Department of Legislative Services

Maryland General Assembly

FISCAL NOTE

Revised

Senate Bill 178 (The President, *et al.*)
(Administration)
Economic and Environmental Affairs

Water Quality Improvement Act of 1998

This Administration bill provides for a variety of measures aimed at improving water quality throughout the State. The major provisions of the bill include: the creation of an Animal Waste Technology Fund; the use of phytase or related enzyme in chicken feed; creation of a Poultry Litter Transportation Pilot Program; mandatory participation in nitrogen and phosphorus based nutrient management plans; penalties for farms not participating in plans; and income tax credits for farmers who must switch from using manure to the use of commercial fertilizer.

This bill takes effect July 1, 1998. The Animal Waste Technology Fund sunsets on June 30, 2001. Any funds remaining will be paid into the general fund. The Poultry Litter Transportation Pilot Program sunsets June 30, 2002.

Fiscal Summary

State Effect: The FY 1999 operating budget includes $11.4 million for pfiesteria and water quality initiatives, of which $9.4 million is contingent upon enactment of this bill. The FY 1999 operating budget includes $6.2 million to implement this bill. The capital budget includes $350,000 in general obligation bonds. General and special fund revenues could decrease by an indeterminate amount for the next five or more years due to the tax credit provision and the subtraction modification for manure spreading equipment. State revenues could increase by an indeterminate amount as a result of the penalty provisions.
Local Effect: Indeterminate decrease in local government revenues.

Small Business Effect: A small business impact statement was not provided by the Administration in time for inclusion in this fiscal note. A revised fiscal note will be issued

when the Administration's assessment becomes available.

Fiscal Analysis

Bill Summary: The bill includes the following provisions:

- all agricultural operations with more than $2,500 in gross income and livestock operations with more than eight animal units using chemical fertilizer must have a nutrient management plan for nitrogen and phosphorus by December 31, 2001, and be implementing it by December 31, 2002; operations using sludge or animal manure must have a nutrient management plan for nitrogen by December 31, 2001, and be implementing it by December 31, 2002; operations using sludge or animal manure must have a nutrient management plan for nitrogen and phosphorus by July 1, 2004, and be implementing it by July 1, 2005;

- establishes the Animal Waste Technology Fund within the Department of Business and Economic Development (DBED) for the purpose of funding projects that develop technologies to help reduce the amount of nutrients in animal waste and finding alternative uses for animal waste. The Animal Waste Technology Fund sunsets on June 30, 2001. The fund may consist of money appropriated by the State, federal grants, income from investments, interest from loans, application fees, and any other money made available;

- requires the Maryland Department of Agriculture (MDA) to establish a poultry litter matching service to develop transfer programs and marketing techniques to promote and facilitate the transfer of poultry litter; establishes a four-year pilot project to establish a cost-share program that will match contributions from commercial poultry producers to assist in the transport of poultry litter from areas of the State that have excess phosphorus in the land; and encourages voluntary participation in the removal of poultry litter that is produced by 20% of the poultry in the four lower Eastern Shore counties;

- requires the use of phytase or other phosphorus reducing enzymes in all contract chicken feed by December 31, 2000 to the maximum extent commercially and biologically feasible;

- requires the Governor to include funding for at least 110 field personnel working for soil conservation districts beginning in fiscal 2000;

- nutrient management plans will be developed based on the bioavailability of nitrogen and phosphorus in the soil and in the nutrients applied to the land. Nutrient management plans must be developed by persons certified or licensed by the State. The Maryland Department of Agriculture (MDA) must approve all plans, and keep a copy of all plans for three years. Approval of the plan is contingent on the MDA being allowed to inspect the farm for compliance with the plan;

- State cost sharing will be available to farmers who have a nutrient management plan developed by a private nutrient management consultant. The cost sharing is for 50% of the cost per acre, not to exceed $3 per acre;

- certified nutrient management consultants must meet MDA requirements including a program of proper application of nutrients;

