

PA Chesapeake Bay Watershed Implementation Plan
Agricultural Section – Strategy to Fill Gaps
Update February 2012

Non-Regulatory Efforts

Page 82 Best Management Practices (BMP) Tracking

National Association of Conservation Districts (NACD) has announced the completion of their Protocol Project and placed the Final Report and Appendices A-V on the Howard Soil Conservation District (Maryland) website www.howardscd.org under "NACD Protocol Project." From Pennsylvania's perspective, this effort was unsuccessful and did not result in any useful product. This project was funded by the USDA Natural Resources Conservation Service 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...", as well as "...establish a reliable system to collect, verify and report implementation of agricultural conservation practices." The project results show that there is no common protocol and each state, including Pennsylvania, will be approaching the collection and reporting of voluntary practices as dictated by individual state resources and statutory authority. The Water Planning Office is working with an internal group to identify the voluntary practices that will have the most significant positive impact in the Bay model, what is the appropriate collection method and negotiations with EPA regarding what data collection methods and verification is acceptable.

Pennsylvania is engaged in discussions with EPA and the Capital Resource Conservation and Development Area Council (Capital RC&D) for a cropland tillage transect survey for the Pennsylvania bay counties. This survey will use CTIC protocols and data collection standards with the goal of collecting data that can be authenticated and provide a statistically valid statement of tillage BMPs in the survey area. The data collection will be organized so that county route maps and way-points will allow replication of the survey in future years. The survey will be implemented in late spring of 2012 within a five to eight week timeframe between planting and canopy closure of field crops.

Page 82 Chesapeake Bay Implementation Grant Special Projects Funding

DEP will use targeted priority practices - stream bank restoration/riparian buffers, fencing, manure storages/barnyard practices, cover crops/no-till, nutrient management/E&S plans - and priority watersheds.

For 2011, DEP and the SCC awarded 46 projects to conservation districts for a total of \$800,492.95. Of the 46 projects, 41 were awarded for priority activities including 17 projects for nutrient management/conservation plans, six for fencing and four for cover crops/no-till planting. Of the other five - less than 10% of the funds were awarded - two

supported on-going staffing commitments and three were for additional outreach activities. In addition, all but two of these 46 projects were in the targeted watersheds. These two supported (1) a county-wide outreach effort in Bradford and (2) on-going staffing commitment in Susquehanna County.

For 2012, DEP announced that about \$800,000 would be available for special projects. Priority watersheds are based on EPA priority watersheds and priority practices will remain the same as the previous year - stream bank restoration/riparian buffers; fencing; manure storages/barnyard practices; cover crops/no-till; nutrient management/E&S plans.

Page 82

Chesapeake Bay Implementation Grant Technician/Engineer Funding

DEP revised the technician contracts for 2011-2012 to include specific tasks to expand the compliance assistance outreach for agriculture. The scope of work in these technician contracts required staff to spend a portion of their time contacting farms in their county to ensure all farm operators are aware of their responsibilities under PA erosion and sedimentation control regulations and the Manure Management Manual. For 2012-13, the technician contract will continue to include specific tasks regarding compliance assistance outreach.

Page 83

The Pennsylvania Infrastructure and Investment Authority (PENNVEST) Non-Point Source (NPS) Funding

On July 20, 2011, PENNVEST approved over \$1.9 million for six projects to address agricultural NPS pollution. All six are in Lancaster County and will reduce nutrient runoff into local streams and the Chesapeake Bay watershed. The specific projects were:

- A \$163,213 grant to construct a manure storage facility at a poultry operation in Paradise Township.
- A \$573,188 grant to construct a manure storage facility at a farm in Ephrata Township.
- A \$176,210 grant to construct a manure storage facility at a farm in Mount Joy Township.
- A \$157,534 grant to construct a manure litter storage shed at a poultry operation in Strasburg Township.
- A \$657,050 grant to construct a manure composting facility as well as an infiltration basin at a farm in Drumore Township.
- A \$212,056 grant to construct a manure storage facility and make other improvements at a second farm in Strasburg Township.

On April 20, 2011, PENNVEST approved five projects to address agricultural NPS pollution. Three of the projects (\$1.069 million) were in the Chesapeake Bay watershed in Lancaster and Montour counties. The specific projects were:

- \$425,397 grant to construct various manure-control facilities at a dairy and poultry operation in West Lampeter Township that will reduce nutrient runoff into Pequea Creek in Lancaster County.

