



**WEKIVA Commission Meeting Update, December 2005**

Bureau of Onsite Sewage Programs

Division of Environmental Health

Florida Department of Health

# Today's Presentation

- Status of Rule Development
- Information Update
- OSTDS Impact

# Status of Rule Development

**TRAP meeting held on Nov 2<sup>nd</sup> 2005**

- **Extensive discussion on the topic.**
- **Tabled the issue pending a privately funded review of existing research and data.**
- **Scheduled a Jan 12<sup>th</sup>, 2006, meeting to hear from the private consultant. (Orlando Airport Marriott)**

# Information Update

**What is the Department's legislative mandate in Chapter 369 Florida Statutes?**

Initiate rulemaking to achieve nitrogen reductions protective of water quality within the Wekiva Study Area.

LAC

**What is the proposed reduction in nitrogen?**

10 mg/L treatment level represents a 75% reduction in the nitrogen being discharged into drainfields by conventional septic tanks currently in use.

## Information Update Continued

### What are the nitrogen levels in the springs?

Wekiwa and Rock Springs contain 20 times the level of nitrogen than springs without development (1.5 mg/L Wekiwa, 1.6 mg/L Rock as compared to Juniper Springs which has 0.08 mg/L.)

### What is the Source of the nitrogen?

A mixture of fertilizer and animal waste (human included).

# Information Update Continued

**How much nitrogen is being discharged from existing septic tanks in the Wekiva Study Area?**

**Conventional onsite systems do not provide adequate nitrogen removal and discharge 1.148 million pounds per year in the Wekiva Study Area.**

# Information Update Continued

How fast does nitrate move through the soil and rock?

Nitrate is soluble and will move at the rate of the groundwater.

In soil, USDA surveys document movement of between 1.2 to greater than 40 feet per day.

In limerock, the karst study documented movement rates of 1 to 280 feet per day.

# Information Update Continued

Why is the tertiary zone less vulnerable?

- They have fewer karst features such as sinkholes.
- They are areas of groundwater discharge instead of recharge.
- Soils have slower permeability and limit the transport of nitrogen.
- They may have impermeable layers that protect the deeper groundwater from surface sources of pollution.

# Information Update Continued

Are the proposed new systems proven to remove nitrogen?

The proposed new systems have either been field tested to perform by third-party testing agencies (NSF, Baylor) or by the Department of Health.

# OSTDS Impact

- 55,417 existing onsite systems
  - 32,975 – Orange County
  - 9,214 - Lake County
  - 13,228 - Seminole County
- 50,972 systems in sewer service areas
- 583 repairs/modifications annually
  - Nitrogen-reduction system
    - @ \$10800 = \$6.30 M
  - Standard repair 333 sq ft
    - @ \$ 3400 = \$1.98 M
  - Cost Difference
    - @ \$ 7400 = \$4.32 M