

**Final Report**

**National Association of Conservation Districts  
State Protocol Collection of Non- Cost Shared BMP's**

**August 2011**

**National Association of Conservation Districts  
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## **National Association of Conservation Districts State Protocol Collection of Non- Cost Shared BMP's**

### **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 there was evidence that farmers were doing much more conservation practice implementation than was recorded in the Bay model. 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." To accomplish this, NACD selected Robert Ensor, District Manager of Howard Soil Conservation District to be the Project Leader. Upon seeing the magnitude of the effort needed, Mr. Ensor subcontracted with Dana York of Green Earth Connection, LLC to provide additional assistance in implementation of the project. The contractor was in continuous contact with NACD for information sharing and counsel. Monthly reports were provided on the activities. The contractor will be referred to as NACD throughout the rest of this report.

## **A. Project Plan:**

A project plan was completed to address the actions necessary to complete this project. (See Appendix A)

1. Compile contact information for all key state conservation agency decision makers and prominent stakeholders in each of the 6 Bay states.
2. Engage in discussions with EPA on current practices considered in the Bay Model and what they see as feasible options for improvement, upon agreement among the states, on agricultural practices not currently considered.
3. Vet concepts with EPA to assure conformance and acceptability to NEIN systems.
4. Contact each state contact to determine how they are currently collecting and verifying information, if at all, on installed conservation practices, focusing on non-cost shared practices.
5. Determine what additional practices each state feels needs to be added to the Bay Model in order to properly credit agriculture.
6. Determine how states would propose dealing with practices that do not meet NRCS standards and specifications yet provide some improvement in water quality.
7. Compile results of information from states noting similarities and differences as well as the costs, pros and cons of each methodology.
8. Hold a teleconference with all the states to discuss and seek a common list of additional practices and common methodology for capturing and verifying the essential data for non-cost shared practices. (May need to hold face-to-face discussions with examples of processes from each state to gain full understanding and consensus by all stakeholders).
9. Develop a draft "Unified Protocol Agreement" for use and signature by all stakeholders in the Bay watershed. This would outline the agreed to methodology for use in collecting and verifying the data on non-cost shared agricultural BMP's installed in the Bay watershed.
10. Hold a Public Meeting to offer outside agricultural and environmental organizations an opportunity to have input into the project.
11. Finalize protocol and agreement, discuss with stakeholders, modify as needed to achieve consensus, obtain commitments/signatures.

## **B. Appendices:**

In the attached Appendix are copies of all the documents and information NACD provided to the states or external groups as well as state information, power point slides and products that were developed and shared as a result of this project.

### **C. Practices That Could be Collected in State Protocols:**

One of the first decisions for a state was to decide what practices would be collected. As a result of this project most of the states decided to do complete farm inventories (see state status), therefore there were many type of practices that could be collected. At the start of this project states primarily collected practices that were paid by state cost sharing and federally cost share practices. The extent that they were able to collect and report NRCS practices varied from state to state. However there is an attempt to easily and rather automatically report practices from NRCS and FSA (see USDA/USGS project below). When states worked with landowners there were two other types of practices that were identified that might be advantageous to report. These two practice types were termed “Functional Equivalents” and “Almost Functional Equivalents”. Through NACD conversations with EPA, it was agreed to explore accepting these additional practices with commensurate nutrient and sediment reductions. These practices will still have to go through the Ag Workgroup (AgWG) Best Management Practice (BMP) process to be reported by a state. As states complete the pilots, it is planned to look at all six Bay states jointly developing the data needed for submission to the AgWG. Key questions are if these practices can be properly defined and there are enough instances in order to make it worth their time to submit to them through the AgWG BMP protocol process. Below are the definitions for the types of practices that might report through this project:

Practices that meet NRCS Standards and Specifications are those that comply with all the requirements in the NRCS State Technical Guide and Engineering Field Manual.

Practices that meet State Standards and Specifications are practices that comply with all the requirements in the State technical guidance materials. Many of these are also accepted through the Chesapeake Bay Partnership Model, but may not be standard practices with NRCS. An example would be Decision Agriculture and the numerous types and variations of cover crops that are current accepted in the Bay model.

Practices that are “Functional Equivalents” are those that provide nutrient and sediment reductions equal to a practice that fully meets NRCS Standards and Specifications but do not meet the rigorous criteria in the Technical Guide. An example would be a grassed buffer strip along a stream that is the correct width, species composition, etc. to meet Standards and Specs but the fence keeping livestock out of the area does not meet the criteria.

