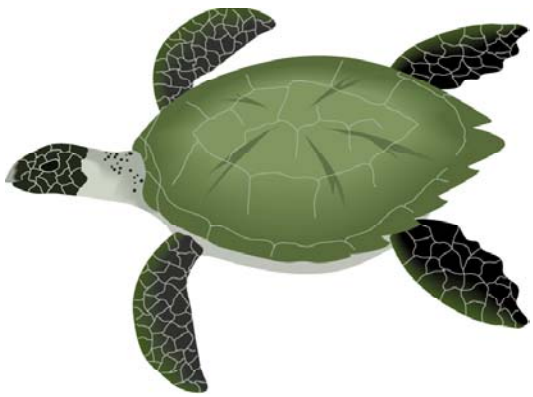
United States Air Force
15th Air Base Wing
Environmental Restoration Program

Waimanalo Stream ITIR

EE/CA for OU1

Bellows Air Force Station
Oahu, Hawaii



Attachment H

Comparison of Chemicals of Potential Concern in Surface Water and Sediment with Screening Levels

Attachment H

Comparison of Chemicals of Potential Concern in Surface Water and Sediment at Waimanalo Stream to Screening Levels

Representative concentrations for chemicals of potential concern (COPCs) in surface water were compared to screening levels established for the protection of aquatic life (the most stringent of the following: National Recommended Water Quality Criteria[1], criteria based on lowest observed effects levels (LOELs) or proposed criteria for the protection of aquatic organisms, or HDOH Tier 1 action levels.[2] The marine chronic ambient water quality criteria (AWQC) were used to ensure adequate protectiveness of potential aquatic receptors and only those HDOH values that were applicable to protection of aquatic resources were utilized (i.e., no human health-derived HDOH values were used). Table H-1 presents the results of this comparison.

Representative concentrations for chemicals of potential concern (COPCs) in sediment were compared to NOAA effects range-low (ERLs) and effects range-median (ERMs). Table H-2 presents the results of this comparison.

[1] 1998 federal AWQC; 64 FR 68357068364, December 10, 1998

[2] HDOH, 1996.

Table H-1
Comparison of COPCs in Surface Water to Screening Levels for Samples from Waimanalo Stream and the Off-Base Reference Area
Bellows OU1 EE/CA, Bellows AFS, Hawaii

						Reference Area			Waimanalo Stream				
Analytical Group	Chemical	CAS	Units	Screening Level	Source of Screening Level	REF-001	REF-002	REF-003	WSU	WS-001	WS-002	WS-003	WSD
VOC	1,1,1,2-Tetrachloroethane	630-20-6	µg/L			0.21 U	0.21 U	0.21 U	0.1 U	0.1 U	0.09 U	0.09 U	0.1 U
VOC	1,1,1-TCA	71-55-6	µg/L	6000	HDOH Tier 1	0.22 U	0.22 U	0.22 U	0.13 U	0.13 U	0.11 U	0.11 U	0.13 U
VOC	1,1,2,2-Tetrachloroethane	79-34-5	µg/L	9020		0.09 U	0.09 U	0.09 U	0.13 U	0.13 U	0.09 U	0.09 U	0.13 U
VOC	1,1,2-TCA	79-00-5	µg/L			0.2 U	0.2 U	0.2 U	0.07 U	0.07 U	0.14 U	0.14 U	0.07 U
VOC	1,1-DCA	75-34-3	µg/L			0.14 U	0.14 U	0.14 U	0.13 U	0.13 U	0.11 U	0.11 U	0.13 U
VOC	1,1-DCE	75-35-4	µg/L	3900	HDOH Tier 1	0.23 U	0.23 U	0.23 U	0.11 U	0.11 U	0.09 U	0.09 U	0.11 U
VOC	1,1-Dichloropropene	563-58-6	µg/L	790	Saltwater CCC LOEL	0.55 U	0.55 U	0.55 U	0.09 U	0.09 U	0.21 U	0.21 U	0.09 U
VOC	1,2,3-Trichlorobenzene	87-61-6	µg/L	129	Saltwater CCC LOEL	0.27 U	0.27 U	0.27 U	0.14 U	0.14 U	0.12 U	0.12 U	0.14 U
VOC	1,2,3-Trichloropropane	96-18-4	µg/L			0.42 U	0.42 U	0.42 U	0.17 U	0.17 U	0.15 U	0.15 U	0.17 U
VOC	1,2,4-Trichlorobenzene	120-82-1	µg/L	129	Saltwater CCC LOEL	0.17 U	0.17 U	0.17 U	0.08 U	0.08 U	0.12 U	0.12 U	0.08 U
VOC	1,2,4-Trimethylbenzene	95-63-6	µg/L			0.2 U	0.2 U	0.2 U	0.12 U	0.12 U	0.09 U	0.09 U	0.12 U
VOC	1,2-DCA	107-06-2	µg/L	113000	Saltwater CMC LOEL	0.14 U	0.14 U	0.14 U	0.13 U	0.13 U	0.1 U	0.1 U	0.13 U
VOC	1,2-DCB	95-50-1	µg/L	129	Saltwater CCC LOEL	0.15 U	0.15 U	0.15 U	0.13 U	0.13 U	0.09 U	0.09 U	0.13 U
VOC	1,2-Dibromo-3-chloropropa	96-12-8	µg/L	129	Saltwater CCC LOEL	0.6 U	0.6 U	0.6 U	0.64 U	0.64 U	0.51 U	0.51 U	0.64 U
VOC	1,2-Dichloropropane	78-87-5	µg/L	3040	Saltwater CCC LOEL	0.24 U	0.24 U	0.24 U	0.1 U	0.1 U	0.08 U	0.08 U	0.1 U
VOC	1,2-EDB	106-93-4	µg/L			0.18 U	0.18 U	0.18 U	0.1 U	0.1 U	0.13 U	0.13 U	0.1 U
VOC	1,3,5-Trimethylbenzene	108-67-8	µg/L			0.17 U	0.17 U	0.17 U	0.09 U	0.09 UM	0.09 U	0.09 U	0.09 U
VOC	1,3-DCB	541-73-1	µg/L	129	Saltwater CCC LOEL	0.22 U	0.22 U	0.22 U	0.1 U	0.1 U	0.08 U	0.08 U	0.1 U
VOC	1,3-Dichloropropane	142-28-9	µg/L	3040	Saltwater CCC LOEL	0.07 U	0.07 U	0.07 U	0.1 U	0.1 U	0.11 U	0.11 U	0.1 U
VOC	1,4-DCB	106-46-7	µg/L	129	Saltwater CCC LOEL	0.21 U	0.21 U	0.21 U	0.11 U	0.11 U	0.09 U	0.09 U	0.11 U
VOC	1-Chlorohexane	544-10-5	µg/L			0.17 U	0.17 U	0.17 U	0.06 U	0.06 U	0.07 U	0.07 U	0.06 U
VOC	2,2-Dichloropropane	594-20-7	µg/L	3040	Saltwater CCC LOEL	0.29 U	0.29 U	0.29 U	0.13 U	0.13 U	0.17 U	0.17 U	0.13 U
VOC	2-Chlorotoluene	95-49-8	µg/L			0.17 U	0.17 U	0.17 U	0.06 U	0.06 U	0.09 U	0.09 U	0.06 U
VOC	4-Chlorotoluene	106-43-4	µg/L			0.15 U	0.15 U	0.15 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
VOC	Benzene	71-43-2	µg/L	700	Saltwater CCC LOEL	0.26 U	0.26 U	0.26 U	0.11 U	0.11 U	0.07 U	0.07 U	0.11 U
VOC	Bromobenzene	108-86-1	µg/L			0.13 U	0.13 U	0.13 U	0.07 U	0.07 U	0.06 U	0.06 U	0.07 U
VOC	Bromochloromethane	74-97-5	µg/L	6400	Saltwater CCC LOEL	0.19 U	0.19 U	0.19 U	0.1 U	0.1 U	0.13 U	0.13 U	0.1 U
VOC	Bromodichloromethane	75-27-4	µg/L	6400	Saltwater CCC LOEL	0.13 U	0.13 U	0.13 U	0.12 U	0.12 U	0.09 U	0.09 U	0.12 U
VOC	Bromoform	75-25-2	µg/L	6400	Saltwater CCC LOEL	0.14 U	0.14 U	0.14 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U
VOC	Bromomethane	74-83-9	µg/L	6400	Saltwater CCC LOEL	0.91 U	0.91 U	0.91 U	R	0.14 UM	0.08 U	0.08 U	R
VOC	Carbon tetrachloride	56-23-5	µg/L	12000	HDOH Tier 1	0.21 U	0.21 U	0.21 U	0.12 U	0.12 U	0.18 U	0.18 U	0.12 U
VOC	Chlorobenzene	108-90-7	µg/L	129	Saltwater CCC LOEL	0.13 U	0.13 U	0.13 U	0.09 U	0.09 U	0.06 U	0.06 U	0.09 U
VOC	Chloroethane	75-00-3	µg/L			0.21 U	0.21 U	0.21 U	0.15 U	0.15 U	0.09 U	0.09 U	0.15 U
VOC	Chloroform	67-66-3	µg/L	6400	Saltwater CCC LOEL	0.11 U	0.11 U	0.11 U	0.14 U	0.14 U	0.1 U	0.1 U	0.14 U
VOC	Chloromethane	74-87-3	µg/L	6400	Saltwater CCC LOEL	0.77 U	0.77 U	0.77 U	0.39 U	0.39 U	0.13 U	0.13 U	0.39 U
VOC	Cis-1,2-DCE	156-59-2	µg/L	224000	Saltwater CMC LOEL	0.2 U	0.2 U	0.2 U	0.12 U	0.12 U	0.21 U	0.21 U	0.12 U
VOC	Cis-1,3-Dichloropropene	10061-01-5	µg/L			0.7 U	0.7 U	0.7 U	0.09 U	0.09 U	0.1 U	0.1 U	0.09 U
VOC	Dibromochloromethane	124-48-1	µg/L	6400	Saltwater CCC LOEL	0.1 U	0.1 U	0.1 U	0.08 U	0.08 U	0.13 U	0.13 U	0.08 U

