TABLE C. GROUNDWATER CLEANUP LEVELS			
Hazardous Substance	**CAS Number[1]**	**Health effect that drives risk: carcinogen (ca); noncarcinogen (nc); mutagen (m)**	**Groundwater Human Health Cleanup Level[2] (micrograms /liter)**
Acenaphthene	83-32-9	nc	530
Acenaphthylene[3]	208-96-8	nc	260
Acetone	67-64-1	nc	14000
Aldrin	309-00-2	ca	0.0092
Ammonium Perchlorate	7790-98-9	nc	14
Anthracene	120-12-7	nc	43[4]
Antimony (metallic)	7440-36-0	nc	7.8
Arsenic, Inorganic[5]	7440-38-2	ca	0.52
Barium	7440-39-3	nc	3800
Benz[a]anthracene	56-55-3	m	0.12
Benzaldehyde	100-52-7	nc	1900
Benzene	71-43-2	ca	4.6
Benzo[a]pyrene	50-32-8	m	0.034
Benzo[b]fluoranthene	205-99-2	m	0.34
Benzo[g,h,i]perylene[3]	191-24-2	nc	0.26[4]
Benzo[k]fluoranthene	207-08-9	m	0.80[4]
Benzoic Acid	65-85-0	nc	75000
Benzyl Alcohol	100-51-6	nc	2000
Beryllium and compounds	7440-41-7	nc	25
Bis(2-chloroethyl)ether	111-44-4	ca	0.14
Bis(2-ethylhexyl)phthalate	117-81-7	ca	56
Bromobenzene	108-86-1	nc	62
Bromodichloromethane	75-27-4	ca	1.3
Bromoform	75-25-2	ca	33
Bromomethane	74-83-9	nc	7.5
Butadiene, 1,3-	106-99-0	ca	0.18
Butanol, N-	71-36-3	nc	2000
Butyl Benzyl Phthalate	85-68-7	ca	160
Butylbenzene, n-	104-51-8	nc	1000
Butylbenzene, sec-	135-98-8	nc	2000
Butylbenzene, tert-	98-06-6	nc	690
Cadmium (Diet)	7440-43-9	nc	9.2
Carbon Disulfide	75-15-0	nc	810
Carbon Tetrachloride	56-23-5	ca	4.6
Chlordane	12789-03-6	ca	0.20

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Hazardous Substance	**CAS Number[1]**	**Health effect that drives risk: carcinogen (ca); noncarcinogen (nc); mutagen (m)**	**Groundwater Human Health Cleanup Level[2] (micrograms /liter)**
Chlordecone (Kepone)	143-50-0	ca	0.035
Chloroaniline, p-	106-47-8	ca	3.7
Chlorobenzene	108-90-7	nc	78
Chloroform	67-66-3	ca	2.2
Chloromethane	74-87-3	nc	190
Chloronaphthalene, Beta-	91-58-7	nc	750
Chlorophenol, 2-	95-57-8	nc	91
Chromium(III), Insoluble Salts[6]	16065-83-1	nc	22000
Chromium(VI)[6]	18540-29-9	m	0.35
Chrysene	218-01-9	m	2.0[4]
Copper	7440-50-8	nc	800
Cresol, m-	108-39-4	nc	930
Cresol, o-	95-48-7	nc	930
Cresol, p-	106-44-5	nc	1900
Cumene	98-82-8	nc	450
Cyanide (CN-)	57-12-5	nc	1.5
Cyclohexane	110-82-7	nc	13000
DDD	72-54-8	ca	0.32
DDE, p,p'-	72-55-9	ca	0.46
DDT	50-29-3	ca	2.3
Dibenz[a,h]anthracene	53-70-3	m	0.034
Dibenzofuran	132-64-9	nc	7.9
Dibromochloromethane	124-48-1	ca	8.7
Dibromoethane, 1,2- (Ethylene Dibromide)	106-93-4	ca	0.075
Dibromomethane (Methylene Bromide)	74-95-3	nc	8.3
Dibutyl Phthalate	84-74-2	nc	900
Dichlorobenzene, 1,2-	95-50-1	nc	300
Dichlorobenzene, 1,3-[3]	541-73-1	nc	300
Dichlorobenzene, 1,4-	106-46-7	ca	4.8
Dichlorobenzidine, 3,3'-	91-94-1	ca	1.3
Dichlorodifluoromethane	75-71-8	nc	200
Dichloroethane, 1,1-	75-34-3	ca	28
Dichloroethane, 1,2-	107-06-2	ca	1.7
Dichloroethylene, 1,1-	75-35-4	nc	280
Dichloroethylene, 1,2-cis-	156-59-2	nc	36

