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GOVERNOR OF HAWAII

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DEPARTMENT OF HEALTH
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In reply, please refer to:
File:

COMMITTEE ON FINANCE

HB 834, Relating to Water Quality Standards

Testimony of Chiyome Leinaala Fukino, M.D.
Director of Health

March 2, 2009

10:30 a.m.

Department's Position: The Department supports this bill.

Fiscal Implications: None for the Department.

Purpose and Justification: This bill revises by statute certain state water quality standards for inland and marine waters on an interim basis to conform to levels recommended by the State of Hawaii and United States Environmental Protection Agency.

The Department agrees with the concept of changing the state water quality standards for most toxic pollutants by tying them to the 2006 national criteria currently recommended by the U.S. Environmental Protection Agency (EPA). We recommend covering all of the Priority Pollutants and those Non-Priority Pollutants currently identified in chapter 11-54, Hawaii Administrative Rules. After HB 834, HD1 was adopted, we agreed with the City to exclude certain pollutants from the bill (non-priority pollutants for which the Department does not have standards now), and we suggested language for a SB 1008, SD1. We have attached two charts of the 2006 Recommended Priority and Non-Priority Pollutants to allow comparisons.

The Department has been working on amendments to its water quality standards rules, Hawaii Administrative Rules (HAR) chapter 11-54, but the current first set of amendments is narrower than this bill, and a second set of amendments to cover at least chlordane and dieldrin may take somewhat longer. Our current first set will take care of a typographical error in the chlordane standard and to conform to federal standards for the water bacterial indicator within 300 meters of shore. We plan to issue the public notice of a hearing on this first set this month, for a hearing in April 2009. In October 2008, we did announce our intention to update the state criteria for all the toxic pollutants to meet 2006 EPA criteria. We currently are targeting a smaller second set of rule amendments to update at least chlordane and dieldrin to meet the 2006 EPA criteria, and we are checking when it can be heard.

Under federal law, EPA must approve state water quality standards before they can be implemented by states and EPA to meet federal requirements. EPA requirements appear at 40 C.F.R. Parts130 and 131. The Department will work with EPA following the passage of this bill to achieve their approval.

Thank you for the opportunity to testify.

	Priority Pollutant(EPA 2006) Toxic Pollutant (DOH 1990)	CAS Number	Freshwater CMC 1 (acute) (µg/L)	Freshwater CCC 1 (chronic) (µg/L)	Saltwater CMC 1 (acute) (µg/L)	Saltwater CCC 1 (chronic) (µg/L)	Human Health for the consumption of Water + Organism (µg/L)	Human Health for the consumption of Organism Only (µg/L)	FR Cite/ Source
1	Antimony	7440360					5.6 B	640 B	65FR66443
	Antimony		3000	ns	ns	ns		15000	
2	Arsenic	7440382	340 A,D,K	150 A,D,K	69 A,D,bb	36 A,D,bb	0.018 C,M,S	0.14 C,M,S	65FR31682 57FR60848
	Arsenic		360	190	69	36		ns	
3	Beryllium	7440417					Z		65FR31682
	Beryllium		43	ns	ns	ns		0.038	
4	Cadmium	7440439	2.0 D,E,K,bb	0.25 D,E,K,bb	40 D,bb	8.8 D,bb	Z		EPA-822-R-01-001 65FR31682
	Cadmium		3+	3+	43	9.3		ns	
5a	Chromium (III)	16065831	570 D,E,K	74 D,E,K			Z Total		EPA820/B-96-001 65FR31682
5b	Chromium (VI)	18540299	16 D,K	11 D,K	1,100 D,bb	50 D,bb	Z Total		65FR31682
	Chromium (VI)		16	11	1100	50		ns	
6	Copper	7440508	13 D,E,K,cc	9.0 D,E,K,cc	4.8 D,cc,ff	3.1 D,cc,ff	1,300 U		65FR31682
	Copper		6*	6*	2.9	2.9		ns	
7	Lead	7439921	65 D,E,bb,gg	2.5 D,E,bb,gg	210 D,bb	8.1 D,bb			65FR31682
	Lead		29*	29*	140	5.6		ns	
8a	Mercury	7439976							62FR42160
	Mercury		2.4	0.55	2.1	0.025		0.047	
8b	Methylmercury	22967926	1.4 D,K,hh	0.77 D,K,hh	1.8 D,ee,hh	0.94 D,ee,hh		0.3 mg/kg J	EPA823-R-01-001
9	Nickel	7440020	470 D,E,K	52 D,E,K	74 D,bb	8.2 D,bb	610 B	4,600 B	65FR31682
	Nickel		5*	5*	75	8.3		33	
10	Selenium	7782492	L,R,T	5.0 T	290 D,bb,dd	71 D,bb,dd	170 Z	4200	62FR42160 65FR31682 65FR66443
	Selenium		20	5	300	71		ns	
11	Silver	7440224	3.2 D,E,G		1.9 D,G				65FR31682
	Silver		1*	1*	2.3	ns		ns	
12	Thallium	7440280					0.24	0.47	68FR75510
	Thallium		470	ns	710	ns		16	
13	Zinc	7440666	120 D,E,K	120 D,E,K	90 D,bb	81 D,bb	7,400 U	26,000 U	65FR31682 65FR66443
	Zinc		22*	22*	95	86		ns	

						1 Q,bb	140 jj	140 jj	EPA820/B-96-001
14	Cyanide	57125	22 K,Q	5.2 K,Q	1 Q,bb				57FR60848
	Cyanide		22	5.2	1	1		ns	68FR75510
15	Asbestos	1332214					7 million fibers/L l		57FR60848
16	2,3,7,8-TCDD (Dioxin)	1746016					5.0E-9 C	5.1E-9 C	65FR66443
	Dioxin		0.003	ns	ns	ns		5.00E-09	
17	Acrolein	107028					190	290	65FR66443
	Acrolein		23	ns	18	ns		250	
18	Acrylonitrile	107131					0.051 B,C	0.25 B,C	65FR66443
	Acrylonitrile		2500	ns	ns	ns		0.21	
19	Benzene	71432					2.2 B,C	51 B,C	IRIS 01/19/00 & 65FR66443
	Benzene		1800	ns	1700	ns		13	
20	Bromoform	75252					4.3 B,C	140 B,C	65FR66443
21	Carbon Tetrachloride	56235					0.23 B,C	1.6 B,C	65FR66443
	Carbon Tetrachloride		12000	ns	16000	ns		2.3	
22	Chlorobenzene	108907					130 Z,U	1,600 U	68FR75510
23	Chlorodibromomethane	124481					0.40 B,C	13 B,C	65FR66443
24	Chloroethane	75003							
25	2-Chloroethylvinyl Ether	110758							
26	Chloroform	67663					5.7 C,P	470 C,P	62FR42160
	Chloroform		9600	ns	ns	ns		5.1	
27	Dichlorobromomethane	75274					0.55 B,C	17 B,C	65FR66443
28	1,1-Dichloroethane	75343							
29	1,2-Dichloroethane	107062					0.38 B,C	37 B,C	65FR66443
	1,2-Dichloroethane		39000	ns	38000	ns		79	
30	1,1-Dichloroethylene	75354					330	7,100	68FR75510
31	1,2-Dichloropropane	78875					0.50 B,C	15 B,C	65FR66443
	Dichloropropanes		7700	ns	3400	ns		ns	
32	1,3-Dichloropropene	542756					0.34 C	21 C	68FR75510
	1,3-Dichloropropene		2000	ns	260	ns		4.6	
33	Ethylbenzene	100414					530	2,100	68FR75510
	Ethylbenzene		11000	ns	140	ns		1,070	
34	Methyl Bromide	74839					47 B	1,500 B	65FR66443
35	Methyl Chloride	74873							65FR31682
36	Methylene Chloride	75092					4.6 B,C	590 B,C	65FR66443
37	1,1,2,2-Tetrachloroethane	79345					0.17 B,C	4.0 B,C	65FR66443
	Tetrachloroethane(1,1,2,2)		ns	ns	3000	ns		3.5	
	Tetrachloroethanes		3100	ns	ns	ns		ns	
38	Tetrachloroethylene	127184					0.69 C	3.3 C	65FR66443
	Tetrachloroethylene		1800	ns	3400	145		2.9	
39	Toluene	108883					1,300 Z	15,000	68FR75510

