

The Chesapeake Bay Foundation's (CBF) report entitled "*By Any Measure, Pennsylvania Does Not Have the Resources to Meet its Chesapeake Bay Cleanup Commitments*" was presented to the Joint Senate Committees of Agriculture & Rural Affairs and Environmental Resources & Energy on March 17, 2010. The report is riddled with errors, misrepresentations and omissions. While falsely criticizing Pennsylvania for its funding levels from 2003 to 2011, CBF omits from its analysis \$4.53 billion in statewide funding. For example, the CBF testimony manages to omit mentioning over \$2.8 billion in PENNVEST funding for the period 2003 to 2009; omits mentioning all American Recovery and Reinvestment Act (ARRA) funding that totals \$220 million that will be expended from 2009 to 2011; omits approximately another \$600 million in PENNVEST money for 2010 and 2011, and even omits mentioning a \$14 million grant to CBF to do non-point pollution reduction work in 2010. The Chesapeake Bay watershed is 49% of Pennsylvania and receives billions of dollars in taxpayer funding for sewer facilities, drinking water facilities, land conservation, watershed restoration, non-point source pollution projects, acid and abandoned mine drainage projects, and agricultural initiatives.

Moreover the testimony is shockingly erroneous on important matters such as the staffing of the Department of Environmental Protection and its budget. Somehow CBF falsely states that the DEP complement has been cut by 611 positions since 2003 when the actual reduction is 237. CBF also omits that Governor Edward G. Rendell's proposed budget for 2010 to 2011 raises the number of positions at DEP by 68.

The DEP of course does not have funding identified for all the activities that will take place between 2009 and 2025, the deadline for cleaning our local waters and restoring the Chesapeake Bay. The department knows too that public and private financial effort will be needed to meet federal and state water quality standards. Taxpayers have a role and are playing a large role as this paper documents. Though CBF leaves the impression that taxpayers must pay for everything, taxpayers cannot pay for all sewer bills or all non-point source best practices that also have multiple benefits. Public and private partnerships as well as voluntary actions will be essential.

While CBF testimony demands more public funding, CBF provides not one word on how to pay for it. What taxes would CBF raise? What other programs would CBF cut?

The department insisted on the 2025 date combined with two year milestones, recognizing that a lot had been done but more needed to be done and that the costs were too great to impose them in a five or even 10 year period. The Department further understands that new technology can cut costs and speed clean up. New tools are needed. As a result, the Department has been a strong proponent of trading as a means of reducing costs and spurring technological innovation. The department is glad to say that early indications are that the trading program is unleashing entrepreneurship and technological innovation.

After criticizing, in 2009, the Pennsylvania 2011 milestones as not aggressive, the CBF testimony does now get one thing right; CBF now recognizes that Pennsylvania's 2011

milestones significantly increase the pace of cleanup. If the 2011 milestones are achieved, about 25 percent of the remaining nitrogen and phosphorus that must be removed by 2025 will be removed by 2011.

ADEQUATE FUNDING TO MEET OUR GOALS

Key Funding Omissions: CBF omits more than \$4.53 billion that have been made or will be made available to the efforts of restoring Pennsylvania's waterways, and in turn, the Chesapeake Bay Estuary between 2003 and 2011. Pennsylvania's portion of the Chesapeake Bay watershed covers 49 percent of the state, so the investments are considerable. Some of the most significant omissions from 2003 to 2011 are as follows:

- \$2.801 billion in funding already provided through PENNVEST
- \$600 million in PENNVEST funding expected in 2010 and 11
- \$220 million in ARRA funding
- \$200 million in funding from PENNWORKS
- \$129.5 million in funding from Growing Greener Watershed Grants
- \$14.4 million in funding from Growing Greener Watershed Grants expected in 2010 and 11
- \$21.9 million in funding from Growing Greener Innovative Technology Grants
- \$11.7 million in funding from Growing Greener County Environmental Tech Grants
- \$11.98 million in funding provided for Water Quality Network and Stream Gauging Network
- \$340 million in funding from Department of Agriculture Conservation Easement Program
- \$188 million in Key 93 and Growing Greener Funding through Dept. of Conservation and Natural Resources

