

**Reasonable Potential Analysis and Limit Derivation
Using SIP Methodology
Malibu Mesa Water Reclamation Plant**

(CA0059099, CI#6599)

CTR#	DATE	Units	CV	MEC	CTR CRITERIA				Basin Plan Not applicable C Title 22 GWR	REASONABLE POTENTIAL ANALYSIS (RPA)								HUMAN HEALTH CALCULATIONS		
					Freshwater		Human Health											Organisms Only		
					C acute = CMC tot	C chronic = CCC tot	Not applicable C hh W&O	C hh O		Lowest C	MEC >= Lowest C	Tier 1 - Need limit?	B	B>C & present in Effl.	Tier 2 - Need limit?	Tier 3 - other info. ?	Tier 3 - need limit?	AMELhh = ECA = C hh O	MDEL/ AMEL multiplier	MDEL hh
1	Antimony	µg/L	0.6	<6	NONE	NONE	14	4300	6	4300	NO	Go to Tier 2	<10	No	Go to tier 3	NO	NO			
2	Arsenic	µg/L	0.6	1.7	340	150	NONE	NONE	50	150	NO	Go to Tier 2	5.41	No	Go to tier 3	NO	NO			
3	Beryllium	µg/L	0.6	<1	NONE	NONE	Narrative	Narrative	4	Narrative	NO	Go to Tier 2	<1	No	Go to tier 3	NO	NO			
4	Cadmium*	µg/L	0.6	0.1	8.27	3.75	Narrative	Narrative	5	3.75	NO	Go to Tier 2	1.39	No	Go to tier 3	NO	NO			
5a	Chromium III*	µg/L	0.6	<10	2694	321	Narrative	Narrative		321	NO	Go to Tier 2	12.6	No	Go to tier 3	NO	NO			
5b	Chromium VI	µg/L	0.6	<5	16.3	11.4	Narrative	Narrative	50	11.4	NO	Go to Tier 2	12.6	No	Go to tier 3	NO	NO			
6	Copper*	µg/L	0.73	36.3	51.68	30.5	1300	NONE		30.5	YES	YES	124	YES				N/A	2.2	N/A
7	Lead*	µg/L	0.6	3.65	161.6	6.3	Narrative	Narrative		6.3	NO	Go to Tier 2	<5	NO	Go to tier 3	NO	NO			
8	Mercury	µg/L	0.6	<0.5	Reserved	Reserved	0.05	0.051	2	0.051	No	Go to Tier 2	<1	NO	Go to tier 3	NO	NO			
9	Nickel*	µg/L	0.73	11.8	1515.92	168.54	610	4600	100	168.54	NO	Go to Tier 2	93	No	No			4600	2.2	10120
10	Selenium	µg/L	0.6	<5	Reserved	5	Narrative	Narrative	50	5	NO	Go to Tier 2	6.29	NO	Go to tier 3	NO	NO			
11	Silver*	µg/L	0.6	<10	10.21	NONE	NONE	NONE		10.21	NO	Go to Tier 2	<10	No	Go to tier 3	NO	NO			
12	Thallium	µg/L	0.6	<10	NONE	NONE	1.7	6.3	2	6.3	NO	Go to Tier 2	<10	No	Go to tier 3	NO	NO			
13	Zinc*	µg/L	0.26	74.2	188.77	189	none	NONE		188.77	NO	Go to Tier 2	51.2	NO	Go to tier 3	NO	NO			
14	Cyanide	µg/L	0.6	<10	22	5.2	700	220,000	200	5.2	NO	Go to Tier 2	No sample	NO	Go to tier 3	NO	NO			

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			Freshwater					Freshwater								
			ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier (n=4)	AMEL aq.life	MDEL multiplier (n=4)	MDEL aqlife	Lowest AMEL	Lowest MDEL			
	1 Antimony	µg/L										--	--			
	2 Arsenic	µg/L										--	--			
	3 Beryllium	µg/L										--	--			
	4 Cadmium*	µg/L										--	--			
5a	Chromium III*	µg/L										--	--			
5b	Chromium VI	µg/L										--	--			
6	Copper*	µg/L	0.271	14.0053	0.468	14.274	14.0053	1.68	23.5289	3.69	51.679	23.53	51.68	Need Limit (Tiers 1 & 2). RP to exceed the CTR Freshwater Aquatic life criteria.		
	7 Lead*	µg/L										--	--			
	8 Mercury	µg/L										--	--			
9	Nickel*	µg/L	0.271	410.814	0.468	78.87672	78.8767	1.68	132.513	3.69	291.06	no limit	no limit	No limit required because there is no RP. Hardness data (400 mg/L) increased the criteria.		
10	Selenium	µg/L										--	--			
11	Silver*	µg/L										--	--			
12	Thallium	µg/L										--	--			
13	Zinc*	µg/L										--	--			
14	Cyanide	µg/L														