- individuals who apply nutrients for hire must be certified nutrient management consultants or work for one;

- persons that apply nutrients to land that they own or manage must complete a course in nutrient application once every three years. Upon completion of the course MDA shall grant a voucher of completion. MDA shall maintain a registry of persons who received vouchers;

- the existing Nutrient Management Advisory Committee must include representatives from commercial lawn care, biosolids, and agricultural fertilizer industries and shall establish guidelines and requirements for certified nutrient management consultants and certified nutrient applicators. In addition, the Secretary of Agriculture shall appoint a representative from county government from a list submitted by the Maryland Association of Counties, the President of the Senate shall appoint one senator, and the Speaker of the House shall appoint one delegate to the committee;

- the Nutrient Management Advisory Committee is required to report to the Governor and the General Assembly by July 1 of each year on the implementation of the requirements of the bill;

- MDA is required to report to the Governor and the General Assembly on the amount of farm acreage covered by nutrient management plans and an evaluation of the plans;
- an income tax subtraction modification for the full cost of manure spreading equipment, which can be carried forward for up to five years;

- a tax credit for 50% of the certified additional commercial fertilizer costs required to convert to a nutrient management plan. The credit can be claimed for three consecutive years and may not exceed $4,500 per year, but any excess credit can be carried forward for up to five years;

- provides that MDA may, if requested, adopt regulations providing for religious exemptions from the bill, which includes plan requirements and nutrient application restrictions;

- administrative and civil penalties for violating specific provisions of the bill;

- requests the Governor to support and fund continuing research into management and remediation of phosphorus as a nutrient derived from animal waste and as a pollutant;

- requires the University of Maryland Cooperative Extension Service to report to the Nutrient Management Advisory Committee, the Governor and the General Assembly on the latest developments in phosphorus mitigation and on the levels and movement of phosphorus in the soil of targeted areas; and

- requires MDA to provide written notice to farmers regarding the provisions of the bill and the financial and technical assistance available to them in order to comply with the bill's requirements.

Background: During the 1997 Interim, the members of the General Assembly and a commission appointed by the Governor, the Blue Ribbon Citizens Pfiesteria Action Commission, conducted briefings and site visits to the lower Eastern Shore to discern the scientific and public policy issues regarding fish kills in lower Eastern Shore rivers in late 1996 and the Summer of 1997. Both the General Assembly and the Governor's commission focused on the role of the toxic dinoflagellate, Pfiesteria. The Governor's commission concluded a series of briefings and public meetings and issued a final report on November 3, 1997.

The report includes numerous recommendations regarding the safety of Maryland seafood, agricultural and non-agricultural nutrient management strategies, public health strategies, and future research needs. The commission pursued the causative link between Pfiesteria and agricultural practices in the lower Eastern Shore.
Of particular concern was the role of the chicken industry and the enormous quantities of chicken litter generated and ultimately applied to local fields as fertilizer for crop production. Therefore, throughout the commission's proceedings, a primary concern was the efficacy of

the State's existing nutrient management program and the feasibility of recommended changes. In its final report, the commission recommended among other things, that the State replace its voluntary, nitrogen-based, agricultural nutrient management program with a phosphorus and nitrogen-based program. The commission further recommended that "the State enroll all farmers in nutrient management plans by the year 2000. The nutrient management plans should be fully and demonstrably implemented by 2002, contingent upon the State supplying the appropriate level of education, outreach, technical support and financial resources necessary to meet these goals".

Chapter 137 of 1992 established a voluntary program for the regulation, certification, and licensing of persons who prepare nutrient management plans. Under this program, applicants for certification as a nutrient management consultant are required to pay the State Department of Agriculture a certification fee and those engaged in the business of providing nutrient management plans must hold a license. The Department of Agriculture encouraged farmers throughout the State to voluntarily participate in nutrient management strategies that complied with State standards. A private nutrient management consulting industry emerged to complement MDA's and the University of Maryland's Cooperative Extension Service's efforts. The Department of Agriculture estimates that approximately 900,000 of the 1.7 million acres of available cropland are now covered by approved nutrient management plans.