- \$148,802 grant to construct manure-control facilities at a poultry farm in Strasburg Township, where nutrient runoff during wet weather is contaminating Big Beaver Creek in Lancaster County.
- Montour County Conservation District received a \$495,000 grant to install manure and animal control facilities at two livestock farms where there is significant nutrient runoff into Mahoning Creek, Beaver Run, and ultimately the Chesapeake Bay.

On October 26, 2011, PENNVEST approved two applications for NPS funding. The total funding for NPS was \$1,584,349.

A summary of the two projects includes:

- Berks County Conservation District received a \$764,980 loan to construct a manure solids separation system, a composting facility, and a 1.7 million-gallon lagoon and cover at Kurtland Farms to reduce nutrient runoff into a nearby stream. It also received a \$300,514 loan to construct a manure storage tank and a steam buffer in order to reduce nutrient runoff into a nearby stream.
- Lancaster County Conservation District received a \$518,855 grant to construct manure storage tanks on three farms that will provide enough storage to eliminate the need to apply the manure to fields during the winter, thus reducing nutrient runoff into nearby streams.

On January 25, 2012, PENNVEST approved five applications for NPS funding. The total funding for NPS was \$9,138,025, with loans totaling 5,337,749 and grants totaling \$3,800,276.

A summary of the ag projects includes:

- Chester County Conservation District received a \$986,671 grant to construct facilities to reduce wastewater runoff from a mushroom farming operation that is contaminating Naaman's Creek with nutrients. They also received a \$1,274,595 grant to undertake 10 separate projects at various sites in the county. These projects primarily involve the implementation of agricultural BMPs designed to reduce nutrient runoff into local streams and ultimately, the Chesapeake Bay.
- Lancaster County Conservation District received a \$620,885 grant to construct a boiler that will burn chicken manure on a poultry farm whose land is saturated with nutrients that are contaminating the local stream and the Chesapeake Bay. They also received a \$214,600 grant to construct a riparian buffer on one farm and a manure storage facility and other storm water control facilities on another farm in order to reduce nutrient runoff into local streams and the Chesapeake Bay.

On April 1, 2011, the PA Association of Conservation Districts hired Paul Herzer as the Non-Point Source Application Developer (AKA "NPS Circuit Rider") to assist county conservation districts, watershed groups, environmental groups, municipalities and DEP Regional Offices with the PENNVEST application process. Funding for this position was

awarded by DEP to PACD from the EPA Section 319 grant funds. In January 2012, Terry Fisher took over as the NPS Circuit Rider.

Page 86

PENNVEST Non-Point Source Funding

PENNVEST held the second round of nutrient credit trading auctions in November 2011. Over 20,000 credits were sold. The price was \$3.10/pound N and \$4.73/pound P. Pennsylvania has engaged in trading about 82,000 pounds of N reduction since 2010.

PENNVEST, working in conjunction with DEP, will be hosting auctions for the sale and purchase of nutrient credits in the Susquehanna and Potomac watersheds throughout 2012. PENNVEST plans to hold three Forward Auctions and one "spot" auction of verified credits. These auctions will afford wastewater treatment plants in these two watersheds to purchase credits as a means of meeting their nitrogen and phosphorous discharge limits for the compliance year.

Page 88

US Department of Agriculture (USDA) Activities

DEP coordinated completion of the Conservation Reserve Enhancement Program (CREP) annual report for submittal to USDA. CREP is a federal Farm Bill program that targets highly erodible cropland, marginal pastureland, and riparian areas for installation of conservation practices. It is an enhancement of the Conservation Reserve Program and represents a fiscal windfall for Pennsylvania. For every \$1 of state spending, PA receives \$5 in federal funding. PA's CREP began enrollment in 2000 and leads the nation in the number of enrolled acres. Since 2000, PA's CREP accomplishments include:

- 192,291 acres are under contract;
- 12,046 Conservation Plans have been completed;
- \$91,991,952 in cost-share payments have been provided to 12,830 landowners.

In 2010 – 2011, Pennsylvania CREP accomplishments include:

- 143 contracts were approved on 2,378 acres;
- 770 acres of forested riparian buffers were installed;
- 643 acres of native grasses were planted;
- \$1,402,847 in direct cost-share payments were obligated.

