

The Suwannee River

# Partnership

Est. 1999

Accomplishment Report





**Outstanding**



# yield

We produce results.

Growth happens at a magnitude that's larger than we can control or imagine. It happens in fields. It happens to our communities. It happens in people. Our intention is to use the lessons learned in one, and apply them to the other. We are dedicated to shaping and strengthening partnerships to defend and preserve our water.

# We are the members of the

# Suwannee River Partnership.



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## The Progress Continues

A partnership gets its strength from individual partners working together as a team. The Suwannee River Partnership continues to make great strides due to the commitment of the team members involved in the program. Beginning in 1999, the partnership has brought together a diverse group of agencies, residents, farmers, scientists, educators, and businesses to work toward a common goal – protecting the natural resources in the Suwannee River Basin for future generations.

Over the past year, partnership members have taken the time to assess progress and set priorities for the future of the partnership. Since the program's inception, 99% of poultry farmers, 90% of dairies, and 70% (representing more than 100,000 acres) of crop farmers have agreed to use agricultural conservation Best Management Practices (BMPs) in their fertilizations, irrigation and waste utilization practices. These farmers recognize the necessity to protect our water quality and are committed to implementing and maintaining these practices over the long term.

In addition to its work with area farmers, the Partnership – through the leadership of the University of Florida's Institute of Food and Agricultural Sciences program (UF/IFAS) – is using the Florida Yards and Neighborhoods (FY&N) program to help area homeowners protect and conserve water. More than 100 Master Gardeners have undergone months of rigorous training to gain an in-depth knowledge of issues which have helped homeowners in eight counties adopt water protection measures.

### **As we look to the future, priorities for the partnership include:**

- ▶ Continuing to encourage agricultural producers to implement best management practices
- ▶ Involving local government more fully in the partnership
- ▶ Collaborating with the newly formed Ichetucknee Partnership
- ▶ Continuing to reach agricultural producers and homeowners with educational programs
- ▶ Documenting the impacts of the partnership
- ▶ Recognizing individuals and businesses that adopt best management practices.

Thanks to everyone that have worked to make the partnership successful over the past year.

***Larry R. Arrington, Chairman***

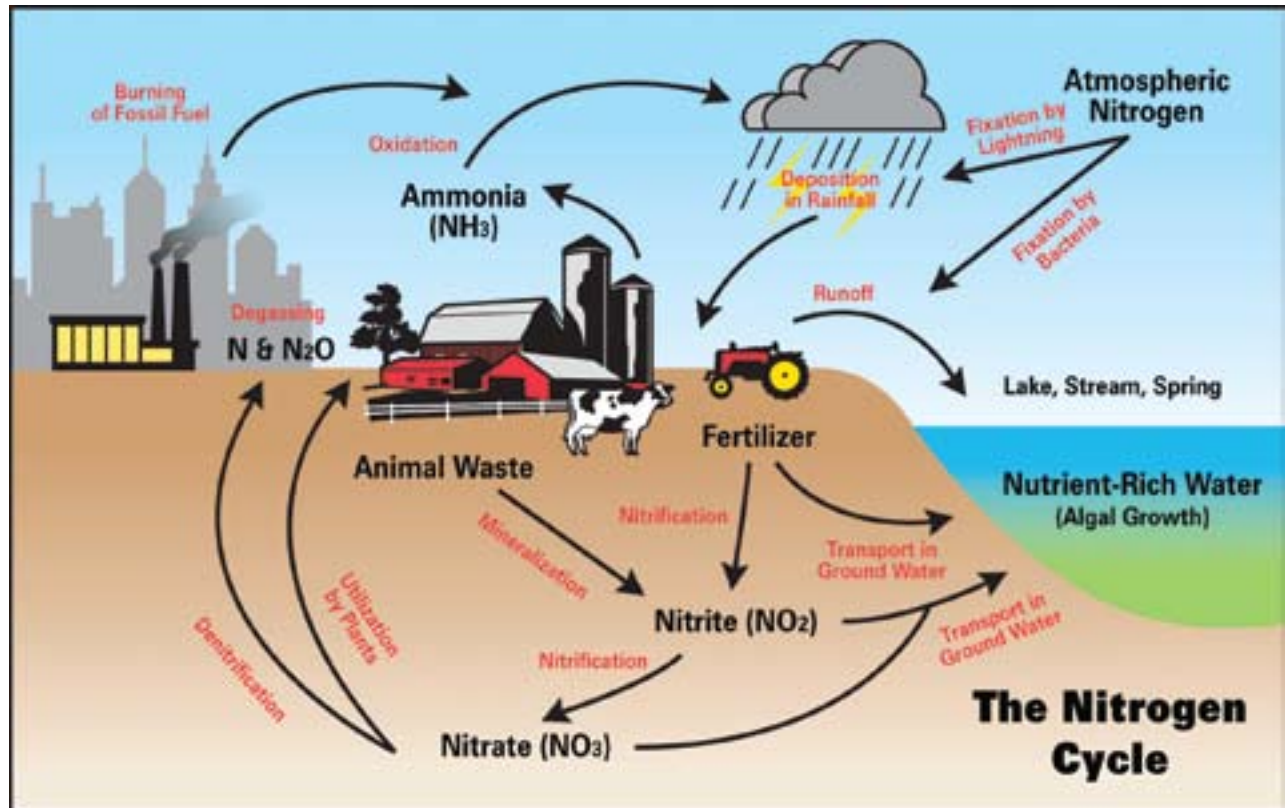
*Dean and Director, Florida Cooperative Extension Service UF/IFAS*

