

Delaware Department of Natural Resources and Environmental Control (DNREC) Staff will propose suggested changes to the current Human Health and Aquatic Life Water Quality Criteria for the 2021 Triennial Review of Water Quality Standards for stakeholder review, comment and input before formally proposing promulgation of updated Standards. This guide is intended to briefly discuss the proposed changes. EPA extensively revised their National Recommended Water Quality Criteria for human health recommendations in 2015 based on the latest science and information. The Department's suggested changes would incorporate most of EPA's recommendations. Because of the extensive changes to EPA recommendations for human health criteria in the current regulations staff will recommend the current table be stricken in its entirety. A simpler new table of 116 pollutants based on EPA latest guidance will be offered in its place. The new table closely parallels EPA guidance on line at <https://www.epa.gov/wqc/national-recommended-water-quality-criteria-human-health-criteria-table>. There are five pollutants that EPA and DNREC staff believe deserve more study before Delaware adopts them based on a preliminary analysis of factors used in the criteria calculations and data the Department has collected. They are Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, and Dibenz(a,h)anthracene. For those pollutants the current criteria would remain in place. Note that Delaware does not currently have applicable human health criteria for Benzo(j)+(k)fluoranthene and we would not be proposing adoption for new criteria at this time. In accordance with EPA's updated guidance criteria will be lower for 64 pollutants, higher for 13 pollutants and unchanged for 20 pollutants. Ten new pollutants, Bis(Chloromethyl) Ether, Dinitrophenols, Nitrosodibutylamine, Nitrosodiethylamine, Nitrosopyrrolidine, Pentachlorobenzene, 1,2,4,5-Tetrachlorobenzene, 2,4,5-Trichlorophenol, 2-Methyl-4,6-Dinitrophenol, 3-Methyl-4-Chlorophenol, would be added to the list. To make the criteria more closely aligned with EPA guidance the proposal would drop some criteria and substitute new related criteria in their place according to the table below.

Current Delaware Criteria	Substitutions
Endosulfan	Alpha-Endosulfan Beta-Endosulfan Endosulfan Sulfate
DDT and Metabolites (DDD and DDE)	p,p'-Dichlorodiphenyldichloroethane (DDD) p,p'-Dichlorodiphenyldichloroethylene (DDE) p,p'-Dichlorodiphenyltrichloroethane (DDT)
Chromium	Chromium (III) Chromium (VI)
Nickel (soluble salts)	Nickel

Delaware's current criteria have eight criteria with pollutant names that are synonyms for the same pollutant in EPA's guidance. Staff would propose changing the names to be consistent with EPA guidance. This table shows the current criteria and the pollutant as shown in EPA Guidance.

Current Delaware Criteria	EPA Guidance
alpha-BHC	alpha-Hexachlorocyclohexane (HCH)
beta-BHC	beta-Hexachlorocyclohexane (HCH)
Bis(2-Chloroisopropyl)Ether	Bis(2-Chloro-1-methylethyl) Ether
gamma-BHC (Lindane)	gamma-Hexachlorocyclohexane (HCH) [Lindane]
Hexachlorocyclohexane	Hexachlorocyclohexane (HCH) -Technical
Dichloromethane	Methylene Chloride
2,4 Dichlorophenoxyacetic acid (2,4-D)	Chlorophenoxy Herbicide (2,4-D)
2,4,5 Trichlorophenoxypropionic acid (2,4,5-TP-Silvex)	Chlorophenoxy Herbicide (2,4,5-TP) [Silvex]

Because there is no EPA guidance for human health criteria for Fluoride, Lead, Silver or Total Trihalomethanes, staff would propose removing them from Delaware's human health criteria. There are applicable Aquatic Life Criteria for Lead and Silver that are more stringent than the current human health criteria and they would remain in place in the baseline proposal.

For Aquatic Life Criteria EPA has updated its recommendations for Aluminum, Ammonia, Cadmium, Nonlyphenol and Selenium. Staff would propose considering adoption of these recommendations with the exception of Aluminum and Selenium as EPA has not completed their implementation guidance for these two pollutants to date.

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