

# MDE Environment

Maryland Department of the Environment

March 1998

## What's Inside...

**Cash-For-Clippers**  
*Are you ready for spring?.....2*

**Need an Oil Permit?**  
*A technical break-out of who needs them.....3*

**Maryland's 303(d) list ready and waiting.....3**

**Learn more about Urban Stormwater BMP's.....3**

**Protecting History and the Environment at Smith Island.....4**

**Smart Growth Update.....4**

**Drinking Water Compliance Report.....5**

**For the Record.....6**

**Enforcement and Compliance Notes.....13**

**Public Meetings and Hearings Calendar.....14**

**Superfund Cleanup Nearing Completion.....15**

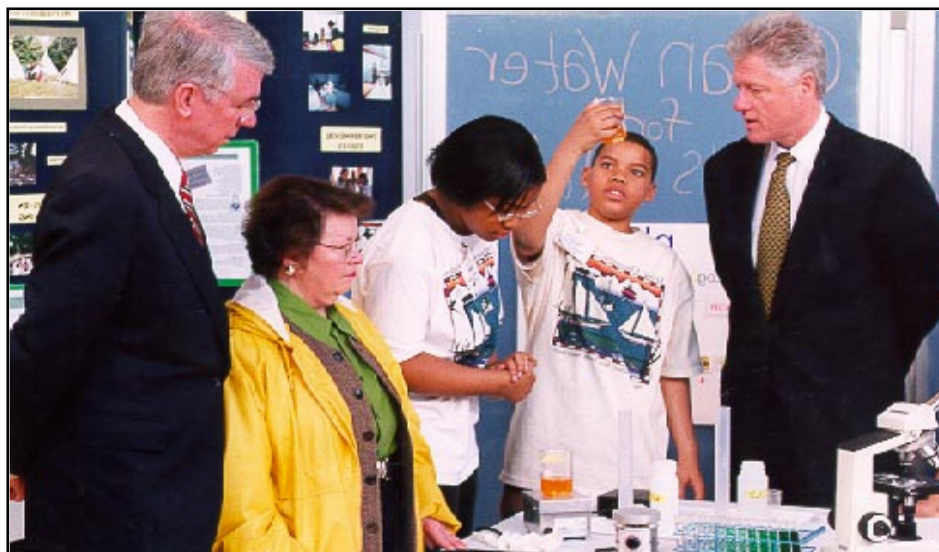
**Tributary Strategy Teams: Middle Potomac.....15**

**Mining Company Doing Business Right.....BP**



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## President, Vice-President Bring Clean Water Action Plan to Maryland



Living Classroom Foundation students Andrew Wilson and Maisha White perform water quality tests in the student lab as Governor Parris N. Glendening, Senator Barbara Mikulski and President Clinton look on.

President Bill Clinton and Vice-President Al Gore visited the Living Classrooms Foundation in Baltimore City in late February to announce additional resources available to Maryland through the Clinton Administration's new Clean Water Action Plan. Maryland currently receives more than \$26 million annually from the U.S. Environmental Protection Agency for clean water initiatives. If approved by Congress, the President's plan would provide Maryland with an additional \$30 to \$40 million over the next five years.

Under the plan, the federal government will support locally led partnerships, increase financial and technical assistance to states and help states focus on watershed approaches to restoring water quality. The plan's primary goals are enhanced protection from public health threats posed by water pollution, more effective control of polluted runoff and promotion of water protection on a watershed basis.

"These objectives complement Maryland's efforts to address the connections between environmental health and human health --particularly concerning polluted runoff --which have been emphasized through our recent experience with outbreaks of toxic Pfiesteria," Governor Parris N. Glendening said. "In addition, the President's watershed approach mirrors our focus on Maryland's Chesapeake Bay Tributary Strategy Teams, the Rural Legacy program to protect our most threatened landscapes and natural resource areas, and reducing the sources of nutrient pollutants."

The plan, which calls for a net increase of 100,000 acres of wetlands each year beginning in 2005, also puts the federal government firmly behind Maryland's goals to replace 60,000 acres of wetlands that have been lost as a result of sprawl development. The plan also calls for the federal government to identify new mechanisms and revisions to existing policy to support locally initiated growth efforts like Maryland.

## Maryland Moves Forward On Nitrogen Oxide Budget Program

by Carl York and Beth Murray

Most states, including Maryland, have based their ozone control programs on regulations and programs designed primarily to reduce emissions of volatile organic compounds (VOCs), major components of ozone. Extensive air quality studies and analyses have shown that, in addition to VOC reductions, significant nitrogen oxide reductions are needed over large areas to achieve the federal ambient air quality standards for ozone.

