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# National Recommended Water Quality Criteria - Human Health Criteria Table

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Human health ambient water quality criteria represent specific levels of chemicals or conditions in a water body that are not expected to cause adverse effects to human health. EPA provides recommendations for “water + organism” and “organism only” human health criteria for states and authorized tribes to consider when adopting criteria into their water quality standards. These human health criteria are developed by EPA under Section 304(a) of the Clean Water Act.

Select pollutant name for current criteria document.

Pollutant	CAS Number	Human Health for the consumption of Water + Organism (µg/L)	Human Health for the consumption of Organism Only (µg/L)	Publication Year	Notes
<a href="#">Acenaphthene</a> (P)	83329	70	90	2015	The criterion for organoleptic (taste and odor) effects may be more stringent. Refer to <a href="#">National Recommended Water Quality Criteria - Organoleptic Effects</a> .
<a href="#">Acrolein</a> (P)	107028	3	400	2015	
<a href="#">Acrylonitrile</a> (P)	107131	0.061	7.0	2015	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk. Alternate

					risk levels may be obtained by moving the decimal point (e.g., for a risk level of $10^{-5}$ , move the decimal point in the recommended criterion one place to the right).
<a href="#">Aldrin</a> (P)	309002	0.00000077	0.00000077	2015	This criterion is based on carcinogenicity of $10^{-6}$ risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of $10^{-5}$ , move the decimal point in the recommended criterion one place to the right).
<a href="#">alpha-Hexachlorocyclohexane (HCH)</a> (P)	319846	0.00036	0.00039	2015	This criterion is based on carcinogenicity of $10^{-6}$ risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of $10^{-5}$ , move the decimal point in the recommended criterion one place to the right).
<a href="#">alpha-Endosulfan</a> (P)	959988	20	30	2015	
<a href="#">Anthracene</a> (P)	120127	300	400	2015	
<a href="#">Antimony</a> (P)	7440360	5.6	640	1980	This criterion was revised to reflect EPA's q1* or RfD as contained in the <a href="#">Integrated Risk Information System (IRIS)</a> as of May 17, 2002.

					<p>The fish tissue bioconcentration factor (BCF) is from the 1980 Ambient Water Quality Criteria document.</p> <p>EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a>.</p>
<a href="#">Arsenic</a> (P)	7440382	0.018	0.14	1992	<p>This criterion is based on carcinogenicity of 10<sup>-6</sup> risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10<sup>-5</sup>, move the decimal point in the recommended criterion one place to the right).</p> <p>EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a>.</p> <p>This recommended water quality</p>

					criterion for arsenic refers to the inorganic form only.
<a href="#">Asbestos</a> (P)	1332214	7 million fibers/L	—	1991	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a> .
<a href="#">Barium</a>	7440393	1,000	—	1986	<p>EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a>.</p> <p>This human health criterion is the same as originally published in the <a href="#">Quality Criteria for Water, 1976 ("Red Book")</a> which predates the 1980 methodology and did not utilize the fish ingestion BCF approach. This same criterion value is published in the <a href="#">Quality Criteria for Water, 1986 ("Gold Book")</a>.</p>
<a href="#">Benzene</a> (P)	71432	0.58-2.1	16-58	2015	EPA has issued a Maximum Contaminant Level (MCL) for this chemical

					<p>which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a>.</p> <p>This criterion is based on carcinogenicity of <math>10^{-6}</math> risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of <math>10^{-5}</math>, move the decimal point in the recommended criterion one place to the right).</p>
<a href="#">Benzidine</a> (P)	92875	0.00014	0.011	2015	<p>This criterion is based on carcinogenicity of <math>10^{-6}</math> risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of <math>10^{-5}</math>, move the decimal point in the recommended criterion one place to the right).</p>
<a href="#">Benzo(a)anthracene</a> (P)	56553	0.0012	0.0013	2015	<p>This criterion is based on carcinogenicity of <math>10^{-6}</math> risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of <math>10^{-5}</math>, move the decimal point in the recommended</p>

