



*Florida Department of  
Environmental Protection*

*Watershed Assessment  
2015 Strategic Monitoring in  
the Florida Keys*

**DEAR- Water Quality Assessment Program  
South Regional Operation Center (ROC)**



## *Watershed Management Approach*

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- **DEP implements TMDL Program as part of Watershed Management Approach**
  - Started in July, 2000
  - Assessment
  - TMDL Development
  - Implementation - BMAP
  - Watershed Restoration
- **Watershed Approach established five-phase cycle that rotates through all basins in the state over five-year period**
  - Divided state's basins into groups





## *303(d) Listing Requirements*

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- **Section 303(d) of the Federal CWA requires states to:**
  - **Submit lists of waters that do not meet applicable water quality standards, including designated uses**
    - “impaired waters”
  - **Identify pollutant causing or expected to cause impairment**
  - **Establish/implement TMDLs for these waters on a prioritized schedule**



# Basin Contacts

## Northeast District:

### Basin Coordinators:

Charles Gauthier (850) 245-8555  
 Suwannee -Terry Hansen (850) 245-8561

STORET Coordinator: Siteria Gregory (850) 245-8510

WAS Team Lead: Paul Kurisko (850) 245-8462

District Contact: Brad Hartshorn (850) 595-0591 Ext. 10591

## Central District:

### Basin Coordinators:

Indian River Lagoon - Mary Paulic (850) 245-8560  
 Middle St. Johns/Upper St. Johns -  
 Charles Gauthier (850) 245-8555  
 Oklawaha - Mary Paulic (850) 245-8560  
 Kissimmee River - Katie Hallas (850) 245-8432

STORET Coordinator: Vilma Quant (850) 245-8544

WAS Team Lead: Jessica Rich-Zeisler (850) 245-8441

District Contact: Terry Riordan (407) 897-2959 Ext. 32959

## South District:

### Basin Coordinator:

Kim Dinkins (850) 245-8825

STORET Coordinator: Kyle Ferris (850) 245-8549

WAS Team Lead: David Tyler (850) 245-8458

District Contact: Erin Rasnake (813) 470-5767 Ext. 45767

## Southeast District:

### Basin Coordinators:

Katie Hallas (850) 245-8432

STORET Coordinator: Vilma Quant (850) 245-8544

WAS Team Lead: David Tyler (850) 245-8458

District Contact: Terry Riordan (407) 897-2959 Ext. 32959

## Northwest District:

### Basin Coordinator:

Stephen Cioccia (850) 245-8618

STORET Coordinator: Siteria Gregory (850) 245-8510

WAS Team Lead: Paul Kurisko (850) 245-8462

District Contact: Brad Hartshorn (850) 595-0591 Ext. 10591

## Southwest District:

### Basin Coordinator:

Terry Hansen (850) 245-8561

STORET Coordinator: Lisa Schwenning (850) 245-8509

WAS Team Lead: Jessica Rich-Zeisler (850) 245-8441

District Contact: Erin Rasnake (813) 470-5767 Ext. 45767

### Statewide STORET Coordinator:

Amanda Dorsett (850) 245-8467

### GIS Team:

Janis Morrow (Team Lead): (850) 245-8543

Davis Groves (850) 245-8539

Ronald Hughes (850) 245-8541

Andrew Morris (850) 245-8426

## Basin Groups

**Group 1**  
 Ochlocknee-St. Marks  
 Suwannee  
 Oklawaha  
 Lake Okeechobee  
 Tampa Bay  
 Everglades West Coast

**Group 2**  
 Apalachicola-Chipola  
 Lower St. Johns  
 Middle St. Johns  
 Tampa Bay Tributaries  
 Charlotte Harbor  
 St. Lucie-Loxahatchee

**Group 3**  
 Choctawhatchee-St. Andrews  
 Upper St. Johns  
 Sarasota Bay-Peace Myakka  
 Caloosahatchee  
 Lake Worth Lagoon-Palm Beach Coast

**Group 4**  
 Pensacola  
 Nassau-St. Marys  
 Withlachochee  
 Kissimmee River  
 Fisheating Creek  
 Southeast Coast- Biscayne Bay