The 1990 amendments to the Clean Air Act acknowledged the need for nitrogen reductions in areas with significant ozone pollution and required basic retrofit controls on large nitrogen oxide sources. Yet, in Maryland, and throughout the Northeast, nitrogen oxide controls beyond these basic requirements are needed to meet the federal health-based ozone

standards.

In January, MDE proposed regulations to establish a nitrogen oxide reduction program to achieve these large nitrogen oxide reductions. The Nitrogen Oxide Budget Program will establish a budget for large sources emitting nitrogen oxide beginning in 1999. Affected sources will reduce nitrogen oxide emissions up to 65 percent below 1990 levels. The large nitrogen oxide reductions resulting from the budget program will help Maryland achieve the federal health-based standard for ozone which none of Maryland's metropolitan counties currently meet. Last year, the Environmental Protection Agency adopted more stringent ozone standards and revised standards for fine particulates and regional haze. Maryland will need to rely on the benefits of the budget program even more with these new

(continued on page 2)

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continued from page 1....

## Ground-Level Ozone Reductions

federal standards.

In 1994 eleven of the twelve north-eastern states and the District of Columbia that form the Ozone Transport Commission signed a Memorandum of Understanding (MOU) agreeing to implement a regional nitrogen oxide control program to reduce ground-level ozone pollution. States worked together to develop a model rule, which is being used by individual states as the basis for regulations that support the larger regional effort. Maryland's large nitrogen oxide sources have actively participated in developing a regional budget program through the MOU and model rule development processes. Maryland's regulations will affect all power plants and three

large boilers at a paper mill. The budget program allows sources that over control to trade reductions with another source where it is not cost effective to install controls. This flexibility allows control costs to be minimized.

"The cooperative regional efforts of the states and their sources will continue to be important as we implement this critical control program," said Merrylin Zaw-Mon, Director of the Air and Radiation Management Administration at MDE. Several states, including Pennsylvania and Delaware, have adopted final rules.

In addition to the budget program reductions for all major facilities in the Northeast, nitrogen oxide emissions reductions are needed in areas (primarily Mid-West and Southern states) when their pollution is carried on prevailing wind currents to other states. The EPA recently proposed requiring all eastern states and Washington, D.C.

also to make significant nitrogen oxide reductions by 2003.

The nitrogen oxide budget program is similar to the U.S. Environmental Protection Agency's (EPA) Acid Rain Program to reduce sulfur dioxide emissions at very low cost. The acid rain program and the budget program affect some of the same sources and extensive work has been done to make the two programs compatible further reducing compliance costs.

MDE is holding a public hearing on its proposed nitrogen oxide budget program regulations on March 4 at 10 a.m. in the State Office Building in Baltimore. (See Public Meetings and Hearings Calendar for more information.) MDE hopes to have these important regulations in effect by May 1998. Additional information on both the Nitrogen Oxide Budget and Acid Rain programs can be obtained by contacting Carl York or Beth Murray at (410) 631-3240.

## CASH-FOR-CLIPPERS

by Jessica Ritter

Did you know that using a typical gas-powered lawn mower for one hour creates as much air pollution as driving a car for 50 miles? To make our summer skies a bit bluer and our summer air easier to breathe, the Maryland Department of the Environment (MDE) is offering rebates of \$50 toward the purchase of electric and cordless rechargeable mulching mowers and \$15 on push mowers for each operating gasoline-powered mower turned in during the Cash-For-Clippers promotion.

Thanks to an Environmental Protection Agency grant, MDE was able to create the Cash-For-Clippers partnership between state and local government, utilities, lawn and garden equipment manufacturers, retailers, small engine recyclers and the environmental community to reduce the use of gas guzzling, air polluting and noise making gasoline powered lawn mowers.

Trade-in events will take place in Anne Arundel, Baltimore County and City, Charles, Frederick, Harford, Howard, Montgomery, and Prince George's County sites throughout April and May. Please call your county or Baltimore City Household Hazardous Waste Division for exact dates and times.



required to fill out. Participants must purchase a new electric, cordless rechargeable, or push lawnmower, and submit their original receipt, UPC bar code, and Cash-for-Clippers registration form to MDE by July 31 to receive the rebates.

"Cash-For-Clippers will educate the public about their role in air quality issues by retiring several hundred gasoline-powered lawnmowers from the Baltimore and Washington D.C. region during the spring of 1998." explained Secretary of Environment Jane T. Nishida. "Maryland's air quality will benefit from the reduced emissions and citizens will realize that they can make a difference."

For further information or if you would like to volunteer at a county event you can reach your MDE Cash-For-Clippers representatives, Chuck Rearick or Jessica Ritter at (410) 631-3240.