					criterion one place to the right).
<a href="#">Benzo(a)pyrene</a> (P)	50328	0.00012	0.00013	2015	<p>This criterion is based on carcinogenicity of <math>10^{-6}</math> risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of <math>10^{-5}</math>, move the decimal point in the recommended criterion one place to the right).</p> <p>EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a>.</p>
<a href="#">Benzo(b)fluoranthene</a> (P)	205992	0.0012	0.0013	2015	<p>This criterion is based on carcinogenicity of <math>10^{-6}</math> risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of <math>10^{-5}</math>, move the decimal point in the recommended criterion one place to the right).</p>
<a href="#">Benzo(k)fluoranthene</a> (P)	207089	0.012	0.013	2015	<p>This criterion is based on carcinogenicity of <math>10^{-6}</math> risk. Alternate risk levels may be obtained by moving the</p>

					decimal point (e.g., for a risk level of $10^{-5}$ , move the decimal point in the recommended criterion one place to the right).
<a href="#">Beryllium</a> (P)	7440417	—	—	—	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a> .
<a href="#">beta-Hexachlorocyclohexane (HCH)</a> (P)	319857	0.0080	0.014	2015	This criterion is based on carcinogenicity of $10^{-6}$ risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of $10^{-5}$ , move the decimal point in the recommended criterion one place to the right).
<a href="#">beta-Endosulfan</a> (P)	33213659	20	40	2015	
<a href="#">Bis(2-Chloro-1-methylethyl) Ether</a> (P)	108601	200	4,000	2015	
<a href="#">Bis(2-Chloroethyl) Ether</a> (P)	111444	0.030	2.2	2015	This criterion is based on carcinogenicity of $10^{-6}$ risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of $10^{-5}$ , move the decimal point in the recommended

					criterion one place to the right).
<a href="#">Bis(2-Ethylhexyl) Phthalate</a> (P)	117817	0.32	0.37	2015	<p>EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a>.</p> <p>This criterion is based on carcinogenicity of <math>10^{-6}</math> risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of <math>10^{-5}</math>, move the decimal point in the recommended criterion one place to the right).</p>
<a href="#">Bis(Chloromethyl) Ether</a>	542881	0.00015	0.017	2015	<p>This criterion is based on carcinogenicity of <math>10^{-6}</math> risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of <math>10^{-5}</math>, move the decimal point in the recommended criterion one place to the right).</p>
<a href="#">Bromoform</a> (P)	75252	7.0	120	2015	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent.



					<p>Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a>.</p> <p>This criterion is based on carcinogenicity of <math>10^{-6}</math> risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of <math>10^{-5}</math>, move the decimal point in the recommended criterion one place to the right).</p>
<a href="#">Butylbenzyl Phthalate</a> (P)	85687	0.10	0.10	2015	<p>This criterion is based on carcinogenicity of <math>10^{-6}</math> risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of <math>10^{-5}</math>, move the decimal point in the recommended criterion one place to the right).</p>
<a href="#">Cadmium</a> (P)	7440439	—	—	—	<p>EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a>.</p>
<a href="#">Carbon Tetrachloride</a> (P)	56235	0.4	5	2015	<p>EPA has issued a Maximum Contaminant Level (MCL) for</p>

					<p>this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a>.</p> <p>This criterion is based on carcinogenicity of <math>10^{-6}</math> risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of <math>10^{-5}</math>, move the decimal point in the recommended criterion one place to the right).</p>
<a href="#">Chlordane</a> (P)	57749	0.00031	0.00032	2015	<p>EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a>.</p> <p>This criterion is based on carcinogenicity of <math>10^{-6}</math> risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of <math>10^{-5}</math>, move the decimal point in the recommended criterion one place to the right).</p>

<a href="#">Chlorobenzene</a> (P)	108907	100	800	2015	<p>The criterion for organoleptic (taste and odor) effects may be more stringent. Refer to <a href="#">National Recommended Water Quality Criteria - Organoleptic Effects</a>.</p> <p>EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a>.</p>
<a href="#">Chlorodibromomethane</a> (P)	124481	0.80	21	2015	<p>EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a>.</p> <p>This criterion is based on carcinogenicity of <math>10^{-6}</math> risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of <math>10^{-5}</math>, move the decimal point in the recommended criterion one place to the right).</p>

<a href="#">Chloroform</a> (P)	67663	60	2,000	2015	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a> .
<a href="#">Chlorophenoxy Herbicide (2,4-D)</a>	94757	1,300	12,000	2015	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a> .
<a href="#">Chlorophenoxy Herbicide (2,4,5-TP) [Silvex]</a>	93721	100	400	2015	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a> .
<a href="#">Chromium (III)</a> (P)	1606583 1	Total	—	—	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a> .
<a href="#">Chromium (VI)</a> (P)	1854029 9	Total	—	—	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent.

					Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a> .
<a href="#">Chrysene</a> (P)	218019	0.12	0.13	2015	<p>This criterion is based on carcinogenicity of <math>10^{-6}</math> risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of <math>10^{-5}</math>, move the decimal point in the recommended criterion one place to the right).</p> <p>EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a>.</p>
<a href="#">Copper</a> (P)	7440508	1,300	—	1992	<p>This criterion is based on carcinogenicity of <math>10^{-6}</math> risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of <math>10^{-5}</math>, move the decimal point in the recommended criterion one place to the right).</p> <p>This chemical has a criterion for organoleptic (taste and odor) effects.</p>

					<p>In some cases, the organoleptic criterion may be more stringent.</p> <p>EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a>.</p>
<a href="#">Cyanide</a> (P)	57125	4	400	2015	<p>EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a>.</p>
<a href="#">Cylindrospermopsin</a>	143545-90-8	—	—	2019	<p>The national recommended human health recreational criterion or swimming advisory for cylindrospermopsin is 15 µg/L. When applied as a Clean Water Act section 304(a) water quality criterion, EPA recommends no more than 3 excursions (10-day assessment periods) within a recreational season in more than one year. When used as a swimming</p>

					advisory, EPA recommends the value not be exceeded on any single day.
<a href="#">Dibenzo(a,h)anthracene</a> (P)	53703	0.00012	0.00013	2015	This criterion is based on carcinogenicity of $10^{-6}$ risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of $10^{-5}$ , move the decimal point in the recommended criterion one place to the right).
<a href="#">Dichlorobromomethane</a> (P)	75274	0.95	27	2015	<p>This criterion is based on carcinogenicity of <math>10^{-6}</math> risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of <math>10^{-5}</math>, move the decimal point in the recommended criterion one place to the right).</p> <p>EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a>.</p>
<a href="#">Dieldrin</a> (P)	60571	0.0000012	0.0000012	2015	This criterion is based on carcinogenicity of $10^{-6}$ risk. Alternate

					risk levels may be obtained by moving the decimal point (e.g., for a risk level of $10^{-5}$ , move the decimal point in the recommended criterion one place to the right).
<a href="#">Diethyl Phthalate</a> (P)	84662	600	600	2015	
<a href="#">Dimethyl Phthalate</a> (P)	131113	2,000	2,000	2015	The 2015 Update of Human Health Ambient Water Quality Criteria for Dimethyl Phthalate and 1980 Ambient Water Quality Criteria for Phthalate Esters incorrectly cite a study by Draize et al. (1948) as the critical study used to derive a reference dose for dimethyl phthalate. The correct citation for the two-year feeding study in female rats is Lehman, 1955 (Lehman, A.J. 1955. Insect repellants. Association of Food and Drug Officials of the United States Quarterly Bulletin 19:87-99).
<a href="#">Di-n-Butyl Phthalate</a> (P)	84742	20	30	2015	
<a href="#">Dinitrophenols</a>	25550587	10	1,000	2015	
<a href="#">Endosulfan Sulfate</a> (P)	1031078	20	40	2015	
<a href="#">Endrin</a> (P)	72208	0.03	0.03	2015	EPA has issued a Maximum



					Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a> .
<a href="#">Endrin Aldehyde</a> (P)	7421934	1	1	2015	
<a href="#">Ethylbenzene</a> (P)	100414	68	130	2015	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a> .
<a href="#">Fluoranthene</a> (P)	206440	20	20	2015	
<a href="#">Fluorene</a> (P)	86737	50	70	2015	
<a href="#">gamma-Hexachlorocyclohexane (HCH) [Lindane]</a> (P)	58899	4.2	4.4	2015	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a> .
<a href="#">Heptachlor</a> (P)	76448	0.0000059	0.0000059	2015	This criterion is based on carcinogenicity of $10^{-6}$ risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of $10^{-5}$ , move the decimal point in the recommended criterion one place to the right).

					EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a> .
<a href="#">Heptachlor Epoxide</a> (P)	1024573	0.000032	0.000032	2015	<p>This criterion is based on carcinogenicity of <math>10^{-6}</math> risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of <math>10^{-5}</math>, move the decimal point in the recommended criterion one place to the right).</p> <p>EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a>.</p>
<a href="#">Hexachlorobenzene</a> (P)	118741	0.000079	0.000079	2015	<p>This criterion is based on carcinogenicity of <math>10^{-6}</math> risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of <math>10^{-5}</math>, move the decimal point in the recommended</p>

					<p>criterion one place to the right).</p> <p>EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a>.</p>
<a href="#">Hexachlorobutadiene</a> (P)	87683	0.01	0.01	2015	<p>This criterion is based on carcinogenicity of <math>10^{-6}</math> risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of <math>10^{-5}</math>, move the decimal point in the recommended criterion one place to the right).</p>
<a href="#">Hexachlorocyclohexane (HCH)-Technical</a>	608731	0.0066	0.010	2015	<p>This criterion is based on carcinogenicity of <math>10^{-6}</math> risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of <math>10^{-5}</math>, move the decimal point in the recommended criterion one place to the right).</p>
<a href="#">Hexachlorocyclopentadiene</a> (P)	77474	4	4	2015	<p>The criterion for organoleptic (taste and odor) effects may be more stringent. Refer to <a href="#">National</a></p>

					<a href="#">Recommended Water Quality Criteria - Organoleptic Effects.</a>  EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a> .
<a href="#">Hexachloroethane</a> (P)	67721	0.1	0.1	2015	This criterion is based on carcinogenicity of $10^{-6}$ risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of $10^{-5}$ , move the decimal point in the recommended criterion one place to the right).
<a href="#">Indeno(1,2,3-cd)pyrene</a> (P)	193395	0.0012	0.0013	2015	This criterion is based on carcinogenicity of $10^{-6}$ risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of $10^{-5}$ , move the decimal point in the recommended criterion one place to the right).
<a href="#">Isophorone</a> (P)	78591	34	1,800	2015	This criterion is based on carcinogenicity of $10^{-6}$ risk. Alternate

					risk levels may be obtained by moving the decimal point (e.g., for a risk level of $10^{-5}$ , move the decimal point in the recommended criterion one place to the right).
<a href="#">Manganese</a>	7439965	50	100	1993	<p>The criterion for organoleptic (taste and odor) effects may be more stringent. Refer to <a href="#">National Recommended Water Quality Criteria - Organoleptic Effects</a>.</p> <p>The Human Health for the consumption of Water + Organism criterion for manganese is not based on toxic effects, but rather is intended to minimize objectionable qualities such as laundry stains and objectionable tastes in beverages.</p>
<a href="#">Methylmercury</a> (P)	22967926	—	0.3 mg/kg	2001	This fish tissue residue criterion for methylmercury is based on a total fish consumption rate of 0.0175 kg/day.
<a href="#">Methoxychlor</a>	72435	0.02	0.02	2015	EPA has issued a Maximum Contaminant Level (MCL) for this chemical

					which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a> .
<a href="#">Methyl Bromide</a> (P)	74839	100	10,000	2015	
<a href="#">Methylene Chloride</a> (P)	75092	20	1,000	2015	<p>This criterion is based on carcinogenicity of <math>10^{-6}</math> risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of <math>10^{-5}</math>, move the decimal point in the recommended criterion one place to the right).</p> <p>EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a>.</p>
<a href="#">Microcystins</a>	101043-37-2	—	—	2019	The national recommended human health recreational criterion or swimming advisory for microcystins is 8 µg/L. When applied as a Clean Water Act section 304(a) water quality criterion, EPA recommends no more than 3 excursions (10-day assessment