Projects funded through ARRA have been particularly important dollars in improving water quality within the commonwealth. Specifically:

- \$34.3 million for seven projects to eliminate 1216 malfunctioning on-lot systems including a community in Adams County in the southcentral region of the state that received a \$5.1 million loan to construct a new wastewater treatment plant and install more than a mile of new collection sewer lines to eliminate concerns with malfunctioning on-lot septic systems and meet nitrogen discharge limits.
- \$179 million for 17 projects to eliminate or reduce combined sewer overflows including a \$11.5 million loan to install seven miles of new sewage collection lines to eliminate a combined sewer system that overloads during wet weather and discharges untreated sewage into the Susquehanna River.
- \$105 million for 17 projects to reduce nutrients and sediment to the Chesapeake Bay like the \$5.9 million grant awarded in Huntingdon County to install improvements to the wastewater treatment plant that will reduce both nitrogen and phosphorous discharges in compliance with the Chesapeake Bay agreement.

- 62 “green” infrastructure projects have been announced using ARRA funding that will achieve a reduction of 1.3 million pounds of nitrogen, four million pounds of phosphorus and 1,055 tons of sediment per year discharged to our streams and lakes.

In particular, out of the total noted above, PENNWORKS provided \$34.5 million to projects in the Chesapeake Bay basin. Growing Greener Innovative Technology Grants provided \$7.4 million in state funding and Growing Greener County Environmental Technology Grants provided \$5.5 million in state funding in the basin.

Every dollar from each of these programs is vital to improving waters within Pennsylvania and more will be spent in the coming years. PENNVEST estimates that it will provide an additional \$600 million in 2010 and 2011 alone. This spending by PENNVEST will include funding provided to non-point source (NPS) projects funded under the NPS program and scoring system. The first projects awarded under this program will likely take place in July 2010. These investments in our water quality cannot and should not be overlooked in reviewing our efforts to restoring the Bay.

FEE INCREASES WITHIN THE DEPARTMENT

It is important to note that additional fee increases throughout the department that will assist in the Bay cleanup. In addition to the NPDES water quality permit fees noted by CBF, fee increases in the department’s Erosion and Sediment Control program are expected to provide over \$7 million in revenue yearly beginning in the first quarter of 2011. Fees for DEP’s Operator Certification Program are also in the final stages of promulgation and will provide nearly \$1 million in revenue in the first quarter of 2011, while fee increases for the Oil and Gas program are already in place and are providing an estimated \$8.5 million yearly. All of the fee increases noted will be used to support staffing sufficient to administer the program, staff which will assist the department in meeting the milestones established for bay cleanup.

ADDITIONAL RESOURCES FOR CONSIDERATION

The totals listed above are not taking into consideration other key funding sources that will also assist in our efforts in cleaning up the Bay. Investments, such as \$650 million in funding provided through Act 1 of 2008 will spur the development of renewable energy sources and help families and business undertake energy efficiency and conservation projects. Act 129 of 2008 requires a 1 percent reduction in electricity consumption by May 31, 2011, a total of 3 percent reduction in consumption and a 4.5 percent reduction in peak demand by May 31, 2013. Pennsylvania utilities will invest about \$1 billion in conservation projects from 2010 to 2013. Act 129 will help reduce emissions of climate changing greenhouse gases by reducing electricity consumption. Finally, the Alternative Energy Portfolio Standard will ensure that by 2021, at least 18 percent of the electricity sold at retail in Pennsylvania will come from advanced sources. All of these efforts will provide benefits to the waters of the commonwealth, and in turn the Bay.

FUNDING FOR CONSERVATION DISTRICTS

CBF misrepresented the funding provided to Conservation Districts, including the omission of several funding sources provided by the department. For example, DEP has funded the Pennsylvania Association of Conservation Districts through Growing Greener for technical assistance grants totaling \$1,113,445 since 2003. This grant typically provides engineering services to Conservation Districts. Growing Greener also provided \$12,232,264 directly to Conservation Districts for watershed specialists during the same timeframe.

