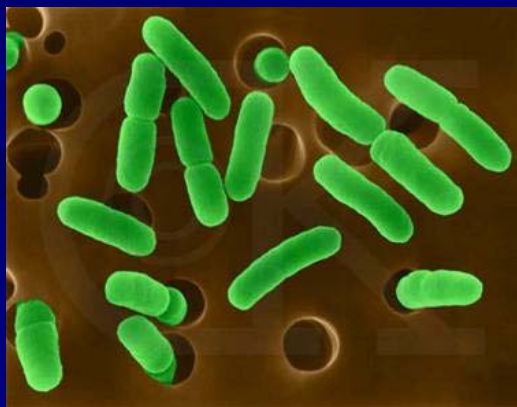


Issues and Approaches in Implementing Coliform TMDLs:

To BMAP Or Not To BMAP

John Abendroth
FDEP

Watershed Planning & Coordination Section
John.abendroth@dep.state.fl.us



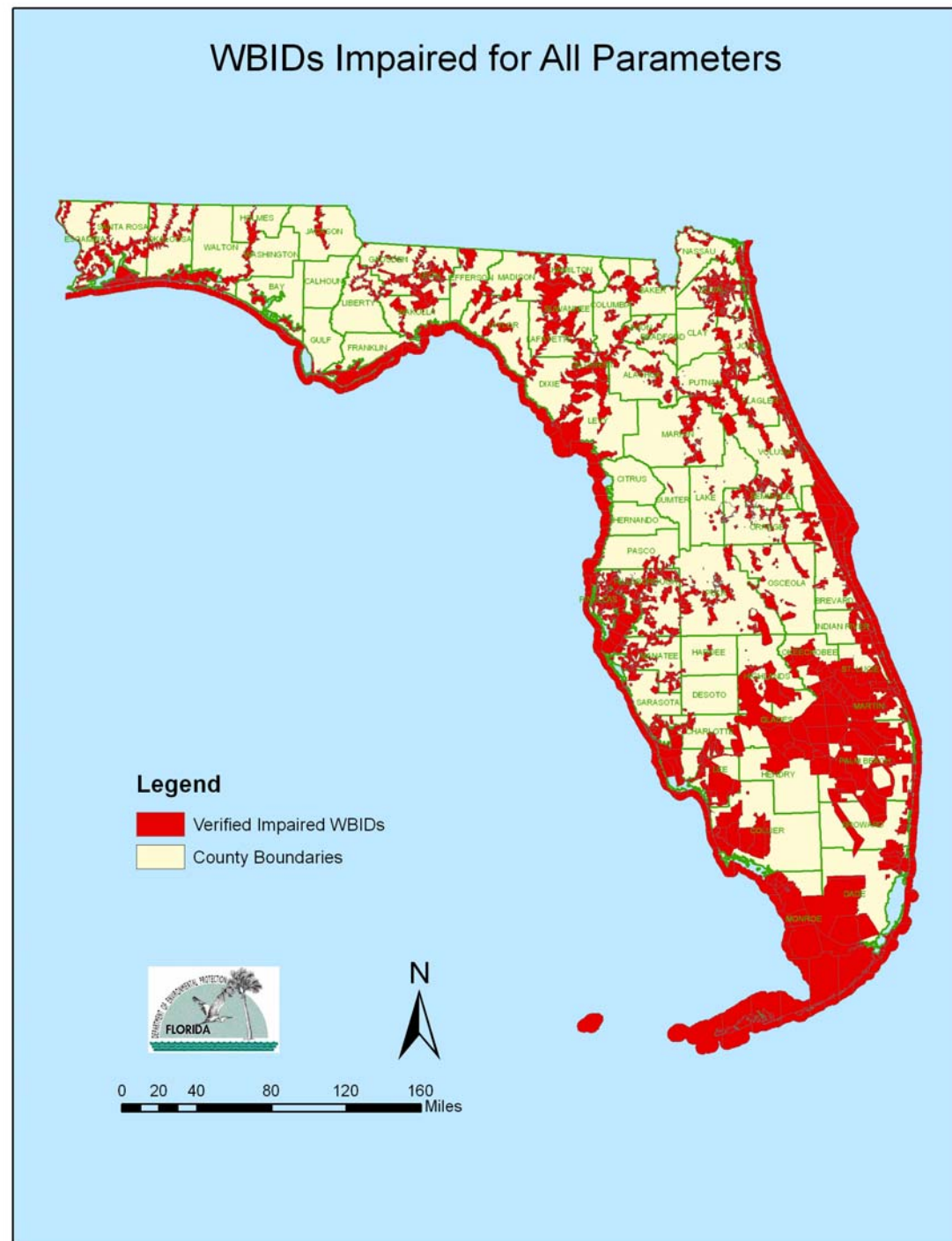
FSA Winter Conference

December 3, 2008

**Verified
Impairments for
all parameters
Groups 1 – 5
through Group 1
Cycle 2**

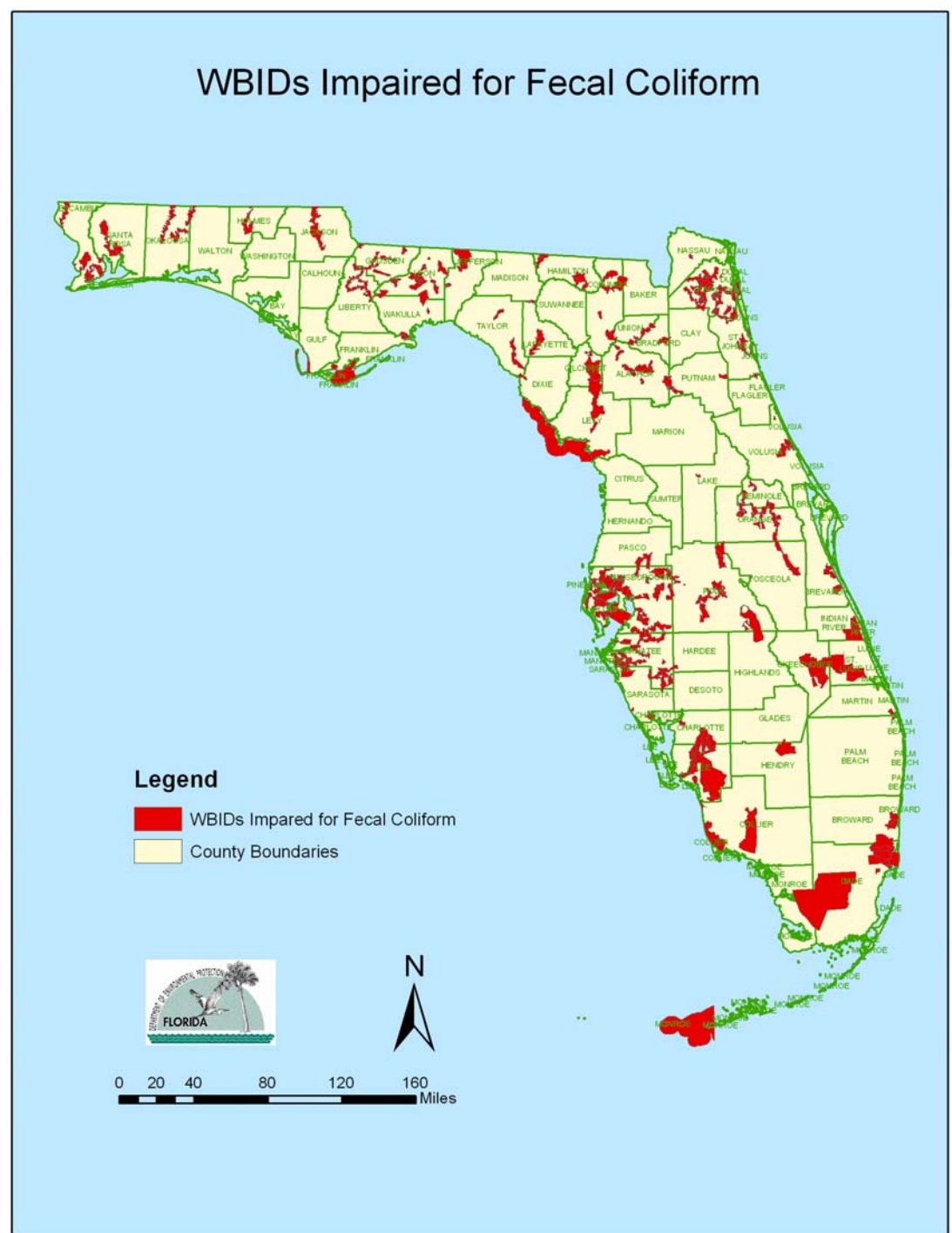
**1705 total
impairments in
1040 WBIDs**

