

National Association of Conservation Districts

RECOMMENDED PROTOCOLS ON THE MEASUREMENT OF CONSERVATION IN

THE CHESAPEAKE BAY WATERSHED-Preliminary Release 3-8-2012

SUMMARY OF ORIGINATION OF PROJECT:

In January of 2009, President Obama issued Executive Order (EO) 12508 on the Chesapeake Bay. This EO requires the development of a Strategy for Protecting and Restoring the Chesapeake Bay Watershed. On May 12, 2010 the Strategy was developed and released by the Federal Leadership Committee for the Chesapeake Bay. The strategy would call for the increased commitment from the Federal Agencies in the Bay to work toward assisting states to reach their water quality goals on the Chesapeake Bay. One of the issues in the Strategy was for USDA to assist states to get a full accounting of conservation practices both cost and non-cost shared practices (sometimes called voluntary practices) that have been implemented in the Bay Region. Federal Cost Shared practices and State Cost Shared Practices have been reported to the Chesapeake Bay Program Office annually with varied success. During this time period EPA was mandated to implement a Bay Wide TMDL where each state must provide Watershed Implementation Plans for all sectors showing what practices would be implemented to resolve nitrogen, phosphorus and sediment pollution from all sectors. For the Agriculture sector, states have indicated that they have focused mainly on tracking and reporting cost-shared practices and have not fully accounted for those practices funded solely by the farmer (e.g. non-cost shared practices). This project was to determine if there was a common protocol possible to collect information on voluntary practices and to assist states to develop state protocols to collect the additional non-cost shared practices that have been implemented in the six Bay states.

USDA was to take the lead and in December a contract was awarded to the National Association of Conservation Districts (NACD) to: "Establish a reliable system to collect, verify and report data on the implementation of agricultural conservation practices in the Chesapeake Bay area to the Bay Program Model." Over the course of a year NACD held meetings and discussions with as many of the involved communities as possible. Out of those discussions evolved an approach that could lead to better recognition of the conservation accomplishments on the land by producers. So the following notes are presented to provide brief status highlights, some opportunities, and recommended protocols for moving forward.

STATUS HIGHLIGHTS:

1. Based on testing farm by farm collection of conservation measures in selected watersheds in at least three states and a full conservation district in one state we estimate that conservation practices are undercounted by some estimates of 25%, or more than that, when taking into account the functionally equivalent and the possibility of crediting some partially equivalent conservation practice work on farms throughout the watershed.
2. The Chesapeake Bay Agricultural Work Group has approved some functionally equivalent conservation practices for input into the Bay Model assessment work as requested by one or more states.

3. At least four of the six states have made an initial determination to consider collection of conservation practice information on all farms.
4. Using the state experiences to date on collecting conservation practice information we estimate the one-time cost to be \$15 million +/- for a full blown farm by farm collection of conservation practice information on the farms in the six states for land designated as cropland.

SOME RECOMMENDED OPPORTUNITIES:

1. Consider using farm by farm data collection as ground truthing and/or benchmarking for the overall effort in the watershed as well as use remote sensing and other available technologies.
2. Use CEAP I and CEAP II results, when the data is available, to plot overall trends and trends by subwatersheds.
3. Begin work with the USDA/EPA work group to make improved use of the CEAP data.
4. For a “round two” of farm by farm data collection it will likely be possible to be selective on which watersheds need the full blown farm by farm data collection and thus preserve more local and state funds/resources for technical assistance, conservation planning and practice implementation.
5. As implementation of a first round of farm by farm data collection is underway close coordination and sharing among the six states and local conservation districts will likely identify possible efficiencies and help to improve data collection management decisions.

RECOMMENDED PROTOCOLS:

1. Collect farm by farm the application of conservation systems and practices that meet the NRCS FOTG standards and specifications.
2. Focus on the key practices that have a direct effect on the improvement of the Chesapeake Bay Estuary including Conservation Tillage, Crop Rotations, Cover Crops, Buffers, Pasture and Hayland management, and implementation of Nutrient Management Plans. Collecting information on additional practices selected on a state by state basis may make management sense when a full blown collection effort is underway.
3. Collect farm by farm functionally equivalent and partially equivalent conservation practices for those that have been (or are proposed to be) approved by the Chesapeake Bay Agricultural Work Group to achieve the accountability and verification goals.
4. Before embarking on a statewide full blown collection effort, run trials on a county, conservation district, watershed, or other such subdivision to help identify the significant systems/practices and to perfect the data collection methods.
5. Evaluate the six state experiences in collecting conservation practice data and develop the agreed upon best approaches so as to make as efficient and effective use of the limited state and local government and private resources as possible.
6. Consider on a state by state basis the balance, between visiting every farm verses visiting every farm in selected sub watersheds, necessary to achieve measurement success.
7. Set up a process to share the experiences in the six states so as to accelerate the use of the most effective techniques. NACD will continue to help in this area.