Practices that are “Almost Functional Equivalents” are those that do not meet NRCS Standards and Specifications, yet provide some degree of nutrient and sediment reduction. An example would be a grassed buffer strip along a stream that is less than the correct width, or not the correct species composition, etc. to meet Standards and Specs.

A final type of practice was identified that was originally cost shared, but no longer under contract. These practices are "Voluntarily Maintained" and could still be as fully functional as when they were first implemented. Verification of the functionality is the key issue with these practices.

#### **D. Methods to collect practices:**

A decision tool NACD created to help states to start to determine methods that could be used to collect practice data is in Appendix B. There were nine methods discussed with states that ranged from a complete farm by farm baseline to using remote sensing techniques. Each method had different requirements for cost and technical assistance. Most states (MD, NY, VA, and WV) have decided to pilot the farm-by-farm inventory. (See state status below). However in future years they may move to a less intensive system such as farmer self certification, if a good baseline was established in the first year.

#### **E. Verification of practices:**

Once practices have been collected there is a need to provide verification that the practices are implemented and fully functioning. In Appendix C, NACD provided a table discussing verification for the nine collection methods and what types of practices might be verified using that system.

#### **F. Activities to Accomplish the Plan:**

##### **Working with States:**

Starting in January 2011, NACD began using these decisions tools to assist states in determining how to collect and verify non-cost shared practices. First, a Questionnaire (See Appendix D) was sent to states to look at before NACD held conversations with states on their collection options. After these individual conference calls, onsite state visits were completed in February, March, April and May, using the decision tools to have discussions with state Departments of Agriculture and Departments of Natural Resource about their plans. Many individual teleconferences were also held with individual state leadership to answer questions and provide additional advice through the 8 months of the project.

In May, NACD held a teleconference to provide states with an overview of national tools and projects from the federal agencies (See Appendix E) that already are, or could be used in this data collection process. States were also given training on AgWG BMP protocol process, the Bay Model and the data submission tool called NEIEN.

In June, a state teleconference was held for states to provide a preliminary report of what they were thinking of doing and also to share information between states. (See Appendix F) In July and August NACD facilitated state discussions with EPA through

teleconferences or onsite meetings. An example Protocol was provided for states to start to modify toward their individual process. These meetings were facilitated by NACD and were a chance for EPA to give comments on the states proposals.

At the time of this report, states were still finalizing, in writing, their selected protocols and verification methodologies. MD, PA, VA, WV and NY had started piloting their selected processes. Delaware has decided to collect only cost shared BMP information since they have such a small part of the watershed and their agricultural activities are so straightforward and uniform.

NACD recommends that state leadership and EPA leadership come to agreement and sign a joint statement as to what each entity will do in the collection and verification process as well as how they will address future year data collection.

**External Group Information Sharing:**

NACD made a special effort to keep regional and national organizations apprised of the progress on this project. They accomplished this through reporting at the NRCS Chesapeake Bay Agriculture meetings where both environmental and agricultural groups were represented. NACD also took time to visit with the Bay State Farm Bureaus in NY, PA, MD, VA, and DE to gain their assistance, to reach out to their membership and to help get their commitment to the project. All Farm Bureaus were supportive of the project as they generally saw it as beneficial to their membership.

During this time period NACD also met with the Executive Director of the Chesapeake Bay Commission, the Chesapeake Bay Foundation, the Campbell Foundation, Delmarva Poultry Industry, and the Maryland State Soil Conservation Committee Meeting (See Appendix G), at their request, to give an overview and update of the project. Additionally NACD provided presentations to two national organizations.

In April, the Agricultural Nutrient Policy Council held a national teleconference to reach all their agricultural industry member groups across the county to tell them about this project (See Appendix H). Also, the national American Farm Bureau Federation asked NACD to attend their annual AFBF Environmental Issues Conference meeting of state association environmental specialists in Norfolk, VA in May and report on this project, since many other parts of the county are struggling with these same issues of accountability (See Appendix I).

In June, NACD held a regional meeting inviting all the state and national agricultural and environmental groups to come to a one-day meeting in Hunt Valley, MD to get an update on the project. A lively discussion was held at the meeting with suggestions being provided by the attendees at the meeting (See Appendix J).