**When nitrate is introduced to surface water where light and other nutrients are abundant, excess nitrate may cause an overall deterioration of the ecosystem within the water body.**

# **The Issues:**

**Elevated Nitrate-N Concentrations in Water and Water Conservation**

**Long periods of drought pose significant harm to the area's natural resources and fresh water supply; causing both economic and environmental concerns.**



**The Nitrogen Cycle:** The important part of this cycle is the link between surface-water quality and nitrate derived from fertilizers and animal wastes.

## The Issues

### Elevated Nitrate-N Concentrations in Water and Water Conservation

#### Sources of nitrates include:

- ▶ Application of fertilizers to croplands and turf (lawns, golf courses, etc.)
- ▶ Animal wastes
- ▶ Human wastes
- ▶ Septic tanks
- ▶ Waste water treatment
- ▶ Other pollution sources

#### Some of the consequences

#### of nutrient enrichment include:

- ▶ Excessive growth of algae
- ▶ Reduction and changes in the plant and animal species which inhabit the water body
- ▶ Loss of oxygen in the water as a result of the algae decay
- ▶ Loss of water clarity as a result of floating algae

## The Issue: Elevated Nitrate-N Concentrations in Water



To reduce the flow of nitrate in our water bodies, it is necessary to reduce and better manage the application of nitrogen-bearing materials. Many of the water bodies within the Suwannee River Basin area are fed by ground water. Therefore lakes, rivers and springs have also been affected by increases in nitrate concentrations in ground water. Ground water in the Basin and throughout Florida has shown a significant increase in nitrate concentrations over the last 30 years. As a result, some springs routinely discharge water with elevated nitrate concentrations.

### **Why Conserving Water is an Issue**

Long periods of drought pose significant harm to the area's natural resources and fresh water

supply; causing both economic and environmental concerns. Some consequences of drought include crop failure, lack of grass for livestock and a decrease in surface and irrigation waters. Even when severe drought conditions lessen, many areas will continue to experience a shortage of water in the underground aquifer system. The drought will end at some point, but the water supply will be a concern for years to come.





## The Suwannee River Partnership Approach

Water is essential to our environment, our economy, our health and even our comfort and happiness. Safeguarding this precious heritage of clean, abundant, flowing water is the mission of the Suwannee River Partnership. Our efforts benefit the environment, agriculture and our communities – now and for the future.

### Partnership Performance

#### Measures for Progress:

- ▶ Farmer and residential participation in the program
- ▶ Installation of water protection structures on farms
- ▶ Ensure BMPs work through research
- ▶ Verification of proper water conservation practices through BMP oversight
- ▶ Evaluation of water quality trends

### Farmer Participation

Most Suwannee River Basin farmers are participating in the Partnership. In fact, participation numbers to date have far exceeded the goals

set forth in 1999. Over the past nine years more than 320 farmers have made investments in infrastructure and practices which are designed to provide real benefits to the environment. These area farmers have committed to protect our water and have voluntarily agreed to install and manage BMPs on their farms. BMPs developed by the Partnership use the best available technology; they are also practical and economically feasible for farmers to implement.

Through cost-share programs and the use of these BMPs, farmers are improving structures on their farms that would otherwise be cost prohibitive. Last year alone, the Suwannee River Resource Conservation and Development Mobile Irrigation Lab estimated that **farmers saved more than 1 billion gallons of water per crop season** just by improving irrigation systems and using better irrigation management

The Florida Farm Bureau and the Suwannee River Partnership created CARES (County Alliance for Environmental Stewardship) to bring agricultural associations, public agencies and

