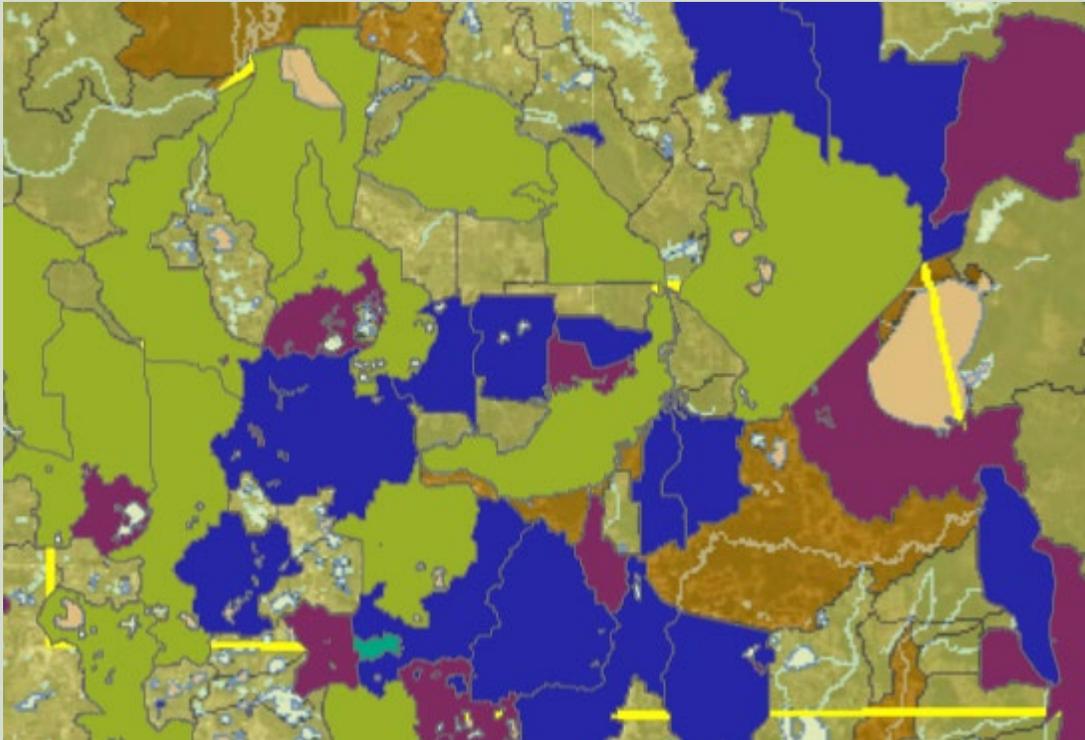




# Managing Nutrients in the Wekiva Springs Watershed: Provoking Behavior Change in Residential Fertilizer Users

Tina McIntyre, UF/IFAS Extension  
Seminole County

# Water Quality in Seminole County



## Waters Not Attaining Standards (WNAS)

-  4a - TMDL Complete
-  4b - Reasonable Assurance
-  4d - Study List
-  4e - Ongoing Restoration Activities
-  5 - Verified List



TMDLs That Apply to this waterbody

[Description of this table](#)

<a href="#">TMDL Document Name</a>	<a href="#">TMDL Date</a>	<a href="#">TMDL Pollutant Description</a>	<a href="#">TMDL Pollutant Source Type</a>	<a href="#">Cause(s) of Impairment Addressed</a>
<a href="#">Tmdl For Nutrients And Unionized Ammoina In Lake Jesup (Wbids 2981 And 2981a), Middle St. Johns Florida</a>	Jan-09-2007	Nitrogen, Total	Point/Nonpoint Source	Nutrients; Ammonia, Un-ionized; Trophic State Index (TSI)
<a href="#">Tmdl For Nutrients And Unionized Ammoina In Lake Jesup (Wbids 2981 And 2981a), Middle St. Johns Florida</a>	Jan-09-2007	Phosphorus, Total	Point/Nonpoint Source	Ammonia, Un-ionized; Nutrients; Trophic State Index (TSI)



