

Celebrate Earth Day
April 22!

MD Environment

Maryland Department of the Environment

April 1999

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Tireless Efforts Result in Cleanup



The Tread Shred Site prior to the removal of 980,000 tires.

At one point, the Tread Shred property in Prince George's County had acres of land buried beneath whole and shredded scrap tires that posed potential environmental problems. Today, those scrap tires are gone thanks to the voluntary efforts of Tread Shred's owner, William Egri, and the Maryland

Department of the Environment's (MDE) Recycling Services Division.

Under a consent agreement between MDE and Tread Shred, Inc., Mr. Egri paid a \$15,000 penalty and arranged for the removal of about 980,000 tires from the site. The clean up of this quantity of scrap tires makes this the second largest cleanup of illegally

stockpiled scrap tires in Maryland.

"This is a major accomplishment," said Lori Scozzafava who heads the Recycling Services Division. "Because Mr. Egri agreed to clean up the site on his own, the department was able to have one of its largest sites cleaned up without the use of taxpayers' funds. I understand, too, that he was able to do the job for a lot less than if we were forced to clean up the site for him."

Since 1991, the scrap tire program has successfully cleaned up more than 6.6 million scrap tires from hundreds of stockpiles throughout Maryland. Additionally, 31 sites are in the process of being cleaned up.

Cleanups like these are part of MDE's program to eliminate illegally stockpiled scrap tires. This program was developed to reduce the threat of fire, rodents and the breeding of disease-carrying mosquitoes. Scrap tire fires are particularly problematic because they are difficult to extinguish and when tires burn they produce air pollution and release oil that may cause water pollution.

New Drinking Water Loan Policy for Disadvantaged Communities

by Stephen M. Kraus and
Jag Khuman

Disadvantaged communities across Maryland will reap the benefits of recent changes to the Drinking Water Revolving Loan Fund. The policy amendment, which affects low-interest loans for improvements to drinking water systems, now takes into consideration consumer "rate shock" and will help reduce the financial burden requirements of the Federal Safe Drinking Water Act for many Maryland ratepayers.

Any community experiencing a user rate increase in excess of 20

percent as a result of a Drinking Water loan may qualify as a disadvantaged community and be eligible for a reduced rate of interest and extended loan terms. One beneficiary of this new policy is expected to be the community of Rose Haven in Anne Arundel County. The county's proposal to upgrade the existing water system would have cost the community a front foot assessment of \$6.10 per household under the standard loan terms, which will now be reduced under this revised disadvantaged community policy to \$4.29, an average savings of \$108 per year per

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Legislative Update

by Diane Shaw

As of mid-March, several environmental bills continue to be considered in the Maryland General Assembly. Probably one of the most controversial bills concerns the restructuring of the electric utility industry. Several tax and policy related bills would dramatically change the generation, supply and cost of electric power in Maryland. The department is closely watching these bills to determine their potential impacts on conservation measures, energy

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1999 IS THE YEAR FOR WATER SUPPLIERS TO TELL YOU WHAT'S IN YOUR WATER

by Michael McCabe, Region III
 Administrator, EPA

Most Americans drink safe water. Soon you will be able to find out how safe your drinking water is through new Environmental Protection Agency requirements for water systems – those who supply household water – to begin telling people what is in their drinking water.

Think of it as a nutrition label on your kitchen faucet, divulging to you, the customer, everything in the water, from low levels of lead and copper, to pesticides, disinfectants and chemicals.

All community water providers must send consumer confidence reports to customers by October 1999, and update them at least once a year. The information will be in an easy-to-read table.

Annual consumer confidence reports required by EPA are the first new

drinking water regulations in several years. In his state of the union address in 1998, President Clinton announced an initiative to speed the restoration of the nation's rivers, lakes and coastal waters, and promised he would do his best to ensure that all Americans receive safe drinking water.

The annual consumer confidence reports fulfill that promise. They will not replace standard purification efforts or boil-water alerts issued when water becomes contaminated and unsafe to drink. Rather, they are a supplement to let people know which particular chemicals, minerals, and other microscopic material might be in their water.

Water suppliers should use this new "full disclosure" rule as a stepping stone to better satisfied customers. It is both a responsibility and good

business strategy to tell customers what they are buying.

This year is the 25th anniversary of the Safe Drinking Water Act, the law that was created to help protect and provide clean, safe drinking water. As the public's understanding grows, public participation in the protection and delivery of safe drinking water will increase, just as recycling grew from a good idea to a standard practice.

So when you get a special brochure in your water bill, take the time to look at it. Study it, save it, and if you have any questions, call your water supplier and get the answers. You have the legal right to know.