US Department of Agriculture Strategic Watershed Action Team (SWAT). In June, 2011, DEP and the National Resource Conservation Service (NRCS) entered into a three-year cooperative agreement to accelerate and enhance implementation of conservation practices. These practices are funded under the NRCS Chesapeake Bay Watershed Initiative and PA's Clean Water Fund. Using a Conservation District Fund Allocation Program (CDFAP) Special Project Agreement, seven county conservation districts agreed to participate in working with farmers/producers in the Chesapeake Bay watershed and assist the USDA's PA SWAT. The overall objective of these SWAT agreements is to implement an additional 90 agricultural contracts and install an additional 450 conservation practices in the Chesapeake Bay watershed. For fiscal year 2011, this would mean a 27% increase in conservation practices - an additional 9,000 acres of

BMPs. Seven county conservation districts that have agreed to participate - Adams, Chester, Cumberland, Dauphin, Lancaster, Lebanon, and Perry. This results in additional agricultural staff positions for this effort to reduce nutrients and sediments to the Bay.

In the first six months of this effort, the participating conservation districts reported preparing designs or layouts for 90 conservation practices, conducting design review or approval on 48 conservation practices and conducting 108 construction inspections or certifications. The reimbursable cost reported for this work is: \$140,261 and the reported in-kind match is \$18,474.

Page 89

NRCS Training for Field Staff

NRCS, working with Penn State, developed the **AG 101: Understanding PA Farm Operations** online sessions that explore the many facets of farm types, operations management, economics, social aspects, and environmental considerations. The “winter burst” and “summer burst” of the series were held in 2011 and looked at what Pennsylvania agricultural producers manage as they grow food, fiber, and fuel. **AG 101** was developed to enhance the work of conservation practitioners who are on the front lines supporting producers in choosing, planning, and implementing the BMPs that preserve soil, water, and air quality. **AG 101** was jointly developed and sponsored by Penn State Cooperative Extension and the PA NRCS in collaboration with PennAG Industries and the Pennsylvania Farm Bureau.

Regulatory Efforts

Page 93

Continue Existing Regulatory Programs

Pennsylvania expanded outreach to ag community to increase compliance with Chapter 102 and manure management requirements. Pennsylvania has prepared several easy to read materials on Pennsylvania’s existing regulatory programs. This series of information includes the “Am I in Compliance” brochure which has a distribution of ~20,000 copies since January 2011; the “Ag E&S Barn sheet” which was prepared in July 2011; and the “Manure Barn Sheet” which was prepared in November 2011. At least 8,000 of each barn sheet have been distributed. These materials were prepared for general distribution and for use in conservation district site visits.

Three training sessions were held in conjunction with NRCS and PACD on Feb 24, March 2, and March 10, 2011, for about 200 people. The training was aimed at staff from USDA NRCS, PA DEP, and conservation districts who are involved in agricultural erosion and sediment control plans and conservation planning. Speakers from NRCS and DEP answered the question: what is an agricultural erosion & sedimentation plan? A detailed review of the Chapter 102.4 (a) requirements were explained. Examples of

the requirements for Ag E&S plans are: maps, treatment of animal heavy use areas, near stream cover requirements, and tolerable soil loss conditions for crop fields.

Additional training for conservation district staff occurred in October 27, 2011, as part of the Chapter 102/105/NPDES Program annual training. This one-day training specifically on ag issues will be an on-going annual opportunity to discuss Chapter 102 ag issues. The purpose of the session was to explain and provide information on the current agricultural erosion and sedimentation requirements to conservation districts and DEP staff. The session was a joint effort of DEP, the NRCS, the State Conservation Commission (SCC) and Penn State University (PSU). The session was attended by over 100 people. Presentations included a brief overview of the ag components of the Chapter 102 regulations; the role of the federal NRCS standards and actions in the state regulations; and specific technical requirements regarding BMPS necessary to address Chapter 102(4)(a)(4) – relating to plowing and tilling; animal heavy use areas; and near stream crop BMPs. PSU presented PaOneStop software, a useful tool for assisting Ag interests in developing both Ag E&S and manure management plans.

