

Garrett County Interim Status Report of 2013 Milestone

1) Overview and Character of that portion of County in Bay Watershed

Garrett, the westernmost county in Maryland, is crossed by the Eastern Continental Divide. The eastern 1/3 of the County, which is within the Chesapeake Bay watershed, is largely forested. It drains to the North Branch of the Potomac River, hundreds of river miles from the Bay. Because of the land use and the delivery factor, Garrett County delivers the smallest amount of nitrogen and phosphorus of any Maryland county. The delivery factor for Garrett County is less than 10%. This means that less than 10% of the nitrogen entering surface waters in Garrett County reach the main stem of the Bay.

The only federal land in Garrett County is the area surrounding Jennings Randolph Lake which is managed by the U.S. Army Corps of Engineers. This lake was formed by damming the North Branch of the Potomac River and serves as a major water impoundment to augment water flows during drought for downstream users in the D.C. metropolitan area. The impoundment was also designed to provide flood protection and enhanced water quality by stratifying sediments and acidic water levels found in the North Branch due to historic deep mining activity in the watershed. One additional lake, the Savage River Reservoir, is on the main stem of Savage River and provides similar water management and water quality benefits to downstream users. The Savage River Reservoir along with the Jennings Randolph Lake store and assimilate water run-off and facilitate nutrient retention from over 80% of the County land area which is in the Bay watershed. (See attached map)

The only incorporated town in the Chesapeake Bay watershed portion of Garrett County is the Town of Kitzmiller with a population of approximately 300. The County operates the Kitzmiller municipal wastewater treatment plant (“WWTP”) along with two other minor plants in the watershed: Bloomington WWTP and Gorman WWTP. These plants serve these very small communities along the Potomac River that are projected to experience no significant increase in population. Population growth in the County is slow. Garrett County grew by 251 residents between 2000 and 2010, and most of the growth was outside of the Bay watershed. For this reason, it is not anticipated that the loading from these three municipal WWTPs will rise, and no upgrades are planned.

2) County Area Phase II WIP Strategies

The County considered a variety of strategies but rejected most of them. The delivery factor for Garrett County is very small; that is, less than 10% of the nitrogen entering surface water in Garrett County reaches the main stem of the Bay (see attached). The reductions that might be achieved by septic connections, septic denitrification, and septic pumping were judged not to be economically feasible because the cost of these BMPs is very high compared to the realized reductions.

However, to date, ten systems utilizing Best Available Technology for nitrogen reduction have been upgraded or replaced in the Garrett County portion of the Bay Watershed. Nine with grant money and one without.

The County's selected WIP Strategy is to rely on erosion and sediment control on extractive land to achieve the desired nutrient and sediment reductions. By implementing this strategy, and with reductions achieved by Agriculture, it expects to achieve its 2017 and 2020 targets without reductions from other sectors.

In MAST, Best Management Practices ("BMP") under Land Use included 3,650 acres of non-regulated extractive land. The 3,650 acres is approximately equal to the number of acres for which surface mining permits are currently in effect in the County.

3) County's 2012-2013 Milestones

Erosion and Sediment Control:

Erosion and sediment control practices protect water resources from sediment pollution and increases in runoff associated with land development activities. By retaining soil on-site, sediment and attached nutrients are prevented from leaving disturbed areas and polluting streams. Existing Maryland regulations at COMAR 26.21.01.10 require mine operators to maintain and follow an approved erosion and sediment control plan throughout the life of the permit. This means that 100% of the extractive land under permit is already covered by an approved erosion and sediment control plan. Copies of the 2011 and 2012 Annual Report of the MD Bureau of Mines has previously been forwarded to MDE and copies of relevant tables and data from those reports are attached. These tables document the number of acres affected, backfilled and planted in the calendar year.

Abandoned Mine Reclamation:

Existing Maryland regulations at COMAR 26.21.01.16 require that, unless the permittee provided a detailed explanation why site-specific factors prevent it, the permittee must begin reclamation activities as soon as practicable after mining starts, continuing concurrently with mineral extraction and, upon termination of mining, until the entire permit area is reclaimed. State enforcement of this regulation is sufficient to ensure that reclamation occurs. Because the County is relying solely on erosion and sediment control and not on the BMP of Abandoned Mine Reclamation, it has not set any milestone for this BMP.

4) Identification of technical discrepancies, such as data concerns.

It is unclear whether MAST has taken into account the nitrogen reductions that can be attributed to retention in a reservoir.^{1 2} Two reservoirs, Jennings Randolph Reservoir on the upper north branch of the Potomac River and Savage River Reservoir capture drainage from 81% of all of the Chesapeake Bay Watershed (CBW) in Garrett County. The remaining 19% (28,697 acres) of CBW acreage that is not captured in the reservoirs is dominated by forest land with some non-regulated extractive land (surface coal mines). This area is only 6.8% of the total acreage of Garrett County.

¹ David, Mark B. et al (2006) Denitrification and the Nitrogen Budget of a Reservoir in an Agricultural Landscape. *Ecological Applications* 16(6), pp 2177-2190. Retrieved through Google

² Harrison, John A. et al The Regional and Global Significance of Nitrogen Removal in Lakes and Reservoirs. *Biochemistry*, March 2, 2009. Volume 93, Issue 1-2, pp 143-157. Retrieved through Google