Although CBF falsely states that funding for the Conservation Districts has been consistently reduced, actual budget numbers show that they were either unchanged from previous years or in two instances, actually increased, with the exception of FY 2009-10. In fact in FY 2004-05, funding for Conservation Districts was increased by 14.5 percent and essentially remained at that level until FY 09-10, a budget severely impacted by the nationwide recession.

In addition, ten county conservation districts received nearly \$1 million in total for nutrient trading grants in which the districts assisted the farming community to generate nutrient reduction credits that were then made available for sale as part of the Nutrient Trading Program. The nutrient reduction credits were generated through the implementation of a number of Best Management Practices (BMPs) such as no-till planting, winter cover crop production, above-compliance manure storages, farm lane stabilization, mortality composters, stream bank fencing, riparian forest buffer planting, poultry manure export and rotational grazing. Collectively, the projects generated reductions of approximately 87,000 pounds per year of nitrogen and 1,800 pounds per year of phosphorus, which have been certified by DEP.

DEP STAFF LEVELS

The CBF falsely states in the report that “the General Fund budget of DEP has been consistently cut over the last seven years to the point where now the agency has lost 612 of the 3,211 authorized positions it had in 2003”. This number is incorrect. In fact, in FY 2002-03, the department had 3,072 positions and in FY 2010-11 will be 2,835. In totaling these reductions, the complement of the department during this timeframe equals 237 authorized positions lost. Moreover, Governor Edward G. Rendell has authorized an increase in the complement by 68 positions for 2010-2011 to bring the complement to the total listed above. The increase will be funded through increased fees.

LAND CONSERVATION

Significant state investments in land conservation are also neglected by this report. Pennsylvania is the first state to meet the Chesapeake 2000 Agreement goal to permanently preserve from development 20 percent of the land area in its Bay watershed. Over three million acres are preserved.

Since 2003, the Department of Conservation and Natural Resources has spent \$188,525,670 in state funds for land acquisition statewide. Of that amount, \$106,713,185 (57%) was spent in the Chesapeake Bay watershed. These investments are supported by Key 93 and Growing Greener funding.

The Department of Agriculture has also invested to preserve lands through its Agriculture Conservation Easement Program. Since 2003, \$340 million has been spent statewide, averaging \$48.6 million per year. In Pennsylvania's Bay watershed, \$147 million was spent (43%) during that period. These investments are supported by the state cigarette tax, the Environmental Stewardship Fund, and Growing Greener.

MEETING OUR MILESTONES

As CBF now recognizes in its testimony, after criticizing last year the 2011 milestones as inadequate, the 2011 milestone is a major acceleration on Pennsylvania's clean-up efforts to date.

The commonwealth has committed to reduce the projected nitrogen load to the Bay by 7.3 million pounds and the phosphorus load by 300,000 pounds from 2009 to 2011. Achieving those reductions will account for about 25 percent of all remaining reductions needed by 2025.

The reduction actions listed in the milestone document are target goals and not practice specific implementation requirements. These represent a combination of management practices that are estimated to generate the necessary nutrient reductions to reach Pennsylvania's nutrient reduction commitments. The actual implementation of practices may vary, as there are many combinations of the BMP's listed in the milestone document that could achieve the necessary nutrient reductions. Introduction of new technologies, such as enhanced manure digesters, may serve as additional means for Pennsylvania to meet the 2011 milestone. Pennsylvania's milestone commitment will be achieved based on the collective impact of all current or new implemented practices that attain the necessary nutrient reductions.

Although the department recognizes the difficulty of achieving the high goals, the department is proud of its efforts to date and stands behind its commitments to meet these goals. Examples of reported practice implementation that exceeded 2009 projections and of those that did reach 2009 projections are listed below.