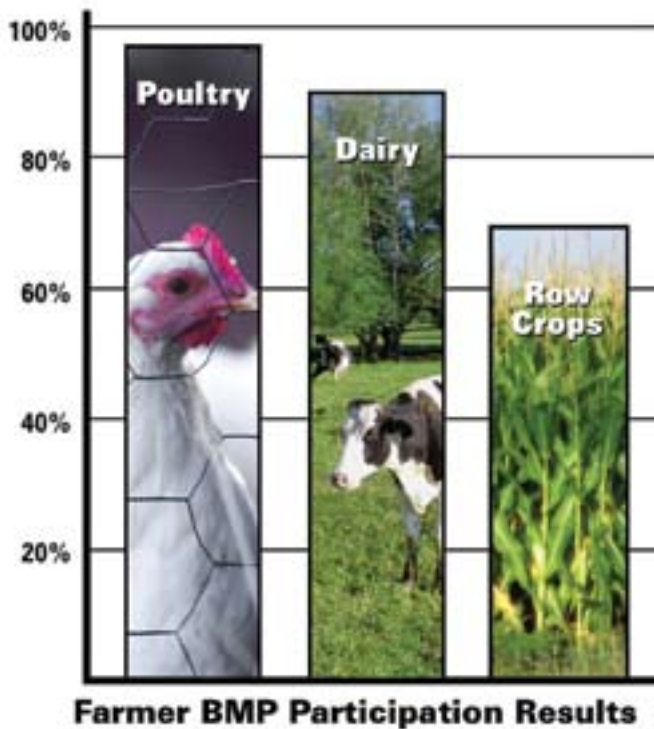
## The Suwannee River Partnership Approach

“Since the program’s inception, 99% of poultry farmers, 90% of dairy farmers, and 70% (representing more than 100,000 acres) of crop farmers have agreed to use accepted agricultural conservation Best Management Practices. Still, there is more work to be done.”

– Darrell Smith, Coordinator

“We want to make an example of these growers who are doing things the right way and working to make our environment better.”

– John Hoblick, President of Florida Farm Bureau



institutions, and farmers together to increase environmental awareness. At the CARES annual banquet, the Partnership is able to recognize the hard work of these farmers.

### Ensuring BMPs Work

Led by UF/IFAS, the Partnership continues to conduct research on the effectiveness of BMPs. Soils and groundwaters are monitored before and after BMPs are installed to determine effectiveness levels. This research has been completed on commercial crop, poultry and dairy farms and at research facilities.

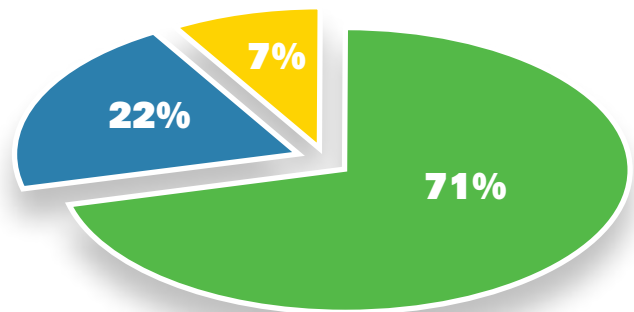
*According to a literature review conducted by the Florida Department of Environmental Protection, research and models demonstrate that farms using BMPs can reduce nitrate-N in ground water:*

- ▶ Up to 77% on poultry & dairy operations
- ▶ Up to 90% on spray fields
- ▶ Up to 50% on crop farms

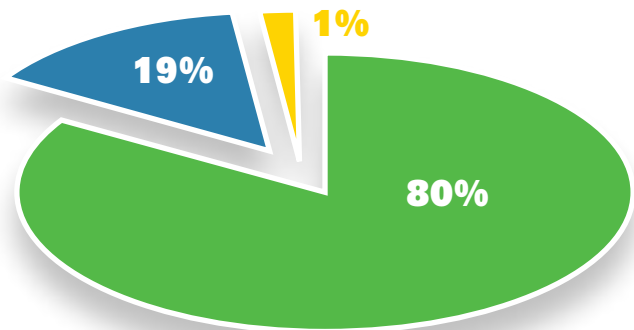
## The Suwannee River Partnership Approach

“Agriculture and natural resource industries have a huge economic impact on the counties within the Suwannee River Basin region. Not only does the agriculture industry work hard and contribute substantially to the local economy, members do it responsibly through participation with the Suwannee River Partnership because the health of springs and rivers is important to the way of life enjoyed along the Suwannee River.”

– **Charles H. Bronson,**  
**Commissioner of Agriculture**



Dairy BMP Compliance



Poultry BMP Compliance

### BMP Oversight Program

In order to comply with the standards developed by the Partnership, the Best Management Practice Oversight Program verifies the farmer’s adherence to the BMPs. Inspectors from the Florida Department of Agriculture and Consumer Services visit these farms twice a year to monitor their effectiveness. However, Partnership farms participate in this program voluntarily without the need for state regulatory measures or the oversight required by permit.

