

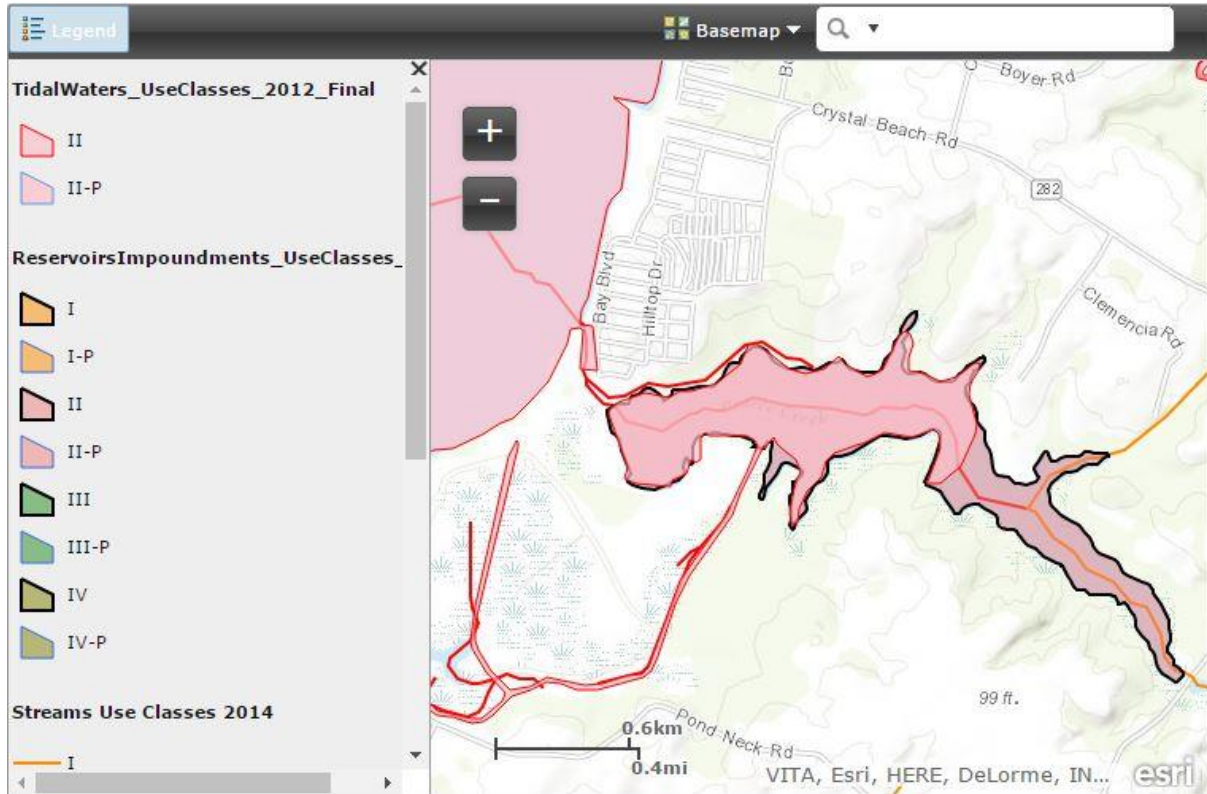
SURFACE WATER QUALITY STANDARDS

Surface water quality standards are set by State and Federal law and are in place to protect, maintain, and improve the quality of surface waters. The Clean Water Act requires three components to water quality standards that set goals for and protect each States' waters. The three components are: (1) designated uses that set goals for each water body, (2) criteria that set the minimum conditions to support the use, and (3) an antidegradation policy that maintains high quality waters so they are not allowed to degrade to meet only the minimum standards.

Designated Uses are a component of surface water quality standards that provide descriptions of intended uses of a water body by humans and/or aquatic life, such as recreation, public water supply and/or aquatic life habitat. Maryland's various designated uses are grouped into eight "**Use Classes**" (i.e. Use Class I, II, III) and each water body is assigned a Use Class that is associated with attainable water quality goals. **Water Quality Criteria** is another component of surface water quality standards in which numeric criteria is set to meet the minimum water quality needed to support and protect any water body's designated use. **Antidegradation** is the final component of the surface water quality standards which involves Maryland's policy to assure that the water bodies with existing high water quality will continue to support the designated uses without reduction in quality. The antidegradation policy is guided by the Environmental Protection Agency's (EPA's) three tiered regulations. **Tier 1** specifies the minimum standard that must be met, which supports balanced indigenous (native/original) populations and supports contact recreation; the term "fishable-swimmable" is often used to describe this tier. **Tier 2** protects water that is better than the minimum standard specified for that designated use. Maryland is currently developing a third tier of protection (**Tier 3**) known as an Outstanding National Resource Water or ONRW.

