



To: Jon Laria, Chair, Maryland Sustainable Growth Commission
Maryland Sustainable Growth Commissioners

From: Alan Girard, MSGC WIP Workgroup Chair
Pat Langenfelder, MSGC WIP Workgroup Vice-Chair

The Maryland Sustainable Growth Commission Watershed Implementation Plan Workgroup (WIP Workgroup) respectfully submits this follow-up report and recommendations to the full Commission as requested at the Commission's July 25, 2011 meeting.

Recommendation Summary

1. The Maryland Sustainable Growth Commission should formally recommend the State determine the "offset generation capacity" for each county, organized by trading geographies under the Bay TMDL and local TMDLs. The Commission should recommend the Governor direct the Bay Cabinet to implement this recommendation and that it be included as part of the BayStat process.
2. The Commission should formally recommend the State in collaboration with EPA clarify how policy and regulatory frameworks under current and proposed trading programs will accommodate pollution loads from new growth and not exceed water quality standards.

How the WIP helps achieve Maryland's goals for growth

Maryland's Phase I Watershed Implementation Plan (WIP) is an integral part of the State's overall growth management strategy. The U.S. Environmental Protection Agency (EPA) requires Bay jurisdictions to develop programs that ensure all new pollution loads are offset. Maryland's WIP implements this requirement by encouraging new development to occur in a manner that generates less wastewater and stormwater pollution on a per-capita basis, thereby promoting development patterns that pollute less and result in greater land use efficiency. This "accounting for growth" strategy helps Maryland achieve its vision for concentrating development in and around existing population and business centers, and discourages development on well and septic, estimated to generate up to 10 times the amount of pollution loads from sewered areas. The statewide land use goal of increasing the current percentage of growth located within

Priority Funding Areas and decreasing the percentage of growth located outside Priority Funding Areas is directly supported by the Maryland WIP.

Growth is guided to Maryland's existing communities under the WIP by requiring urban stormwater and septic tank pollution from new growth to be offset. Development that pollutes more per capita (land use characterized by large lots and septic tanks) must offset more pollution per capita than development that pollutes less per capita (smaller lots, infill and redevelopment, centralized sewage treatment). The "accounting for growth" policy also calls for higher levels of pollution from development per capita to be offset at a higher ratio than development that pollutes at lower levels, with no requirement to offset pollution from redevelopment, a preferred form of growth.

Pollution offsets help account for a differential in cost and level of treatment that exists in controlling pollution in rural and urban areas. Traditional septic systems serving development in rural areas, for example, can pollute more and cost less to install and manage than service from high-performing waste water treatment systems in cities and towns. By accounting for the full pollution impacts of growth and ensuring that no net increase in pollution from new growth occurs, the policy not only plays a fundamental role in maintaining Maryland's pollution reduction levels under the Bay TMDL, it also is a primary tool for reversing consumption of land outside PFAs – now at 78% of the statewide acreage associated with residential development – helping reduce the overall impacts of suburban sprawl on Maryland's economy, environment, and communities.

Closing the implementation gap

To offset pollution from new growth under the WIP, developers are encouraged first to locate development in areas where loads will increase the least (i.e. infill or redevelopment). Then on-site pollution loads are expected to be minimized through existing stormwater and sediment and erosion control regulations, as well as low-impact design and construction. Additional offsets can be undertaken off-site by the developer or purchased as nutrient credits (offsets) used to pay for establishment of off-site Best Management Practices (BMPs) at ratios that at least negate the impact of pollution anticipated from the new development.

The level and extent to which BMPs are available to offset impacts from new growth, however, are uncertain. Specifically:

1. Without a geographically-based inventory of BMPs, it is impossible to know whether a sufficient supply of BMPs exists within an area to offset new growth that is not redevelopment and thereby prevent pollution from increasing under the TMDL, and;
2. Acceptable locations for establishing BMPs per the offset policy have not been established, nor have the conditions under which BMPs established in one watershed can account for pollution from new growth in another.

In order for the "accounting for growth" policy under the WIP to produce intended results within the timeframes prescribed under the Bay TMDL, the supply of BMPs available to support new growth should be established as soon as possible. Such an inventory is essential for preparing local and state decision-makers with adequate information about the costs and ability to offset

pollution impacts from new growth, especially since planning and approval timelines for development projects are often measured in years. It also encourages policy that prompts innovation in the development sector and signals to developers premiums associated with offsetting pollution impacts may exceed the costs of preventing pollution outright.