TABLE C. GROUNDWATER CLEANUP LEVELS			
Hazardous Substance	**CAS Number[1]**	**Health effect that drives risk: carcinogen (ca); noncarcinogen (nc); mutagen (m)**	**Groundwater Human Health Cleanup Level[2] (micrograms /liter)**
Dichloroethylene, 1,2-trans-	156-60-5	nc	360
Dichlorophenol, 2,4-	120-83-2	nc	46
Dichlorophenoxy Acetic Acid, 2,4-	94-75-7	nc	170
Dichloropropane, 1,2-	78-87-5	ca	4.4
Dichloropropene, 1,3-	542-75-6	ca	4.7
Dieldrin	60-57-1	ca	0.018
Diethyl Phthalate	84-66-2	nc	15000
Dimethylphenol, 2,4-	105-67-9	nc	360
Dimethylphthalate[3]	131-11-3	nc	16000
Dinitrobenzene, 1,2-	528-29-0	nc	1.9
Dinitrobenzene, 1,3-	99-65-0	nc	2.0
Dinitrobenzene, 1,4-	100-25-4	nc	2.0
Dinitrophenol, 2,4-	51-28-5	nc	39
Dinitrotoluene, 2,4-	121-14-2	ca	2.4
Dinitrotoluene, 2,6-	606-20-2	ca	0.49
Dinitrotoluene, 2-Amino-4,6-	35572-78-2	nc	39
Dinitrotoluene, 4-Amino-2,6-	19406-51-0	nc	39
Dioxane, 1,4-	123-91-1	ca	4.6
Diphenylamine	122-39-4	nc	310
Endosulfan	115-29-7	nc	100
Endrin	72-20-8	nc	2.3
Ethyl Chloride	75-00-3	nc	21000
Ethylbenzene	100-41-4	ca	15
Ethylene Glycol	107-21-1	nc	40000
Fluoranthene	206-44-0	nc	260[4]
Fluorene	86-73-7	nc	290
Formaldehyde	50-00-0	ca	4.3
Heptachlor	76-44-8	ca	0.014
Heptachlor Epoxide	1024-57-3	ca	0.014
Hexachlorobenzene	118-74-1	ca	0.098
Hexachlorobutadiene	87-68-3	nc	1.4
Hexachlorocyclohexane, Alpha-	319-84-6	ca	0.072
Hexachlorocyclohexane, Beta-	319-85-7	ca	0.25
Hexachlorocyclohexane, Gamma- (Lindane)	58-89-9	ca	0.42
Hexachlorocyclopentadiene	77-47-4	nc	0.41

TABLE C. GROUNDWATER CLEANUP LEVELS			
Hazardous Substance	**CAS Number[1]**	**Health effect that drives risk: carcinogen (ca); noncarcinogen (nc); mutagen (m)**	**Groundwater Human Health Cleanup Level[2] (micrograms /liter)**
Hexachloroethane	67-72-1	ca	3.3
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	ca	7.0
Hexane, N-	110-54-3	nc	1500
Hexanone, 2-	591-78-6	nc	38
Hydrazine	302-01-2	ca	0.011
Indeno[1,2,3-cd]pyrene	193-39-5	m	0.19[4]
Isophorone	78-59-1	ca	780
Isopropanol	67-63-0	nc	410
Lead and Compounds[7]	7439-92-1	nc	15
Mercuric Chloride[3]	7487-94-7	nc	5.7
Mercury (elemental)	7439-97-6	nc	0.52
Methanol	67-56-1	nc	20000
Methoxychlor	72-43-5	nc	37
Methyl Ethyl Ketone (2-Butanone)	78-93-3	nc	5600
Methyl Isobutyl Ketone (4-methyl-2-pentanone)	108-10-1	nc	6300
Methyl Mercury	22967-92-6	nc	2.0
Methyl tert-Butyl Ether (MTBE)	1634-04-4	ca	140
Methylene Chloride	75-09-2	nc	110
Methylnaphthalene, 1-	90-12-0	ca	11
Methylnaphthalene, 2-	91-57-6	nc	36
Naphthalene	91-20-3	ca	1.7
Nickel Soluble Salts	7440-02-0	nc	390
Nitrobenzene	98-95-3	ca	1.4
Nitroglycerin	55-63-0	nc	2.0
Nitroguanidine	556-88-7	nc	2000
Nitrosodimethylamine, N-	62-75-9	m	0.0011
Nitroso-di-N-propylamine, N-	621-64-7	ca	0.11
Nitrosodiphenylamine, N-	86-30-6	ca	120
Nitrotoluene, m-	99-08-1	nc	1.7
Nitrotoluene, o-	88-72-2	ca	3.1
Nitrotoluene, p-	99-99-0	nc	43
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	nc	1000
Octyl Phthalate, di-N-	117-84-0	nc	22[4]
Pentachlorophenol	87-86-5	ca	0.41
Pentaerythritol tetranitrate (PETN)	78-11-5	nc	39