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					Freshwater		Human Health			Lowest C	MEC >= Lowest C	Tier 1 - Need limit?	B	B>C & present in Effl.	Tier 2 - Need limit?	Tier 3 - other info. ?	Tier 3 - need limit?	Organisms Only		
					C acute = CMC tot	C chronic = CCC tot	Not applicable C hh W&O	C hh O										AMELhh = ECA = C hh O	MDEL/ AMEL multiplier	MDEL hh
15	Asbestos	Fibers/ L	0.6	No sample	NONE	NONE	7,000,000	NONE	7x10^6	7x10^6	NO	Go to Tier 2	No sample	No	Go to tier 3	NO	NO			
16	2,3,7,8-TCDD (Dioxin)	µg/L	0.6	7.7E-09	NONE	NONE	0.000000013	1.4E-08	3x10^-5	1.4E-08	YES	NO	4.9E-09	NO	Go to tier 3	NO	NO			
17	Acrolein	µg/L	0.6	<2.5	NONE	NONE	320	780		780	NO	Go to Tier 2	<0.5	No	Go to tier 3	NO	NO			
18	Acrylonitrile	µg/L	0.6	<1	NONE	NONE	0.059	0.66		0.66	NO	NO	<0.5	No	Go to tier 3	NO	NO			
19	Benzene	µg/L	0.6	<0.5	NONE	NONE	1.2	71	1	71	NO	Go to Tier 2	<0.5	No	Go to tier 3	NO	NO			
20	Bromoform	µg/L	0.6	9.1	NONE	NONE	4.3	360		360	NO	Go to Tier 2	<1	No	Go to tier 3	NO	NO			
21	Carbon Tetrachloride	µg/L	0.6	<0.5	NONE	NONE	0.25	4.4	0.5	4.4	NO	Go to Tier 2	<0.5	No	Go to tier 3	NO	NO			
22	Chlorobenzene	µg/L	0.6	<0.5	NONE	NONE	680	21,000		21,000	NO	Go to Tier 2	<0.5	No	Go to tier 3	NO	NO			
23	Dibromochloromethane	µg/L	2.35	15.2	NONE	NONE	0.401	34		34	NO	Go to Tier 2	<0.5	No	Go to tier 3	NO	NO			
24	Chloroethane	µg/L	0.6	<1	NONE	NONE	NONE	NONE		NONE	No Criteria Available	Go to Tier 2	<1	NA	Go to tier 3	NO	NO			
25	2-chloroethyl vinyl ether	µg/L	0.6	<2.5	NONE	NONE	NONE	NONE		NONE	No Criteria Available	Go to Tier 2	<0.5	NA	Go to tier 3	NO	NO			
26	Chloroform	µg/L	0.6	2.3	NONE	NONE	Reserved	Reserved		Reserved	No Criteria Available	Go to Tier 2	1	NA	Go to tier 3	NO	NO			
27	Dichlorobromomethane	µg/L	0.6	6.1	NONE	NONE	0.56	46		46	NO	Go to Tier 2	<0.5	No	Go to tier 3	NO	NO			
28	1,1-Dichloroethane	µg/L	0.6	<0.5	NONE	NONE	NONE	NONE	5	NONE	No Criteria Available	Go to Tier 2	<0.5	No	Go to tier 3	NO	NO			
29	1,2-dichloroethane	µg/L	0.6	<0.5	NONE	NONE	0.38	99	0.5	99	NO	Go to Tier 2	<0.5	No	Go to tier 3	NO	NO			
30	1,1-Dichloroethylene	µg/L	0.6	<0.5	NONE	NONE	0.057	3.2	6	3.2	NO	Go to Tier 2	<0.5	No	Go to tier 3	NO	NO			
31	1,2-dichloropropane	µg/L	0.6	<0.5	NONE	NONE	0.52	39	5	39	NO	Go to Tier 2	<0.5	No	Go to tier 3	NO	NO			
32	1,3-dichloropropylene	µg/L	0.6	<0.5	NONE	NONE	10	1,700	0.5	1700	NO	Go to Tier 2	<0.5	No	Go to tier 3	NO	NO			
33	Ethylbenzene	µg/L	0.6	<1	NONE	NONE	3100	29,000	300	29000	NO	Go to Tier 2	<0.5	No	Go to tier 3	NO	NO			
34	Methyl bromide	µg/L	0.6	<1	NONE	NONE	48	4,000		4,000	NO	Go to Tier 2	<1	No	Go to tier 3	NO	NO			
35	Methyl chloride	µg/L	0.6	<1	NONE	NONE	Narrative	Narrative		Narrative	No Criteria Available	Go to Tier 2	<1	No	Go to tier 3	NO	NO			
36	Methylene chloride	µg/L	0.6	<1	NONE	NONE	4.7	1,600		1,600	NO	Go to Tier 2	3.92	No	Go to tier 3	NO	NO			
37	1,1,2,2-tetrachloroethane	ua/L	0.6	<0.5	NONE	NONE	0.17	11	1	11	NO	Go to Tier 2	0.5	No	Go to tier 3	NO	NO			

