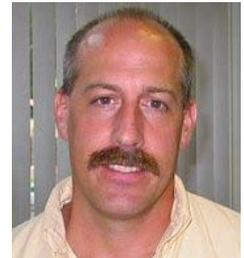


Soil and Water Science Distinguished Seminar

[Inaugural seminar in recognition of Dr. Clark's promotion to Associate Professor]

Speaker: Dr. Mark Clark
Associate Professor
Soil and Water Science Department
University of Florida



Title: Numeric Nutrient Criteria for Florida: What are they and how did they come about?

Date: Monday, April 25, 2011

Time: 3:00 pm

Location: McCarty Hall A Room G186

The Clean Water Act of 1972 authorized the United States Environmental Protection Agency to oversee the quality of the nation's waters. As part of this effort USEPA requested states establish designated uses for water resources and establish criteria that would be protective of the use. By establishing protective criteria for specific designated uses, monitoring data of a waterbody could be compared to criteria to determine whether or not the designated use was being protected. Most criteria are numeric and provide a "bright line" against which monitoring data can be compared. However, most states including Florida chose to adopt a narrative standard for nutrients. Narrative criteria, unlike numeric criteria, are more qualitative, require interpretation and by the time impairment is recognized impacts may be difficult to reverse. In 1996 a report to congress indicated that a large percentage of the nation's waters were impaired and most of the impairment was the result of excess nutrients. In response, USEPA developed a *National Strategy for Development of Regional Nutrient Criteria* in an effort to encourage and assist states and tribes to move from narrative to numeric nutrient criteria.

Beginning in 2002, the Florida Department of Environmental Protection begin the process of developing numeric nutrient criteria for lakes and inland flowing waters and agreed to complete the process in 2009 after threat of a third party lawsuit. However, in the summer of 2009 USEPA entered a separate Consent Decree related to the lawsuit which indicated they were going to propose criteria for Florida by January 2010 and finalize their rule by November 2010. At this time USEPA has finalized its rule and granted a 15 month period for the state to develop implementation details with the final rule to take full effect on March 6, 2012. Since the criteria is establishing the threshold at which a waterbody would be considered "attaining" or "potentially not attaining" its designated use, the implications for under or over protection

are considerable. The potential cost associated with meeting the criteria are expected to be significant and some suggest too costly to the state. The far reaching implications of the new numeric nutrient criteria have both Florida regulators and regulated challenged by the process and numerous legal and scientific challenges to the rule have been initiated.

Due to the high profile of this issue I have chosen to take this inaugural seminar opportunity to highlight the topic. The presentation will provide an overview of the context within which numeric nutrient criteria are applied, what the final rule criteria are for Class I and Class III lakes, springs and flowing waters (except S. Florida) and how they were developed. I will also touch on some of the legal, scientific and economic challenges that have been put forth related to the final rule.

For our off-campus students, off-campus faculty, and on-campus students who cannot physically attend, all seminars can be viewed at: <http://mbreeze.ifas.ufl.edu/seminars>. In addition, all seminars are archived for viewing at <http://swsde.ifas.ufl.edu/seminars.asp>.