

Maryland Department of the Environment
Bay Restoration Fund Implementation

Introduction

On May 26, 2004, Governor Ehrlich signed Senate Bill 320 (Bay Restoration Fund) into law. The purpose of the bill is to create a dedicated fund financed by citizens and businesses to upgrade Maryland wastewater treatment plants with enhanced nutrient removal (ENR) facilities. ENR facilities will be capable of achieving wastewater effluent quality of 3 mg/l in total nitrogen and 0.3 mg/l in total phosphorus, or as determined practicable by the Maryland Department of the Environment (MDE). Funds generated by wastewater onsite disposal system users will be utilized to upgrade these onsite systems and implement agricultural cover crop activities to further reduce nitrogen loading to the Bay.

Wastewater Treatment Plants Fund: A \$2.50 monthly fee will be collected from each home served by wastewater treatment plants. Commercial and industrial users will be charged at the rate of \$2.50 per month per equivalent dwelling unit (EDU). Fees from wastewater treatment plant users are estimated to generate \$65 million per year. To expedite the implementation of the program, MDE may issue bonds pledged in full or in part by funds generated under this program. The 66 major publicly owned wastewater treatment facilities discharging to the Chesapeake Bay have priority for funding. Smaller, private and industrial wastewater treatment facilities will be considered on a case-by-case basis considering cost effectiveness, water quality benefits, readiness to proceed, and nitrogen/phosphorus contribution to the Bay.

Onsite Systems Fund: A \$30 annual fee will be collected from each home served by an onsite system for an estimated total program income of \$12.6 million per year. 60% of these funds will be used for onsite system upgrades and the remaining 40% will be used for agricultural cover crop activities. There are 420,000 onsite systems in Maryland. With priority given to failing onsite systems in critical areas, funds will be used for upgrades of existing systems to best available technology for nitrogen removal, or for the marginal cost of using best available technology instead of conventional onsite systems.

Advisory Committee: An advisory committee has been formed. The main functions of the advisory committee are to evaluate the cost, funding, and the effectiveness of the wastewater treatment plant upgrades; consult with and advise the counties and MDE regarding the onsite system upgrade program; and recommend future changes to the restoration fee, as necessary.

Advisory Committee:

A. Members (18):

BAY RESTORATION FUND ADVISORY COMMITTEE			
Committee Member	Affiliation	Address	Phone Numbers/Email
Robert E. Warfield Chairman		10481 Golf Course Road Ocean City, MD 21842	410-723-8500 warfield40@excite.com
William P. Ball, Ph.D	Johns Hopkins University	313 Ames Hall 3400 N. Charles St. Baltimore, MD 21218-2686	410-516-5434 bball@jhu.edu
David B. Bancroft	Alliance for the Chesapeake Bay	6600 York Road, St. 100 Baltimore, MD 21212	410-377-6270 dbancroft@acb/online.org mail@acb/online.org (Assistant)
Vernonica L. Chenowith	Harford County Council	212 S. Bond St. Bel Air, MD 21014	410-638-3520 vlchenowith@co.ha.md.us
Ron Crites	Dept. of Budget & Management	Office of Budgeting 45 Calvert St.	410-260-7271 rcrites@dbm.state.md.us
Mayor Kevin Dayhoff	Mayor of Westminster	P.O. Box 1245 Westminster, MD 21158- 1245	410-857-4208 kdayhoff@carr.org
Mark Bundy, PhD, Assistant Secretary	MD Dept. of Natural Resources	Tawes State Office Bldg. 580 Taylor Ave. Annapolis, MD 21401	410-260-8110 mbundy@dnr.state.md.us
Delegate Barbara Frush	MD House of Delegates	3019 Chapel View Drive Beltsville, MD 20705	301-572-4042 barbara-frush@house.state.md.us
James L.Hearn	Washington Suburban Sanitary Commission	Richard G. Hoyer Bldg. 14501 Sweitzer Lane Laurel, MD 20707	301-206-8522 jhearn@wsewater.com
Senator Paula C. Hollinger	Maryland Senate	2 W. Miller Senate Bldg. Annapolis, MD 21401- 1331	410-841-3131 paula_colodny_hollinger@senate.state.md.us
William Bryan Icenhower, M.D.	St. Mary's Co. Health Dept.	P.O. Box 315 21580 Peabody Street Leonardtown, MD 20650	301-475-4317 icenhowerw@smhd.com
E. Keith Menchey	MD. Dept of Agriculture	50 Harry S. Truman Pkwy, Room 303 Annapolis, MD 21401	410-841-5881 mencheek@mda.state.md.us
Gregory B. Murray	Washington Co. Dept. of Water Quality	16232 Elliott Parkway Williamsport, MD 21795	240-313-2620 gmurray@washco-md.net
James T. Noonan	MD Dept. of Planning	301 West Preston St. Suite 1101 Baltimore, MD 21201-2305	410-767-4500 jnoonan@mdp.state.md.us
Karen Harris Oertel	W.H. Harris Seafood	2308 Bloomingdale Rd. Centreville, MD 21617	410-827-8104 koertel@dmv.com
Leland D. Spencer, M.D.	Kent Co. Health Dept.	125 South Lynchburg St. P.O. Box 359 Chestertown, MD 21620	410-788-1350 ldspencer@dnhm.state.md.us
Thomas H. Stoner	Trustee of the Chesapeake Bay Foundation	3065 Rundelac Road Annapolis, MD 21403	410-263-1030 TSEvrgrnStrategy@aol.com mwirig@tkffdn.org (Assistant)