	Toluene		5800	ns	2100	ns		140,000	
40	1,2-Trans-Dichloroethylene	156605					140 Z	10,000	68FR75510
41	1,1,1-Trichloroethane	71556					Z		65FR31682
	Trichloroethane(1,1,1)		6000	ns	10400	ns		340000	
42	1,1,2-Trichloroethane	79005					0.59 B,C	16 B,C	65FR66443
	Trichloroethane(1,1,2)		6000	ns	ns	ns		14	
43	Trichloroethylene	79016					2.5 C	30 C	65FR66443
	Trichloroethylene		15000	ns	700	ns		26	
44	Vinyl Chloride	75014					0.025 C,kk	2.4 C,kk	68FR75510
	Vinyl Chloride		ns	ns	ns	ns		170	
45	2-Chlorophenol	95578					81 B,U	150 B,U	65FR66443
	Chlorophenol (2)		1400	ns	ns	ns		ns	
46	2,4-Dichlorophenol	120832					77 B,U	290 B,U	65FR66443
	2,4-Dichlorophenol		670	ns	ns	ns		ns	
47	2,4-Dimethylphenol	105679					380 B	850 B,U	65FR66443
	Phenol 2,4-dimethyl		700	ns	ns	ns		ns	
48	2-Methyl-4,6-Dinitrophenol	534521					13	280	65FR66443
	Dinitro-o-cresol (2,4)		ns	ns	ns	ns		250	
49	2,4-Dinitrophenol	51285					69 B	5,300 B	65FR66443
50	2-Nitrophenol	88755							
51	4-Nitrophenol	100027							
	Nitrophenols		77	ns	1600	ns		ns	
52	3-Methyl-4-Chlorophenol	59507					U	U	
53	Pentachlorophenol	87865	19 F,K	15 F,K	13 bb	7.9 bb	0.27 B,C	3.0 B,C,H	65FR31682 65FR66443
	Pentachlorophenol		20	13	13	ns		ns	
54	Phenol	108952					21,000 B,U	1,700,000 B,U	65FR66443
	Phenol		3400	ns	170	ns		ns	
55	2,4,6-Trichlorophenol	88062					1.4 B,C	2.4 B,C,U	65FR66443
	Trichlorophenol(2,4,6)		ns	ns	ns	ns		1.2	
56	Acenaphthene	83329					670 B,U	990 B,U	65FR66443
	Acenaphthene		570	ns	320	ns		ns	
57	Acenaphthylene	208968							
58	Anthracene	120127					8,300 B	40,000 B	65FR66443
59	Benzidine	92875					0.000086 B,C	0.00020 B,C	65FR66443
	Benzidine		800	ns	ns	ns		0.00017	
60	Benzo(a) Anthracene	56553					0.0038 B,C	0.018 B,C	65FR66443
61	Benzo(a) Pyrene	50328					0.0038 B,C	0.018 B,C	65FR66443
62	Benzo(b) Fluoranthene	205992					0.0038 B,C	0.018 B,C	65FR66443
63	Benzo(ghi) Perylene	191242							
64	Benzo(k) Fluoranthene	207089					0.0038 B,C	0.018 B,C	65FR66443
65	Bis(2-Chloroethoxy) Methane	111911							
	Chloroethers-methyl(bis)		ns	ns	ns	ns		0.0006	

66	Bis(2-Chloroethyl) Ether	111444					0.030 B,C	0.53 B,C	65FR66443
	Chloroethers-ethy(bis-2)		ns	ns	ns	ns		0.44	
67	Bis(2-Chloroisopropyl) Ether	108601					1,400 B	65,000 B	65FR66443
	Chloroethers-isoprophyl		ns	ns	ns	ns		1400	
68	Bis(2-Ethylhexyl) PhthalateX	117817					1.2 B,C	2.2 B,C	65FR66443
	Phthalate esters - di-2-ethylhexyl		ns	ns	ns	ns		16000	
69	4-Bromophenyl Phenyl Ether	101553							
70	Butylbenzyl PhthalateW	85687					1,500 B	1,900 B	65FR66443
71	2-Chloronaphthalene	91587					1,000 B	1,600 B	65FR66443
72	4-Chlorophenyl Phenyl Ether	7005723							
73	Chrysene	218019					0.0038 B,C	0.018 B,C	65FR66443
74	Dibenzo(a,h)Anthracene	53703					0.0038 B,C	0.018 B,C	65FR66443
75	1,2-Dichlorobenzene	95501					420	1,300	68FR75510
76	1,3-Dichlorobenzene	541731					320	960	65FR66443
77	1,4-Dichlorobenzene	106467					63	190	68FR75510
	Dichlorobenzenes		**370**	**ns**	**660**	**ns**		**850**	
78	3,3'-Dichlorobenzidine	91941					0.021 B,C	0.028 B,C	65FR66443
	Dichlorobenzidine		ns	ns	ns	ns		0.007	
79	Diethyl PhthalateW	84662					17,000 B	44,000 B	65FR66443
	Phthalate esters - diethyl		ns	ns	ns	ns		590000	
80	Dimethyl PhthalateW	131113					270,000	1,100,000	65FR66443
	Phthalate esters - dimethyl		ns	ns	ns	ns		950000	
81	Di-n-Butyl PhthalateW	84742					2,000 B	4,500 B	65FR66443
	Phthalate esters - dibutyl		ns	ns	ns	ns		50000	
82	2,4-Dinitrotoluene	121142					0.11 C	3.4 C	65FR66443
83	2,6-Dinitrotoluene	606202							
	Dinitrotoluenes		**110**	**ns**	**200**	**ns**		**3**	
84	Di-n-Octyl Phthalate	117840							
85	1,2-Diphenylhydrazine	122667					0.036 B,C	0.20 B,C	65FR66443
	Diphenylhydrazine (1,2)		ns	ns	ns	ns		0.018	
86	Fluoranthene	206440					130 B	140 B	65FR66443
	Fluoranthene		1300	ns	13	ns		18	
87	Fluorene	86737					1,100 B	5,300 B	65FR66443
88	Hexachlorobenzene	118741					0.00028 B,C	0.00029 B,C	65FR66443
	Hexachlorobenzene		ns	ns	ns	ns		0.00024	
89	Hexachlorobutadiene	87683					0.44 B,C	18 B,C	65FR66443
	Hexachlorobutadiene		30	ns	11	ns		16	
90	Hexachlorocyclopentadiene	77474					40 U	1,100 U	68FR75510
	Hexachlorocyclopentadiene		2	ns	2	ns		ns	
91	Hexachloroethane	67721					1.4 B,C	3.3 B,C	65FR66443
	Hexachloroethane		330	ns	310	ns		2.9	
92	Ideno(1,2,3-cd)Pyrene	193395					0.0038 B,C	0.018 B,C	65FR66443

