

Table 1
Surface Water Action Levels and Standards

Analyte	CAS Reference Number	Standards and Action Levels [a] (mg/L)	Basis [b]	Temporary Modifications [c] (mg/L)	PQLs [d] (mg/L)
Acenaphthene	83-32-9	4.20E-01	W+F, WS		1.00E-02
Acenaphthylene	208-96-8	2.80E-06	W+F		1.00E-02
Acetone	67-64-1	3.65E+00	PRG		
Acrolein	107-02-8	2.10E-02	AL		1.00E-02
Acrylonitrile	107-13-1	5.90E-05	W+F		5.00E-03
Alachlor	15972-60-8	1.20E-03	W+F		2.00E-03
Aldicarb	116-06-3	7.00E-03	WS		1.00E-02
Aldicarb sulfone	1646-88-4	7.00E-03	WS		3.00E-03
Aldicarb sulfoxide	1646-87-3	7.00E-03	WS		3.00E-03
Aldrin	309-00-2	1.30E-07	W+F		1.00E-04
Aluminum, dissolved	7429-90-5	8.70E-02	AL		
Ammonia, un-ionized	7664-41-7	[e]	[e]		
Anthracene	120-12-7	2.10E+00	W+F, WS		1.00E-02
Antimony, total recoverable	7440-36-0	6.00E-03	W+F, WS		1.00E-02
Arsenic, total recoverable	7440-38-2	1.80E-05	W+F		
Atrazine	1912-24-9	3.00E-03	WS		1.00E-03
Barium, total recoverable	7440-39-3	4.90E-01	WS		
Benzene	71-43-2	1.20E-03	W+F, WS	5.00E-03	1.00E-03
Benzdine	92-87-5	1.20E-07	W+F		1.00E-02
alpha-BHC	319-84-6	3.90E-06	W+F		5.00E-05
beta-BHC	319-85-7	1.40E-05	W+F		5.00E-05
gamma-BHC [Lindane]	58-89-9	8.00E-05	AL		5.00E-05
Benzo(a)anthracene	56-55-3	4.40E-06	W+F		1.00E-02
Benzo(a)pyrene	50-32-8	4.40E-06	W+F		2.00E-04
Benzo(b)fluoranthene	205-99-2	4.40E-06	W+F		1.00E-02
Benzo(g,h,i)perylene	191-24-2	4.40E-06	W+F		1.00E-02
Benzo(k)fluoranthene	207-08-9	4.40E-06	W+F		1.00E-02
Beryllium	7440-41-7	4.00E-03	SS, WS		5.00E-03
Boron, total	7440-42-8	7.50E-01	AG, SS		
Bromodichloromethane	75-27-4	5.60E-04	W+F [f]		1.00E-03
Bromoform [Tribromomethane]	75-25-2	4.30E-03	W+F [f]		1.00E-03
Bromomethane [Methyl Bromide]	74-83-9	4.80E-02	W+F		1.00E-03
2-Butanone [Methylethyl ketone]	78-93-3	2.19E+01	PRG		
Butylbenzylphthalate	85-68-7	1.40E+00	W+F, WS		1.00E-02
Cadmium, dissolved	7440-43-9	1.50E-03	TVS [g]		5.00E-03
Carbofuran	1563-66-2	4.00E-02	WS		7.00E-03
Carbon disulfide	75-15-0	3.65E+00	PRG		
Carbon tetrachloride	56-23-5	2.50E-04	W+F	5.00E-03	1.00E-03
Chlordane	5103-71-9	2.10E-06	W+F		1.00E-03
Chlorobenzene	108-90-7	1.00E-01	W+F, WS		5.00E-03
Chloroethane	75-00-3	2.94E-02	PRG		
bis(2-Chloroethyl)ether	111-44-4	3.10E-05	W+F		1.00E-02
Chloroform [Trichloromethane]	67-66-3	5.70E-03	W+F [f]		1.00E-03
bis(2-Chloroisopropyl)ether	39638-32-9	2.80E-01	W+F, WS		1.00E-02
Chloromethane [Methyl chloride]	74-87-3	5.70E-03	W+F		1.00E-03
4-Chloro-3-methylphenol	59-50-7	3.00E-02	AL		5.00E-02
2-Chloronaphthalene	91-58-7	5.60E-01	W+F, WS		

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Analyte	CAS Reference Number	Standards and Action Levels [a] (mg/L)	Basis [b]	Temporary Modifications [c] (mg/L)	PQLs [d] (mg/L)
2-Chlorophenol	95-57-8	3.50E-02	W+F, WS		5.00E-02
Chloropyrifos	2921-88-2	4.10E-05	AL		1.00E-04
Chromium III, Total Recoverable	16065-83-1	5.00E-02	SS, WS		
Chromium VI, dissolved	18540-29-9	1.10E-02	TVS [g]		
Chrysene	218-01-9	4.40E-06	W+F		1.00E-02
Copper, dissolved	7440-50-8	1.60E-02	TVS [g]		
Cyanide	57-12-5	5.00E-03	SS		
4,4-DDD	72-54-8	8.30E-07	W+F		1.00E-04
4,4-DDE	72-55-9	5.90E-07	W+F		1.00E-04
4,4-DDT	50-29-3	5.90E-07	W+F		1.00E-04
Dalapon	75-99-0	2.00E-01	WS		1.30E-02
Demeton	8065-48-3	1.00E-04	AL		1.00E-03
Dibenzo(a,h)anthracene	53-70-3	4.40E-06	W+F		1.00E-02
Dibromochloromethane	124-48-1	8.00E-02	WS [f]		1.00E-03
1,2-Dibromo-3-chloropropane	96-12-8	2.00E-04	WS		1.00E-03
Di-n-butylphthalate	84-74-2	3.65E+00	PRG		1.00E-02
1,2-Dichlorobenzene	95-50-1	6.00E-01	W+F, WS		1.00E-02
1,3-Dichlorobenzene	541-73-1	4.00E-01	W+F		1.00E-02
1,4-Dichlorobenzene	106-46-7	7.50E-02	W+F, WS		1.00E-02
3,3-Dichlorobenzidine	91-94-1	3.90E-05	W+F		1.00E-02
1,1-Dichloroethane	75-34-3	3.65E+00	PRG		1.00E-03
1,2-Dichloroethane	107-06-2	3.80E-04	W+F, WS	5.00E-03	1.00E-03
1,1-Dichloroethene	75-35-4	7.00E-03	W+F, WS	7.00E-03	1.00E-03
1,2-Dichloroethene (cis)	156-59-2	7.00E-02	WS		5.00E-03
1,2-Dichloroethene (trans)	156-60-5	1.00E-01	W+F, WS		5.00E-03
2,4-Dichlorophenol	120-83-2	2.10E-02	W+F, WS		5.00E-02
Dichlorophenoxyacetic acid [2,4-D]	94-75-7	7.00E-02	WS		1.00E-03
1,2-Dichloropropane	78-87-5	5.20E-04	W+F, WS		1.00E-03
1,3-Dichloropropylene	542-75-6	1.00E-02	W+F		1.00E-03
Dieldrin	60-57-1	1.40E-07	W+F		1.00E-04
Di(2-ethylhexyl)adipate	103-23-1	4.00E-01	WS		6.00E-03
Diethylphthalate	84-66-2	5.60E+00	W+F, WS		1.00E-02
Diisopropyl methyl phosphonate	1445-75-6	8.00E-03	WS		1.00E-03
2,4-Dimethylphenol	105-67-9	1.40E-01	W+F, WS		5.00E-02
Dimethylphthalate	131-11-3	3.13E+02	W+F		1.00E-02
4,6-Dinitro-2-methylphenol	534-52-1	2.70E-03	W+F, WS		5.00E-02
2,4-Dinitrophenol	51-28-5	1.40E-02	W+F, WS		5.00E-02
2,4-Dinitrotoluene	121-14-2	1.10E-04	W+F, WS		1.00E-02
2,6-Dinitrotoluene	606-20-2	2.30E-01	AL		1.00E-02
Dinoseb	88-85-7	7.00E-03	WS		2.00E-03
Dioxin (2,3,7,8 TCDD)	1746-01-6	1.30E-11	W+F		
1,2-Diphenylhydrazine	122-66-7	4.00E-05	W+F		
Diquat	65-00-7	2.00E-02	WS		4.00E-03
Endosulfan	115-29-7	5.60E-05	AL		1.00E-04
Endosulfan, alpha	95-99-88	5.60E-05	AL		1.00E-04
Endosulfan, beta	3321-36-59	5.60E-05	AL		1.00E-04
Endosulfan sulfate	1031-07-8	5.60E-05	AL		1.00E-04

