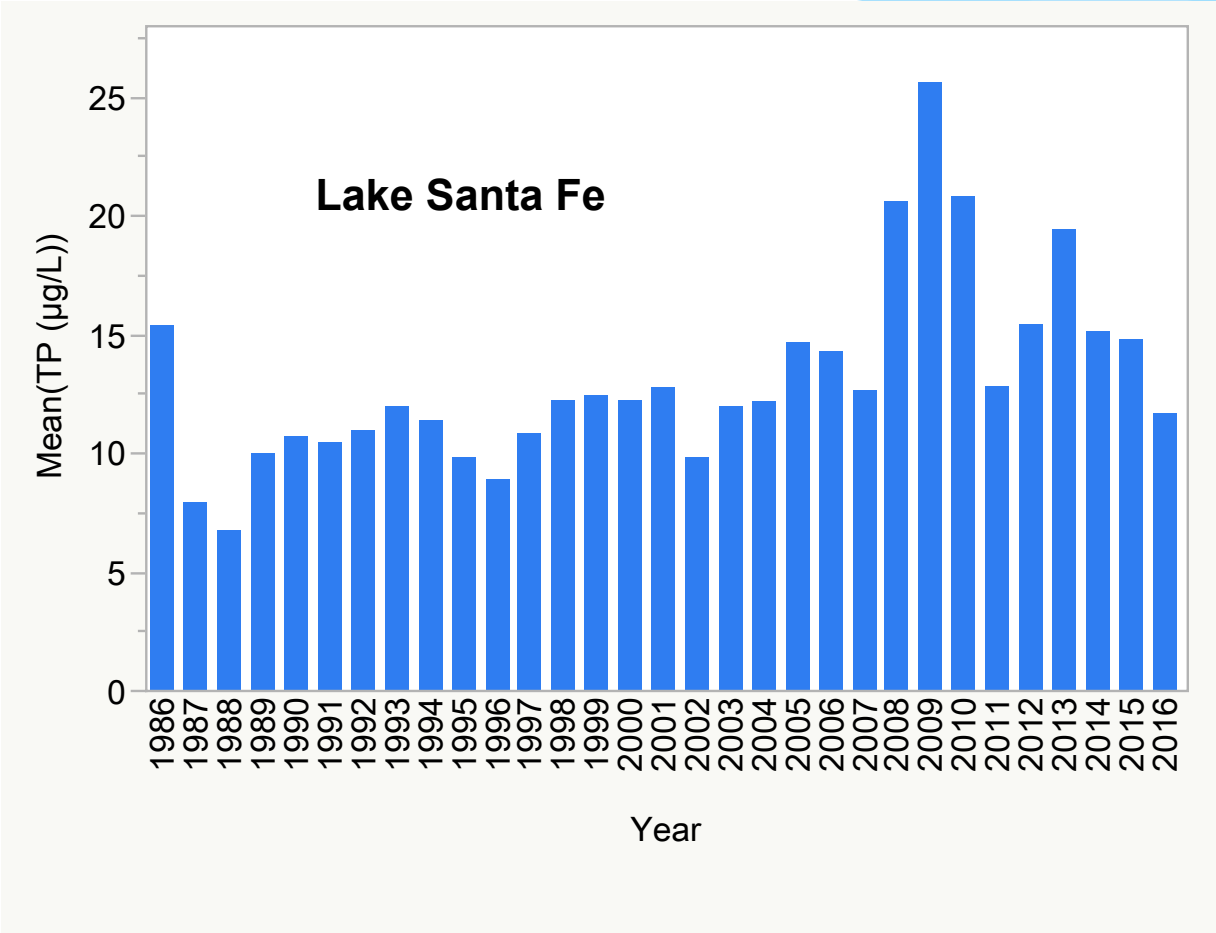
Florida LAKEWATCH Expanding to the Coast?