93	Isophorone	78591					35 B,C	960 B,C	65FR66443
	Isophorone		39000	ns	4300	ns		170000	
94	Naphthalene	91203							
	Naphthalene		770	ns	780	ns		ns	
95	Nitrobenzene	98953					17 B	690 B,H,U	65FR66443
	Nitrobenzene		9000	ns	2200	ns		ns	
96	N-Nitrosodimethylamine	62759					0.00069 B,C	3.0 B,C	65FR66443
	Nitrosodimethylamine-N		ns	ns	ns	ns		5.3	
97	N-Nitrosodi-n-Propylamine	621647					0.0050 B,C	0.51 B,C	65FR66443
98	N-Nitrosodiphenylamine	86306					3.3 B,C	6.0 B,C	65FR66443
	Nitrosodiphenylamine-N		ns	ns	ns	ns		5.3	
99	Phenanthrene	85018							
100	Pyrene	129000					830 B	4,000 B	65FR66443
101	1,2,4-Trichlorobenzene	120821					35	70	68FR75510
102	Aldrin	309002	3.0 G		1.3 G		0.000049 B,C	0.000050 B,C	65FR31682 65FR66443
	Aldrin		3	ns	1.3	ns		0.000026	
103	alpha-BHC	319846					0.0026 B,C	0.0049 B,C	65FR66443
	Hexachlorocyclohexane alpha		ns	ns	ns	ns		0.01	
104	beta-BHC	319857					0.0091 B,C	0.017 B,C	65FR66443
	Hexachlorocyclohexane beta		ns	ns	ns	ns		0.018	
105	gamma-BHC (Lindane)	58899	0.95 K		0.16 G		0.98	1.8	65FR31682 68FR75510
	Lindane		2	0.08	0.16	ns		0.02	
106	delta-BHC	319868							
107	Chlordane	57749	2.4 G	0.0043 G,aa	0.09 G	0.004 G,aa	0.00080 B,C	0.00081 B,C	65FR31682 65FR66443
	Chlordane		2.4	0.0043	0.09	0.004		0.000016	
108	4,4'-DDT	50293	1.1 G,ii	0.001 G,aa,ii	0.13 G,ii	0.001 G,aa,ii	0.00022 B,C	0.00022 B,C	65FR31682 65FR66443
109	4,4'-DDE	72559					0.00022 B,C	0.00022 B,C	65FR66443
110	4,4'-DDD	72548					0.00031 B,C	0.00031 B,C	65FR66443
	DDT metabolite TDE		1.1 0.03	0.001 ns	0.013 1.2	0.001 ns		0.000008 ns	
111	Dieldrin	60571	0.24 K	0.056 K,O	0.71 G	0.0019 G,aa	0.000052 B,C	0.000054 B,C	65FR31682 65FR66443
	Dieldrin		2.5	0.0019	0.71	0.0019		0.000025	
112	alpha-Endosulfan	959988	0.22 G,Y	0.056 G,Y	0.034 G,Y	0.0087 G,Y 0.0087 G,Y	62 B 62 B	89 B 89 B	65FR31682 65FR66443 65FR31682

113	beta-Endosulfan	33213659	0.22 G,Y	0.056 G,Y	0.034 G,Y				65FR66443
114	Endosulfan Sulfate	1031078					62 B	89 B	65FR66443
	Endosulfan		**0.22**	**0.056**	**0.034**	**0.0087**		**52**	
115	Endrin	72208	0.086 K	0.036 K,O	0.037 G	0.0023 G,aa	0.059	0.06	65FR31682 68FR75510
	Endrin		0.18	0.0023	0.037	0.0023		ns	
116	Endrin Aldehyde	7421934					0.29 B	0.30 B,H	65FR66443
117	Heptachlor	76448	0.52 G	0.0038 G,aa	0.053 G	0.0036 G,aa	0.000079 B,C	0.000079 B,C	65FR31682 65FR66443
	Heptachlor		0.52	0.0038	0.053	0.0036		0.00009	
118	Heptachlor Epoxide	1024573	0.52 G,V	0.0038 G,V,aa	0.053 G,V	0.0036 G,V,aa	0.000039 B,C	0.000039 B,C	65FR31682 65FR66443
119	Polychlorinated Biphenyls (PCBs)			0.014 N,aa		0.03 N,aa	0.000064 B,C,N	0.000064 B,C,N	65FR31682 65FR66443
	Polychlorinated biphenyls		2	0.014	10	0.03		0.000079	
120	Toxaphene	8001352	0.73	0.0002 aa	0.21	0.0002 aa	0.00028 B,C	0.00028 B,C	65FR31682 65FR66443
	Toxaphene		0.73	0.0002	0.21	0.0002		0.00024	
1	Pentachloroethanes		2400	ns	130	ns		ns	
2	Polynuclear aromatic hydrocarbons		ns	ns	ns	ns		0.01	
3	Tetrachlorophenol(2,3,5,6)	58902	ns	ns	ns	440		ns	

Footnotes

A This recommended water quality criterion was derived from data for arsenic (III), but is applied here to total arsenic, which might imply that arsenic (III) and arsenic

B This criterion has been revised to reflect The Environmental Protection Agency's q1* or RfD, as contained in the Integrated Risk Information System (IRIS) as of May 17, 2002. The

C This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the

D Freshwater and saltwater criteria for metals are expressed in terms of the dissolved metal in the water column. The recommended water quality criteria value was calculated by

E The freshwater criterion for this metal is expressed as a function of hardness (mg/L) in the water column. The value given here corresponds to a hardness of 100 mg/L. Criteria

F Freshwater aquatic life values for pentachlorophenol are expressed as a function of pH, and are calculated as follows: CMC = exp(1.005(pH)-4.869); CCC = exp(1.005(pH)-5.134).

G This Criterion is based on 304(a) aquatic life criterion issued in 1980, and was issued in one of the following documents: Aldrin/Dieldrin (PDF) (153 pp., 7.3 MB) (EPA 440/5-80-

H No criterion for protection of human health from consumption of aquatic organisms excluding water was presented in the 1980 criteria document or in the *1986 Quality Criteria for*

I This criterion for asbestos is the Maximum Contaminant Level (MCL) developed under the Safe Drinking Water Act (SDWA).

J This fish tissue residue criterion for methylmercury is based on a total fish consumption rate of 0.0175 kg/day.

