

TABLE ES-1
SUMMARY OF RECEPTOR RISKS
HUMAN HEALTH RISK ASSESSMENT
WELLS G&H SUPERFUND SITE OU3

Station	Scenario/Receptor (Recreational User)	RME or CT	Total Cancer Risks	Total Noncancer Risks	Media > 1E-04 or HI > 1	Major contributors to risk (> 1E-06, HI > 1)
13/TT-27	Current (wader)	RME CT	NE NE	NE NE		N/A
	Future (wader)	RME CT	7E-04 5E-05	1E+01 3E+00	sediment	(C) - As; benzo(a)pyrene (NC) - As
WH	Current (wader)	RME CT	1E-04 2E-05	2E+00 1E+00	sediment	(NC) - As
	Future (wader)	RME CT	4E-04 2E-05	7E+00 1E+00	sediment	(C) - As; benzo(a)pyrene (NC) - As
NT-1	Current (wader)	RME CT	NE NE	NE NE		N/A
	Future (wader)	RME CT	5E-04 3E-05	9E+00 2E+00	sediment	(C) - As; benzo(a)pyrene (NC) - As
NT-2	Current (wader)	RME CT	NE NE	NE NE		N/A
	Future (wader)	RME CT	3E-04 2E-05	6E+00 1E+00	sediment	(C) - As; benzo(a)pyrene (NC) - As
NT-3	Current (wader)	RME CT	NE NE	NE NE		N/A
	Future (wader)	RME CT	1E-04 6E-06	2E+00 4E-01	sediment	(NC) - As
CB-03	Current (wader)	RME CT	1E-04 2E-05	3E+00 1E+00	sediment	(C) - As (NC) - As
	Future (wader)	RME CT	1E-04 2E-05	3E+00 1E+00	sediment	(NC) - As
SC05	Current (dredger)	RME CT	NE NE	NE NE		N/A
	Future (dredger)	RME CT	3E-05 5E-06	3E+00 1E+00	sediment	(NC) - As
SC06	Current (dredger)	RME CT	NE NE	NE NE		N/A
	Future (dredger)	RME CT	6E-05 7E-06	5E+00 1E+00	sediment	(NC) - As
SC08	Current (dredger)	RME CT	NE NE	NE NE		N/A
	Future (dredger)	RME CT	4E-05 3E-06	4E+00 5E-01	sediment	(NC) - As

Notes

Bolded values exceed a cancer risk of 1E-04 or a target organ HI of 1.

HI - Hazard Index	(C) - Carcinogenic Risk
RME - Reasonable Maximum Exposure	(NC) - Noncarcinogenic Risk
CT - Central Tendency Exposure	NE - Not Evaluated
As - Arsenic	N/A - Not Applicable

TABLE ES-2
SUMMARY OF RECEPTOR RISKS
ECOLOGICAL RISK ASSESSMENT
WELLS G&H SUPERFUND SITE OU3

Assessment Endpoints	Receptor Species	Exposure Area	Risk Summary
Sustainability (survival, growth, reproduction) of local populations of waterfowl	mallard duck	- 38-acre wetland ¹ - site-wide	Chromium - Low risk to populations, 4 stations in reach 1, 1 in reach 2 above upper TEL ² Lead - Low risk to populations, 3 stations in reach 1 above upper TEL Mercury - Low risk to populations, 1 station in reach 2 above upper TEL
Sustainability (survival, growth, reproduction) of local populations of omnivorous, semi-aquatic mammals	muskrat	- by station	Arsenic - High risk to populations in reach 1, upper TEL = 150 mg/kg in sediment Chromium - Low risk to populations, 3 stations in reach 1 above upper TEL Copper - Low risk to populations, 9 stations in reach 1, 1 in reach 2 above upper TEL Lead - Low risk to populations, 1 station in reach 1 above upper TEL Mercury - Low risk to populations, 5 in reach 1, 1 in reach 2 above upper TEL
Sustainability (survival, growth, reproduction) of local populations of small terrestrial mammals	shrew	- by station	Arsenic - Low risk to populations, 2 stations in reach 1, 1 in reach 2 above upper TEL
Sustainability (survival, growth, reproduction) of local populations of benthic invertebrates	sediment benchmarks	- by reach	Exceedences of SELs ³ for arsenic, chromium, copper, lead, mercury and zinc. Highest risk from arsenic and chromium in reach 1
	crayfish tissue	- by reach	No risk to crayfish from exposure to any COPCs
	<i>H. azteca</i> & <i>C. tentans</i>	- 15 triad stations	Evidence for chronic toxicity associated with arsenic concentration in sediment above TEL of 220 mg/kg
	benthic community composition	- 15 triad stations	Evidence for community impairment associated with arsenic concentration in sediment above TEL of 220 mg/kg

¹ The 38-acre wetland corresponds to the area of Reach 1

² TEL - Threshold Effects Level

³ SEL - Severe Effects Level