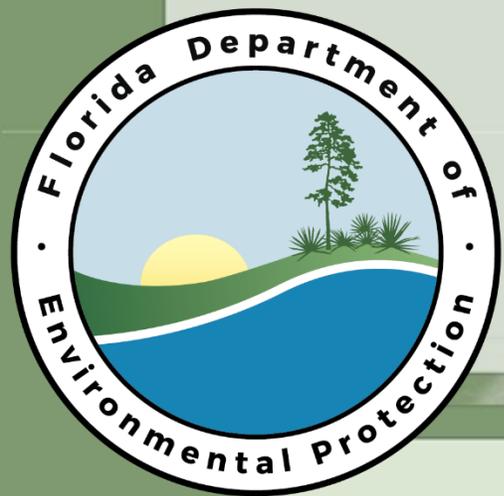
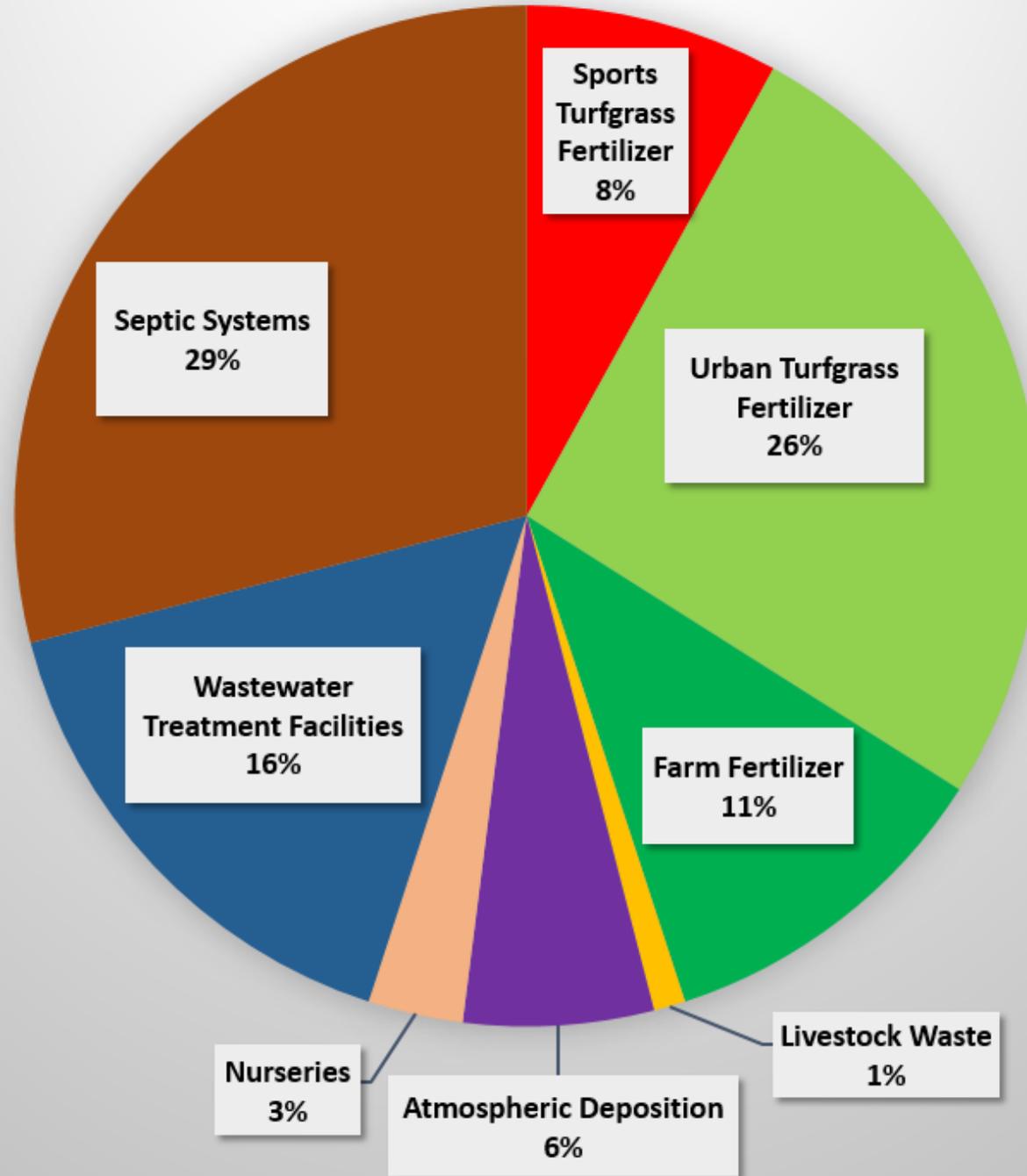
**FINAL**