					periods) within a recreational season in more than one year. When used as a swimming advisory, EPA recommends the value not be exceeded on any single day.
<a href="#">Nickel</a> (P)	7440020	610	4,600	1998	This criterion was revised to reflect EPA's q1* or RfD as contained in the <a href="#">Integrated Risk Information System (IRIS)</a> as of May 17, 2002. The fish tissue bioconcentration factor (BCF) is from the 1980 Ambient Water Quality Criteria document.
<a href="#">Nitrates</a>	14797558	10,000	—	1986	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a> .
<a href="#">Nitrobenzene</a> (P)	98953	10	600	2015	The criterion for organoleptic (taste and odor) effects may be more stringent. Refer to <a href="#">National Recommended Water Quality Criteria - Organoleptic Effects</a> .
<a href="#">Nitrosamines</a>	—	0.0008	1.24	1980	This criterion is based on carcinogenicity of

					10 <sup>-6</sup> risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).
<a href="#">Nitrosodibutylamine</a>	924163	0.0063	0.22	2002	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).
<a href="#">Nitrosodiethylamine</a>	55185	0.0008	1.24	2002	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).
<a href="#">Nitrosopyrrolidine</a>	930552	0.016	34	2002	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk. Alternate risk levels may be obtained by moving the decimal point



					(e.g., for a risk level of $10^{-5}$ , move the decimal point in the recommended criterion one place to the right).
<a href="#">N-Nitrosodimethylamine</a> (P)	62759	0.00069	3.0	2002	This criterion is based on carcinogenicity of $10^{-6}$ risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of $10^{-5}$ , move the decimal point in the recommended criterion one place to the right).
N-Nitrosodi-n-Propylamine (P)	621647	0.0050	0.51	2002	This criterion is based on carcinogenicity of $10^{-6}$ risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of $10^{-5}$ , move the decimal point in the recommended criterion one place to the right).
N-Nitrosodiphenylamine (P)	86306	3.3	6.0	2002	This criterion is based on carcinogenicity of $10^{-6}$ risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of $10^{-5}$ , move the decimal point in the recommended

					criterion one place to the right).
Nutrients	—	—	—		Refer to <a href="#">EPA's criteria for nutrients in lakes and reservoirs</a> , which are linked to the <a href="#">national recommendations for human health recreational water quality criteria and swimming advisory</a> and the <a href="#">health advisory for microcystins</a> .
<a href="#">Pathogen and Pathogen Indicators</a>	—	—	—	2012	Refer to EPA's <a href="#">2012 Recreational Water Quality Criteria</a>  For Shellfish refer to <a href="#">Quality Criteria for Water 1986 ("Gold Book")</a>
<a href="#">Pentachlorobenzene</a>	608935	0.1	0.1	2015	
<a href="#">Pentachlorophenol</a> (P)	87865	0.03	0.04	2015	This criterion is based on carcinogenicity of 10 <sup>-6</sup> risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10 <sup>-5</sup> , move the decimal point in the recommended criterion one place to the right).  The criterion for organoleptic (taste and odor) effects may be more stringent. Refer to <a href="#">National Recommended</a>

					<a href="#">Water Quality Criteria - Organoleptic Effects.</a>  EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a> .
pH	—	5 – 9	—	1986	
<a href="#">Phenol</a> (P)	108952	4,000	300,000	2015	The criterion for organoleptic (taste and odor) effects may be more stringent. Refer to <a href="#">National Recommended Water Quality Criteria - Organoleptic Effects</a> .
Polychlorinated Biphenyls (PCBs) (P)		0.000064	0.000064	2002	This criterion is based on carcinogenicity of $10^{-6}$ risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of $10^{-5}$ , move the decimal point in the recommended criterion one place to the right).  This criterion applies to total PCBs (e.g., the sum of all congener or all isomer or homolog

					<p>or Aroclor analyses).</p> <p>EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a>.</p>
<a href="#">Pyrene</a> (P)	129000	20	30	2015	
<a href="#">Selenium</a> (P)	7782492	170	4200	2002	<p>EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a>.</p>
<a href="#">Solids Dissolved and Salinity</a>	—	250,000	—	1986	
<a href="#">Tetrachloroethylene</a> (P)	127184	10	29	2015	<p>This criterion is based on carcinogenicity of <math>10^{-6}</math> risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of <math>10^{-5}</math>, move the decimal point in the recommended criterion one place to the right).</p> <p>EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's</a></p>

