APPENDIX

A. Project Plan- Chesapeake Bay Agricultural Facilitation Plan of Action

Chesapeake Bay Agriculture Facilitation Plan of Action

Objective: "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."

(THIS HAS BEEN INTERPRETED TO US TO MEAN THAT A PROTOCOL BE DEVELOPED TO CAPTURE THE UNREPORTED CONSERVATION PRACTICES AND SYSTEMS IN THE BAY WATERSHED, SINCE THE NRCS AND THE STATES HAVE DATA COLLECTION SYSTEMS FOR THEIR COST SHARE PROGRAMS.) THE THINKING IS THAT THERE MAY BE 5 PRACTICES THAT THE 6 STATES WOULD AGREE ARE NOT WELL DOCUMENTED AND THAT THE SIX STATES WOULD AGREE TO A COMMON PROTOCOL TO CAPTURE INFO ON THESE 5 PRACTICES.

Timeline: starting immediately and finishing by December 2011.

Actions:

1. Compile contact information for all key state conservation agency decision makers and prominent stakeholders in each of the 6 Bay states.
   January 2011

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.
   February 2011

3. Vet concepts with EPA to assure conformance and acceptability to NEIN system.
   February 2011

4. Contact each state contact to determine how they are currently collecting and verifying information on installed conservation practices, focusing on non-cost shared practices.
   February 2011

5. Determine what additional practices each state feels needs to be added to the Bay Model. February 2011

6. Determine how states would propose dealing with practices that do not meet NRCS standards and specifications yet provide some improvement in water quality. March 2011

7. Compile results of information from states noting similarities and differences as well as the costs, pros and cons of each methodology. April 2011

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). April 2011

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. June 2011

10. Hold a Public Meeting to offer outside agricultural and environmental organizations an opportunity to have input into the project. June 2011

11. Finalize protocol and agreement, discuss with stakeholders, modify as needed to achieve consensus, obtain commitments/signatures. July-August 2011

12. Submit monthly reports to NACD on progress, successes and noted problems throughout process. Monthly

Note: All dates are proposed and tentative. They may be modified as required to assure adequate discussion and valid responses from stakeholders.

B. System Examples to Collect BMP's

System	Method	Sample Size	Verification
1. Farm by Farm Inventory	Farm visit by trained personnel	100%	Through on-site visit by trained personnel while collecting data
2. Farmer Self Certification with Onsite visit	Farmer fills out survey and trained personnel visit site to confirm	100% (Return rate by the farmer affects %)	Through on-site visit by trained personnel
3. Farmer Self Certifications	Farmer fills out survey and mails back	100% (Return rate by the farmer affects % completed in sample)	By Farmer self certification when submitted
4. Use of Existing federal, state or District records	Trained personnel review existing farm data on practice implementation	<100%(Depends on the completeness of the records in the office)	Trained personnel verify through knowledge of the farm or through calls made to the farmer
5. Transect of County or Watersheds	Transect completed by trained personnel in selected areas of County or Wshed	Statistically Determined	Verified by the trained personnel completing the transect on the ground
6. Farmer Reported at USDA office	Farmers go to USDA office and reports practices (similar to FSA crop reporting)	100% (Rate will be affected by farmers who do not respond)	Farmer certified during the visit at USDA office
7. NASS Survey	NASS survey mailed to farm community.	NASS determined %. Return rate will affect outcome	NASS certification procedures
8. Aerial Photography Remote Sensing	Remote Sensing determination of practice implementation	100% or other statistically selected amount	Verification usually involves determining photographic signatures by field checks to determine accuracy of office determination
9. NRI Point or some other statistically selected sites	Remote Sensing or Field Visit to the points.	100% of Points selected completed	Verification can be same as Aerial Remote Sensing method or by visit to each site to collect and certify data