**Green = Full Compliance/Highest Rating**

Farm is in complete compliance

**Blue = Partial Compliance**

Farm needs to make minor adjustments to be in complete compliance. If a farm receives a blue rating, a Partnership technician visits the farm to help resolve any issues that are identified.

**Yellow= Unsatisfactory**

Farm needs to make minor or more involved adjustments to be in complete compliance. If a farm receives a yellow rating a Partnership technician visits the farm to help identify and resolve issues. If a member receives more than one yellow rating an inspector from the Department of Environmental Protection visits the farm to site any violations.



### Residential Participation

Septic tanks, excessive lawn fertilization and construction run-off are other ways nitrates leach into our water. The Partnership has joined forces with the Florida Yards & Neighborhoods (FY&N) program to help area home-owners understand their role in water quality issues and it recognizes the contribution this segment can make to the program. To date, UF/IFAS County Extension Agents have taught FY&N program concepts to 117 Master Gardeners in eight counties. These Master Gardeners help homeowners, landscapers and builders use practices that adopt BMPs suitable for residential implementation.

*The following concepts are used by Master Gardeners to help homeowners adopt Florida-Friendly Landscaping practices:*

- ▶ Right plant, right place
- ▶ Water efficiently
- ▶ Fertilize appropriately
- ▶ Mulch
- ▶ Attract wildlife

- ▶ Manage yard pests responsibly
- ▶ Recycle
- ▶ Reduce stormwater runoff
- ▶ Protect the waterfront

### WARN Monitoring System

The Partnership, led by the Suwannee River Water Management District (SRWMD), has established a Water Assessment Regional Network (WARN) monitoring system to



## The Suwannee River Partnership Approach



evaluate the outcomes of the measures taken by the Suwannee River Partnership, the SRWMD and other agencies. The WARN system monitors nutrient loading in area sites including lakes, streams, springs and ground water.

### **Prevention is the Cure**

We are proud of the work that has been accomplished through the Suwannee River Partnership. We remain committed to the protection of our rivers, lakes and springs, and we offer the following as ways to demonstrate our commitment to future generations.

- ▶ We will continue to improve existing BMPs and develop new BMPs based on projected environmental needs.
  - ▶ We will continue to provide BMP training and consultation to area farmers, businesses and homeowners.
  - ▶ We will continue to promote the benefits of protecting our rivers, springs and drinking water to all Florida citizens.
- ▶ We will provide opportunities for homeowners, business members, students and other potential partnership members to join the work.
  - ▶ We welcome your input for ways to increase our involvement and further accomplish our goals.
  - ▶ We will work to shape and strengthen other partnerships.



## Partnership Members

The success of the partnership is made possible through the cooperative efforts of our members and the residents of the Suwannee River Basin. Because of these efforts, the Suwannee River Partnership is a model watershed program imitated widely throughout the state. Numerous commendations, including recognition from the White House’s Cooperative Conservation Initiative and the Florida Legislature, have been awarded for these efforts.

Suwannee River Water Management District

Florida Department of Agriculture  
and Consumer Services

Florida Department of Environmental Protection

Florida Department of Community Affairs

USDA-Natural Resources Conservation Service

University of Florida’s Institute of Food  
and Agricultural Sciences

U.S. Environmental Protection Agency

U.S. Geological Survey

Florida A&M University’s Center for Water Quality

Florida Department of Health

Florida Cattlemen’s Association

Florida Farm Bureau

Florida Fertilizer and Agrichemical Association

Florida Forestry Association

Florida Onsite Wastewater Association

Florida Poultry Federation

Florida Rural Water Association

Pilgrim’s Pride

Sunbelt Milk Producers

Suwannee American Cement, LLC

Suwannee River Resource Conservation  
and Development Council

Santa Fe Springs Working Group

Anderson Columbia Co., Inc.

Adopt-a-River

PCS Phosphate - White Springs

CCDA - Waters

Nestlé Waters North America Inc.

Cedar Key Aquaculture Association

### **The following Soil and Water**

#### **Conservation Districts:**

Alachua, Bradford, Dixie, Gilchrist, Hamilton,  
Jefferson, Lafayette, Levy, Madison, Santa Fe,  
Suwannee

#### **The following County Commissions:**

Alachua, Bradford, Columbia, Dixie, Gilchrist,  
Hamilton, Jefferson, Lafayette, Levy, Madison,  
Suwannee, Taylor, Union

#### **The following Cities and Towns:**

Alachua, Bell, Chiefland, Fanning Springs, High  
Springs, Lake City, Live Oak, Newberry, Starke,  
Trenton, White Springs