TABLE C. GROUNDWATER CLEANUP LEVELS			
Hazardous Substance	**CAS Number[1]**	**Health effect that drives risk: carcinogen (ca); noncarcinogen (nc); mutagen (m)**	**Groundwater Human Health Cleanup Level[2] (micrograms /liter)**
Perfluorooctane Sulfonate (PFOS)[9]	1763-23-1	nc	0.40
Perfluorooctanoic Acid (PFOA)[9]	335-67-1	nc	0.40
Phenanthrene[3]	85-01-8	nc	170
Phenol	108-95-2	nc	5800
Phosphorus, White	7723-14-0	nc	0.40
Polychlorinated Biphenyls (PCBs)	1336-36-3	ca	0.50
Propyl benzene	103-65-1	nc	660
Pyrene	129-00-0	nc	120
Selenium	7782-49-2	nc	100
Silver	7440-22-4	nc	94
Styrene	100-42-5	nc	1200
TCDD, 2,3,7,8-[8]	1746-01-6	ca	1.2×10^{-6}
Tetrachloroethane, 1,1,1,2-	630-20-6	ca	5.7
Tetrachloroethane, 1,1,2,2-	79-34-5	ca	0.76
Tetrachloroethylene	127-18-4	nc	41
Tetryl (Trinitrophenylmethylnitramine)	479-45-8	nc	39
Thallium (Soluble Salts)	7440-28-0	nc	0.20
Toluene	108-88-3	nc	1100
Toxaphene	8001-35-2	ca	0.71
Trichloro-1,2,2-trifluoroethane, 1,1,2-	76-13-1	nc	55000
Trichlorobenzene, 1,2,3-	87-61-6	nc	7.0
Trichlorobenzene, 1,2,4-	120-82-1	nc	4.0
Trichloroethane, 1,1,1-	71-55-6	nc	8000
Trichloroethane, 1,1,2-	79-00-5	nc	0.41
Trichloroethylene	79-01-6	nc	2.8
Trichlorofluoromethane	75-69-4	nc	5200
Trichlorophenol, 2,4,5-	95-95-4	nc	1200
Trichlorophenol, 2,4,6-	88-06-2	nc	12
Trichlorophenoxyacetic Acid, 2,4,5-	93-76-5	nc	160
Trichlorophenoxypropionic acid, -2,4,5	93-72-1	nc	110
Trichloropropane, 1,2,3-	96-18-4	m	0.0075
Trimethylbenzene, 1,2,4-	95-63-6	nc	15
Trimethylbenzene, 1,3,5-	108-67-8	nc	120
Tri-n-butyltin	688-73-3	nc	3.7
Trinitrobenzene, 1,3,5-	99-35-4	nc	590

TABLE C. GROUNDWATER CLEANUP LEVELS			
Hazardous Substance	**CAS Number[1]**	**Health effect that drives risk: carcinogen (ca); noncarcinogen (nc); mutagen (m)**	**Groundwater Human Health Cleanup Level[2] (micrograms /liter)**
Trinitrotoluene, 2,4,6-	118-96-7	nc	9.8
Vanadium and Compounds	7440-62-2	nc	86
Vinyl Acetate	108-05-4	nc	410
Vinyl Chloride	75-01-4	ca	0.19
Xylenes	1330-20-7	nc	190
Zinc and Compounds	7440-66-6	nc	6000
PETROLEUM HYDROCARBONS			
C_6-C_{10} GRO		nc	2200
C_{10}-C_{25} DRO		nc	1500
C_{25}-C_{36} RRO		nc	1100

Notes to Table C:

Notes to Table C:

1. "CAS Number" means the Chemical Abstract Service (CAS) registry number uniquely assigned to chemicals by the American Chemical Society and recorded in the CAS Registry System.