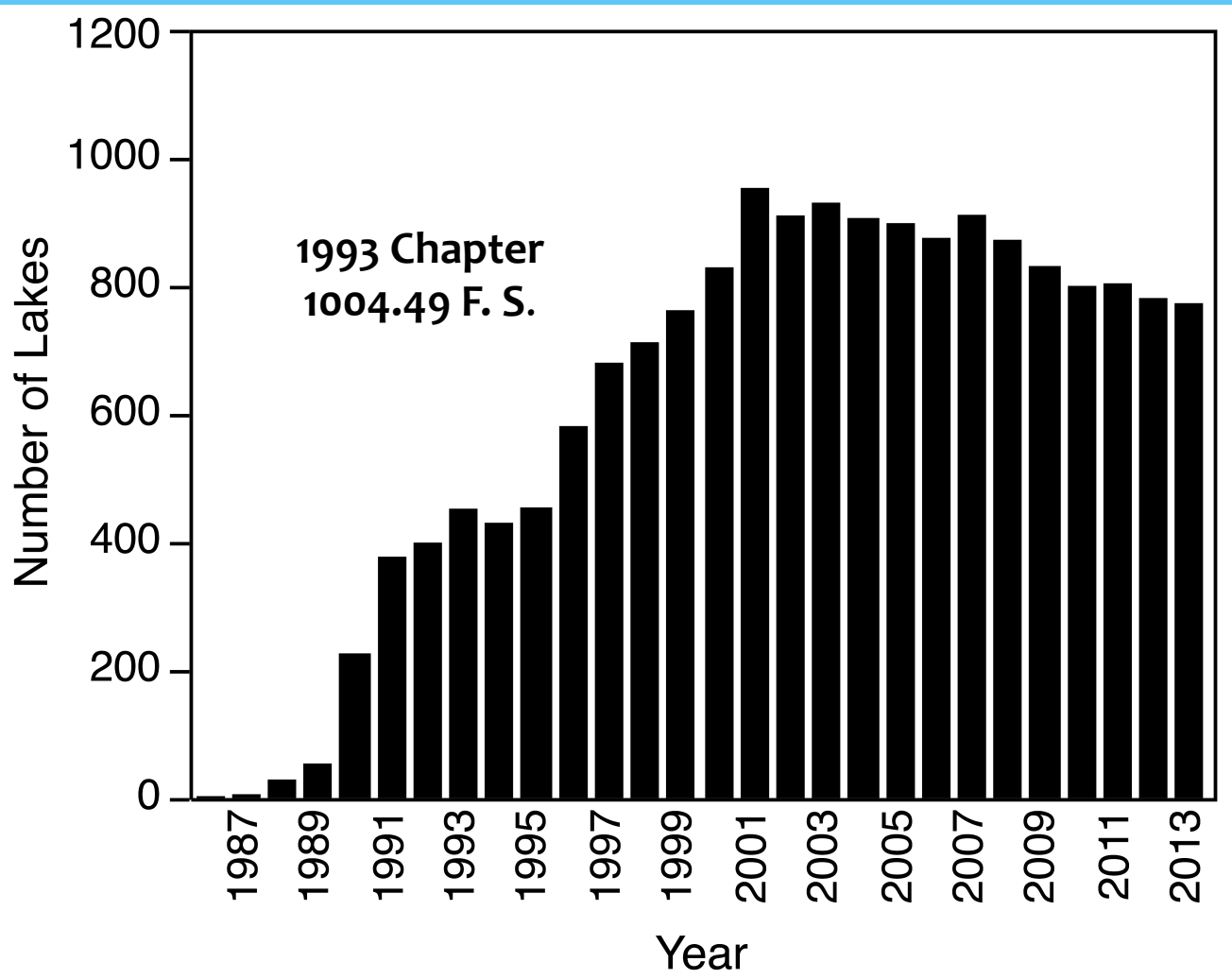
SFRC SCHOOL OF FOREST RESOURCES & CONSERVATION

UF IFAS UNIVERSITY of FLORIDA

Founder of Florida LAKEWATCH
Dr. Daniel E. Canfield Jr. (1986)



Florida LAKEWATCH Started in 1986 and Interest Grew by Word-of-Mouth



Eventually LAKEWATCH's Structure Evolved Into:

University Land Grant Mission:

