

Pesticides and drinking water regulation

Source: Water Supply Program, Water Management Administration, Maryland Department of the Environment (MDE)

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- MDE's Water Supply Program (WSP) receives, reviews and maintains data from testing drinking water supplies for pesticide occurrence in accordance with the Safe Drinking Water Act for community and non transient non community water systems throughout the State. Community water systems are those water systems which serve at least 25 year round residents, or supply water to year round residents through at least 15 service connections. Non transient non community water systems are those facilities (such as schools or places of employment) with their own water source (usually a well) that regularly serve at least 25 of the same persons for at least 6 months of the year, but is not a community water system.
- The following pesticides are routinely monitored at these water systems. Sources that have greater potential for pesticide presence are monitored more frequently than less vulnerable sources.

Alachlor*	Aldrin**
Aldicarb*	Butachlor**
Aldicarb sulfoxide*	Carbaryl**
Aldicarb sulfone*	Dicamba**
Atrazine*	Dieldrin**
Carbofuran*	3-Hydroxycarbofuran**
Chlordane*	Methomyl**
2,4-D*	Metolachlor**
Dalapon*	Metribuzin**
Dibromochloropropane (DBCP)*	Propachlor**
Dinoseb*	** unregulated contaminants
Endrin*	
Ethylene Dibromide (EDB)*	
Heptachlor*	
Heptachlor epoxide*	
Hexachlorobenzene*	
Hexachlorocyclopentadiene*	
Lindane*	
Methoxychlor*	
Oxamyl (Vydate)*	
Pentachlorophenol*	
Picloram*	
Simazine*	
Toxaphene*	
2,4,5-TP (Silvex)*	

*maximum contaminant level established

- To assist the smaller community and non transient non community water systems, MDE WSP provides funding to MDE's Science Services Administration and the Maryland Department of Health and Mental Hygiene to collect and analyze pesticide compliance samples for water systems with a population generally less than 3,300. The larger water systems are responsible for their own compliance samples. Most samples are collected as the water leaves the water treatment plants and enters the water distribution system. MDE WSP uses the data to determine compliance with drinking water standards.
- Pesticides are infrequently detected and very rarely found to be at levels above health concerns at public water systems.
- This data is in electronic format.
- The MDE grants monitoring waivers for routine testing of glyphosate, diquat and endothall. MDE received Environmental Protection Agency approval of its monitoring waiver program. The waivers for routine testing of these contaminants were granted due to:
 - lack of detection in pilot sampling (glyphosate and diquat)
 - short half life of pesticide and soil binding properties (glyphosate)
 - very low usage, restricted application, and strong binder to organic matter (diquat)
 - very low usage and very small area of use, short half life and requirement for MDE registration prior to use (endothall).
- The MDE used information on pesticide usage and registration from the Maryland Department of Agriculture (MDA) in developing its monitoring waiver program.
- MDE WSP maintains raw water pesticide data from sources completed in unconfined community and non transient non community wells that were brought on line since the early to mid 1990's. Data is evaluated to determine if treatment is needed prior to issuing certificates of potability for new public water system wells. Raw well data may not always be in electronic format.
- Other ongoing monitoring of pesticide occurrence in water resources are carried out by other agencies and researchers. The United States Geological Survey and Maryland Geological Survey conduct studies and maintain internet available data through the USGS National Water Information System water quality data base.
- Assessments of historical pesticide occurrence data in Maryland's waters have been carried out by MDE. MDE and other agencies including MDA, local health departments and University of Maryland have published studies on pesticide occurrence in Maryland's waters.
- The MDE WSP is not aware of routine pesticide monitoring at private individual wells or transient non community water systems.