

Table F-17. Environmental Data for F- and H-Area Waste Sites

Waste site	Areal extent of site (m)	Distance to nearest wetland (m)	Area of wetlands within 200 m/1000 m (acres)	Endangered species data	Non-PATHRAE-modeled contaminants exceeding ^a freshwater biota criteria			Area of ground-water outcrop; distance (m) to outcrop	Dilution factor ^d
					Contaminant	Reported level ^b	Criterion ^c		
F-Area acid/caustic basin (904-74G) ^e	15.2 x 15.2	600	No data available	No endangered species or suitable habitat observed within vicinity ^m	pH Silver Cadmium Iron Zinc Gross alpha Gross beta Radium	4.9,9.6 0.003 0.003 2.1 0.54 84. 222. 10.	6.5-9.0 0.000012 0.00008 1.0 0.047 15.0 42.0 5.0	Upper Three Runs Creek; 1525	2.72 x 10 ⁻⁵⁰
H-Area acid/caustic basin (904-75G) ^e	15.2 x 15.2	1200	0/0	No endangered species or suitable habitat observed within vicinity ^m ; however, a bald eagle has been observed about 500 meters from the site ⁿ	No data available			Tributary to Four Mile Creek; 425	5.98 x 10 ⁻⁴⁰
F-Area burning/rubble pit 231-F ^f	18.9 x 83.8	1070	0/0	No endangered species or suitable habitat observed within vicinity ^m	pH Cadmium Copper Mercury Zinc Gross beta	4.3 0.015 0.009 0.0002 0.057 56.	6.5-9.0 0.00008 0.00066 0.000012 0.047 42.0	Upper Three Runs Creek; 1525	8.04 x 10 ^{-5p}
F-Area burning/rubble pit 231-1F ^f	26.8 x 99.1	1070	0/0	No endangered species or suitable habitat observed within vicinity ^m	pH Cadmium Copper Mercury Zinc Gross beta	4.3 0.015 0.009 0.0002 0.057 56.	6.5-9.0 0.00008 0.00066 0.000012 0.047 42.0	Upper Three Runs Creek; 1525	8.04 x 10 ^{-5p}

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Table F-17. Environmental Data for F- and H-Area Waste Sites (continued)

Waste site	Areal extent of site (m)	Distance to nearest wetland (m)	Area of wetlands within 200 m/1000 m (acres)	Endangered species data	Non-PATHRAE-modeled contaminants exceeding a freshwater biota criteria ^a			Area of ground-water outcrop; distance (m) to outcrop	Dilution factor ^d
					Contaminant	Reported level ^b	Criterion ^c		
H-Area retention basin (281-3H) ^g	36.6 x 61	200	0/78	No endangered species or habitat observed within vicinity; however, a bald eagle has been observed about 250 meters from the site ^h .	No data available		Tributary of Four Mile Creek; 120	4.63 x 10 ⁻⁵	
F-Area retention basin (281-3F) ^g	36.6 x 61	200	0/44	No endangered species or suitable habitat observed within vicinity	No data available		Four Mile Creek; 1200	4.63 x 10 ⁻⁴	
Radio-active waste burial ground (643-7G) ^h	440 x 1100	0	4/194 ^m	No endangered species or suitable habitat observed within vicinity	No data available		Four Mile Creek; 1000	2.73 x 10 ⁻²	
Mixed waste management facility (643-28G) ^h	Site located within boundaries of site 643-7G; information the same as for that site								
Radio-active waste burial ground (old) (643-G) ^h	280 x 1100	150	4/194 ^m	No endangered species or suitable habitat observed within vicinity	No data available		Four Mile Creek; 1000	2.73 x 10 ⁻²	

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Table F-17. Environmental Data for F- and H-Area Waste Sites (continued)

Waste site	Areal extent of site (m)	Distance to nearest wetland (m)	Area of wetlands within 200 m/1000 m (acres)	Endangered species data	Non-PATHRAE-modeled contaminants exceeding a freshwater biota criteria			Area of ground-water outcrop; distance (m) to outcrop	Dilution factor ^d	
					Contaminant	Reported level ^b	Criterion ^c			
F-94 F-Area seepage basin 904-41G ⁱ	27 x 84	400	0/102	No endangered species or suitable habitat observed within vicinity ^k ; however, a bald eagle has been observed about 400 meters from the site	pH	3.20	6.5-9.0	Four Mile Creek; 490	7.50 x 10 ⁻³	TE
					Copper	0.17	0.002			
					Iron	4.8	1.0			
F-94 F-Area seepage basin 904-42G ⁱ	27 x 161	400	0/102	No endangered species or suitable habitat observed within vicinity ^k ; however, a bald eagle has been observed about 400 meters from the site	Nickel	0.086	0.019	Four Mile Creek; 490	7.50 x 10 ⁻³	TC
					Zinc	5.1	0.047			
					Gross alpha	3100.	15.0			
F-94 F-Area seepage basin 904-43G ⁱ	94 x 219	400	0/102	No endangered species or suitable habitat observed within vicinity ^b ; however, a bald eagle has been observed about 400 meters from the site	Gross beta	4040.	42.0	Four Mile Creek; 490	7.50 x 10 ⁻³	
					Radium	63.0	5.0			
					pH	3.20	6.5-9.0			