**Group 5**  
 Perdido  
 Upper East Coast  
 Indian River Lagoon  
 Springs Coast  
 Everglades  
 Florida Keys

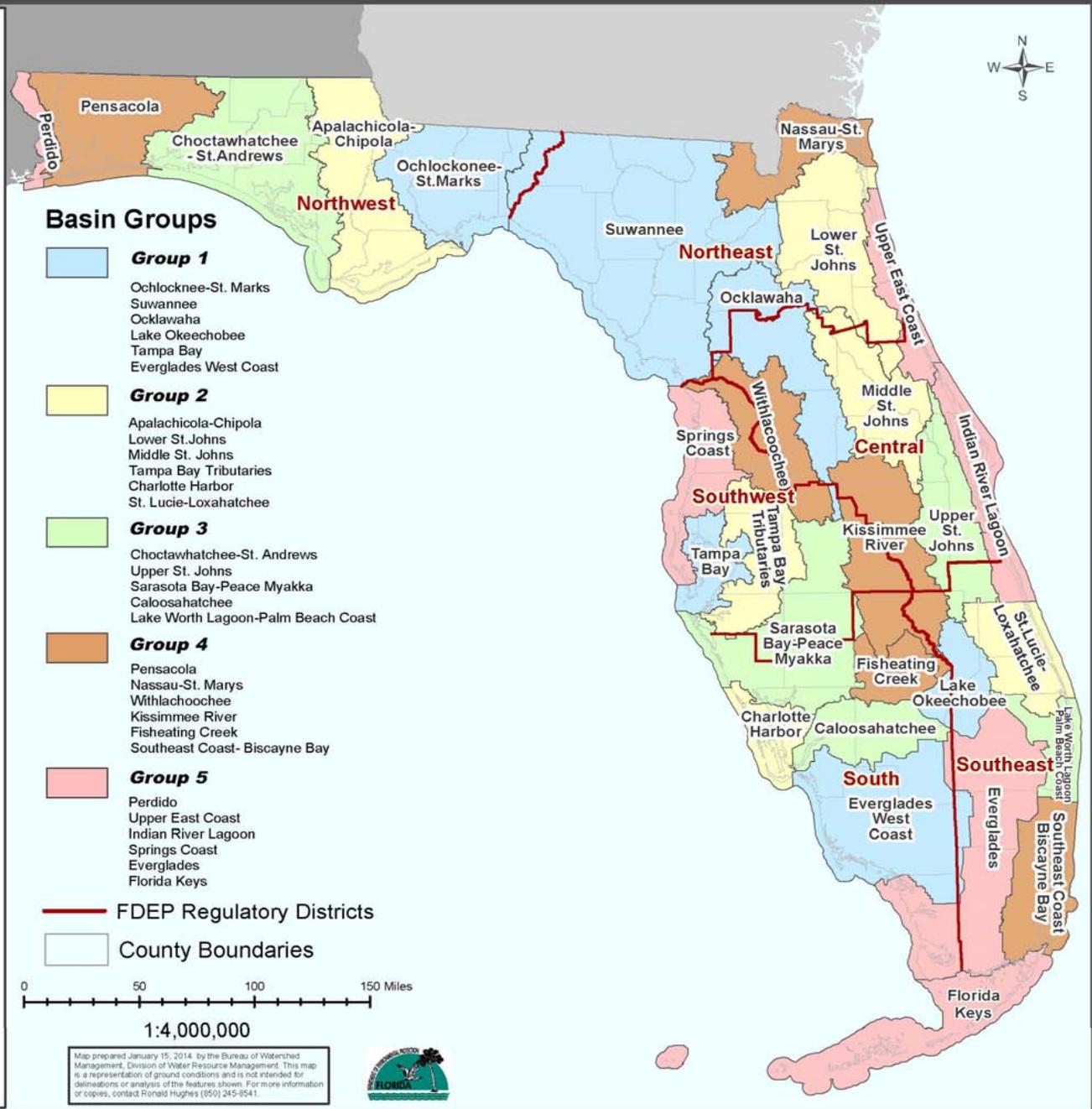
**FDEP Regulatory Districts**

**County Boundaries**

0 50 100 150 Miles

1:4,000,000

Map prepared January 15, 2014, by the Bureau of Watershed Management, Division of Water Resource Management. This map is a representation of ground conditions and is not intended for delineations or analysis of the features shown. For more information or copies, contact Ronald Hughes (850) 245-8541.





