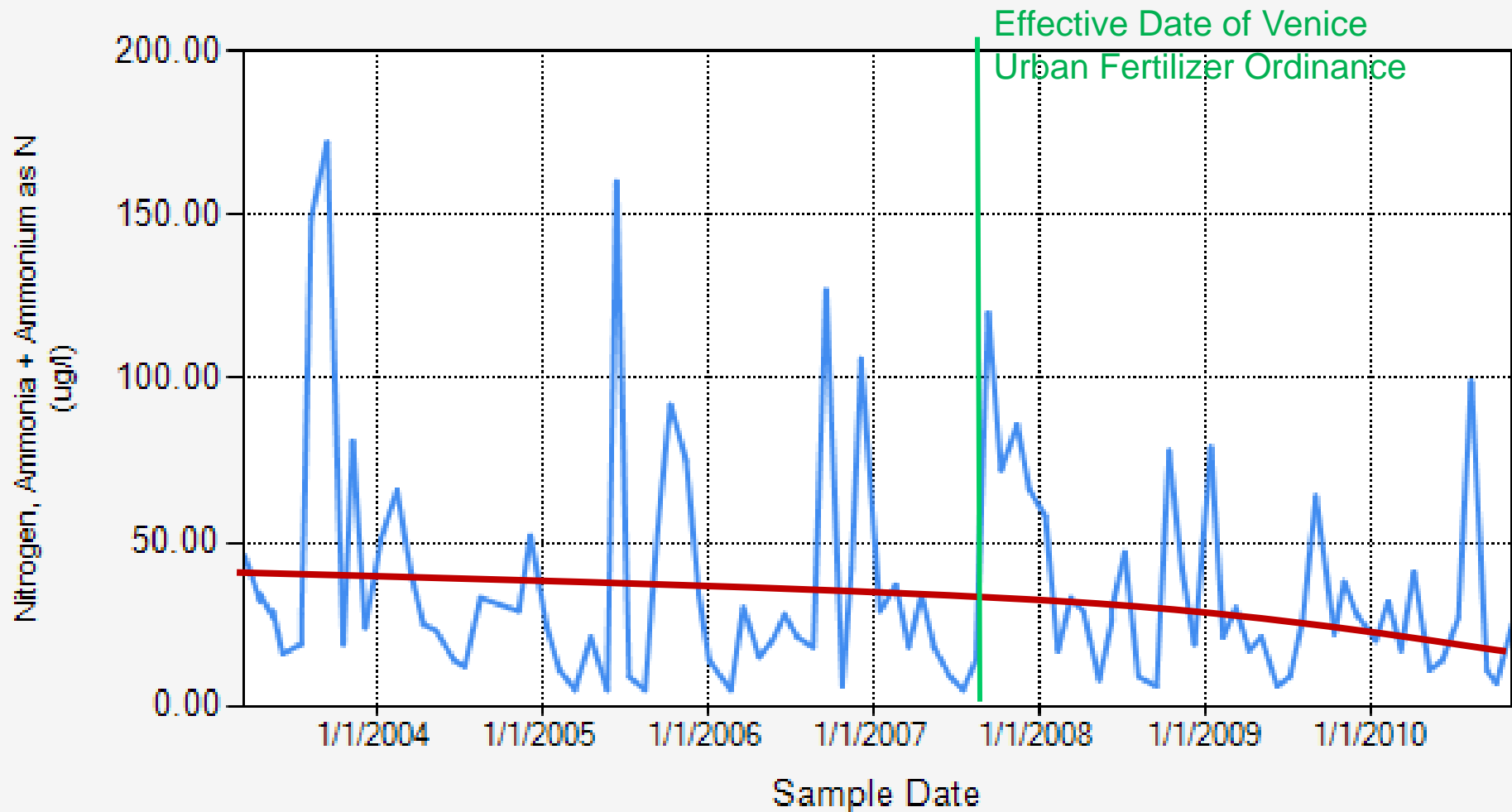
Phosphorus as P Intracoastal Waterway Venice (95 measurements)