State Effect: The operating budget for fiscal 1999 includes $11.4 million more than was appropriated in fiscal 1998 for water quality improvement purposes of which $9.4 million is contingent upon enactment of the bill. Of this amount, $6.2 million is directly targeted at implementing this bill. The fiscal 1999 capital budget includes $350,000 in general obligation bonds. The money is allocated to three different agencies for operating costs as well as for capital projects.

Contingency Language

The $9.4 million that is contingent upon enactment of the bill consists of the following:

Maryland Department of Agriculture

- Nutrient Management Planners - $2.8 million
- Water Quality Review Teams - $499,000
- Cover Crops Program - $1.5 million
- Cost-Share Funding for Private Nutrient Management Consultants - $500,000
- Poultry Litter Transportation Pilot Program - $750,000
- Seafood Marketing Program - $500,000

Maryland Department of the Environment

- Water Quality Review Teams - $603,000
- Watershed Pollution Control - $630,000
- Research and support - $1.6 million

In addition to the funding provided to implement the bill, the fiscal 1999 operating and capital budgets also include funding for other pfiesteria and water quality initiatives that were not contingent upon enactment of the bill. These funds include:

Maryland Department of the Environment

- Biological Nutrient Reduction - $ 3.4 million (capital budget)

Department of Natural Resources

- Rapid Response/Watershed Surveillance - $1 million

Department of Agriculture

The fiscal 1999 budget includes 31 positions for nutrient management planning and water quality review teams at a total cost of $3,299,000. Three of these 31 positions were approved by the Board of Public Works in October 1998 to assist in water quality assessment. Of the remaining 28 positions, 15 will provide assistance to the local soil conservation districts, eight will make up the MDA portion of the water quality assessment teams, four will be involved in nutrient management planning, and one will provide administrative support to the Maryland Agricultural Cost Share (MACS) program.

The budget includes $500,000 in cost share funding to be provided to farmers at a maximum of $3 per acre to encourage the use of private nutrient management consultants.

The budget also includes $750,000 to fund the Poultry Litter Transportation Pilot Program. It is assumed that this funding would continue through 2002 as the program is required for four years.

MDA expenditures could increase by $1.8 million in fiscal 2000 to hire an additional 33 field personnel for local soil conservation districts. The bill requires that by fiscal 2000 there be at least 110 field personnel working in the local soil conservation districts. The fiscal 1999 budget includes 15 additional field personnel for local Soil Conservation Districts in addition to the 62 positions funded in the fiscal 1998 budget. An additional 33 positions would be needed to meet the requirements of the bill by fiscal 2000. Future year expenditures reflect

(1) full salaries with 3.5% annual increases and 3% employee turnover; and (2) 1% annual increases in ongoing operating expenses.

Department of Business and Economic Development

The fiscal 1999 operating budget provides DBED with $1 million in general funds to capitalize the Animal Waste Technology Fund. In addition, the capital budget provides $350,000 in general obligation bonds for capital improvements on existing feed mills (phytase provision). The Governor's Office advises that $1 million will be contributed to the Animal Waste Technology Fund in fiscal 2000 and 2001 as well. DBED could administer the fund with existing budgeted resources.

Department of the Environment

The fiscal 1999 budget includes 11 positions to deal with pfiesteria related initiatives at a total cost of $603,000. Eight of these positions are for inspection teams in the Water Management Administration to investigate agricultural practices in conjunction with MDA. The other three positions were approved by the Board of Public Works in October 1998 to assist in water quality assessment. However, as amended, the bill eliminates MDE's role in monitoring compliance with nutrient management plans. As a result, these funds and the associated positions may be shifted to the Department of Agriculture because the bill also provides that positions and funds may be transferred between agencies. At this time, however, it is not known if this transfer will occur.

