Florida Department of
Environmental Protection

Overview of Complications with EPA's Promulgated Numeric Nutrient Criteria for Streams, Lakes and Springs in Florida

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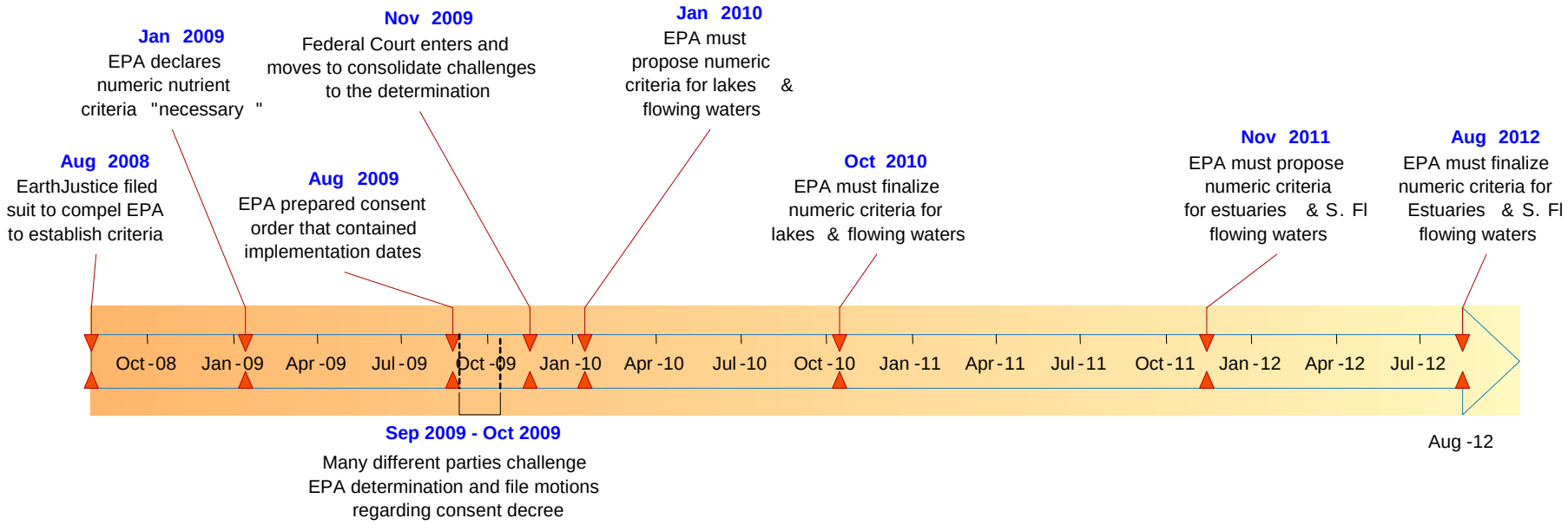
Overview of Presentation

- **Nutrient Criteria Development Timeline**
- **DEP's Perspective on NNC**
- **EPA's Promulgated Criteria**
- **Issues and challenges with implementation**

Background

- **FDEP Started Developing Numeric Criteria in 2001**
- **Litigation began in 2008**



Note: If court invalidates, EPA determination, consent decree and any promulgated criteria would be invalid.

DEP's Perspective on EPA's NNC

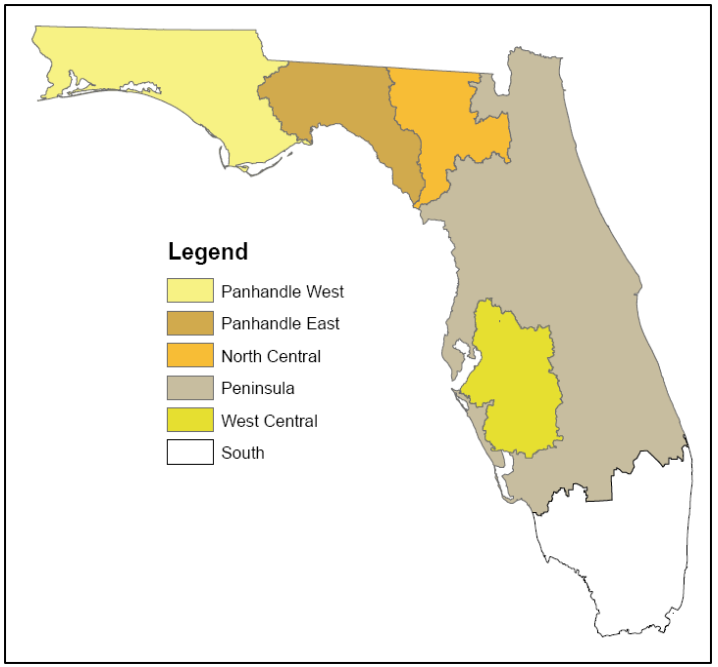
- **Agree that more must be done to address nutrient impairment**
  - **Based on current assessments ~40% of Florida's inland waters are impacted by nutrients**
- **Numeric Nutrient Criteria must be based on sound science and any <u>policy decisions</u> must take economics into account**
- **EPA relied largely on Florida data and analysis, and made substantive improvement over their initial proposal, but….**
  - **We still have some issues**

EPA's Proposal

- **Promulgated rule includes:**
  - **a) Lake, stream, and spring criteria for the protection of aquatic life**
  - **b) Additional stream <u>criteria for the protection of downstream lakes</u>**
  - **c) Provisions for Federal Site-Specific Alternative Criteria (SSAC)**

Stream Criteria

- **Based on "reference approach," with 5 regions**
- **We could not identify consistent dose-response relationships**



Stream Criteria *(continued)*

Table B-1. EPA's Numeric Criteria for Florida Streams.

