



Accounting for Growth/ Offset Policy

“Offset. For purposes of the Chesapeake Bay TMDL, means (n.) a reduction in the loading of a pollutant of concern from a source or sources that is used to compensate for the loading of the pollutant of concern from a different point or nonpoint source in a manner consistent with meeting Water Quality Standards (WQS); or (v.) compensating for the loading of a pollutant of concern from a point or nonpoint source with a reduction in the loading from a different source or sources, in a manner consistent with meeting WQS.”

-Appendix S, Chesapeake Bay Total Maximum Daily Load

What is the Offset Policy?

The Environmental Protection Agency’s (EPA’s) Chesapeake Bay TMDL requires that States account for growth in their Watershed Implementation Plans (WIPs) in order to minimize pollutant loads from newly developed areas. Maryland’s WIP, Section 1.8 includes goals to develop a policy and implementation strategy by 2013. It states, “The goal of Maryland’s Offset Policy will be to offset new loads in a way that is not just load neutral, but begins to address the need to reduce current loadings and is supportive and consistent with the State’s Smart Growth policies and approaches consistent with the Phase I WIP.” Maryland’s Sustainable Growth and Agricultural Preservation Act of 2012, also known as SB236, includes language that states: “on or before December 31, 2012, the Department of the Environment shall propose regulations that establish nutrient offset requirements for new residential major subdivisions within Tier III areas that are to be served by on-site sewage disposal systems or shared systems”. MDE released a draft policy on August 27, 2012 and asked the environmental policy committees in the Maryland General Assembly on November 28, 2012 for an extension of the deadline to propose regulations until October 2013.

Who is affected by the Offset Policy?

The policy would apply to construction general permits for stormwater after December 31, 2014. MDE has recently proposed that:

- All sites with new construction greater than 5000 square feet are required to provide offsets for nitrogen and phosphorus;
- Infill within a Priority Funding Area and redevelopment projects are exempt from offsets¹.

How Do Offsets Work?

MDE proposes that offsets are required for 100% of the post-development pollution load from septic systems beyond what is treated by denitrification, sewer where plant is in excess of its nutrient cap, and/or stormwater beyond what is addressed by stormwater management requirements.

This proposed policy requires that all new development eliminate its entire Edge of Stream (EOS) load of nitrogen and phosphorus pollution, regardless of previous land use. It requires reduction of pollutants above and beyond stormwater or septic requirements that MDE has already proposed and/or promulgated. Each credit would represent a pound of pollution removed per year for 30 years.

Offsets can be provided in the following ways:

- Meet obligations onsite or offsite (such as through tree planting or additional stormwater practices);
- Contribute to a fee-in-lieu program;
- Purchase state-certified and verified offsets through brokers or aggregators in a trading program.

The verified offset must be in place before the post-development load begins.

What is the potential impact of the Offset Policy?

The potential impact of the Offset Policy is a significant increase in costs for development and a possible halt to development activity in some areas.

- A viable trading program within most parts of the state does not yet exist. No trades have occurred to

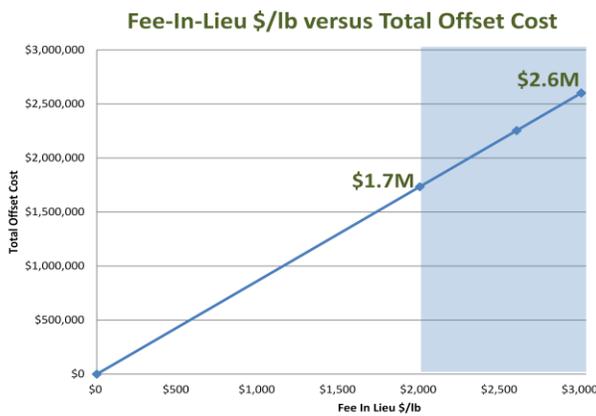
¹ Accounting for Growth Presentation to the Sustainable Growth Commission WIP Workgroup, October 24, 2012; Accounting for Growth briefing to the Senate Education, Health and Environmental Affairs Committee and House Environmental Matters Committee November 28, 2012.

date in Frederick County. MDE has proposed trading limits that make trading of credits nearly impossible in our region.

- MDE has proposed a cost of \$2000-3000 per pound of nitrogen for the fee-in-lieu program. Frederick County staff evaluated the cost of the fee-in-lieu for a recent County project, the Catoctin Creek Nature Center, to see what future projects would cost under the Offset Policy. At a cost of \$3000 per pound, the offsets would cost almost as much as the project.

Case Study: Nature Center

Total cost before offsets: \$2.9M



MDE has suggested that fees-in-lieu would go to the Bay Restoration Fund (BRF). This could degrade local water quality. The BRF is used to pay for Wastewater Treatment plant upgrades, septic upgrades, and cover crops. Cover crops are the cheapest, and it may make sense to set the price for the offsets at the cost of cover crops over a time horizon like 20 years, the standard lifespan of many best management practices.

Maryland reports that it planted 429,818 acres of cover crops between 2009-2011, and reduced approximately 2.58 Million pounds of Nitrogen. This estimates to 6 pounds per acre. If the maximum payment per acre is \$100, this would be \$17 per pound. Over 20 years, this would be **\$442**.

- Nitrogen offsets cost an average of \$2,600 per pound for septic denitrification (plus costs for verification, trading, operations and maintenance after first 5 years, and electricity. There are about 5 credits per septic upgraded.
- Stormwater costs range in average from \$4,009-\$146,831 per 20-year nitrogen credit using costs from MDE's King/Hagan study, not including trading costs:

Practice Name	\$/ N credit
Bioretention/raingardens (retrofit)	\$28,340.29
Bioretention/raingardens (new)	\$10,494.78
Bioswale (new)	\$8,164.28
Dry Detention Ponds (new)	\$89,465.45
Hydrodynamic Structures (new)	\$146,831.81
Dry Extended Detention Ponds (new)	\$22,366.36
Dry Extended Detention Ponds (retrofit)	\$31,655.80
Impervious Urban Surface Reduction	\$50,974.50
MS4 Permit - Stormwater Retrofit	\$25,324.64
Urban Filtering Practices (sand, below ground)	\$14,442.63
Urban Forest Buffers	\$4,009.56
Urban Infiltration Practices	\$11,000.00
Urban Tree Planting: Urban Tree Canopy	\$11,066.88
Vegetated Open Channel - Urban	\$5,534.84
Wet Ponds and Wetlands (retrofit)	\$26,483.38
Wet Ponds and Wetlands (new)	\$13,483.70
Urban Stream Restoration/Shoreline Erosion Control	\$41,279.71

What is the status of the Offset Policy?

The draft policy was released on July 12, 2012 with draft regulations released on August 27. MDE also released a draft offset calculation tool. MDE has these documents available at:

http://www.mde.state.md.us/programs/Water/TMDL/TMDLImplementation/Pages/Accounting_For_Growth.aspx

MDE's most recent thinking as presented to the Sustainable Growth Commission and MD Legislature:

- December 2012: Agencies appoint and convene a representative stakeholder Work Group and charge them with clarifying issues in dispute and finding common ground;
- June 2013: Work Group Recommendations given to agencies;
- August 2013: Agencies develop comprehensive regulations and policies for offsets and trading based on recommendations;
- September 2013: Agencies brief Committees;
- October 2013: Regulations proposed through formal process, including public review, hearing, and public committees;
- December 2013: Regulations adopted.

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