

**Table 5-11**  
**Human Health Risk Screening Evaluation for Contaminants in Surface Water Samples - WS-003**

Bellows OU1 EE/CA, Bellows AFS, Hawaii

Chemical Name	Chemical Class	Concentration in Surface Water (mg/L)	Kp (cm/hour)	Chemical Intake (mg/kg-day)				Oral RfD (mg/kg-day)	Oral SF (kg-day/mg)	Ingestion HQ	Dermal HQ	Ingestion ILCR	Dermal ILCR
				Ingestion (non-carcinogen exposure)	contact (non-carcinogen exposure)	Ingestion (carcinogen exposure)	Dermal contact (carcinogen exposure)						
Toluene	VOC	1.28E-04	4.50E-02	9.77E-08	3.11E-07	8.37E-09	2.66E-08	0.2		4.88E-07	1.55E-06		
Di-n-butylphthalate	SVOC	1.09E-03	3.30E-02	8.35E-07	1.95E-06	7.16E-08	1.67E-07	0.1	0.014	8.35E-06	1.95E-05	1.00E-09	2.34E-09
4,4'-DDT	PEST/PCB	9.00E-05	4.30E-01	6.89E-08	2.10E-06	5.91E-09	1.80E-07	0.0005	0.34	1.38E-04	4.19E-03	2.01E-09	6.11E-08
Heptachlor Epoxid	PEST/PCB	6.10E-05	2.63E-05	4.67E-08	8.69E-11	4.00E-09	7.45E-12	0.000013	9.1	3.59E-03	6.68E-06	3.64E-08	6.78E-11
Aluminum	METALS	5.50E-02	1.00E-03	4.21E-05	2.98E-06	3.61E-06	2.55E-07	1		4.21E-05	2.98E-06		
Antimony	METALS	5.75E-03	1.00E-03	4.40E-06	3.11E-07	3.78E-07	2.67E-08	0.0004		1.10E-02	7.79E-04		
Barium	METALS	1.66E-02	1.00E-03	1.27E-05	8.99E-07	1.09E-06	7.71E-08	0.07		1.82E-04	1.28E-05		
Manganese	METALS	8.98E-02	1.00E-03	6.88E-05	4.86E-06	5.90E-06	4.17E-07	0.0467		1.47E-03	1.04E-04		
Vanadium	METALS	5.00E-03	1.00E-03	3.83E-06	2.71E-07	3.28E-07	2.32E-08	0.007		5.47E-04	3.87E-05		
Zinc	METALS	2.25E-02	1.00E-03	1.72E-05	1.22E-06	1.48E-06	1.04E-07	0.3		5.74E-05	4.06E-06		

Chemical-specific HI	% Contribution	Chemical-specific ILCR	% Contribution
2.04E-06	<0.01		
2.78E-05	0.13	3.34E-09	3.24
4.33E-03	19.49	6.31E-08	61.29
3.60E-03	16.21	3.65E-08	35.46
4.51E-05	0.20		
1.18E-02	53.07		
1.94E-04	0.88		
1.58E-03	7.10		
5.86E-04	2.64		
6.15E-05	0.28		

Total Hazard Index **2.22E-02** Total Risk **1.03E-07**

EXPOSURE ASSUMPTIONS	
Exposure Setting	Recreational User
Exposure Case	RME
Surface Water Ingestion Rate - (L/day)	0.05
Exposed Skin Surface Area (cm <sup>2</sup> )	1360
Dermal permeability coefficient (cm/hr)	chemical-specific
Body Weight - (kilograms)	46.5
Exposure Time (hr/day)	2.6
Number of Days/Year Exposed	260
Number of Years Exposed	6
Averaging Time - Noncancer (yrs)	6
Averaging Time - Noncancer (yrs)	70
Ingestion (Noncancer) (L/kg-day)	7.66E-04
Ingestion (Cancer) (L/kg-day)	6.57E-05
Dermal (Noncancer) (cm <sup>2</sup> -hr/kg-day)	5.42E-02
Dermal (Cancer) (cm <sup>2</sup> -hr/kg-day)	4.64E-03