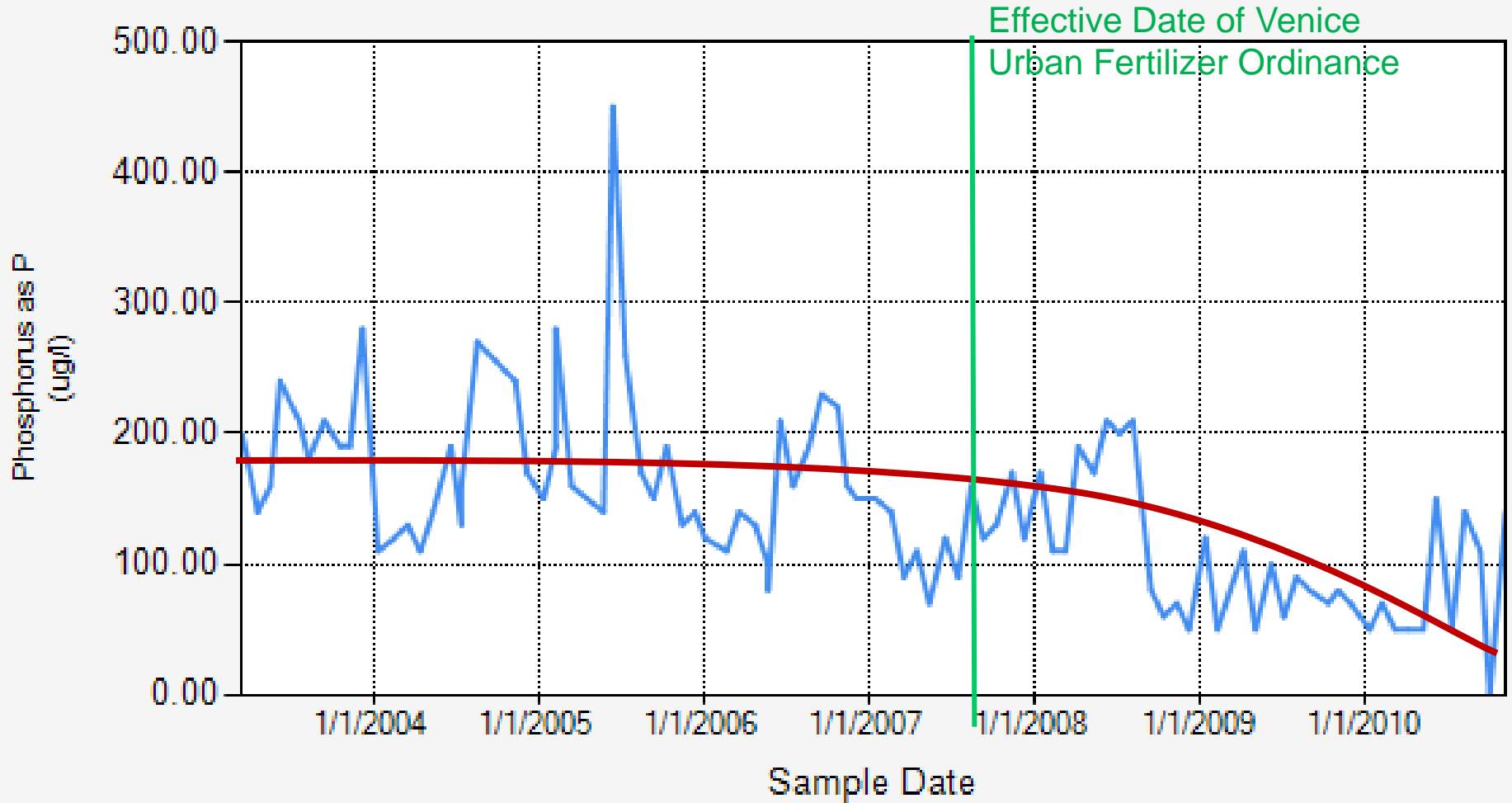
Dissolved Oxygen (DO) Intracoastal Waterway Venice (202 measurements)