### **Coordination with Other Federal Agencies:**

Through agreements between NRCS and FSA, USGS was provided copies of the federal cost shared practices from 2004 to 2010. USGS through 1619 rules and regulations has begun developing a protocol to provide aggregated information to the states and the Chesapeake Bay model. If successful, this would greatly reduce the workload for states to collect and report federally cost shared practices. NACD was asked to meet bimonthly with USGS officials to update them on the project and to provide recommendations on practice reporting and double counting issues. USGS hopes to have a protocol by December of 2011 to successfully provide this data.

Several discussions were also held with FSA and NASS on the use of their data collection systems to collect non-cost shared data. FSA was reluctant to commit to being able to collect this data due to funding difficulties at this time. NASS was willing to provide their assistance, but it would take funding from states to collect this data. However, NASS was currently working with NRCS in a updated CEAP report that will provides state with further information on Conservation Tillage and Nutrient Management implementation in the Bay Region. This report will be important in the validation of state collected data.

Several discussions were held with USDA Office of Environmental Markets (OEM) and EPA on a report OEM was developing on a review of protocols used for verification of practices for environmental trading on a nationwide basis. Many common themes were found in the verification process used in environmental trading. This report will be released in the fall and will be provided to the states for their information.

### **Updates to NRCS:**

At the request of the NRCS Regional Conservationist, Leonard Jordon, NACD provided periodic updates to him and State Conservationists on the project and to get input on key issues that might affect NRCS in the state in the implementation of the state protocols. NRCS was always invited to attend state or regional meetings when they were held.

Several discussions were held with NRCS leadership on the potential use of the GeoAgro/NRCS Plug-In as a process in the data collection effort. It does have some potential as a tool but there will have to be further discussion with NRCS if this tool is selected by a state since there is a potential workload for a NRCS field office. National Leadership also made the decision that practices that did not meet NRCS standards and specifications could not be entered into the Plug-in which limits its use for recording state practices, functional equivalent practices or anything other than those practices cost shared through federal programs.

## **EPA Coordination:**

Communication with EPA was continuous during the life of the project. The goal was that while state protocols were being finalized that there would be continuous dialog with EPA and the states so that there would be thoughtful discussions and there would be “no surprises” at the end of the process for either NACD or EPA. To accomplish this, NACD communicated with EPA project representatives, Kelly Shenk Agricultural Policy Coordinator, Environmental Protection Agency and Mark Dubin Agricultural Technical Coordinator, University of Maryland Extension, as needed to update them on NACD progress and at key decision points to discuss how the two groups should move forward. NACD also briefed Jeff Corbin, Senior Advisor, Environmental Protection Agency in May to bring him update on the project to answer questions.

At the request of the Chesapeake Bay Program Office, NACD provided updates to the Agricultural Working Group (AgWG) meetings in March, May and July (See Appendix K) on the progress of the project. The purpose was to determine how their group should work with the states to add practices to the Bay Model since the AgWG directs the BMP protocol process to accept new practices into the Chesapeake Partnership Model.

NACD also participated in the monthly NEIEN teleconference to update the group on the project and to provide recommendations on how the NEIEN project would provide project BMP's through the NEIEN transmission process.

## **G. State Efforts**

As stated above, in June and July NACD and EPA held joint teleconferences or meetings with each of the states for the states to discuss their ideas for data collecting and to get input from EPA on their proposed protocol process. States were provided a copy of the BMP Development Checklist (Appendix M) and at each teleconference; the 14 points of consideration for protocol development were discussed. States were also provided a copy of the Draft Data Collection Protocol – EXAMPLE (Appendix M). The draft was provided so states could use or modify it with their selected BMP collection protocol to obtain written approval by State and EPA leadership.

Below is the status of what states reported as considerations and decisions for implementing non-cost shared data collection in their state. These were discussed during the teleconferences:

**West Virginia:** Final Interview-June 28, 2011. WV has decided to complete a farm-by-farm survey. They are completing a picture guidebook to train their technical specialists. Mark Dubin offered to assist them with their definitions to make sure they meet the current BMP's that are accepted in the model. Once the guidebook is completed they will have a training exercise with all the data collectors on pilot

farms probably in Jefferson and Berkley counties. They will be using the current staff of 4 nutrient management specialists and 2 water quality specialists to do the inventory. This will probably mean that it will take several years to complete the collection. Tetra Tech has been approached to help them create a database tool that will house the information and relay it to NEIEN. They will be collecting all cost-shared (federal and state) as well as looking to see if they have Functional Equivalent or Almost Functional Equivalent practices that are significant enough to go through the Chesapeake Bay BMP protocol process. They will need to see what they find when they do more fieldwork to see if it is worth their time. They are developing a communication strategy for the effort including going to the county fairs.