Robert M. Summers, Ph.D	MDE	1800 Washington Blvd. Baltimore, MD 21230	410-537-3567 bsummers@mde.state.md.us rmatthews@mde.state.md.us <i>(Assistant)</i>
<u>STAFF</u>			
<p>Governor's office: Bernie Marczyk</p> <ul style="list-style-type: none"> • Jag Khuman-Financial Lead • Renee Matthews-Administrative Assistant • Thad Russell-Comptroller <p><u>Wastewater Treatment Plant</u> Walid Saffouri George Keller Stella Jenkins</p> <p><u>Onsite Sewage Disposal</u> Jay Prager Jim Dieter Local Health Directors</p> <p>Attorneys:-Nancy Young and Helen Akparanta</p>			

B. Functions:

- Perform analysis of the cost of nutrient removal from wastewater facilities.
- Identify additional sources for funding.
- Make recommendations to improve the effectiveness of the Bay Restoration fund in reducing nutrient loadings.
- Make recommendations regarding the appropriate restoration fee to be assessed in Fiscal Year 2008 and subsequent years as necessary to meet the financing needs of the Bay Restoration Fund.
- In consultation with the governing body of each county, identify users of onsite sewage disposal systems and holding tanks, and make recommendations to each county on the best method of collecting the fee from the users of onsite systems and holding tanks that do not receive water bills.
- Advise the Department on the components of an education, outreach, and upgrade program.
- Study the availability of funds for the supplemental assistance program within the Department to provide grants to smaller economically disadvantaged communities to upgrade their wastewater collection and treatment facilities.
- Advise the Secretary of the Department concerning the adoption of regulations.
- Beginning January 1, 2006 and every year thereafter, report to the Governor and the General Assembly on its findings and recommendations.

Fund Management:

The Bay Restoration Fees will be collected by the State Comptroller and deposited into the Bay Restoration Fund, which in turn will be administered by the Maryland Department of the Environment (ENR & Septic Upgrades) and Maryland Department of Agriculture (Cover Crop).

The Maryland Water Quality Financing Administration (MWQFA) will manage the financial and accounting aspects of the Fund, while the Water Management Administration (WMA) will manage the technical and administrative aspects. Both Administrations are units within MDE.

The MWQFA will be the lead for the following key activities:

- State Capital Budget Appropriation
- Revenue Coordination with State Comptroller
- Setting up Bank Accounts with State Treasurer
- Disbursement of Grant/Loan funds
- Investment of Funds
- BPW Approvals to Issue Revenue Bonds
- Development of Revenue Bond Indenture
- Securing Bond Trustee, Bond Counsel, Financial Advisor etc.
- Issuance of Revenue Bonds
- Preparation of Annual Disclosure Documents & Projected Revenue Certificate etc.
- Fund Accounting & Audited Financial Statements

It is estimated that the ENR upgrades at the 66 major WWTPs will cost at least \$740 million. Based on preliminary project prioritization (by WMA), and assuming that 15 projects can initiate ENR design annually followed by two-years of construction, the ENR upgrades can ideally be completed by FY 2011 (delays may result from design issues, bid protests, unforeseen site conditions, inclement weather and other complications).

Fee Exceptions:

- Surcharge does not apply to facilities that do not discharge nitrogen or phosphorus as determined by the department, or meet 3 mg/l nitrogen and 0.3 mg/l phosphorus treatment levels, **AND** did not receive any state or federal grants.
- Surcharge does not apply to facilities discharge non-contact cooling water, water from dewatering operations, or reclaimed wastewater from a facility whose users pay into the fund, **AND** the discharge does not result in a net increase in nutrient loading.

A facility may submit a request for fee exemption to MDE if the owner feels that s/he meets at least one of the above criteria.

MDE will re-evaluate exempted facilities for continued eligibility of exemption during discharge permit renewal or modification.

