

# Developing Numeric Nutrient Criteria in Florida

National Monitoring Conference

Jeff Vowell – Florida Division of Forestry

# Background

On July 17, 2008 Earthjustice sued EPA on behalf of the Florida Wildlife Federation, Conservancy of Southwest Florida, Environmental Confederation of Southwest Florida, St. John's Riverkeeper, and Sierra Club. The lawsuit alleges that EPA failed to *"comply with their non-discretionary duty to promptly set numeric nutrient criteria for the state of Florida as directed by section 303(c)(4)(B) of the Clean Water Act"*.

Florida's current (narrative) standard states "*In no case shall nutrient concentrations of a body of water be altered so as to cause an imbalance in natural populations of aquatic flora and fauna*".

In short, the lawsuit asserted that Florida had not set numerical nutrient standards as required by EPA, and that EPA failed to impose such standards upon the state – the parties agreed to establish numeric nutrient standards in Florida.

# Background

Specifically, the agreement was to establish numeric nutrient standards for:

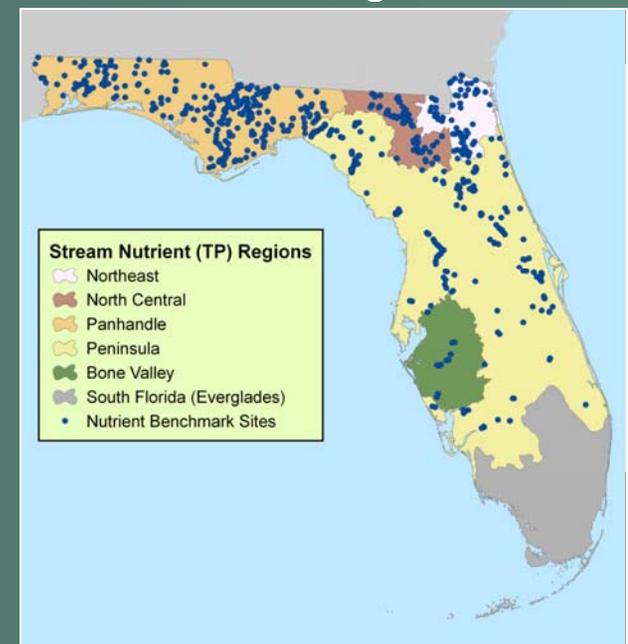
- Streams and lakes - proposed by January 2010 and implemented by October 2010
- Estuaries and coastal waters - proposed by January 2011 and implemented by October 2011.



# Initial Response

Events following the agreement:

- DEP “ramped up” the state’s program for numeric nutrient criteria development, and planned to propose new standards in January 2010.
- DEP’s proposal for streams used a “benchmark approach” that included: “nutrient regions”, “reference sites” and biological assessments to verify impairment.
- Most reference sites were on streams in forested watersheds.
- DEP completed their proposal and initiated rule development.



# Initial Response

Events following the agreement:

- Earthjustice challenged DEP's approach – asserting that forest fertilization had contaminated state waters within forested watersheds – and therefore DEP's proposed reference sites were not valid and should not be used as “benchmark conditions”.
- DEP halted rule development, and EPA proposed federal standards on January 14, 2010.
- Comment period to EPA extended to April 28, 2010.
- Implementation by October 2010.



# Florida Nutrient Criteria - Streams

Nutrient Regions <sup>1</sup>	DEP				EPA		
	TP (mg/L)	TN (mg/L)	NO <sub>2</sub> +NO <sub>3</sub> (mg/L)		TP (mg/L)	TN (mg/L)	NO <sub>2</sub> +NO <sub>3</sub> (mg/L)
Panhandle	0.069	0.82	NA		0.043	0.824	NA
Northeast <sup>2</sup>	0.101	1.73	NA		NA <sup>2</sup>	NA <sup>2</sup>	NA <sup>2</sup>
North Central	0.322	1.73	NA		0.359	1.479	NA
Peninsula	0.116	1.73	NA		0.107	1.205	NA
Bone Valley	0.415	1.73	NA		0.739	1.798	NA
Springs/Clear Streams <sup>3</sup>	NA <sup>3</sup>	NA <sup>3</sup>	0.35		NA <sup>3</sup>	NA <sup>3</sup>	0.35

<sup>1</sup> Spatial extent of nutrient regions not consistent between DEP and EPA.

<sup>2</sup> Northeast region was incorporated into the Peninsula region in EPA's proposal.

<sup>3</sup> Nitrate + Nitrite criteria apply to springs and clear streams (PCU<40) in addition to the applicable regional TP and TN criteria.



# Florida Nutrient Criteria - Streams

In addition:

- **DEP proposed** that “impaired streams” be verified with a follow-up bioassessment.
- **EPA proposed** that streams connected to estuaries and coastal waters have the same (more stringent) criteria.
  - Highly controversial – implementation date postponed for a year.
  - EPA will take additional comments on this issue and “re-evaluate the science”.