## *South District Basins*

- **Fisheating Creek**
- **Charlotte Harbor**
- **Sarasota-Peace-Myakka**
- **Caloosahatchee**
- **Everglades West Coast**
- **Florida Keys**





## *Uses Addressed by Assessment Methods*

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- **Aquatic Life**
  - Metals, Turbidity, Pesticides, Biological assessment
- **Primary Contact and Recreation**
  - Bacteria, Beach advisories
- **Fish and Shellfish Consumption**
  - Pathogenic bacteria, Mercury, Shellfish Classification
- **Drinking Water**
  - Metals, Pesticides, Bacteria



**Water Quality Standards 62-302 F.A.C.  
Impaired Waters Rule 62-303 F.A.C**



# *Watershed Management Cycle*

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## **Phase 1 - Preliminary Assessment**

- Produce Planning List, Study List

## **Phase 2 - Targeted Monitoring and Listing**

- Monitor, Verify impairment, and Adopt Verified List by Secretarial Order

## **Phase 3 - Develop and Adopt TMDLs**

## **Phase 4 - Implement TMDLs**

- Basin Management Action Plan or
- Other Implementation Option

## **Phase 5 - TMDL/BMAP Implementation**





# *Watershed Management Cycle*

- **Each basin group is assessed every 5 years**
  - **Cycle 1 = 2002 for Group 1 w/ revisions adopted in 2003**
  - **Cycle 2 = 2009**
  - **Cycle 3 = 2013**

Cycle Rotation	Basin Group	Planning Period	Verified Period
1	1	1989 - 1998	1/1/1995 - 6/30/2002
1	2	1991 - 2000	1/1/1996 - 6/30/2003
1	3	1992 - 2001	1/1/1997 - 6/30/2004
1	4	1993 - 2002	1/1/1998 - 6/30/2005
1	5	1994 - 2003	1/1/1999 - 6/30/2006
2	1	1995 - 2004	1/1/2000 - 6/30/2007
2	2	1996 - 2005	1/1/2001 - 6/30/2008
2	3	1997 - 2006	1/1/2002 - 6/30/2009
2	4	1998 - 2007	1/1/2003 - 6/30/2010
2	5	1999 - 2008	1/1/2004 - 6/30/2011
3	1	2000 - 2009	1/1/2005 - 6/30/2012
3	2	<b>2002 - 2011</b>	<b>1/1/2007 - 6/30/2014</b>
3	3	<b>2003 - 2012</b>	<b>1/1/2008 - 6/30/2015</b>
3	4	<b>2004 - 2013</b>	<b>1/1/2009 - 6/30/2016</b>
3	5	<b>2005 - 2014</b>	<b>1/1/2010 - 6/30/2017</b>





## *Assessment Units aka WBIDs*

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- **WBID = Waterbody Identification**
- **WBID boundaries change based on local stakeholders who are most knowledgeable about their local watersheds**
- **Other reasons for WBID changes include delineation of freshwater & salt water and control structures, delineation of nutrient criteria boundaries**
- **We may reassign stations to other WBIDs if the Lat/Long is incorrect or the station is not representative of the WBID**





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# *Strategic Monitoring Plan Development*



# *Strategic Monitoring Plan Development*

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- **Coordination with other data providers**
  - **WBID-parameters needing additional data to allow assessment for attainment of the numeric nutrient criteria**
  - **Any areas we can remove sampling duplication, collaborate**
  - **Areas we shouldn't be monitoring; Areas we should**





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# *Monitoring and Assessment Considerations*



## *Representative Stations*

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- **Data are collected for a variety of reasons**
  - Ambient monitoring
  - Effects studies
- **Waterbodies can be inappropriately classified (gradients between wetlands, lakes, streams, tidal creeks and estuary)**
- **Evaluate site information**





