Table 7-2
Development of Cleanup Levels for Surface Soil (0 to 2 feet)
Upland Areas
Investigation Area H1
Mare Island, Vallejo, California

Analyte	Hot Spot Screening Criteria			Mare Island Ambient/ Background Fill (mg/kg)	Cleanup Levels[2, 4] (mg/kg)
	Human Health (mg/kg)	Threat to Groundwater (mg/kg)	Ecological[1] (mg/kg)		
Inorganics					
Aluminum	1,000,000	NA	NA	35,000	**1,000,000**
Antimony	3,700	NA	948	8.5	**948**
Arsenic[3]	35	NA	31	36	**36**
Barium	630,000	NA	NA	NA	**630,000**
Cadmium[3]	837	NA	9.7	5.2	**9.7**
Calcium	NA	NA	NA	NA	**NA**
Chromium[3]	1,000,000	NA	139	140	**140**
Cobalt	120,000	NA	2,189	NA	**2,189**
Copper	370,000	NA	2,011	120	**2,011**
Iron	NA	NA	NA	NA	**NA**
Lead	758	NA	411	59	**411**
Manganese	390,000	NA	9,847	1,600	**9,847**
Mercury	2,700	NA	23	2	**23**
Molybdenum	46,000	NA	12	NA	**12**
Nickel	170,000	NA	7,251	130	**7,251**
Selenium	46,000	NA	3.5	NA	**3.5**
Silver	46,000	NA	0.95	NA	**0.95**
Thallium	6,400	NA	363	NA	**363**
Tin	1,000,000	NA	NA	NA	**1,000,000**
Vanadium[3]	64,000	NA	134	190	**190**
Zinc	1,000,000	NA	3,848	230	**3,848**

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Analyte	Hot Spot Screening Criteria			Mare Island Ambient/ Background Fill (mg/kg)	Cleanup Levels[2, 4] (mg/kg)
	Human Health (mg/kg)	Threat to Groundwater (mg/kg)	Ecological[1] (mg/kg)		
Organics					
PCBs	46	NA	2.3	NA	**2.3**
DDTs	NA	NA	2	NA	**2**
Dieldrin	NA	NA	NA	NA	**NA**
Endrin	NA	NA	NA	NA	**NA**
Heptachlor	NA	NA	NA	NA	**NA**
Heptachlor epoxide	NA	NA	NA	NA	**NA**
Anthracene	1,000,000	NA	NA	NA	**1,000,000**
Benzo(a)anthracene	197	NA	NA	NA	**197**
Benzo(a)pyrene	20	NA	1.1	NA	**1.1**
Benzo(b)fluoranthene	197	NA	NA	NA	**197**
Benzo(g,h,i)perylene	230,000	NA	NA	NA	**230,000**
Benzo(k)fluoranthene	197	NA	NA	NA	**197**
Chrysene	1,966	NA	NA	NA	**1,966**
Fluoranthene	230,000	NA	NA	NA	**230,000**
Indeno(1,2,3-cd)pyrene	197	NA	NA	NA	**197**
2-Methylnaphthalene	NA	NA	NA	NA	**NA**
Phenanthrene	1,000,000	NA	NA	NA	**1,000,000**
Pyrene	170,000	NA	NA	NA	**170,000**
Acetone	NA	NA	NA	NA	**NA**
Xylenes	NA	NA	NA	NA	**NA**
TPH as diesel	NA	10,000	NA	NA	**500**
TPH as gasoline	NA	5,600	NA	NA	**400**
TPH as motor oil	NA	14,000	NA	NA	**1,000**

Notes:

1 - The ecological hot spot criteria is based on the high Toxicity Reference Values (TRVs) and a Hazard Quotient (HQ) of 3.

2 - The chosen cleanup level, presented as a shaded cell, is the lowest concentration of the presented criteria or the background level, if higher.

3 - Upper thresholds for arsenic, cadmium, chromium, and vanadium are the maximum residual concentration (after hot spot removal), which are 48.8 mg/kg, 20.1 mg/kg, 973 mg/kg, and 740 mg/kg, respectively.

4 -TPH cleanup levels are per Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, California Regional Water Quality Control Board, 2005.

mg/kg = milligram per kilogram.

NA - Not applicable.