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			Freshwater					Freshwater								
			ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier (n=4)	AMEL aq.life	MDEL multiplier (n=4)	MDEL aqlife	Lowest AMEL	Lowest MDEL			
15	Asbestos	Fibers/L										--	--			
16	2,3,7,8-TCDD (Dioxin)	µg/L										--	--			
17	Acrolein	µg/L										--	--			
18	Acrylonitrile	µg/L										--	--			
19	Benzene	µg/L										--	--			
20	Bromoform	µg/L										--	--			
21	Carbon Tetrachloride	µg/L										--	--			
22	Chlorobenzene	µg/L										--	--			
23	Dibromochloromethane	µg/L														
24	Chloroethane	µg/L										--	--			
25	2-chloroethyl vinyl ether	µg/L										--	--			
26	Chloroform	µg/L										--	--			
27	Dichlorobromomethane	µg/L														
28	1,1-Dichloroethane	µg/L										--	--			
29	1,2-dichloroethane	µg/L										--	--			
30	1,1-Dichloroethylene	µg/L										--	--			
31	1,2-dichloropropane	µg/L										--	--			
32	1,3-dichloropropylene	µg/L										--	--			
33	Ethylbenzene	µg/L										--	--			
34	Methyl bromide	µg/L										--	--			
35	Methyl chloride	µg/L										--	--			
36	Methylene chloride	µg/L										--	--			
37	1,1,2,2-tetrachloroethane	µg/L										--	--			