Table H-1
Comparison of COPCs in Surface Water to Screening Levels for Samples from Waimanalo Stream and the Off-Base Reference Area
Bellows OU1 EE/CA, Bellows AFS, Hawaii

						Reference Area			Waimanalo Stream				
Analyte Group	Chemical	CAS	Units	Screening Level	Source of Screening Level	REF-001	REF-002	REF-003	WSU	WS-001	WS-002	WS-003	WSD
VOC	Dibromomethane	74-95-3	µg/L	6400	Saltwater CCC LOEL	0.08 U	0.08 U	0.08 U	0.11 U	0.11 U	0.12 U	0.12 U	0.11 U
VOC	Dichlorodifluoromethane	75-71-8	µg/L	6400	Saltwater CCC LOEL	0.34 U	0.34 U	0.34 U	0.07 U	0.07 U	0.08 U	0.08 U	0.07 U
VOC	Ethylbenzene	100-41-4	µg/L	30	Saltwater CMC LOEL	0.34 U	0.34 U	0.34 U	0.09 U	0.09 U	0.07 U	0.07 U	0.09 U
VOC	Hexachlorobutadiene	87-68-3	µg/L	32	Saltwater CMC LOEL	0.7 U	0.7 U	0.7 U	0.11 U	0.11 U	0.09 U	0.09 U	0.11 U
VOC	Isopropylbenzene	98-82-8	µg/L			0.16 U	0.16 U	0.16 U	0.08 U	0.08 U	0.07 U	0.07 U	0.08 U
VOC	Methylene chloride	75-09-2	µg/L	6400	Saltwater CCC LOEL	0.23 U	0.23 U	0.23 U	0.09 U	0.09 U	0.05 U	0.05 U	0.09 U
VOC	Sec-Butylbenzene	135-98-8	µg/L			0.14 U	0.14 U	0.14 U	0.09 U	0.09 U	0.08 U	0.08 U	0.09 U
VOC	Styrene	100-42-5	µg/L			0.11 U	0.11 U	0.11 U	0.07 U	0.07 U	0.07 U	0.07 U	0.07 U
VOC	TCE	79-01-6	µg/L	700	HDOH Tier 1	0.34 U	0.34 U	0.34 U	0.14 U	0.14 U	0.09 U	0.09 U	0.14 U
VOC	Tert-Butylbenzene	98-06-6	µg/L			0.5 U	0.5 U	0.5 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U
VOC	Tetrachloroethene	127-18-4	µg/L	145	HDOH Tier 1	0.47 U	0.47 U	0.47 U	0.11 U	0.11 U	0.1 U	0.1 U	0.11 U
VOC	Toluene	108-88-3	µg/L	2100	HDOH Tier 1	0.16 U	0.16 U	0.16 U	0.1 U	0.1 U	0.09 U	0.1275 D F	0.11 F
VOC	Trans-1,2-DCE	156-60-5	µg/L	224000	Saltwater CMC LOEL	0.33 U	0.33 U	0.33 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
VOC	Trans-1,3-Dichloropropene	10061-02-6	µg/L			0.12 U	0.12 U	0.12 U	0.08 U	0.08 U	0.14 U	0.14 U	0.08 U
VOC	Trichlorofluoromethane	75-69-4	µg/L	6400	Saltwater CCC LOEL	0.33 U	0.33 U	0.33 U	0.2 U	0.2 U	0.1 U	0.1 U	0.2 U
VOC	Vinyl chloride	75-01-4	µg/L		MCL-Based HDOH excluded	0.4 U	0.4 U	0.4 U	0.11 U	0.11 U	0.08 U	0.08 U	0.11 U
VOC	m, p-Xylene	108-38-3/1	µg/L		MCL-Based HDOH excluded	0.3 U	0.3 U	0.3 U	0.17 U	0.17 U	0.1 U	0.1 U	0.17 U
VOC	n-Butylbenzene	104-51-8	µg/L			0.22 U	0.22 U	0.22 U	0.11 U	0.11 U	0.08 U	0.08 U	0.11 U
VOC	n-Propylbenzene	103-65-1	µg/L			0.18 U	0.18 U	0.18 U	0.09 U	0.09 U	0.08 U	0.08 U	0.09 U
VOC	o-Xylene	95-47-6	µg/L		MCL-Based HDOH excluded	0.15 U	0.15 U	0.15 U	0.07 U	0.07 U	0.07 U	0.07 U	0.07 U
VOC	p-Isopropyltoluene	99-87-6	µg/L			0.12 U	0.12 U	0.12 U	0.1 U	0.1 U	0.09 U	0.09 U	0.1 U
TPH	TPH-Diesel	TPH-DIESEL	mg/L			0.1 U	0.1 U	0.1 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
TPH	TPH-Gasoline	TPH-GASOLIN	mg/L			0.006 U	0.006 F	0.008 F	0.01 U	0.01 U	0.1 U	0.01 U	0.01 U
SVOC	2,4,5-Trichlorophenol	95-95-4	µg/L	11	Saltwater CCC proposed crite	1.6 U	1.6 U	1.6 U	4.32 U	4.32 U	4.32 U	4.32 U	4.32 U
SVOC	2,4,6-Trichlorophenol	88-06-2	µg/L			1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
SVOC	2,4-DNT	121-14-2	µg/L	370	Saltwater CCC LOEL	2 U	2 U	2 U	1.36 U	1.36 U	1.36 U	1.36 U	1.36 U
SVOC	2,4-Dichlorophenol	120-83-2	µg/L			1.8 U	1.8 U	1.8 U	1.54 U	1.54 U	1.54 U	1.54 U	1.54 U
SVOC	2,4-Dimethylphenol	105-67-9	µg/L			2.3 U	2.3 U	2.3 U	1.62 U	1.62 U	1.62 U	1.62 U	1.62 U
SVOC	2,4-Dinitrophenol	51-28-5	µg/L			2 U	2 U	2 U	5.14 U	5.14 U	5.14 U	5.14 U	5.14 U
SVOC	2,6-DNT	606-20-2	µg/L	370	Saltwater CCC LOEL	1.6 U	1.6 U	1.6 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
SVOC	2-Chloronaphthalene	91-58-7	µg/L	7.5	Saltwater CMC LOEL	1.7 U	1.7 U	1.7 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U
SVOC	2-Chlorophenol	95-57-8	µg/L			2.5 U	2.5 U	2.5 U	1.88 U	1.88 U	1.88 U	1.88 U	1.88 U
SVOC	2-Methylnaphthalene	91-57-6	µg/L			1.9 U	1.9 U	1.9 U	1.66 U	1.66 U	1.66 U	1.66 U	1.66 U
SVOC	2-Methylphenol	95-48-7	µg/L			2.4 U	2.4 U	2.4 U	1.66 U	1.66 U	1.66 U	1.66 U	1.66 U
SVOC	2-Nitroaniline	88-74-4	µg/L			2.1 U	2.1 U	2.1 U	4.28 U	4.28 U	4.28 U	4.28 U	4.28 U
SVOC	2-Nitrophenol	88-75-5	µg/L	4850	Saltwater CMC LOEL	2.3 U	2.3 U	2.3 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
SVOC	3,3'-Dichlorobenzidine	91-94-1	µg/L			3.1 U	3.1 U	3.1 U	1.05 U	1.05 UM	R	1.05 U	1.05 U
SVOC	3-Nitroaniline	99-09-2	µg/L			1.9 U	1.9 U	1.9 U	3.95 U	3.95 UM	3.95 U	3.95 U	3.95 U

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Bellows OU1 EE/CA, Bellows AFS, Hawaii