**(539 of these
also listed on
consent decree)**



**Verified
Impairments for
Fecal Coliforms
Groups 1 – 5
through Group 1
Cycle 2**

**342 Impaired
WBIDs**



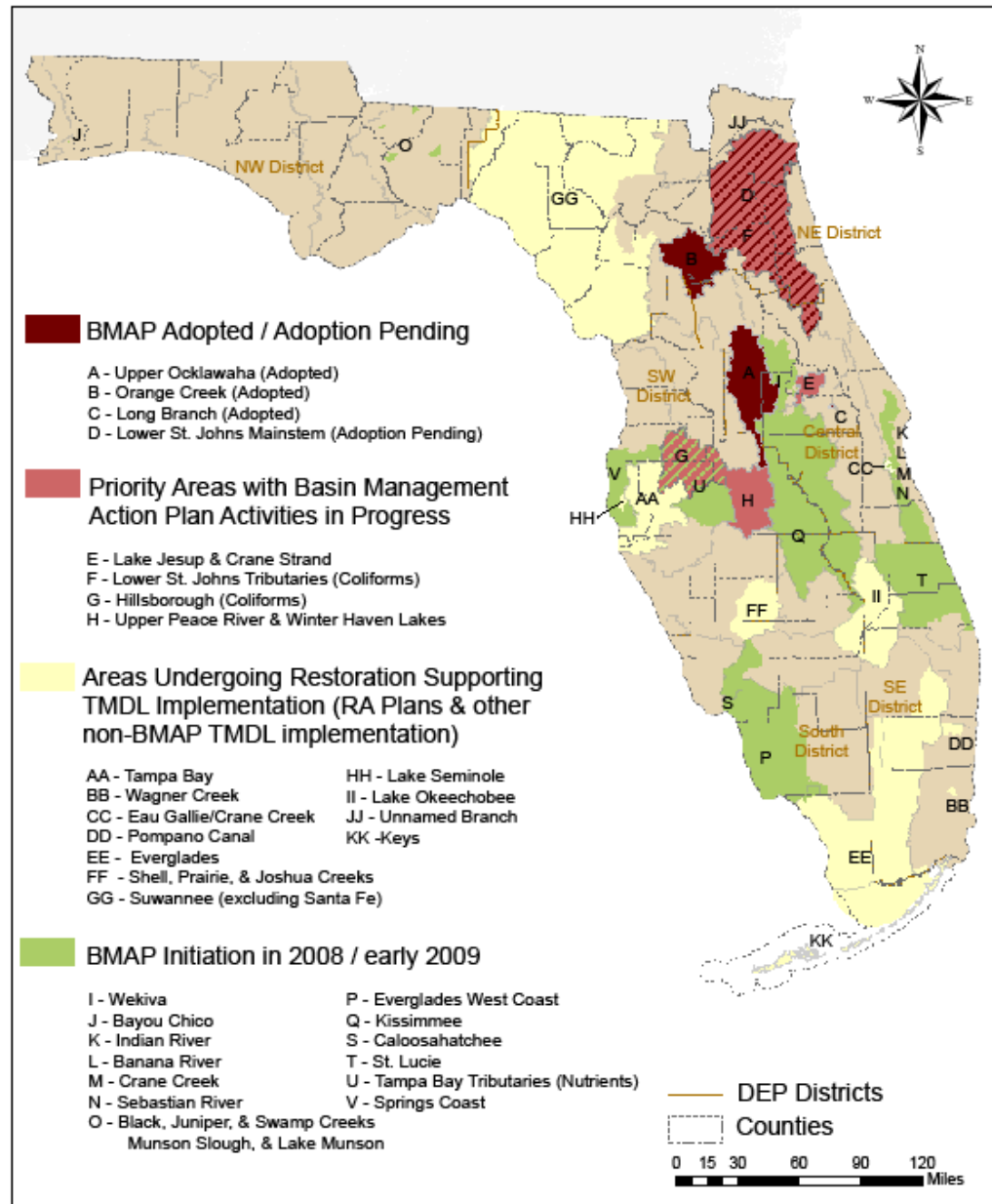
**Verified
Impairments for
Fecal Coliforms
also on the 1998
Consent Decree
Groups 1 – 5
through Group 1
Cycle 2**