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38	Tetrachloroethylene	µg/L	0.6	<0.5	NONE	NONE	0.8	8.85	5	8.85	NO	Go to Tier 2	<0.5	No	Go to tier 2	NO	NO			
39	Toluene	µg/L	0.6	<0.5	NONE	NONE	6800	200,000	150	200000	NO	Go to Tier 2	<0.5	No	Go to tier 3	NO	NO			
40	Trans 1,2-Dichloroethylene	µg/L	0.6	<0.5	NONE	NONE	700	140,000	10	140000	NO	Go to Tier 2	<0.5	No	Go to tier 3	NO	NO			
41	1,1,1-Trichloroethane	µg/L	0.6	<0.5	NONE	NONE	Narrative	Narrative	200	200	NO	Go to Tier 2	<0.5	No	Go to tier 3	NO	NO			
42	1,1,2-trichloroethane	µg/L	0.6	<0.5	NONE	NONE	0.6	42	5	42	NO	Go to Tier 2	<0.5	No	Go to tier 3	NO	NO			
43	Trichloroethylene	µg/L	0.6	<1	NONE	NONE	2.7	81	5	81	NO	Go to Tier 2	<0.5	No	Go to tier 3	NO	NO			
44	Vinyl chloride	µg/L	0.6	<1	NONE	NONE	2	525	0.5	525	NO	Go to Tier 2	<1	No	Go to tier 3	NO	NO			
45	2-chlorophenol	µg/L	0.6	<3	NONE	NONE	120	400		400	NO	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
46	2,4-dichlorophenol	µg/L	0.6	<3	NONE	NONE	93	790		790	NO	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
47	2,4-dimethylphenol	µg/L	0.6	<3	NONE	NONE	540	2,300		2,300	NO	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
48	4,6-dinitro-o-resol (aka 2-methyl-4,6- Dinitrophenol)	µg/L	0.6	<3	NONE	NONE	13.4	765		765	NO	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
49	2,4-dinitrophenol	µg/L	0.6	<3	NONE	NONE	70	14,000		14,000	NO	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
50	2-nitrophenol	µg/L	0.6	<3	NONE	NONE	NONE	NONE		None	No Criteria Available	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
51	4-nitrophenol	µg/L	0.6	<3	NONE	NONE	NONE	NONE		None	No Criteria Available	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	µg/L	0.6	<3	NONE	NONE	NONE	NONE		None	No Criteria Available	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
53	Pentachlorophenol	µg/L	0.6	<3	pH dependent	pH dependent	0.28	8.2	1	8.2	NO	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
54	Phenol	µg/L	0.6	<3	NONE	NONE	21,000	4,600,000		4.6x10^6	NO	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
55	2,4,6-trichlorophenol	µg/L	0.6	<3	NONE	NONE	2.1	6.5		6.5	NO	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
56	Acenaphthene	µg/L	0.6	<3	NONE	NONE	1200	2,700		2,700	NO	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
57	Acenaphthylene	µg/L	0.6	<3	NONE	NONE	NONE	NONE		NONE	No Criteria Available	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
58	Anthracene	µg/L	0.6	<3	NONE	NONE	9600	110,000		110,000	NO	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
59	Benzidine	µg/L	0.6	<3	NONE	NONE	0.00012	0.00054		0.00054	ND>C	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
60	Benzo(a)Anthracene	µg/L	0.6	<3	NONE	NONE	0.0044	0.049		0.049	ND>C	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
61	Benzo(a)Pyrene	ug/L	0.6	<3	NONE	NONE	0.0044	0.049		0.049	ND>C	Go to Tier 2	<3	No	Go to tier 3	NO	NO			

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38	Tetrachloroethylene	µg/L										--	--			
39	Toluene	µg/L										--	--			
40	Trans 1,2-Dichloroethylene	µg/L										--	--			
41	1,1,1-Trichloroethane	µg/L										--	--			
42	1,1,2-trichloroethane	µg/L										--	--			
43	Trichloroethylene	µg/L										--	--			
44	Vinyl chloride	µg/L										--	--			
45	2-chlorophenol	µg/L										--	--			
46	2,4-dichlorophenol	µg/L										--	--			
47	2,4-dimethylphenol	µg/L										--	--			
48	4,6-dinitro-o-resol (aka 2-methyl-4,6-Dinitrophenol)	µg/L										--	--			
49	2,4-dinitrophenol	µg/L										--	--			
50	2-nitrophenol	µg/L										--	--			
51	4-nitrophenol	µg/L										--	--			
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	µg/L										--	--			
53	Pentachlorophenol	µg/L										--	--			
54	Phenol	µg/L										--	--			
55	2,4,6-trichlorophenol	µg/L										--	--			
56	Acenaphthene	µg/L										--	--			
57	Acenaphthylene	µg/L										--	--			
58	Anthracene	µg/L										--	--			
59	Benzidine	µg/L										--	--			
60	Benzo(a)Anthracene	µg/L										--	--			
61	Benzo(a)Pyrene	µg/L										--	--			

