

# Maryland's Watershed Implementation Plan - Phase I (draft)



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The public comment period will be from September 24 through November 8.

Public comments should be submitted to:

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*Front cover photo: Blackwater Refuge by Jane Thomas, UMCES*

# Maryland Watershed Implementation Plan (draft)

“The first step towards getting somewhere is to decide that you are not going to stay where you are,” J. P. Morgan once said. Three years ago, we took a hard look at our Bay restoration efforts and decided to move in a new direction. We established long-term goals and short-term milestones for nutrient reduction. We began steadfastly tracking progress in achieving those goals through BayStat. We developed a series of geo-spatial maps to enable us to identify high-value resources, targeting programs to areas most beneficial to Bay restoration and tracking our efforts geographically. We engaged the people of Maryland in extensive public outreach to mine innovative ideas to restore the Bay. And we held ourselves accountable for the results of our efforts.

The first phase of Maryland’s Watershed Implementation Plan builds upon that work. It provides a series of proposed strategies that will collectively exceed the target of 70 percent of the total reductions needed to meet Maryland’s accelerated deadline of 2020. Still, the Plan is, in all respects, a draft. As we submit it to the U.S. Environmental Protection Agency for review, we also submit it to the people of Maryland for further scrutiny and comment. Bay restoration does not belong to scientists, government resource managers or any specific stakeholder group, but to all the people of Maryland. Any successful plan will be an essential part of the fabric that links our environmental, economic and social systems in mutually beneficial ways. By continuing to fully engage our citizens, we will be able to make the most informed decisions when our final plan is submitted at the end of November.

To help meet our goal, We have posted a copy of Maryland’s draft plan at [www.maryland.gov](http://www.maryland.gov) so that the public can review it. Marylanders can send their comments electronically to the website so that their feedback can help us finalize the plan with the EPA. By continuing to fully engage citizens, we will be able to make the most informed decisions when the final plan for Phase I is submitted at the end of November.

## Origins of the Draft Plan

At the 26th meeting of the Chesapeake Bay Executive Council in 2008, Maryland committed to ambitious two-year milestones to accelerate our efforts to meet nutrient reduction goals by 2020. That is five years earlier than the 2025 end date agreed to by the EPA and the other Bay jurisdictions. We used our BayStat process to develop these milestones and put Maryland on track to meet our ultimate Bay restoration goals by 2020. This first set of two-year milestones will be completed by December 31, 2011, and will be followed by subsequent two-year milestones until we achieve our goals. We are optimistic that we will achieve the reductions called for in our first set of milestones on time. This work provided the foundation upon which this Plan has been drafted.





## What We're Doing Now

The Chesapeake Bay is vital to Maryland's economy and cultural identity. In spite of much attention, it continues to be in a fragile state. Since 1985, Maryland has reduced nitrogen pollution by 33 percent and phosphorous pollution by 38 percent. These reductions were realized even as the State grew by 1.3 million residents from 1985 to 2009. Maryland was the first State to require nutrient management plans on all farms. It was the first to implement state-of-the-art technology on all of its 67 largest wastewater treatment plants, which account for 95 percent of our wastewater flow. Maryland's Bay Restoration Fund financed Enhanced Nutrient Removal upgrades at the 67 plants and places Maryland in the lead among watershed jurisdictions in waste water treatment.

Maryland's Healthy Air Act and Clean Cars legislation are the most aggressive emissions reductions requirements in the nation and

are a significant factor in our nitrogen reduction effort. The State's groundbreaking Healthy Air Act called for reducing 80 percent of nitrogen emissions from coal-fired power plants by 2013. We have, in the face of tremendous development, made one-third of the nitrogen reductions needed.

We were the first State in the watershed to receive federal approval for our Concentrated Animal Feeding Operation program that meets the new EPA regulations and includes poultry growers. We were also the first State to require nutrient removal technology on new and failing septic systems in areas near our tidal waters. Maryland is the only jurisdiction that requires all new and replacement septic systems in the Critical Area (within 1,000 feet of tidal waters) to remove nitrogen to meet the State's best available technology standard.

We created the Chesapeake Bay 2010 Trust Fund to fund cost-effective projects to reduce non-point source pollution. Together with Virginia, we restricted the female crab harvest, which yielded a tremendous increase in blue crab abundance. And we are just finalizing a new plan to restore native oysters in the Bay – first recommended in the 1800s.