Program Status:

- During August and September, the Comptroller Office and MDE conducted three outreach meetings with WWTP owners. MDE and the Comptroller Office provided an overview on the BRF legislation and answered questions regarding the collection and depositing of the fee. Over 200 owners attended the meetings.
- The Comptroller Office and MDE are ready to proceed with collecting the fees from Wastewater Treatment Plant (WWTP) users, and on-site system owners who receive a water bill. Fees will start to be collected from these owners in January 2005.
- Fee from onsite system owners will begin to be collected in October 2005. The advisory committee will be advising MDE and the Counties on how to implement this program.

Wastewater Treatment Plants Fund

The purpose of this program is to fund the planning, design and construction of enhanced nutrient removal (ENR) facilities capable of achieving 3 mg/l in total nitrogen and 0.3 mg/l in total phosphorus, or as determined practicable by MDE, at the existing wastewater treatment plants in Maryland. This program is expected to provide over one third of the additional nutrient reductions needed for Maryland to meet its Bay Agreement commitments.

A. Project Selection/Funding Level:

The objective of the following procedures is to expedite the implementation of the program.

Upgrading the 66 Major Publicly Owned Facilities Discharging to the Chesapeake Bay:

MDE has rated, ranked, and established a priority list (attached) for the 66 publicly owned wastewater treatment plants with design flow of 500,000 gallons per day or greater and discharge to the Chesapeake Bay based on the following criteria set by SB 320:

- The cost-effectiveness in providing water quality benefits.
- The water quality benefit to a body of water identified by MDE as impaired under section 303(D) of the Clean Water Act.
- The readiness to proceed to construction.
- The nitrogen and phosphorus loads discharged by a wastewater treatment facility.

Up to 100% of eligible ENR cost can be provided for planning, design and construction of ENR facilities for flows up to the design capacity. For facilities completing both BNR and ENR upgrade under one project, cost associated with the BNR portion of the project will continue to be funded at 50%.

A project schedule will be negotiated as part of the ENR agreement between MDE and the grant recipient. If the project construction start is delayed by more than 12 months from the negotiated

schedule, the State financial assistance may be reduced (for inflation) at the rate of 0.25% per month of delay (3% per year), unless the cause of delay was the unavailability of state funds or a revised schedule was previously approved by the Director of Water Management Administration due to demonstrated extraordinary circumstances.

CSO/SSO and Sewer Rehabilitation Projects:

Up to \$5 million per year from the Bay Restoration Fund through 2009 can be used for combined/separate sanitary sewer overflow (CSO/SSO) corrections and other sanitary sewer collection system rehabilitation projects. Small communities will have the priority of receiving these funds based on WQIP affordability criteria and user rate impact.

To be considered for funding, a Water Quality Infrastructure Program (WQIP) Financial Assistance Pre-application needs to be submitted for funding consideration. Projects will be selected based on current WQIP Integrated Priority System.

Up to 75% of eligible project cost will be provided for small (less than 10,000 in population), low-income communities. Up to 50% of eligible project cost will be provided for others.

A project schedule will be negotiated as part of the grant application process. If the project construction start is delayed by more than 12 months from the negotiated schedule, the delayed project may be bypassed on the funding list.

ENR Operation and Maintenance Costs:

After 2009, up to 10% of the fund is earmarked for ENR operation and maintenance (O&M) costs. The originally targeted 66 facilities have priority for funding.

Funds will be distributed based on documented ENR operation and maintenance cost not to exceed facility's allocation determined by MDE based on its average flow a percentage of total flows from all treatment plants in ENR operation at the time. Once all facilities are upgraded the maximum flow to calculate the O&M allocations would be set at 12 MGD.

B. ENR Eligibility Determination:

MDE will identify the eligible ENR components for each specific project in consultation with the grantees and their consultant engineers.

C. Financial Assistance/Budget Appropriation:

A separate funding list will be established for ENR upgrades (major and others), CSO/SSO and other sewer rehabilitation projects using the existing WQIP, WQFA, and Office of Budget Standard Operation Program Procedures (SOPP) for capital projects.

D. Clearinghouse/Growth Management Review:

Unless state revolving loan funds or federal grant is provided, WQIP will follow the same procedures currently used for state grants.

E. ENR Agreement:

A model ENR agreement has been drafted and approved by the Attorney General's Office (AG). WQIP will use the approved agreement for each specific project without further review by the AG unless major changes to the agreement have been done to accommodate specific project needs.

ENR agreements between MDE and the facilities being upgraded will include the following additional item: The owner of a wastewater facility "shall operate the enhanced nutrient removal facility in a manner that optimizes the nutrient removal capability of the facility in order to achieve enhanced nutrient removal performance levels."

WQIP will provide a copy of the signed agreement to the MDE Wastewater Discharge Permits Program and advise that the item above is to be included in the discharge permit.