Riparian forest buffers	+ 776 acres
Grass buffers	+ 1,008 acres
Animal Waste Management	+110 systems
Cover Crops	+7,828 acres
Manure transport Out of watershed	+2,277 tons
Dirt and gravel road Improvements	+276,374 feet
Stormwater Management	+967 acres
Agricultural Field Borders	+405,113 feet

Conservation Planning	-15,828 acres
Nutrient Management Planning	-12,298 acres
Non-urban Stream Restoration	-11,856 feet
Tree Planting	-11,139 acres

CBF fails to mention new initiatives that will support attainment of the 2011 milestones. One is Pennsylvania's efforts to account for management practices implemented using private funds or those implemented voluntarily without assistance from state and federal funding sources. No mechanism exists for tracking such implementation. In the past, DEP essentially has only acquired practice implementation from federal and state grant and cost-share programs. There is firm belief within the department and among many county Conservation Districts that accounting for voluntary practices within agriculture would significantly increase Pennsylvania's progress towards milestone.

As a result, DEP is working with Bradford and Lancaster Conservation Districts to develop the means to track voluntary efforts and privately funded practices. It is anticipated that this effort will be extended to many more conservation districts within Pennsylvania's Chesapeake Bay Watershed.

Additional benefits will be realized by legislation of 2008 that mandates significant phosphorus reductions in dishwasher detergents. This phosphorus reduction will assist wastewater treatment facilities in meeting their milestone goals

New technologies, such as the pending installation of new enhance digesters within Pennsylvania's portion of the Chesapeake Bay watershed could result in additional nutrient reductions. Examples of these include CARD and EnergyWorks. New technologies will supplement the reductions of the management practices current listed in the milestone document.

ACCOMPLISHMENTS TO DATE

As Department of Agriculture Secretary Redding recently noted in testimony highlighting Pennsylvania's accomplishments, the commonwealth leads the Chesapeake Bay states in measures critical to the restoration of the nation's largest estuary. The U.S. Environmental Protection Agency's most recent calculations show Pennsylvania farmers can proudly lay claim to 55 percent of all the nitrogen reductions made by agriculture anywhere in the multi-state watershed. This leadership derives from the Commonwealth's set of agricultural stewardship firsts, including:

- The first mandatory farm nutrient management plans;
- The first nutrient management program to regulate nitrogen and phosphorus;
- The first EPA-approved regulatory program for concentrated animal feeding operations;

- The first Bay state permanently to preserve 20 percent (now more than 3 million acres) of land in the watershed. More than 425,000 of those acres represent some 3,900 preserved farms (required to follow a conservation plan), representing an investment of more than \$1 billion in state, county and federal funds;
- The first Bay state to meet its goal to plant 3,736 miles of forest buffers by the year 2010. The state has planted a total of 3,894 miles of forest buffers along waterways since 2002; and
- Pennsylvania is home to the largest Conservation Resource Enhancement Program (CREP) in the entire nation. The department's CREP program delivers more than \$50 million in state and federal assistance for best management practices and, unlike other federal Farm Bill programs, targets key edge-of-stream BMPs to maximize water quality.

THE NEED FOR ADDITIONAL PUBLIC INVESTMENT

While the CBF correctly points out that the public investment made to date for wastewater infrastructure within the bay watershed will not meet the total investment required, it fails to acknowledge the need for additional private investment within Pennsylvania. To be clear, the department believes that continued public investment will be necessary statewide and within the Bay in meeting its goals. But taxpayers alone cannot pay for all sewer bills or all good non-point source pollution practices that deliver multiple benefits.

CBF notes the \$25 billion of estimated capital needs over the next 20 years by the Governor's Sustainable Infrastructure Task Force (Task Force) and that only a small percentage of the overall costs born by sewage plants with the Chesapeake Bay basin have been met with public funding to pay those costs. The investment of public dollars in wastewater infrastructure has increased dramatically as a result of the ARRA, Act 63, Act 64 and PENNVEST's normal annual investments.

But let's be clear, public investment will likely never be sufficient to provide the amount of funding necessary to repair and replace Pennsylvania's aging infrastructure. In fact, referencing its suggested solutions in the final report to Governor Edward G. Rendell, the Task Force noted that "any sustainable solution must include an increased reliance on user rates and recommends that all water and wastewater facilities move to full-cost pricing". The Task Force went as far as to recommend that to ensure that water utility rates remain affordable, while closing the gap between need and public investment available, that 1.5 percent of median household income be considered affordable in most cases in the setting of rates.