K This recommended criterion is based on a 304(a) aquatic life criterion that was issued in the 1995 Updates: Water Quality Criteria Documents for the Protection of

L The CMC = 1/[(f1/CMC1) + (f2/CMC2)] where f1 and f2 are the fractions of total selenium that are treated as selenite and selenate, respectively, and CMC1 and CMC2 are 185.9 g/l

M EPA is currently reassessing the criteria for arsenic.

N This criterion applies to total pcbs, (e.g., the sum of all congener or all isomer or homolog or Aroclor analyses.)

O The derivation of the CCC for this pollutant (Endrin) did not consider exposure through the diet, which is probably important for aquatic life occupying upper trophic levels.

P Although a new RfD is available in IRIS, the surface water criteria will not be revised until the National Primary Drinking Water Regulations: Stage 2 Disinfectants and Disinfection

Q This recommended water quality criterion is expressed as g free cyanide (as CN)/L.

R This value for selenium was announced (61FR58444-58449, November 14, 1996) as a proposed GLI 303(c) aquatic life criterion. EPA is currently working on this criterion and so

S This recommended water quality criterion for arsenic refers to the inorganic form only.

T This recommended water quality criterion for selenium is expressed in terms of total recoverable metal in the water column. It is scientifically acceptable to use the conversion factor

U The organoleptic effect criterion is more stringent than the value for priority toxic pollutants.

V This value was derived from data for heptachlor and the criteria document provides insufficient data to estimate the relative toxicities of heptachlor and heptachlor epoxide.

W Although EPA has not published a completed criteria document for butylbenzyl phthalate it is EPA's understanding that sufficient data exist to allow calculation of aquatic criteria. It

X There is a full set of aquatic life toxicity data that show that DEHP is not toxic to aquatic organisms at or below its solubility limit.

Y This value was derived from data for endosulfan and is most appropriately applied to the sum of alpha-endosulfan and beta-endosulfan.

Z A more stringent MCL has been issued by EPA. Refer to drinking water regulations (40 CFR 141) or Safe Drinking Water Hotline (1-800-426-4791) for values.

aa This criterion is based on a 304(a) aquatic life criterion issued in 1980 or 1986, and was issued in one of the following documents: Aldrin/Dieldrin (PDF) (153 pp., 7.3 MB) (EPA

bb This water quality criterion is based on a 304(a) aquatic life criterion that was derived using the 1985 Guidelines (PDF) (104 pp., 3.3 MB) (*Guidelines for Deriving Numerical*

cc When the concentration of dissolved organic carbon is elevated, copper is substantially less toxic and use of Water-Effect Ratios might be appropriate.

dd The selenium criteria document (EPA 440/5-87-006, September 1987) provides that if selenium is as toxic to saltwater fishes in the field as it is to freshwater fishes in the field, the

ee This recommended water quality criterion was derived on page 43 of the mercury criteria document (PDF) (144 pp., 6.4 MB) (EPA 440/5-84-026, January 1985).

ff This recommended water quality criterion was derived in Ambient Water Quality Criteria Saltwater Copper Addendum (Draft, April 14, 1995) and was promulgated in

gg EPA is actively working on this criterion and so this recommended water quality criterion may change substantially in the near future.

hh This recommended water quality criterion was derived from data for inorganic mercury (II), but is applied here to total mercury. If a substantial portion of the mercury in the water

ii This criterion applies to DDT and its metabolites (i.e., the total concentration of DDT and its metabolites should not exceed this value).

jj This recommended water quality criterion is expressed as total cyanide, even though the IRIS RFD we used to derive the criterion is based on free cyanide. The multiple forms of

kk This recommended water quality criterion was derived using the cancer slope factor of 1.4 (LMS exposure from birth).

*** The Value listed is the minimum standard. Depending upon the receiving water CaCO3 hardness, higher standards may be calculated using the respective formula in the USEPA**

Note - Compounds listed in the plural in the "Pollutant" column represent complex mixtures of isomers. Numbers listed to the right of these compounds refer to the total allowable

	NON-Priority Pollutant(EPA 2006) / Toxic Pollutant (DOH 1990)	CAS Number	Freshwater CMC 1 (acute) (µg/L)	Freshwater CCC 1 (chronic) (µg/L)	Saltwater CMC 1 (acute) (µg/L)	Saltwater CCC 1 (chronic) (µg/L)	Human Health for the consumption of Water + Organism (µg/L)	Human Health for the consumption of Organism Only (µg/L)	FR Cite/ Source
1	Alkalinity	—		20000 F					Gold Book
2	Aluminum pH 6.5 – 9.0	7429905	750 G,I	87 G,I,L					53FR33178
	Aluminum		750	260	ns	ns		ns	
3	Ammonia	7664417	FRESHWATER CRITERIA ARE pH, Temperature and SALTWATER CRITERIA ARE pH AND TEMPERATURE						EPA822-R-99-014 EPA440/5-88-004
4	Aesthetic Qualities	—	NARRATIVE STATEMENT—SEE DOCUMENT						Gold Book
5	Bacteria	—	FOR PRIMARY RECREATION AND SHELLFISH						Gold Book
6	Barium	7440393					1,000 A		Gold Book
7	Boron	—	NARRATIVE STATEMENT—SEE DOCUMENT						Gold Book
8	Chloride	16887006	860000 G	230000 G					53FR19028
9	Chlorine	7782505	19	11	13	7.5	C		Gold Book
	Chlorine		19	11	13	7.5		ns	
10	Chlorophenoxy Herbicide (2,4,5,-TP)	93721					10 A		Gold Book
11	Chlorophenoxy Herbicide (2,4-D)	94757					100 A,C		Gold Book
12	Chloropyrifos	2921882	0.083 G	0.041 G	0.011 G	0.0056 G			Gold Book
	Chloropyrifos		0.083	0.041	0.011	0.0056		ns	
13	Color	—	NARRATIVE STATEMENT—SEE DOCUMENT F						Gold Book
14	Demeton	8065483		0.1 F		0.1 F			Gold Book
	Demeton			0.1	ns	0.1		ns	
15	Ether, Bis(Chloromethyl)	542881					0.00010 E, H	0.00029 E,H	65FR66443
16	Gases, Total Dissolved	—	NARRATIVE STATEMENT—SEE DOCUMENT F						Gold Book
17	Guthion	86500		0.01 F		0.01 F			Gold Book
	Guthion		ns	0.01	ns	0.01		ns	
18	Hardness	—	NARRATIVE STATEMENT—SEE DOCUMENT						Gold Book
19	Hexachlorocyclo-hexane-Technical	319868					0.0123	0.0414	Gold Book
	Hexachlorocyclo-hexane-Technical		ns	ns	ns	ns		0.014	

