Protecting the Bay from Toxics

Our pledge to protect the Bay from toxics is one of the key commitments of the 1987 Chesapeake Bay Agreement. Maryland is working to reduce the Bay's toxics loads from such point sources as industries and wastewater treatment plants, and from such non-point sources as agricultural and urban runoff.

Toxics are substances that can poison aquatic life and adversely affect the quality of the drinking water and fish we consume. They include such metals as arsenic, mercury, and lead, as well as organic compounds like benzene, chlordane, and DDT. Though difficult to see or smell, toxics can severely harm the Bay's aquatic life.

Many different sources add to the Bay's toxics load. On the point-source side, industries discharging wastewater tainted with chemicals and metals are one major source. Wastewater treatment plants that receive toxics from their industrial and residential users are another. On the nonpoint-source side, urban and agricultural runoff contribute significantly to toxic pollution in the Bay.

The Maryland Department of the Environment (MDE) regulates toxics as part of its wastewater discharge permit program, which controls the discharge of all pollutants from point sources into Maryland waterways. The permits impose limits on a variety of pollutants, including nutrients and toxics. They also require regular water-quality monitoring by the discharger. Many permits have special requirements for environmental "housekeeping" and best management practices. Some require biomonitoring, or assessing the effects of the discharges on living organisms.

Wastewater discharge permits are enforced through regular visits by state inspectors, supplemented by detailed reporting requirements for all permittees. The teeth of the program include penalties, fines, and, when these avenues have been exhausted, imprisonment or shutdown.

Maryland's point-source pollution control program has been underway since 1975. Since that time, toxic pollution in Baltimore Harbor has been notably reduced. Industrial discharges of such toxics as chromium, arsenic, copper, cyanide, zinc, and phenols are down by over 90 percent.

Nonpoint-source strategies also figure prominently in toxics control. Maryland's chief nonpoint-source efforts that help control toxics include stormwater management initiatives, and incentive programs promoting agricultural best management practices.

Citizens have a vital role to play in protecting the Bay from toxics. Millions of Maryland homes are directly linked to the Bay through wastewater treatment plants: whatever goes down our sinks and toilets reaches the Bay and its tributaries after being processed at the local wastewater treatment plant. Awareness of this link with the Chesapeake is our first step toward protecting the Bay from toxics. Translating our awareness and concern into action is the next challenge. We do this by preventing toxics from entering our home drainage systems, and, of course, by avoiding any dumping of a toxic substance such as motor oil or antifreeze on a paved surface that leads to a storm drain.

MDE is moving ahead to tighten restrictions on toxic discharges into the Bay. The department recently adopted a new set of water toxics regulations to strengthen controls over point-sources of water toxics. The new regulations will:

Expand the number of controlled toxic substances in Maryland from 7 to 28.

Establish limits on toxic substances believed to interfere with stream uses such as swimming, fishing, and shellfish-growing.

Create a special stream classification requiring increased controls of toxic discharges into streams that may serve as future water supplies.

Our toxics control efforts are crucial to the health of the Chesapeake and the thousands of plant and animal species in and around the Bay. For more information on Maryland's water toxics regulations, call MDE at 410-537-3003.

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