2. The "Human Health" exposure pathway is the cumulative exposure pathway through dermal contact, ingestion, and inhalation of volatile compounds from hazardous substances in the water.

3. Where one or more toxicological values were unavailable, toxicity values from surrogate compounds or other sources were used as follows:

(A) pyrene is a toxicity surrogate for acenaphthylene, benzo(g,h,i) perylene, and phenanthrene;

(B) 1,2-dichlorobenzene is a toxicity surrogate for 1,3-dichlorobenzene;

(C) diethylphthalate is a toxicity surrogate for dimethylphthalate;

(D) elemental mercury is a toxicity surrogate for mercuric chloride.

4. These levels are based on water solubility using the data set out in *Procedures for Calculating Cleanup Levels*, adopted by reference in 18 AAC 75.340.

5. Due to the prevalence of naturally occurring arsenic throughout the state, arsenic at a site will be considered background arsenic unless anthropogenic contribution from a source, activity, or mobilization by means of another introduced contaminant is known or suspected.

6. Due to the prevalence of naturally occurring chromium III throughout the state, sample results reported for total chromium detected at a site will be considered background chromium III unless anthropogenic contribution of chromium III or VI from a source, activity, or mobilization by means of another introduced contaminant is known or suspected.

7. The lead cleanup level is taken from EPA's action level for lead in water.

8. This cleanup level is for 2,3,7,8-Tetrachlorordibenzo-*p*-Dioxin (TCDD) only; all cleanup levels for polychlorinated dibenzo-*p*-dioxin (PCDD) and polychlorinated dibenzofuran (PCDF) congeners must be determined on a site-specific basis.

9. Toxicity values for PFOS and PFOA were sourced from EPA's *Health Effects Support Document for Perfluorooctane Sulfonate (PFOS)* (EPA 922-R-16-002), dated May 2016, and *Health Effects Support Document for Perfluorooctanoic Acid (PFOA)* (EPA 822-R-16-003), dated May 2016.

(2) an approved cleanup level based on an approved site-specific risk assessment conducted under the *Risk Assessment Procedures Manual* adopted by reference in 18 AAC 75.340;

(3) an alternative cleanup level for a hazardous substance not listed under (1) of this subsection proposed by the responsible party and approved by the department, using the procedures set out in the department's *Risk Assessment Procedures Manual*, adopted by reference in 18 AAC 75.340, unless the responsible person demonstrates that an alternative cleanup level is not necessary to ensure protection of human health, safety, and welfare, and of the environment; or;

(4) an alternative cleanup level for a hazardous substance not listed under (1) of this subsection set by the department using the procedures set out in the department's *Risk Assessment Procedures Manual*, adopted by reference in 18 AAC 75.340.

(c) The department will set a more stringent cleanup level than the applicable level under (b) of this section, if the department determines that a more stringent cleanup level is necessary to ensure protection of human health, safety, or welfare, or of the environment, and based on actual onsite and actual or likely offsite uses of the groundwater that are likely to be affected by the hazardous substance. In making a determination under this subsection, the department may consider

(1) the risks to current or potential future users of the groundwater as a drinking water source, as determined under 18 AAC 75.350;

(2) the presence of sensitive subpopulations who respond biologically to lower levels of exposure to a hazardous substance;

(3) the groundwater use classifications other than for drinking water, as set out under 18 AAC 70.020(a)(1)(A) and 18 AAC 70.050(2);

(4) the primary or secondary maximum contaminant levels in 18 AAC 80.300 for actual or likely drinking water supplies;

(5) a health advisory value developed by EPA's Office of Water; and

(6) the cleanup levels in this section for groundwater contaminated with petroleum; the contamination may not exceed, for each petroleum hydrocarbon range applicable, including the gasoline range, the diesel range, and the residual range,

(A) a threshold odor number (TON) of 1 for odor, as measured by Method 2150B, *Standard Methods for the Examination of Water and Wastewater*, 22nd edition, American Public Health Association (2012), adopted by reference; or