As far as FOIA protection for the data they collect, they were going to have to investigate that with the state officials. In discussing how to manage the project in future years they had not made that determination, but we talked about self certification with farmers by sending out an inventory of what they collected and seeing if it was still on the ground in future years. We discussed talking with Tetra Tech to see if they could program this kind of report to send to farmers in future years.

Difficulties they mentioned were working with absentee landowners and land renters as well as determining what practices might be on National Park Service lands. They will also have Environmental Trust lands to look at. The question was raised on what WV should report since many practices they were finding were implemented before the 2006 model calibration. EPA told them to report everything they collected since practices that have never been reported and implemented prior to 2006 would be considered in the next model calibration in 2017. (See Appendix N for WV materials)

**Pennsylvania:** Final Interview-June 30, 2011. PA stated that they had reviewed the draft protocol that was provided and stated that options: B. Farmer Self Certification by Survey; or C. Use of Existing Federal or State Record, was much preferable to a Farm by Farm Survey (Option A). This is due to the huge amount of technical assistance needed to complete a farm by farm survey on the large number of farms in Pennsylvania. They felt that they had trained District staff that could complete the verification, if needed, through a spot-checking process. They stated that instead of picking one protocol process they may propose several protocols to fit the needs of the different counties. Pennsylvania had completed three previous trials:

- 1) Bradford County Farm Visits to 20% of Farms Project. It took one year to complete with existing staff. They used some aerial photography and did direct mailing to some Municipalities (they had a 95% response rate);
- 2) Lancaster County BMP Transect using CTIC methodology. They looked at Core 4 practices using current staff, 11 technicians. Covered approximately 20% of farms in county. Direct mailings were also used that were successful;
- 3) RC&D Tillage Survey: was used in 7 counties using CTIC methodology they determined tillage residue amounts in the fields at each stop.

It must be noted that none of the previous trials were sanctioned, approved or otherwise cleared through the AgWG or EPA.

They are also continuing to work with Penn State to develop a computerized farmer friendly nutrient evaluation tool or a one-stop conservation plan. The farmer would identify their farm and delineate fields and indicate nutrient application into a nutrient balance sheet. The system would determine, through calculations, if farmer meets the requirements of the state Ag Erosion and Sediment Control Plans. If they don't the farmer has the opportunity try different scenarios and adjust fertilizer and manure rates until state standards are met. Penn State is exploring adding a RUSLE soil loss calculation module in this system. If technical assistance dollars were available they would send information to Districts to verify or do farmer self-certification. The data collected in the Penn State system has a better chance of being protected for privacy than the others methods since they do not have FOIA protection in the state. EPA stated they were willing to look at the various systems PA would propose and that it would be important to make sure PA had a strong verification system for each, if they did not do a farm-by-farm inventory. Since PA has not finalized what they are going to do the first year, they have not determined what system would be used for future year collections or modifications. (See Appendix O for PA materials)

**Maryland:** Final Interview-June 15, 2011. MD has completed the first once over of state using existing records, knowledge of farms and recorded the information in Conservation Tracker. They have also just completed piloting a farm-by-farm evaluation, searching for non-cost shared practices in Upper Chester watershed (Mid-Eastern Shore). They have developed data collection/verification sheets and trial definitions for functionally equivalent practices. Practices will be entered into the current Conservation Tracker system. They are using Maryland's nutrient trading tool (WRI) to evaluate farm progress toward meeting TMDL goals. They noted functional equivalent practices in the pilot and will be evaluating which of these practices would be practical to submit to the Chesapeake Bay BMP protocol process. In the pilot, they hired two local individuals to be the data collectors and District staff validated what was collected. Data collectors took pictures of the practices that were reported. They used District staff and NRCS employees to determine if practices met standards and specifications, if necessary. They are finalizing a final report on the process and what they found in the pilot. They have discussed creating a traveling team to do this collection throughout the state. At this time, MD had not discussed what to do in future years.

