



Martin O'Malley, Governor

Chesapeake Bay Fiscal 2013 Budget Overview

Response to Department of Legislative Services Analysis by the Bay Subcabinet Agencies

January 25, 2012

- 1. Concern about Local Jurisdiction Commitment to Chesapeake Bay Restoration: Maryland's draft Phase II Watershed Implementation Plan submission reflects a certain reticence among local jurisdictions as shown by low percentages for two out of the three nutrient and sediment reduction strategy submissions. The Department of Legislative Services (DLS) recommends that the BayStat agencies comment on the commitment level of local jurisdictions to both plan for and fund the necessary strategies for meeting the total maximum daily load.*

Response: The commitment level of the jurisdictions to planning and funding the Bay watershed implementation plan varies widely, as would be expected. Concerns about the Bay TMDL and Watershed Implementation Plan included insufficient time, technical concerns especially about the model, concerns about making an apparent funding commitment that the elected officials were not confident could be met, overall cost and opposition to another "unfunded mandate."

Indications from local staff are that many of the local governments that did not submit BMP reduction strategies for the Draft Phase II WIP intend to do so during the April - June 2012 time frame. We will continue working with the local jurisdictions through the public review process through July to encourage them to substitute their local plans for the state plan, so that local priorities can best be met. If they do not, then the expectation is that local jurisdictions will meet the state provided plan. All local jurisdictions submitted their 2013 milestones.

The local plans received thus far include a variety of best management practices and funding opportunities. The State is working with these local governments to identify and establish additional

funding options, specifically related to stormwater management, which, in some cases, local stormwater utilities already exist.

2. *Chesapeake and Atlantic Coastal Bays 2010 Trust Fund Allocation:* Chapter 6 of the 2007 special session (House Bill 5) established a Chesapeake Bay 2010 Trust Fund to be used to implement the State’s tributary strategy. The proposed doubling of the Bay Restoration Fund (BRF) fee may mean changes to how the Chesapeake and Atlantic Coastal Bays 2010 Trust Fund is used. DLS recommends that the BayStat agencies comment on the long-term impact of the proposed doubling of the BRF fee on the uses of the Chesapeake and Atlantic Coastal Bays 2010 Trust Fund.

Response: The Chesapeake and Atlantic Coastal Bays Trust Fund is one of the region’s most important funding tools targeting water quality and watershed restoration and protection to reduce non point source pollution. Recognizing that restoring and protecting the Chesapeake Bay is a complex and constantly changing undertaking, and the demand of the restoration effort requires the Trust Fund allocation and projects to be re-evaluated continuously to respond to performance, changing conditions, opportunities and scientific development – the need to implement contingencies may occur over the course of the current fiscal year. For SFY13 contingency plans have been put in place.

It is anticipated that legislation will be introduced this session to double the “flush fee” under the Bay Restoration Fund to address the shortfall preventing the completion of ENR upgrades to the remaining major WWTPs and to continue to fund septic system upgrades and cover crops. If this is approved during the 2013 Legislative Session, the increased portion of funds going to cover crops from the BRF will reduce the need on the Trust Fund proposed allocation of \$12M by approximately \$5M. As a contingency, it is proposed that the \$5M be allocated to support the farm community in implementing their goals under TMDL and Watershed Implementation Plans. More specifically, these funds will assist in implementing the proposed MDA nutrient management regulations and forthcoming changes to the Phosphorus-site index. Both of these initiatives focus on dealing with various issues surrounding excess manure. This will include grants to farmers for manure incorporation and storage, increased funding for Maryland’s Manure Transport Program, and support for alternative manure use technologies. The proposed breakout for those funds will be:

- § \$2M provided in grants to farmers;
- § \$0.5M for the Manure Transport Program;
- § \$2.5M for development of alternative manure use technologies.

3. *Overall Chesapeake Bay Restoration Funding:* An understanding of overall Chesapeake Bay restoration funding needs and sources is slowly developing. Understanding comes from a look at Maryland’s Chesapeake Bay restoration spending along with a plan for the fiscal 2012 to 2013 two-year milestones period as well as the proposed augmentation of the BRF as a potential funding mechanism for Bay restoration. DLS recommends that (1) the Administration continue to publish the overall Chesapeake Bay restoration date in the Governor’s budget books and two-year

milestones funding and progress for the period that began July 1, 2011, and end June 30, 2013; and (2) the BayStat agencies comment on the proposed doubling of the BRF fee and, in general, the potential for seeking legislative approval of the Task Force on Sustainable Growth and Wastewater Disposal's Chesapeake Bay restoration funding recommendations.

Response:

Recommendation (1): The Bay subcabinet agencies (including DBM) concur with the DLS recommendation to continue publishing the financial details of the State's Chesapeake Bay restoration efforts. As DLS noted, progress has been made on gaining a better overall understanding of the costs associated with this important effort. DLS and the legislature have been provided with two reports. The first is an overall Bay Budget which captures the total program costs associated with the State's Bay restoration programs. The report, which now includes capital expenditures, is detailed by agency, and fund source, as requested by DLS. The second report seeks to capture and analyze the financial inputs of the State's two-year milestone goals. After significant inter-agency deliberation, DBM and the Bay subcabinet agencies are now tracking the costs associated with the desired program outputs. However, it should be noted that this report is fluid, constantly being updated and changed. This is consistent with the adaptive management approach used by the Bay agencies and the BayStat team. In addition, changes to the program outputs are constantly being influenced by updates to the EPA model, mostly affecting MDA. We will continue providing these details to DLS and the legislature, and look forward to continually updating and improving our tracking of Chesapeake Bay restoration funding.