In addition to working with county conservation districts and partner agencies to reach out to the agricultural community to remind them of their regulatory obligations, the Bureau of Conservation and Restoration also is networking with agricultural trade organizations. Through contacts within the PennAg Industries Association, Country View Family Farms will be receiving copies of the “Are you in Compliance?” brochure, the Ag Erosion & Sediment and Manure Management barn sheets, as well as the Manure Management Guidance for distribution to their swine growers. This effort alone will reach more than 80% of the contract swine growers in PA.

Page 94

Evaluate and Modify Regulatory Tools – Chapter 102 Regulations

In July 2011, NRCS developed the “Conservation Planning and Regulatory Compliance Handbook” for NRCS staff. This guidance referenced Pennsylvania’s Chapter 102 regulations and provided tools and guidance for NRCS staff involved in conservation planning that addresses the requirements for Ag E&S. Guidance does not implement Pennsylvania’s regulatory program, but provides guidance as to what requirements are found in Pennsylvania and how this interfaces with NRCS conservation planning activities.

Pennsylvania continues to integrate the ag components of the Chapter 102.4(a) into the program guidance materials and delegation agreement. The program guidance and delegation agreements modifications have not yet been completed for all aspects of the revised Chapter 102 program.

Page 94

Evaluate and Modify Regulatory Tools – Manure Management Manual (MMM)

In October 2011, DEP completed the revisions to the MMM. These revisions were completed with full participation of DEP’s Agricultural Advisory Board (AAB) and its

members, including the PA Farm Bureau, PennAg Industries, PA Grange and others. Final revisions were presented to DEP's AAB in June. The final manual was published as a PA DEP Technical Guidance Document on October 29, 2011.

Since final approval of the MMM in October 2011, DEP has been training conservation districts, partner organizations and agencies and has distributed over 5,000 hard copies of the Manual. Six regional trainings were held throughout Pennsylvania on the DEP MMM. About 280 staff attended the training sessions. Dr. Doug Beegle and Jerry Martin from Penn State Extension prepared the bulk of the presentation in a "train-the-trainer" format that allowed participants to both learn the manual AND prepare to deliver this information to farm operators and others in their local jurisdictions.

Utilizing CBRAP and PA Clean Water Funds, conservation districts are eligible for a mini-grant of up to \$1,000 to utilize the training provided to conduct their own training/workshops for farmers, consultants, and others to improve awareness of the revised MMM, and to assist farmers in completing manure management plans. Some of these sessions have been held by February 2012, with the bulk being scheduled for later this year.

Page 94

Evaluate and Modify Regulatory Tools – CAFO Program Review

The existing General Permit (GP) is now scheduled to expire in March 2013 and DEP expects to have this revision completed well before this March 2013 timeframe. DEP established a CAFO General Permit Renewal Workgroup of the AAB to assist the Department in updating and renewing the CAFO General Permit. It is made up of members of the AAB, including the PA Farm Bureau and PennAg Industries, and other interested parties, including the PA Office of the Chesapeake Bay Foundation. The workgroup focused on draft changes made to the General Permit. This workgroup met on July 25, 2011, and January 17, 2012. The CAFO GP is being revised.

In 2011, EPA Region 3 participated with DEP in five joint inspections of Concentrated Animal Feeding Operations (CAFO). EPA Region 3 staff indicated that the reason for these inspections is that EPA Headquarters required them to inspect three to five CAFO farms in PA. Discussions with SCRO, BWM, and EPA staff resulted in agreement of some basic guidelines for these joint inspections. The five inspections occurred between June and September 2011. The inspections went well, with DEP staff leading the joint inspection and EPA staff participating as appropriate. EPA staff appear to be utilizing these joint inspections to gain a better insight into PA's CAFO Program and EPA continues to note that they will review DEP's CAFO Program for consistency with federal requirements.

Page 98

Basin-wide Component to Achieve Agricultural Regulatory Compliance

In 2011, DEP continued to revise delegation agreements for county conservation districts regarding the Chapter 102 E&S regulations. This delegation agreement is not

complete, as it involves significant considerations for the non-Ag related portions of Chapter 102.

In December 2011, DEP received approval from EPA for an additional \$2.66 million in Chesapeake Bay Regulatory and Accountability Program (CBRAP) funds. In February 2012, DEP met with the Conservation District Nutrient Management Delegation workgroup to discuss revisions to the Conservation District Delegation Agreement which is scheduled for renewal in July 2012. The workgroup includes representatives from DEP, the SCC and the conservation districts. DEP would like to include activities related to the manure management requirements in this delegation and include additional funding to address these efforts. Revisions to the delegation agreement are on schedule to meet the July 2012 deadline.

