



United States Department of Agriculture  
Natural Resources Conservation Service

*Helping People Help the Land*

## CEAP-Wetlands Backgrounder

November 2008

### CEAP — Building the Science Base for Conservation

Science-based conservation is the key to managing agricultural landscapes for environmental quality.

The Conservation Effects Assessment Project (CEAP) is a multi-agency effort to quantify the environmental benefits of conservation practices and develop the science base for managing the agricultural landscape for environmental quality. Project findings will guide USDA conservation policy and program development and help farmers and ranchers make informed conservation choices.

The three principal components of CEAP—the national assessment, the watershed assessment studies, and the bibliographies and literature reviews—contribute to the building and evolution of the science base for conservation.

### Wetlands

The goal of CEAP-Wetlands is to develop a broad collaborative foundation that facilitates the production and delivery of scientific data, results, and information. Findings will routinely inform conservation decisions affecting wetland ecosystems and the services they provide, particularly focusing on the effects and effectiveness of USDA conservation practices and Farm Bill conservation programs on ecosystem services provided by wetlands in agricultural landscapes.

### CEAP-Wetlands Coordinator:

Diane Eckles  
[diane.eckles@wdc.usda.gov](mailto:diane.eckles@wdc.usda.gov)  
(301) 504-2312

### CEAP Website:

[www.nrcs.usda.gov/technical/NRI/ceap](http://www.nrcs.usda.gov/technical/NRI/ceap)

## Conservation Effects Assessment Project Mid-Atlantic Regional Assessment

The CEAP Wetlands Mid-Atlantic Regional assessment will focus on the effects of conservation practices to minimize agricultural impacts on wetland ecosystem services in coastal flat and rolling coastal plain environments in five states—New Jersey, Delaware, Maryland, Virginia, and North Carolina. Study participants will use a common set of sites so that data can be used to compare results across multiple project components. To minimize variability, study sites will be stratified by grouping conservation practices into two general types—those where hydrologic restoration is part of the practice, and those where it is not.

### Site Selection

A total of 48 sites will be chosen, including the nine sites currently being examined as part of the Choptank River Watershed Landscape study and 39 new sites. Sites will be divided into two groups of 24 sites. One of these groups will consist of eight prior-converted wetlands, eight wetlands with native vegetation, and eight wetlands where conservation practices have been implemented to establish hydrology. The second group will consist of eight prior-converted wetlands, eight wetlands with native vegetation, and eight wetlands involving practices that do not establish hydrology (e.g., implemented riparian forest buffers).

Therefore, in total the study will consist of 16 prior-converted wetlands, 16 wetlands with native vegetation, and 16 wetlands where conservation practices have been implemented. Particularly in Maryland and Delaware, the study sites may include altered forested wetlands that were partially or effectively drained

to facilitate agricultural production on adjacent lands rather than prior-converted croplands because practices in these states, particularly Natural Resources Conservation Service practice 657, have been implemented in these types of systems.

### Site Groupings

Sites will be grouped in triplicates consisting of one prior-converted wetland, one wetland with native vegetation, and one restored wetland. These groups of sites will be located as close together as possible to increase the likelihood that differences in ecosystem services provided by the different sites are due to alteration status rather than differences in soils, geomorphology, or other biophysical site characteristics. Sites will be selected randomly with regard to HGM status, but triplicates will share the same HGM status.

Within the above constraints, restored wetland sites will be selected randomly from the complete list of candidate sites. Because the majority of the conservation practices in North Carolina are riparian buffers (non-hydrologically restored) and the majority of conservation practices in the Delmarva Peninsula are hydrologically restored, we expect the former practice to dominate sites in North Carolina and the latter to dominate sites in the Delmarva Peninsula. Even so, site selection will not be limited to a particular conservation practice within a geographic region.

### Status

Site selection activities are underway. Data collection will begin late winter/early spring 2009.

**Study Investigators:**

*Mark R. Walbridge, USDA-ARS  
Office of National Programs,  
Beltsville, MD*

*Ray Bryant and Clinton Church, USDA-ARS Pasture Systems and Watershed Management Research Unit, University Park, PA*

*Pat Hunt, USDA-ARS Coastal Plains Soil, Water and Plant Research Unit, Florence, SC*

*William Kustas, Greg McCarty and Megan Lang, USDA-ARS Hydrology and Remote Sensing Laboratory, Beltsville Agricultural Research Center, Beltsville, MD*

*Judy Denver and Scott Ator, USGS Delaware Water Science Center, Dover, DE*

*Joseph Mitchell, Mitchell Ecological Research Service, LLC*

*Rick Rheinhardt and Mark Brinson, Biology Department, East Carolina University, Greenville, NC*

*Andrew Baldwin, University of Maryland, College Park, MD*

*Dennis Whigham, Donald Weller, and Tom Jordan, Smithsonian Environmental Research Center, Edgewater, MD*

*Greg Noe and Cliff Hupp, USGS National Research Program, Reston, VA*

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