



Maryland Department of the
Environment

FACTS ABOUT: Clean Water – Safe Shellfish

Maryland's Chesapeake Bay waters have long been known for their plentiful shellfish. To protect this valuable resource and safeguard public health, the state conducts several important regulatory programs to ensure harvests of clean, wholesome shellfish.

Shellfish are bivalve mollusks such as the clam, oyster, and mussel. The term shellfish does not include crabs, lobsters, or shrimp. Shellfish are filter-feeding organisms; they strain the surrounding water through their gills which trap and transfer food particles to their digestive tract. If the water is contaminated with disease-causing bacteria, the bacteria are also trapped and consumed as food. Because shellfish pump large quantities of water through the gills each day, bacteria concentrations in shellfish from polluted waters can reach dangerous levels. If shellfish containing harmful bacteria are eaten raw or partially cooked, illness may result. Therefore, it is mandatory that shellfish be harvested from approved harvesting waters.

In Maryland, responsibility for the sanitary control of the shellfish industry is split among three state agencies: the Department of the Environment (MDE), the Department of Health and Mental Hygiene (DHMH), and the Department of Natural Resources (DNR). MDE is responsible for identifying and eliminating pollution sources affecting Maryland's shellfish harvesting waters, as well as determining whether the shellfish harvested are safe for human consumption. DHMH is responsible for any food control measures necessary to ensure that shellfish are harvested, processed, packaged, and transported under sanitary conditions. DHMH also regulates shellfish dealers to assure compliance with the required sanitary standards. DNR is responsible for posting areas restricted to shellfish harvesting and for patrolling these areas to prevent illegal harvesting.

MDE's Shellfish Certification Division is responsible for regulating shellfish harvesting waters. This effort has three parts: 1) identifying and eliminating pollution sources, 2) collecting water samples for bacteriological examination; and 3) examining shellstock samples for bacteriological contamination and chemical toxicants.

MDE conducts sanitary surveys of each shellfish harvesting area prior to its approval as a source of shellfish for the consumer. The purpose of the sanitary survey is to identify and evaluate factors influencing the sanitary quality of a shellfish harvesting area. These factors may include sources of potential and actual pollution (failing septic systems,



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animal wastes from agricultural properties, wastewater treatment plants, industrial waste, surface-runoff from polluted areas), bacterial quality of the water and shellfish, hydrographic characteristics of shellfish harvesting areas, and general land-use patterns.

Data gathered during the sanitary survey are used to evaluate the shellfish harvesting area and to determine whether a health risk exists. If no health risk is apparent, the area remains open to shellfish harvesting. When the data indicates a health risk, the area is restricted to the harvesting of shellfish.

Through the efforts of this extensive program, Maryland has enjoyed an excellent reputation as a source of safe and wholesome shellfish products to seafood lovers throughout the nation and the world.

For more information about Maryland's Shellfish Harvesting Areas call: SSA (Science Services Administration), Environmental Risk Assessment Program-Shellfish Certification Division, (410) 537-3906