					<a href="#">National Primary Drinking Water Regulations.</a>
<a href="#">Thallium</a> (P)	7440280	0.24	0.47	2003	
<a href="#">Toluene</a> (P)	108883	57	520	2015	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations.</a>
<a href="#">Toxaphene</a> (P)	8001352	0.00070	0.00071	2015	<p>This criterion is based on carcinogenicity of <math>10^{-6}</math> risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of <math>10^{-5}</math>, move the decimal point in the recommended criterion one place to the right).</p> <p>EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations.</a></p>
<a href="#">Trichloroethylene</a> (P)	79016	0.6	7	2015	This criterion is based on carcinogenicity of $10^{-6}$ risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk

					<p>level of <math>10^{-5}</math>, move the decimal point in the recommended criterion one place to the right).</p> <p>EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a>.</p>
<a href="#">Vinyl Chloride</a> (P)	75014	0.022	1.6	2015	<p>This criterion is based on carcinogenicity of <math>10^{-6}</math> risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of <math>10^{-5}</math>, move the decimal point in the recommended criterion one place to the right).</p> <p>EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a>.</p>
Zinc (P)	7440666	7,400	26,000	2002	<p>The criterion for organoleptic (taste and odor) effects may be more stringent. Refer to <a href="#">National</a></p>

					<a href="#">Recommended Water Quality Criteria - Organoleptic Effects.</a>
<a href="#">1,1,1-Trichloroethane</a> (P)	71556	10,000	200,000	2015	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a> .
<a href="#">1,1,2,2-Tetrachloroethane</a> (P)	79345	0.2	3	2015	This criterion is based on carcinogenicity of $10^{-6}$ risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of $10^{-5}$ , move the decimal point in the recommended criterion one place to the right).
<a href="#">1,1,2-Trichloroethane</a> (P)	79005	0.55	8.9	2015	<p>This criterion is based on carcinogenicity of <math>10^{-6}</math> risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of <math>10^{-5}</math>, move the decimal point in the recommended criterion one place to the right).</p> <p>EPA has issued a Maximum Contaminant Level (MCL) for</p>

					this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a> .
<a href="#">1,1-Dichloroethylene</a> (P)	75354	300	20,000	2015	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a> .
<a href="#">1,2,4,5-Tetrachlorobenzene</a>	95943	0.03	0.03	2015	
<a href="#">1,2,4-Trichlorobenzene</a> (P)	120821	0.071	0.076	2015	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a> . This criterion is based on carcinogenicity of 10-6 risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10-5, move the decimal point in the recommended criterion one place to the right).
<a href="#">1,2-Dichlorobenzene</a> (P)	95501	1,000	3,000	2015	EPA has issued a Maximum Contaminant Level (MCL) for this chemical



					which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a> .
<a href="#">1,2-Dichloroethane</a> (P)	107062	9.9	650	2015	<p>This criterion is based on carcinogenicity of <math>10^{-6}</math> risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of <math>10^{-5}</math>, move the decimal point in the recommended criterion one place to the right).</p> <p>EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a>.</p>
<a href="#">1,2-Dichloropropane</a> (P)	78875	0.90	31	2015	<p>This criterion is based on carcinogenicity of <math>10^{-6}</math> risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of <math>10^{-5}</math>, move the decimal point in the recommended criterion one place to the right).</p> <p>EPA has issued a Maximum</p>

					Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a> .
<a href="#">1,2-Diphenylhydrazine</a> (P)	122667	0.03	0.2	2015	This criterion is based on carcinogenicity of $10^{-6}$ risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of $10^{-5}$ , move the decimal point in the recommended criterion one place to the right).
<a href="#">Trans-1,2-Dichloroethylene</a> (P)	156605	100	4,000	2015	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a> .
<a href="#">1,3-Dichlorobenzene</a> (P)	541731	7	10	2015	
<a href="#">1,3-Dichloropropene</a> (P)	542756	0.27	12	2015	This criterion is based on carcinogenicity of $10^{-6}$ risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of $10^{-5}$ , move the decimal point in the recommended criterion one place to the right).