						Reference Area			Waimanalo Stream				
al Group	Chemical	CAS	Units	Screening Level	Source of Screening Level	REF-001	REF-002	REF-003	WSU	WS-001	WS-002	WS-003	WSD
SVOC	4,6-Dinitro-2-methylphenol	534-52-1	µg/L			2.3 U	2.3 U	2.3 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
SVOC	4-Bromophenyl phenyl ethe	101-55-3	µg/L			1 U	1 U	1 U	1.09 U	1.09 U	1.09 U	1.09 U	1.09 U
SVOC	4-Chloro-3-methylphenol	59-50-7	µg/L			1.6 U	1.6 U	1.6 U	1.36 U	1.36 U	1.36 U	1.36 U	1.36 U
SVOC	4-Chloroaniline	106-47-8	µg/L			2.1 U	2.1 U	R	1.33 U	1.33 U	1.33 U	1.33 U	1.33 U
SVOC	4-Chlorophenyl phenyl ethe	7005-72-3	µg/L			1.6 U	1.6 U	1.6 U	1.37 U	1.37 U	1.37 U	1.37 U	1.37 U
SVOC	4-Methylphenol	106-44-5	µg/L			1.8 U	1.8 U	1.8 U	1.59 U	1.59 U	1.59 U	1.59 U	1.59 U
SVOC	4-Nitroaniline	100-01-6	µg/L			2.6 U	2.6 U	2.6 U	4.56 U	4.56 UM	4.56 U	4.56 U	4.56 U
SVOC	4-Nitrophenol	100-02-7	µg/L	4850	Saltwater CMC LOEL	3.1 U	3.1 U	3.1 U	3.89 U	3.89 U	3.89 U	3.89 U	3.89 U
SVOC	Benzoic acid	65-85-0	µg/L			R	R	R	4.95 U	R	R	R	4.95 U
SVOC	Benzyl alcohol	100-51-6	µg/L			2.9 U	2.9 U	2.9 U	1.56 U	1.56 U	1.56 U	1.56 U	1.56 U
SVOC	Bis (2-chloroethoxy) metha	111-91-1	µg/L	6400	Saltwater CCC LOEL	2.2 U	2.2 U	2.2 U	1.38 U	1.38 U	1.38 U	1.38 U	1.38 U
SVOC	Bis (2-chloroethyl) ether	111-44-4	µg/L			2.9 U	2.9 U	2.9 U	1.86 U	1.86 U	1.86 U	1.86 U	1.86 U
SVOC	Bis (2-chloroisopropyl) ethe	108-60-1	µg/L			2.3 U	2.3 U	2.3 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
SVOC	Bis (2-ethylhexyl) phthalate	117-81-7	µg/L	360	Saltwater CCC proposed crite	3.5 U	3.5 U	3.5 U	2.59 UB	2.59 U	2.59 U	2.59 U	2.59 U
SVOC	Butyl benzylphthalate	85-68-7	µg/L	3.4	Saltwater CCC LOEL	1.8 U	1.8 U	1.8 U	1.32 U	1.32 U	1.32 U	1.32 U	1.32 U
SVOC	Di-n-butylphthalate	84-74-2	µg/L	3.4	Saltwater CCC LOEL	1.6 U	1.6 U	1.6 U	1.04 U	1.04 U	2.32 F	1.09 D F	1.04 U
SVOC	Di-n-octylphthalate	117-84-0	µg/L	3.4	Saltwater CCC LOEL	2.4 U	2.4 U	2.4 U	1.75 U	1.75 U	1.75 U	1.75 U	1.75 U
SVOC	Dibenzofuran	132-64-9	µg/L			1.6 U	1.6 U	1.6 U	1.31 U	1.31 U	1.31 U	1.31 U	1.31 U
SVOC	Diethyl phthalate	84-66-2	µg/L	3.4	Saltwater CCC LOEL	1.5 U	1.5 U	1.5 U	2.51 U	2.51 U	2.51 U	2.51 U	2.51 U
SVOC	Dimethyl phthalate	131-11-3	µg/L	3.4	Saltwater CCC LOEL	1.2 U	1.2 U	1.2 U	1.26 U	1.26 U	1.26 U	1.26 U	1.26 U
SVOC	Hexachlorobenzene	118-74-1	µg/L	129	Saltwater CCC LOEL	1.1 U	1.1 U	1.1 U	1.25 U	1.25 U	1.25 U	1.25 U	1.25 U
SVOC	Hexachlorocyclopentadien	77-47-4	µg/L	7	Saltwater CMC LOEL	0.2 U	0.2 U	0.2 U	4.36 U	4.36 U	4.36 U	4.36 U	4.36 U
SVOC	Hexachloroethane	67-72-1	µg/L	940	Saltwater CMC LOEL	3.4 U	3.4 U	3.4 U	1.76 U	1.76 U	1.76 U	1.76 U	1.76 U
SVOC	Isophorone	78-59-1	µg/L	12900	Saltwater CMC LOEL	1.6 U	1.6 U	1.6 U	1.35 U	1.35 U	1.35 U	1.35 U	1.35 U
SVOC	N-Nitrosodi-n-propylamine	621-64-7	µg/L	3300000	Saltwater CMC LOEL	2.1 U	2.1 U	2.1 U	1.73 U	1.73 U	1.73 U	1.73 U	1.73 U
SVOC	N-Nitrosodiphenylamine	86-30-6	µg/L	3300000	Saltwater CMC LOEL	1.2 U	1.2 U	1.2 U	1.28 U	1.28 U	1.28 U	1.28 U	1.28 U
SVOC	Nitrobenzene	98-95-3	µg/L	6680	Saltwater CMC LOEL	2.5 U	2.5 U	2.5 U	1.65 U	1.65 UM	1.65 U	1.65 U	1.65 U
SVOC	Pentachlorophenol	87-86-5	µg/L	7.9	Saltwater CCC	5.7 U	5.7 U	5.7 U	3.44 U	3.44 U	3.44 U	3.44 U	3.44 U
SVOC	Phenol	108-95-2	µg/L	5800	Saltwater CMC LOEL	2.6 U	2.6 U	2.6 U	1.51 U	1.51 U	1.51 U	1.51 U	1.51 U
PEST	4,4'-DDD	72-54-8	µg/L	0.6	HDOH Tier 1	0.01 U	0.01 U	0.17 F	0.01 U	0.01 UM	0.01 U	0.01 U	0.01 U
PEST	4,4'-DDE	72-55-9	µg/L	14	HDOH Tier 1	0.011 U	0.011 U	0.037 F		0.01 UM	0.01 U	0.01 U	
PEST	4,4'-DDE/Dieldrin	72-55-9/60-57-	µg/L	0.0019	Saltwater CCC				0.01 U				0.01 U
PEST	4,4'-DDT	50-29-3	µg/L	0.001	HDOH Tier 1	0.009 U	**0.017 F**	**0.037 F**	0.02 U	0.02 UM	0.81 U	**0.09 D F**	0.02 U
PEST	Aldrin	309-00-2	µg/L	1.3	Saltwater CMC	0.015 U	0.015 U	0.015 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
PEST	Chlordane (Alpha)	5103-71-9	µg/L	0.004	Saltwater CCC LOEL				0.01 U	0.01 UM	0.01 U	0.01 U	0.01 U
PEST	Chlordane (Gamma)	5103-74-2	µg/L	0.004	Saltwater CCC LOEL				0.01 U	0.01 UM	0.01 U	0.01 U	0.01 U
PEST	Chlordane (technical)	57-74-9	µg/L			R	R	R					
PEST	Dieldrin	60-57-1	µg/L	0.0019	Saltwater CCC	0.011 U	0.011 U	0.011 U		0.01 UM	0.01 U	0.01 U	

Table H-1
Comparison of COPCs in Surface Water to Screening Levels for Samples from Waimanalo Stream and the Off-Base Reference Area
Bellows OU1 EE/CA, Bellows AFS, Hawaii

						Reference Area			Waimanalo Stream				
Analyte Group	Chemical	CAS	Units	Screening Level	Source of Screening Level	REF-001	REF-002	REF-003	WSU	WS-001	WS-002	WS-003	WSD
PEST	Endosulfan I	959-98-8	µg/L	0.0087	Saltwater CCC	0.012 U	0.012 U	0.012 U	0.01 U	0.01 UM	**0.013 F**	0.01 U	0.01 U
PEST	Endosulfan II	33213-65-9	µg/L	0.0087	Saltwater CCC	0.017 U	0.017 U	**0.058 F**	0.02 U	0.02 UM	0.4 U	0.02 U	0.02 U
PEST	Endosulfan sulfate	1031-07-8	µg/L			0.023 U	0.023 U	0.038 F	0.02 U	0.02 UM	0.35 U	0.35 U	0.02 U
PEST	Endrin	72-20-8	µg/L	0.0023	Saltwater CCC	0.012 U	0.012 U	0.012 U	0.03 U	0.03 UM	0.03 U	0.03 U	0.03 U
PEST	Endrin aldehyde	7421-93-4	µg/L			0.027 U	0.027 U	0.025 F	0.04 U	0.5 U	0.04 U	0.04 U	0.04 U
PEST	Heptachlor	76-44-8	µg/L	0.0036	Saltwater CCC	0.011 U	0.011 U	0.011 U	0.4 U	0.01 UM	0.01 U	0.01 U	0.4 U
PEST	Heptachlor epoxide	1024-57-3	µg/L	0.0036	Saltwater CCC	0.025 U	0.025 U	0.025 U	0.32 U	**0.19 M**	0.32 U	**0.061 D F**	0.32 U
PEST	Methoxychlor	72-43-5	µg/L	0.03	Saltwater CCC	0.018 U	**0.062 F**	**0.108 F**	0.02 U	0.02 UM	0.02 U	0.02 U	0.02 U
PEST	Toxaphene	8001-35-2	µg/L	0.0002	Saltwater CCC	R	R	R	R	R	R	R	R
PEST	alpha-BHC	319-84-6	µg/L	0.34	Saltwater CMC LOEL	0.013 U	0.013 U	0.013 U	0.016 F	0.01 UM	0.01 U	0.01 U	0.01 U
PEST	beta-BHC	319-85-7	µg/L	0.34	Saltwater CMC LOEL	0.015 U	0.015 U	0.015 U	0.01 U	0.01 UM	0.01 U	0.01 U	0.01 U
PEST	delta-BHC	319-86-8	µg/L	0.34	Saltwater CMC LOEL	0.019 U	0.019 U	0.019 U	0.01 U	0.015 M	0.01 U	0.01 U	0.01 U
PEST	gamma-BHC (Lindane)	58-89-9	µg/L	0.16	Saltwater CMC	0.01 U	0.01 U	0.01 U	0.01 U	0.01 UM	0.01 U	0.01 U	0.01 U
PCB	Aroclor-1016	12674-11-2	µg/L	0.03	Saltwater CCC	0.4 U	0.4 U	R	0.051 U	0.051 U	0.051 U	0.051 U	0.05 U
PCB	Aroclor-1221	11104-28-2	µg/L	0.03	Saltwater CCC	R	R	R	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
PCB	Aroclor-1232	11141-16-5	µg/L	0.03	Saltwater CCC	0.3 U	0.3 U	R	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
PCB	Aroclor-1242	53469-21-9	µg/L	0.03	Saltwater CCC	0.4 U	0.4 U	R	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
PCB	Aroclor-1248	12672-29-6	µg/L	0.03	Saltwater CCC	R	R	R	0.086 U	0.086 U	0.086 U	0.086 U	0.09 U
PCB	Aroclor-1254	11097-69-1	µg/L	0.03	Saltwater CCC	0.4 U	0.4 U	R	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
PCB	Aroclor-1260	11096-82-5	µg/L	0.03	Saltwater CCC	0.32 U	0.32 U	R	0.069 U	0.069 U	0.069 U	0.069 U	0.07 U
PAH	Acenaphthene	83-32-9	µg/L	320	HDOH Tier 1	0.68 U	0.68 U	0.68 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
PAH	Acenaphthylene	208-96-8	µg/L	300	Saltwater CMC LOEL	1.6 U	1.6 U	1.6 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
PAH	Anthracene	120-12-7	µg/L	300	Saltwater CMC LOEL	0.014 U	0.014 U	0.014 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
PAH	Benzo (a) anthracene	56-55-3	µg/L	300	Saltwater CMC LOEL	0.009 U	0.009 U	0.009 U	0.015 U	0.015 U	0.015 U	0.015 U	0.02 U
PAH	Benzo (a) pyrene	50-32-8	µg/L	300	Saltwater CMC LOEL	0.033 U	0.033 U	0.033 U	0.016 U	0.016 U	0.016 U	0.016 U	0.02 U
PAH	Benzo (b) fluoranthene	205-99-2	µg/L	300	Saltwater CMC LOEL	0.02 U	0.02 U	0.02 U	0.032 U	0.032 U	0.032 U	0.032 U	0.03 U
PAH	Benzo (g,h,i) perylene	191-24-2	µg/L	300	Saltwater CMC LOEL	0.027 U	0.027 U	0.027 U	0.041 U	0.041 U	0.041 U	0.041 U	0.04 U
PAH	Benzo (k) fluoranthene	207-08-9	µg/L	300	Saltwater CMC LOEL	R	R	0.034 U	0.016 U	0.016 U	0.016 U	0.016 U	0.02 U
PAH	Chrysene	218-01-9	µg/L	300	Saltwater CMC LOEL	0.08 U	0.08 U	0.08 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
PAH	Dibenzo (a,h) anthracene	53-70-3	µg/L	300	Saltwater CMC LOEL	0.202 U	0.202 U	0.202 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
PAH	Fluoranthene	206-44-0	µg/L	13	HDOH Tier 1	0.026 U	0.026 U	0.026 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
PAH	Fluorene	86-73-7	µg/L	300	Saltwater CMC LOEL	0.048 U	0.048 U	0.048 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
PAH	Indeno (1,2,3-c,d) pyrene	193-39-5	µg/L	300	Saltwater CMC LOEL	0.014 U	0.014 U	0.014 U	0.036 U	0.036 U	0.036 U	0.036 U	0.04 U
PAH	Naphthalene	91-20-3	µg/L	770	HDOH Tier 1	0.2 U	0.2 U	0.2 U	0.09 U	0.09 U	0.1 U	0.1 U	0.09 U
PAH	Phenanthrene	85-01-8	µg/L	4.6	Saltwater CCC proposed crite	0.011 U	0.011 U	0.011 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
PAH	Pyrene	129-00-0	µg/L	300	Saltwater CMC LOEL	0.04 U	0.04 U	0.04 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
METALS	Aluminum	7429-90-5	mg/L			0.323 U	0.1 F	0.1 F	0.34	0.05 F	0.05 F	0.055 F	0.09 F
METALS	Aluminum, dissolved	7429-90-5_D	mg/L			0.1	0.1	0.1	0.02 U	0.02 U	0.02 U	0.02 F	0.02 U