We recently achieved a record-setting commitment by farmers to plant cover crops – one of the most cost effective nutrient reduction practices available. We were also the first State in the watershed to require environmental site design to reduce storm water runoff on all new development approved after May 2010 and implemented one of the most progressive set of storm water requirements for a MS4 permit in the country. Maryland's Montgomery County storm water permit (MS4) serves as a model for storm water permits across the watershed. It is being used as the basis for

Maryland's 11 other Phase I MS4 permits that are being renewed now for the State's largest counties, Baltimore City and the State Highway Administration. Maryland's plan also includes new permits with specific impervious surface restoration goals for smaller MS4 Phase II jurisdictions and federal facilities.

Phase I of Maryland's Watershed Implementation Plan accelerates implementation of these state-of-the-art practices and programs to achieve the needed pollution reductions.

## Public Participation

Along with our commitment to the two-year milestones, we announced plans for a major outreach effort to engage local governments, businesses, other stakeholders and citizens in a more active role to restore the health of Maryland's waterways. In 2009, we held 16 public meetings to discuss Bay restoration goals, and specifically the role of Bay TMDLs, or total maximum daily loads, to achieve those goals. In 2010, we held six webinars, five regional stakeholder meetings and four listening sessions for key stakeholders on the same issues and provided a full briefing at the annual Tributary Strategies Team meeting.

We will continue to seek public comment on the plan. We have formed Maryland's Watershed Implementation Plan Stakeholder Advisory Committee to provide input on drafts, implementation, public outreach, best practices, necessary resources and reporting. From September 24 to October 12, we will hold four regional meetings to inform the people about the Plan. The draft plan outlines a range of reduction options for public consideration and comment. This approach will enable Marylanders to make



the most informed decisions when the final plan is submitted at the end of November.

## Timetable and Goals

The Plan identifies 75 strategy options to reduce nitrogen and phosphorous from wastewater, urban run-off, septic systems, agriculture and air pollution. These strategies exceed our 2017 reduction goal by 31 percent. We deliberately outlined options that cumulatively exceed the 70-percent reduction needed so that the State can refine the proposal after collecting public comment from September 24 through November 8. After receiving public comment on these strategies, we will work to finalize Phase I



of Maryland's Plan by November 29. We want to develop a plan that uses limited funding in the most cost-effective way. And we want to encourage the innovation of new technologies and approaches that have exemplified the progress on Chesapeake Bay to date.

Phase II of the Watershed Implementation Plans are due in November 2011, with a draft due in June 2011. It will be developed in consultation with local interests, county and municipal governments, federal facilities, other major institutions, and the agricultural and forestry communities. Between now and 2011, consultation will add geographic specificity, more detailed timelines, enhanced quantification, and additional local government practices including development of funding mechanisms,

regulatory development, contractual plans, two-year milestones to assess progress and other programs to assure that the watershed implementation plans are "enforceable or otherwise binding."

## Economic Benefits

The actions needed to clean up Maryland's waterways will benefit our economy as well as our environment. Upgrading wastewater treatment plants, retrofitting septic and storm water management systems, installing "living" shorelines and planting cover crops are a few examples of projects in our Plan that would maintain or create jobs. The solutions create jobs that can't be outsourced. We estimate nearly 4,000 construction jobs for projects such as upgrading wastewater treatment plants to use enhanced nutrient technology will be created with this strategy.

The Septic Upgrade program has already put Marylanders to work during difficult times. In Bel Air, in Harford County, a septic installation business reported a 25-percent rise in business and hired two workers due to demand for upgraded systems. A single storm water retrofit project to reduce storm water pollution in Howard County created or saved three jobs this year. A living shorelines project in Anne Arundel County created or saved six jobs. Many of these projects provide jobs in rural areas where jobs are desperately needed.

## Balance and Innovation

On the Eastern Shore, pollution problems are perceived as urban. On the Western shore, the problem is perceived as agricultural. This Plan strikes a balance between agriculture and urban sources, treating both sectors equally. The draft Plan also provides opportunities for innovation to benefit agriculture. Livestock manure (primarily poultry litter) is currently applied as fertilizer, trucked out of the watershed and small amounts are turned into pellets and sold as organic fertilizer. Developing alternative uses for manure can create a large opportunity for farmers. Technologies such as biofuel gasification that can turn manure into electricity and concentrated fertilizer are underway.