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62	Benzo(b)Fluoranthene	µg/L	0.6	<3	NONE	NONE	0.0044	0.049		0.049	ND>C	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
63	Benzo(ghi)Perylene	µg/L	0.6	<3	NONE	NONE	NONE	NONE		NONE	No Criteria Available	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
64	Benzo(k)Fluoranthene	µg/L	0.6	<3	NONE	NONE	0.0044	0.049		0.049	ND>C	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
65	Bis(2-Chloroethoxy) methane	µg/L	0.6	<3	NONE	NONE	NONE	NONE		NONE	No Criteria Available	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
66	Bis(2-Chloroethyl)Ether	µg/L	0.6	<3	NONE	NONE	0.031	1.4		1.4	ND>C	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
67	Bis(2-Chloroisopropyl) Ether	µg/L	0.6	<3	NONE	NONE	1400	170,000		170,000	NO	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
68	Bis(2-Ethylhexyl) Phthalate	µg/L	1.29	21.8	NONE	NONE	1.8	5.9		5.9	YES	YES	18.1	YES				5.9	2.763	16.3017
69	4-Bromophenyl Phenyl Ether	µg/L	0.6	<3	NONE	NONE	NONE	NONE		NONE	No Criteria Available	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
70	Butylbenzyl Phthalate	µg/L	0.6	<3	NONE	NONE	3000	5,200		5,200	NO	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
71	2-Chloronaphthalene	µg/L	0.6	<3	NONE	NONE	1700	4,300		4,300	NO	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
72	4-Chlorophenyl Phenyl Ether	µg/L	0.6	<3	NONE	NONE	NONE	NONE		NONE	No Criteria Available	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
73	Chrysene	µg/L	0.6	<3	NONE	NONE	0.0044	0.049		0.049	NO	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
74	Dibenzo(a,h)Anthracene	µg/L	0.6	<3	NONE	NONE	0.0044	0.049		0.049	NO	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
75	1,2-Dichlorobenzene	µg/L	0.6	<3	NONE	NONE	2700	17,000	600	17000	NO	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
76	1,3-Dichlorobenzene	µg/L	0.6	<3	NONE	NONE	400	2,600		2,600	NO	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
77	1,4-Dichlorobenzene	µg/L	0.8	<3	NONE	NONE	400	2,600	5	2,600	NO	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
78	3,3'-Dichlorobenzidine	µg/L	0.6	<3	NONE	NONE	0.04	0.077		0.077	NO	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
79	Diethyl Phthalate	µg/L	0.6	<3	NONE	NONE	23000	120,000		120,000	NO	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
80	Dimethyl Phthalate	µg/L	0.6	<3	NONE	NONE	313000	2,900,000		2.9x10^6	NO	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
81	Di-n-Butyl Phthalate	µg/L	0.6	<3	NONE	NONE	2700	12,000		12,000	NO	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
82	2,4-Dinitrotoluene	µg/L	0.6	<3	NONE	NONE	0.11	9.1		9.1	NO	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
83	2,6-Dinitrotoluene	µg/L	0.6	<3	NONE	NONE	NONE	NONE		NONE	No Criteria Available	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
84	Di-n-Octyl Phthalate	µg/L	0.6	<3	NONE	NONE	NONE	NONE		NONE	No Criteria Available	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
85	1,2-Diphenylhydrazine	µg/L	0.6	<3	NONE	NONE	0.04	0.54		0.54	NO	Go to Tier 2	<3		Go to tier 3	NO	NO			

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CTR#	DATE	Units	AQUATIC LIFE CALCULATIONS					AQUATIC LIFE CALCULATIONS				PROPOSED LIMITS		Recommendation		
			Freshwater					Freshwater								
			ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier (n=4)	AMEL aq.life	MDEL multiplier (n=4)	MDEL aqlife	Lowest AMEL	Lowest MDEL			
62	Benzo(b)Fluoranthene	µg/L										--	--			
63	Benzo(ghi)Perylene	µg/L										--	--			
64	Benzo(k)Fluoranthene	µg/L										--	--			
65	Bis(2-Chloroethoxy) methane	µg/L										--	--			
66	Bis(2-Chloroethyl)Ether	µg/L										--	--			
67	Bis(2-Chloroisopropyl) Ether	µg/L										--	--			
68	Bis(2-Ethylhexyl) Phthalate	µg/L	0.163	NA	0.302	NA	NA	2.217	NA	6.126	NA	5.90	16.30	Need Limit (Tiers 1 & 2). RP to exceed the CTR Human Health Organims only criteria.		
69	4-Bromophenyl Phenyl Ether	µg/L										--	--			
70	Butylbenzyl Phthalate	µg/L										--	--			
71	2-Chloronaphthalene	µg/L										--	--			
72	4-Chlorophenyl Phenyl Ether	µg/L										--	--			
73	Chrysene	µg/L										--	--			
74	Dibenzo(a,h)Anthracene	µg/L										--	--			
75	1,2-Dichlorobenzene	µg/L										--	--			
76	1,3-Dichlorobenzene	µg/L										--	--			
77	1,4-Dichlorobenzene	µg/L										--	--			
78	3,3'-Dichlorobenzidine	µg/L										--	--			
79	Diethyl Phthalate	µg/L										--	--			
80	Dimethyl Phthalate	µg/L										--	--			
81	Di-n-Butyl Phthalate	µg/L										--	--			
82	2,4-Dinitrotoluene	µg/L										--	--			
83	2,6-Dinitrotoluene	µg/L										--	--			
84	Di-n-Octyl Phthalate	µg/L										--	--			
85	1,2-Diphenylhydrazine	µg/L										--	--			