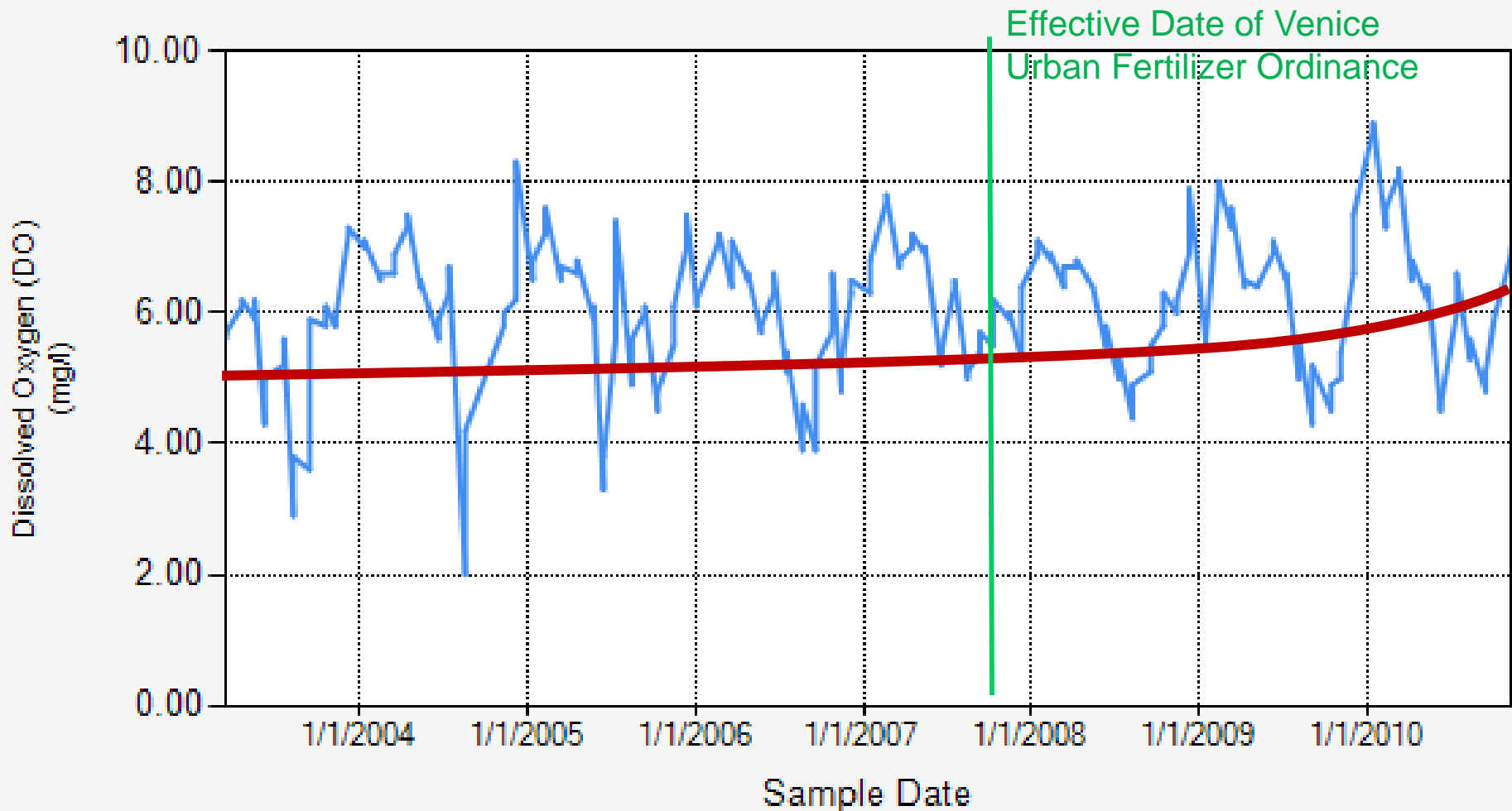
Nitrogen, Ammonia + Ammonium as N Intracoastal Waterway Venice (95 measurements)