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Analyte	CAS Reference Number	Standards and Action Levels [a] (mg/L)	Basis [b]	Temporary Modifications [c] (mg/L)	PQLs [d] (mg/L)
Endothall	145-73-3	1.00E-01	WS		9.00E-02
Endrin (technical)	72-20-8	3.60E-05	AL		1.00E-04
Endrin aldehyde	7421-93-4	7.60E-04	W+F		1.00E-04
Ethylbenzene	100-41-4	7.00E-01	W+F, WS		1.00E-02
Ethylene dibromide [1,2-Dibromomethane]	106-93-4	5.00E-05	WS		
bis(2-Ethylhexyl)phthalate	117-81-7	1.80E-03	W+F		1.00E-02
Fluoranthene	206-44-0	2.80E-01	W+F, WS		1.00E-02
Fluorene	86-73-7	2.80E-01	WS		1.00E-02
Fluoride	7782-41-4	2.00E+00	WS		
Glyphosate	1071-83-6	7.00E-01	WS		6.00E-02
Guthion	86-50-0	1.00E-05	AL		1.50E-03
Heptachlor	76-44-8	2.10E-07	W+F		5.00E-05
Heptachlor epoxide	1024-57-3	1.00E-07	W+F		5.00E-05
Hexachlorobenzene	118-74-1	7.50E-07	W+F		1.00E-02
Hexachlorobutadiene	87-68-3	9.30E-03	AL		1.00E-02
Hexachlorocyclohexane, Technical	608-73-1	1.20E-05	W+F		2.00E-04
Hexachlorocyclopentadiene	77-47-4	5.00E-03	AL		1.00E-02
Hexachloroethane	67-72-1	7.00E-03	W+F, WS		1.00E-02
Indeno(1,2,3-cd)pyrene	193-39-5	4.40E-06	W+F		1.00E-02
Isophorone	78-59-1	3.60E-02	W+F		1.00E-02
Lead, dissolved	7439-92-1	6.50E-03	TVS [g]		1.00E-02
Malathion	121-75-4	1.00E-04	AL		2.00E-04
Mercury, total	7439-97-6	1.00E-05	SS		1.00E-03
Methoxychlor	72-43-5	3.00E-05	AL		5.00E-04
Methylene chloride [Dichloromethane]	75-09-2	4.70E-03	W+F, WS		1.00E-03
4-Methyl-2-pentanone [Isopropoacetone]	108-10-1	2.92E+00	PRG		
2-Methylphenol [o-Cresol]	95-48-7	1.83E+00	PRG		
Mirex	2385-85-5	1.00E-06	AL		1.00E-04
Naphthalene	91-20-3	2.80E-02	W+F, WS		1.00E-02
Nickel, dissolved	7440-02-0	1.23E-01	TVS [g]		
Nitrate	14797-55-8	1.00E+01	AG	100 [h]	
Nitrite	14797-65-0	5.00E-01	AL [i]	4.5 [h]	
Nitrobenzene	98-95-3	3.50E-03	W+F, WS		1.00E-02
Nitrophenol 4	100-02-7	5.60E-02	WS, W+F		
Nitrosodibutylamine N	924-16-3	6.40E-06	W+F		1.00E-02
Nitrosodiethylamine N	55-18-5	8.00E-07	W+F		1.00E-02
Nitrosodimethylamine N	62-75-9	6.90E-07	W+F		1.00E-02
n-Nitrosodiphenylamine	86-30-6	5.00E-03	W+F		1.00E-02
n-Nitrosodipropylamine	621-64-7	5.00E-06	W+F		1.00E-02
Nitrosopyrrolidine N	930-55-2	1.60E-05	W+F		1.00E-02
Oxamyl(vydate)	23135-22-0	2.00E-01	WS		2.00E-02
PCBs	1336-36-3	1.70E-04	W+F [j]		1.00E-02
Parathion	56-38-2	1.30E-05	AL		
Pentachlorobenzene	608-93-5	3.50E-03	W+F		1.00E-02
Pentachlorophenol	87-86-5	2.80E-04	W+F		5.00E-02
Phenanthrene	85-01-8	2.80E-06	W+F		1.00E-02
Phenol	108-95-2	2.56E+00	AL		5.00E-02