**Reasonable Potential Analysis and Limit Derivation
Using SIP Methodology
Malibu Mesa Water Reclamation Plant**

(CA0059099, CI#6599)

CTR#	DATE	Units	CV	MEC	CTR CRITERIA				Basin Plan Not applicable C Title 22 GWR	REASONABLE POTENTIAL ANALYSIS (RPA)								HUMAN HEALTH CALCULATIONS		
					Freshwater		Human Health											Organisms Only		
					C acute = CMC tot	C chronic = CCC tot	Not applicable C hh W&O	C hh O		Lowest C	MEC >= Lowest C	Tier 1 - Need limit?	B	B>C & present in Effl.	Tier 2 - Need limit?	Tier 3 - other info. ?	Tier 3 - need limit?	AMELhh = ECA = C hh O	MDEL/ AMEL multiplier	MDEL hh
86	Fluoranthene	µg/L	0.6	<3	NONE	NONE	300	370		370	NO	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
87	Fluorene	µg/L	0.6	<3	NONE	NONE	1300	14,000		14,000	NO	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
88	Hexachlorobenzene	µg/L	0.6	<0.5	NONE	NONE	0.00075	0.00077		0.00077	NO	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
89	Hexachlorobutadiene	µg/L	0.6	<3	NONE	NONE	0.44	50		50	NO	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
90	Hexachlorocyclopentadiene	µg/L	0.6	<3	NONE	NONE	240	17,000		17,000	NO	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
91	Hexachloroethane	µg/L	0.6	<3	NONE	NONE	1.9	8.9		8.9	NO	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
92	Indeno(1,2,3-cd)Pyrene	µg/L	0.6	<1	NONE	NONE	0.0044	0.049		0.049	NO	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
93	Isophorone	µg/L	0.6	<3	NONE	NONE	8.4	600		600	NO	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
94	Naphthalene	µg/L	0.6	<3	NONE	NONE	NONE	NONE		NONE	No Criteria Available	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
95	Nitrobenzene	µg/L	0.6	<3	NONE	NONE	17	1,900		1,900	NO	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
96	N-Nitrosodimethylamine	µg/L	0.6	<3	NONE	NONE	0.00069	8.1		8.1	NO	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
97	N-Nitrosodi-n-Propylamine	µg/L	0.6	<3	NONE	NONE	0.005	1.4		1.4	NO	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
98	N-Nitrosodiphenylamine	µg/L	0.6	<3	NONE	NONE	5	16		16	NO	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
99	Phenanthrene	µg/L	0.6	<3	NONE	NONE	NONE	NONE		NONE	No Criteria Available	Go to Tier 2	<3	NA	Go to tier 3	NO	NO			
100	Pyrene	µg/L	0.6	<3	NONE	NONE	960	11,000		11,000	NO	Go to Tier 2	<3	No	Go to tier 3	NO	NO			
101	1,2,4-Trichlorobenzene	µg/L	0.6	<3	NONE	NONE	NONE	NONE		NONE	No Criteria Available	Go to Tier 2	<3	NA	Go to tier 3	NO	NO			
102	Aldrin	µg/L	0.6	<0.05	3	NONE	0.00013	0.00014		0.00014	NO	Go to Tier 2	<50	No	Go to tier 3	NO	NO			
103	alpha-BHC	µg/L	0.6	<0.05	NONE	NONE	0.0039	0.013		0.013	NO	Go to Tier 2	<50	No	Go to tier 3	NO	NO			
104	beta-BHC	µg/L	0.6	<0.05	NONE	NONE	0.014	0.046		0.046	NO	NO	<50	No	Go to tier 3	NO	NO			
105	gamma-BHC (aka Lindane)	µg/L	0.6	<0.05	0.95	NONE	0.019	0.063	0.2	0.063	No	Go to Tier 2	<50	No	Go to tier 3	NO	NO			
106	delta-BHC	µg/L	0.6	<0.05	NONE	NONE	NONE	NONE		NONE	No Criteria Available	Go to Tier 2	<50	No	Go to tier 3	NO	NO			
107	Chlordane	µg/L	0.6	<0.05	2.4	0.0043	0.00057	0.00059		0.00059	NO	Go to Tier 2	<50	No	Go to tier 3	NO	NO			
	DDT	µg/L	0.6	<0.1				0.00022		0.00022		Go to Tier 2			Go to tier 3	TMDL	YES	0.00022	2.006	0.000441
108	4,4'-DDT	µg/L	0.6	<0.1	1.1	0.001	0.00059	0.00059		0.00059	NO	Go to Tier 2	<50	No	Go to tier 3	NO	NO			
109	4,4'-DDE	µg/L	0.6	<0.1	NONE	NONE	0.00059	0.00059		0.00059	NO	Go to Tier 2	<50	No	Go to tier 3	NO	NO			