Nutrient Watershed Region	Instream Protection Value Criteria	
	TN (mg/L) *	TP (mg/L) *
Panhandle West [a]	0.67	0.06
Panhandle East [b]	1.03	0.18
North Central [c]	1.87	0.30
West Central [d]	1.65	0.49
Peninsula [e]	1.54	0.12

- **Expressed as annual geometric means, which cannot be exceeded more than once in a 3-year period**

Concerns with Downstream Protection Values

- **DEP believes that DPVs are neither legally nor technically necessary, and will present an undue burden on DEP to develop**
  - **Not needed because stream criteria based on reference approach are inherently protective**
  - **Limits State's and Stakeholder's flexibility on how best to address impairment of downstream waters**

Lake Criteria

Table C-1. EPA's Numeric Criteria for Florida Lakes.

Lake Color[a] and Alkalinity	Chl-a (mg/L)[b, *]	TN (mg/L)	TP (mg/L)
Colored Lakes[c]	**0.020**	**1.27** [1.27-2.23]	**0.05** [0.05-0.16]
Clear Lakes, High Alkalinity[d]	**0.020**	**1.05** [1.05-1.91]	**0.03** [0.03-0.09]
Clear Lakes, Low Alkalinity[e]	**0.006**	**0.51** [0.51-0.93]	**0.01** [0.01-0.03]

- **"Clear" < 40 PCU, and "Low Alkalinity" < 20 mg/L**
- **Criteria expressed as annual geometric means, which cannot be exceeded more than once in a three-year period**

Lake Modified Criteria

- **FDEP must notify the public and maintain a record of the modified criteria, and notify EPA, with supporting information, within 30 days**
- **Can only establish modified criteria once, and will need to go through a formal SSAC process to revise a second time**
  - **So you better get it right the first time**

Issues with the Promulgated Criteria

- **EPA excluded sites that were impaired for DO, which excluded many sites that drain wetland areas, which tend to have naturally higher TN levels**
- **Did not require biological validation of impairment**
- **Implementation guidance was not included with the criteria**
  - **Minimum data requirements, seasonality**

Issues with Implementation

- **Without minimum data requirements some assessments or criteria could be set using one data point**
  - **Long-term color and alkalinity**
  - **TN or TP in one year**
- **EPA's Criteria requires at least 2 consecutive years with data, but really 3 years to assess most waters**
- **Modified Criteria for lakes requires data in the last 3 years of assessment period**

Issues with Implementation

- **While DEP agrees with using more data to assess:**
  - **NNC will mean more monitoring is required**
    - **Currently have assessed ~25% for nutrients**
    - **Based on existing data ~15% can be assessed under the NNC**
  - **Florida currently has more data than any state in the nation (30% of nutrient data collected nationwide)**
  - **Based on existing data ~30 lakes are eligible for modified criteria**

Effective Date

- **Criteria effective 15 months after publication in the Federal Register, which is March 6, 2012**
  - **FDEP currently does not have rulemaking authority**
  - **Draft legislation regarding NNC**
  - **In 2012, EPA may have to assess under NNC if FL does not have criteria promulgated**
    - **EPA assessments and FDEP assessments would be different**
    - **Confusion for public**

Impact of Criteria on Nutrient TMDLs

- **No TMDL will be rescinded or invalidated as a result of the rule**
- **Rule does not have the effect of withdrawing any prior EPA approval of a TMDL in Florida**
- **Neither the CWA nor EPA regulations require TMDLs to be completed or revised within any specific time period after a change in water quality standards occurs**

Impact of Criteria on Nutrient TMDLs

- **While not specifically addressed in rule, the preamble provides discussion about nutrient TMDLs as potential candidates for SSAC**
  - **EPA-established or approved TMDLs may provide sufficient information to support a SSAC**
  - **Federal SSAC procedure must be followed for determining whether any specific TMDL target should be adopted as a SSAC**
  - **We have raised several issues related to translating TMDLs into SSACs, most notably load versus concentration**

Federal SSAC Provision

- **Provision included that allows EPA to establish site-specific chlorophyll-*a*, TN, TP, or nitrate-nitrite numeric criterion where that SSAC is demonstrated to be protective of the applicable designated use(s)**
  - **Must be consistent with 40 CFR 131.11, including protection of downstream waters**

Issues with SSAC provision

- **Until (and if) DEP adopts numeric nutrient criteria, these SSACs will not go through State SSAC process**
  - **Do not need to meet State requirements and will not be adopted by State rule**
  - **May lead to complications later if FDEP has to adopt the SSACs later**
  - **Could mean EPA has a SSAC used for assessing that FDEP does not**

Legal Challenges to EPA's NNC

- **Many parties challenged the regulation, alleging**
  - **Determination is arbitrary/capricious (a litigation strategy)**
  - **EPA violated a fundamental precept of the CWA that States have the primary responsibility for adopting water quality standards**
  - **"Reference" approach for streams is not valid because it does not link nutrients to impairment**
  - **Criteria are impossible to achieve, and many pristine waters and waters with naturally high nutrients will be deemed impaired**
  - **EPA failed to follow required administrative procedures**

What's Next?

- **Lawsuits will take year or more**
- **DEP still evaluating the criteria and briefnew leadership team**
  - **Not clear what State rulemaking will be done**
  - **We will engage the public and craft state rules that implement the criteria in a practical way that reduces pollution without causing unnecessary spending of public and private money**

For More Information

http://www.dep.state.fl.us/water/wqssp/nutrients