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Analyte	CAS Reference Number	Standards and Action Levels [a] (mg/L)	Basis [b]	Temporary Modifications [c] (mg/L)	PQLs [d] (mg/L)
Picloram	1918-02-1	5.00E-01	WS		1.00E-03
Pyrene	129-00-0	2.10E-01	W+F, WS		1.00E-02
Selenium	7782-49-2	4.60E-03	AL		1.00E-02
Silver, dissolved	7440-22-4	6.00E-04	TVS [g]		5.00E-03
Simazine	122-34-9	4.00E-03	WS		7.00E-04
Sulfide	18496-25-8	2.00E-03	SS		
Styrene	100-42-5	1.00E-01	WS		5.00E-03
1,2,4,5-Tetrachlorobenzene	95-94-3	2.10E-03	WS		1.00E-02
1,1,2,2-Tetrachloroethane	79-34-5	1.70E-04	W+F		1.00E-03
Tetrachloroethene	127-18-4	8.00E-04	W+F	5.00E-03	1.00E-03
Thallium	7440-28-0	5.00E-04	W+F, WS		1.20E-02
Toluene	108-88-3	1.00E+00	W+F, WS		5.00E-03
Toxaphene	8001-35-2	2.00E-07	AL		3.00E-03
1,2,4-Trichlorobenzene	120-82-1	5.00E-02	AL		1.00E-02
1,1,1-Trichloroethane	71-55-6	2.00E-01	W+F, WS		5.00E-03
1,1,2-Trichloroethane	79-00-5	3.00E-03	W+F, WS		1.00E-03
Trichloroethene	79-01-6	2.70E-03	W+F	5.00E-03	1.00E-03
2,4,6-Trichlorophenol	88-06-2	2.10E-03	W+F		5.00E-02
Trichlorophenoxypropionic acid	93-72-1	1.00E-02	W+F		5.00E-03
Vinyl chloride	75-01-4	2.00E-03	W+F, WS		2.00E-03
Xylene (total)	1330-20-7	1.00E+01	WS		5.00E-03
Zinc, dissolved	7440-66-6	1.41E-01	TVS [g]		
PHYSICAL PARAMETERS:					
Dissolved oxygen (minimum)		5.0 mg/L	SS		
pH		6.5-9.0	SS		
RADIONUCLIDES:					
		pCi/L			
Americium 241	14596-10-2	0.15	BS		
Plutonium 239/240	10-12-8	0.15	BS		
Radium 226/228		5 [k]	BS		
Strontium 89/90	11-10-9	8	BS		
Tritium	10028-17-8	500	SS		
Uranium, total	7440-61-1	11(10) [l]	SS		
Gross alpha, total	14127-62-9	7(11) [l]	SS		
Gross beta, total	12587-47-2	8(19) [l]	SS		

NOTES:

[a] The values in this table reflect the classifications and standards approved by the Colorado WQCC effective October 30, 2001. Values apply as standards in Segments 4a and 4b and as action levels in Segment 5. Values based on PRGs are applied only as action levels and are not enforceable standards. Standards for chloride, dissolved iron, dissolved manganese, and sulfate are Secondary Drinking Water Standards, which are based on aesthetic considerations. They have been removed as site-specific standards since Segments 4a, 4b, and 5 waters will not be used for drinking water supply.

[b] Acronyms: AG = Agriculture; AL = Aquatic Life; BS = Basic Standard; PRG = Preliminary Remediation Goal for residential groundwater ingestion; SS = Site Specific Standard; TVS = Table Value Standard; WS = Water Supply; W+F = Water plus Fish

[c] Temporary modifications affect Segment 5 only and apply until December 31, 2009.

[d] Whenever the practical quantitation level (PQL) for a pollutant is higher (less stringent) than a standard/action level or temporary modification, "less than" the PQL will be used as the compliance threshold. These less stringent PQLs are

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shaded.

[e] There is no un-ionized ammonia standard for Segment 5 or Segment 4b. A standard of 0.1 mg/L applies to Segment 4a, which begins in Walnut Creek downstream of Indiana Street.

[f] Per the Basic Standards, the Total Trihalomethane (TTHM) standard applies to the sum of the four TTHM compounds. For dibromochloromethane the TTHM value for water supply, 80 parts per billion, was applied.

[g] Table value standards for metals are based on a toxicity equation which uses a hardness value of 143 mg/L.

[h] The temporary modifications for nitrate and nitrite apply to the Walnut Creek drainage only.

[i] The listed nitrite value is the chronic aquatic life standard based on chloride levels in excess of 22 mg/L in Segment 4.

[j] The total PCB standard in the Basic Standards is based on the sum of the Aroclor analytes.

[k] Per the basic standard, this value applies to the sum of the two radium isotopes.

[l] Radiological parameters are distinguished by drainage basin in Table 2 of 5 CCR 1002-38. The first value is the standard for Woman Creek and the parenthetical value is the standard for Walnut Creek.

The scientific notation used in this table indicates the power of ten by which the two-decimal-place number is multiplied (e.g., 2.52E-02 = 2.52×10^{-2} = .0252).