Operating Expenditure Summary for State Agencies

(in dollars)	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
GF Expenditures *	$6,152,000	$7,561,000	$7,673,000	$6,755,500	$6,839,600

*Note: ( ) - decrease; GF - general funds; * - Animal Waste Technology Fund sunsets June 30, 2001; Poultry Litter Transportation Pilot Program sunsets June 30, 2002.*

Penalty Provisions

Due to the penalty provisions of the bill for non-compliance with a nutrient management plan, there is a potential indeterminate increase in State revenues. The bill includes the following monetary penalties:

- $250 MDA administrative penalty for preparing a nutrient management plan without being certified by the State;

- $250 MDA administrative penalty for not having a nutrient management plan after a reasonable period of time;

- a warning for a first offense and a $100 MDA administrative penalty for each

subsequent violation not exceeding $2,000, for not implementing a nutrient management plan by the required date;

- repayment of any cost-sharing funds received for projects in violation of the provisions of the bill; and

- maximum $1,000 civil penalty for a first violation and no more than $2,000 for a subsequent violation, not exceeding $10,000, for individuals applying commercial fertilizer in a manner inconsistent with the guidelines established for nutrient management plans in the bill.

Any revenue increase will be determined by the number of violations cited and the amount of the fines levied, which cannot be reliably estimated at this time. However, MDA advises that penalties would only be sought as a last resort.

Tax Credits

Farmers are eligible for a tax credit of 50% of the cost of switching from manure to commercial fertilizer for three years after a nutrient management plan is developed and approved. The maximum credit which can be claimed in any year is $4,500, but any excess can be carried forward for up to five years. General and special fund revenues could decline by an estimated $1.7 million in fiscal 1999, based on the following facts and assumptions:

- approximately 1,500 farms are eligible for the tax credit;

- one-fourth of eligible farms will have a nutrient management system approved each year, beginning in 1999; and

- the maximum credit of $4,500 will be claimed by each farm for three years.

Credits for the 375 plans approved in 1999 will be taken in fiscal 2000. At the maximum credit of $4,500 per year, the revenue loss would be $1,687,500. In fiscal 2001, the revenue loss would be $3.4 million. In fiscal 2002 and 2003, the loss would be almost $5.1 million. The total cost of this tax credit from fiscal 2000 through 2006 is estimated to be $20.3 million.

The revenue loss will be lower to the extent that the average credit actually claimed is lower than the maximum credit, which could occur for two reasons. Some farmers' State income tax liability may not be large enough to enable them to claim the full amount of the credit; in these cases, the credits could be carried forward for up to five years, eight years after the initial credit was claimed. Other farmers simply may not require $9,000 worth of certified additional commercial fertilizer in a year.

To the extent that corporations claim this credit, Transportation Trust Fund (TTF) revenues would decline since about 25% of corporate income tax revenues are distributed to the TTF. All credits claimed against the individual income tax would result in general fund losses. The amount of credits which would be claimed by corporations cannot be reliably estimated at this time.

The subtraction modification for manure spreading equipment will also result in an indeterminate loss of State income tax revenues. The bill allows farmers to subtract the cost of manure spreading equipment from their income. They are allowed to take the entire cost of the equipment as a deduction. The deduction may be carried over for up to five years in order to deduct the full value of the machinery.

Local Effect: Local income tax revenues will decrease by an indeterminate amount due to the subtraction modification for manure spreading equipment because 55% of the general fund revenue loss will flow through to the local personal income tax. Local revenue will also decline for those credits claimed against the corporate income tax, since a portion of the TTF is distributed to local governments.

Information Source(s): Maryland Department of Agriculture; Maryland Department of the Environment; Department of Business and Economic Development; Department of Natural Resources; Comptroller of the Treasury (Bureau of Revenue Estimates); Allegany, Dorchester, Queen Anne's, and Wicomico counties

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