20	Iron	7439896		1000 F			300 A		Gold Book
21	Malathion	121755		0.1 F		0.1 F			Gold Book
	Malathion		ns	0.1	ns	0.1		ns	
22	Manganese	7439965					50 A,O	100 A	Gold Book
23	Methoxychlor	72435		0.03 F		0.03 F	100 A,C		Gold Book
	Methoxychlor		ns	0.03	ns	0.03		ns	
24	Mirex	2385855		0.001 F		0.001 F			Gold Book
	Mirex		ns	0.001	ns	0.001		ns	
25	Nitrates	14797558					10,000 A		
26	Nitrosamines	—					0.0008	1.24	Gold Book
	Nitrosamines		1950	ns	ns	ns		0.41	
27	Dinitrophenols	25550587					69	5300	65FR66443
28	Nonylphenol	1044051	28	6.6	7	1.7			71FR9337
29	Nitrosodibutylamine, N	924163					0.0063 A,H	0.22 A,H	65FR66443
	Nitrosodibutylamine, N		ns	ns	ns	ns		0.19	
30	Nitrosodiethylamine, N	55185					0.0008 A,H	1.24 A,H	Gold Book
	Nitrosodiethylamine, N		ns	ns	ns	ns		0.41	
31	Nitrosopyrrolidine, N	930552					0.016 H	34 H	65FR66443
	Nitrosopyrrolidine, N		ns	ns	ns	ns		30	
32	Oil and Grease	—	NARRATIVE STATEMENT—SEE DOCUMENT F						Gold Book
33	Oxygen, Dissolved Freshwater	7782447	WARMWATER AND COLDWATER MATRIX—SEE DOCUMENT N						Gold Book
	Oxygen, Dissolved Saltwater		SALTWATER—SEE DOCUMENT						EPA-822R-00-012
34	Diazinon	333415	0.17	0.17	0.82	0.82			71FR9336
35	Parathion	56382	0.065 J	0.013 J					Gold Book
	Parathion		0.065	0.013	ns	ns		ns	
36	Pentachlorobenzene	608935					1.4 E	1.5 E	65FR66443
	Pentachlorobenzene		ns	ns	ns	ns		28	
37	pH	—		6.5 – 9 F		6.5 – 8.5 F,K	5 – 9		Gold Book
38	Phosphorus Elemental	7723140				0.1 F,K			Gold Book
39	Nutrients	—	See EPA's Ecoregional criteria for Total Phosphorus, Total Nitrogen, Chlorophyll a and						P
40	Solids Dissolved and Salinity	—					250,000 A		Gold Book
41	Solids Suspended and Turbidity	—	NARRATIVE STATEMENT—SEE DOCUMENT F						Gold Book
42	Sulfide-Hydrogen Sulfide	7783064		2.0 F		2.0 F			Gold Book

43	Tainting Substances	—	NARRATIVE STATEMENT—SEE DOCUMENT						Gold Book
44	Temperature	—	SPECIES DEPENDENT CRITERIA—SEE DOCUMENT M						Gold Book
45	Tetrachlorobenzene,1,2,4,5-	95943					0.97 E	1.1 E	65FR66443
	Tetrachlorobenzene,1,2,4,5-		ns	ns	ns	ns		16	
46	Tributyltin (TBT)	—	0.46 Q	0.072 Q	0.42 Q	0.0074 Q			69FR342
	Tributyltin		ns	0.026	ns	0.01		ns	
47	Trichlorophenol,2,4,5-	95954					1,800 B,E	3,600 B,E	65FR66443

Footnotes

A This human health criterion is the same as originally published in the Red Book which predates the 1980 methodology and did not utilize the fish ingestion BCF

B The organoleptic effect criterion is more stringent than the value presented in the non priority pollutants table.

C A more stringent Maximum Contaminant Level (MCL) has been issued by EPA under the Safe Drinking Water Act. Refer to drinking water regulations 40CFR141 or Safe Drinking

D According to the procedures described in the *Guidelines for Deriving Numerical National Water Quality Criteria for the Protection of Aquatic Organisms and Their Uses*,

E This criterion has been revised to reflect EPA's q1* or RfD, as contained in the Integrated Risk Information System (IRIS) as of May 17, 2002. The fish tissue bioconcentration

F The derivation of this value is presented in the Red Book (EPA 440/9-76-023, July, 1976).

G This value is based on a 304(a) aquatic life criterion that was derived using the 1985 Guidelines (*Guidelines for Deriving Numerical National Water Quality Criteria for the*

H This criterion is based on carcinogenicity of 10^{-5} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the

I This value for aluminum is expressed in terms of total recoverable metal in the water column.

J This value is based on a 304(a) aquatic life criterion that was issued in the *1995 Updates: Water Quality Criteria Documents for the Protection of Aquatic Life in Ambient*

K According to page 181 of the Red Book:

For open ocean waters where the depth is substantially greater than the euphotic zone, the pH should not be changed more than 0.2 units from the naturally occurring variation or any

L There are three major reasons why the use of Water-Effect Ratios might be appropriate.

1. The value of 87 µg/l is based on a toxicity test with the striped bass in water with pH = 6.5–6.6 and hardness <10 mg/L. Data in "Aluminum Water-Effect Ratio for the 3M Plant
2. In tests with the brook trout at low pH and hardness, effects increased with increasing concentrations of total aluminum even though the concentration of dissolved aluminum was
3. EPA is aware of field data indicating that many high quality waters in the U.S. contain more than 87 g aluminum/L, when either total recoverable or dissolved is measured.

M U.S. EPA. 1973. Water Quality Criteria 1972. EPA-R3-73-033. National Technical Information Service, Springfield, VA.; U.S. EPA. 1977. Temperature Criteria for Freshwater Fish:

N U.S. EPA. 1986. Ambient Water Quality Criteria for Dissolved Oxygen. EPA 440/5-86-003. National Technical Information Service, Springfield, VA.

O This criterion for manganese is not based on toxic effects, but rather is intended to minimize objectionable qualities such as laundry stains and objectionable tastes in beverages.

P Lakes and Reservoirs in Nutrient Ecoregion: II EPA 822-B-00-007, III EPA 822-B-01-008, IV EPA 822-B-01-009, V EPA 822-B-01-010, VI EPA 822-B-00-008 , VII EPA 822-B-00-

Q EPA announced the availability of a draft updated tributyltin (TBT) document on August 7, 1997 (62FR42554). The Agency has reevaluated this document and

DEPARTMENT OF ENVIRONMENTAL SERVICES
CITY AND COUNTY OF HONOLULU
1000 ULUOHIA STREET, SUITE 308, KAPOLEI, HAWAII 96707
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MUFI HANNEMANN
MAYOR

TIMOTHY E. STEINBERGER, P.E.
DIRECTOR

MANUEL S. LANUEVO, P.E., LEED AP
DEPUTY DIRECTOR

ROSS S. TANIMOTO, P.E.
DEPUTY DIRECTOR

IN REPLY REFER TO:
WAS 09-69

February 27, 2009

The Honorable Marcus R. Oshiro, Chair
and Members of the Committee on Finance
House of Representatives
State Capitol
Honolulu, Hawaii 96813

Dear Chair Oshiro and Members:

Subject: House Bill 834, HD 1, Relating to Water Quality Standards

The City and County of Honolulu's Department of Environmental Services (ENV) supports HB 834, HD 1, relating to water quality standards. with limited revisions to incorporate language that is agreeable to both the City and the State Department of Health, as reflected in the attached mark-up.

Revision of the water quality standards is very important and must be done in the best manner possible. In most respects, the attached proposed version is identical to HB 834, HD1, except for non-substantive differences for purposes of clarity. The only substantive difference is that the proposed version adds a limited exception from the adoption of federal criteria for nonpriority pollutants not currently regulated in the Hawaii Administrative Rules. The need for, and ramifications of, regulating these new nonpriority pollutants is unknown and requires further evaluation among the various counties. We request that this Committee amend HB 834 HD1 to conform to the attached language.