For additional information about water quality and consumer confidence reporting, check out EPA's website at www.epa.gov/ogwdw/ccr/ccrfact.html.

Drinking Water Standards to Reduce Risk from Cryptosporidium and Disinfection By-Products

by Nancy Reilman

In December, the Environmental Protection Agency (EPA) finalized new drinking water standards that will help control the public health threat of the waterborne pathogen, *Cryptosporidium*, and contaminants that are disinfection by-products. The EPA rules provide new national standards against which Maryland's drinking water quality will be evaluated.

The purposes of the Interim Enhanced Surface Water Treatment Rule is to improve treatment for microorganisms by establishing a removal

requirement for *Cryptosporidium* and to lower the turbidity standard from 0.5 NTU to 0.3 NTU or turbidity units. Turbidity is a measurement that indicates the cloudiness of the water and the effectiveness of treatment. The average human eye cannot observe the difference between 0.1 NTU and 10 NTU.

In 1993, a single outbreak caused by *Cryptosporidium* in Milwaukee, Wisconsin, resulted in over 400,000 Cryptosporidiosis cases. The Center for Disease Control reported that between 1980 and 1996, 401 waterborne disease outbreaks were reported in the United States. The center

believes that this number is understated because few states have active outbreak surveillance. Potential waterborne disease outbreaks are evaluated jointly by the Department of Health and Mental Hygiene and the Maryland Department of the Environment. In Maryland, there have been

lowered the standard for disinfectants and disinfectant by-products and established maximum levels for the addition of chlorine to drinking water. Disinfection by-products are compounds that form when chlorine reacts with organic material, such as algae, during the treatment of a surface water

supply. While the Environmental Protection Agency cannot conclude there is a link between exposure to chlorinated surface water and cancer, studies have suggested an association. The rule lowered the standard for trihalomethanes from 100 parts per billion (ppb) to 80 ppb. A part per billion is equal

to one penny in \$10,000,000. Based on 1998 monitoring data, all Maryland water systems were able to meet the new standard of 80 ppb.

Water systems throughout Maryland work to provide drinking water to their customers that is safe on a continuous basis. Drinking water is routinely analyzed for over 80 contaminants to assure that the quality is maintained. In 1999, be on the lookout for your water system's annual consumer confidence report that will inform customers about the source and quality of their drinking water. For more information, please call Nancy Reilman of MDE at (410) 631-3729.

The Center for Disease Control reported that between 1980 and 1996, 401 waterborne disease outbreaks were reported in the United States.

no confirmed outbreaks from public drinking water systems cases since these evaluations began.

Waterborne disease outbreaks are typically characterized by gastrointestinal illness that particularly impact people whose immune systems are vulnerable including infants, pregnant women, the elderly, and especially those who have AIDS, those receiving treatment for certain types of cancer, organ-transplant recipients and people on immunosuppressant drugs.

Other recently promulgated regulations called the Disinfectants and Disinfection By-products Rule

New Drinking Water Loan Policy for Disadvantaged Communities

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household.

The first Drinking Water Revolving Loan Fund federal grant award for capital projects was received by the MDE in September 1997. Since that time, MDE has entered into loan agreements with five communities for a total of approximately \$6 million. As part of the program, MDE was required to develop a Disadvantaged Community policy that provides additional financial relief to certain jurisdictions. Initially, MDE's policy was targeted to small systems and systems (large or small) with incomes below 70 percent of the non-metropolitan county median household income.

One of the important services the MDE offers to its customers is that of a financial advisor. MDE has developed a financial model that incorporates the financial history of the borrower's water, sewer and general funds, based on their audited financial statements. MDE then incorporates certain revenue and expense assumptions to project cash flow data into the future. This is an important tool in determining loan affordability and forms the basis for recommending to the borrower user rate adjustments, to ensure the community has enough funds to pay operating expenses and loan debt service.

Based on the implementation of this financial model, MDE discovered that several communities, many the result of environmental compliance orders, were required to adjust user rates in excess of 20 percent to cover operating expenses and the additional debt service requirements. The "rate shock" resulting from the added cost of the drinking water loan should be included in MDE's disadvantaged community policy, and that lower interest rates and extended loan terms should be offered.

The highlights of the revised program are highlighted in the box on this page. The new options were developed and prioritized to protect the fiscal integrity of the fund while addressing the needs of Disadvantaged Communities. The Disadvantaged Communities must meet all other program requirements.