## *Spatial Considerations*

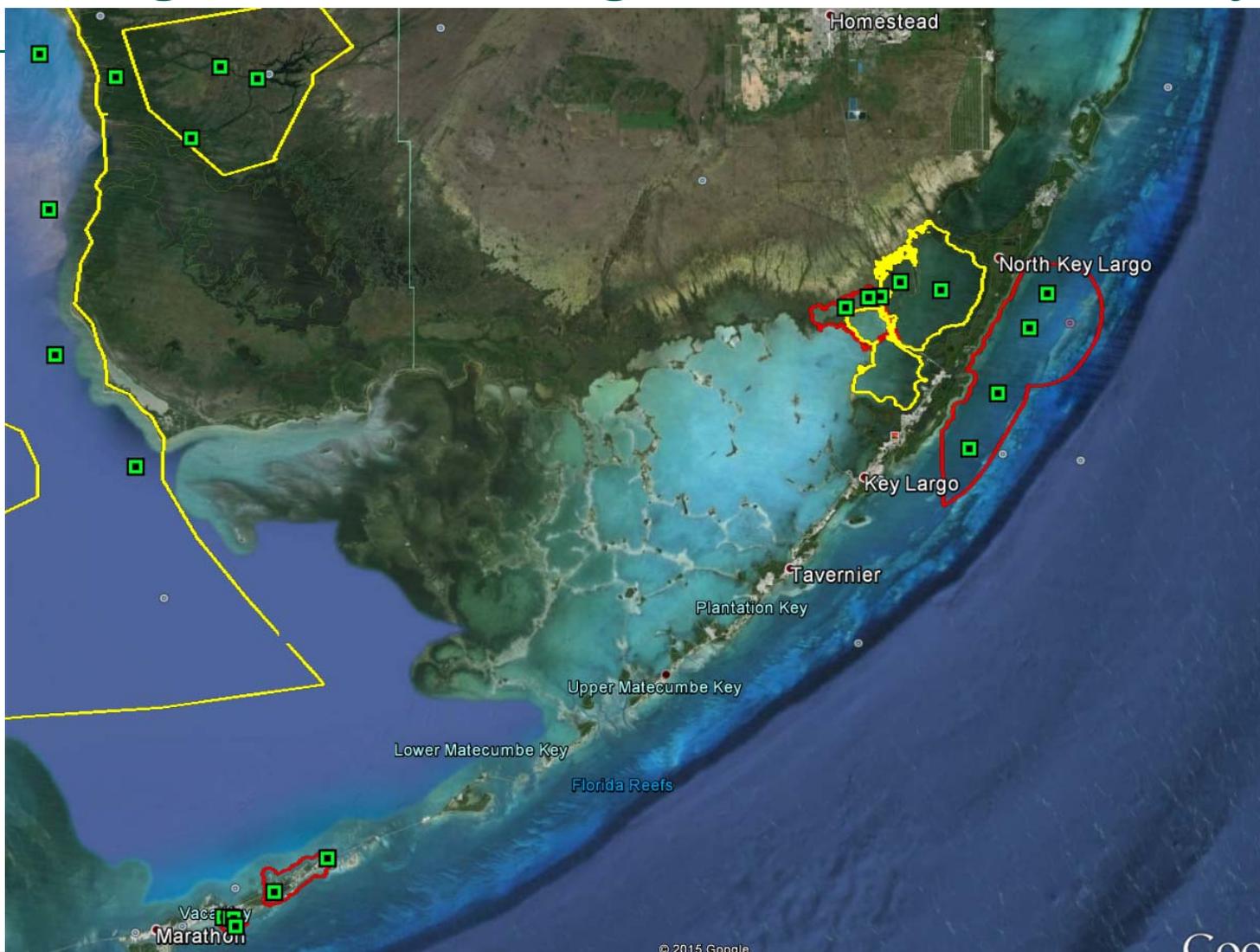
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- **Sampling site location is critical in determining what the water quality data actually represent**
  - Proper system type (wetland vs. stream, etc.)
- **Channelization, obstructions (improperly placed culvert, bridges), canopy cover, etc. can influence water quality results**
- **Focus on pollutant loading**