Table H-1
Comparison of COPCs in Surface Water to Screening Levels for Samples from Waimanalo Stream and the Off-Base Reference Area
Bellows OU1 EE/CA, Bellows AFS, Hawaii

						Reference Area			Waimanalo Stream				
Analyte Group	Chemical	CAS	Units	Screening Level	Source of Screening Level	REF-001	REF-002	REF-003	WSU	WS-001	WS-002	WS-003	WSD
METALS	Antimony	7440-36-0	mg/L	0.5	Saltwater CCC proposed crite	0.025 U	0.025 U	0.031 F	0.007 U	0.007 U	0.007 U	0.0058 D F	0.01 U
METALS	Antimony, dissolved	7440-36-0_D	mg/L	0.5	Saltwater CCC proposed crite	0.025	0.025	0.025	0.009 U	0.007 UM	0.007 U	0.0066 U	0.03 F
METALS	Arsenic	7440-38-2	mg/L	0.036	Saltwater CCC	0.001 U	0.001 U	0.001 U	0.007 U	0.007 UM	0.007 U	0.0069 U	0.01 U
METALS	Arsenic, dissolved	7440-38-2_D	mg/L	0.036	Saltwater CCC	0.001	0.001	0.001	0.007 F	0.007 U	0.007 U	0.0069 U	0.01 U
METALS	Barium	7440-39-3	mg/L			0.007	0.007	0.006 J	0.004 F	0.015	0.017	0.0166	0.01
METALS	Barium, dissolved	7440-39-3_D	mg/L			0.007	0.007	0.006	0.006	0.015	0.017	0.0167	0.01
METALS	Beryllium	7440-41-7	mg/L			0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0 U
METALS	Beryllium, dissolved	7440-41-7_D	mg/L			0.001	0.001	0.001	0.001 U	0.001 U	0.001 U	0.001 U	0 U
METALS	Cadmium	7440-43-9	mg/L	0.009	HDOH Tier 1	0.005 U	0.005 U	0.005 U	0.001 F	0.001 U	0.001 U	0.001 U	0 U
METALS	Cadmium, dissolved	7440-43-9_D	mg/L	0.009	HDOH Tier 1	0.002	0.002	0.002	0.001 U	0.001 U	0.001 U	0.001 U	0 U
METALS	Chromium	7440-47-3	mg/L	0.0504	Saltwater CMC	0.005 U	0.005 U	0.005 U	0.004 U	0.004 U	0.004 U	0.004 U	0 U
METALS	Chromium, dissolved	7440-47-3_D	mg/L	0.05	Saltwater CMC	0.005	0.005	0.005	0.004 U	0.004 U	0.004 U	0.004 U	0 U
METALS	Cobalt	7440-48-4	mg/L			0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0 U
METALS	Cobalt, dissolved	7440-48-4_D	mg/L			0.003	0.003	0.003	0.003 U	0.003 U	0.003 U	0.003 U	0 U
METALS	Copper	7440-50-8	mg/L	0.0037	Saltwater CCC	**0.011**	**0.014**	**0.015 J**	0.001 U	0.001 U	0.001 U	0.001 U	0 U
METALS	Copper, dissolved	7440-50-8_D	mg/L	0.0031	Saltwater CCC	**0.011**	**0.015**	**0.01**	0.001 U	0.001 U	0.001 U	0.001 U	0 U
METALS	Iron	7439-89-6	mg/L			0.168 F	0.128 U	0.126 F	0.073 U	0.141 U	0.094 U	0.107 U	0.11 U
METALS	Iron, dissolved	7439-89-6_D	mg/L			0.08	0.08	0.08	0.086 F	0.022 F	0.002 U	0.0295 D F	0.02 F
METALS	Lead	7439-92-1	mg/L	0.0056	HDOH Tier 1	0.001 U	0.001 U	0.001 U	0.004 U	0.008 UM	0.008 U	0.008 U	**0.01 F**
METALS	Lead, dissolved	7439-92-1_D	mg/L	0.0056	HDOH Tier 1	1E-04	1E-04	1E-04	0.004 U	0.008 U	0.008 U	0.008 U	0.01 F
METALS	Manganese	7439-96-5	mg/L			0.001 U	0.001 U	0.001 U	0.016	0.074	0.085	0.0898	0.07
METALS	Manganese, dissolved	7439-96-5_D	mg/L			0.001	0.001	0.001	0.007	0.089	0.081	0.086	0.07
METALS	Mercury	7439-97-6	mg/L	0.0011	Saltwater CCC	2E-04 U	2E-04 U	2E-04 U	1E-04 U	1E-04 U	1E-04 U	0.0001 U	0 U
METALS	Mercury, dissolved	7439-97-6_D	mg/L	0.00094	Saltwater CCC	2E-04	2E-04	2E-04	1E-04 U	1E-04 U	1E-04 U	0.0001 U	0 U
METALS	Molybdenum	7439-98-7	mg/L			0.014 F	0.013 F	0.016					
METALS	Molybdenum, dissolved	7439-98-7_D	mg/L			0.014	0.016	0.013					
METALS	Nickel	7440-02-0	mg/L	0.0083	Saltwater CCC	0.005 U	0.005 U	0.005 U	0.006 U	0.008 F	0.006 U	0.006 U	0.01 U
METALS	Nickel, dissolved	7440-02-0_D	mg/L	0.0082	Saltwater CCC	0.005	0.005	0.005	0.006 U	0.006 U	0.006 U	0.006 D F	0.01 U
METALS	Selenium	7782-49-2	mg/L	0.0711	Saltwater CCC	0.019 F	0.024 F	0.015 F	0.006 U	0.006 U	0.006 U	0.0058 U	0.01 U
METALS	Selenium, dissolved	7782-49-2_D	mg/L	0.071	Saltwater CCC	0.015	0.023	0.015	0.006 U	0.006 U	0.006 U	0.0058 U	0.01 U
METALS	Silver	7440-22-4	mg/L	0.0022	Saltwater CMC	0.005 U	**0.005 F**	0.005 U	0.002 U	0.002 U	0.002 U	0.002 U	0 U
METALS	Silver, dissolved	7440-22-4_D	mg/L	0.0019	Saltwater CMC	**0.005**	**0.009**	**0.005**	0.002 U	0.002 U	0.002 U	0.002 U	0 U
METALS	Thallium	7440-28-0	mg/L	2.13	Saltwater CMC LOEL	0.027 U	0.02 U	0.02 U	0.011 U	0.011 U	0.011 U	0.011 U	0.01 U
METALS	Thallium, dissolved	7440-28-0_D	mg/L	2.13	Saltwater CMC LOEL	0.02	0.02	0.02	0.011 U	0.011 U	0.011 U	0.011 U	0.01 U
METALS	Vanadium	7440-62-2	mg/L			0.005 U	0.005 U	0.005 U	0.007 F	0.005 F	0.005 F	0.005 F	0.01 F
METALS	Vanadium, dissolved	7440-62-2_D	mg/L			0.005	0.005	0.005	0.004 F	0.006 F	0.004 F	0.0045 F	0.01 F
METALS	Zinc	7440-66-6	mg/L	0.086	Saltwater CCC	0.038	0.055	**0.175**	0.003 U	0.003 U	0.002 U	0.0225 D	0 U
METALS	Zinc, dissolved	7440-66-6_D	mg/L	0.081	Saltwater CCC	0.014	0.012	0.025	0.005 F	0.003 F	0.002 U	0.004 F	0.01 F