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(CA0059099, CI#6599)

CTR#	DATE	Units	AQUATIC LIFE CALCULATIONS					AQUATIC LIFE CALCULATIONS				PROPOSED LIMITS		Recommendation		
			Freshwater					Freshwater								
			ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier (n=4)	AMEL aq.life	MDEL multiplier (n=4)	MDEL aqlife	Lowest AMEL	Lowest MDEL			
86	Fluoranthene	µg/L									--	--				
87	Fluorene	µg/L									--	--				
88	Hexachlorobenzene	µg/L									--	--				
89	Hexachlorobutadiene	µg/L									--	--				
90	Hexachlorocyclopentadiene	µg/L									--	--				
91	Hexachloroethane	µg/L									--	--				
92	Indeno(1,2,3-cd)Pyrene	µg/L									--	--				
93	Isophorone	µg/L									--	--				
94	Naphthalene	µg/L									--	--				
95	Nitrobenzene	µg/L									--	--				
96	N-Nitrosodimethylamine	µg/L									--	--				
97	N-Nitrosodi-n-Propylamine	µg/L									--	--				
98	N-Nitrosodiphenylamine	µg/L									--	--				
99	Phenanthrene	µg/L									--	--				
100	Pyrene	µg/L									--	--				
101	1,2,4-Trichlorobenzene	µg/L									--	--				
102	Aldrin	µg/L									--	--				
103	alpha-BHC	µg/L									--	--				
104	beta-BHC	µg/L									--	--				
105	gamma-BHC (aka Lindane)	µg/L														
106	delta-BHC	µg/L									--	--				
107	Chlordane	µg/L									--	--				
	DDT	µg/L	0.321		0.0527	NA	NA	1.552	NA	3.114	NA	0.00022	0.000441	Limit is required by TMDL		
108	4,4'-DDT	µg/L										--	--			
109	4,4'-DDE	µg/L										--	--			