C. Verification Methodologies

System	Method	Sample Size	What data can be collected?								Verification Methodology	Verification Issues	Relative benefit	Relative cost	Issues with Model
			Fed C/S	State C/S	NGO C/S	Private Funded	Meets Specs	Functional Equivalent	Almost : provides benefits, but needs work to meet specs	Installation Date					
1. Farm by Farm Inventory	Farm visit by trained personnel	100%	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Through record checks	Through on-site visit by trained personnel while collecting data, check databases		High	High	Best fit
2. Farmer Self Certification with Onsite visit	Farmer fills out survey and trained personnel visit site to confirm	100% (Return rate by the farmer affects %)	Yes	Yes	Yes	Yes	At onsite visit	At onsite visit	At onsite visit	Through record checks	Through on-site visit by trained personnel	% of checks determines acceptance of some practices	High to Medium	Low	
3. Farmer Self Certifications	Farmer fills out survey and mails back	100% (Return rate by the farmer affects % completed in sample)	Maybe	Maybe	Maybe	Maybe	Maybe	Maybe	Maybe	Must check records to verify	By Farmer self certification when submitted	Wide variance in knowledge of farmers	Low	Low	
4. Use of Existing federal, state or District records	Trained personnel review existing farm data on practice implementation	<100%(Depends on the completeness of the records in the office)	Yes	Yes	Maybe	Only by elimination	Yes	No	No	Yes	Trained personnel verify through knowledge of the farm or through calls made to the farmer	Misses many non C/S practices	Medium	Medium	
5. Transect of County or Watersheds	Transect completed by trained personnel in selected areas of County or Watershed	Statistically Determined	No	No	No	No	Maybe	Maybe	Maybe	No, must check records to determine	Verified by the trained personnel completing the transect on the ground	Can only determine existence and quality of practices not source of funding	Medium	Medium	
6. Farmer Reported at USDA/District office	Farmers go to USDA office and reports practices (similar to FSA crop reporting)	100% (Rate will be affected by farmers who do not respond)	Maybe	Maybe	Maybe	Maybe	Maybe	Maybe	Maybe	Must check records to verify	Farmer certified during the visit at USDA office	See Farmer Self certificaiton, # 3	Low	Low	
7. NASS Survey	NASS survey mailed to farm community.	NASS determined %. Return rate will affect outcome	No	No	No	No	No	No	No	No, must check records to determine	NASS certification procedures				Not compatible, installation dates are
8. Aerial Photography Remote Sensing	Remote Sensing determination of practice implementation	100% or other statistically selected amount	No	No	No	No	no	No	No	No, must check records to determine	Verification usually involves determining photographic signatures by field checks to determine accuracy of office determination				Not compatible, installation dates are critical
9. NRI Point or some	Remote Sensing or Field Visit	100% of Points selected completed	No	No	No	No	No	No	No	No, must check records to determine	Verification can be same as Aerial Remote Sensing method or by visit to each site to collect and certify data				Not compatible, installation dates are critical

D. State Questionnaire

NACD Project: Developing Protocol for collecting Non-cost shared landowner practices

This project will consist of developing a sustainable protocol for the collection of non-cost shared practices. The goal is to credit the Ag community for all verified conservation practice implementation that results in nutrient and sediment reductions. This is especially important to meet the requirements of the TMDL and state Watershed Implementation Plans. Most states do not have a system in place for tracking and verifying non-cost shared practices, and where they do, the state approaches vary. In order for practices to be counted, practices will have to be tracked, verified and transmitted through the NEIEN infrastructure for credit in the Chesapeake Bay Watershed Model. Our job is to help coordinate this process, establish a consistent protocol for data gathering and verification for use by all states in the watershed and to share information so that each state does not have to "reinvent the wheel" if it is not necessary.

What does this effort mean to Agriculture in the Bay? A more accurate accounting of what is occurring on agriculture land could "shrink" the load attributed to Ag and shift it to other sectors. Ag could be further along in implementation of the TMDL and therefore less would be required from the agriculture community to meet watershed WIP's.

State systems must have the following characteristics:

- Simplicity in design- system should be straight forward to use.
- Ease of Use- for the person entering the data: i.e. Farmer, District, State employee, etc. Data errors can be introduced many ways and should be minimized in the system design stage.
- Workload Requirements- workload to collect the data will determine cost of system, accuracy of data and the system used to verify the data.
- Cost of system-development and long term maintenance of system and data must be taken into account.
- Practice Standard- practices collected must meet an established standard accepted by EPA to be counted in the model. If not-the "new or interim practice" will have to go through the EPA protocol process. Practice definitions must be consistent between the states so that "effect estimates" will be comparable.
- Data Verifiability-validation and verification of the data will be required to be completed by some acceptable and consistent method.
- Access to the Data- who will have access to the data? (1619 for federal data)
- Accuracy-of the data and the level of reporting must be determined for each state system.
- Lifespan of the Practice Data-the state system will have to determine the life span of the practices and practice data and establish when it is reviewed for potential changes or deletions.
- Date of Practice implementation- is needed to determine when the practice was implemented, removed, replaced or no longer in existence (i.e. urbanization)

- Withstand Outside Review-state protocols must be able to withstand outside review of the process or system.
- Adaptability to Future Needs- computer systems change. An attempt should be made to take this into account when building state systems.

State Interview Questions:

1. Who, in your state, is involved in the development of the non-cost shared practice data collection protocol for the Chesapeake Bay Watershed Model? (Names and organizations)
2. Does your state currently collect and report NRCS, state cost shared or other funded practices to EPA? How is this accomplished?
3. What system(s) or methods do you use to do the collection of cost shared practices (federal, state, private grants, other)?
4. How is the data verified?
5. How do you protect against "double counting"?
6. Have you started developing a system to collect non-cost shared practices or farmer installed practices in your state? If so, please describe where you are in the process and if you have funding to develop this system?
7. For non-cost shared practices, have you decided if you want to collect data on all practices in the Tech Guide; the most prominent 20-30; or some other mix?
8. What would those most prominent practices be (list)?
9. How do you propose to collect information on non cost shared, farmer installed conservation practices (see below chart for some possible options)?

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1. Farm by Farm Inventory	Farm visit by trained personnel	100%	Through on-site visit by trained personnel while collecting data
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10. Have you considered how BMPs that don't meet NRCS Standards and Specs be handled in your protocol? Example: fencing streams with minimal posts and wire or less than the optimum setback from stream bank?

11. How can I help you the best to move forward in this process?

12. Do you have any questions or are there others in your state I should speak with?