



Tier 1 Risk-Based Screening Levels (RBSLs)

Exposure Pathway	Surficial Soil [mg/kg]	Subsurface Soil [mg/kg]	Soil Vapor [$\mu\text{g}/\text{m}^3$]	Groundwater [$\mu\text{g}/\text{l}$]
Exposure Mechanism	Ingestion/Dermal/Inhalation	Leachate to Groundwater Ingestion	Indoor Air Inhalation	Groundwater Ingestion
Chemical of Concern				
Benzene	2.8	0.26	2,900	5
Toluene	4,000	140		1000
Ethylbenzene	2,100	190		700
Xylenes	10,000	260		1,400
Methyl tertiary-butyl ether (MTBE)				20
Ethylene Dibromide (EDB)	TBD	TBD	TBD	0.02 to 0.05*
1,2 Dichloroethane (1,2 DCA)	TBD	TBD	TBD	0.38 to 5*
Total Petroleum Hydrocarbons	500**	500**		
Acenaphthene	3,600			420
Anthracene	18,000			2100
Benzo(a)-anthracene	0.62	1.6		0.16
Benzo(a)-pyrene	0.062	4.8		0.016
Benzo(b)-fluoranthene	0.62	4.5		0.16
Benzo(k)-fluoranthene	6.2	4.4		1.6
Chrysene	62	1.5		16
Dibenzo(a,h)-anthracene	0.062	14		0.016
Fluoranthene	2,400			280
Fluorene	2,400			280
Indeno (1,2,3-CD) pyrene	0.62			0.16
Naphthalene	850			140
Pyrene	1,800			210

* The first number in the range is a strictly health-based value. The second number in the range is a maximum contaminant level determined to be an acceptable level of this chemical in water supplies, taking treatability and laboratory detection limits into account. OPS will default to the second number in the range, unless contamination is within the boundaries of an existing or reasonably anticipated water supply.

** OPS has established a threshold value of 500 mg/kg for TPH in soil to define the extent of contamination and identify sites where priority PAHs may pose a risk to human health and the environment. See OPS guidance for further information.

Values in red are revised as of April 13, 2020. Revised soil and soil vapor RBSLs to be determined (TBD) by OPS (July 1, 2021).