## Maryland



## Tawes Award For A Clean Environment

Individuals and organizations are encouraged to submit nominations for the 1998 Tawes Award For A Clean Environment, co-sponsored by the Maryland Department of the Environment and the Maryland Petroleum Council. Anyone who has worked to enhance or protect Maryland's natural resources and environment is eligible to enter. Activities may involve conservation, ecology, recycling, education projects, pollution prevention, or environmental emergency response. Awards are divided into two categories: youth and adult. Winners will receive a donation to their favorite non-profit and a certificate of appreciation presented at an early spring awards luncheon.

Call MDE at (410) 631-3012 or the Maryland Petroleum Council at (410) 269-1850.



## Need An Oil Permit?

The Maryland Department of the Environment's Oil Control Program regulates all oil-related activities, such as aboveground and underground oil storage facilities, oil-contaminated soil treatment facilities and oil transportation. The program oversees the installation, maintenance, operation and removal of oil storage tanks and maintains a strong field presence investigating complaints of illegal dumping and improper handling of oil and violations of regulations. Below is a technical break-out of what you need to know if your business participates in any kind of oil operations. For more info contact Greg Sonberg at (410) 631-3443.

### Oil Operations Permit

#### GENERAL OIL OPERATIONS PERMIT

##### 1. Applies to oil aboveground storage tanks(AST) at:

- Service stations, garages, and marinas with less than 50,000 gallons storage capacity.
- Apartment buildings with less than 10,000 gallons storage capacity.
- Other facilities with less than 10,000 gallons storage capacity

##### 2. Requirements:

- Prohibition against oil pollution.
- Report oil spills or discharges.
- Responsible for cleanup of spills or discharges.
- Oil Transfer License required for those transferring oil into the State.
- National Fire Protection Association (NFPA) requirements for ASTs.

#### OIL OPERATIONS PERMIT

##### 1. Applies to:

- Oil aboveground storage facilities storing 10,000 gallons or more
- Oil delivery by truck or transport with 500 gallon or more capacity.
- Handling, processing, or aboveground storage of used oil with a capacity of 1,000 gallons or more.
- Service stations, garages, and marinas with aboveground storage capacity of 50,000 gallons or more.
- Any facility, regardless of aboveground storage capacity that poses a water pollution hazard due to size, nature, or location.
- Oil-contaminated soil treatment facilities.

##### 2. Requirements

###### A. Above Ground Storage Tanks

- National Fire Protection Association requirements.
- Secondary containment required for capacity of 10,000 gallons or greater.
- Wetland Permit required for construction in wetland or 100-yr flood plain Once a month visual inspection.

###### B. Trucks

- Trucks maintained in accordance with state regulations for Motor Vehicle Inspection requirements.
- Fire extinguisher in accordance with NFPA.
- Driver shall remain within 10 ft, in full control of the nozzle, shut-off valves, pump and emergency operation mechanism at all times during loading or unloading.
- Driver is required to report all spills or the existence of equipment defects or unsafe delivery conditions.

###### C. Oil Transfer Facility

- Loading rack area is paved
- Containment required for the largest compartment of any truck using the loading rack.
- Prevention of storm water intrusion onto the loading rack surface.
- Spill cleanup materials on hand.

## 1998 Draft Water Quality List Available for Review

A draft of Maryland's 1998 303(d) list is now available for review. Section 303(d) of the federal Clean Water Act requires Maryland to submit a list every two years to the Environmental Protection Agency that identifies water quality limited segments of the state's waterways where technology-based effluent limitations and other required controls cannot achieve water quality standards; indicates the pollutant or pollutants causing the standards not to be attained; and provides a priority ranking of these waters for the establishment of Total Maximum Daily Loads for the pollutants preventing the attainment of water quality standards.

The list was developed using existing and readily available information on waste sources, water quality, water uses and water quality criteria. Following the public comment period announced in this notice the list will be

formally established by the state and is subject to approval by the United States Environmental Protection Agency.

The draft 303(d) list is available from Mark Jacobs, Water Management Administration, Maryland Department of the Environment (MDE), 2500 Broening Highway, Baltimore Maryland 21224, telephone (410) 631-4492. The draft list also is available for review and copying at many county libraries and may be downloaded from the MDE's internet web site at <[www.mde.state.md.us](http://www.mde.state.md.us)>. A list of participating libraries is available from Jacobs.

Written comments concerning the draft 303(d) list may be submitted to Mr. Jacobs at the above address or before March 20. All comments received during the comment period will be considered and the list revised as appropriate.