Table 2
Ground Water Action Levels

Analyte	CAS Reference Number	Tier I [a] (mg/L)	Tier II (mg/L)	Basis [b]	PQLs [c] (mg/L)
Acenaphthene	83-32-9	2.19E+02	2.19E+00	[2]	1.00E-02
Acetone [c]	67-64-1	3.65E+02	3.65E+00	[2]	
Aldrin	309-00-2	5.01E-04	5.01E-06	[2]	1.00E-04
Aluminum	7429-90-5	3.65E+03	3.65E+01	[2]	
Ammonium (as Ammonia)	7664-41-7	3.54E+03	3.54E+01	[2]	
Anthracene	120-12-7	1.10E+03	1.10E+01	[2]	1.00E-02
Antimony	7440-36-0	6.00E-01	6.00E-03	[1]	1.00E-02
Aroclor-1016	12674-11-2	5.00E-02	5.00E-04	[1]	1.00E-03
Aroclor-1221	11104-28-2	5.00E-02	5.00E-04	[1]	1.00E-03
Aroclor-1232	11141-16-5	5.00E-02	5.00E-04	[1]	1.00E-03
Aroclor-1242	53469-21-9	5.00E-02	5.00E-04	[1]	1.00E-03
Aroclor-1248	12672-29-6	5.00E-02	5.00E-04	[1]	1.00E-03
Aroclor-1254	11097-69-1	5.00E-02	5.00E-04	[1]	1.00E-03
Aroclor-1260	11096-82-5	5.00E-02	5.00E-04	[1]	1.00E-03
Arsenic	7440-38-2	5.00E+00	5.00E-02	[1]	
Barium	7440-39-3	2.00E+02	2.00E+00	[1]	
Benzene	71-43-2	5.00E-01	5.00E-03	[1]	1.00E-03
alpha-BHC	319-84-6	1.35E-03	1.35E-05	[2]	5.00E-05
beta-BHC	319-85-7	4.73E-03	4.73E-05	[2]	5.00E-05
gamma-BHC [Lindane]	58-89-9	2.00E-02	2.00E-04	[1]	5.00E-05
Benzo(a)anthracene	56-55-3	1.17E-02	1.17E-04	[2]	1.00E-02
Benzo(a)pyrene	50-32-8	2.00E-02	2.00E-04	[1]	2.00E-04
Benzo(b)fluoranthene	205-99-2	1.17E-02	1.17E-04	[2]	1.00E-02
Benzo(k)fluoranthene	207-08-9	1.17E-01	1.17E-03	[2]	1.00E-02
Benzoic Acid	65-85-0	1.46E+04	1.46E+02	[2]	
Benzyl Alcohol	100-51-6	1.10E+03	1.10E+01	[2]	
Beryllium	7440-41-7	4.00E-01	4.00E-03	[1]	5.00E-03
Bromodichloromethane	75-27-4	1.00E+01	1.00E-01	[1]	1.00E-03
Bromoform [Tribromomethane]	75-25-2	1.00E+01	1.00E-01	[1]	1.00E-03
Bromomethane [Methyl bromide]	74-83-9	5.11E+00	5.11E-02	[2]	1.00E-03
2-Butanone [Methylethyl ketone]	78-93-3	2.19E+03	2.19E+01	[2]	
Butylbenzylphthalate	85-68-7	7.30E+02	7.30E+00	[2]	1.00E-02
Cadmium	7440-43-9	5.00E-01	5.00E-03	[1]	5.00E-03
Carbon disulfide	75-15-0	3.65E+02	3.65E+00	[2]	
Carbon tetrachloride	56-23-5	5.00E-01	5.00E-03	[1]	1.00E-03
alpha-Chlordane	5103-71-9	2.00E-01	2.00E-03	[1]	1.00E-03
beta-Chlordane	5103-74-2	2.00E-01	2.00E-03	[1]	1.00E-03
gamma-Chlordane	12789-03-6	2.00E-01	2.00E-03	[1]	1.00E-03
4-Chloroaniline	106-47-8	1.46E+01	1.46E-01	[2]	
Chlorobenzene	108-90-7	1.00E+01	1.00E-01	[1]	5.00E-03
Chloroethane	75-00-3	2.94E+00	2.94E-02	[2]	
bis(2-Chloroethyl)ether	111-44-4	7.74E-03	7.74E-05	[2]	1.00E-02
Chloroform [Trichloromethane]	67-66-3	1.00E+01	1.00E-01	[1]	1.00E-03
bis(2-Chloroisopropyl)ether	39638-32-9	1.22E-01	1.22E-03	[2]	1.00E-02
Chloromethane [Methyl chloride]	74-87-3	6.55E-01	6.55E-03	[2]	1.00E-03
2-Chloronaphthalene	91-58-7	2.92E+02	2.92E+00	[2]	
2-Chlorophenol	95-57-8	1.83E+01	1.83E-01	[2]	5.00E-02
Chromium (total)	7440-47-3	1.00E+01	1.00E-01	[1]	
Chrysene	218-01-9	1.17E+00	1.17E-02	[2]	1.00E-02
Cobalt	7440-48-4	2.19E+02	2.19E+00	[1]	
Copper	7440-50-8	1.30E+02	1.30E+00	[3]	

Table 2
Ground Water Action Levels

Analyte	CAS Reference Number	Tier I [a] (mg/L)	Tier II (mg/L)	Basis [b]	PQLs [c] (mg/L)
Cyanide	57-12-5	2.00E+01	2.00E-01	[1]	
4,4-DDD	72-54-8	3.55E-02	3.55E-04	[2]	1.00E-04
4,4-DDE	72-55-9	2.50E-02	2.50E-04	[2]	1.00E-04
4,4-DDT	50-29-3	2.50E-02	2.50E-04	[2]	1.00E-04
Dalapon	75-99-0	2.00E+01	2.00E-01	[1]	1.30E-02
Dibenzo(a,h)anthracene	53-70-3	1.17E-03	1.17E-05	[2]	1.00E-02
Dibenzofuran	132-64-9	1.46E+01	1.46E-01	[2]	
Dibromochloromethane	124-48-1	1.01E-01	1.01E-03	[2]	1.00E-03
1,2-Dibromo-3-chloropropane	96-12-8	2.00E-02	2.00E-04	[1]	1.00E-03
Di-n-butylphthalate	84-74-2	3.65E+02	3.65E+00	[2]	1.00E-02
1,2-Dichlorobenzene	95-50-1	6.00E+01	6.00E-01	[1]	1.00E-02
1,3-Dichlorobenzene	541-73-1	6.00E+01	6.00E-01	[1]	1.00E-02
1,4-Dichlorobenzene	106-46-7	7.50E+00	7.50E-02	[1]	1.00E-02
3,3-Dichlorobenzidine	91-94-1	1.89E-02	1.89E-04	[2]	1.00E-02
1,1-Dichloroethane	75-34-3	3.65E+02	3.65E+00	[2]	1.00E-03
1,2-Dichloroethane	107-06-2	5.00E-01	5.00E-03	[1]	1.00E-03
1,1-Dichloroethene	75-35-4	7.00E-01	7.00E-03	[1]	1.00E-03
1,2-Dichloroethene (total)	75-35-4	7.00E+00	7.00E-02	[1]	5.00E-03
2,4-Dichlorophenol	120-83-2	1.10E+01	1.10E-01	[2]	5.00E-02
2,4-Dichlorophenoxyacetic acid (2,4-D)	94-75-7	7.00E+00	7.00E-02	[1]	1.00E-03
1,2-Dichloropropane	78-87-5	5.00E-01	5.00E-03	[1]	1.00E-03
cis-1,3-Dichloropropene	10061-01-5	4.73E-02	4.73E-04	[2]	1.00E-03
trans-1,3-Dichloropropene	10061-02-6	4.73E-02	4.73E-04	[2]	1.00E-03
Dieldrin	60-57-1	5.32E-04	5.32E-06	[2]	1.00E-04
Diethylphthalate	84-66-2	2.92E+03	2.92E+01	[2]	1.00E-02
2,4-Dimethylphenol	105-67-9	7.30E+01	7.30E-01	[2]	5.00E-02
Dimethylphthalate	131-11-3	3.65E+04	3.65E+02	[2]	1.00E-02
4,6-Dinitro-2-methylphenol	534-52-1	3.65E-01	3.65E-03	[2]	
2,4-Dinitrophenol	51-28-5	7.30E+00	7.30E-02	[2]	5.00E-02
2,4-Dinitrotoluene	121-14-2	1.25E-02	1.25E-04	[2]	1.00E-02
2,6-Dinitrotoluene	606-20-2	1.25E-02	1.25E-04	[2]	1.00E-02
Di-n-octylphthalate	117-84-0	7.30E+01	7.30E-01	[2]	
Endosulfan I	959-98-8	2.19E+01	2.19E-01	[2]	1.00E-04
Endosulfan II	33213-65-9	2.19E+01	2.19E-01	[2]	1.00E-04
Endosulfan sulfate	1031-07-8	2.19E+01	2.19E-01	[2]	1.00E-04
Endosulfan (technical)	115-29-7	2.19E+01	2.19E-01	[2]	1.00E-04
Endrin (technical)	72-20-8	2.00E-01	2.00E-03	[1]	1.00E-04
Ethylbenzene	100-41-4	7.00E+01	7.00E-01	[1]	1.00E-02
bis(2-Ethylhexyl)phthalate	117-81-7	6.00E-01	6.00E-03	[1]	1.00E-02
Fluoranthene	206-44-0	1.46E+02	1.46E+00	[2]	1.00E-02
Fluorene	86-73-7	1.46E+02	1.46E+00	[2]	1.00E-02
Fluoride	7782-41-4	4.00E+02	4.00E+00	[1]	
Glyphosate	1071-83-6	7.00E+01	7.00E-01	[1]	6.00E-02
Heptachlor	76-44-8	4.00E-02	4.00E-04	[1]	5.00E-05
Heptachlor epoxide	1024-57-3	2.00E-02	2.00E-04	[1]	5.00E-05
Hexachlorobenzene	118-74-1	1.00E-01	1.00E-03	[1]	1.00E-02
Hexachlorobutadiene	87-68-3	1.09E-01	1.09E-03	[2]	1.00E-02
Hexachlorocyclopentadiene	77-47-4	5.00E+00	5.00E-02	[1]	1.00E-02
Hexachloroethane	67-72-1	6.08E-01	6.08E-03	[2]	1.00E-02
Indeno(1,2,3-cd)pyrene	193-39-5	1.17E-02	1.17E-04	[2]	1.00E-02
Isophorone	78-59-1	8.96E+00	8.96E-02	[2]	1.00E-02