F. Other Established Procedures:

For ENR projects, WQIP will follow its current SOPP procedures for design review, procurement, construction monitoring, payment processing, final inspection, project closeout, and other project management and administrative functions currently described in the SOPP for State Revolving Loan Funds.

G. Program Status:

MDE is implementing the enhanced nutrient removal (ENR) as a continuation to the current Biological Nutrient Removal (BNR) Program. MDE has already contacted most of the targeted facilities for ENR upgrade. To date, more than half of the 66 targeted facilities have agreed to work with MDE to complete the ENR upgrade. At least one facility may be able to achieve the ENR goals with no or with minimal additional capital expenditure (Princess Anne's, Somerset County), two facilities are under construction with both BNR and ENR upgrades (Celanese, Allegany County, and Easton, Talbot County), 7 facilities are under design, and 27 have initiated planning.

On-site Sewage Disposal (OSDS)

A. Billing Methods

Effective October 1, 2005 each individual county is responsible for collecting fees from users of OSDS. Counties may use up to 5% of the fees they collect for administrative costs. The Bay Restoration Fund Advisory Committee (the Committee) shall make recommendations to each County on the best method of collecting the fee and report on recommendations by January 15, 2005. MDE is putting together a workgroup to assist the Bay Restoration Fund Advisory Committee with developing plans to identify users of OSDS and holding tanks and to implement billing from users of OSDS and holding tanks.

The Comptroller is to establish an account for OSDS BRF funds beginning fiscal year 2006. We may start to receive funds from OSDS with water bills on January 1, 2005 and from OSDS without water bills on October 1, 2005.

OSDS User Identification

The Committee shall make recommendations to each County on the best method of collecting the fee and report on recommendations by January 15, 2005. MDE is putting together a workgroup to assist the Bay Restoration Fund Advisory Committee with developing plans to identify users of OSDS and holding tanks and to implement billing from users of OSDS and holding tanks. We expect individual Counties to use some variation of the following:

- Identify all improved properties using the Real Property Data Base (Maryland Department of Assessments and Taxation).
- Identify all properties in areas served by public water or sewer using Master Water and Sewer Plans.
- Subtract those properties in areas served by public water or sewer from all improved properties.
- Bill improved properties not in areas served by public water and sewer.
- Provide process to appeal, as not all improved properties will actually have residences.
- Another option would be to create a database with all addresses billed for water and sewer and subtract that from the improved property layer. This may prove more difficult, although more accurate, as not all properties in the service areas utilize public services.

B. Grant/Loan Eligibility

The legislation specifically provides grants or loans for the costs “attributable” to upgrading an OSDS to best available technology (BAT) nitrogen removal or for the cost difference between a conventional OSDS and a BAT nitrogen removal OSDS. Priority will be given to failing OSDS and to OSDS in the critical areas. Using grants to repair failing OSDS is MDE’s highest priority. A point system will be used to prioritize projects. The points award system will include the following factors: failing system, critical area, level of available management and readiness to proceed.

Best Available Technology (BAT)

MDE will form a workgroup to develop a protocol for determining nitrogen-reducing technologies eligible to be considered a BAT. Attached is a protocol for evaluating advanced OSDS technologies from the 1999 Tributary Strategy Teams OSDS Task Force Report.

C. Education and Outreach and Program Implementation

MDE staff will develop education and outreach programs to address the following:

- Inform homeowners of the program
- To train or certify installers and regulatory personal on the installation nutrient removal technologies.
- To train or certify operators of nutrient removal technologies and regulatory personal on the management and operation of nutrient removal technologies.

In addition, sufficient MDE staff will be made available to prioritize grant applications, technically review proposals, inspect installations, perform follow-up inspections and oversee management entities.

Management

The key to successful implementation of advanced OSDS technology is long-term operation and maintenance with a responsible management entity. The EPA has published guidelines describing five levels of managing OSDS. The level of management will be a grant prioritization factor and regulations will be developed to support the management of advanced OSDS. Both the 1999 Tributary Strategy Teams OSDS Task Force Report and the 2000 Septic System Advisory Committee Final Report contain recommendations for management of advanced OSDS.

Regulations

Regulations will be promulgated for the following:

- Clarify collecting fees from users of nonresidential groundwater discharge sewage disposal systems that are not billed.
- Clarify grant eligibility to fund full cost of repairing OSDS with nitrogen removing BAT.
- Implementation of management of advanced OSDS.

D. Program Status:

An On-Site Sewage Disposal (OSDS) Subcommittee/workgroup was formed to advise the full committee in identifying and billing OSDS users. The subcommittee met on October 20, 2004 developed a list of models for identifying users of OSDS not receiving water or sewer bill and a list of available databases. A letter was sent from Chairman Warfield to the chief executives of all counties requesting County information on identifying and billing OSDS users. The subcommittee will meet again on November 17, 2004.