## Chesapeake Bay Program's BMP For Urban Stormwater Workshop

Engineers, planners, scientists and local government representatives are invited to register for the Chesapeake Bay Program's Workshop entitled "BMP Selection for Urban Stormwater Management." The workshop will expose attendees to up-to-date design methods and selection criteria for urban stormwater management. The workshop will be held from 9 AM to 4:15 PM on May 19 at the Holiday Inn Express in Dumfries, Virginia. The workshop is sponsored by the Nutrient Subcommittee's Urban Workgroup.

The workshop will highlight a variety of issues associated with the

design and construction of Stormwater Best Management Practices. Topics to be addressed include:

- Site Constraints
- Design Parameters
- Ease of Maintenance
- Public Acceptance
- Nutrient/Toxic Management and Removal

The registration deadline for the workshop is May 1, 1998. For more information, call 1-800-YOUR BAY or visit the Bay Program Website at <http://www.chesapeakebay.net/bayprogram>.

## Maryland Wetlands Publication Available

The Maryland Department of the Environment announces that there are still available copies for sale of *Wetlands of Maryland*, a publication produced in partnership with the U.S. Fish and Wildlife Service. This important publication describes the various types and extent of wetlands across the state, their functions, wetland identification and status and trends. A removable map showing wetlands distribution statewide is included. The publication is \$12.00 per copy. Order forms are available from MDE by calling (410) 631-8094.

## 1996 Drinking Water Compliance Report

by Nancy Reilman

The Maryland Department of the Environment's (MDE) first annual compliance report on public water systems as required by the Safe Drinking Water Act reauthorization of 1996 is now available to the public. The report covers public water system violations that took place in calendar year 1996 (January 1 to December 31, 1996). Maryland's report contains an overview of MDE's Drinking Water Program, Maryland's water quality standards and the summary of the 1996 violations.

MDE is Maryland's primary enforcement agency for the Safe

Drinking Water Act and ensures that public drinking water systems provide adequate quality and quantity of water to their users. Community water systems include municipalities, small private water systems and mobile home parks; non-transient water systems include businesses, schools and day care centers that have their own water supply system. Transient systems such as gas stations, camp grounds and restaurants also are regulated.

Future reports will be prepared by each July and will cover the previous calendar year. For a copy of the compliance report or additional information on the Maryland pro-

gram, contact Nancy Reilman, Public Drinking Water Program at 410-631-3729. A national report will be

compiled later this year. Contact the Safe Drinking Water Act Hotline at 1-800-476-4791 for more information.

### MARYLAND'S PUBLIC WATER SYSTEMS PROFILE FOR 1996

Residents served by public water systems -- approximately	271,000
Residents served by surface water systems -- (54 systems)	3,372,000
Residents served by groundwater systems -- (3,519 systems)	899,000
Community Water Systems --	512
Nontransient Noncommunity Systems --	492
Transient Noncommunity Systems --	2,569

## Ecological Risk Assessment



Ecological risk assessment has become a well-used tool of environmental decision makers. The following description of environmental risk assessment is reprinted in part from a document prepared by the Society of Environmental Toxicology and Chemistry\* and is the second in a two-part series describing risk assessments for human health and the ecosystem.

Imagine the scenario: a new gasoline additive has come on the market. As its use expands, concerns mount over the possibility that the compound is finding its way to waterways and that aquatic life is being adversely affected. Scientists are asked to evaluate the potential impacts of this compound on the aquatic ecosystem now and under future levels of consumption.

This process is Environmental risk assessment (ERA) and it is used to determine the type of effects that our everyday actions pose for animals, plants and the environment. The ERA process provides information that

decision makers, like the EPA and MDE, can use to develop environmental management strategies.

ERA is particularly useful because it estimates the potential for damage, provides a basis for comparison against other hazards, allows environmental managers to predict the effects of their decisions and helps to identify critical knowledge gaps pointing the way for future research.

ERAs can be adapted to address chemical, biological or physical threats to the environment. They can be local in scope (a hazardous waste site), regional (the Chesapeake Bay, the Black Forest, or the Great Barrier Reef), or global (atmospheric transport of chemicals or global warming).

Assessments can involve a specific type of plant or animal (a striped bass), a community of organisms (the aquatic life in a lake), or an entire ecosystem (all of the biological and physical components of a lake). The process of human health risk assessment has similarities to ERA, but in practice is treated separately. Almost all human health evaluations address problems from toxic chemicals not the biological or physical threats.

The likelihood that adverse effects will result from an environmental stressor is determined by looking at information about exposure and effect. When the potential for exposure and effect are low, the risk will be low. When both potential for exposure and effect are high, the risk will be high. When we are faced with intermediate situations, ERA is most useful, as it

assessment is always accompanied by some degree of uncertainty. Even when uncertainties are high, risk assessments with proper scientific review can provide a valuable summary of current knowledge.