Page 99 Basin-wide Component to Achieve Agricultural Regulatory Compliance

In 2011, DEP continued development of the “Model Agricultural Compliance Policy.” A preliminary draft was developed and reviewed by DEP’s Bay Ag Water Quality Initiative Workgroup. Revisions are on-going with additional review by county conservation districts and others in presentation at the SCC meeting and “All Bay Meeting” in January 2012. A draft of this document has been shared for review, with comments being accepted until April 1, 2012. Effort is on-target to meet the July 2012 deadline of presentation of the model policy to the SCC meeting. It is expected that, following this July 10 meeting, the model policy will be available for conservation district use.

Page 100 Basin-wide Component to Achieve Agricultural Regulatory Compliance

In 2011, DEP revised the conservation district Bay technician contracts for 2011-2012 to include specific tasks to expand outreach for agriculture. The scope of work in these technician contracts required these 42 staff to undertake 100 site visits per staff person – or equivalent staff person – and DEP expects over 4,000 site visits by June 2012. Over 1,127 were conducted by December 2011. Significant training of staff via webinar and supplies of outreach materials were provided. A DEP press release was made and significant positive press coverage was received.

Page 100 Basin-wide Component to Achieve Agricultural Regulatory Compliance

In Fiscal Year 2011, DEP required that all districts that receive funds for Chesapeake Bay Technician positions submit an outreach plan that identifies how each district will engage all farms in this regulatory outreach. By November 15, 2011, DEP had received five-year outreach plans from all of the Chesapeake Bay counties. Some interesting notes from the plans submitted include:

- 26 counties plan to continue site visits past FY 2011;

- 20 counties plan workshops on manure management, no-till, soil health, pasture management, etc. ;
- 11 counties plan to develop/use GIS system for tracking purposes;
- 9 counties plan to coordination this outreach with county Farm Bureau.

The submitted outreach plans vary in nature due to the different complexities and composition of the individual counties. DEP is in the process of analyzing these plans to see if they are effective in reaching out to all agricultural operations within Pennsylvania's portion of the Chesapeake Bay watershed.

Page 100

Basin-wide Component to Achieve Agricultural Regulatory Compliance

In 2011, DEP received \$2.466 million from EPA via the Chesapeake Bay Regulatory and Accountability Program (CBRAP) grant. DEP used these funds to, among other things, support five new DEP staff positions. By March 2011, four of these staff were on-board. The 5th position was hired in December 2011. This delay was due to DEP difficulty in hiring this staff position. These five positions are funded using CBRAP for a five year period. This "stretches out" the funding and allows positions to be hired on a term basis. It may also complicate reporting to EPA, as expenditures of these funds over the full five years of the grant may incur significant scrutiny and concerns that Pennsylvania is not spending funds.

Of these five new positions, one staff position is in the Bureau of Conservation and Restoration and has been engaged in the development of the MMM and the CAFO General Permit. This position has been focused on completion of the MMM and the training/outreach efforts required to implement this program. This position has also spent a large portion of their time addressing the General Permit revisions, EPA comments on the draft General Permit and, recently, responding to EPA correspondence regarding individual CAFO permits.

Four "field staff" were hired using the 2011 CBRAP funds. Two staff positions were hired for the Southcentral Regional Office and have been engaged in compliance inspections; one position was hired in the Northeast Regional Office and in the Northcentral Regional Office and have been engaged in compliance inspections and regulatory outreach activities. Since these positions began, they completed about 180 inspections and over 100 compliance activities.

Page 101

Basin-wide Component to Achieve Agricultural Regulatory Compliance

WIP indicates "Conservation District Chesapeake Bay staff can address 18,000 farm operations – about half of the farms in the watershed – and *inform* them about compliance with their regulatory requirements." DEP expects over 4,000 site visits will be made by these staff. Outreach plans for these conservation districts are being evaluated to determine if they are adequate to believe that 40,000 farm operations will be addressed by 2015. DEP is also planning to work with National Agricultural Statistics

Service to mail out notice of current regulatory requirements to all 80,000 names on the NASS mailing list.

DRAFT