Table H-1
Comparison of COPCs in Surface Water to Screening Levels for Samples from Waimanalo Stream and the Off-Base Reference Area
Bellows OU1 EE/CA, Bellows AFS, Hawaii

						Reference Area			Waimanalo Stream				
Chemical Group	Chemical	CAS	Units	Screening Level	Source of Screening Level	REF-001	REF-002	REF-003	WSU	WS-001	WS-002	WS-003	WSD
HERB	2,4,5-T	93-76-5	µg/L			0.02 U	0.026 F	0.061 F	0.23 U	0.23 UM	0.23 U	0.23 U	0.23 U
HERB	2,4,5-TP (Silvex)	93-72-1	µg/L			0.612 U	0.612 U	0.612 U	R	R	R	R	R
HERB	2,4-D	94-75-7	µg/L			0.142 U	0.142 U	0.142 U	R	0.52 U	0.52 U	0.52 U	R
HERB	2,4-DB	94-82-6	µg/L			R	R	R	R	R	R	R	R
HERB	Dalapon	75-99-0	µg/L			R	R	R	0.93 U	0.93 U	0.93 U	0.93 U	52 J
HERB	Dicamba	1918-00-9	µg/L			0.013 U	0.013 U	0.013 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
HERB	Dichloroprop	120-36-5	µg/L			0.693 F	0.697 F	0.607 F	R	R	R	R	R
HERB	Dinoseb	88-85-7	µg/L			0.116 F	0.113 F	R	0.08 U	R	R	R	0.08 U
HERB	MCPA	94-74-6	µg/L			42.5 F	46.2 F	19.5 F	54 U	54 U	54 U	54 U	54 U
HERB	MCPP	93-65-2	µg/L			R	95.3 F	129	22 U	22 U	22 U	22 U	22 U

Notes:

Bold and shading indicate that the concentration exceeds the screening level.

Chemical Groups
VOC = volatile organic compounds
TPH = total petroleum hydrocarbons
SVOC = semivolatile organic compounds
PEST/PCB = pesticides/polychlorinated biphenyls
HERB = herbicides

Data Qualifiers
B = The analyte was found in an associated blank, as well as in the sample.
D = Applied to averaged results when non "U" qualifiers are not identical.
F = The analyte was positively identified but the associated numerical value is below the reporting limit (RL).
J = The analyte was positively identified; the quantitation is an estimation.
M = A matrix effect was present.
R = The data are unusable due to deficiencies in the ability to analyze the sample and meet QC Criteria.

Abbreviations
µg/L = micrograms per liter
mg/L = milligrams per liter
HDOH Tier 1 = Hawaii Department of Health Tier 1 action level
Saltwater CCC = Marine Chronic, National Recommended Water Quality Criteria (64 FR 68357-68364, December 10, 1998)
Saltwater CMC = Marine Acute, National Recommended Water Quality Criteria (64 FR 68357-68364, December 10, 1998)

Table H-2
Comparison of COPCs in Sediment to Screening Levels for Samples from Waimanalo Stream and the Off-Base Reference Area
Bellows OU1 EE/CA, Bellows AFS, Hawaii

						Reference Area			Waimanalo Stream				
Chemical Group	Chemical	CAS	Unit	NOAA ERL	NOAA ERM	REF-001	REF-002	REF-003	WSU	WS-001	WS-002	WS-003	WSD
VOC	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg			0.00295 U	0.0021 U	0.00181 U	0.0002 U	0.0004 U	0.0005 U	0.0003 U	0.0003 U
VOC	1,1,1-TCA	71-55-6	mg/kg			0.00136 U	0.00097 U	0.00083 U	0.0002 U	0.0004 U	0.0005 U	0.0004 U	0.0003 U
VOC	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg			0.00386 U	0.00274 U	0.00236 U	0.0003 U	0.0005 U	0.0007 U	0.0005 U	0.0004 U
VOC	1,1,2-TCA	79-00-5	mg/kg			0.00205 U	0.00145 U	0.00125 U	0.0004 U	0.0006 U	0.0008 U	0.0006 U	0.0005 U
VOC	1,1-DCA	75-34-3	mg/kg			0.00273 U	0.00194 U	0.00167 U	0.0003 U	0.0005 U	0.0007 U	0.0005 U	0.0004 U
VOC	1,1-DCE	75-35-4	mg/kg			0.00273 U	0.00194 U	0.00167 U	0.0005 U	0.0008 U	0.0011 U	0.0008 U	0.0006 U
VOC	1,1-Dichloropropene	563-58-6	mg/kg			0.00568 U	0.00403 U	0.00347 U	0.0004 U	0.0006 U	0.0007 U	0.0005 U	0.0004 U
VOC	1,2,3-Trichlorobenzene	87-61-6	mg/kg			0.00318 U	0.00226 U	0.00194 U	0.0003 U	0.0005 UM	0.0006 U	0.0005 U	0.0004 U
VOC	1,2,3-Trichloropropane	96-18-4	mg/kg			0.00568 U	0.00403 U	0.00347 U	0.001 U	0.001 UM	0.002 U	0.001 U	0.001 U
VOC	1,2,4-Trichlorobenzene	120-82-1	mg/kg			0.00432 U	0.00306 U	0.00264 U	0.0005 U	0.0007 U	0.0009 U	0.0007 U	0.0005 U
VOC	1,2,4-Trimethylbenzene	95-63-6	mg/kg			0.00409 U	0.0029 U	0.0025 U	0.0002 U	0.0003 U	0.0004 U	0.0003 U	0.0002 U
VOC	1,2-DCA	107-06-2	mg/kg			0.00273 U	0.00194 U	0.00167 U	0.0002 U	0.0004 U	0.0005 U	0.0003 U	0.0003 U
VOC	1,2-DCB	95-50-1	mg/kg			0.00182 U	0.00129 U	0.00111 U	0.0002 U	0.0003 U	0.0003 U	0.0003 U	0.0002 U
VOC	1,2-Dibromo-3-chloropropane	96-12-8	mg/kg			0.00955 U	0.00677 U	0.00583 U	0.001 U	0.001 U	0.002 U	0.001 U	0.001 U
VOC	1,2-Dichloropropane	78-87-5	mg/kg			0.00159 U	0.00113 U	0.00097 U	0.0003 U	0.0004 U	0.0005 U	0.0004 U	0.0003 U
VOC	1,2-EDB	106-93-4	mg/kg			0.0025 U	0.00177 U	0.00153 U	0.0003 U	0.0005 U	0.0007 U	0.0005 U	0.0004 U
VOC	1,3,5-Trimethylbenzene	108-67-8	mg/kg			0.00455 U	0.00323 U	0.00278 U	0.0003 U	0.0005 U	0.0006 U	0.0004 U	0.0004 U
VOC	1,3-DCB	541-73-1	mg/kg			0.005 U	0.00355 U	0.00306 U	0.0003 U	0.0004 U	0.0006 U	0.0004 U	0.0003 U
VOC	1,3-Dichloropropane	142-28-9	mg/kg			0.00386 U	0.00274 U	0.00236 U	0.0004 U	0.0006 U	0.0008 U	0.0006 U	0.0005 U
VOC	1,4-DCB	106-46-7	mg/kg			0.00091 U	0.00064 U	0.00056 U	0.0003 U	0.0005 U	0.0007 U	0.0005 U	0.0004 U
VOC	1-Chlorohexane	544-10-5	mg/kg			0.00523 U	0.00371 U	0.00319 U	0.0003 U	0.0005 U	0.0007 U	0.0005 U	0.0004 U
VOC	2,2-Dichloropropane	594-20-7	mg/kg			0.00273 U	0.00194 U	0.00167 U	0.0004 U	0.001 U	0.001 U	0.001 U	0.001 U
VOC	2-Chlorotoluene	95-49-8	mg/kg			0.00455 U	0.00323 U	0.00278 U	0.0003 U	0.0004 U	0.0006 U	0.0004 U	0.0003 U
VOC	4-Chlorotoluene	106-43-4	mg/kg			0.00523 U	0.00371 U	0.00319 U	0.0003 U	0.0004 U	0.0006 U	0.0004 U	0.0003 U
VOC	Benzene	71-43-2	mg/kg			0.00273 U	0.00194 U	0.00167 U	0.0003 U	0.0004 U	0.0006 U	0.0004 U	0.0003 U
VOC	Bromobenzene	108-86-1	mg/kg			0.00114 U	0.00081 U	0.00069 U	0.0002 U	0.0004 U	0.0005 U	0.0004 U	0.0003 U
VOC	Bromochloromethane	74-97-5	mg/kg			0.00386 U	0.00274 U	0.00236 U	0.0003 U	0.0005 U	0.0006 U	0.0005 U	0.0004 U
VOC	Bromodichloromethane	75-27-4	mg/kg			0.00205 U	0.00145 U	0.00125 U	0.0002 U	0.0004 U	0.0005 U	0.0004 U	0.0003 U
VOC	Bromoform	75-25-2	mg/kg			0.00295 U	0.0021 U	0.00181 U	0.0003 U	0.0005 UM	0.0006 U	0.0005 U	0.0004 U
VOC	Bromomethane	74-83-9	mg/kg			0.00682 U	0.00484 U	0.00417 U	0.0003 U	0.0004 U	0.0006 U	0.0004 U	0.0003 U
VOC	Carbon tetrachloride	56-23-5	mg/kg			0.0111 U	0.0079 U	0.00681 U	0.0005 U	0.001 UM	0.001 U	0.001 U	0.001 U
VOC	Chlorobenzene	108-90-7	mg/kg			0.00341 U	0.00242 U	0.00208 U	0.0003 U	0.0005 U	0.0006 U	0.0004 U	0.0004 U
VOC	Chloroethane	75-00-3	mg/kg			0.00523 U	0.00371 U	0.00319 U	0.0004 U	0.0006 U	0.0007 U	0.0005 U	0.0004 U
VOC	Chloroform	67-66-3	mg/kg			0.00227 U	0.00161 U	0.00139 U	0.0003 U	0.0005 U	0.0007 U	0.0005 U	0.0004 U
VOC	Chloromethane	74-87-3	mg/kg			0.00227 U	0.00161 U	0.00139 U	0.0003 U	0.0005 U	0.0007 U	0.0005 U	0.0004 U
VOC	Cis-1,2-DCE	156-59-2	mg/kg			0.00318 U	0.00226 U	0.00194 U	0.0004 U	0.0006 U	0.0008 U	0.0006 U	0.0005 U
VOC	Cis-1,3-Dichloropropene	10061-01-5	mg/kg			0.00295 U	0.0021 U	0.00181 U	0.0002 U	0.0004 U	0.0005 U	0.0004 U	0.0003 U
VOC	Dibromochloromethane	124-48-1	mg/kg			0.00182 U	0.00129 U	0.00111 U	0.0003 U	0.0005 U	0.0006 U	0.0004 U	0.0004 U
VOC	Dibromomethane	74-95-3	mg/kg			0.00136 U	0.00097 U	0.00083 U	0.0003 U	0.0005 UM	0.001 U	0.0005 U	0.0004 U

