

**THE USE OF COMMUNITY BASED STAKEHOLDERS TO DETERMINE
THE STRATEGIES FOR REDUCING NUTRIENT LOADS TO THE
CHOPTANK RIVER AND CHESAPEAKE BAY, USA**

**DAVID A. NEMAZIE¹, ROBERT C. WIELAND², KENNETH W. STAVER³, SUSAN
PHELPS-LARCHER⁴, AND JAMIE BAXTER⁴**

¹University of Maryland Center for Environmental Science, P.O. Box 775, Cambridge, Maryland, 21613 U.S.A.

²Main Street Economics, P.O. Box 11, Trappe, Maryland, 21673 U.S.A.

³Wye Research and Education Center, University of Maryland, P.O. Box 169, Queenstown, Maryland, 21658 U.S.A.

⁴Maryland Department of Natural Resources, 580 Taylor Ave, Annapolis, Maryland, 21401 U.S.A.

As a signatory of the 1987 Chesapeake Bay Agreement, Maryland was committed to achieving a 40% reduction of 1985 nutrient levels (nitrogen and phosphorous) in the Chesapeake Bay by the year 2000 and capping nutrient levels thereafter. While the State nearly achieved its 2000 goal, it was further determined that further nutrient load reductions were required to remove the Chesapeake Bay from the Federal list of impaired waters by the year 2010. Back in 1995 Maryland's Chesapeake Bay Cabinet divided the state into ten geographic areas, each with its own Tributary Strategy Team, to determine the most plausible local methods of reducing nutrients, irrespective of the State's priorities. Each Team consists of stakeholders who may or may not have a technical background but who could influence nutrient reductions from point and non-point sources. Teams are briefed on physical and ecological processes as well as best management practices. Nutrient loads entering the Choptank River are predominantly from agricultural sources as it is the dominant land-use of the watershed. The Choptank Tributary Team is currently in the process of re-drafting strategies that will achieve further nutrient reductions equivalent to 60% of the original 1985 load. The Team is using a simple computer model, developed by the State agencies, that accounts for nutrient load reductions and their associated costs of various scenarios. The final strategy will rely on the use of winter cover crops on agricultural fields, forested and grassed waterway buffers, and enhanced nutrient removal at wastewater treatment plants, among other practices.