



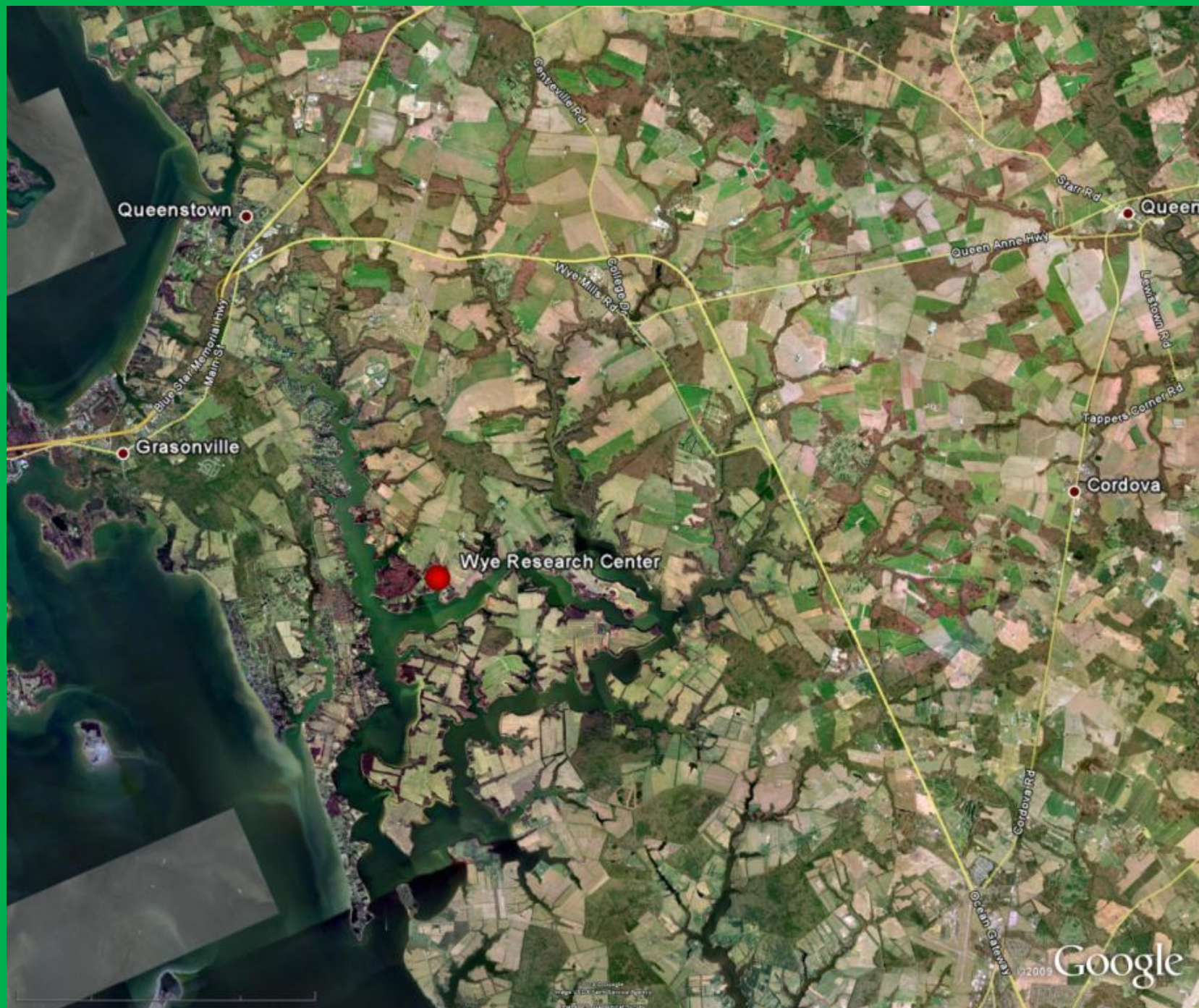
COLLEGE OF  
AGRICULTURE &  
NATURAL RESOURCES

Water all around! Hydrologic connections and transport times between crop production and tidal waters are very short.