Table H-2
Comparison of COPCs in Sediment to Screening Levels for Samples from Waimanalo Stream and the Off-Base Reference Area
Bellows OU1 EE/CA, Bellows AFS, Hawaii

						Reference Area			Waimanalo Stream				
Chemical Group	Chemical	CAS	Unit	NOAA ERL	NOAA ERM	REF-001	REF-002	REF-003	WSU	WS-001	WS-002	WS-003	WSD
VOC	Dichlorodifluoromethane	75-71-8	mg/kg			0.00182 U	0.00129 U	0.00111 U	0.0004 U	0.0007 U	0.0009 U	0.0006 U	0.0005 U
VOC	Ethylbenzene	100-41-4	mg/kg			0.005 U	0.00355 U	0.00306 U	0.0003 U	0.0004 U	0.0005 U	0.0004 U	0.0003 U
VOC	Hexachlorobutadiene	87-68-3	mg/kg			0.00568 U	0.00403 U	0.00347 U	0.0004 U	0.0006 U	0.0008 U	0.0006 U	0.0005 U
VOC	Isopropylbenzene	98-82-8	mg/kg			0.00705 U	0.005 U	0.00431 U	0.0002 U	0.0003 U	0.0004 U	0.0003 U	0.0002 U
VOC	Methylene chloride	75-09-2	mg/kg			0.00341 U	0.00242 U	0.00208 U	0.0004 U	0.0007 U	0.0009 U	0.0007 U	0.0005 U
VOC	Sec-Butylbenzene	135-98-8	mg/kg			0.00318 U	0.00226 U	0.00194 U	0.0002 U	0.0003 U	0.0003 U	0.0003 U	0.0002 U
VOC	Styrene	100-42-5	mg/kg			0.00386 U	0.00274 U	0.00236 U	0.0002 U	0.0003 U	0.0004 U	0.0003 U	0.0003 U
VOC	TCE	79-01-6	mg/kg			0.00341 U	0.00242 U	0.00208 U	0.0003 U	0.0005 U	0.001 U	0.0005 U	0.0004 U
VOC	Tert-Butylbenzene	98-06-6	mg/kg			0.005 U	0.00355 U	0.00306 U	0.0002 U	0.0003 U	0.0004 U	0.0003 U	0.0003 U
VOC	Tetrachloroethene	127-18-4	mg/kg			0.00636 U	0.00452 U	0.00389 U	0.0004 U	0.0006 U	0.0007 U	0.0005 U	0.0004 U
VOC	Toluene	108-88-3	mg/kg			0.00182 U	0.00129 U	0.00111 U	0.0002 U	0.0004 U	0.0005 U	0.0004 U	0.0003 U
VOC	Trans-1,2-DCE	156-60-5	mg/kg			0.00227 U	0.00161 U	0.00139 U	0.0006 U	0.0009 U	0.0012 U	0.0009 U	0.0007 U
VOC	Trans-1,3-Dichloropropene	10061-02-6	mg/kg			0.00182 U	0.00129 U	0.00111 U	0.0003 U	0.0004 U	0.0006 U	0.0004 U	0.0003 U
VOC	Trichlorofluoromethane	75-69-4	mg/kg			0.00773 U	0.00548 U	0.00472 U	0.0004 U	0.0007 U	0.0009 U	0.0007 U	0.0005 U
VOC	Vinyl chloride	75-01-4	mg/kg			0.00114 U	0.00081 U	0.00069 U	0.0005 U	0.0008 U	0.001 U	0.0007 U	0.0006 U
VOC	m, p-Xylene	108-38-3/1	mg/kg			0.00432 U	0.00306 U	0.00264 U	0.0004 U	0.001 U	0.001 U	0.001 U	0.0005 U
VOC	n-Butylbenzene	104-51-8	mg/kg			0.00795 U	0.00565 U	0.00486 U	0.0003 U	0.0004 U	0.0006 U	0.0004 U	0.0003 U
VOC	n-Propylbenzene	103-65-1	mg/kg			0.00227 U	0.00161 U	0.00139 U	0.0002 U	0.0004 U	0.0005 U	0.0004 U	0.0003 U
VOC	o-Xylene	95-47-6	mg/kg			0.00614 U	0.00435 U	0.00375 U	0.0001 U	0.0002 U	0.0003 U	0.0002 U	0.0002 U
VOC	p-Isopropyltoluene	99-87-6	mg/kg			0.00432 U	0.00306 U	0.00264 U	0.0002 U	0.0003 U	0.0004 U	0.0003 U	0.0003 U
TPH	TPH-Diesel	TPH-DIESEL	mg/kg			116	80.8	72.4	8.5 F	28 F	64 F	18.175 D F	6.2 F
TPH	TPH-Gasoline	TPH-GASOLINE	mg/kg			0.0379 J	0.0258 U	0.0222 U	0.01 U	0.15 F	0.01 U	0.01 U	0.01 U
SVOC	2,4,5-Trichlorophenol	95-95-4	mg/kg			0.682 U	0.484 U	0.417 U	0.26 U	0.41 U	0.53 U	0.39 U	0.31 U
SVOC	2,4,6-Trichlorophenol	88-06-2	mg/kg			0.682 U	0.484 U	0.417 U	0.106 U	0.167 U	0.215 U	0.157 U	0.128 U
SVOC	2,4-DNT	121-14-2	mg/kg			0.682 U	0.484 U	0.417 U	0.17 U	0.27 U	0.35 U	0.26 U	0.21 U
SVOC	2,4-Dichlorophenol	120-83-2	mg/kg			0.455 U	0.323 U	0.278 U	0.092 U	0.144 U	0.186 U	0.136 U	0.11 U
SVOC	2,4-Dimethylphenol	105-67-9	mg/kg			0.455 U	0.323 U	0.278 U	0.133 U	0.209 U	0.269 U	0.197 U	0.16 U
SVOC	2,4-Dinitrophenol	51-28-5	mg/kg			0.455 U	0.323 U	0.278 U	0.29 U	0.45 U	0.58 U	0.43 U	0.35 U
SVOC	2,6-DNT	606-20-2	mg/kg			0.682 U	0.484 U	0.417 U	0.11 U	0.17 U	0.21 U	0.16 U	0.13 U
SVOC	2-Chloronaphthalene	91-58-7	mg/kg			R	R	R	0.1 U	0.16 U	0.21 U	0.15 U	0.13 U
SVOC	2-Chlorophenol	95-57-8	mg/kg			0.682 U	0.484 U	0.417 U	0.131 U	0.206 U	0.266 U	0.194 U	0.158 U
SVOC	2-Methylnaphthalene	91-57-6	mg/kg	0.07	0.67	0.682 U	0.484 U	0.417 U	0.11 U	0.17 U	0.22 U	0.16 U	0.13 U
SVOC	2-Methylphenol	95-48-7	mg/kg			0.682 U	0.484 U	0.417 U	0.164 U	0.257 U	0.332 U	0.242 U	0.197 U
SVOC	2-Nitroaniline	88-74-4	mg/kg			0.455 U	0.323 U	0.278 U	0.29 U	0.46 U	0.59 U	0.43 U	0.35 U
SVOC	2-Nitrophenol	88-75-5	mg/kg			0.455 U	0.323 U	0.278 U	0.135 U	0.212 U	0.274 U	0.2 U	0.163 U
SVOC	3,3'-Dichlorobenzidine	91-94-1	mg/kg			0.909 U	0.645 U	0.556 U	0.2 U	0.31 U	0.4 U	0.29 U	0.24 U
SVOC	3-Nitroaniline	99-09-2	mg/kg			0.455 U	0.323 U	0.278 U	0.29 U	0.46 UM	0.59 U	0.43 U	0.35 U
SVOC	4,6-Dinitro-2-methylphenol	534-52-1	mg/kg			0.455 U	0.323 U	0.278 U	0.37 U	0.59 U	0.75 U	0.55 U	0.45 U
SVOC	4-Bromophenyl phenyl ether	101-55-3	mg/kg			0.682 U	0.484 U	0.417 U	0.14 U	0.23 U	0.29 U	0.21 U	0.17 U

Table H-2
Comparison of COPCs in Sediment to Screening Levels for Samples from Waimanalo Stream and the Off-Base Reference Area
Bellows OU1 EE/CA, Bellows AFS, Hawaii