**BASIN MANAGEMENT ACTION PLAN**

**for the Implementation of  
Total Maximum Daily Loads for Nutrients  
by the Florida Department of Environmental Protection  
in the  
Middle St. Johns River Basin  
for Wekiva River, Rock Springs Run, and  
Little Wekiva Canal**

**Adopted by the  
Florida Department of Environmental Protection  
Division of Environmental Assessment and Restoration  
Watershed Restoration Program  
Tallahassee, FL 32399**

# Nitrate Loading to the Wekiva Basin



## Florida Department of Environmental Protection



[About DEP](#)

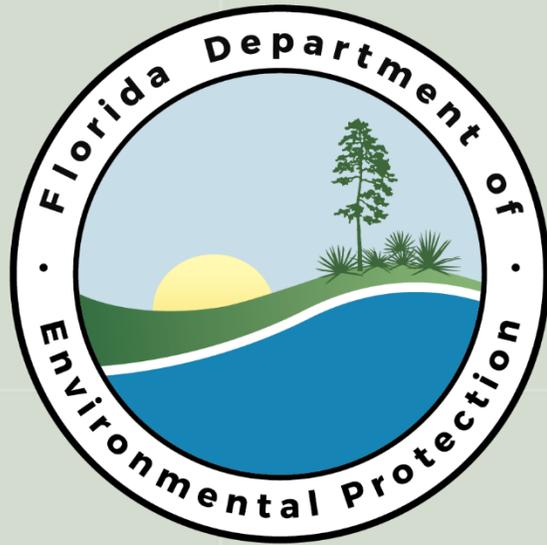
[How Do I](#) ▼

[Divisions](#) ▼

# Nonpoint Source Funds

[Home](#) » [Divisions](#) » [Division of Water Restoration Assistance](#) » Nonpoint Source Funds

# Partnership Makes it Possible



# Florida-Friendly Landscaping™ PROGRAM



## 1 Right Plant, Right Place

Plants selected to suit a specific site will require minimal amounts of water, fertilizers, pesticide and maintenance.



## 2 Water Efficiently

Irrigate only when your lawn and landscape need water. Overwatering can waste water, cause pollution and makes plants more prone to disease and pests.



## 3 Fertilize Appropriately

Less is often best. Overuse of fertilizers can be hazardous to your landscape and the environment.



## 4 Mulch

Maintaining a 2"-3" layer of mulch will help retain soil moisture, prevent erosion and suppress weeds.



## 5 Attract Wildlife

Plants in your landscape that provide food, water and shelter will attract Florida's diverse wildlife.



## 6 Manage Yard Pests Responsibly

Unwise use of pesticides can harm people, pets, beneficial organisms and the environment.



## 7 Recycle

Grass clippings, leaves and yard trimmings recycled on-site provide nutrients to the soil and reduce waste disposal when reused on the landscape.



## 8 Reduce Stormwater Runoff

Water running off your landscape can carry pollutants such as soil, debris, fertilizer, gasoline and pesticides that can negatively affect water quality.



## 9 Protect the Waterfront

Waterfront property, whether on a lake, river, stream or pond, is very fragile and should be carefully protected to preserve Florida's waterways, plants and wildlife.



# Educational Style

- Integrative Seminar: PowerPoint, Lecture, etc.
  - Experiential: Tours of Demonstration Landscapes
  - Reinforcement: EDIS publications, fact sheets, etc.
  - Videos
  - Personal Consultations and Site Visits
- 
- 



# Marketing\*

- Newsletters & Journals: 45,000+ reached
- Press Releases: 7 this year reaching 567 media outlets
- Mass Media: 17,759,501 reached
- Publications Distributed: 17,700+
- 56 multi-media presentations, fact sheets, etc. created

\*Sept. 2018 – Sept. 2019





# Clientele Reached\*

<b>Number of Clientele Contacts:</b>	<b>20,434</b>
Field consultations/Site Visits	173
Email, Phone & Office consultations	310
Group Learning Participants	1,629
Web site visits	3,925
Social Media	11,637
Tabling Outreach	3,030