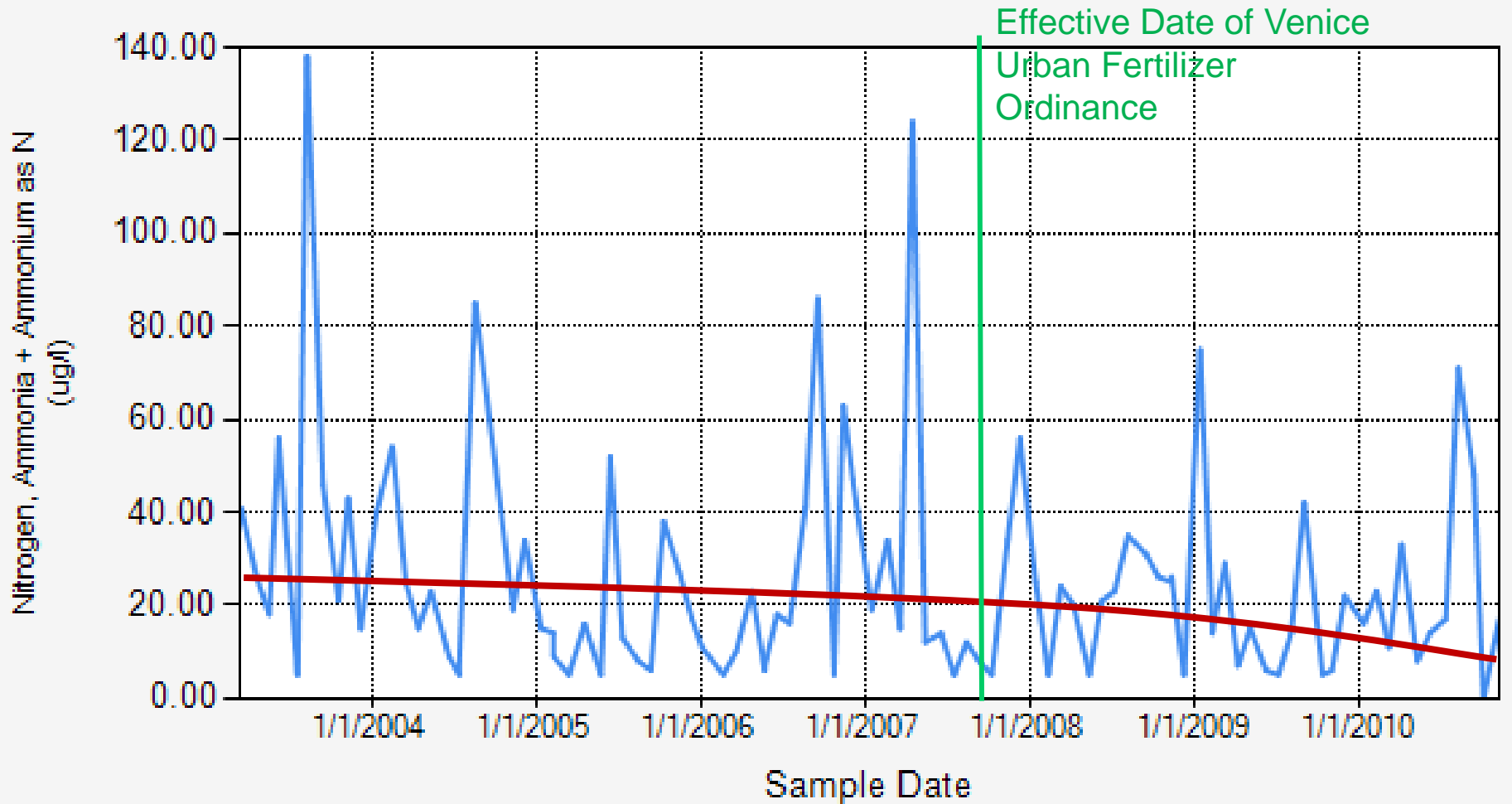
Phosphorus as P Roberts Bay Venice (94 measurements)



Dissolved Oxygen (DO) Roberts Bay Venice (223 measurements)



Nitrogen, Ammonia + Ammonium as N Roberts Bay Venice (95 measurements)



• Charlotte County Fertilizer Ordinance

Things to look for in your lawn maintenance company

Do they ...