The Risks of Failing to Establish “Offset Generation Capacity” – An Example

Suppose a large-scale transportation project is developed to support 100,000 new homes within a growth area. A request to offset projected pollution from the new homes might come many years after elements of the transportation project are initiated. When the request is made, what are the consequences of finding insufficient BMP’s exist to offset pollution projected to be generated by the housing development the transportation project supports? In one outcome, pressure from government, citizens, and developers could result in the transportation project moving forward only to find the housing it’s intended to serve cannot be built due to insufficient offset capacity. In another outcome, the transportation project could be halted or substantially altered to accommodate a need to identify yet-to-be-determined pollution reduction capacity through BMP establishment, leading to dashed expectations among government, citizens, and developers, which in turn could lead to political fallout and/or lawsuits. In a third outcome, offsets could be purchased at the beginning of the project, but project modifications later on could result in a need for more offsets than are available, stopping the project well down the development pipeline. “Offset generation capacity” established prior to consideration of such projects could avoid many of these challenges.

From a smart growth perspective, establishing “offset generation capacity” can encourage more highly refined public land use, development, and infrastructure policies that support the outcomes intended by both State and local growth management strategies. Since smart growth results in low per capita nutrient impacts compared to sprawl, development that is concentrated in and around existing population and businesses centers would be promoted consistent with State growth policy. In some cases, an inadequate policy response to finding insufficient “offset generation capacity” after opportunities for meeting Bay TMDL requirements and offsetting impacts from new development are no longer available may induce sprawl. Establishing “offset generation capacity” sooner rather than later can result in better results from land use planning, smarter growth, and more successful efforts to protect the Chesapeake Bay.

Workgroup recommendation

Recommendation 1

The WIP Workgroup advises the Maryland Sustainable Growth Commission formally recommend the State determine the “offset generation capacity” for each county, organized by trading geographies under the Bay TMDL and local TMDLs.

“Offset generation capacity” should be determined through one or both of two methods:

1. Work with local governments within each County to develop a BMP inventory that identifies BMP opportunities sufficient to meet Bay TMDL requirements and BMP opportunities available to offset pollution impacts from new development, and;

2. Use the Chesapeake Bay Program watershed model to provide generalized, county level land use based estimates of BMP opportunities sufficient to meet Bay TMDL requirements and BMP opportunities available to offset pollution impacts from new development.

An initial inventory of BMPs should be completed by June 2012 and updated every 6 months to help inform development of the State's offset policy due for implementation in 2013. An inventory at a minimum should include the amount (measured in pounds) of nitrogen, phosphorus, and sediment anticipated to be reduced toward achieving either load reduction targets under the Bay TMDL or offsetting new pollution projected from development under Maryland's accounting for growth framework. A BMP inventory should also include an estimate of establishment locations and willingness to trade. Estimates of these elements in the near term can be based on data collected in the Upper Chester watershed (where a study shows forty percent of certain farmers eligible to sell nutrient credits are willing to participate) as well as Howard County and Baltimore County where data collection is planned. Finally, the inventory should estimate the cost of establishing the BMPs it includes.

There are no federal or state requirements to determine "offset generation capacity." To ensure implementation of this recommendation within the proposed timeframe, **the WIP Workgroup advises the Maryland Sustainable Growth Commission formally recommend the Governor direct the Bay Cabinet to assign agency responsibility for implementing this recommendation and that it be included as part of the BayStat process, which helps ensure implementation of Governor directives by State agencies.**

Recommendation 2

Recognizing the underlying premise that local water quality is to be protected and maintained under the Bay TMDL and associated water quality limited segments, establishing "offset generation capacity" requires some certainty about the ability to locate BMPs outside the watershed in which an increase in pollution load would otherwise occur as a result of new development. Trading geographies have been established under Maryland's point-point and point-nonpoint trading policies, which establish the conditions under which certain kinds of pollution trading are permitted. It is not clear, however, whether the alterations of those geographies would be necessary to accommodate elements of the pending offset policy being developed to account for new loads from growth. **The WIP Workgroup therefore advises the Commission formally recommend the State in collaboration with EPA clarify how policy and regulatory frameworks under current and future trading programs will accommodate pollution loads from new growth and not exceed water quality standards in the Bay TMDL.** We view this as especially important when BMP opportunities for offsetting impacts from new development are expected to become increasingly limited.