\*Sept. 2018 – Sept. 2019



# Group Learning Participants\*

Instructor	Type of Events	Topics	Number of Events	Number of Participants
Agent	Workshops	Florida Friendly Landscaping	32	884
Agent & Program Assistant	Workshops	Florida Friendly Landscaping: Fertilizer	5	166
Program Assistant	Workshop	Florida Friendly Landscaping: Fertilizer	32	579
<b>Totals</b>			<b>69</b>	<b>1,629</b>

\*Sept. 2018 – Sept. 2019



# Objectives & Outcomes

## Objective 1

- At least 90% of participants will report an *increase in knowledge* of at least 1 of the 9 FFL principles following a program
- Measured by retrospective pre/post-survey

# of respondents	% attainment
732	97.1%



# Objectives & Outcomes

## Objective 2

- At least 60% of participants will report the *intention to adopt* one FFL related practice following a program activity as
- Measured by retrospective pre/post-survey

# of respondents	% attainment
732	74.0%



# Objectives & Outcomes

## Objective 3

- At least 20% of program participants ***will report adopting*** at least one FFL practice as measured by annual follow-up survey.

# of respondents	% attainment
238	75.1%

# Objectives & Outcomes

## Objective 3

- At least 20% of program participants ***will report adopting*** at least one FFL practice as measured by annual follow-up survey.

In our over 31 *Fertilizing Effectively in Sandy Florida Soils workshops*

- 86.4% (114/132) of respondents are using a slow-release nitrogen product
- 85.1% (114/134) testing their soil prior to applying phosphorous
- 96.2% (51/53) following the summer restrictions



# Sept. 2018- May 2019



Measure my yard (physically or online) prior to applying fertilizer	75.00%
Use the Seminole County Fertilizer Calculator to calculate the correct amount of fertilizer for my yard	54.76%
Calibrate the fertilizer spreader prior to applying the fertilizer	87.21%
A 15 foot, no-fertilizer zone is maintained around all water bodies	95.16%
Grass clippings are left on my lawn after mowing	85.57%
Avoid blowing leaves and/or grass clipping down the storm-drain or onto pavement	98.96%
Follow watering restrictions (Mar.-Nov. 2 times per week, Nov-Mar. 1 time per week)	98.96%
The irrigation system is calibrated to 1/2 - 3/4 of an inch per application	78.38%
Avoided irrigating the pavement	88.89%
Installed micro-irrigation	33.80%
Water by hand as needed	81.52%
Use a working rain sensor	56.10%



# June 2019- Sept. 2019

I have tested the pH of my lawn	40.38%
Measure my yard (physically or online) prior to applying fertilizer	63.46%
Use the Seminole County Fertilizer Calculator to calculate the correct amount of fertilizer for my yard	42.55%
Calibrate the fertilizer spreader prior to applying the fertilizer	82.61%
A 15 foot, no-fertilizer zone is maintained around all water bodies	92.31%
Grass clippings are left on my lawn after mowing	87.04%
Avoid blowing leaves and/or grass clipping down the storm-drain or onto pavement	100.00%
Follow watering restrictions (Mar.-Nov. 2 times per week, Nov-Mar. 1 time per week)	98.04%
The irrigation system is calibrated to 1/2 - 3/4 of an inch per application	82.50%
Avoided irrigating the pavement	90.00%
Installed micro-irrigation	33.33%
Water by hand as needed	78.43%
Use a working rain sensor	46.94%





# Workshop Comments

- Very good class
  - Thank you Tina !!!!!
  - I have an irrigation system but primarily hand water as needed.
  - Very good and informational! Thank you!
  - Class was worthwhile
  - Great Class
- 
- 



# Future Fertilizer Goals

- New Fertilizer PSA
  - Marketing – Airtime, Digital, Social Media & Website
  - Partnerships
  - Future Educational 319 Grants
- 
- 



# Future 319 Grant

- Create education videos for big box/retail store employees.
  - Create flyers and posters for big box/retail stores.
  - Work with fertilizer manufactures.
  - Utilize Master Gardeners to do educational booths or workshops at big box/retail stores.
  - Create certification program for fertilizer industry.
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- 



## QUESTIONS?

Tina McIntyre M.S., CEP  
UF/IFAS Florida Friendly Landscaping Agent  
Seminole County  
250 West County Home Rd.  
Sanford, Fl. 32773

[K.McIntyre@ufl.edu](mailto:K.McIntyre@ufl.edu)