<a href="#">1,4-Dichlorobenzene</a> (P)	106467	300	900	2015	EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a> .
<a href="#">2,3,7,8-TCDD (Dioxin)</a> (P)	1746016	5.0E-9	5.1E-9	2002	<p>This criterion is based on carcinogenicity of <math>10^{-6}</math> risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of <math>10^{-5}</math>, move the decimal point in the recommended criterion one place to the right).</p> <p>EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. Refer to <a href="#">EPA's National Primary Drinking Water Regulations</a>.</p> <p>The CWA section 304(a) water quality criteria for dioxin is expressed in terms of 2,3,7,8-Tetrachloro-dibenzo-p-dioxin (2,3,7,8-TCDD) and should be used in conjunction with</p>

					the recommended toxicity equivalence factors for dioxin and dioxin-like compounds ( <a href="#">USEPA, 2010</a> ) to account for the additive effects of other dioxin-like compounds.
<a href="#">2,4,5-Trichlorophenol</a>	95954	300	600	2015	The criterion for organoleptic (taste and odor) effects may be more stringent. Refer to <a href="#">National Recommended Water Quality Criteria - Organoleptic Effects</a> .
<a href="#">2,4,6-Trichlorophenol</a> (P)	88062	1.5	2.8	2015	<p>This criterion is based on carcinogenicity of <math>10^{-6}</math> risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of <math>10^{-5}</math>, move the decimal point in the recommended criterion one place to the right).</p> <p>The criterion for organoleptic (taste and odor) effects may be more stringent. Refer to <a href="#">National Recommended Water Quality Criteria - Organoleptic Effects</a>.</p>
<a href="#">2,4-Dichlorophenol</a> (P)	120832	10	60	2015	The criterion for organoleptic (taste

					and odor) effects may be more stringent. Refer to <a href="#">National Recommended Water Quality Criteria - Organoleptic Effects</a> .
<a href="#">2,4-Dimethylphenol</a> (P)	105679	100	3,000	2015	The criterion for organoleptic (taste and odor) effects may be more stringent. Refer to <a href="#">National Recommended Water Quality Criteria - Organoleptic Effects</a> .
<a href="#">2,4-Dinitrophenol</a> (P)	51285	10	300	2015	
<a href="#">2,4-Dinitrotoluene</a> (P)	121142	0.049	1.7	2015	This criterion is based on carcinogenicity of $10^{-6}$ risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of $10^{-5}$ , move the decimal point in the recommended criterion one place to the right).
<a href="#">2-Chloronaphthalene</a> (P)	91587	800	1,000	2015	
<a href="#">2-Chlorophenol</a> (P)	95578	30	800	2015	The criterion for organoleptic (taste and odor) effects may be more stringent. Refer to <a href="#">National Recommended Water Quality Criteria - Organoleptic Effects</a> .
<a href="#">2-Methyl-4,6-Dinitrophenol</a> (P)	534521	2	30	2015	

<a href="#">3,3'-Dichlorobenzidine</a> (P)	91941	0.049	0.15	2015	This criterion is based on carcinogenicity of $10^{-6}$ risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of $10^{-5}$ , move the decimal point in the recommended criterion one place to the right).
<a href="#">3-Methyl-4-Chlorophenol</a> (P)	59507	500	2,000	2015	The criterion for organoleptic (taste and odor) effects may be more stringent. Refer to <a href="#">National Recommended Water Quality Criteria - Organoleptic Effects</a> .
<a href="#">p,p'-Dichlorodiphenyldichloroethane (DDD)</a> (P)	72548	0.00012	0.00012	2015	This criterion is based on carcinogenicity of $10^{-6}$ risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of $10^{-5}$ , move the decimal point in the recommended criterion one place to the right).
<a href="#">p,p'-Dichlorodiphenyldichloroethylene (DDE)</a> (P)	72559	0.000018	0.000018	2015	This criterion is based on carcinogenicity of $10^{-6}$ risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of $10^{-5}$ , move

					the decimal point in the recommended criterion one place to the right).
<u>p,p'-Dichlorodiphenyltrichloroethane (DDT) (P)</u>	50293	0.000030	0.000030	2015	This criterion is based on carcinogenicity of $10^{-6}$ risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of $10^{-5}$ , move the decimal point in the recommended criterion one place to the right).

**NOTE:** (P)= Priority Pollutant