Although the risk assessment process is scientifically based, determining the issues of greatest concern requires input from stakeholders. This initial phase of an ERA is critical in providing a focus for the assessment. Together, risk managers and stakeholders identify ecological concerns that have significant economic, social or recreational value. The outcome of the ERA should reflect these concerns, while putting the ecological concerns first.

The ERA process continues to be refined and standardized for the various categories of environmental problems. Efforts are being made to move beyond studies of individual species and to predict changes in broader ecosystems and the impacts of multiple threats. Environmental Risk Assessments will continue to support scientifically sound environmental decision making. The EPA's latest guidance document on ERA is scheduled for release in March, 1998.

*For more information about Ecological and Human Health Risk Assessment*

*contact Phil Heard at (410) 631-3906. (\* Society of Environmental Toxicology and Chemistry (SETAC). 1997. Ecological Risk Assessment Technical Issue Paper. Pensacola, FL (<http://www.setac.org>). Material reprinted with permission.)*

### Opportunities for applying ERA

- Should pollution controls be tightened to protect the health of a certain type of fish?
- What damage can be expected from a chemical spill?
- What are the biological trade-offs in sediment dredging?
- How will land use practices impact a local wildlife habitat or family of organisms?
- Which clean-up options are acceptable at a neighborhood hazardous waste site?
- Will the productivity of an estuary be adversely impacted by certain contaminants?

weighs the influence of different factors and provides an objective measure of potential harm.

Estimates of exposure and effect are obtained from field observations, from predictive models and from lab studies. Because of nature's complexity, risk

# State and Federal Agencies Consider Smith Island Restoration

by Ginny Kearney

Smith Island, a small island community 12 miles west of Crisfield in Somerset County, is the last inhabited island in the Chesapeake Bay that has not succumbed to the devastating effects of time and tide. This tiny piece of living Maryland history is home to descendants of the first English permanent settlers who landed on the island in 1657. Today, it faces threats that challenge the very existence of the island and its unique community that include a decline in living resources that support local watermen's way of life, an aging population without an influx of young people or the jobs to support them and an alarming rate of erosion of the island's land mass.

To protect this valuable piece of Maryland history from the ravages of erosion, the Maryland Department of the Environment, the Maryland Department of Natural Resources and Somerset County are currently negotiating with the U.S. Army Corps of Engineers on the scope of a feasibility study for the environmental restoration and protection of Smith Island.

In response to the environmental vulnerability of the island, Congress authorized the Army Corps of Engineers in 1994 to undertake a study of Smith Island. The Army Corps of Engineer's report, completed in 1997, identified several areas on Smith

Island where natural forces are threatening both human and natural features. Solutions identified include projects to arrest the rate of island erosion, protect against storm and flood damage; protect, expand and create SAV beds and wetlands; and improve navigational features around Smith Island (see map).

Preparation of a reconnaissance report of this type is the first phase of the federal process to obtain additional funding for feasibility studies, plans and specification preparation and construction of capital projects. The reconnaissance study was wholly funded by the federal government. Subsequent phases are funded through cost-share arrangements with one or more non-federal partners or sponsors.

The feasibility phase will undertake a more detailed evaluation of the projects identified in the first phase. The objectives of the feasibility phase will be to evaluate the effects of the alternatives, identify and select the most viable projects, and proceed to preliminary project design. The feasibility study will be funded with 50 percent federal/50 percent non-federal dollars. The non-federal share will most likely be provided by the Maryland Departments of the Environment and Natural Resources, with possibly some contribution of cash and/or in-kind

services from other entities. The Corps and the state would then seek Congressional authorization and state funds for construction of the selected projects, at a cost share arrangement which may range from 65 percent federal/35 percent non-federal to 80 percent federal/20 percent non-federal.

The feasibility study will include ample opportunity for public input, especially from the inhabitants of the island and from Somerset County. As with other such studies, several committees will be formed to direct and guide the project. The steering committee will be comprised of representatives from the Army Corps of Engineers, Department of Natural Resources, Maryland Department of

the Environment and Somerset County and other interested agencies. The study team is the entity responsible for completing the study in accordance with the study plan and the federal cost-share agreement. This group will meet regularly to coordinate on the progress, findings, financial status and other matters relating to the day to day aspects of the study.

If all goes as planned, the Federal Cost-share Agreement will be signed this month. The study will then be initiated, and is expected to take two years to complete. For more information on this project, please contact Ginny Kearney, MDE, at 410 631-3574, or Dan Bierly, Corps of Engineers, at 410-962-6139.