Recommendation (2): Doubling the BRF fee will allow for completion of Enhanced Nutrient Removal (ENR) upgrades at the 67 wastewater treatment plants by 2017, based on current estimated project costs, consistent with the WIP. SB 236 (Sustainable Growth and Agricultural Preservation Act of 2012) and SB 240 (Environment - Bay Restoration Fund - Fees) have been introduced to implement key provisions recommended by the Task Force. Additionally, if the BRF was doubled, in SFY 2017 all 67 wastewater plant ENR upgrades will be complete and, by this time, debt service will be reduced allowing for an additional \$55 million annually (beginning in SFY18) to be used to finance upgrades of major/minor wastewater treatment plants and/or local stormwater management projects.

4. *Menhaden Fishery Management Concerns:* Menhaden is a filter feeding fish of substantial ecological importance to the Chesapeake Bay. According to the Atlantic States Marine Fisheries Commission, which has jurisdiction over the fishery, the menhaden fishery experienced overfishing in calendar 2008, and a total of 32 times over the last 54 years because a fishing mortality threshold was exceeded, but was not overfished because the population is still able to replenish itself. DLS recommends that the agencies comment on what the impact of the decline in menhaden numbers may be to Chesapeake Bay health and restoration efforts, and on how ecosystem-based fisheries management could play a role in restoring the menhaden population and associated ecosystem services.

Response: In November of 2011, the Atlantic States Marine Fisheries Commission (ASMFC) adopted new, more conservative reference points (fishing levels) for the Atlantic Menhaden Stock. Harvest may need to be reduced by as much as 37% to achieve the new target level of fishing. New

reference points were adopted based on the results of an independent, scientific review of the most recent menhaden population assessment. The review cautioned that the assigned target and threshold levels of fishing were not conserving adequate spawning potential – meaning the current management framework was extremely risk prone. In addition, the number of menhaden estimated to be in the population is at a lower level than has been observed in decades. Finally, the board agreed to implement more conservative fishing levels with the ultimate goal of increasing menhaden abundance, thereby increasing available forage for predators. States should begin implementing regulations to achieve the new reference points in the 2013 fishing season. In the meantime, ASMFC and the member states are undergoing an extensive public amendment process to determine what measures may be used to reduce harvest.

What are some of the risks to Chesapeake Bay if menhaden abundance continues to decline?

- § Increased mortality of striped bass which rely on menhaden as a primary forage. Recent studies in the scientific literature demonstrate a link between poor nutrition and low disease resistance in striped bass.
- § Increased incidence of striped bass disease. Striped bass showing lesions, sores and other signs of disease may become more prevalent. Although the link between lack of menhaden and disease prevalence has not been explicitly confirmed in Chesapeake Bay, the weight of evidence suggests that poor diet increases disease.
- § Decreased abundance of striped bass in Chesapeake Bay and along the Atlantic Coast, and consequently greater pressure from Northern states to curtail fishing in Chesapeake Bay since 70-90% of striped bass are produced in Chesapeake Bay.
- § Decreased health and/or abundance of other major menhaden predators including birds and marine mammals.
- § Despite the hope that menhaden could improve water quality, juvenile and adult Atlantic menhaden are filter-feeders that utilize nutrient rich estuaries like the Chesapeake Bay, they may not mitigate the effects of excessive nutrient loading to the extent once thought. Several studies have attempted to quantify the impact of filtration by juvenile and adult Atlantic menhaden on estuarine water quality. In general, these studies either concluded that the impacts were relatively small (Rippetoe 1993, Durbin and Durbin 1998, Dalyander and Cerco 2010), or that the range of possible impacts was large with the most likely scenario being small (Gottlieb 1998, Lynch et al. 2010, Lynch et al. 2011).

What role could ecosystem-based fisheries management play in restoring the menhaden population and associated ecosystem services?

Ecosystem-based fishery management is an extremely complicated idea that has not been fully defined within the management process of the ASMFC. However, there is broadening scientific concurrence and evidence that fish species which function as primary forage fish should be managed at a more conservative level than those fish residing further up the food chain. In classic fisheries management, safe fishing levels are determined based on conserving the number of fish required to ensure that that population can reproduce itself. For fish inhabiting the base of the food chain, it is essential not only that they reproduce themselves, but that they also remain abundant enough to provide essential ecosystem services. The question “how much more is enough”, has no concrete scientific answer. Predator populations change and understanding the optimal amount of forage for

each predator population is a difficult task. The menhaden assessment is one of the most advanced in that it accounts for populations of major predators such as striped bass and bluefish when determining the appropriate fishing levels. However, there are many predators such as birds, marine mammals, and other fish species that are missing from the analysis. To include all possibilities in such an analysis requires extensive data, so that ecosystem modeling becomes very expensive as more biologists must work to collect more data. At a certain point, ecosystem-based management should marry science and policy – where the science guides policy to a practical range of safe fishing levels for the ecosystem. Then policy must decide how much of the resource to allocate to the ecosystem and how much to allocate to the fisheries.