Table 2
Ground Water Action Levels

Analyte	CAS Reference Number	Tier I [a] (mg/L)	Tier II (mg/L)	Basis [b]	PQLs [c] (mg/L)
Lead (dissolved)	7439-96-5	1.50E+00	1.50E-02	[3]	1.00E-02
Lithium	7439-93-2	7.30E+01	7.30E-01	[2]	
Manganese	7439-96-5	1.72E+02	1.72E+00	[2]	
Mercury	7439-97-6	2.00E-01	2.00E-03	[1]	1.00E-03
Methoxychlor	72-43-5	4.00E+00	4.00E-02	[1]	5.00E-04
Methylene chloride [Dichloromethane]	75-09-2	5.00E-01	5.00E-03	[1]	1.00E-03
2-Methylnaphthalene	91-57-6	1.46E+02	1.46E+00	[2]	
4-Methyl-2-pentanone	108-10-1	2.92E+02	2.92E+00	[2]	
2-Methylphenol	95-48-7	1.83E+02	1.83E+00	[2]	
4-Methylphenol	106-44-5	1.83E+01	1.83E-01	[2]	
Molybdenum	7439-98-7	1.83E+01	1.83E-01	[2]	
Naphthalene	91-20-3	1.46E+02	1.46E+00	[2]	1.00E-02
Nickel	7440-02-0	1.40E+01	1.40E-01	[1]	
Nitrate (MCL as N)	14797-55-8	1.00E+03	1.00E+01	[1]	
Nitrite (MCL as N)	14797-65-0	1.00E+02	1.00E+00	[1]	
2-Nitroaniline	88-74-4	2.19E-01	2.19E-03	[2]	
Nitrobenzene	98-95-3	1.83E+00	1.83E-02	[2]	1.00E-02
4-Nitrophenol	100-02-7	2.92E+01	2.92E-01	[2]	
n-Nitrosodiphenylamine	86-30-6	1.74E+00	1.74E-02	[2]	1.00E-02
n-Nitrosodipropylamine	621-64-7	1.22E-03	1.22E-05	[2]	1.00E-02
Pentachlorophenol	87-86-5	1.00E-01	1.00E-03	[1]	5.00E-02
Phenol	108-95-2	2.19E+03	2.19E+01	[2]	5.00E-02
Pyrene	129-00-0	1.10E+02	1.10E+00	[2]	1.00E-02
Selenium	7782-49-2	5.00E+00	5.00E-02	[1]	1.00E-02
Silver	7440-22-4	1.83E+01	1.83E-01	[2]	5.00E-03
Strontium	7440-24-6	2.19E+03	2.19E+01	[2]	
Styrene	100-42-5	1.00E+01	1.00E-01	[1]	5.00E-03
Sulfate	14808-79-8	5.00E+04	5.00E+02	[4]	
1,1,2,2-Tetrachloroethane	79-34-5	4.26E-02	4.26E-04	[2]	1.00E-03
Tetrachloroethene	127-18-4	5.00E-01	5.00E-03	[1]	1.00E-03
Thallium	7440-28-0	2.00E-01	2.00E-03	[1]	1.20E-02
Tin	7440-31-5	2.19E+03	2.19E+01	[2]	
Toluene	108-88-3	1.00E+02	1.00E+00	[1]	5.00E-03
Toxaphene	8001-35-2	3.00E-01	3.00E-03	[1]	3.00E-03
1,2,4-Trichlorobenzene	120-82-1	7.00E+00	7.00E-02	[1]	1.00E-02
1,1,1-Trichloroethane	71-55-6	2.00E+01	2.00E-01	[1]	5.00E-03
1,1,2-Trichloroethane	79-00-5	5.00E-01	5.00E-03	[1]	1.00E-03
Trichloroethene	79-01-6	5.00E-01	5.00E-03	[1]	1.00E-03
2,4,5-Trichlorophenol	95-95-4	5.00E+00	5.00E-02	[1]	
2,4,6-Trichlorophenol	88-06-2	7.74E-01	7.74E-03	[2]	5.00E-02
Vanadium	7440-62-2	2.56E+01	2.56E-01	[2]	
Vinyl acetate	108-05-4	3.65E+03	3.65E+01	[2]	
Vinyl chloride	75-01-4	2.00E-01	2.00E-03	[1]	2.00E-03
Xylene (total)	1330-20-7	1.00E+03	1.00E+01	[1]	5.00E-03
Zinc	7440-66-6	1.10E+03	1.10E+01	[2]	
RADIONUCLIDES:		pCi/L	pCi/L		
Americium-241	14596-10-2	14.5	0.145	[2]	
Cesium-137+D	10045-97-3	151	1.51	[2]	
Plutonium-239/240	10-12-8	15.1	0.151	[2]	
Radium-226/228+D		2000 [d]	20 [d]	[1]	
Strontium-89/90	11-10-9	85.2	0.852	[2]	
Tritium	10028-17-8	2,000,000	20,000	[1]	
Uranium-233/234	11-08-5	106	1.06	[2]	
Uranium-235	15117-96-1	101	1.01	[2]	