# Wye Research and Education Center

















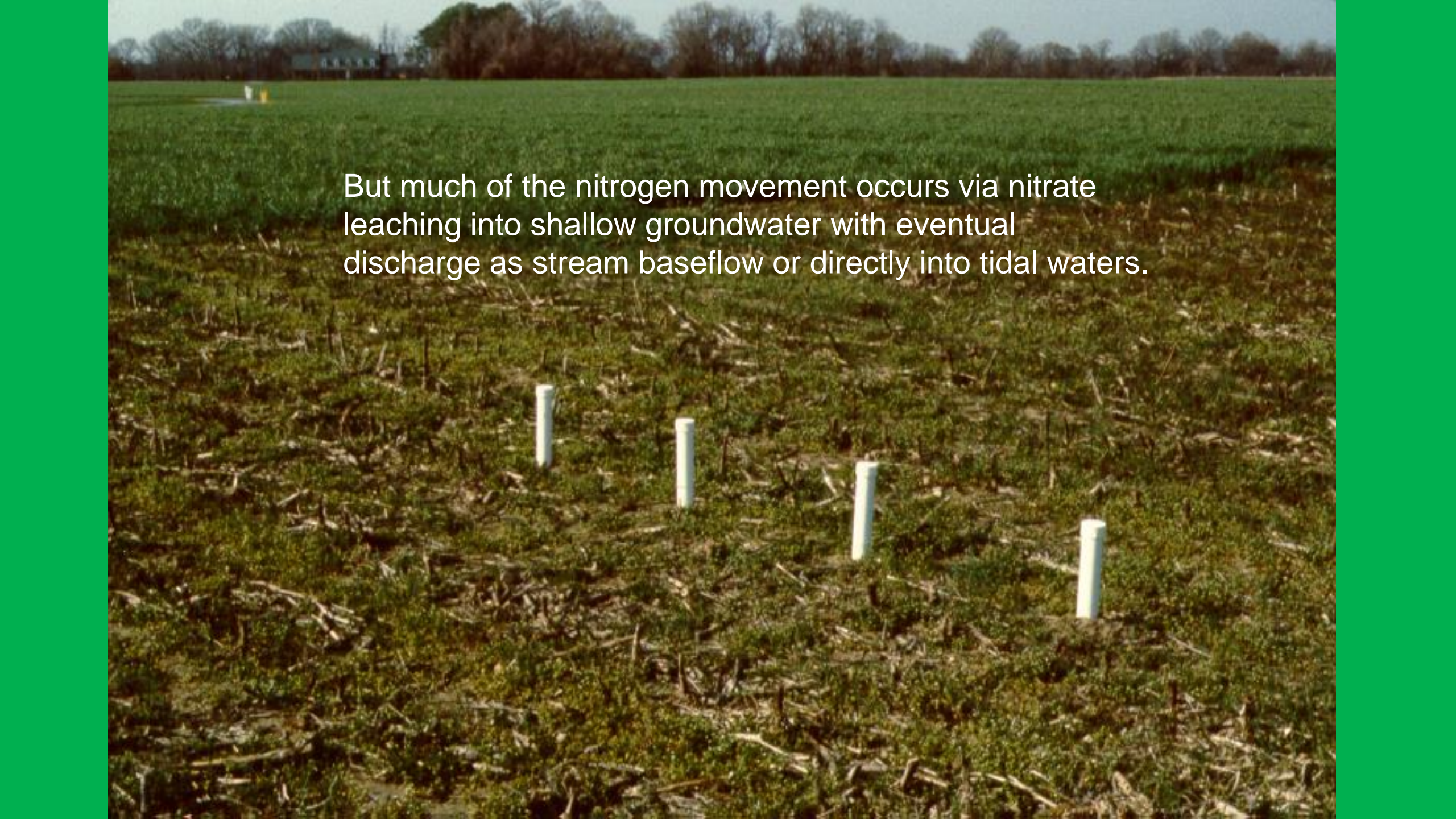
24/7/365 monitoring of surface runoff since 1984 under the full range of management approaches and weather conditions.











But much of the nitrogen movement occurs via nitrate leaching into shallow groundwater with eventual discharge as stream baseflow or directly into tidal waters.