CONCERNS WITH TRADING

DEP believes strongly in the trading program that it has developed and continues to improve upon. The trading program was developed to be a tool to achieve compliance, not as a "one size fits all" program for meeting the overall pollution reduction goals.

Trading was intended to be a cost-effective solution and this intent has proven true in some instances. The Harrisburg Authority, a Phase I facility, is considering trading and estimates a \$28 million savings over the next 20 years. These savings would save ratepayers an estimated \$48 per year on sewer service charges.

Trading is not as complex as it has been described. NutrientNet provides an online tool that is comprised of estimation tools, which estimate the amount of credits needed or generated by a particular practice, and a marketplace, where users can buy or sell credits. PENNVEST is establishing an Exchange in which they can be the buyer and seller of credits which shows great promise.

To date the department has received 87 proposals, of which 83 were for nonpoint source activities and has approved 57. Even more promising is the fact that eight contracts have been entered into in which credits will be used towards permit compliance.

Trading will not be the silver bullet that restores the bay, but it will be a cost-effective solution for those that wish to explore it. Trading is also helping to encourage technology and innovation. As such trading is strategic and a bridge that would cut costs and speed compliance if it can work well.

TECHNOLOGY ADVANCES THAT WILL ASSIST IN RESTORATION

DEP is working with a number of companies that are looking to install varying technologies such as co-generation, combustion etc on dairy, poultry and hog operations that could change the current landscape in our efforts to meet our milestones. Many of these technologies seek to produce electricity, soil amendments, reduce methane emissions and generate renewable energy, nutrient reduction and carbon credits that can be sold. A few of these technologies include the Cove Area Regional Digester (CARD), EnergyWorks and ElectroCell. Once in place, these technologies will reduce the time necessary to restore the Bay.

As described by the project partners, the CARD project is the first of its kind as being a regional methane digester (servicing two counties covering 10-12 square miles) that through its patented water treatment process, can successfully remove nutrients, and discharge nearly potable water back into the watershed. This project can also generate additional value added products, such as nutrient reduction credits, electricity generation, biosolid collection, and possibly carbon credits.

EnergyWorks has outlined that their Energy and Nutrient Recovery Facility (ENRF) will receive and process the egg layer manure within a fully enclosed building. The recovered energy is converted to electricity to power process equipment and the surplus will be sold to power purchasers through the public grid interconnection. Water quality benefits are derived by capturing and converting compounds of nitrogen and by recycling ash by-products that contain phosphorous and other minerals.

And, ElectroCell has a patented process that passes electricity through the conductive liquids. The patented process mimics the process of composting, by activating the biology in the manure making the nutrients more available for plant uptake and reducing the nutrient content of the stored manure. This process also has a substantial odor reduction component as well.

GROWING GREENER

The heading within CBF's statement that growing greener is ending is misleading and of great concern to us. The last amendment to the Environmental Stewardship Act, Act 45 of 2005, deleted section 6304 which was the sunset date for fee collections that fund the growing greener program. Although it is true that bond repayment is reducing the amount of growing greener projects being funded, the department has redirected funding to priority watersheds and focused on practices that provide the greatest benefit to those watersheds. DEP expects funding from the Environmental Stewardship Fund to be \$10 to \$15 million annually. The department is aware that discussions have begun about establishing a Growing Greener 3, which DEP supports.

DEP has also restructured its CREP program, which is funded in large part from growing greener, to focus on critical edge of stream practices like riparian forest buffers. As a result Pennsylvania was able to exceed its riparian buffer commitments under the Chesapeake Bay 2000 agreement well before the 2010 deadline.

CONCLUSION

CBF's testimony is badly flawed and it omits over \$4.24 billion in the 2003 to 2011 time period. The testimony does, however, now recognize that Pennsylvania's 2011 milestones are real increases of effort when compared to prior rates. Pennsylvania is working daily and funding work daily to meet those important milestones.