For additional information on the program or for a copy of the Revolving Loan Fund Program Manual contact Stephen Kraus director of the Water Quality Financing Administration at (410) 631-3119 or access WQFA through the MDE's web page at www.mde.state.md.us/wqfa

Qualifying Criteria for Disadvantaged Community

- (a) An area served or to be served by a small system (less than 10,000 residents) where the annual average water system user rate per Equivalent Dwelling Unit (EDU) exceeds (or will exceed as a consequence of this project) the Target User Rate (between 1.00 percent to 1.25 percent of the Community Median Household Income) as outlined in the chart below, or
- (b) A Community (small or large) where the Median Household Income (MHIc) is less than 70 percent of Maryland Non-metropolitan Counties Median Household Income (i.e., MHIc less than \$22,890 for 1998), or
- (c) A water system (small or large) where the average user rate per EDU will need to increase by 20 percent or more to achieve the financial capacity (as determined by the State) to repay the DWRLF loan.

Subsidy to Disadvantaged Communities

The Federal Safe Drinking Water Act specifies that up to 30 percent of the annual federal capitalization grant may be used to provide additional subsidies (e.g., extended terms, lower interest rate, or principal forgiveness) to benefit communities meeting the State's definition of "Disadvantaged Community."

For Communities qualifying as Disadvantaged under Item (a) above, additional subsidy may be provided, in the following sequential order, until the Target User Rate is achieved, by:

- Increasing the term of the loan from 20 years to 30 years;
- Lowering the DWRLF loan interest rate from 60 percent of Market Rate to 45 percent (Market rate is defined by the Department as the average Bond Buyer Revenue Bond Index for the month preceding the loan closing);
- Providing state grant funds and/or seeking grants from other agencies, if available;
- Further lowering the DWRLF loan interest rate; and
- Forgiving all or a portion of the DWRLF loan debt. (To qualify for a portion or all of the loan debt to be forgiven, census data or local income survey data must document that the community is impoverished or is unable to repay the loan due to exiting levels of indebtedness or other socio-economic factors or conditions).

For Communities qualifying as Disadvantaged under Item (b) or Item (c) above, the following additional subsidy may be provided to reduce the project loan debt, by:

Increasing the term of the loan from 20 years to 30 years and lowering the DWRLF interest rate from 60 percent to 45 percent of market.

Affordability Criteria to Determine Target User Rate (TUR)

% of MHI (MHI Non-metropolitan counties, 1998 = \$32,700)	MHIc (Community) 1998 Adjusted	Affordability Bench Mark (% of MHIc)	Target User Water Rate Formula	Target User Rate (Debt+O&M per year per EDU)
< 70% of MHI	< \$22,890	1.00%	1.00% x MHIc	< \$229
>= 70% - <130% of MHI	>=\$22,890-<\$42,510	>1.00% & <1.25%	229+0.0154x(MHIc-2,890)	>=\$229 - <\$531
>=130% of MHI	>=\$42,510	1.25%	1.25% x MHIc	>=\$531

Y2K for Drinking Water Plant Operations

by Saeid Kasraei

The Maryland Department of the Environment (MDE) has been working closely with the regulated community to help ensure that computer systems at water treatment facilities throughout the State are Year 2000 (Y2K) ready. Even drinking water treatment facilities are not immune to the far-reaching computer date-related problems the new millennium may bring.

During regularly scheduled site visits to treatment facilities, MDE personnel have been making sure that local officials are aware of the millennium computer bug and are taking steps to ensure that their systems are Y2K compliant. Local officials are being instructed to follow a six-step plan produced by the EPA for drinking water and wastewater treatment systems.

The first step of the plan is to generate awareness of the Y2K issue. MDE has played a pivotal role in educating the State's regulated community and is now confident that all local plant operators are aware of the issue. The second stage is the

identification of vulnerable systems. This includes all computers, control equipment with programmable logic controllers and equipment with embedded computer chips that are date dependent. Detailed guidance on the identification of vulnerable systems soon will be sent to all local jurisdictions. The third step is to correct identified problematic systems. MDE is recommending that all corrections be completed by the end of June.

Once corrective measures have been taken, stage four of the plan - testing and validation will begin. This will include simulating January 1, 2000 and other dates that have been identified as possibly problematic including September 9, 1999 and February 29, 2000. Testing of systems should be completed by July 31, 1999. Stage five is implementation and full operation of corrected systems. A critical component of this stage is public education and confidence building. With that goal in mind, local utilities will be periodically producing Consumer Confidence Reports that will keep the public abreast of the steps that are being taken to ensure clean

drinking water at the start of the new year (see related article on page 2). The first of these reports is expected in April and will be reviewed by MDE prior to release.

