

Department of Legislative Services
Maryland General Assembly
2008 Session

FISCAL AND POLICY NOTE

Senate Bill 382 (Senator Dyson, *et al.*)
Education, Health, and Environmental Affairs

Environment - Patuxent River Watershed

This bill repeals various provisions and deadlines relating to upgrading wastewater treatment plants (WWTPs) in the Patuxent River watershed with enhanced nutrient removal (ENR) technology. Instead, the bill requires sewage treatment plants that discharge over 150,000 gallons per day (gpd) into the Patuxent River or any of its tributaries to upgrade to ENR by January 1, 2011. Those plants must be given priority for funding under the Bay Restoration Fund, and that fund must be used to pay for the upgrades.

Fiscal Summary

State Effect: Overall finances of the Bay Restoration Fund would not be affected; funds would be redirected to provide grants to upgrade specified plants within the Patuxent River watershed.

Local Effect: Potential significant decrease in State funding for some local facilities located outside of the Patuxent River watershed that are currently slated for ENR funding; corresponding increase in local expenditures to offset that loss. Potential significant increase in local expenditures for certain counties within the Patuxent River watershed to expedite ENR upgrades to comply with the bill's deadline.

Small Business Effect: Potential meaningful impact on specified privately owned WWTPs in the Patuxent River watershed.

Analysis

Current Law: The Maryland Department of the Environment is authorized to make the issuance of a discharge permit contingent on any conditions it considers necessary to prevent a violation of the State's water pollution control laws.

The Water Quality Financing Administration (WQFA) within MDE was established by the General Assembly in 1988 to encourage capital investment for wastewater and drinking water projects pursuant to the federal Clean Water Act and the federal Safe Drinking Water Act. WQFA administers two loan funds. One of those loan funds, the Water Quality Revolving Loan Fund, was established in 1988 to provide low-interest loans to public entities for wastewater projects. MDE also administers other financing programs relating to WWTPs, such as the Biological Nutrient Removal (BNR) Program and the Supplemental Assistance Program.

Chapter 428 of 2004 established the Bay Restoration Fund, which is administered by WQFA. The main goal of the fund is to provide grants to WWTP owners to reduce nutrient pollution to the Chesapeake Bay by upgrading the systems with ENR technology. Priority for WWTP funding is given to major WWTPs (those with a design capacity of at least 500,000 gpd). Major facilities that are privately or federally owned, as well as minor facilities (those with a design capacity of less than 500,000 gpd), will be targeted for funding only after the 66 major publicly owned WWTPs are upgraded. Eligible costs include the costs attributable to upgrading a facility from BNR to ENR.

Chapter 524 of 2006 requires specified WWTPs in the Patuxent River watershed to upgrade to ENR by specified dates unless a more advanced upgrade or upgrade schedule is required by State or federal law or regulation. The requirement to upgrade is contingent upon the availability of funding from the Bay Restoration Fund.

Background: ENR upgrades of the State's 66 major publicly owned WWTPs are currently underway. As of February 20, 2008, 8 facilities are operating at ENR; 9 ENR upgrades are under construction; 13 are in design; 27 are in planning; and 9 are in preplanning activities. According to MDE, there are 10 major WWTPs within the Patuxent River watershed. The names, location, estimated ENR cost, current ENR upgrade deadline, and target ENR completion date for these facilities are shown in **Appendix 1**. There are no minor sewage treatment plants in the watershed with a design capacity of over 150,000 gpd.

State Fiscal Effect: By requiring all sewage treatment plants within the Patuxent River watershed that discharge more than 150,000 gpd to upgrade to ENR by January 1, 2011, based on information provided by MDE, three plants that are not currently targeted for funding from the Bay Restoration Fund will be required to upgrade to ENR by that date.

(Legislative Services notes that, even though these three facilities are major WWTPs and, therefore, meet the requirement for priority of funding that exists under current law, MDE's strategy is to upgrade the 66 major publicly owned facilities first. The three major WWTPs in the Patuxent River watershed that are not currently targeted for funding are federally or privately owned.)