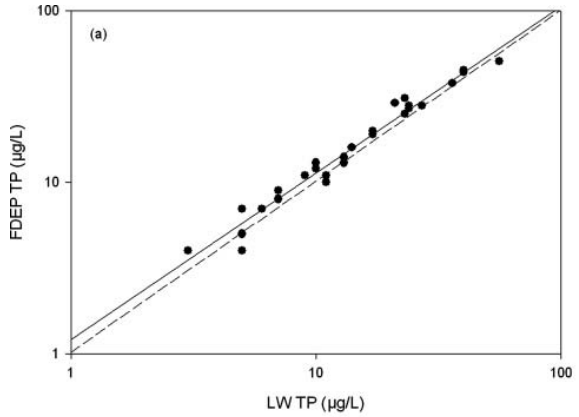
1) Research
2) Teaching
3) Extension

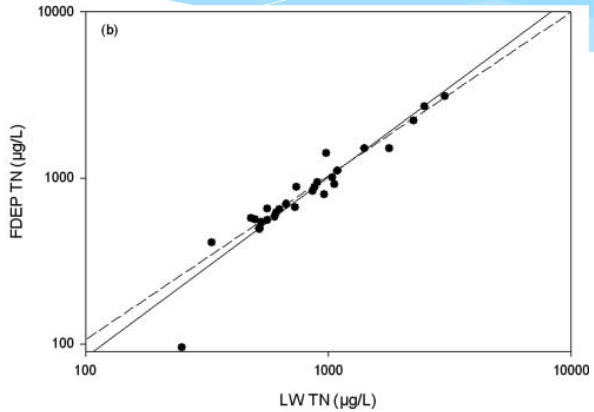
LAKEWATCH Major Hurdles Along the Way and into the Future: QA/QC and Funding

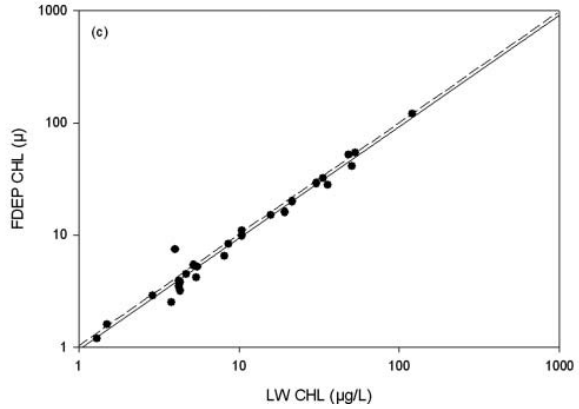
1) Convincing professionals from agencies and governmental officials that well trained volunteers can collect scientific grade data that can be used for research and regulation if needed (QA/QC).

2) Finding funding sources that understand the value of long-term data for management and that are willing to pay the price.

Volunteer and Professional Data are Equivalent







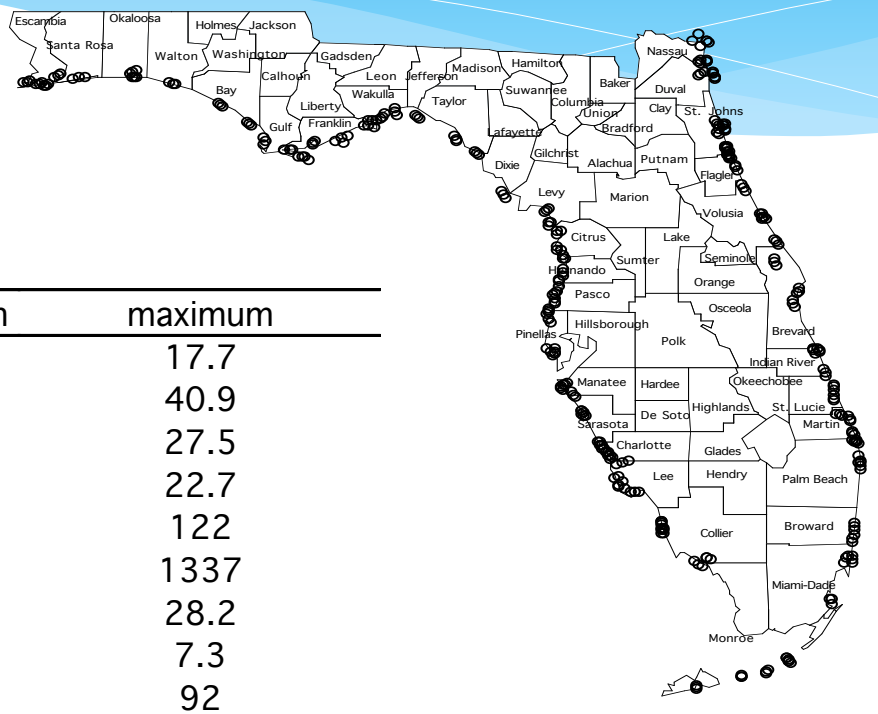
Recent Study Yielded Site Specific Approval from FDEP