The sixth and final stage of the plan is the development and contingency plans so an unexpected event will not interfere with the water supply. Water systems are reminded to take the necessary steps to ensure that they are Y2K compliant and that this issue will not affect their ability to provide an uninterrupted supply of adequate quality water to their customers.

Learn More About EPA's Six Point Plan

The U.S. Environmental Protection Agency (EPA) has developed a draft action plan to promote timely resolution of Y2K issues and the ramifications of failing to do so. An extensive reference is available on the EPA's web site at:

www.epa.gov/year2000

Clean Commute Week May 17-21

By Bob Maddox and Susan Stephenson

Pump up those bike tires. Dust off those walking shoes. Check out that bus schedule. Make your plans to celebrate Clean Commute Week May 17 – 21 with citizens throughout Baltimore by planning your week of clean commutes.

The Clean Commute Week Partnership is promoting Clean Commute Week and has a great agenda of fun activities planned for this year's festivities. The goal of the Clean Commute Week is to get people to try alternatives to driving alone and to educate them about why it is important to change commuting habits.

Why a Clean Commute Week? A majority of Baltimore-area workers commute to work alone in their cars each day. Those commuting practices, although convenient, are unhealthy for our health and the environment. Each year, the Baltimore region exceeds the Environmental Protection Agency's health-based standard for ground-level ozone.

Over one-third of ozone-forming pollutants -- nitrogen oxides (NOx) and volatile organic compounds (VOCs) -- come from mobile sources which includes cars, trucks, and buses. Ground-level ozone is unhealthy to breathe. It can cause eye and throat irritation, coughing, and chest pain. Ozone may also worsen bronchitis, heart disease, emphysema and asthma.

The NOx and VOC emissions from cars are chemicals that cause ozone, the primary pollutant. NOx also results in acid rain, which damages trees, soil, and crops. NOx emissions also damage the health of the Chesapeake Bay by depositing excessive amounts of nutrients into the Bay and its tributaries.



"People in the Baltimore region travel almost 65 million miles by automobile each day," said Mohammed Khan of MDE's Mobile Sources Control Program. "And each day, from our vehicles alone, about 81 tons of VOCs and 129 tons of NOx are released into the air."

Why May? In our area, ozone levels may exceed the standard as early as April and as late as October. Ground-level ozone gets worse when the weather gets warm. Sunlight and high temperatures speed the conversion of VOCs and NOx to ozone. May also is the kick-off of the Maryland Department of the Environment's ozone forecasting season to help alert citizens when the air quality is unhealthy.

To learn more about Clean Commute Week activities or to register for the Clean Commute Week Challenge, call Gerry Hisle at 410-333-1750, extension 241.

Stop by and see the Clean Commute Week Partners in action at the Towsontown Spring Festival, May 1 – 2, and pledge a Clean Commute. Every person who pledges to a Clean Commute will be entered in a contest for fun and practical prizes.

Tawes Award Accepting Nominations



The Maryland Department of the Environment and the Maryland Petroleum Council invite environmental volunteers from across the state to submit nominations for the 1999 Tawes Award for a Clean Environment. The awards program, now in its

22nd year, is open to any non-profit, civic, community or business entity that has demonstrated outstanding efforts to enhance Maryland's environment.

Awards will be given to both an adult and a youth recipient who have participated in any community cleanup, school beautification or ecology project, recycling, oil pollution prevention or cleanup, waste reduction or any other innovative environmental enhancement project. The project could be a one time effort or an on-going program.

Winners and runners-up and their guests will be invited to an awards luncheon in Annapolis. In addition to the award, winners will receive a monetary donation to the favorite environmental non-profit. For more information on the awards program or to receive a simple application form, contact Chris Plummer of MDE at (410) 631-3012 or MPC's Don Schroeder at (410) 269-1850. Deadline is April 15.

Wetlands Workshop a Success Businesses To Help Reach Restoration Goal



Businesses from across Maryland met at a recent Wetlands Restoration Conference targeted at involving businesses and private landowners in creating wetlands restoration projects on their property.

Information on the value and long-term benefits of wetlands was presented to business by business in the form of case studies. Wayne Mills of the Chesapeake Bay Foundation (pictured left) discussed why a healthy Bay is good for business. Business

participation in environmental restoration is not only good for public relations but also helps to attract quality, motivated employees. The conference sponsors hope that those in attendance will help Maryland reach its ambitious goal of recreating 60,000 acres of lost wetlands. If you missed the conference and would like to learn more about how to get involved in building a wetland on your property contact MDE's Tony Abar at (410) 631-8059.



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