Your support of appropriately revising water quality standards is appreciated and we hope that you will consider using the language in SB 1008, SD 1, to meet that goal.

Sincerely,

Timothy E. Steinberger, P.E.
FOR Director

Attachment

Report Title:
Water Quality Standards

Description:
Amends state water quality standards for marine waters to conform to federal standards. (HD1)

HOUSE OF REPRESENTATIVES
TWENTY-FIFTH LEGISLATURE, 2009
STATE OF HAWAII

H.B. NO. 834 H.D. 1

A BILL FOR AN ACT

RELATING TO WATER QUALITY STANDARDS.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

SECTION 1. The purpose of this Act is to revise certain state water quality standards for inland and marine waters on an interim basis to conform to levels recommended by the State of Hawaii and United States Environmental Protection Agency, until the state department of health proposes, and the United States Environmental Protection Agency approves, standards for the pollutants and indicator organism identified in this Act, pursuant to the [~~triennial~~]review of state water quality standards mandated under section 303(c) of the Federal Water Pollution Control Act of 1972, as amended. The legislature finds that these

revisions are important to the economic and social development of the State and that these revised standards are adequate to fully protect the designated and existing uses of the State's inland and marine waters.

SECTION 2. (a) In accordance with section 303(c) of the Federal Water Pollution Control Act of 1972, as amended, ~~and the 2006 United States Environmental Protection Agency National Recommended Water Quality Criteria, the following~~the water quality criteria in the 2006 United States Environmental Protection Agency National Recommended Water Quality Criteria, ~~the Current National Recommended Water Quality Criteria for Toxic Pollutants,~~ including the applicable footnotes and appendicies, for all Priority Toxic Pollutants and Non-Priority Pollutants for the protection of aquatic life in surface water (acute and chronic effects in fresh water and salt water), and for the protection of human health for consumption (organism only), are hereby adopted by the State as water quality standards and ~~shall~~ apply to all state inland and marine waters ~~with exceptions as indicated in subsection (b)~~, except for:

(1) The 2006 National Recommended Water Quality Criteria for arsenic, cadmium, chromium, chromium III, chromium IV, copper, lead,

mercury, nickel, selenium, silver, and zinc; and

(2) The 2006 National Recommended Water Quality Criteria for non-priority pollutants not currently listed in chapter 11-54, Hawaii Administrative Rules.

~~(b) For all Priority Pollutants and Non-Priority Pollutants: all recommended water quality criteria for the protection of aquatic life in surface water (acute and chronic effects in fresh water and salt water), and for the protection of human health for consumption (organism only), except those nationally recommended water quality criteria for arsenic, cadmium, chromium III, chromium VI, copper, lead, mercury, nickel, selenium, silver, and zinc.~~

(~~e~~b) When there is no nationally recommended criterion promulgated for a Priority or Non-Priority Pollutant, relevant provisions in chapter 11-54, Hawaii Administrative Rules, relating to that pollutant ~~shall~~ are not ~~be~~ repealed by virtue of or deemed inconsistent with this Act and ~~shall~~ remain in effect.

SECTION 3. (a) In accordance with 40 Code of Federal Regulations ~~section~~ Section 131.41, the State designates as coastal recreation waters all waters up to three miles from shore to a depth of thirty-three meters, excluding areas

where water contact recreational activities are prohibited by State or federal law or regulation.

(b) In coastal recreation waters within five hundred meters from the shoreline, enterococcus content shall not exceed a geometric mean of thirty-five colony forming units per one hundred milliliters in not less than five samples, which shall be spaced to cover a period between twenty-five and thirty days. No single sample shall exceed the single sample maximum of one hundred and four colony forming units per one hundred milliliters or the site-specific one-sided seventy-five per cent confidence limit.

(c) Coastal recreation waters between five hundred meters and three miles from shore shall be designated as infrequent use coastal recreation waters, and enterococcus content in these waters shall not exceed a geometric mean of thirty-five colony forming units per one hundred milliliters in not less than five samples, which shall be spaced to cover a period between twenty-five and thirty days. No single sample shall exceed the single sample maximum of five hundred and one colony forming units per one hundred milliliters or the site-specific one-sided ninety-five per cent confidence limit.

(d) At locations where samples are taken less frequently than five samples for each twenty-five to thirty

days, no single sample shall exceed the single sample maximum nor shall the geometric mean of these samples taken during the twenty-five to thirty-day period exceed thirty-five colony forming units per one hundred milliliters.

SECTION 4. Except as provided in section 2(eb) of this Act, to the extent any provision in chapter 11-54, Hawaii Administrative Rules, is inconsistent with this Act, ~~those provisio~~that provision~~no~~ shall be superseded upon approval by the United States Environmental Protection Agency of a corresponding provision or standard. Water quality standards not inconsistent with this Act ~~shall~~ remain in effect.

SECTION 5. If any provisions of this Act, or the application thereof to any person or circumstances, is held invalid, the invalidity does not affect other provisions or applications of this Act which can be given effect without the invalid provision or application, and to this end the provisions of this Act are severable.

SECTION 6. This Act ~~shall~~ takes effect ~~on January 1, 2050~~upon approval; provided that the specific water quality standards prescribed in this Act shall take effect upon their approval by the United States Environmental Protection Agency. Provisions in this Act relating to any particular pollutant or indicator organism shall be

repealed upon the approval by the United States Environmental Protection Agency of water quality standards for the pollutant or indicator organism identified in this Act, following the State's review and adoption of water quality standards pursuant to section 303(c) of the Federal Water Pollution Control Act of 1972, as amended.

TESTIMONY OF THE
COUNTY OF KAUA`I
DEPARTMENT OF PUBLIC WORKS, WASTEWATER MANAGEMENT DIVISION

TO THE HOUSE OF REPRESENTATIVES COMMITTEE ON FINANCE

TWENTY-FIFTH LEGISLATURE
REGULAR SESSION OF 2009

March 2, 2009
10:30 a.m.

TESTIMONY ON **HOUSE BILL NO. 834 HD1**, RELATING TO WATER QUALITY STANDARDS.

TO THE HONORABLE MARCUS R. OSHIRO, CHAIR, THE HONORABLE MARILYN B. LEE, VICE CHAIR, AND MEMBERS OF THE COMMITTEE:

My name is Edward Tschupp, chief of the Wastewater Management Division, Department of Public Works, County of Kaua'i (County), testifying to express a concern about changes in House Bill 834 that were proposed by the State of Hawai'i, Department of Health (DOH) that have been included in House Bill 834, HD 1.

My testimony is to express concern about adoption of Water Quality Standards for constituents for which little, if any, testing has been performed to establish ambient concentrations present in Hawaiian waters. This concern is primarily regarding the listing of "Non-Priority Pollutants" under SECTION 2 (b) and (c) of House Bill 834, HD 1. The County recommends that the phrases "and Non-Priority Pollutants" and "or Non-Priority" be removed from SECTION 2 (b) and (c), respectively.

