

# A Multi-Disciplinary Approach to Water Quality Education

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## The UF-IFAS "Watershed Education Team" .....

- ...was formed by the five extension specialists above.
- ...has expertise in Soil and Water Science, Agricultural and Biological Engineering, and Fisheries and Aquatic Sciences.
- ...conducts multi-disciplinary watershed in-service training for a wide variety of Florida's county agents.

## SITUATION and RATIONALE

- 700 new residents arrive in Florida each day. (Current population = 16 million).
- All these people have to live somewhere. Rural-to-urban land conversion is projected to be 130,000 acres/year during the next 20 years.
- At the same time, Florida's diverse and competitive agricultural production is expected to remain strong.

**Urban development encroachment into agricultural areas presents new challenges to water resource management and water quality protection.**

## ACTION

- The Team has conducted two training workshops:
  - > "Managing Water Quality at the Agriculture-Urban Interface"
  - > "Watershed Management: Reducing Non-Point Source Pollution."
- County agents were trained in the classroom, took part in demonstrations, and went to the field to see water quality problems and solutions first-hand.
- The Team evaluated knowledge gain about point and non-point source pollution, TMDLs, BMPs, wetland function, and estuaries.

## OUTCOME and IMPACT

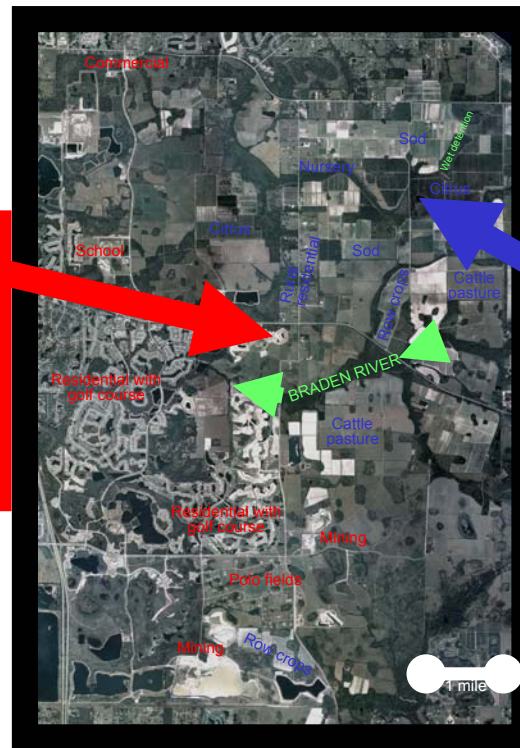
- The Team trained a wide variety of agents (agriculture, urban, natural resources, sea grant).
- Training materials transferred include publications, a workshop CD, and demonstration tools.
- Self-evaluations indicated that agents gained new knowledge of water quality issues, and pre/post-tests measured an average knowledge gain of 30%.
- Agents used new knowledge to augment their own educational programs and to aid client decisions.

Below is a typical example of the urban-ag interface found along much of Florida's east and west coasts. At least ten different land uses plus natural areas occur within the 54 square mile area shown.

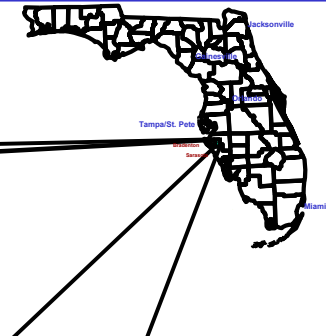
Each land use has its own characteristic effect on surface and groundwater quality.



Lakes within new residential developments are integrated into the stormwater drainage system to slow discharge and improve water quality.



The Braden River is on Florida's 1998 303(d) list of impaired waters for dissolved oxygen, coliforms, nutrients, and total suspended solids.



Wet detention areas constructed adjacent to agricultural fields remove sediments, nutrients, and organics from drainage water before it is slowly discharged to streams or rivers.

## PROGRAM PARTNERS

- University of Florida/IFAS
- Florida Dept. of Environmental Protection
- Florida Dept. of Agriculture and Consumer Services