Alternative Site-Specific and Limited-Use Methods Approval for Florida LAKEWATCH

FDEP *Aquatic Ecology and Quality Assurance Section*
July 2013

The Florida Department of Environmental Protection (DEP) Aquatic Ecology and Quality Assurance Section (AEQAS), at the request of the DEP Division of Environmental Assessment and Restoration, has reviewed method validation information and approved site-specific methods for alternative sample preservation and maximum holding time for total nitrogen (TN), total phosphorus (TP) and chlorophyll a (CH*LA*) samples, and a limited-use alternative method for the laboratory preparation of chlorophyll samples, collected for Florida LAKEWATCH projects, as further explained below. Florida LAKEWATCH (LW) is a surface water monitoring program coordinated by the Department of Fisheries and Aquatic Sciences at the University of Florida, and is located at 7922 NW 71st Street, Gainesville, FL, 32653. This document describes the criteria and references used to evaluate the methods, in support of an approval order for alternative methods as required in Rules 62-160.220(7)(a) and 62-160.330(6)(a), F.A.C. (DEP. 12/3/08). The bases for the approvals are described below, and meet the requirements for alternative method approvals in DEP SOP FA 1000, subparts FA 2210 – FA 2230 (DEP. 3/31/08) and New and Alternative Laboratory Methods, DEP-QA-001/01 (DEP. 2004).

1999-2000 Legislature Gave Florida LAKEWATCH $400,000 to Expand in Coast



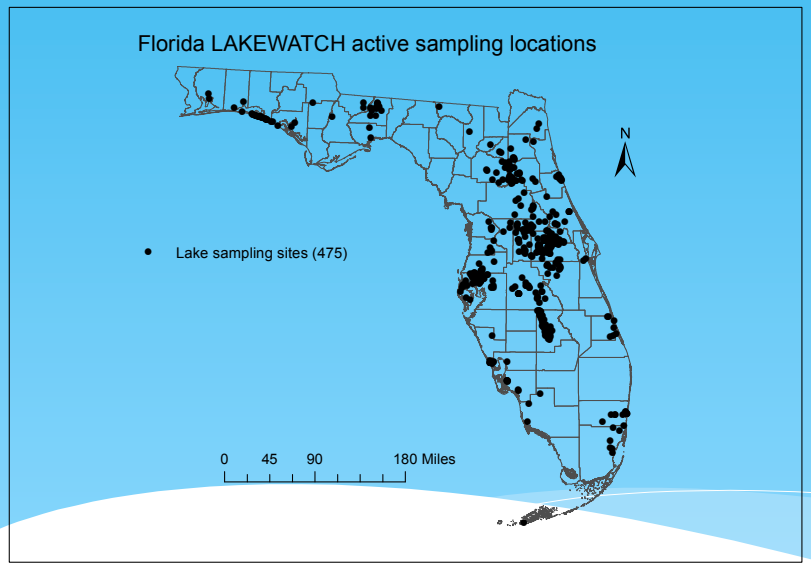
Parameter	Mean	Minimum	maximum
Depth (m)	4.6	0.5	17.7
Salinity (ppt)	32.8	0.5	40.9
Temperature (°C)	21.4	14.6	27.5
Oxygen (mg/L)	6.9	4.4	22.7
Total Phosphorus (μg/L)	25	3	122
Total Nitrogen (μg/L)	309	93	1337
Chlorophyll (μg/L)	3.7	0.2	28.2
Secchi (m)	2.1	0.6	7.3
Color (Pt-Co)	8	0	92