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CTR#	DATE	Units	CV	MEC	CTR CRITERIA				Basin Plan Not applicable C Title 22 GWR	REASONABLE POTENTIAL ANALYSIS (RPA)								HUMAN HEALTH CALCULATIONS		
					Freshwater		Human Health											Organisms Only		
					C acute = CMC tot	C chronic = CCC tot	Not applicable C hh W&O	C hh O		Lowest C	MEC >= Lowest C	Tier 1 - Need limit?	B	B>C & present in Effl.	Tier 2 - Need limit?	Tier 3 - other info. ?	Tier 3 - need limit?	AMELhh = ECA = C hh O	MDEL/ AMEL multiplier	MDEL hh
110	4,4'-DDD	µg/L	0.6	<0.1	NONE	NONE	0.00083	0.00084		0.00083	NO	Go to Tier 2	<50	No	Go to tier 3	NO	NO			
111	Dieldrin	µg/L	0.6	<0.1	0.24	0.056	0.00014	0.00014		0.00014	NO	Go to Tier 2	<50	No	Go to tier 3	NO	NO			
112	alpha-Endosulfan	µg/L	0.6	<0.1	0.22	0.056	110	240		0.056	NO	Go to Tier 2	<50	No	Go to tier 3	NO	NO			
113	beta-Endosulfan	µg/L	0.6	<0.1	0.22	0.056	110	240		0.056	NO	Go to Tier 2	<50	No	Go to tier 3	NO	NO			
114	Endosulfan Sulfate	µg/L	0.6	<0.1	NONE	NONE	110	240		240	NO	Go to Tier 2	<50	No	Go to tier 3	NO	NO			
115	Endrin	µg/L	0.6	<0.1	0.086	0.036	0.76	0.81		0.036	NO	Go to Tier 2	<50	No	Go to tier 3	NO	NO			
116	Endrin Aldehyde	µg/L	0.6	<0.1	NONE	NONE	0.76	0.81		0.81	NO	Go to Tier 2	<50	No	Go to tier 3	NO	NO			
117	Heptachlor	µg/L	0.6	<0.05	0.52	0.0038	0.00021	0.00021		0.00021	NO	Go to Tier 2	<50	No	Go to tier 3	NO	NO			
118	Heptachlor Epoxide	µg/L	0.6	<0.05	0.52	0.0038	0.0001	0.00011		0.00011	NO	Go to Tier 2	<50	No	Go to tier 3	NO	NO			
	Polychlorinated biphenyls (PCBs)	µg/L	0.06					0.000064		0.000064					Go to tier 3	TMDL	YES	0.000064	2.006	0.000128
119	Aroclor 1016	µg/L	0.6	<0.5	NONE	0.014	0.00017	0.00017		0.00017	ND>C	Go to Tier 2	<50	No	Go to tier 3	NO	NO			
120	Aroclor 1221	µg/L	0.6	<0.5	NONE	0.014	0.00017	0.00017		0.00017	ND>C	Go to Tier 2	<50	No	Go to tier 3	NO	NO			
121	Aroclor 1232	µg/L	0.6	<0.5	NONE	0.014	0.00017	0.00017		0.00017	ND>C	Go to Tier 2	<50	No	Go to tier 3	NO	NO			
122	Aroclor 1242	µg/L	0.6	<0.05	NONE	0.014	0.00017	0.00017		0.00017	ND>C	Go to Tier 2	<50	No	Go to tier 3	NO	NO			
123	Aroclor 1248	µg/L	0.6	<0.05	NONE	0.014	0.00017	0.00017		0.00017	ND>C	Go to Tier 2	<50	No	Go to tier 3	NO	NO			
124	Aroclor 1254	µg/L	0.6	<0.05	NONE	0.014	0.00017	0.00017		0.00017	ND>C	Go to Tier 2	<50	No	Go to tier 3	NO	NO			
125	Aroclor 1260	µg/L	0.6	<0.05	NONE	0.014	0.00017	0.00017		0.00017	ND>C	Go to Tier 2	<50	No	Go to tier 3	NO	NO			
126	Toxaphene	µg/L	0.6	<0.05	0.73	0.0002	0.0073	0.00075	3	0.00075	ND>C	Go to Tier 2	<100	No	Go to tier 3	NO	NO			
FOOTNOTE:																				
*	These metals are hardness dependent. CTR criteria was calculated using an average effluent water hardness of 400 mg/L based on best professional judgement.																			

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CTR#	DATE	Units	AQUATIC LIFE CALCULATIONS					AQUATIC LIFE CALCULATIONS				PROPOSED LIMITS		Recommendation		
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			ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier (n=4)	AMEL aq.life	MDEL multiplier (n=4)	MDEL aqlife	Lowest AMEL	Lowest MDEL			
110	4,4'-DDD	µg/L										--	--			
111	Dieldrin	µg/L										--	--			
112	alpha-Endosulfan	µg/L										--	--			
113	beta-Endosulfan	µg/L										--	--			
114	Endosulfan Sulfate	µg/L										--	--			
115	Endrin	µg/L										--	--			
116	Endrin Aldehyde	µg/L										--	--			
117	Heptachlor	µg/L										--	--			
118	Heptachlor Epoxide	µg/L										--	--			
	Polychlorinated biphenyls (PCBs)	µg/L	0.321	NA	0.527	NA	NA	1.552	NA	3.114	NA	0.000064	0.000128	Limit is required by TMDL		
119	Aroclor 1016	µg/L										--	--			
120	Aroclor 1221	µg/L										--	--			
121	Aroclor 1232	µg/L										--	--			
122	Aroclor 1242	µg/L										--	--			
123	Aroclor 1248	µg/L										--	--			
124	Aroclor 1254	µg/L										--	--			
125	Aroclor 1260	µg/L										--	--			
126	Toxaphene	µg/L										--	--			
FOOTNOTE:																
*	These metals are hardness dependent. CTR criteria was calculated using an average effluent water hardness of 400 mg/L based on best professional judgement.															