# Why is this a Forestry Issue?

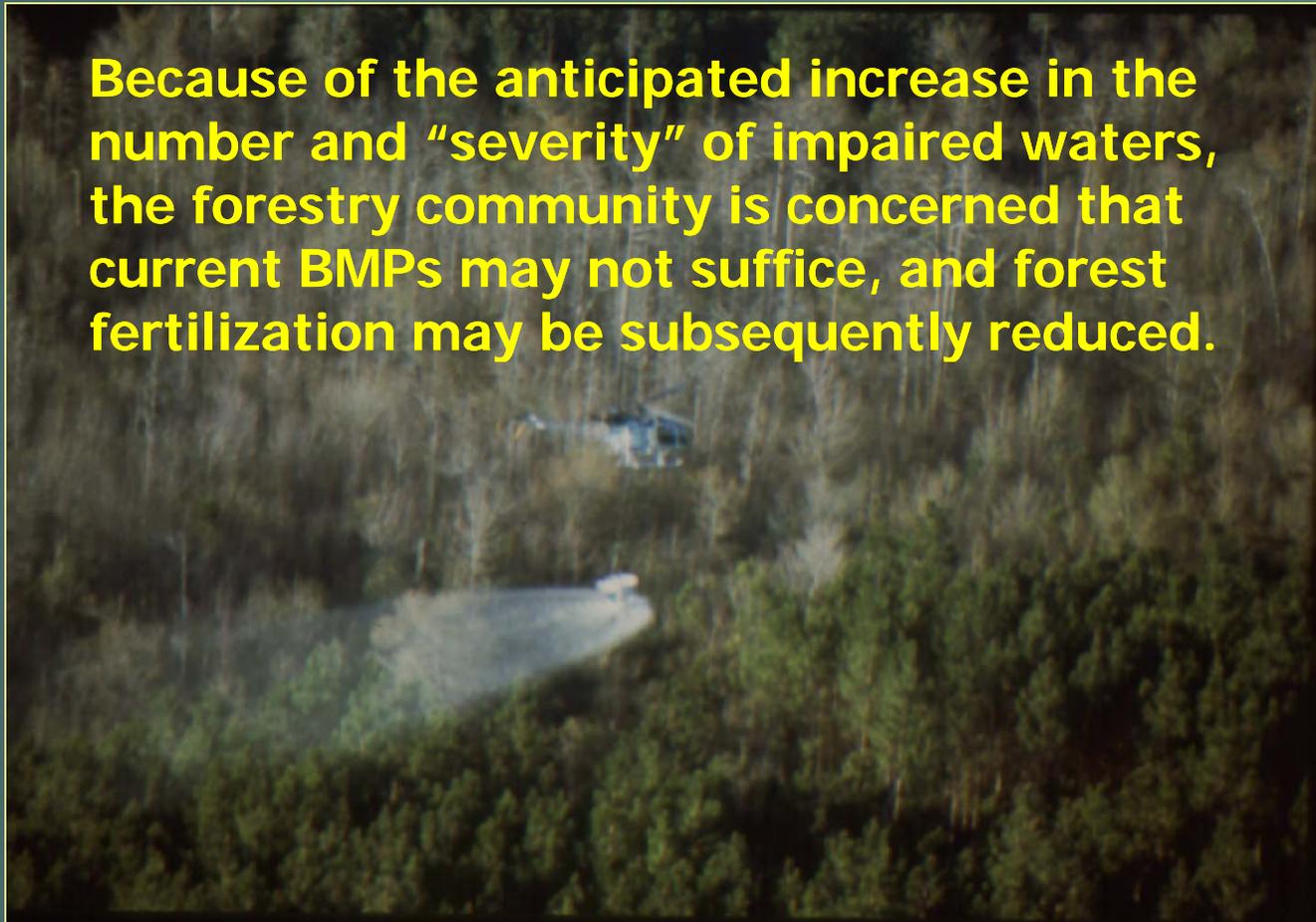
**There are about 30 million acres of planted pine in the South, about 1.6 million acres are fertilized annually.**

**Florida has approximately 4.5 million acres of planted pine.**



# Why is this a Forestry Issue?

**Because of the anticipated increase in the number and “severity” of impaired waters, the forestry community is concerned that current BMPs may not suffice, and forest fertilization may be subsequently reduced.**



# Forestry - Next Steps

**Florida BMPs for forest fertilization have undergone limited effectiveness evaluation, and are currently undergoing additional research.**



# Forestry - Next Steps

**The Florida Forestry Association is working with the state's forestry community to establish a "Nutrient Task Force" which will evaluate alternatives for addressing the new EPA criteria.**



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