

**Table A1-2  
SUMMARY OF SITE-SPECIFIC PRGs FOR SOIL (0-3 ft bgs) - RECREATIONAL USE  
FIREWORKS SITE**

Chemicals of Potential Concern (COPC)	Calculated RBCs for Various Receptors and Effects Types		Most Stringent RBC (mg/Kg)	MassDEP BackGround Concentration (2) (mg/Kg)	PQL (mg/Kg)	Policy Criteria (mg/Kg)	Site-Specific Soil PRG (Recreational Land Use) (3) (mg/Kg)		Method 1 Standards (mg/Kg)				Site-Specific BackGround Concentration (1) (mg/Kg)		MassDEP BackGround Concentration (2) (mg/Kg)
	Recreational, Child	Recreational, Adult					Basis for Value	S-1 GW-2	S-2 GW-3	S-3 GW-2	S-4 GW-3	Mean	Maximum	Fill Material	
	cancer SDA RecC=CA	cancer SDA RecA=CA													
				Natural Material											
1,1-Dichloroethene	0.024	0.011	0.011	No Value	0.005	None	<b>0.011</b>	<b>RecA=CA</b>	40	1,000	40	3,000	NA	NA	No Value
Arsenic	7.8	9.7	7.8	20	4	None	<b>20</b>	<b>MassDEP BKGD</b>	30	30	30	30	3.6	5.8	20
Chromium (total)	54	11.1	11.1	30	2	None	<b>30</b>	<b>MassDEP BKGD</b>	200	200	200	200	8.5	10.6	40
Lead	586	936	586	100	2.3	None	<b>586</b>	<b>RecC-CA</b>	300	300	300	300	27	78	600
Trichloroethene	9.2	4.3	4.3	No Value	0.005	None	<b>4.3</b>	<b>RecA-CA</b>	20	100	20	500	NA	NA	No Value
Vinyl Chloride	0.57	0.30	0.30	No Value	0.005	None	<b>0.30</b>	<b>RecA-CA</b>	0.4	0.5	0.4	2	NA	NA	No Value

Notes:

- (1) Mean and maximum site-specific background concentrations presented. The mean concentration consists of the average of the detects and one-half the detected concentration.
  - (2) MassDEP background concentrations taken from MassDEP, 2002. Technical Update: Background Levels of Polycyclic Aromatic Hydrocarbons and Metals in Soil. May. Data from natural soil and soil with fill materials are presented.
  - (3) Site-specific soil PRG is the maximum of the most stringent RBC, PQL, and policy criteria. The column with the PRG values and basis for value are highlighted.
- = No Value Calculated  
RBC = Risk Based Concentration  
BKGD = Background  
MassDEP BKGD = MassDEP background concentration for natural soil  
NA = Not Applicable  
PRG = Preliminary Remediation Goal  
mg/Kg = milligram per kilogram
- RecC-CA = Recreational User, Child, carcinogenic effects  
RecA-CA = Recreational User, Adult, carcinogenic effects  
SDA = Southern Disposal Area

**Table A1-3  
SUMMARY OF SITE-SPECIFIC PRGs FOR SOIL (0-6 ft bgs) - COMMERCIAL/INDUSTRIAL USE  
FIREWORKS SITE**

Chemicals of Potential Concern (COPC)	Calculated RBCs for Various Receptors and Effects Types			Most Stringent RBC (mg/Kg)	MassDEP BackGround Concentration (2) (mg/Kg)	PQL (mg/Kg)	Policy Criteria (3) (mg/Kg)	Site-Specific Soil PRG (Commercial/Industrial Land Use) (4) (mg/Kg)	Basis for Value	Method 1 Standards (mg/Kg)				Site-Specific BackGround Concentration (1) (mg/Kg)		MassDEP BackGround Concentration (2) (mg/Kg)	
	Construction Worker	Construction Worker	Utility Worker							S-2	S-2	S-3	S-3	Mean	Maximum		Fill Material
	cancer SDA CW-CA	noncancer MUA CW-NC	cancer SDA UW-CA							GW-2	GW-3	GW-2	GW-3				
1,1-Dichloroethene	0.029	--	0.0040	0.0040	No Value	0.005	None	<b>0.005</b>	<b>PQL</b>	40	1,000	40	3,000	NA	NA	No Value	
Arsenic	--	--	6.5	6.5	20	4	None	<b>20</b>	<b>MassDEP BKGD</b>	20	20	20	20	3.4	5.8	20	
Benzene	--	--	0.18	0.18	No Value	0.005	None	<b>0.18</b>	<b>UW-CA</b>	200	200	700	900	NA	NA	No Value	
Cadmium	--	--	15.8	15.8	2	0.4	None	<b>15.8</b>	<b>UW-CA</b>	30	30	30	30	0.091	0.32	3	
Chromium (total)	24	--	2.4	2.4	30	2	None	<b>30</b>	<b>MassDEP BKGD</b>	200	200	200	200	9.2	15.1	40	
Lead	3,875	145	2,144	145	100	2.3	800	<b>800</b>	<b>POLICY</b>	300	300	300	300	19.9	78	600	
Mercury	--	10.5	--	10.5	0.3	0.02	None	<b>10.5</b>	<b>CW-NC</b>	30	30	30	30	0.14	0.41	1	
Trichloroethene	11.1	--	1.6	1.6	No Value	0.005	None	<b>1.6</b>	<b>UW-CA</b>	2	700	2	2,000	NA	NA	No Value	
Vinyl Chloride	0.79	--	0.11	0.11	No Value	0.005	None	<b>0.11</b>	<b>UW-CA</b>	0.7	4.0	0.7	30	NA	NA	No Value	