## Smart Growth Update

Smart Growth information will appear monthly in a regular section of the *MDEnvironment* to keep you informed of new developments and initiatives at MDE. In addition, watch for upcoming feature articles on Smart Growth issues. Just look for the Smart Growth logo!

### GOVERNOR'S EXECUTIVE ORDER

Governor Parris N. Glendening recently signed an executive order that

and makes it state policy that all Maryland government department and agency actions be consistent with the Smart Growth initiative. The executive order established the Smart Growth and Neighborhood Conservation Policy and reaffirms the economic growth, resource protection, and planning extends the spirit of Smart Growth policy adopted by the Maryland General Assembly. Intended to guide decisions by state agencies, the policy applies to all decisions made by those agencies to the extent existing legislation grants discretion

regarding how programs are applied. For a copy of the executive order or to learn more about MDE's Smart Growth activities, please contact the Maryland Office of Planning at (410) 767-4510, or Marie Halka, MDE's Smart Growth Team co-chair at (410) 631-3560

### BROWNFIELDS

MDE has received a total of 19 applications covering 335 acres of Maryland property. These properties are concentrated in Baltimore City and western Maryland, with a few scattered throughout the Baltimore-Washington corridor. Clean up plans have been approved for three sites and two sites received no further requirements determinations. For more information on the Voluntary Cleanup and Brownfields Program contact Shari Wilson at (410) 631-3437.

### SMART GROWTH TRAINING

To integrate Smart Growth ideals into MDE's programs and activities, MDE's Smart Growth Team provided awareness training to more than 250 managers and employees this past fall. Managers will ensure that all MDE staff have knowledge of the initiative and how it relates to their work.

Five MDE staff will participate in the first of a series of graduate level academic courses focusing on Smart Growth coordinated by the School of Public Affairs at UMCP. This innovative education program will give state and local government staff the needed tools and holistic perspectives to better understand Smart Growth. For more information, please call Ms. Tracy Stanton, Assistant Director of Environmental Programs at UMCP's School of Public Affairs, at (301) 404-6358.

## Progress in the Middle Potomac: Policy Talk and Outreach Actions to Reduce Nutrient Pollution

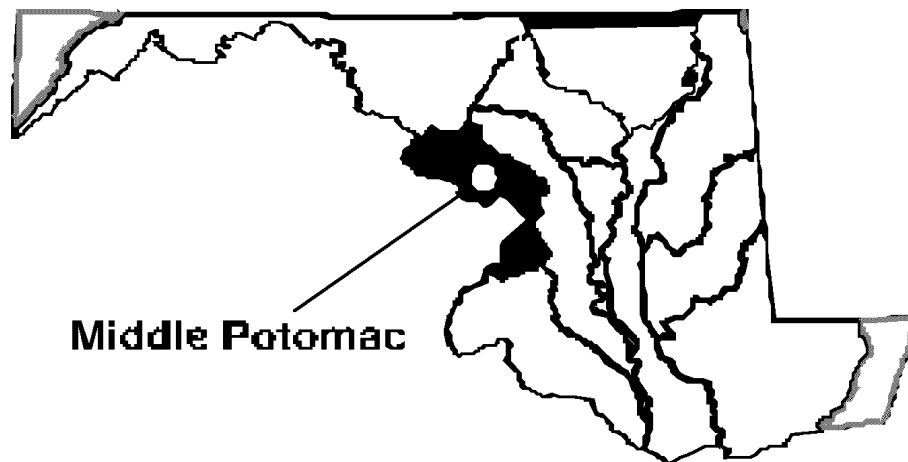
by Wayne Jenkins

The Middle Potomac Tributary Strategy Implementation Team is charged with promoting the implementation of Maryland's nutrient reduction goals for the Middle Potomac River watershed which is made up of Montgomery County, the western half of Prince George's County and a small portion of Charles County. The strategy recommends a variety of point and nonpoint source controls to achieve reductions in nutrients in our Chesapeake Bay. Strategies for controlling nutrients, namely nitrogen and phosphorus, have been established for each of the ten major basins in the state that drain to the Chesapeake Bay. Given the level of development in the Middle Potomac watershed, this team has primarily focused on point sources of pollution such as wastewater treatment plants, and other urban issues, such as protecting streams in developed and developing areas.

Through its three workgroups, the Middle Potomac Team has addressed a number of important issues in the past year. The team's Wastewater Workgroup has initiated policy discussions with Maryland Depart-

ment of the Environment (MDE) on important point source issues such as the development of a comprehensive nitrogen point source policy to reduce nutrient loadings while providing wastewater treatment plants with the flexibility needed to implement cost-effective, biological nutrient removal (BNR). Another issue is the nitrogen trading policy being developed by MDE to allow for growth under a nitrogen loading cap. The workgroup identified areas where more research or data is needed before a trading policy can be fully developed. In addition to following up on these issues, the Wastewater Workgroup also plans to take an active role in discussing the implications of the state's Total Maximum Daily Load program.