The Plan incorporates numerous innovations, based on scientific research and developing technologies. There are more than 15 new agricultural best-management practices that we hope will be accepted and accounted for in EPA's modeling efforts. Technologies that can turn manure into electricity and concentrated fertilizer are in operation elsewhere in the watershed and are supported by current federal programs. The electricity produced can power local farms with the excess sold back to the grid. Byproducts of the process can also be sold as a precision, organic fertilizer. This reduces operating costs to farmers, reduces nutrient inputs to the Bay, and increases Maryland's renewable energy portfolio.

Another example is the emerging field of ecosystems markets. Ecosystem markets provide an opportunity to tap into private sector funding power by incentivizing the market to play a much larger role in conservation and restoration. Examples of this approach in Maryland include the RGGI program, Maryland's nascent Nutrient



Trading Program and wetland banking to meet requirements for wetlands mitigation. Several private companies operating in Maryland are well-positioned to facilitate the valuation of ecosystem services, and track and connect buyers (developers) with sellers (private landowners).

## How the Plan Accounts for Growth

By virtue of its location in the Mid-Atlantic and its proximity to the federal government and major transportation, Maryland will continue to grow. By 2020, its population is expected to increase by 560,000 people.

EPA requires states to reduce nutrient and sediment pollution from all source sectors, point and nonpoint, and to account for growth from all of them. EPA's guidance provides two basic means to account for growth: setting reduction targets for new development or offsetting pollution from new development. The State deems it critical to support our existing towns and cities and to not, inadvertently, push growth into our farm fields and forested lands. Nutrient pollution limits on wastewater treatment plants can have the unintended consequence of limiting development in sewered areas, including the very areas that can accommodate high densities of housing, jobs and services. There are no pollution limits on development on septic systems even though development on septic systems can pollute five times more than development in sewered areas. This creates an unlevel regulatory playing field.

Maryland's offset strategy will promote growth where it's best suited -- in growth areas as opposed to agricultural land. Target loads for new and increased sources will be designated for new development and redevelopment. In Priority Funding Areas that are served by state-of-the-art wastewater treatment facilities that can accommodate relatively high densities of residents and jobs, little or no offsets will be required. In areas with higher pollution rates, offsets will be needed. Following additional research, public discussion and strategy development, implementation is planned for 2013.

## Funding

As Maryland plans to take its next steps to significantly improve water quality in the Chesapeake Bay, we must also recognize the fiscal environment in which we will operate in order to achieve the improvements needed by 2017 and 2020. Like all states across the nation, Maryland continues to face significant fiscal challenges resulting from

the worst economic recession since the Great Depression. In order to balance the budget and position Maryland for future growth, we have had to make very difficult decisions over the past three years and some very painful reductions. While we have reason to be optimistic -- revenues over the past few months have come in ahead of estimates and seem to be on track to at least hold steady and our job creation efforts are seeing definite results -- it would be unrealistic not to acknowledge the competing pressures on State funds that will constrain budget options during the next year or two.

Still, even during difficult fiscal times, we have been able to strengthen our efforts to restore the Chesapeake Bay. We have invested heavily in combating non-point source pollution as our new Chesapeake Bay 2010 Trust Fund more than doubled in FY 2011 to \$20 million, bringing the total amount to \$38.4 million in its first three years. The FY 2011 capital budget includes \$247.3 million for Chesapeake Bay restoration activities and \$65.5 million for land preservation programs.

We expect to continue to make targeted investments in Bay restoration as the economy improves. It will be imperative that our final Watershed Implementation Plan select programs and strategies that are the most cost beneficial and that are targeted to areas where science tells us pollution reductions will be the most effective. While Maryland's economy continues to fare better than many states, the cost of restoring the Chesapeake Bay increases the pressure on already strained resources. It is imperative that the Watershed Implementation Plan select reductions that are most cost-efficient and are targeted to areas where science tells us those pollution reductions will be most effective.



## Conclusion

We look forward to receiving comments on this Draft Watershed Implementation plan from the Environmental Protection Agency and members of the public over the next several months to refine the Plan. Innovation has long been critical to improving water quality – from best management practices in agriculture to advances in storm water treatment and wastewater treatment, to innovations in pollution control technology for septic systems and smokestacks. Maryland has demonstrated a strong commitment and a readiness to employ a variety of approaches to reach the necessary reductions. This Plan, we believe, embodies that ethic.

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