**124 Impaired
WBIDs**

**WBIDs Impaired For Fecal Coliforms
That Are Also On The 1998 303(d) List**

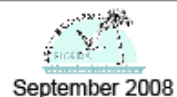


Planned TMDL Implementation Activities



Source: Florida Department of Environmental Protection
Watershed Planning & Coordination Section
(850) 245-8556

**TMDL Project
Implementation Activities**



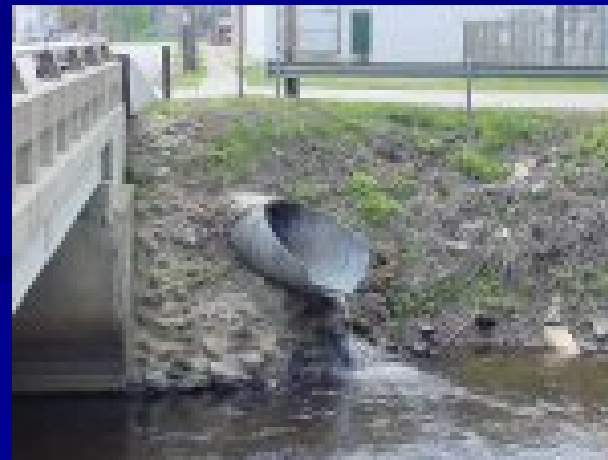
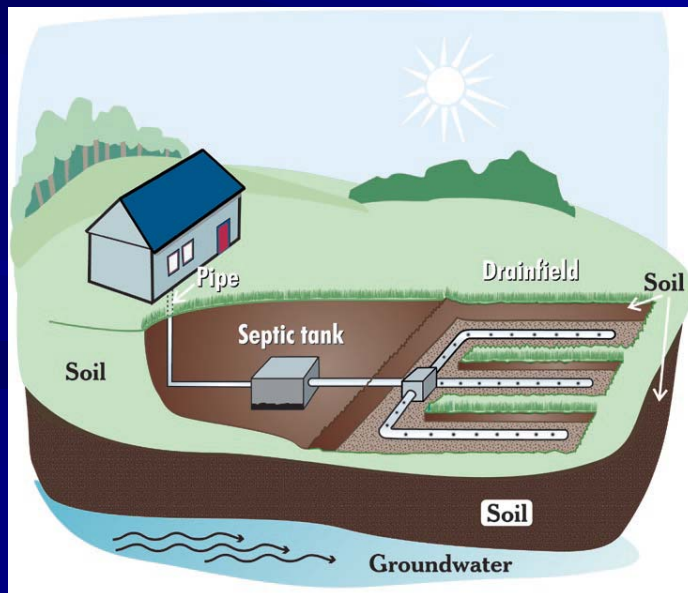
Fecal Coliform Issues

- Used as an indicator organism for human pathogens – public health issue
- NOT a good indicator of risk
- EPA is working on a new water quality standard using other indicator organisms
- Even if non-human sources, some in the public may not want to recreate in these waters

Source Identification

- This is the primary difficulty –
- Impairment may be based from a small amount of data and/or from a very small number of sampling stations in the WBID
- Problems are often sporadic, not chronic
- Other difficulties tying F.C. to pathogens:
 - Salinity in tidally influenced areas
 - Impacts of coliforms in resuspended sediments
 - Grow on vegetation in warm climates
 - Don't differentiate between human, livestock and wildlife

Structural Sources



Pet Wastes



Land Uses

■ Agricultural Sources



■ Marinas



Uncontrollable Sources: Wildlife / Vegetation



How Best to Implement the TMDL?

- Develop a formal BMAP
- Local effort
- Either way, the process primarily involves detective work
- There are a number of tools that be used
- The cost of source identification will vary depending on the number and type of tools you implement



Bottom Line

- DEP does not have the resources to develop BMAPs for all TMDLs
 - Need to prioritize
- DEP will develop guidance document for local entities to follow
- Its amazing how much knowledge is out there – needs to be pulled together
- Some sources are uncontrollable
- May not be able to ever reach w.q. standards – particularly in urban areas

Next Up

- Discussion of available support tools
- Discussion of current local efforts
 - Lower St. Johns River Tributaries
 - Hillsborough River & Tributaries