Notes:

- (1) Mean and maximum site-specific background concentrations presented. The mean concentration consists of the average of the detects and one-half the detected concentration.
- (2) MassDEP background concentrations taken from MassDEP, 2002. Technical Update: Background Levels of Polycyclic Aromatic Hydrocarbons and Metals in Soil. May. Data from natural soil and soil with fill materials are presented.
- (3) Policy criteria for properties with industrial use was identified only for lead. USEPA, Region 9 2004 PRGs Table. [http://www.epa.gov/region09/waste/sfund/prg/. Accessed August 29, 2005.]
- (4) Site-specific soil PRG is the maximum of the most stringent RBC, PQL, and policy criteria. The column with the PRG values and basis for value are highlighted.

mg/Kg = milligram per kilogram

-- = No Value Calculated

BKGD - Background

CW-CA = Construction Worker, carcinogenic effects

CW-NC = Construction Worker, noncarcinogenic effects

MassDEP BKGD = MassDEP background concentration for natural soil

MUA = March Upland Area

NA = Not Applicable

No value = No MassDEP listed background value

PQL = Practical Quantitation Limit

PRG = Preliminary Remediation Goal

RBC = Risk Based Concentration

SDA = Southern Disposal Area

UW-CA = Utility Worker, carcinogenic effects

**Table A1-4  
SUMMARY OF SITE-SPECIFIC PRELIMINARY PRGs FOR ACCESSIBLE SEDIMENT - RECREATIONAL USE  
FIREWORKS SITE**

Chemicals of Potential Concern (COPC)	Calculated RBCs for Various Receptors and Effects Types						Most Stringent RBC (mg/Kg)	Site-Specific BackGround Concentration (1,2) (mg/Kg)		PQL (mg/Kg)	Policy Criteria (mg/Kg)	Site-Specific Sediment PRG (mg/Kg)	Basis for Value
	Trespasser	Trespasser	Fisherman	Fisherman	Fisherman	Fisherman		Mean	Maximum				
	cancer ECC T-CA	noncancer ECC T-NC	cancer ECC F-CA	noncancer ECC F-NC	cancer LDC F-CA	cancer LUFPP F-CA							
Antimony	--	53	--	48	--	--	48	0.79	1.7	1.2	None	<b>48</b>	F-NC
Arsenic	13.1	--	1.7	--	1.7	1.7	1.7	4.0	9.2	4	None	<b>4.0</b>	SITE BKGD, PQL
Benzo(a)anthracene	5.2	--	0.67	--	0.67	0.67	0.67	0.54	1.7	0.34	None	<b>0.67</b>	F-CA
Benzo(a)pyrene	0.52	--	0.067	--	0.067	0.067	0.067	0.65	1.8	0.34	None	<b>0.65</b>	SITE BKGD
Benzo(b)fluoranthene	5.2	--	0.67	--	0.67	0.67	0.67	0.73	2.1	0.34	None	<b>0.73</b>	SITE BKGD
Benzo(k)fluoranthene	--	--	6.74	--	--	--	6.7	0.71	1.8	0.34	None	<b>6.7</b>	F-CA
Beryllium	--	--	0.61	--	0.61	0.61	0.61	0.68	1.8	0.04	None	<b>0.68</b>	SITE BKGD
Dibenzo(a,h)anthracene	1.1	--	0.14	--	0.14	0.14	0.14	0.18	0.58	0.34	None	<b>0.34</b>	PQL
Indeno(1,2,3-cd)pyrene	5.2	--	0.67	--	0.67	0.67	0.67	0.45	1.43	0.34	None	<b>0.67</b>	F-CA
Lead	--	--	77	--	--	77	77	66	204	2.3	None	<b>77</b>	F-CA
Mercury	--	24.5	--	22.2	--	--	22.2	0.16	0.62	0.02	None	<b>22.2</b>	F-NC
Vinyl Chloride	--	--	0.39	--	0.39	--	0.39	NA	NA	0.005	None	<b>0.39</b>	F-CA

Notes:

- (1) Mean and maximum site-specific background concentrations presented. The Mean concentration consists of the average of the detects and one-half the detected concentration.
- (2) Site-specific background concentrations were collected from a river and pond. The ECC and LDC areas are compared to the river background concentration, while the LUFPP is compared to the pond bar
- (3) Site-specific sediment PRG is the maximum of the most stringent RBC, PQL, and policy criteria. The column with the PRG values and basis for value are highlighted.

mg/Kg = milligram per kilogram

-- = No Value Calculated

BKGD = background

ECC = Eastern Channel Corridor

F-CA = Fisherman, carcinogenic effects

F-NC = Fishman, noncarcinogenic effects

LDC = Lower Drinkwater River Corridor

NA = Not Applicable

PQL = Practical Quantitation Limit

PRG = Preliminary Remediation Goal

RBC = Risk Based Concentration

SITE BKGD = Site Background concentration

T-CA = Trespasser, carcinogenic effects