Table 2
Ground Water Action Levels

Analyte	CAS Reference Number	Tier I [a] (mg/L)	Tier II (mg/L)	Basis [b]	PQLs [c] (mg/L)
Uranium-238	7440-61-1	76.8	0.768	[2]	

NOTES:

[a] Tier I action levels are 100 times the corresponding Tier II value.

[b] Basis for Tier II action level:

[1] Maximum Concentration Level (MCL)

[2] Residential groundwater ingestion Preliminary Remediation Goal (PRG)

[3] EPA Action Level based on the Lead and Copper Rule (40 CFR 141.2)

[4] Proposed MCL

[c] If the practical quantitation level (PQL) for a pollutant is higher (less stringent) than an action level, "less than" the PQL will be used as the compliance threshold. These less stringent PQLs are shaded.

[d] This value applies to the sum of the two radium isotopes.

D = Daughters (Indicates that cancer risk estimates for these radionuclides include the contributions from their short-lived decay products, assuming secular equilibrium with the principal nuclide in the environment. Sample analyses for these radionuclides will not include any activity contribution from daughter products.

The scientific notation used in this table indicates the power of ten by which the two-decimal-place number is multiplied (e.g., 2.52E-02 = 2.52 X 10⁻² = .0252).

Table 3
Soil Action Levels

Analyte	CAS Reference Number	Wildlife Refuge Worker [a]	Ecological Receptor [b]	Units
<i>ORGANIC ANALYTES</i>				
Acenaphthene	83-32-9	4.08E+07*		µg/kg
Acetone[d]	67-64-1	1.02E+08*	2.11E+05 (PD)	µg/kg
Aldrin	309-00-2	1.62E+03		µg/kg
Ammonium (as Ammonia)	7664-41-7	> 1E+09*[d]		µg/kg
Anthracene	120-12-7	2.04E+08*		µg/kg
Aroclor 1016	12674-11-2	4.64E+04*		µg/kg
Aroclor 1221	11104-28-2	1.24E+04		µg/kg
Aroclor 1232	11141-16-5	1.24E+04		µg/kg
Aroclor 1242	53469-21-9	1.24E+04		µg/kg
Aroclor 1248	12672-29-6	1.24E+04		µg/kg
Aroclor 1254	11097-69-1	1.24E+04	3.71E+05 (PD)	µg/kg
Aroclor 1260	11096-82-5	1.24E+04		µg/kg
Benzene	71-43-2	2.05E+05		µg/kg
alpha-BHC	319-84-6	5.24E+03		µg/kg
beta-BHC	319-85-7	1.84E+04		µg/kg
gamma-BHC (Lindane)	58-89-9	2.55E+04		µg/kg
Benzo(a)anthracene	56-55-3	3.49E+04	8.00E+05 (PD)	µg/kg
Benzo(a)pyrene	50-32-8	3.49E+03	2.57E+04 (I)	µg/kg
Benzo(b)fluoranthene	205-99-2	3.49E+04	1.01E+06 (PD)	µg/kg
Benzo(k)fluoranthene	207-08-9	3.49E+05	1.01E+06 (PD)	µg/kg
Benzoic Acid (at pH 7)	65-85-0	> 1E+09*		µg/kg
Benzyl Alcohol	100-51-6	3.07E+08*		µg/kg
Bromodichloromethane	75-27-4	6.17E+05		µg/kg
Bromoform	75-25-2	3.73E+06		µg/kg
Bromomethane (methyl bromide)	74-83-9	1.93E+05*		µg/kg
2-Butanone (methyl ethyl ketone)	78-93-3	1.92E+08*	4.33E+05 (PD)	µg/kg
Butylbenzylphthalate	85-68-7	1.47E+08*		µg/kg
Carbon disulfide	75-15-0	1.51E+07*		µg/kg
Carbon tetrachloride[c]	56-23-5	8.15E+04*	8.32E+04 (PM)	µg/kg
alpha-Chlordane	5103-71-9	9.44E+04		µg/kg
beta-Chlordane	5103-74-2	9.44E+04		µg/kg
gamma-Chlordane	12789-03-6	9.44E+04		µg/kg
4-Chloroaniline	106-47-8	2.95E+06*		µg/kg
Chlorobenzene	108-90-7	6.09E+06*		µg/kg
Chloroethane (ethyl chloride)	75-00-3	1.32E+07		µg/kg
bis(2-chloroethyl)ether	111-44-4	3.48E+04		µg/kg
Chloroform[c]	67-66-3	1.92E+04*	1.01E+05 (PD)	µg/kg
bis(2-chloroisopropyl)ether	39638-32-9	5.47E+05		µg/kg
Chloromethane (methyl chloride)	74-87-3	3.71E+05		µg/kg
2-Chloronaphthalene	91-58-7	8.18E+07*		µg/kg
2-Chlorophenol	95-57-8	5.11E+06*		µg/kg
Chrysene	218-01-9	3.49E+06		µg/kg
4,4-DDD	72-54-8	1.43E+05		µg/kg
4,4-DDE	72-55-9	1.01E+05		µg/kg
4,4-DDT	50-29-3	1.00E+05		µg/kg