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Waste site	Areal extent of site (m)	Distance to nearest wetland (m)	Area of wetlands within 200 m/1000 m (acres)	Endangered species data	Non-PATHRAE-modeled contaminants exceeding a freshwater biota criteria			Area of ground-water outcrop; distance (m) to outcrop	Dilution factor ^d
					Contaminant	Reported Level ^b	Criterion ^c		
Old F-Area seepage basin 904-49G ^j	59 x 91	200	0.1/166	No endangered species or suitable habitat observed within vicinity ^j ; however, a candidate species, the sand-borrowing may fly, is present nearby ^j and a bald eagle has been observed about 400 meters from the site	pH	3.5	6.5-9.0	Upper Three Runs Creek; 900	4.53 x 10 ⁻⁴
					Beryllium	0.007	0.0053		
					Copper	0.22	0.00066		
					Nickel	0.045	0.0073		
					Zinc	0.91	0.047		
					Gross alpha	202.	15.0		
					Gross beta	1200.	42.0		
Radium	32.	5.0							
H-Area seepage basin 904-44G ^k	27 x 73	200	3.8/184	No endangered species or suitable habitat observed within vicinity ^k ; however, a bald eagle has been observed about 400 meters from the site	pH	3.8	6.5-9.0	Four Mile Creek; 240	3.67 x 10 ⁻²
					Copper	0.030	0.002		
					Nickel	0.037	0.019		
					Zinc	3.1	0.047		
					Gross alpha	497.0	15.0		
					Gross beta	10,600	42.0		
					Radium	34.	5.0		
H-Area seepage basin 904-45G ^k	36 x 140	200	3.8/184	No endangered species or suitable habitat observed within vicinity ^k ; however, a bald eagle has been observed about 400 meters from the site	pH	3.8	6.5-9.0	Four Mile Creek; 240	3.67 x 10 ⁻²
					Copper	0.030	0.002		
					Nickel	0.037	0.019		
					Zinc	3.1	0.047		
					Gross alpha	497.0	15.0		
					Gross beta	10,600	42.0		
					Radium	34.	5.0		

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Table F-17. Environmental Data for F- and H-Area Waste Sites (continued)

Waste site	Areal extent of site (m)	Distance to nearest wetland (m)	Area of wetlands within 200 m/1000 m (acres)	Endangered species data	Non-PATHRAE-modeled contaminants exceeding ^a freshwater biota criteria			Area of ground-water outcrop; distance (m) to outcrop	Dilution factor ^d
					Contaminant	Reported level ^b	Criterion ^c		
H-Area seepage basin 904-46G ^k	107 x 146	200	3.8/184	No endangered species or suitable habitat observed within vicinity ^k ; however, a bald eagle has been observed about 400 meters from the site	pH	3.8	6.5-9.0	Four Mile Creek; 240	3.67 x 10 ⁻²
					Copper	0.030	0.002		
					Nickel	0.037	0.019		
					Zinc	3.1	0.047		
					Gross alpha	497.0	15.0		
					Gross beta	10,600.	42.0		
Radium	34.	5.0							
H-Area seepage basin 904-56G ^k	9.7 acres	200	3.8/184	No endangered species or suitable habitat observed within vicinity ^k ; however, a bald eagle has been observed about 400 meters from the site	pH	3.8	6.5-9.0	Four Mile Creek; 240	3.67 x 10 ⁻²
					Copper	0.030	0.002		
					Nickel	0.037	0.019		
					Zinc	3.1	0.047		
					Gross alpha	497.0	15.0		
					Gross beta	10,600.	42.0		
Radium	34.	5.0							

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^aConcentrations are in milligrams per liter for chemicals and picocuries per liter for radionuclides.

^bAverage value for groundwater well containing highest concentration; levels rounded.

^cBased on ICRP, 1978; EPA, 1985b,c; National Technical Advisory Committee, 1968.

^dEquivalent to groundwater flux divided by flow rate of receiving water body.

^eData from Ward, Johnson, and Marine, 1987, except as otherwise indicated.

^fData from Huber, Johnson, and Marine, 1987, except as otherwise indicated.

^gData from Scott, Killian, Kolb, Corbo, and Marine, 1987, except as otherwise indicated.

^hData from Jaegge, Kolb, Looney, Marine, Towler, and Cook, 1987, except as otherwise indicated.

ⁱData from Killian et al., 1987a, except as otherwise indicated.

^jData from Odum et al., 1987, except as otherwise indicated.

^kData from Killian et al., 1987b, except as otherwise indicated.

^lSeparate data not provided for sites 643-7G/643-28G and 643-G.

^mData on the area not given in site specific reference; however, based on other nearby waste sites, endangered species or suitable habitat are not expected.

ⁿMayer, Hoppe, and Kenamer, 1986.

^oCalculation based on groundwater flux for L-Area acid/caustic basin.

^pCalculation based on groundwater flux for C-Area burning/rubble pit.