Pearce Creek Lake is designated as a **Use Class II** for Reservoirs/Impoundments with its western portion also designated as Use Class II for Tidal Waters. The portion of the Elk River that the Pearce Creek Lake drains into is designated as a **Use Class of II** for Tidal Waters.

(<http://mde.maryland.gov/programs/Water/TMDL/Water%20Quality%20Standards/Pages/DesignatedUsesMaps.aspx>)



See the table below for more information on how different Designated Uses are categorized into Use Classes.

Designated Uses	Use Classes			
	I	II	III	IV
Growth and Propagation of fish (not trout), other aquatic life and wildlife	✓	✓	✓	✓
Water Contact Sports	✓	✓	✓	✓
Leisure activities involving direct contact with surface water	✓	✓	✓	✓
Fishing	✓	✓	✓	✓
Agricultural Water Supply	✓	✓	✓	✓
Industrial Water Supply	✓	✓	✓	✓
Propagation and Harvesting of Shellfish		✓		
Seasonal Migratory Fish Spawning and Nursery Use		✓		
Seasonal Shallow-Water Submerged Aquatic Vegetation Use		✓		
Open-Water Fish and Shellfish Use		✓		
Seasonal Deep-Water Fish and Shellfish Use		✓		
Seasonal Deep-Channel Refuge Use		✓		
Growth and Propagation of Trout			✓	
Capable of Supporting Adult Trout for a Put and Take Fishery				✓
Public Water Supply				

The tables below provide information regarding water quality criteria specific to the Designated Uses for Use Class II and the aquatic life criteria limits for certain substances.

Water Quality Criteria Specific to Designated Uses Use Class II*	Elk River Tidal Waters	Pearce Creek Lake Reservoirs/Impoundments
Dissolved Oxygen (DO)		≥ 5mg/L
Dissolved Oxygen (DO):		
• Seasonal and Migratory Fish Spawning and Nursery Subcategory (February 1 to May 31)	≥6mg/L for a 7 day average ≥5mg/L as instantaneous minimum	
• The seasonal shallow-water submerged aquatic vegetation subcategory (Year round)	≥6mg/L for a 7 day average ≥5mg/L as instantaneous minimum	
• Open-Water Fish and Shellfish Subcategory (June 1 to January 31)	≥5mg/L for a 30 day averaging period ≥4mg/L for a 7 day average ≥3.2mg/L as instantaneous minimum	
Turbidity	May not exceed 150 NTU at any time or 50 NTU as a monthly average	
pH	≤ 6.5 and ≥ 8.6	

* Waterbodies designated as Use II do not necessarily support the shellfish harvesting use as some waters may be tidal but too fresh to support viable populations of shellfish. Units of measurement: mg/L – milligrams per Liter; NTU – Nephelometric Turbidity Unit

Substance	Aquatic Life Criteria micrograms/Liter (µg/L)
Arsenic	340
Cadmium	2
Chlorine	19
Chromium III	570
Chromium VI	16
Copper	13
Cyanide	22
Lead	65
Mercury	1.4
Nickel	470
Selenium	20
Silver	3.2
Zinc	120

Please visit the Code of Maryland Regulations (COMAR) website for the full list of Numerical Criteria for Toxic Substances in Surface Waters: <http://www.dsd.state.md.us/comar/comarhtml/26/26.08.02.03-2.htm>

Please visit the COMAR website for more information regarding Water Quality Criteria Specific to Designated Uses: <http://www.dsd.state.md.us/comar/comarhtml/26/26.08.02.03-3.htm>

For more detailed information regarding Maryland's Surface Water Quality Standards, please visit:

<http://mde.maryland.gov/programs/Water/TMDL/Water%20Quality%20Standards/Pages/programs/waterprograms/tmdl/wqstandards/index.aspx>