Table 3
Soil Action Levels

Analyte	CAS Reference Number	Wildlife Refuge Worker [a]	Ecological Receptor [b]	Units
Dibenz(a,h)anthracene	53-70-3	3.49E+03		µg/kg
Dibenzofuran	132-64-9	2.95E+06*		µg/kg
Dibromochloromethane	124-48-1	3.29E+05		µg/kg
Di-n-butylphthalate	84-74-2	7.37E+07*		µg/kg
1,2-Dichlorobenzene (o-)	95-50-1	3.12E+07*		µg/kg
1,4-Dichlorobenzene (p-)	106-46-7	8.40E+05		µg/kg
3,3-Dichlorobenzidine	91-94-1	6.13E+04		µg/kg
1,1-Dichloroethane	75-34-3	2.25E+07*		µg/kg
1,2-Dichloroethane	107-06-2	1.06E+05		µg/kg
1,1-Dichloroethene	75-35-4	1.70E+04		µg/kg
1,2-Dichloroethene (total)	540-59-0	9.20E+06*		µg/kg
2,4-Dichlorophenol (at pH 6.8)	120-83-2	3.07E+06*		µg/kg
1,2-Dichloropropane	78-87-5	3.45E+05*		µg/kg
cis-1,3-Dichloropropene	10061-01-5	6.57E+03		µg/kg
trans-1,3-Dichloropropene	10061-02-6	6.57E+03		µg/kg
Dieldrin	60-57-1	1.72E+03		µg/kg
Diethylphthalate	84-66-2	5.90E+08*		µg/kg
2,4-Dimethylphenol	105-67-9	2.04E+07*		µg/kg
Dimethylphthalate	131-11-3	> 1E+09*		µg/kg
4,6-Dinitro-2-methylphenol (4,6-dinitro-o-cresol)	534-52-1	1.02E+06*		µg/kg
2,4-Dinitrophenol	51-28-5	2.04E+06*		µg/kg
2,4-Dinitrotoluene	121-14-2	5.63E+04		µg/kg
2,6-Dinitrotoluene	606-20-2	5.63E+04		µg/kg
Di-n-octylphthalate	117-84-0	1.47E+07		µg/kg
Endosulfan I	959-98-8	4.42E+06*		µg/kg
Endosulfan II	33213-65-9	4.42E+06*		µg/kg
Endosulfan sulfate	1031-07-8	4.42E+06*		µg/kg
Endosulfan (technical)	115-29-7	4.42E+06*		µg/kg
Endrin (technical)	72-20-8	2.21E+05*		µg/kg
Ethylbenzene	100-41-4	4.25E+06		µg/kg
bis(2-ethylhexyl)phthalate	117-81-7	1.97E+06		µg/kg
Fluoranthene	206-44-0	2.72E+07*		µg/kg
Fluorene	86-73-7	4.08E+07*		µg/kg
Fluoride (as fluorine)	7782-41-4	6.13E+07*		µg/kg
Heptachlor	76-44-8	6.12E+03		µg/kg
Heptachlor epoxide	1024-57-3	3.03E+03		µg/kg
Hexachlorobenzene	118-74-1	1.72E+04		µg/kg
Hexachlorobutadiene	87-68-3	1.47E+05*		µg/kg
Hexachlorocyclopentadiene	77-47-4	3.50E+06*		µg/kg
Hexachloroethane	67-72-1	7.37E+05*	1.99E+06 (PD)	µg/kg
Indeno(1,2,3-cd)pyrene	193-39-5	3.49E+04		µg/kg
Isophorone	78-59-1	2.91E+07		µg/kg
Methoxychlor	72-43-5	5.11E+06*		µg/kg
Methylene chloride (dichloromethane)[c]	75-09-2	2.53E+06	3.95E+04 (PD)	µg/kg
2-Methylnaphthalene	91-57-6	2.04E+07*		µg/kg
4-Methyl-2-pentanone (methyl isobutyl ketone)	108-10-1	1.64E+07*		µg/kg

Table 3
Soil Action Levels

Analyte	CAS Reference Number	Wildlife Refuge Worker [a]	Ecological Receptor [b]	Units
2-Methylphenol (o-cresol)	95-48-7	3.69E+07*		µg/kg
4-Methylphenol (p-cresol)	106-44-5	3.69E+06*		µg/kg
Naphthalene	91-20-3	3.09E+06*		µg/kg
2-Nitroaniline	88-74-4	1.67E+07*		µg/kg
Nitrobenzene	98-95-3	3.32E+05*		µg/kg
4-Nitrophenol	100-02-7	8.18E+06*		µg/kg
n-Nitrosodiphenylamine	86-30-6	7.81E+06		µg/kg
n-Nitrosodipropylamine	621-64-7	5.47E+03		µg/kg
Pentachlorophenol	87-86-5	1.62E+05		µg/kg
Phenol	108-95-2	6.13E+08*		µg/kg
Pyrene	129-00-0	2.21E+07*		µg/kg
Styrene	100-42-5	1.23E+08*		µg/kg
1,1,2,2-Tetrachloroethane	79-34-5	1.00E+05		µg/kg
Tetrachloroethene[c]	127-18-4	6.15E+05	3.75E+04 (PM)	µg/kg
Toluene	108-88-3	3.13E+07*	1.28E+05 (PM)	µg/kg
Toxaphene	8001-35-2	2.50E+04		µg/kg
1,2,4-Trichlorobenzene	120-82-1	9.23E+06*		µg/kg
1,1,1-Trichloroethane	71-55-6	7.97E+07*		µg/kg
1,1,2-Trichloroethane	79-00-5	2.36E+05		µg/kg
Trichloroethene[c]	79-01-6	1.96E+04	5.09E+05 (PD)	µg/kg
2,4,5-Trichlorophenol	95-95-4	1.02E+08*		µg/kg
2,4,6-Trichlorophenol	88-06-2	3.47E+06*		µg/kg
Vinyl acetate	108-05-4	9.63E+08*		µg/kg
Vinyl chloride[c]	75-01-4	4.12E+04	1.66E+02 (PM)	µg/kg
Xylene (total)	1330-20-7	2.04E+06		µg/kg
<i>INORGANIC ANALYTES</i>				
Aluminum	7429-90-5	2.28E+05*		mg/kg
Antimony	7440-36-0	4.09E+02*		mg/kg
Arsenic[c]	7440-38-2	2.22E+01	2.16E+01 (PD)	mg/kg
Barium	7440-39-3	2.64E+04*		mg/kg
Beryllium[c]	7440-41-7	9.21E+02*	2.15E+00 (PD)**	mg/kg
Cadmium (food)[c]	7440-43-9	9.62E+02*		mg/kg
Chromium III	16065-83-1	> 1E+06*		mg/kg
Chromium VI	18540-29-9	2.68E+02		mg/kg
Cobalt	7440-48-4	1.55E+03*		mg/kg
Copper	7440-50-8	4.09E+04*		mg/kg
Cyanide	57-12-5	2.04E+04*		mg/kg
Iron	7439-89-6	3.07E+05*		mg/kg
Lead[c]	7439-92-1	1.00E+03[e]	2.56E+01 (K)**	mg/kg
Lithium	7439-93-2	2.04E+04*		mg/kg
Manganese	7439-96-5	3.48E+03*		mg/kg
Mercury (elemental)	7439-97-6	2.52E+04*		mg/kg
Molybdenum	7439-98-7	5.11E+03*		mg/kg
Nickel (soluble)	7440-02-0	2.04E+04*		mg/kg