						Reference Area			Waimanalo Stream				
Chemical Group	Chemical	CAS	Unit	NOAA ERL	NOAA ERM	REF-001	REF-002	REF-003	WSU	WS-001	WS-002	WS-003	WSD
SVOC	4-Chloro-3-methylphenol	59-50-7	mg/kg			0.455 U	0.323 U	0.278 U	0.13 U	0.2 U	0.26 U	0.19 U	0.15 U
SVOC	4-Chloroaniline	106-47-8	mg/kg			0.455 U	0.323 U	0.278 U	0.16 U	0.25 UM	0.32 U	0.23 U	0.19 U
SVOC	4-Chlorophenyl phenyl ether	7005-72-3	mg/kg			0.682 U	0.484 U	0.417 U	0.1 U	0.15 U	0.2 U	0.14 U	0.12 U
SVOC	4-Methylphenol	106-44-5	mg/kg			0.455 U	0.323 U	0.278 U	0.112 U	0.176 U	0.227 U	0.166 U	0.135 U
SVOC	4-Nitroaniline	100-01-6	mg/kg			0.682 U	0.484 U	0.417 U	0.46 U	0.72 U	0.92 U	0.67 U	0.55 U
SVOC	4-Nitrophenol	100-02-7	mg/kg			0.682 U	0.484 U	0.417 U	0.22 U	0.34 U	0.44 U	0.32 U	0.26 U
SVOC	Benzoic acid	65-85-0	mg/kg			0.909 U	0.645 U	0.556 U	0.32 U	0.5 U	0.64 U	0.47 U	0.38 U
SVOC	Benzyl alcohol	100-51-6	mg/kg			0.455 U	0.323 U	0.278 U	0.15 U	0.24 U	0.31 U	0.23 U	0.19 U
SVOC	Bis (2-chloroethoxy) methane	111-91-1	mg/kg			0.455 U	0.323 U	0.278 U	0.12 U	0.18 U	0.24 U	0.17 U	0.14 U
SVOC	Bis (2-chloroethyl) ether	111-44-4	mg/kg			0.455 U	0.323 U	0.278 U	0.15 U	0.24 U	0.31 U	0.23 U	0.18 U
SVOC	Bis (2-chloroisopropyl) ether	108-60-1	mg/kg			0.682 U	0.484 U	0.417 U	0.1 U	0.16 U	0.2 U	0.15 U	0.12 U
SVOC	Bis (2-ethylhexyl) phthalate	117-81-7	mg/kg			2.78	0.484 U	0.417 U	0.2 U	0.31 U	0.4 U	0.29 U	0.24 U
SVOC	Butyl benzylphthalate	85-68-7	mg/kg			0.682 U	0.484 U	0.417 U	0.16 U	0.25 U	0.32 U	0.24 U	0.19 U
SVOC	Di-n-butylphthalate	84-74-2	mg/kg			0.682 U	0.484 U	0.417 U	0.13 F	0.14 U	0.18 U	0.1325 D F	0.1 U
SVOC	Di-n-octylphthalate	117-84-0	mg/kg			0.682 U	0.484 U	0.417 U	0.04 U	0.07 U	0.09 U	0.07 U	0.05 U
SVOC	Dibenzofuran	132-64-9	mg/kg			0.682 U	0.484 U	0.417 U	0.09 U	0.15 U	0.19 U	0.14 U	0.11 U
SVOC	Diethyl phthalate	84-66-2	mg/kg			0.909 U	0.645 U	0.556 U	0.17 U	0.26 U	0.34 U	0.25 U	0.2 U
SVOC	Dimethyl phthalate	131-11-3	mg/kg			0.909 U	0.645 U	0.556 U	0.09 U	0.15 U	0.19 U	0.14 U	0.11 U
SVOC	Hexachlorobenzene	118-74-1	mg/kg			0.682 U	0.484 U	0.417 U	0.11 U	0.18 UM	0.23 U	0.17 U	0.13 U
SVOC	Hexachlorocyclopentadiene	77-47-4	mg/kg			0.227 U	0.161 U	0.139 U	0.26 U	0.41 UM	0.53 U	0.39 U	0.31 U
SVOC	Hexachloroethane	67-72-1	mg/kg			0.682 U	0.484 U	0.417 U	0.16 U	0.25 UM	0.32 U	0.24 U	0.19 U
SVOC	Isophorone	78-59-1	mg/kg			0.682 U	0.484 U	0.417 U	0.11 U	0.18 U	0.23 U	0.17 U	0.14 U
SVOC	N-Nitrosodi-n-propylamine	621-64-7	mg/kg			0.682 U	0.484 U	0.417 U	0.14 U	0.23 U	0.29 U	0.21 U	0.17 U
SVOC	N-Nitrosodiphenylamine	86-30-6	mg/kg			0.682 U	0.484 U	0.417 U	0.12 U	0.19 U	0.25 U	0.18 U	0.15 U
SVOC	Nitrobenzene	98-95-3	mg/kg			0.682 U	0.484 U	0.417 U	0.13 U	0.2 U	0.26 U	0.19 U	0.15 U
SVOC	Pentachlorophenol	87-86-5	mg/kg			0.455 U	0.323 U	0.278 U	0.41 U	0.64 U	0.83 U	0.61 U	0.49 U
SVOC	Phenol	108-95-2	mg/kg			0.682 U	0.484 U	0.417 U	0.114 U	0.178 U	0.23 U	0.168 U	0.137 U
PEST	4,4'-DDD	72-54-8	mg/kg			0.0005 U	0.00036 U	0.00031 U	0.0039 F	0.0071 M	0.018 F	0.0046 F	0.0027 F
PEST	4,4'-DDE	72-55-9	mg/kg	0.0022	0.027	0.00063 U	0.00044 U	0.00038 U	0.0021 F	0.0017 M	0.0054 F	0.001598 D F	0.011 F
PEST	4,4'-DDT	50-29-3	mg/kg	0.0016	0.0461	0.00059 U	0.00042 U	0.00036 U	0.058 U	0.019 F	R	0.0012 U	0.052 U
PEST	Aldrin	309-00-2	mg/kg			0.00159 U	0.00113 U	0.00097 U	0.0013 F	0.00033 UM	0.0038 F	0.00205 F	0.00089 F
PEST	Chlordane (Alpha)	5103-71-9	mg/kg						0.006 F	0.0033 M	0.039 F	0.0064 F	0.0011 F
PEST	Chlordane (Gamma)	5103-74-2	mg/kg						0.0075 F	0.0019 M	0.0072 F	0.0018 F	0.0049 F
PEST	Chlordane (technical)	57-74-9	mg/kg			0.0182 U	0.013 U	0.0112 U					
PEST	Dieldrin	60-57-1	mg/kg			0.00085 U	0.0006 U	0.00052 U	0.0036 F	0.0015 M	0.011 F	0.00275 F	0.0032 F
PEST	Endosulfan I	959-98-8	mg/kg			0.00088 U	0.00063 U	0.00054 U	0.00066 U	0.0084 F	0.0052 F	0.003775 D F	0.00076 U
PEST	Endosulfan II	33213-65-9	mg/kg			0.00058 U	0.00041 U	0.00036 U	0.0017 U	0.011 F	0.024 F	0.0019 U	0.0021 F
PEST	Endosulfan sulfate	1031-07-8	mg/kg			0.00539 U	0.00382 U	0.00329 U	0.015 F	0.015 F	0.014 F	0.00325 F	0.019 F
PEST	Endrin	72-20-8	mg/kg			0.00072 U	0.00051 U	0.00044 U	0.0014 U	0.014 M	0.031 F	0.00655 D F	0.0016 U

Table H-2
Comparison of COPCs in Sediment to Screening Levels for Samples from Waimanalo Stream and the Off-Base Reference Area
Bellows OU1 EE/CA, Bellows AFS, Hawaii