The Urban Watershed Management Workgroup has concentrated its efforts on building support for its Urban Watershed Planning Strategy. A paper describing the strategy was published in the Team's 1996 annual report and highlighted in the Spring/Summer 1997 (Volume 1, Number 4) issue of the *Tributary Monitor*. The Urban Workgroup is taking a 3-step approach to implementing the Urban Watershed Planning Strategy by



building support, documenting the work done by local jurisdictions and assessing the progress of the programs using this approach.

The Rural and Agricultural Workgroup spent much of its time in the past year pursuing grants to support its outreach goals. One such grant was used by the Workgroup to hold a seminar to educate horse owners on the reduction of erosion and nutrient runoff from properly managed pastures. Approximately 45 people attended the seminar which was held in September.

Another grant supported a demonstration project that established volunteer water quality monitoring teams in five rural watersheds. The workgroup is now focusing its efforts on evaluating

the economic viability of agriculture in the watershed, especially how it relates to the use of riparian buffers and will also be following the progress of the State's Rural Legacy program and Conservation Reserve Enhancement Program (CREP).

The Middle Potomac Team meets at 4:00 on the first Wednesday of every month in the headquarters of the Washington Suburban Sanitary Commission. All meetings are open to the public, and visitors are welcome. If you would like to find out more about the Middle Potomac Team, visit the Tributary Strategy website at <[www.dnr.state.md.us/Bay/tribstrat.html](http://www.dnr.state.md.us/Bay/tribstrat.html)> or call Wayne Jenkins at (410) 631-3578.

### Enforcement and Compliance Notes

(continued from page 13)

On January 6, 1998, MDE issued an amended consent order to the February 25, 1995 Consent Order for the City of Fruitland requiring improvements to its wastewater treatment plant. The amended action allows Fruitland time to complete improvements because Fruitland has agreed to perform a 14 month pilot test study of an innovative biological nutrient reduction (BNR) process which, upon completion, may be incorporated as part of overall plant improvements.

**Status:** Under the terms of the amended consent order, Fruitland must complete the BNR pilot study and complete all necessary interim improvements to comply with NPDES permit limits by December 31. The plant is required to meet interim performance standards for biochemical oxygen demand (BOD) until construction of all treatment system improvements, including BNR, are completed (July 1, 2001). (Reference # ACO-98-0043).

#### **Town Of Mt. Airy – Carroll and Frederick Counties**

On February 10, 1998, MDE signed a consent order with the Mayor and Town

Council of Mt. Airy, which establishes interim effluent limitations for discharges from the Mt. Airy Wastewater Treatment Plant during construction of major BNR improvements to the plant.

**Status:** Under the terms of the consent order, the Town has agreed to meet interim effluent limits for BOD, total suspended solids, fecal coliform and total Kjeldahl nitrogen until all treatment plant improvements are completed by June 15, 1999. (Reference # CO-98-0047).

#### **Concrete General, Inc. – Anne Arundel County**

On December 17, 1997, MDE issued an administrative order to Concrete General, Inc., a contractor working for the State Highway Administration, for hauling dredged material from a MD Route 10-bridge maintenance job to an unauthorized placement site. The inspection revealed that this activity was a tidal wetland violation and a violation of the sediment and erosion control plan.

**Status:** The contractor has brought the site into compliance. Administrative penalties for violating the sediment and erosion control plan are being considered. (Reference #SC-O-98-0065)

### MDE, EPA Complete Superfund Site Final Removal Action

by Bill Schmidt

An eight year effort of the Maryland Department of the Environment (MDE) and the U.S. Environmental Protection Agency (EPA) to clean up contamination from a former wood treating plant near Federalsburg is finally nearing completion. The final phase of the Superfund action was launched this past September at the 25-acre Eastern Maryland Wood Treating Company site in northern Dorchester County.

Problems began at this site about 10 years ago when an MDE investigation discovered evidence of a previous creosote spill and drums of creosote waste illegally buried at the site. The company and its vice president were charged criminally and pleaded guilty in Dorchester County Circuit Court to charges of illegal storage and disposal of hazardous waste. The company was required to pay a criminal penalty and the vice president served a jail

term. MDE also required a thorough environmental assessment of the site to determine the extent of soil and groundwater contamination from past spillage and the mishandling of wood treatment chemicals. The company began to comply with the initial phases of work but later ceased operations and filed for bankruptcy.