Table 3
Soil Action Levels

Analyte	CAS Reference Number	Wildlife Refuge Worker [a]	Ecological Receptor [b]	Units
Nitrate	14797-55-8	> 1E+06*		mg/kg
Nitrite	14797-65-0	1.02E+05*		mg/kg
Selenium	7782-49-2	5.11E+03*		mg/kg
Silver	7440-22-4	5.11E+03*		mg/kg
Strontium	7440-24-6	6.13E+05*		mg/kg
Tin	7440-31-5	6.13E+05*		mg/kg
Uranium (Total)		2.75E+03*[f]	6.78E+01 (PD)	mg/kg
Vanadium	7440-62-2	7.15E+03*	4.33E+02 (K)	mg/kg
Zinc	7440-66-6	3.07E+05*		mg/kg
<i>RADIONUCLIDES [g]</i>				
Americium-241[c]	14596-10-2	7.60E+01 5.00E+01*/	1.90E+03	pCi/g pCi/g
Plutonium-239/240[c]	10-12-8	1.16E+02 [h]	3.80E+03	pCi/g
Uranium-234[c]	11-08-5	3.00E+02	1.80E+03	pCi/g
Uranium-235[c]	15117-96-1	8.00E+00	1.90E+03	pCi/g
Uranium-238[c]	7440-61-1	3.51E+02	1.60E+03	pCi/g
<i>TO BE DETERMINED [i]</i>				
Acenaphthylene	208-96-8	TBD		
Benzo(g,h,i)perylene	191-24-2	TBD		
4-Bromophenyl phenyl ether	101-55-3	TBD		
Dioxin	1746-01-6	TBD		
Furan	110-00-9	TBD		
Hexachlorocyclohexane, gamma	58-89-9	TBD		
Pendimethalin	40487-42-1	TBD		
Pentachlorobenzene	608-93-5	TBD		
Pentachloronitrobenzene	82-68-8	TBD		
Phenanthrene	85-01-8	TBD		
1,2,4,5-Tetrachlorobenzene	95-94-3	TBD		
Trifluralin	1582-09-8	TBD		

Notes:

[a] Values are based on PRG calculations for a wildlife refuge worker (see RFCA Appendix 3, Implementation Guidance Document Appendix N). Values represent either a 1 x 10⁻⁵ lifetime excess cancer risk or a HQ=1 for non-cancer toxicity. An "*" indicates that the value for the wildlife refuge worker is based on HQ=1 for non-cancer toxicity. All toxicity factors used in the calculations are from IRIS, from HEAST, or are approved by the NCEA.

[b] Listed values are based on PRG calculations for ecological receptors (see RFCA Appendix 3, Implementation Guidance Document Appendix N) and are based on Lowest-Observed-Adverse-Effects Level (LOAEL) end points. The action level listed is the lowest action level that was calculated for each of the five selected wildlife receptors: Preble's meadow jumping mouse and black tailed prairie dog (fossorial (burrowing) small mammals), mourning dove (small ground-feeding bird), terrestrial invertebrate (multiple species), and American kestrel (avian predator). The acronym in parentheses is the ecological receptor that is the basis for the Action Level shown: (PM) – Preble's Meadow Jumping Mouse; (PD) - Prairie Dog; (MD) Mourning Dove; (I) - Invertebrate; and (K) - Kestrel.

A "***" indicates that the action level is less than the mean plus 2 standard deviations of the Site background concentration.

In these cases, the ecological action levels will default to background levels.

Inferential statistics are recommended to demonstrate cleanup to background levels.

[The Ecological Risk Working Group is evaluating all analytes listed in Table 3 to determine if the analyte is an ecological potential

Table 3
Soil Action Levels

Analyte	CAS Reference Number	Wildlife Refuge Worker [a]	Ecological Receptor [b]	Units
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contaminant of concern (PCOC). PRGs will be calculated for analytes determined to be ecological PCOCs. Table 3 will be modified, as appropriate, based on this evaluation.]

[c] Sitewide human health analytes that will be analyzed during characterization at a minimum.

[d] $> 1\text{E}+09$ or $> 1\text{E}+06$ indicates the action level has a calculated value greater than $1.00\text{E}+09$ mg/kg (1,000,000,000 ug/kg) or mg/kg 1.00×10^6

(1,000,000 mg/kg) respectively.

[e] U.S. Environmental Protection Agency (EPA). 1994. Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities. Office of Solid Waste and Emergency Response. Washington, D.C. Directive 9355.4-12

[f] The action level for total uranium in units of mg/kg accounts for the non-cancer risk. If uranium contamination reported in pCi/g is collocated with plutonium and/or americium contamination, the radiological action levels for uranium isotopes will be included in sum-of-ratios calculations. If uranium concentrations exceeds either action level, an action determination in accordance with ALF Section 5.3 is triggered.

[g] Wildlife refuge worker values for radionuclides are from the Task 3 Report and Appendices: Calculation of Surface Radionuclide Soil Action Levels for Plutonium, Americium, and Uranium (September 30, 2002). The values are for individual radionuclides and are based on a 1×10^{-5} excess cancer risk and the 5th percentile of the RSAL distribution. In order to account for the total dose from the multiple radionuclides, sum-of-ratios calculations will be applied to all radionuclides which are present above background. Actual values that trigger actions will therefore likely be lower than the values listed in this table. Action levels for other radionuclides will be determined as necessary and in the same manner used to calculate the values listed in this table.

[h] Although the Pu-239 calculated value at 1×10^{-5} risk is 116 pCi/g, the RFCA parties have agreed that accelerated actions are required for soil with Pu activity levels above 50 pCi/g.

[i] Analytes with the note "TBD" are being reviewed to determine if the analyte was used or could have been used at RFETS. If it is determined that the analyte was used or could have been used at RFETS, then a wildlife refuge worker action level will be determined in the same manner used to calculate the wildlife refuge worker values listed in this table.

The scientific notation used in this table indicates the power of ten by which the two-decimal place number is multiplied (e.g., $2.52\text{E}-02 = 2.52 \times 10^{-2} = 0.0252$)