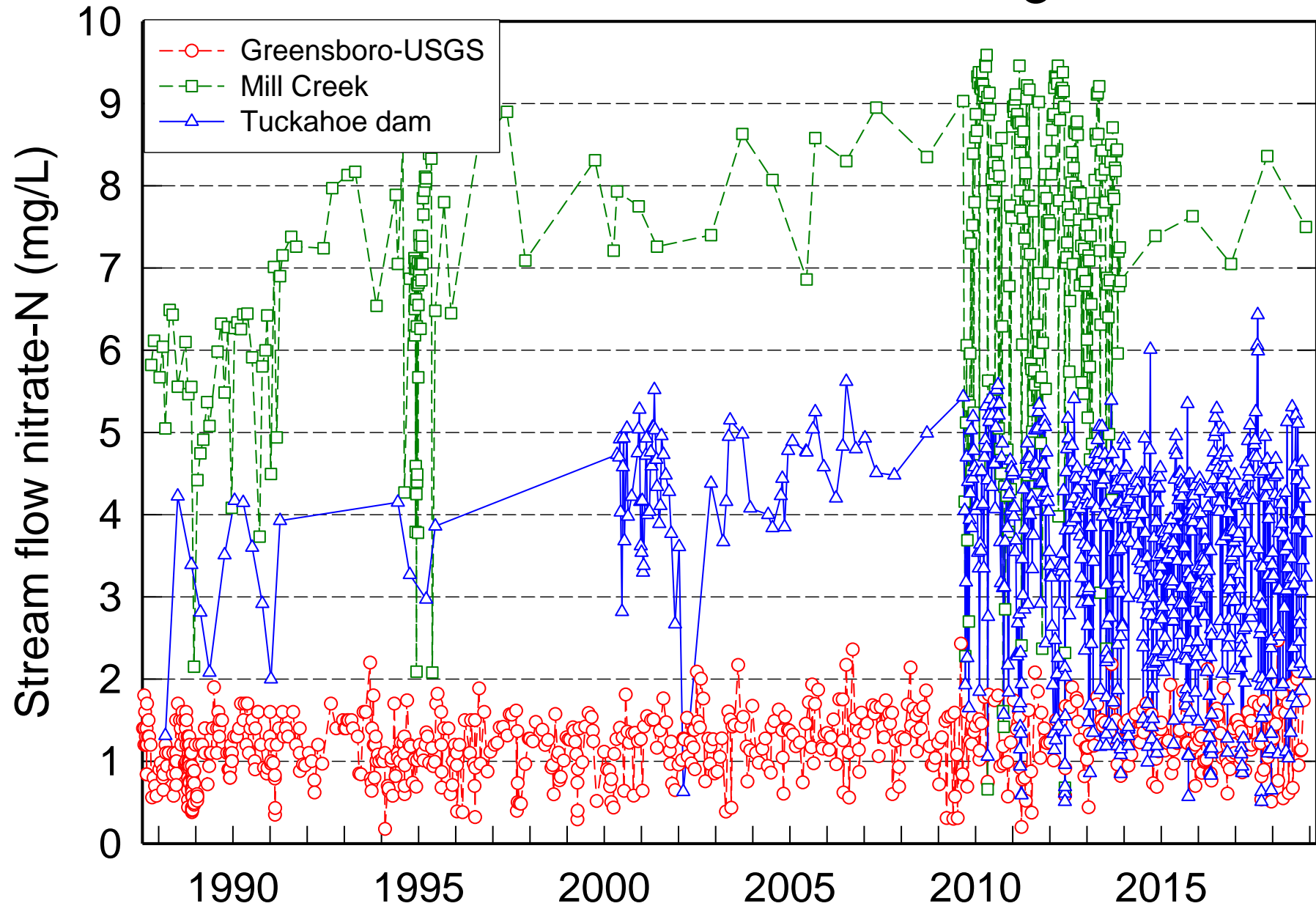






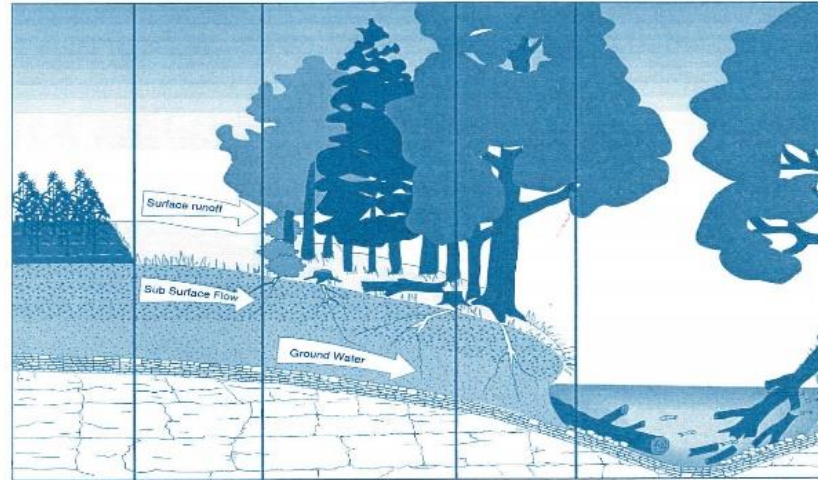


# Long-term stream flow NO<sub>3</sub>-N





## Water Quality Functions of Riparian Forest Buffer Systems in the Chesapeake Bay Watershed



Prepared by the  
Nutrient Subcommittee  
of the  
Chesapeake Bay Program

EPA 903-R-95-004  
CBP/TRS 134/95  
AUGUST 1995





**Assessing the Impact of Changes in  
Management Practices on Nutrient Transport  
from Coastal Plain Agricultural Systems**

Final Report Submitted to:

The Chesapeake Research Consortium

CRC Project CA NPS#3

Kenneth W. Staver

Russell B. Brinsfield

University of Maryland at College Park  
College of Agriculture and Natural Resources  
Wye Research and Education Center

August 1995



## Cover Crops Practices For Use in Phase 6.0 of the Chesapeake Bay Program Watershed Model



January 2017



# AG Stakeholder Perspectives?

1. AgWG originally focused on developing nutrient reduction values for different production systems and conservation practices.

Stakeholder input was needed to develop baselines, and especially critical for evaluating research findings. Ag nutrient flows and stocks (applications, yields, soil P) remain a data challenge.

2. Need more communication regarding mechanics of nutrient transport. Soil erosion is obvious and intuitive. Dissolved nutrients less obvious and more complicated, and a major part of losses. Need education, communication, and trust. Also need ability to downscale watershed model accounting framework (CAST) to the management unit, that is, field and farm.