Since the site was left vacant with large quantities of hazardous waste remaining, posing a threat to public health, MDE officials asked EPA for assistance under Superfund provisions. With MDE oversight, the EPA began site cleanup work through an Emergency Removal Action. In 1992 alone, EPA's contractor disposed of 45,000 gallons of contaminated liquid and 268 additional drums of waste. They also excavated 4,500 cubic yards of creosote-contaminated soil. In August 1996, following completion of treatability studies, the excavated creosote contaminated soils were

(continued on back page)



# Mining in Harmony with Nature

by Molly Gary and Ed Larrimore,

Before the first backhoe dug along Abells Wharf, wheat, corn and soybean crops swayed in the breeze and marked straight lines through the rich topsoil fields. Before the farms, an Indian tribe made their home along the water leaving behind tools and artifacts as clues to their daily lives. Deer and fox traversed the area and geese, ducks, osprey and eagles graced the sky. It seems contrary to say that mining would not change such a serene picture but at Maryland Rock Industries Inc. in St. Mary's County a strong commitment to careful mining and timely, high quality reclamation has allowed this picture to be sustained.



truly excels. The company has created several wildlife ponds (pictured left) as part of the restoration of mined out areas. To protect the shoreline of the large ponds from erosion they have used an innovative technique of securing straw bales at the waters edge to break the waves caused by windy conditions. These ponds provide clear, clean water in which bass and blue gill thrive. Ducks and geese nest on the shoreline or on the islands developed especially for their protection. Eagles nest nearby and have been seen teaching their young to fly, fish and hunt. Ospreys frequent the ponds as well, reaping the bounty of the clean, well stocked water. Deer play in the

shadows at the edge of the pond as they come to drink and beaver have busily built a lodge from nearby trees.

"The ponds that we create during mining and as a result of reclamation have a number of uses for the wildlife in the area and for human enjoyment in the serene surroundings" said Parran Bean, area manager for Maryland Rock. Remaining acreage has been put back into productive agricultural use with crop yields equaling premining quantities and into open space areas vegetated with grasses. "Reclamation is a total commitment that begins in the planning stages of a project and becomes evident in the final stages of grading and stabilization." according to Bean. The efforts at Maryland Rock demonstrate that mining can be made compatible with surrounding land uses and in some instances even enhance them.

Today the scene at Maryland Rock is that of a successful mining operation conducting business in a manner that both protects and enhances the environment. Maryland Rock has received permits for 588 acres adjacent to the Potomac River and Breton Bay. The company has received two national awards for their reclamation efforts. A 20-acre wash plant, and associated wash ponds, are used to sort the mined material into various size products. Wash fines, a waste by-product that results from the processing operation, are used in reclamation of mined out areas. The wash fines are transported to mined out areas by unique methods designed to keep the fines from causing sediment problems. Either a mud pump is used to transfer the solids or a 50-ton

truck with a special insert tank transports fines to areas ready to receive backfill.

Truck traffic at any mining site is a nuisance to the surrounding area because of noise and dust. Maryland Rock answers this problem by moving approximately 80 percent of the processed mine material by barge rather than by truck. The shoreline at the barge area is armored with rip rap to protect it from erosion. The barges are loaded by means of a conveyor system.

Recycling is not limited to waste soils. Used conveyor belts are recycled and reused by local horse farmers as horse trailer and stall cushioning and as portable sidewalks. The farmers gain a useful and durable product as Maryland Rock contributes to the community. During dry seasons local farmers also irrigate their crops with water from the ponds.

Reclamation is the area in which Maryland Rock

## Superfund Cleanup in Dorchester County (continued from page 15)

placed in a biological treatment composting cell constructed on-site.

The final removal action involved the cleaning of a creosote contaminated work pit and final sealing of the structure with concrete. This pit once held a wood treatment cylinder and several large work tanks filled with creosote - a black, tar-like, petroleum substance used to treat wood. The tanks and

cylinder were removed from the site by a company planning to reuse them. EPA now reports that the levels of carcinogenic creosote compounds in the biocell have been naturally biodegraded to health cleanup levels set by the Center for Disease Control, Agency for Toxic Substances and Disease Registry. In addition, confirmatory samples of residential drinking water wells collected by EPA around the plant site detected no contaminants.

A Florida investment company recently purchased the property at a Dorchester County tax auction. Local citizens are anticipating that this purchase will lead to redevelopment of the site and bring with it new jobs. Thanks to these cleanup efforts Dorchester County will soon have a viable business where a contaminated site once existed.



*Above, a before shot of a creosote contaminated work pit at Eastern Maryland Wood Treating Company that once held a wood treatment cylinder and several large work tanks filled with tar-like creosote. Right, the same pit after final sealing of the structure with concrete.*



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