In the discussion MD mentioned the various practices they think they can currently collect through the field verification process, the Nutrient Management Annual Implementation Report and other potential BMP's that they are considering for collection. EPA offered to run scenarios for MD on certain practices to see if it was worth their time to collect the data.

MD has a documented field verification process that is performed by trained District staff. They are exploring adding additional technical assistance resources to this effort. With existing staff they predict it could take 10 years to complete this protocol process as plans are updated. They may propose a 5-year review of each practice to see if it is still functional in the future years. They are looking at the double counting issue with USGS and the data-sharing project. (See Appendix P for MD materials)

**New York:** Final Interview, July 27, 2011. NY State reports BMPs implementation to the EPA through the Upper Susquehanna Coalition (USC). The USC is composed of 16 Soil and Water Conservation Districts in NY. The process for collecting farmer initiated BMPs starts with the state funded Agricultural Environmental Management (AEM) program. AEM is the “umbrella program” that provides a consistent format to efficiently identify environmental concerns and opportunities through a comprehensive on-farm assessment. AEM is a progressive planning process where district staffs use worksheets to take the farmer through a five-tiered process that includes inventory, assessment, plan development, implementation and evaluation that documents the farmer’s environmental issues and takes into account the farmers resources and timelines. This approach has been in place for over a decade and has strong Ag community support. Data collection is performed and verified by trained Ag technicians during individual farm visits. The USC’s goal is to collect data on as many conservation practices as possible whether the practice was cost-shared or paid exclusively by the farmer. The USC is collecting data on non-cost shared practices even if they fail to meet EPA or NRCS standards but have functional equivalency. They are interested in what other states are doing on functional equivalents and getting them through the BMP protocol process if it is worth the effort.

NY feels the scope and depth of USC partnerships has created strong relationships with key agencies to help the USC provide reliable, consistent data with a network to communicate strategy and outcomes. They are currently developing an extra data collection sheet and reference sheets to collect additional information in the USC area for the Chesapeake Bay. They will conduct a small pilot once the tool is completed and pilot it in 1 to 2 counties. Their largest challenge will be funding for TA for the data collection process. They currently have about 1200 farms in the basin and plan to have all CAFO plans up to speed by the end of the year. For verification they have trained/certified District staff that do all the work and the state committee staff checks a certain percentage of the practices each year.

Each of the 19 counties in the Chesapeake Bay has an AEM strategy with an outreach component. District offices enter the data for their county. At this point they can visit a farm about every three years. They have not made final decisions about the future year data collection once the baseline is complete. There was some discussion of the entry of NRCS data through the USGS data sharing agreement and NY would rather be in control of that process since they currently submit NRCS data.

NY was interested the Scenario Builder Training that would be offered and the tool that EPA was preparing for states to run their own scenarios. There was also discussion of when and how to remove practices that have expired or no longer exists, or if the practice was still functional, how to keep it up to date in the model. (See Appendix Q for NY materials)

**Delaware:** Final Interview- July 28, 2011. Because of their small agricultural land base in the Chesapeake Bay, DE has not decided if it will be worth the effort to collect more information than they currently collect. They currently are utilizing the NRCS Toolkit to collect federal, state and Section 319 cost-shared practices. They also have a state voluntary nutrient management-reporting requirement, tracking of manure transport, and there are some NGO practices applied in the state but are not recorded. They feel they have a good handle on reporting conservation tillage acreages.

Current pilots in the state include working with Poultry Companies to compile information on voluntary and non-cost shared practices using a check sheet completed by Flock supervisors. They do not have a final report, but they are not sure how accurate the data will be that was collected. Most of the data collected was more oriented to poultry house BMPs but some Ag BMPs were collected, such as litter treatment and vegetative buffers.

DE FSA collected data last fall on cover crops when farmers came in to complete crop acreage reports to get a better handle of actual acreage of cover crops in the state. Farmers were asked if it was a true cover crop or would be used as a commodity crop. FSA is still compiling the data they collected. The FSA state director decided to do this since she recognized the value of the information. DE will get an aggregated number from FSA to protect the privacy of the information.

They have implemented cost share agreements in Broad Creek for early-planted Rye at a higher cost share rate. The sign-up was to begin in two weeks. There was significant outreach on this project.

