

# Maryland's Surface Water Quality Standards

Water Quality Standards are the driving force in Maryland's water quality and water pollution control programs. To protect human health and aquatic life in its waters, Maryland sets standards for the level of protection afforded to each body of water in the state. Water quality standards for Maryland surface waters are in state regulations to protect and enhance surface water quality, to protect public health or welfare, to protect aquatic resources, and to serve the purposes of the federal Clean Water Act and all its amendments. In practice, Maryland's water quality standards form the basis for state programs that control the amount of pollutants entering waters from such sources as industrial plants, sewage treatment plants, storm sewers and runoff from urban and rural areas.

A water quality standard is the combination of a designated use for a particular body of water and the water quality criteria designated to protect that use. Designated uses include activities such as swimming, drinking water supply and oyster propagation and harvest. Using the most recent scientific information and the U.S. Environmental Protection Agency's recommended national criteria, Maryland establishes water quality criteria to protect the designated use.

All Maryland surface waters are classified by one of seven use designations. Maryland's surface water use designations and the corresponding uses, for which they are protected, are given below.

## **USE I(basic water use applicable to all surfaces)**

- Swimming, Boating, Fishing and all other recreational activities involving water contact
- Protection of aquatic life and wildlife
- Agricultural supply and industrial water supply

## **USE I-P**

- All above uses plus public water supply

## **USE II**

- All basic water uses plus shellfish harvesting (propagation, storage, and harvesting of oysters, clams, and mussels)

## **USE III**

- All basic water uses plus shellfish harvesting (propagation and growth of natural trout waters)

## **USE III-P**

- All Use III uses plus public water supply

## **USE IV**

- All basic water uses plus recreational trout waters (managed as a special fishery by periodic stocking and seasonal catching)

## **USE IV-P**

- All Use IV uses plus public water supply

Water Quality criteria should strive to reflect the latest scientific knowledge about the effects of pollutants on aquatic life and human health. Development of water quality criteria requires the examination of the effects of specific pollutants on humans, on aquatic life (such as plankton, shellfish and fish) and on water recreation. This examination includes development and review of specific information on the concentration and dispersal of pollutants through biological, chemical and physical processes. Maryland regulation contain both general and specific water quality criteria.

- General water quality criteria are in narrative form (eg., "The waters of the state may not be polluted by ... substances ... that are unsightly, ... odorous, ... create a nuisance, or interfere directly or indirectly with water uses") and apply to all state waters.
- Specific water quality criteria are usually stated in numeric form and establish limits on the water column for a specific pollutant. Specific water quality criteria may differ among waters with different designated uses. For example, the water quality standard for dissolved oxygen in USE I waters is 5.0 milligrams per liter oxygen (a specific water quality criterion). The water quality standard for dissolved oxygen in USE III waters is 6.0 milligrams per liter oxygen.

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