MDE advises that the estimated cost to upgrade these three additional plants to ENR totals approximately \$18.1 million (in 2005 dollars). Total finances of the fund would not be affected; the bill would merely require MDE to redirect funds to cover the costs of upgrading the three additional WWTPs to ENR. MDE advises, however, that because it usually takes five years for planning, design, and construction of ENR upgrades, it is not technically feasible for these three plants to be upgraded by the bill's January 1, 2011 deadline.

The Maryland Environmental Service, which operates the only State-owned WWTP in the Patuxent River watershed (Dorsey Run) should not be affected; MDE advises that although this plant has not been upgraded to ENR using the Bay Restoration Fund, it is already achieving ENR level of treatment. It is therefore assumed that this bill would not require that facility to be upgraded. MDE advises that it plans to monitor this plant to ensure that it continues to operate at ENR. If an upgrade is determined to be needed, MDE advises that this facility could be upgrading using funds from the Bay Restoration Fund, since it is one of the 66 facilities currently targeted under the program.

Legislative Services notes that, based on the current estimates of costs to upgrade the 66 major publicly owned WWTPs, the Bay Restoration Fund has a projected deficit of approximately \$233.0 million. Redirecting any funds from the 66 projects that are currently targeted will increase that deficit.

Local Fiscal Effect: Local governments own most of the major WWTPs currently targeted for funding under the Bay Restoration Fund. Because projected available funding exceeds estimated costs to upgrade these facilities, the bill's changes would require MDE to redirect funds to the three private/federal facilities that would require ENR upgrades by January 1, 2011. Accordingly, the bill would result in a decrease in State funds for some local governments not within the Patuxent River watershed that are currently slated for ENR funding; local expenditures could increase correspondingly to offset the loss in State funds.

In addition, six of the facilities that would be required to upgrade by January 1, 2011 are currently owned by local governments. These facilities are already slated for ENR funding; however, as shown in Appendix 1, only two of these facilities have target ENR completion dates that are consistent with the bill's deadline, and, according to MDE, the ENR upgrade to one of those facilities (Bowie) is experiencing significant delays.

Accordingly, the bill's deadline will require that several of these projects be expedited. Legislative Services notes, however, that some of these projects will need to be expedited even in the absence of this bill to comply with the January 1, 2012 deadline for these facilities established by Chapter 524 of 2006.

MDE advises that ENR construction will need to be started by the spring of 2009 for these facilities to meet the bill's expedited deadline (January 1, 2011). According to MDE, this is feasible, but will require coordination. Howard County, however, reports that the accelerated date is not feasible, and that even if it were feasible, the county would incur additional costs to complete the work in an accelerated fashion.

Legislative Services also notes that the bill repeals the various statutory deadlines established by Chapter 524 of 2006. Accordingly, the two locally owned minor facilities (Harwood Southern Sr. High School and Northern High School) that are currently required to upgrade to ENR by January 1, 2020 under specified conditions would no longer be required *by statute* to do so. However, it is possible that these facilities will be required to upgrade to ENR at some point regardless of Chapter 524; accordingly, the impact of this bill on those facilities is unclear.

Small Business Effect: According to MDE, two of the three facilities that would be required to upgrade to ENR by January 1, 2011 under the bill are privately owned. Marlboro Meadows is owned by Utilities, Inc. of Maryland, which, according to MDE, may be considered a small business. Piney Orchard is a subsidiary of Constellation Energy Group, and thus would not be considered a small business. Under current law, these facilities are required to upgrade to ENR by January 1, 2016 if funding is available from the Bay Restoration Fund and if they are not otherwise required to upgrade before that date.

Only costs associated with upgrading a facility from BNR to ENR are eligible for funding from the Bay Restoration Fund. Accordingly, although facility owners would be eligible for Bay Restoration Fund monies under the bill, facility owners may incur additional costs for other plant improvements that are not covered from the fund.