It is our understanding that there has been essentially no testing for these Non-Priority Pollutants in Hawaiian waters, so their presence, and at what concentration, or absence in Hawaiian waters is unknown. If the Non-Priority Pollutants are adopted blindly as State Water Quality Standards, presumably regulated facilities such as the County's Wastewater Treatment Plant will be required to initiate testing for these constituents, and if found at levels higher than the Standards, the facility may be held liable for violation of those blindly adopted standards.

At a minimum, we suggest that in the interests of appropriate science and regulatory or legislative processes, it would be most appropriate to perform sufficient testing to characterize whether a constituent is present, and at what concentration, in waters of the State prior to establishment of a Water Quality Standard for that constituent. The consequences of blindly adopting Water Quality Standards could impose a significant financial burden on the people of Hawai'i.

Thank you for the opportunity to present testimony on this matter.

Sierra Club
Hawai'i Chapter
PO Box 2577, Honolulu, HI 96803
808.537.9019 hawaii.chapter@sierraclub.org

HOUSE COMMITTEE ON FINANCE
March 2, 2009, 10:30 A.M.

(Testimony is 4 pages long)

TESTIMONY IN STRONG OPPOSITION TO HB 834

Aloha Chair Oshiro and Members of the Committee:

The Sierra Club, Hawai`i Chapter, with 5500 dues paying members statewide, strongly opposes HB 834, which reduces pollution standards ***to the lowest possible limit allowed under the law***. To have the legislature consider reduced pollution standards -- without scientific evidence or studies establishing the effects this will have on Hawai`i waters -- is troubling, particularly when the standards currently contemplated have never been presented to the public, nor considered by experts in the field.

Further, establishing waters 500 meters out as "infrequently used coastal recreational waters" or waters that are rarely used, is not only arbitrary but blatantly wrong. This proposal could adversely impact scores of surfers, paddlers, and snorklers.

A. *The Impact on Public Health and Our Fragile Habitat.*

Why should the legislature enter into the complex field of water standards -- evaluating the impacts of contaminants (pesticides, heavy metals, bacteria, pathogens, and particulates) on freshwater and marine life -- without any scientific application in Hawai`i? Federal standards, based on East Coast studies, have previously been rejected because residents of Hawai`i consume more fish and utilize our sub-tropical beaches year-round.

Further, fragile coral reefs around the state are disappearing. Remember, the federal standards have not been applied to subtropical coral reefs -- Hawaii possesses 85% of the coral reefs in the nation -- and some reef fish are so full of toxins that people are advised not to eat them before testing. Do we really want to take a step that may expand this process, rather than waiting to have scientific certainty?

Hawai`i is also infamously known as the endangered species capitol of the world. Do we know what the impacts of increasing pesticides in our wetlands will be on endangered species like the Ae'o, the Hawaiian Coot, the Hawaiian Moorhen, the Hawaiian Stilt, or the Hawaiian Duck? Egg shells of birds have shown tremendous sensitivity to pesticides in the past. Has DOH made any outreach to experts in the field?

B. *Fixing the City and County of Honolulu's Sewer System.*

The City and County of Honolulu previously argued the water quality standards must be lowered so as to minimize the fines imposed for years of neglect to Honolulu's sewer system. What the City failed to mention, however, is that the Sierra Club and other environmental groups has publicly stated -- and the federal judge has agreed -- that ***every penny in fines imposed should be spent fixing Honolulu's sewer system.*** In other words, if the sole basis for rushing to reduce the water quality standards is because of the ongoing litigation, then such a move will only reduce efforts to improve Honolulu's wastewater system.

C. *No Evidence the Lowered Standards Offer Sufficient Protection.*

Looking at Section 1 and 2 of HB 834, there is no evidence that lowering our water quality standards would offer sufficient protection to human and marine health. These federal standards were developed based on national models -- infrequent use of marine waters, reduced fish consumption, and no tropical reefs or fish -- and no study has been presented establishing these standards are applicable to Hawai`i. These federal studies also have specific statistics demonstrating the impact on human health and marine organisms. These standards have never been extrapolated with regard to the impact they would have on Hawai`i residents. For example, if a federal standard calculated that "X" number of deaths would occur with certain pesticide levels based on the amount of water usage or fish consumption, shouldn't a toxicologist establish how those standards apply in Hawai`i?

To proceed with this measure, this Committee must determine that it has been presented with enough scientific analysis to state that, among other things, raising the Chlordane limit by ***five times*** will have ***no impact.*** [1] Or that raising the Dieldrin standard by ***two times*** will be harmless.[2] To that end, you should ask Department of Health:

- What impact would this have on endangered birds and animals in Hawai`i? Has DOH consulted with experts in the field on how increased pesticide levels would impact these unique species?
- What impact would this have on coral reefs? Has the federal data considered the impacts on subtropical waters?

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[1] This assumes the proposed chlordane standard of 0.00080 divided by the corrected standard for fish consumption of 0.00016 established in Hawai`i Administrative Rules § 11-54-4, dated August 31, 2004. Utilizing the uncorrected current Hawai`i Standard results in a standard ***fifty times lower*** than the current standard.

[2] Based on the proposed dieldrin standard of 0.000052 micrograms per liter divided by the 0.000025 current standard.

- What is the impact of consuming more fish, particularly fish known for bioaccumulation of contaminants such as tuna? Didn't we previously determine Hawai`i residents consume 3.1 times more fish than the national average?[3]
- Why have many states established stricter standards than the EPA guidelines? Why should Hawai`i adopt the lowest possible standard?
- Has DOH circulated these standards to the Water Quality Standards group created for this very purpose and explained the justification for the changes? Has the DOH received any input from this group? Has DOH made any effort to circulate the current form of this bill -- a wholesale adoption of the lowest contaminant standards allowed -- to the public before this hearing?

D. *Recreational Use of Waters Five Hundred Meters from Shore.*

Turning to Section 3, it is unclear how someone could conclude "waters between five hundred meters and three miles from shore [are] infrequent use coastal recreation waters . . . ." "Infrequent use coastal recreation waters" are defined under federal regulations as "coastal recreation waters that are rarely or occasionally used." Doesn't this definition require a beach by beach analysis? Surfers frequently paddle out five hundred meters or more along the south and east coasts of Oahu (like Waikiki). Paddlers go out even further and frequently swim in the water during relays and races. This list could go on.

Coastal boundaries should be set through a process of thorough data collection and analysis. Each beach has seasonable changes in stratification and upwelling, which can bring deep offshore waters to the surface as a function of temperature gradients, wind speeds, and tidal direction. Each beach is used differently by recreational users. Each beach has different marine ecosystems. The proposed boundary, however, is finite and arbitrary.

Water boundary definitions have their own independent legal meaning. They allow for relaxed standards for all federally regulated contaminants. Similar to the discussion noted below, it is possible this definition would stand even if the water quality standards are not approved by the EPA.

E. *No Water Quality Standards?*

As currently phrased, Section 4 could result in the elimination of all "inconsistent" regulations. Under the Federal Clean Water Act, no water quality standards can be adopted until they are approved by the EPA. Section 4 voids all inconsistent standards, meaning the current standards, boundaries, and other regulated mattes would be void if the EPA takes time to review the proposed lowered standards or denies the request.