The Dept. of Ag State Statistician was working on survey of voluntary installation of non-cost shared irrigation systems being installed. They have received funding for implementation of additional irrigation systems in the state, which they feel, will assist them in meeting the majority of their TMDL requirements. They are also looking into well allocation permits as a possible database to track acres under irrigation.

Overall, DE may be interested in collecting functionally equivalent practices, but it would be primarily variable sized buffers, which are already accepted in the Bay model. Most of the animal agriculture in DE is poultry and they have very few dairies or beef operations. They have not developed a final system to collect voluntary practices since they are still determining what practices would help them the most.

**Virginia:** Final Interview-July 28, 2011 VA is currently using a system developed in 2010 called Agricultural BMP Tracking Program for a computerized farm inventory of conservation practices in their State cost share and tax credit programs. This system also contains an accounting system for tracking dollars committed and spent for state programs and is maintained by District field office staff.

In November of 2010, VA completed a report to the Secretary of Natural Resources for "Development of a Strategy to Collect Data Pertaining to the Voluntary Agriculture and Forestry BMPs". The plan called for a three Phase implementation:

Phase 1-Pilot in 6 Districts to collect and report data. Draft protocols will be developed for collection, spot-checking, data entry and other guidance. Adjust current Tracker to collect voluntary practice data.

Phase 2- Pending funding, the focus of data collection will be for practices to help meet the requirements of TMDL.

Phase 3- Explore collection of functionally equivalent practices and getting approval to enter them into the Bay Model.

At the time of the interview, they had signed 6 county agreements with Districts to complete the pilots. Four of the Districts are in the Bay watershed and 2 are not. They are instructing Districts "how" to collect the data since they want to compare and contrast the various methods developed to see what works best.

The agreement has a list of deliverables that include: use of SWCD staff to collect the data; use of the Ag Tracking system to record the data; that all voluntary practices recorded must meet NRCS or State Standards and Specifications; that they will collect those practices that meet functional equivalents but they will not submit them until EPA determines how much credit they might get for them; and, that all practices will be field verified.

The state is finalizing a "legally reviewed" authorization form for the landowner to sign before they collect the data from the landowner. All data will be collected and entered with a GIS point recorded and they currently have FOIA protection for the data that will be collected.

In the agreement there are 8 deliverables from each of the districts:

- 1) A primary lead person from each District will be appointed;
- 2) Pilot SWCDs will participate in all the meetings with the state DCR specialist;
- 3) SWCDs will complete at least 10 on farm assessments per month only after the landowner has authorized access;
- 4) SWCDs will document the process they use;
- 5) SWCDs will also document the tools they develop and their outcomes or results of the pilot;
- 6) SWCD will report all practices meeting standards and specifications;

- 7) SWCD will complete a quarterly report that will include: the number of contracts and time used for field visit; the number of farm assessments and time to complete them; the practices found that don't meet standards and specifications; the successes and problems encountered and provide copies of any evaluation forms developed and used;
- 8) Each SWCD will assist with the developing the final process that will be used by the rest of the state starting in FY 13 (July 2012).

VA reported that the state is moving forward on their Resource Management Plan (Certainty) process. There has been an Advisory committee that has met once and they have divided their work into three parts: a) assessment of the farm, b) plan development and c) compliance.

VA asked EPA for assistance on 6-8 practices that are in the Bay model, but they don't have state specific standards, yet. When asked about the training for VA district staff, they stated that all staff goes through a well-planned training process. They also have a state spot check process where DCR goes to the field and completes an administrative review that includes 5% of the current year practices installed and 5% of all practices within their current lifespan. They stated there would be a problem in determining how to work with absentee landowners or renters. VA currently does not know the complete universe of how many farms will need to be visited. They have a large producer segment of Amish and Mennonite farmers that are not well represented in their current database. (See Appendix R for VA materials)

## **H. Next Steps Needed**

In the EO Strategy, USDA and EPA made the commitment: "By July 2012, mechanisms for tracking and reporting of voluntary conservation practices and other best management practices installed on agricultural lands will be developed and implemented." At this point the following items should be completed to finalize protocols and start implementation of State Protocols to meet this agreed to date:

- ✓ Provide coordination between states on finalizing written protocols that have been signed by State and EPA leadership. Proposals should be amendable as new situation are encounter during the pilots or implementation process.
- ✓ Help states find funding or pass legislation as necessary for piloting and implementation of the State protocol projects.
- ✓ EPA acceptable State Data Collection and Verification Protocol processes should be discussed and agreed upon with states before states start collecting data so there are "no surprises".
- ✓ USDA and EPA should assist states with determining the cost/benefit of desired collection processes.
- ✓ Provide coordination for sharing of materials used by States for data collection pilots. Information should include such items as: practice



definitions; forms; documentation; practice picture books; data tools and computerized systems; and documentation of processes used for data collection and verification.