In addition, as noted above, because it takes five years to plan, design, and construct the ENR upgrades, MDE advises that it is not technically feasible for these plants to be upgraded by the deadline established under the bill.

MDE advises that when the current discharge permits for these facilities expire, the permit renewals will specify certain nutrient limits that could necessitate ENR upgrades. Accordingly, these facilities could be required to upgrade to ENR before 2016 even in the absence of this bill. In addition, MDE advises that the flow from Marlboro Meadows is

expected to be diverted to Western Branch (already slated for ENR funding) as of December 31, 2011.

According to MDE, one industrial facility in the Patuxent River watershed (the Maryland and Virginia Milk Producers' manufacturing plant in Laurel) discharges 325,000 gpd. Because it is not considered a sewage treatment plant, however, it is assumed that the facility would not be required to upgrade to ENR by January 1, 2011 as a result of the bill.

Legislative Services also notes that the bill repeals the various statutory deadlines established by Chapter 524 of 2006. Accordingly, eight privately owned minor facilities that are currently required to upgrade to ENR either by January 1, 2016 or January 1, 2020 under specified conditions would no longer be required *by statute* to do so. However, it is possible that these facilities will be required to upgrade to ENR regardless of Chapter 524; accordingly, the impact of this bill on those facilities is unclear.

Additional Comments: MDE advises that nutrient removal for smaller facilities (those with a design capacity of less than 500,000 gpd) is more costly on a dollar-per-pound basis. If smaller facilities are targeted for ENR, the actual load reductions and water quality benefits achieved will be significantly less than what will result from upgrades to major facilities. According to MDE, upgrades to the 66 major publicly owned WWTPs will cover an estimated 95% of the discharge to the bay.

Additional Information

Prior Introductions: None.

Cross File: None.

Information Source(s): Maryland Department of the Environment, Howard County, Prince George's County, Washington Suburban Sanitary Commission, Department of Legislative Services

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Appendix 1
Estimated ENR Cost, Current ENR Upgrade Deadlines, and Target ENR Construction Completion Dates
for the Major WWTPs in the Patuxent River Watershed

<u>WWTP</u>	<u>County</u>	<u>Estimated ENR Cost (2005 Dollars)</u>	<u>Current Deadline¹</u>	<u>Target ENR Construction Completion Date</u>
Bowie	Prince George's	\$6.79 million	January 1, 2012	Construction completion by December 2009
Dorsey Run	Anne Arundel	\$3.90 million	January 1, 2012	Facility meeting ENR without additional upgrade
Little Patuxent	Howard	\$28.00 million	January 1, 2012	Construction completion by February 2012
Maryland City	Anne Arundel	\$2.15 million	January 1, 2012	Construction completion by September 2010
Parkway	Prince George's	\$8.31 million	January 1, 2012	Construction completion by August 2011
Patuxent	Anne Arundel	\$5.18 million	January 1, 2012	Construction completion by May 2011
Western Branch	Prince George's	\$24.24 million	January 1, 2012	Construction completion by December 2012
Fort Meade	Anne Arundel	\$5.46 million	None	Not currently targeted because it is a federal facility ²
Marlboro Meadows ³	Prince George's	\$5.95 million	January 1, 2016	Not currently targeted because privately owned ²
Piney Orchard	Anne Arundel	\$6.71 million	January 1, 2016	Not currently targeted because privately owned ²

¹ The deadlines established under Chapter 524 of 2006 are contingent on the availability of funding from the Bay Restoration Fund.

² MDE advises that when the discharge permits for these facilities expire, the permit renewals will specify nutrient limits that could necessitate ENR upgrades.

³ According to MDE, the flows from this facility are expected to be diverted to Western Branch as of December 31, 2011.

Source: Maryland Department of the Environment, Department of Legislative Services