						Reference Area			Waimanalo Stream				
Chemical Group	Chemical	CAS	Unit	NOAA ERL	NOAA ERM	REF-001	REF-002	REF-003	WSU	WS-001	WS-002	WS-003	WSD
PEST	Endrin aldehyde	7421-93-4	mg/kg			0.00131 U	0.00093 U	0.0008 U	0.0058 F	0.0041 F	R	0.0081 F	0.0077 F
PEST	Heptachlor	76-44-8	mg/kg			0.00129 U	0.00092 U	0.00079 U	0.019 F	0.0031 F	4.4 J	1.436 J	0.01 F
PEST	Heptachlor epoxide	1024-57-3	mg/kg			0.0261 F	0.00049 U	0.00042 U	0.0026 F	0.0045 M	0.011 F	0.00255 F	0.0024 F
PEST	Methoxychlor	72-43-5	mg/kg			0.00365 U	0.00259 U	0.00223 U	0.024 F	0.025 M	0.0096 F	0.0066 F	0.0032 F
PEST	Toxaphene	8001-35-2	mg/kg			0.0232 U	0.0164 U	0.0141 U	R	R	R	R	R
PEST	alpha-BHC	319-84-6	mg/kg			0.00068 U	0.00048 U	0.00042 U	0.00046 U	0.035 U	0.016 F	0.00048 U	0.012 F
PEST	beta-BHC	319-85-7	mg/kg			0.00089 U	0.00063 U	0.00054 U	0.023 F	0.0093 M	0.022 F	0.0101 F	0.0064 F
PEST	delta-BHC	319-86-8	mg/kg			0.061	0.00081 U	0.00692 F	0.014 U	0.0003 UM	0.00044 U	0.00031 U	0.022 J
PEST	gamma-BHC (Lindane)	58-89-9	mg/kg			0.00152 U	0.00108 U	0.00093 U	0.013 F	0.42 M	0.47 J	0.465 J	0.22 J
PCB	Aroclor-1016	12674-11-2	mg/kg	0.0227	0.18	0.05 U	0.035 U	0.031 U	0.0096 U	0.07 UM	0.18 U	0.075 U	0.012 U
PCB	Aroclor-1221	11104-28-2	mg/kg	0.0227	0.18	0.073 U	0.052 U	0.044 U	0.011 U	0.079 UM	0.2 U	0.084 U	0.013 U
PCB	Aroclor-1232	11141-16-5	mg/kg	0.0227	0.18	0.145 U	0.103 U	0.089 U	0.0092 U	0.067 UM	0.18 U	0.072 U	0.011 U
PCB	Aroclor-1242	53469-21-9	mg/kg	0.0227	0.18	0.025 U	0.018 U	0.015 U	0.012 U	0.084 UM	0.22 U	0.089 U	0.014 U
PCB	Aroclor-1248	12672-29-6	mg/kg	0.0227	0.18	0.064 U	0.045 U	0.039 U	0.016 U	0.12 UM	0.3 U	0.12 U	0.02 U
PCB	Aroclor-1254	11097-69-1	mg/kg	0.0227	0.18	0.061 U	0.044 U	0.038 U	0.0027 U	0.02 UM	0.051 U	0.021 U	0.0033 U
PCB	Aroclor-1260	11096-82-5	mg/kg	0.0227	0.18	0.007 U	0.005 U	0.004 U	0.0038 U	0.028 UM	0.073 U	0.03 U	0.0047 U
PAH	Acenaphthene	83-32-9	mg/kg	0.016	0.5	0.042 U	0.0298 U	0.0257 U	0.03 U	0.03 U	0.04 U	0.03 U	0.02 U
PAH	Acenaphthylene	208-96-8	mg/kg	0.044	0.64	0.227 U	0.161 U	0.139 U	0.041 U	0.049 U	0.063 U	0.046 U	0.038 U
PAH	Anthracene	120-12-7	mg/kg	0.0853	1.1	0.005 U	0.00355 U	0.00306 U	0.029 F	0.002 U	0.015 F	0.002 U	0.002 U
PAH	Benzo (a) anthracene	56-55-3	mg/kg	0.261	1.6	0.00727 U	0.0188	0.00444 U	0.135	0.0047 F	0.161	0.01445 D	0.0019 U
PAH	Benzo (a) pyrene	50-32-8	mg/kg	0.43	1.6	0.00386 U	0.484 U	0.00236 U	0.132	0.0031 U	0.181	0.02235 D	0.0023 U
PAH	Benzo (b) fluoranthene	205-99-2	mg/kg			0.00568 U	0.00403 U	0.00347 U	0.125	0.0057 U	0.205	0.02105 D J	0.0044 U
PAH	Benzo (g,h,i) perylene	191-24-2	mg/kg			0.00705 U	0.005 U	0.00431 U	0.105	0.008 F	0.186	0.023 F	0.006 U
PAH	Benzo (k) fluoranthene	207-08-9	mg/kg			R	R	R	0.0735	0.0028 U	0.0973	0.009625 D F	0.0022 U
PAH	Chrysene	218-01-9	mg/kg	0.384	2.8	0.00864 U	0.00613 U	0.00528 U	0.18 J	0.01 F	0.27 F	0.017 F	0.002 U
PAH	Dibenzo (a,h) anthracene	53-70-3	mg/kg	0.0634	0.26	0.0164 U	0.0116 U	0.01 U	0.006 U	0.007 U	0.008 U	0.006 U	0.005 U
PAH	Fluoranthene	206-44-0	mg/kg	0.6	0.6	0.00818 U	0.00581 U	0.005 U	0.377	0.004 U	0.3535 F	0.0225 D F	0.003 U
PAH	Fluorene	86-73-7	mg/kg	0.019	0.54	0.00818 U	0.00581 U	0.005 U	0.004 U	0.005 U	0.006 U	0.005 U	0.004 U
PAH	Indeno (1,2,3-c,d) pyrene	193-39-5	mg/kg			0.00318 U	0.00226 U	0.00194 U	0.199 J	0.014 F	0.342 J	0.062 D F	0.008 U
PAH	Naphthalene	91-20-3	mg/kg	0.16	2.1	0.00273 U	0.00194 U	0.00167 U	0.0004 U	0.0007 U	0.0009 U	0.0007 U	0.0005 U
PAH	Phenanthrene	85-01-8	mg/kg	0.24	1.5	0.00841 U	0.00597 U	0.00514 U	0.272 F	0.004 F	0.132 F	0.00575 D F	0.002 U
PAH	Pyrene	129-00-0	mg/kg	0.665	2.6	0.00818 U	0.00581 U	0.005 U	0.331	0.008 F	0.239 F	0.025 F	0.002 U
METALS	Aluminum	7429-90-5	mg/kg			23300	17500	11000	48200	26900 M	24000	22850	966
METALS	Antimony	7440-36-0	mg/kg			1.07 U	0.758 U	0.653 U	1.37 U	2.16 UM	2.8 U	2.03 U	1.66 U
METALS	Arsenic	7440-38-2	mg/kg	8.2	70	4.29	3.52	5.98	5.8 F	5.3 M	5.8 F	7.05 F	2.3 F
METALS	Barium	7440-39-3	mg/kg			7.4	6.44	2.87	103	16.9	14.4	12.3	4.7
METALS	Beryllium	7440-41-7	mg/kg			0.909 U	0.645 U	0.556 U	0.72 F	0.39 F	0.42 F	0.4 F	0.16 U
METALS	Cadmium	7440-43-9	mg/kg	1.2	9.6	0.455 U	0.323 U	0.278 U	1.4	0.92 F	1 F	0.71 F	0.157 U
METALS	Chromium	7440-47-3	mg/kg	81	370	**116**	94	64.1	220	111 M	120	106	6.6 F

Table H-2
Comparison of COPCs in Sediment to Screening Levels for Samples from Waimanalo Stream and the Off-Base Reference Area
Bellows OU1 EE/CA, Bellows AFS, Hawaii

						Reference Area			Waimanalo Stream				
Chemical Group	Chemical	CAS	Unit	NOAA ERL	NOAA ERM	REF-001	REF-002	REF-003	WSU	WS-001	WS-002	WS-003	WSD
METALS	Cobalt	7440-48-4	mg/kg			30.5	30.5	27	35.9	22.4	24.7 F	19.85 D	0.47 U
METALS	Copper	7440-50-8	mg/kg	34	270	**163**	88.4	49.1	85.2	50.1	57.3	46.7	1 F
METALS	Iron	7439-89-6	mg/kg			51200	45200	35700	70500 J	40400 M	41900 J	34950 J	1340 J
METALS	Lead	7439-92-1	mg/kg	46.7	218	**9.2**	9.75	4.93	11.3	6.7 M	9 F	8.95 F	3.4 F
METALS	Manganese	7439-96-5	mg/kg			252	266	274	1390	505 M	371	226	59.4
METALS	Mercury	7439-97-6	mg/kg	0.15	0.71	**0.0493**	0.13	0.105	0.06 U	0.1 U	0.13 U	0.1 U	0.08 U
METALS	Molybdenum	7439-98-7	mg/kg			1.15 J	1.61 U	1.01 J					
METALS	Nickel	7440-02-0	mg/kg	20.9	51.6	**78.5**	**69.8**	45.8	**151**	**81.4**	**81.4**	**79.75**	3.8
METALS	Selenium	7782-49-2	mg/kg			2.27 U	1.61 U	1.39 U	1.06 U	1.67 U	2.16 U	1.57 U	1.28 U
METALS	Silver	7440-22-4	mg/kg	1	3.7	1.14 U	0.806 U	0.694 U	0.85 F	0.75 F	0.79 U	0.58 U	0.47 U
METALS	Thallium	7440-28-0	mg/kg			4.55 U	3.23 U	2.78 U	0.91 U	1.43 UM	1.85 U	1.34 U	1.1 U
METALS	Vanadium	7440-62-2	mg/kg			135	119	98.6	166	88.4	104	87.25	4.6
METALS	Zinc	7440-66-6	mg/kg	150	410	**119 B**	85	60 B	122	62.9	86.8	68.8	3.4
HERB	2,4,5-T	93-76-5	mg/kg			0.0161 F	0.0256 F	0.0147 F	0.006 U	0.0088 UM	0.013 U	0.0092 U	0.0068 U
HERB	2,4,5-TP (Silvex)	93-72-1	mg/kg			0.0012 U	0.0154	0.0094	0.04	0.0084 U	0.012 U	0.0087 U	0.0064 U
HERB	2,4-D	94-75-7	mg/kg			0.00432 U	0.00307 U	0.00264 U	0.54 J	0.035 U	0.052 U	0.036 U	0.027 U
HERB	2,4-DB	94-82-6	mg/kg			0.00841 U	0.00597 U	0.00514 U	0.03 U	0.045 U	0.067 U	0.046 U	0.034 U
HERB	Dalapon	75-99-0	mg/kg			R	R	R	110 J	0.039 UM	0.058 U	0.04 U	0.03 U
HERB	Dicamba	1918-00-9	mg/kg			0.00159 U	0.0286 F	0.00097 U	0.14 F	0.018 U	0.027 U	0.019 U	0.014 U
HERB	Dichloroprop	120-36-5	mg/kg			R	R	R	0.019 U	0.028 UM	0.042 U	0.029 U	0.021 U
HERB	Dinoseb	88-85-7	mg/kg			R	R	R	0.0071 U	0.01 U	0.016 U	0.011 U	0.0081 U
HERB	MCPA	94-74-6	mg/kg			R	R	R	4.3 U	6.4 U	9.5 U	6.6 U	4.9 U
HERB	MCPP	93-65-2	mg/kg			R	R	R	24 J	18 U	4.9 U	3.4 U	2.5 U

Notes:

Bold and shading indicate that the concentration exceeds the screening level.

Chemical Groups
VOC = volatile organic compounds
TPH = total petroleum hydrocarbons
SVOC = semivolatile organic compounds
PEST/PCB = pesticides/polychlorinated biphenyls
HERB = herbicides

Data Qualifiers
B = The analyte was found in an associated blank, as well as in the sample.
D = Applied to averaged results when non "U" qualifiers are not identical.
F = The analyte was positively identified but the associated numerical value is below the reporting limit (RL).
J = The analyte was positively identified; the quantitation is an estimation.
M = A matrix effect was present.
R = The data are unusable due to deficiencies in the ability to analyze the sample and meet QC Criteria.

Abbreviations
mg/kg = micrograms per kiligrams
NOAA ERL = National Oceanic and Atmospheric Administration Effects-Range-Low
NOAA ERM = National Oceanic and Atmospheric Administration Effects-Range-Median