- Display the required BMP Training Certification Decal on their equipment? (required after September 18, 2008).
- Use a minimum 50% slow-release nitrogen fertilizer product?
- Apply no more than the maximum allowable amounts of nitrogen and phosphorus?
- Use a deflector shield on all broadcast fertilizer spreaders?
- Remove grass clippings from the roadway, storm drains, and ditches?
- Promote the benefits of a low maintenance zone around water bodies?
- Maintain a 10' fertilizer-free zone around water bodies and wetlands, or three feet with a deflector?



UF UNIVERSITY of FLORIDA
IFAS Extension
Charlotte County

What you need to know about

Charlotte County's Fertilizer Ordinance

ORDINANCE No. 2008-028

CHARLOTTE COUNTY
Extension Service
941.764.4340
<http://charlotte.ifas.ufl.edu>

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Environmental & Extension Services

with support from the
Charlotte Harbor National
Estuary Program (CHNEP)



On March 18, 2008, Charlotte County Board of County Commissioners approved an ordinance regulating the use of fertilizers containing nitrogen and/or phosphorus within Charlotte County (Ordinance No. 2008-028). It establishes Best Management Practices (BMP) for both residential and commercial turf fertilizer application. The ordinance will enable Charlotte County to protect our water resources from nutrient pollution while enabling residents to have beautiful and healthy lawns.

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

Deflector Shields

If fertilizing within 3-10 feet from a water body or wetland, a deflector shield must be used on all broadcast spreaders. Fertilizer may not be applied within three feet of the 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 Fertilizer Applicators

All applicators of fertilizer (except homeowners on their own property) must receive training and certification in a Charlotte County-approved Best Management Practices (BMP) training program. Contact Charlotte County Extension Service (941.764.4340) for training opportunities. <http://charlotte.ifas.ufl.edu>

Enforcement

Enforcement actions will take place through the use of county code enforcement procedures or civil penalties.

Fertilizer-Free Zone

Fertilizer may not be applied within 10 feet of any water body or wetland (or 3 feet if a deflector shield is used). No fertilizer may be applied to impervious (non-porous) surfaces, and any spillage must be removed.

Low-Maintenance Zone

A 6-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 Slow-Release Nitrogen (SRN) =

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

(Meets 50% SRN Charlotte County Requirement)



Nitrogen N
Phosphate P₂O₅
Potash K₂O

GUARANTEED ANALYSIS	
TOTAL NITROGEN (N).....	14.01 %
14.45% Urea Nitrogen (N)*	
SOLUBLE PHOSPHOR (P ₂ O ₅).....	26.04 %
SULFUR (S) Total.....	19.74 %
18.50% Free sulfur (S)	
9.20% Combined sulfur (S)	
IRON (Fe) Total.....	0.96 %
0.19% Water Soluble Iron (Fe)	
MANGANESE (Mn) Total.....	0.48 %
0.15% Water Soluble Manganese (Mn)	
DEFINED FROM: Polymer Coated Sulfur Coated Urea, Sulfate of Potash, Iron Oxide, Manganese Oxide.	
CHLORINE (Cl) Max.....	2.00%
*1.00% Slowly Available Urea Nitrogen from Polymer Coated Sulfur Coated Urea.	

- **Punta Gorda Fertilizer Management**
- **2007 Considered Ordinance but Opted for Education**
- **2009 Included in Climate Change Adaptation Plan**

City of Punta Gorda Adaptation Plan



**Southwest Florida Regional Planning Council
Charlotte Harbor National Estuary Program
Technical Report 09-4**

11/18/2009

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And Lisa B. Beaver, Judy Ott: CHNEP



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Questions?

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