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[3] As noted in a recent Declaration of Laurence K. Lau, the Deputy Director of Health for the State of Hawai`i Department of Health, Hawai`i's Water Quality Standards for "fish consumption standards are 3.1 times more stringent than the EPA Criteria, because the average daily consumption of fish locally was estimated to be approximately 3.1 times higher than the average underlying the EPA Criteria."

F. *No Scientific Evidence or Public Review.*

It should also be noted that no scientific analysis has been made available to the public justifying the lowered water quality standards stated in SB 1008. *See* 40 C.F.R. § 131.20(b) ("The proposed water quality standards revision and supporting analyses shall be made available to the public prior to the hearing."). Nor can the legislative process establish a factual record sufficient for federal review. *See* 40 C.F.R. § 131.10. As such, the process for adopting HB 834 violates federal regulations. The EPA cannot approve these water quality standards.

G. *No Reason to Rush.*

Before we rush to amend the State's water quality standards, we should allow the administrative process to proceed. To this end, the administrative rules governing this area were just amended in 2004 -- is there really a rush to act on standards that were last considered five years ago? Particularly when the Department of Health has committed to amending these rules? There is, quite simply, no reason to rush to arbitrary and unscientific standards. If the administrative process is not proceeding expeditiously enough, then there are other methods to follow aside from putting our public health and our marine ecosystems at risk.

Thank you for this opportunity to provide testimony.

LIFE OF THE LAND

76 North King Street, Suite 203
Honolulu, Hawai`i 96817
Phone: 533-3454; E: henry.lifeoftheland@gmail.com

COMMITTEE ON FINANCE
Rep. Marcus Oshiro, Chair
Rep. Marilyn Lee, Vice Chair

Monday, March 02, 2009
10:30 a.m.
A G E N D A # 2

HB 834, HD1 Water Quality Standards **OPPOSE**

Aloha Chair Oshiro, Vice Chair Lee and Members of the Committee,

My name is Henry Curtis and I am the Executive Director of Life of the Land, Hawai`i's own energy, environmental and community action group advocating for the people and `aina for almost four decades. Our mission is to preserve and protect the life of the land through sound energy and land use policies and to promote open government through research, education, advocacy and, when necessary, litigation.

Water Quality is key to Hawai`i.

The foremothers of Life of the Land handed out brochures to tourists at Waikiki Beaches in 1970 with a toilet bowl on the cover and asking "Do you know what you are swimming in?". At that time there were no sewage treatment plants in the state. The action made the lead story on the front page of the Wall Street Journal, and led to the building of the Sand Island Sewage Treatment Plant.

Following 10,000s violations of the Clean Water Act over many years, a lawsuit was filed in the 1990s, and as a result of a settlement, the *Mamala Bay* Study Commission was created to analyze water quality in the Mamala Bay (Kalaeloa - Diamond Head).

I read the multi-volume draft study.

Two things stuck out.

First, Haunama Bay is "safe" according using monthly averages, but if instead the Bay were evaluated each day then it would be unsafe 48% of the time. The report implied that Mamala Bay was "safer" than Haunama Bay.

Second, most of the toxics in the Ala Wai Canal are in the top inch. Paddlers spray it into the air as they paddle.

Currently the City and County of Honolulu has major problems with land and water based waste products. The City used the fact that the landfill was named Waimanalo but located in Leeward O`ahu to confuse the issue. The City has always contended that everything is fine.

Now the latest proposal is to federalize water pollution laws, to weaken Hawai`i's water quality standards to that of the federal standards.

What we need is to showcase Hawai`i as a model of sustainability, rather than to harmonize pollution to the lowest common denominator

Mahalo

HAWAII WATER ENVIRONMENT
ASSOCIATION • SINCE 1962
P.O. Box 2422 • Honolulu, Hawaii 96804
Internet Address: http://hwea.org

Water Environment Federation Member Association

February 27, 2009

House Committee on Finance
The Honorable Representative Marcus R. Oshiro, Chair,
The Honorable Representative Marilyn B. Lee, Vice Chair

SUBJECT: Recommendation of Hawaii Water Environment Association on H.B. 834, H.D. 1 Relating to Water Quality Standards

The Hawaii Water Environment Association (HWEA) supports H.B. 834, H.D. 1. The proposed bill would amend the Department of Health (DOH) Hawaii Administrative Rules (HAR) Title 11, Chapter 54, Water Quality Standards. HWEA supports H.B. 834, H.D. 1 for the following reasons:

DOH water quality standards are outdated. Chapter 11-54 is still largely based on baseline water quality studies conducted in a limited number of shoreline areas almost 40 years ago (Water Quality Program for Oahu, 1971). Other than the incorporation of subsequent mandatory federal provisions or minor corrections, the DOH has not substantially refined this rule since its inception. The DOH has repeatedly justified its inaction on the lack of funding to conduct the necessary studies to substantiate ongoing revisions and improvements.

These outdated water quality standards have had adverse consequences. On January 6, 2009, the U.S. Environmental Protection Agency (EPA) issued final decisions that deny continued Clean Water Act Section 301(h) secondary treatment waivers for the City and County of Honolulu's Sand Island Wastewater Treatment Plant (WWTP) and Honouliuli WWTP. HWEA and numerous scientists from the University of Hawaii testified in favor of continuing the treatment waivers, as the higher level of treatment for wastewater disposed of through deep ocean outfalls 1.5 to 2 miles off-shore would produce almost no benefits to water quality or recreational water users. The EPA cited the lack of full compliance with Chapter 11-54 as its primary reason for the denial. One example is that computer models predict that when extreme oceanographic conditions limit the rise of the wastewater plume from the Honouliuli WWTP ocean outfall at a depth of more than 100 feet below the surface (beyond safe air-breathing SCUBA depth), 1.5 miles off-shore directly over the outfall discharge, DOH recreational water quality standards will be exceeded. DOH had not made the effort to exclude these nearly inaccessible waters from its definition of "recreational waters," the City will need to spend an

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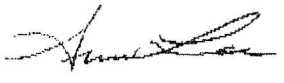
estimated $1.2 billion on treatment upgrades that will result in almost no detectable improvements to water quality. Since the City's environmental department is almost solely funded by user fees, this is an unnecessary and regressive tax that hurts the poorest members of our society.

There is an alternative. Congress passed the Beaches Environmental Assessment and Coastal Health (BEACH) Act in 2000 to improve the uniformity of state water quality standards and monitoring programs. EPA has conducted pathogen and human health studies to establish several model water quality criteria, while some work is still ongoing. The standards proposed in S.B. 1008 are consistent with current EPA BEACH water quality standards.

We recommend the adoption of H.B. 834, H.D. 1 to protect the welfare of recreational water users and the taxpayers of Hawaii.

The HWEA is a non-profit organization comprised of approximately 450 environmental and sanitary engineers, government officials, scientists, treatment plant operators and other water quality specialists. HWEA is a member organization of the international 40,000-member Water Environment Federation (WEF) that was founded in 1928 as a technical and educational organization. The mission of WEF is to preserve and enhance the global water environment. We would be pleased to serve as a technical resource for you and your committee members.

Sincerely yours,



for Mark Goodrowe, P.E.

President
Hawaii Water Environment Association