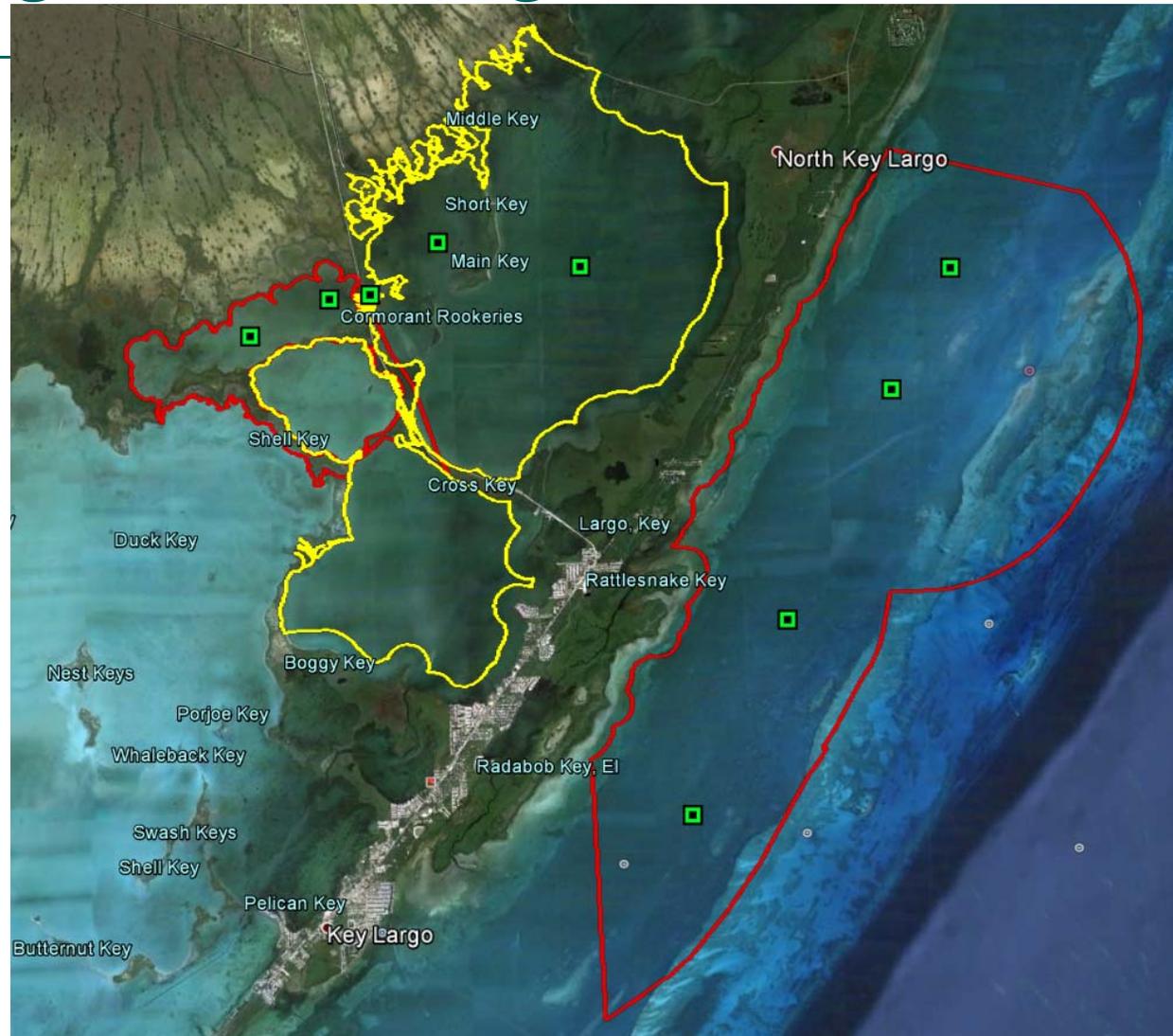


# 2015 Strategic Monitoring Plans: Florida Keys





# 2015 Strategic Monitoring Plans: Florida Keys





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## Contacts

### **Julie Espy**

Program Administrator  
Water Quality Assessment Program  
Watershed Assessment Section

[Julie.Espy@dep.state.fl.us](mailto:Julie.Espy@dep.state.fl.us)

850.245.8416

### **Kevin O'Donnell**

Environmental Administrator  
Water Quality Assessment Program  
Watershed Assessment Section

[Kevin.ODonnell@dep.state.fl.us](mailto:Kevin.ODonnell@dep.state.fl.us)

850.245.8469

### **Erin Rasnake**

Environmental Manager  
Water Quality Assessment Program  
So and Southwest Districts

[Erin.Rasnake@dep.state.fl.us](mailto:Erin.Rasnake@dep.state.fl.us)

813-470-5767



### **Alan Punshon**

Environmental Manager  
Watershed Assessment Section  
Strategic Monitoring - Statewide

[Alan.Punshon@dep.state.fl.us](mailto:Alan.Punshon@dep.state.fl.us)

850.245.8538

### **FDEP Websites:**

WAS Program: <http://www.dep.state.fl.us/water/watersheds/assessment/index.htm>

Basins 411: <http://www.dep.state.fl.us/water/basin411/default.htm>

FTP site: <http://publicfiles.dep.state.fl.us/DEAR>



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