- ✓ Assist states in determining if there is a role for the use of private sector companies to collect and verify some of this data. Some discussions have been held with Southern States and other agriculture industry companies.
- ✓ Develop a list of new BMP's that need to be accepted through the Chesapeake Bay AgWG BMP protocol process. Coordinate between states so similar practices can be grouped for submission.
- ✓ Determine how the AgWG will accept and deal with Functional Equivalents and Almost Functional Equivalents practices and the determination of the efficiencies assigned to these practices.
- ✓ Complete preliminary Chesapeake Bay Model runs to determine the outcomes of collection and submission of voluntary/non-cost shared practices.
- ✓ Adjust AgWG BMP work list and timeline for voluntary practice BMP review as necessary.
- ✓ Coordinate with NEIEN working group to keep them informed of projects status.
- ✓ Work with Chesapeake Bay Model group make sure they are aware of new practices that will be coming into the model.
- ✓ Coordinate with USGS FSA/NRCS data transfer project and how this data will be returned to states. Help states determine what are the final BMPs they will need to report if the data sharing project is completed.
- ✓ Continue to work with states on the double counting of practices and removal of historic practices that have reached their lifespan and are no longer functional or in existence.
- ✓ After practices have been entered into the Model-work with USGS and others that are monitoring water quality to see if monitoring collection sites need adjustment. It would be preferable to have watersheds monitored that have a large percentage of the area under BMPs.
- ✓ Continue to provide updates to state and federal leadership on progress of non-cost shared protocol project progress in each state.
- ✓ Create a communication strategy to report what the state protocols are accomplishing and the results of their data collection process.
- ✓ Make sure that other Sector BMP data collection requirements are similar or at least as vigorous as those used in the Agriculture sector.
- ✓ Look at the development of tools at the national or regional level by USDA or EPA to assist states in the BMP collection and reporting process.
- ✓ Hold occasional public meetings for Agricultural and Environmental communities for updates and input on state efforts. (Last meeting was June 27, 2011, Hunt Valley, MD)

## I. Observations and Conclusions

Agriculture, as an industry, is doing a great deal toward nutrient and sediment reduction benefitting the Chesapeake Bay. This fact has been shown in the numerous pilots and tests conducted by state Departments of Agriculture and Conservation Districts throughout the Bay. The BMP's that significantly impact the model numbers are those that cover the most acreage.. Those are generally conservation farming, no-till farming, nutrient and manure management, land use changes to a less intensive use and, where applicable and possible, cover crops of various iterations. Having noted that on a broad scale, the objective is focused locally and on a local basis every BMP helps improve water quality.

EPA is very willing to credit as many agricultural practices as can be scientifically proven and defended in the model. Witness the "functional equivalent" and "almost functional equivalent" practice modifications being considered for the Chesapeake Bay Model.

The initial farm by farm inventory of all BMP's is considered the best possible method to establish the initial conservation practice baseline. The key is establishing criteria for the process that meets a standard of rigor and scrutiny that will be defensible. Most states, four of the six, have decided to take this tact although it is expensive and time consuming. Survey methods, properly designed and approved, may be used in later years to maintain and update the initial baseline information by the states.

A common protocol for collection of non-cost shared conservation practices used by all states is impossible to obtain at this stage of the project. This is due to a variety of reasons such as legal challenges by agricultural and environmental groups with an interest in the Bay. Four of the six states (67%) have agreed to proceed with a similar data collection methodology.

There are other data collection processes and models being utilized in the Bay (CEAP/NRI studies as an example) that are producing data that can be used to verify or discredit the Bay Model. There is a great amount of discussion on the validity of the data and whether the data should be used within the Bay model. This will be discussed and decided at a much higher policy level with the agencies involved.

Continued discussion is required among the states to prevent unnecessary false starts and wasted effort and unnecessary expenditures. States have agreed to share information and tools developed and proven successful.

NACD and Districts have the opportunity to further establish themselves as the experts in the area of BMP's that positively impact agriculture in the Bay.