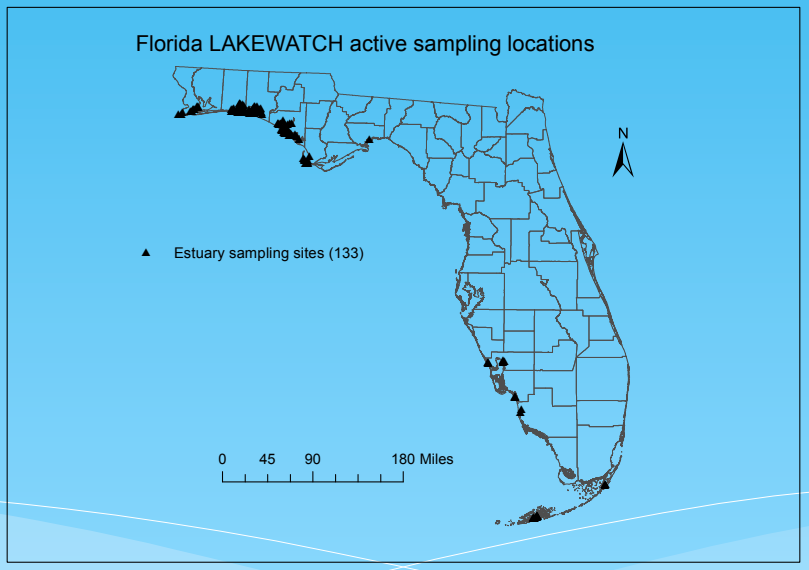
New Legislators: Lost Coast Funding in 2000–2001 Budget

Florida

LAKEWATCH

Currently maintaining 500 Lakes, 129 Coastal Sites,124 River Sites and 5 Springs





Historically LAKEWATCH Sampled 144 Stations in the Keys Area

County	Lake	County	Lake
Miami-Dade	E	Monroe	Cudjoe-6
Miami-Dade	Esplanade	Monroe	Cudjoe-7
Miami-Dade	FIU Nature Preserve	Monroe	Cudjoe-8
Miami-Dade	Highland	Monroe	Cudjoe-9
Miami-Dade	Mitchell	Monroe	Desbiens
Miami-Dade	Oakland	Monroe	Northside
Miami-Dade	Whispering Pines	Monroe	Sugarloaf A-2
Monroe	Cudjoe-10	Monroe	Sugarloaf B-2
Monroe	Cudjoe-11	Monroe	Sugarloaf F-2
Monroe	Cudjoe-12	Monroe	Sugarloaf M-1
Monroe	Cudjoe-13	Monroe	Sugarloaf N-1
Monroe	Cudjoe-2	Monroe	Sugarloaf O-2
Monroe	Cudjoe-3	Monroe	Tarpon Basin-1
Monroe	Cudjoe-4	Monroe	Tarpon Basin-2
Monroe	Cudjoe-5	Monroe	Tarpon Basin-3

Estuary	Segments
(a) Clearwater Harbor/St. Joseph Sound	3
(b) Tampa Bay	9
(c) Sarasota Bay	5
(d) Charlotte Harbor/Estero Bay	16
(e) Tidal Cocohatchee River/Ten Thousand Islands	15
(f) Florida Bay	6
(g) Florida Keys	7
(h) Biscayne Bay	9
(i) Sarasota Bay	1
(j) Clam Bay (Collier County)	1
(k) Perdido Bay	4
(l) Pensacola Bay	7
(m) Choctawhatchee Bay	9
(n) St. Andrew Bay	5
(o) St. Joseph Bay	1
(p) Apalachicola Bay and Alligator Harbor	6
(q) Loxahatchee River Estuary	4
(r) Lake Worth Lagoon	3
(s) Halifax River Estuary and Tomoka River Estuary	4
(t) Guana River/Tolomato River/Matanzas River (GTM) Estuary	4
(u) Nassau River Estuary	4
(v) Suwannee, Waccasassa, and Withlacoochee River Estuaries	3
(w) Springs Coast (Crystal River to Anclote River)	17
(x) Big Bend and Apalachee Bay	15
(y) Intracoastal Waterway (ICWW)	11
(z) St. Lucie Estuary	6
(aa) Indian River Lagoon, Banana River Lagoon, and Mosquito Lagoon	13
(bb) Lower St. Johns River and Tributaries (predominantly marine)	1
(cc) St. Marys River	3

FDEP Nutrient Criteria:

- 29 Estuaries
- 188 Estuary Segments (1-17 Segments/Estuary)

Coastal Nutrient Regions (n=74)

LAKEWATCH Awards

Distinguished Service Award (2014) - SFRC University of Florida
Vision Award (2014) – National Water Quality Monitoring Council
Volunteerism Award (2016) – Florida Lake Management Society